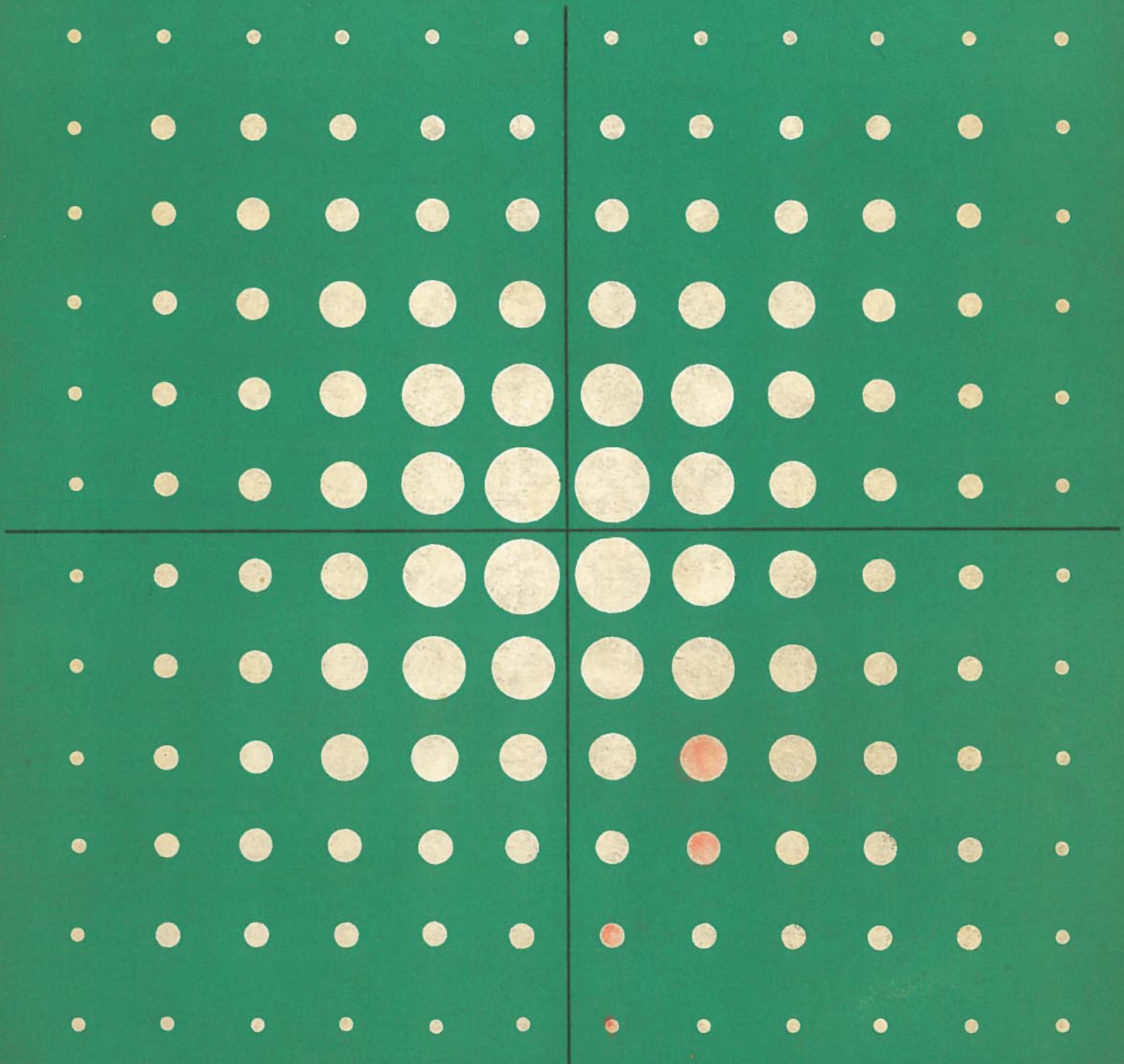


II

# report on the 1960 world census of agriculture

PROGRAMME, CONCEPTS AND SCOPE

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS



**REPORT ON THE  
1960 WORLD CENSUS OF AGRICULTURE**

**Volume II**

**PROGRAMME, CONCEPTS AND SCOPE**

**FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS  
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## FOREWORD

This is the second volume of the *Report on the 1960 world census of agriculture*. The first volume provides, in a unified form, census results for countries that participated in the 1960 world census of agriculture. The present volume is devoted primarily to demonstrating the scope of the national censuses and the extent of countries' participation in the items proposed in FAO's *Program for the 1960 World Census of Agriculture*. It is divided into two parts: Part A, consisting of the first three chapters, recapitulates the historical developments of the world censuses of agriculture, describes the scope of the *Program for the 1960 World Census of Agriculture* and of the related regional programmes. It also gives an account of the steps taken by FAO to promote the participation of countries in the census. Part B, consisting of the last three chapters, gives a detailed analysis of concepts and definitions used in national censuses in comparison with those recommended in FAO's programme. It further shows the degree of participation of countries by regions. The last chapter gives an account of the extent to which the items proposed in the FAO programme have been included in the censuses of the participating countries.

The analysis contained in Part B is based mainly on census documents, such as census questionnaires and instructions to the enumerators, made available to FAO by the participating countries. For further clarification, and in order to supplement the information contained in these

documents, recourse has sometimes been had to national census reports and to other sources as well. While every effort was made to present an extensive analysis, it is by no means claimed to be exhaustive. The sheer size of the somewhat heterogeneous material from more than 90 countries in a multiplicity of languages rules out any claim to exhaustiveness. The approach adopted particularly in analysing the concepts and definitions was to use the material available from countries mainly to illustrate the variety of deviations from the recommended standards.

The nomenclature of the countries and territories throughout the volume is that used by the countries themselves at the time of participating in the 1960 world census of agriculture. Changes in country names subsequent to the 1960 censuses have, however, been indicated in Table 3 (p. 57), which indicates the participation of countries in the three world censuses of agriculture.

In order to avoid repetition of the full title *Program for the 1960 World Census of Agriculture*, it is referred to in the text as "world programme," "the programme," or the "1960 programme," as the case may be.

"Additional contents" (page ix) for various concepts and definitions of census items as described in Chapter 4 have been added for easy reference.

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**Part A**

**PREPARATION AND PROMOTION OF THE 1960 PROGRAMME**





# 1. HISTORICAL BACKGROUND

## Development of world agricultural census

The practice of taking a census of agriculture at an interval of ten years had, by 1960, become an established international activity. All previous efforts were contributing factors toward achieving this aim. From the historical viewpoint, it is useful to recapitulate past developments in this respect, which provide evidence that a world census of agriculture is a relatively new concept, especially as regards its present aims.

The idea of a world census has developed from the earliest attempts at preparing international statistics. For instance, the International Statistical Congress held in The Hague in 1870 attempted to present, in comparable form, statistical information that was already available in various countries. Subsequently, the International Institute of Agriculture at Rome (IIA), from its inception in 1905, began urging governments to take agricultural censuses. However, it failed to suggest an initial uniform basis for this undertaking. After the first world war, the first session of the General Assembly of IIA, held in 1920, took the development a step further by proposing a standard classification of livestock for adoption by its member countries and stated the improvements which they could apply to their statistical systems in order to establish international statistical information services on a sound basis. Some years later, the Agricultural Subcommittee of the Committee of Experts appointed jointly by the League of Nations and the International Statistical Institute, recommended, *inter alia*, that censuses of areas and livestock should be taken in the same year and on the basis of uniformity in classification. These recommendations were

subsequently approved by the International Statistical Institute at its fifteenth session, held in Brussels in 1923.

The first direct action toward a world census of agriculture was, however, taken in 1924 by IIA to induce member countries to carry out a general agricultural census in accordance with a uniform plan prepared by the institute. In 1925, a special bureau was created at the institute for this purpose. The preparation of a standard form was a difficult task. The draft form prepared by the bureau, after discussion of the technical details with various national statistical authorities, was further discussed and improved at a meeting of the Committee of Statisticians and Delegates, held in Rome in 1928. This form was finally approved at the ninth session of the General Assembly of IIA, held in October 1928; thus, in 1930, the first world census of agriculture was made possible and practicable.

The intention of IIA was to repeat the world census of agriculture at an interval of ten years. Therefore, it began making preparations for the census to be taken in 1940, and its efforts to improve upon the standard form used in 1930 resulted in a booklet entitled *Programme of the World Agricultural Census of 1940*, which contained not only the modified form, introductory and explanatory notes, but also the recommendations as to the manner of preparing and organizing the census and tabulating and publishing the returns. On the basis of this programme, the institute drew up questionnaires which were sent to all countries, enabling them to communicate their census results to the institute on a uniform basis at their earliest convenience. However, the outbreak of the second world war left the 1940 world census of agriculture incomplete. In

1945, FAO assumed the responsibility of IIA and has continued to follow through the idea of a decennial world census of agriculture.

It is common knowledge that censuses of population and of agriculture in individual countries were initiated a long time ago. In the United States, for example, the first population census was taken in 1790 and the first census of agriculture in 1840. But it can be seen from the description above that the idea of a world census of agriculture first took root in 1930.

### **Preparation of the Program for the 1960 World Census of Agriculture**

Since a decennial world census of agriculture had become a well-established international activity, especially in view of the need to coordinate the agricultural censuses taken in numerous countries throughout the world, the FAO Conference, at its Eighth Session in 1955, once again stressed its importance and emphasized the desirability of a wider participation by the countries in the 1960 world census than in 1950. The Conference instructed the FAO Secretariat to undertake the preparatory work necessary for maximum international coordination of census work, including the submission of a draft programme to FAO meetings and to regional organizations for consideration and, lastly, to submit the final draft programme so evolved for its approval at the Ninth Session of the FAO Conference in 1957.

As a first step toward the implementation of the above instructions, a *Draft Program for the 1960 World Census of Agriculture* was prepared, with the help of a consultant. This draft was based largely on the experience gathered from the 1950 world census, and took into account new developments in agriculture as well as the possibilities of using modern statistical techniques for obtaining agricultural data. The draft was submitted to the respective governments for deliberation and comment.

The draft programme was further discussed at regional conferences. The regional meetings examined the programme with a view to making it serve better as a worldwide framework for agricultural censuses. Five meetings were held for this purpose, as follows: (a) for Europe, in Rome during December 1956; (b) for the Amer-

icas, in Washington, D.C., during February 1957; (c) for the Near East, in Cairo during October 1956; (d) for Asia and the Far East, in Bangkok during April 1957; (e) for Africa south of the Sahara, in Lisbon during March 1957. Consequently a Committee of Census Experts was appointed to prepare the final draft of the census programme on the basis of the reports from the various regional meetings. This committee met in Rome in 1957 and finalized the programme. The committee also suggested that, in addition to the world programme, there should be regional census programmes, prepared within the framework of the world programme.

The Ninth Session of the FAO Conference, held in 1957, approved the world programme as finalized by the Committee of Experts. This was subsequently issued in the three official languages of FAO, namely, English, French and Spanish. The Conference also accepted the committee's suggestion requesting further regional consultations to draft the regional programmes within the framework of the world programme.

Regional programmes were expected to achieve a greater degree of comparability within the region than the world programme which inevitably covered a great variety of conditions in different parts of the world. They were also expected to bring out more fully the characteristics common to individual regions as well as the contrasts between one region and another. The manner of preparation of the regional programmes is described below.

#### **PROGRAMME FOR EUROPE**

The Working Group on Agricultural Census and Surveys of the Conference of European Statisticians, convened in Rome in September 1958, prepared the European adaptation of the world programme.

#### **PROGRAMME FOR THE WESTERN HEMISPHERE**

The Inter-American Statistical Institute (IASI) had the overall responsibility for carrying out the programme of the Inter-American decennial census so that national censuses could be part of a well-integrated and coordinated whole. This responsibility was transferred to the Committee

on Improvement of National Statistics (COINS). A subcommittee of this body<sup>1</sup> was created for the promotion and coordination of the *Program of the 1960 Census of America*. It was on the basis of the report of this subcommittee that COINS, at its sixth session, organized and conducted by IASI at Buenos Aires in November 1958, finally approved the recommendations for the census of population, housing and agriculture that were to be taken by the American nations under the COTA programme. The part of the recommendations relating to the census of agriculture was considered to be the adaptation of the world programme for the western hemisphere.

#### PROGRAMME FOR THE NEAR EAST

As there was no existing regional body in the Near East to discuss the world programme, FAO convened a special Near East Census Conference in Rome in November-December 1959, wherein the Near East adaptation of the world programme was prepared.

<sup>1</sup> Committee on the 1960 Census of the Americas (COTA).

#### PROGRAMME FOR ASIA AND THE FAR EAST

A special working group of the Conference of Asian Statisticians prepared the Asian adaptation of the world programme, which was approved at the second session of the conference held in Bangkok, Thailand, in December 1958.

#### PROGRAMME FOR AFRICA SOUTH OF THE SAHARA

The adaptation of the world programme for Africa was finalized at the Seminar on Agricultural Census and Surveys convened by the Commission for Technical Co-operation in Africa (CCTA)<sup>2</sup> jointly with FAO, at Accra, Ghana, in March 1959. These regional consultations produced a satisfactory adaptation of the census programmes to the variety of agricultural conditions in the main regions of the world. Regional programmes were subsequently issued separately as supplements to the 1960 world programme, except for the programme for the western hemisphere, which was included in full in the *Program of the 1960 Census of America*.

<sup>2</sup> Now called Organization of African Unity — Scientific, Technical and Research Commission.



## 2. SCOPE OF THE 1960 PROGRAMME AS COMPARED WITH THE 1950 PROGRAMME

### Scope of the world programme

The scope of the 1960 programme, while dependent largely on the experience of the 1950 world census, was influenced by the postwar thinking on the objectives of agricultural censuses. It also took into consideration the major developments in the organization and structure of agriculture as well as the possibilities of using modern techniques for obtaining statistical data. In brief, the factors determining the scope of the 1960 programme were:

- (a) To meet the need of many countries for a better statistical basis of their agricultural development plans and other food and agricultural policies. This aim finds its expression in several new items included in the programme.
- (b) To ensure the continuity and comparability, as far as possible, with the data collected in the previous censuses. With this aim in view, the major groups were generally left as they were in the 1950 programme. The need for more detail was met by introducing a subdivision under the relevant major groups and/or by adding an item in the appropriate section.
- (c) To ensure adaptability of the programme to the great variety of conditions found in agriculture in different regions and countries. For this reason many suggested items and tables were made optional for the countries to choose from, in case they were appropriate to their needs and conditions.
- (d) To extend the possibility of using modern statistical techniques for census purposes.

In the 1950 census some countries had applied the then established sampling theory in prefer-

ence to the traditional procedure of complete enumeration to collect the required information. The 1960 programme recognized the practical value of this trend and further emphasized the possibilities of using modern sampling techniques for census taking as well as for broadening its scope. For this reason the subject of sampling was described briefly in the Introduction to the 1960 programme, pointing out its advantages and limitations. The choice of the method to be used for census taking, whether complete enumeration or sampling, or a combination of both, was left entirely to the countries concerned.

The programme envisaged that each government participating in the world agricultural census would, as far as possible, obtain accurate and internationally comparable information on the structure of its agriculture. The recommendations in the world programme were framed in the form of a list of items. These items were grouped together under ten separate sections. Each section corresponded to the main subject included in the programme. These sections were as follows:<sup>1</sup>

- 0 – Holder, holding and tenure
- 1 – Land utilization
- 2 – Crops
- 3 – Livestock and poultry
- 4 – Employment in agriculture
- 5 – Farm population
- 6 – Agricultural power and machinery and general transport facilities
- 7 – Irrigation and drainage
- 8 – Fertilizers and soil dressings
- 9 – Wood and fishery products

<sup>1</sup> FAO, *Program for the 1960 World Census of Agriculture*, Rome, 1957.

The items were further classified by printing some in bold type and others in ordinary type, depending on the relative importance given to each item in collecting the information. The list, containing all items, irrespective of the type in which they were printed, was termed the expanded list, whereas those items which were printed in bold type constituted what was called the short list.

The programme recommended that all participating countries should make an effort to obtain information at least on those items which were included in the short list, as this list was limited to those which were considered of primary importance in the world's agriculture. However, no country was expected to include an item in the inquiry which was of little importance, even though that item was included in the short list.

It was recognized that the short list was not likely to meet fully the needs of a country. The countries were, therefore, at liberty to include in their questionnaires additional items—even those not included in the expanded list. They were, however, urged to prepare the questionnaire in such a way that the additional items in it would correspond to, or could be combined to provide the equivalent of, the appropriate items contained in the programme.

The programme proposed that all types of agricultural holdings be covered, irrespective of their size, location and whether producing primarily for sale or for consumption by the holder and his family.

Tribal and other groups falling outside the normal marketing system were also required to be included in the census.

No uniform limits were suggested in the programme, with regard to the minimum area, number of livestock or volume of output. In view of the fact that such limits varied considerably from country to country, it was recommended that the minimum limits should be established as low as possible. This could ensure the inclusion, in the census, of those large numbers of small holdings which, in some countries, contribute considerably to agricultural production, and in most countries are important from the social point of view.

The programme urged the countries to take the census in or around the year 1960 in order to qualify as participants in the 1960 world census

of agriculture. One country started the census in 1958, while some others took the census as late as 1964. Consequently, all the countries which took the census between 1958 and 1964 (inclusive) were considered as having participated in the world census.

### Scope of the regional programmes

The main features of the various regional adaptations are given below.

#### EUROPE

Most of the European countries have vast accumulated experience of census taking and are well equipped with the mechanical processing facilities. The European adaptation of the world programme, therefore, included a large number of additional census items and a substantially increased number of tables for the region.

The European programme gave special consideration to the area on which classification by size should be based, and maintained the total area of the holding as the main basis for the classification of holding, as proposed in the world programme. Although the use of the agricultural area—defined as the sum of arable land, land under permanent crops, and land under permanent meadows and pastures—in some countries had a number of advantages in describing more clearly the size of the operation of the agricultural holding, it had the practical disadvantage that it could not always be determined precisely. The concept of grassland, for instance, or the area under permanent meadows and pastures, had been interpreted differently and could not be assessed accurately, thus affecting comparability. However, a number of countries in Europe had been actually using agricultural area as the basis for classification of holdings by size. It was, therefore, proposed, in the regional programme, that countries using the agricultural area for their own purposes should provide FAO with special tabulations based on the total area.

The problem of subsistence agriculture was dealt with in the European programme by inquiring whether the main use of the production was (a) for sale; or (b) for home consumption.

The European programme proposed collecting information on the average number and the various kinds of animals grazed on communal pastures and the number of animal-months so pastured. It further suggested obtaining from communities information on the area of communal pastures and of communal forests. This was done in view of the practice of pasturing cattle on communal land in a number of countries in central Europe and also to recognize the right exercised by agricultural holders to obtain wood from communal forest land.

A number of crops not grown in Europe were dropped from the short list of items in the European programme. A distinction was made in the expanded list between hard wheat and soft wheat, in view of the importance of the former, particularly in the southern part of the continent. The item cultivation under glass was subdivided to obtain information on cultivation of vegetables, of flowers and on mixed cultivation separately. The title of major group 22 in the world programme was abbreviated from permanent meadows and pastures to permanent meadows only, and a distinction was made between the areas cut for hay only once a year and those cut more than once a year. In the case of nurseries, information was restricted to area only.

Calves under 1 year of age, and sheep 1 year of age and over, were further classified by use or purpose, calves for:

- (a) fattening; and
- (b) breeding.

Sheep were classified mainly for:

- (a) milk production;
- (b) meat production;
- (c) wool production.

One of the major expansions in the European programme concerns the subject of employment in agriculture. The progress of industrialization since the second world war created special agricultural labour problems in various European countries. Consequently, countries in this region felt a need for more information on employment than could be proposed for collection on a worldwide scale. The European programme suggested a classification, by status, of persons

working for pay on the holding, requiring separate information on:

- (a) workers on cooperative, collective and communal holdings;
- (b) paid members of the holder's household; and
- (c) other persons working for pay on the holding, for all the three categories of workers, namely permanent, temporary and occasional. For permanent workers a further classification, by nature of work, was introduced by asking whether they were:
  - (a) manual workers; or
  - (b) other workers (including management and/or administrative staff).

Other additional information required in the European programme related to the total number of persons working on agricultural holdings operated by institutions, such as prisons, asylums, homes for the aged, etc. On such holdings the work is often performed by the inmates of the institution. Although these persons do not belong to the agricultural labour force proper, separate enumeration of these workers was considered desirable. No subdivision according to duration of work or by sex was required for this category.

Information on old workers, *viz.*, those 60 years of age and over (females 50 years of age and over) was also considered desirable in view of the aging of agricultural workers in some European countries.

Special attention was paid, in Europe, to the professional training in agriculture of the farm population. It was proposed to collect information on the holders and members of their households who had attended agricultural schools or courses ranging from part-time day schools to universities.

In order to obtain a complete picture of the various kinds of agricultural machinery in a country, it was considered necessary to collect supplementary data on machines owned by machinery stations, establishments operated by private contractors, and similar establishments. It was suggested that these data should be collected separately from the data obtained from agricultural holders. The European programme further added Section 10, sales directly to consum-

ers, requiring information on the quantities sold by the holders direct to the consumers during the year preceding the census, for whole milk, butter, cream, cheese, honey, wool, and hen eggs.

The European programme also contained a paragraph under each section on application of sampling, stating the possibility of the use of sampling methods in relation to different items included in the programme.

#### WESTERN HEMISPHERE

The presentation of this region's programme differs from that of other programmes prepared by FAO.

This regional programme consists of:

- (a) minimum programme; and
- (b) expanded programme.

The basic factors in both programmes are essentially the same. The items in the minimum programme, which are of first priority, are also included in the expanded programme. The additional items in the expanded programme, on the one hand broaden and supplement those of the minimum programme, and on the other have a somewhat more specialized purpose and entail operations of great complexity and cost.

One of the main features of the western hemisphere programme was the emphasis placed on collection of data on crop production by its inclusion in the minimum programme. For the world programme it was left optional. Other items of significance brought under the minimum programme were: pineapples, hens, cocks, pullets and chicks, ducks, geese and turkeys; products of animal origin (milk, butter, cheese and eggs). However, in an effort to keep to the minimum the list of items investigated under the minimum programme, the western hemisphere's regional programme excluded a number of items included in the short list of the world programme. Even size classification of holdings between 1 and under 5 hectares were grouped together to form one size class only, and holdings under 1 hectare were not classified any further. Those subdivisions as proposed in the short list of the FAO programme were, however, retained in the expanded programme of the region.

#### NEAR EAST

The regional programme for the Near East added "tribe" as a legal status of the holder, to the short list, in view of the importance of tribal agriculture in the region.

It further adopted a rule for identifying the holder in case the responsibility for the operation of a holding was shared by two or more persons, each of whom received a share of the produce. The person who had the main responsibility for the operation was considered to be the holder. In the case of a person living in a city who gave his livestock for use to a bedouin, receiving young animals and other livestock products in return for such use, it was the bedouin and not the owner of the livestock who was to be considered the holder, since he had the main responsibility for maintenance of the animals.

Another important addition in the Near East programme was the concept of tree holdings without land. In a number of countries in this region, groups of trees are operated for agricultural purposes by persons who do not have any right to the use of the land on which the trees are grown. The definition of holding was, therefore, amplified to include the enumeration of such groups of trees in the agricultural census under permanent crops, with the proviso that the tree holdings would not be included in any of the land utilization classes, as the operators of the trees had no right to the operation of the land.

A table on fragmentation of holdings by tenure and by size of holding was included in the short list of the regional programme, in view of the great importance of the problem of fragmentation in this region.

In the Near East region, scattered trees formed a substantial proportion of the total number of trees. The regional programme, therefore, provided the subdivision of the number of scattered trees into two classes, viz.:

- (a) of productive age; and
- (b) of nonproductive age.

In view of the significance of irrigation for this region, the programme required that both irrigated and nonirrigated areas be recorded for all the crops enumerated — temporary as well as permanent — including scattered trees. Further-



more, two new items were introduced in the irrigation section, namely:

- (a) area under perennial irrigation; and
- (b) area irrigated only once during the crop year.

This was done in order to take account of the differences in the degree of irrigation. Some fields were irrigated only once, while others were irrigated up to 20 times a year.

Since tenure of livestock is as important as land tenure in the Near East, the regional programme suggested reporting total "owned" and "not owned" separately for each kind of livestock.

The Near East programme included all the items on farm population in the short list and provided a subdivision by age classes for male and female. It was realized that the information collected in an agricultural census could be readily related to the size of the agricultural holdings, which is not easy to do in the population census.

Organic fertilizers being of more importance than inorganic ones in some countries of the region, the programme proposed to include, in the short list, the area to which organic fertilizers were applied, in addition to the item on inorganic fertilizers.

#### ASIA AND THE FAR EAST

By far the largest expansion in the Asian programme related to the reporting of irrigated and nonirrigated areas. In view of the paramount importance of irrigation for crop production in this region, the area for all the temporary crops was classified into:

- (a) irrigated; and
- (b) nonirrigated.

An item on area used under usufructuary mortgages was added in the tenure section of the Asian programme. This was a form of mortgage quite frequent in Asia in which the mortgagee, in right of the mortgage, had the usufruct of the mortgaged property.

In cases of sharecroppers and/or joint holders, when it became difficult to decide as to who should be considered the holder, the Asian programme laid down the criteria that the person who had the main authority of, or exercised

greater authority in, decision making, was to be considered the holder. If the landlord had this authority, then the sharecropper was to be considered a labourer receiving a share of the crop as wages in kind.

The Asian programme also suggested, as in the European programme, that information should be collected on the main use of production, whether it was:

- (a) for sale; or
- (b) for home consumption.

Most of the grazing land in Asia fell outside the agricultural holdings and was, therefore, not covered under the agricultural census. Livestock was permitted to graze on those public grazing lands or on communal lands which were used for the benefit of the village community as a whole. The Asian programme suggested that such land should be covered by a separate inquiry from villages or communes which held this land.

There were cases where a certain area was being developed under permanent crops and until the time that the plants reached the productive age and the area was fully established as land under permanent crops, temporary crops were frequently grown and harvested on the same plot of land. In such cases, it was difficult to decide whether the area should be classified as arable land or as land under permanent crops. The Asian programme suggested that this area should be reported under a separate class as land in transition to permanent crops. This class of land could then be added, according to need, either to area under permanent crops or to area under arable land.

#### AFRICA SOUTH OF THE SAHARA

Substantial adjustments had to be made to adapt the *Program for the 1960 World Census of Agriculture* to the special pattern of agriculture and to the social conditions prevalent in Africa. The main adjustments are described below.

It was recognized that, under traditional African conditions, it was not always clear what was to be considered as the main occupation of the holder, as persons could be occupied at different times of the year in different occupations. For

such cases the African programme provided alternative items, *viz.*:

- (a) agricultural occupation;
- (b) agricultural and other occupations.

In certain countries of this region, farmers frequently worked away from their holdings during a large part of the year, e.g., on plantations, in mines, or factories. Their own small holdings were then operated mostly by other members of the family. In order to compare the output of such holdings with that of those under continuous supervision of the holder, the regional programme suggested two additional items:

- (a) the holding was under continuous supervision of the holder;
- (b) the holder worked away from the holding during a considerable part of the year.

Under the legal status of the holder, the African programme provided for recording the cases where the holding was operated by a joint and extended family as distinct from that operated by an individual holder. Furthermore, in order to assess the progress of the work undertaken by the agricultural departments and other agencies to organize tribal or peasant agriculture, the regional programme required separate information on:

- (a) holdings operated under a definite plan;
- (b) holdings operated under a traditional system.

Communal grazing land was of particular importance in Africa. A greater portion of the agricultural production was derived from livestock grazed on communal land, while production obtained from arable land was of limited importance. The picture of agriculture would be incomplete without due regard to communal grazing land in the census. The African programme thus added two questions:

- (a) Does the holding consist of communal grazing land?
- (b) If not, has it access to communal grazing land?

In this way the relation between individual holdings and communal land could be seen. The programme further suggested that countries concerned might also collect additional infor-

mation relating to the number of livestock and the number of months grazed on communal land.

Area used under usufructuary mortgages was also listed in the African programme, as in the Asian adaptation.

In cases where permanent and temporary crops were grown simultaneously in the same field, the allocation of land into the broad classes of land utilization was extremely difficult under African conditions. Each field, recorded only once, could be allocated to the class of crops considered most important. However, when temporary crops were associated with young plantations not in production, or with banana trees, it was hardly possible to decide which crop was most important. The compromise adopted in the African programme was to subdivide land under temporary crops (as well as land under permanent crops) into:

- (a) land exclusively under temporary (permanent) crops; and
- (b) land mainly under temporary (permanent) crops.

It was realized that the solution did not fully solve all difficulties but, under the prevailing conditions, it was considered the best.

The African programme asked for irrigated and nonirrigated area under arable land, land under permanent crops, and for cultivated meadows and pastures.

In addition to the total area and production, the African programme proposed that, in the case of mixed and associated crops, the following areas should be reported under individual crops:

- (a) area of the crop grown as a single crop;
- (b) area of the crops grown mixed or associated; and
- (c) single crop equivalent of (b).

This breakdown was suggested in view of the economic importance attached to the extremely complicated question of mixed and associated crops in this region. In addition, a new table was suggested in which countries were requested to list the main crop mixtures and associations giving, for each, the area and the number of holdings reporting.

The world programme proposed successive surveys to collect information on employment in

agriculture. Since, under African conditions, this was not feasible, the regional programme suggested that, in addition to the number of persons employed during the census week, the maximum number of persons employed during the census year should be investigated. This information might not be of great value to the country as a whole, because of the obvious duplications involved; it could be of interest to understand the labour problems in homogeneous areas where the peak period for the different holders would fall at the same time. Countries which found it difficult to investigate employment in agriculture could still obtain valuable information by the inclusion, in the census, of a simple question as to whether or not the holder had used paid labour during the preceding agricultural year. The regional programme also suggested investigation of the problem of migrant labour in countries where it was important.

The major change with regard to the farm population was the adaptation of the concept of household to African conditions. The housing unit, in Africa, was found in many cases to be composed of a group of huts — sometimes referred to as compound or homestead — where, in polygamous society, the husband lived in one hut and other huts were occupied by his wives and children. These people did not live under the same roof, nor did they always take their meals together, as required by the definition of the household in the world programme. These criteria also did not apply in cases where fields away from the village were operated by members of the household, living in small camps or hamlets near the fields for the crop season, or even for the whole year, in the case of permanent crops. In these circumstances, the criterion that members of a household should share the community life was considered to be the essential element on which the definition of household could be based. Accordingly, the household, for the purpose of enumerating the farm population in Africa, was defined as “the aggregate of persons generally bound by ties of kinship, who normally reside together, not necessarily under the same roof: that is, the head of the family, the relatives living with him, any other person who shares the community life for reasons of work, or because of other connexions.”

The farm population in Africa mainly depending on agriculture subdivided by sex was further classified as active and nonactive population, both for members of the holder's household and for other persons. Furthermore, the number of households was also required as well as the number of the holdings reporting.

In certain African countries, cultivation of crops was made possible only after the river water had flooded the area and then receded. In order to obtain information on the extent of this practice, the African programme had included the item: Of the land actually irrigated, how much was flooded by rivers?

### Comparison with the 1950 programme

#### CHANGES IN THE PROGRAMME AS A WHOLE

The form of presentation of the 1960 world programme as compared with that of the 1950 world programme was considerably altered. The main points of difference are stated below.

- (a) The census items proposed in the 1950 programme were arranged in two parts: part A, showing the items constituting the short list, and part B, showing all the items in the expanded list, including those in the short list. Half of each page in both parts was devoted to comments and definition of items. Part C contained the explanatory notes and definitions of concepts in general. The tables proposed in the 1950 programme were all shown in Appendix I. Appendix II related to the alphabetical list of crops in part B, with botanical names.

The 1960 programme arranged all the proposed census items in ten sections, according to subject matter. Each section included:

- (i) an Introduction relevant to the section;
- (ii) proposed items in the expanded list — distinguishing those in the short list by printing them in bold type;
- (iii) definitions and explanatory notes, whether relating to the concept in general or to the items in particular; and
- (iv) the tabulation plan relating to the section.

Thus, each section was made comprehensive and self-contained.

The alphabetical list of crops was retained as an appendix.

- (b) The composition, headings and the order of sections in the 1960 programme were altered. For instance, the 1950 programme included a separate section on fragmentation containing only two items. This was combined with Section A: Holder and tenure, of the 1950 programme, and appeared in the 1960 programme as Section 0: Holder, holding and tenure. Age of the holder was taken out of the agricultural population section of the 1950 programme and included in Section 0 of the 1960 programme. Changes in the section headings were introduced wherever considered necessary. Agricultural technology in the 1950 programme was named agricultural power and machinery and general transport facilities in the 1960 programme. Agricultural population was changed to farm population to distinguish it from the concept of agricultural population as used in the population census.
- (c) A number of items were brought into the short list, and a few were dropped from it but were retained in the expanded list.
- (d) In the 1950 programme, area was asked specifically in the case of temporary crops. It was, however, suggested that countries collecting production data as part of the census should report it to FAO. In the 1960 programme, a column for production, in the expanded list, was also provided along with the area column for the temporary crops as well as for permanent crops. In the case of the permanent crops, more detailed information was required in the 1960 programme than in the 1950 programme, in which either productive area or number of trees or plants of productive age was asked. The 1960 programme provided for both area in compact plantations and number of trees or vines in compact plantations, in addition to the number of scattered trees and the production. The area and the number were further subdivided to provide columns for:

- (i) the total;

(ii) of productive age;

(iii) of nonproductive age.

It was considered useful to have both area and number of trees under each permanent crop and, in some countries, scattered trees could not be ignored, in view of their importance. Therefore, three items, namely, total area, total number of trees — both in compact plantations — and total number of scattered trees, were placed in the short list.

#### CHANGES IN DETAIL, BY SECTION

A number of changes were made in the 1960 programme compared with the 1950 programme. They ranged from changes in wording and rearrangements of certain items to alterations in substance. There were amendments and alterations as well as additions and deletions. Since there appears to be little advantage in listing them all here, only a few of the major changes in the two programmes are described below.

##### *Section 0: Holder, holding and tenure*

In the 1960 programme an item was added to indicate whether the holding was entirely managed by the holder or by a hired manager.

Area held in ownerlike possession was an explicit addition to the original item for total area owned by the holder.

A group of six items was introduced under the heading of legal status of the holder, in order to determine whether the holder is a civil person or a juridical person like a corporation. Furthermore, four more items were introduced under total area rented from others, to provide a further breakdown of the basis for renting, such as area rented in exchange for services or rent-free.

Two additional items were introduced under the heading tenure relating to area operated on a squatter basis, and under tribal or traditional communal tenure forms.

##### *Section 1: Land utilization*

One of the major changes introduced in this section of the 1960 programme was the deletion of the distinction between the irrigated and non-

irrigated areas required in the 1950 programme under all categories of land utilization, except for wood or forest land. In the latter case, the distinction required in the 1950 programme related to grazed and not grazed. This distinction was also deleted from the 1960 programme. Additional breakdown of the arable land category was provided in the 1960 programme with suitable changes in the nomenclature of the two subdivisions under this heading in the 1950 programme. Furthermore, the permanent meadows and pastures category was subdivided into cultivated and uncultivated.

### *Section 2: Crops*

In this section a number of items were changed either to provide more details, for example, onions and garlic in the 1950 programme were subdivided into the dry and green varieties in the 1960 programme; or an item consisting of more than one crop was divided into several crops, like pumpkin and squash—one item in the 1950 programme—and became two items in the 1960 programme; or one item was expanded to include other, similar items, as in the case of rutabagas, which became rutabagas, or swedes and kohlrabi, in the 1960 programme. Furthermore, based on the experience gained from the 1950 censuses, a number of items had, on the one hand, been dropped from the 1950 programme and, on the other, numerous other items were added to the 1960 programme.

### *Section 3: Livestock and poultry*

One of the major changes in this section was the raising of the maturity age for buffaloes from 2 years, in 1950, to 3 years in the 1960 programme. In some cases rearrangement was carried out by suppressing certain breakdowns and providing more practical subdivisions, as in the case of horses. In other cases, subdivisions were removed, e.g., the subdivisions by age groups for mules, ducks, geese, turkeys, etc., in the 1950 programme. Similarly, other items which were not investigated in the 1950 programme were dropped and a number of other items considered useful were introduced into the 1960 programme.

### *Section 4: Employment in agriculture*

This section was almost completely reorganized. The first concept, in 1950, of the census

week during which the number of persons who were employed was given, was retained in the 1960 programme but the second, relating to the employment question for the whole year, was dropped from the 1960 programme. Instead, countries were required to obtain similar information through a number of surveys at different periods during the year, as part of the census programme. Furthermore, persons employed were classified into permanent, temporary and occasional workers in the 1960 programme, replacing the classified periods in the 1950 programme of less than 1 month, 1 to 5 months, 6 to 11 months, and 12 months. It was suggested, in the 1960 programme, that the total be broken down into males and females which, in turn, was to be subdivided by age class of under 15 years and 15 years and over.

### *Section 5: Farm population*

Besides changing the name of this section from agricultural population to farm population, the information remains essentially the same as in the 1950 programme, except that the total population is subdivided into male and female. Furthermore, instead of asking the number of days spent on agricultural or nonagricultural projects, each person is asked, in the 1960 programme, to indicate his major occupation, whether agricultural or nonagricultural.

### *Section 6: Agricultural power and machinery and general transport facilities*

This section was completely revised. The number of items on agricultural machinery was considerably increased. Major groups on irrigation machinery and on general transport facilities were introduced and the heading was changed from agricultural technology, in the 1950 programme, to agricultural power and machinery and general transport facilities, in the 1960 programme. The basis for collecting information was also changed. Instead of asking the number of machines on the holding, as in the 1950 programme, it was proposed, in the 1960 programme, to ask the number owned by the holder and, furthermore, to indicate whether the machinery used was solely owned by the holder or provided by others specified in the programme.

### *Section 7: Irrigation and drainage*

In the 1950 programme there was only one question on irrigation, asking for the area irrigated, and two questions on area drained:

- (a) by pumping;
- (b) by gravity flow through covered drains.

The scope of this section was enlarged in the 1960 programme to collect information on:

- (i) area provided with irrigation facilities;
- (ii) area actually irrigated during the year preceding the census, by source of water;
- (iii) area actually irrigated during the census year, by method of irrigation.

Furthermore, area provided with drainage facilities (through open/covered drains, separately) was asked both for nonirrigated land and irrigated land. The distinction of drainage through pump-

ing or gravity flow was retained in the 1960 programme.

### *Section 8: Fertilizers and soil dressings*

One of the additional requirements in the 1960 programme was the quantity of fertilizers and soil dressings applied to the given area treated. Also, inorganic fertilizers were listed according to the main plant nutrients.

### *Section 9: Wood and fishery products*

Basic information required in the 1960 programme was almost the same as in the 1950 programme, except that the section was abbreviated by dropping a number of items. The five kinds of roundwood listed in the 1950 programme were combined into a catch-all item, other roundwood. Also, the items under aquatic products were dropped and the 1960 programme suggested only fishery products from fish culture.

### 3. PROMOTION OF THE 1960 WORLD CENSUS OF AGRICULTURE

#### Technical assistance

Despite an increase of almost 50 percent in the number of countries participating in the 1950 world census compared with those which participated in the 1930 census, countries in the 1950 census had covered less than 60 percent of the world's agricultural area. A proper world census should aim at including nearly all the countries of the world. It was felt, therefore, that considerable effort was required to increase the number of participants in the 1960 world census of agriculture. Consequently, FAO followed this up by a definitive plan to achieve the stated objective. The first step was to persuade governments to participate in the 1960 world census of agriculture on the basis of the programme prepared by the Organization. For this purpose, in one region special regional census advisers were appointed; in others, this activity was included in the normal duties of FAO's regional statisticians. There was also the need to assist countries that had decided to take the census in planning and executing it, and in processing the results obtained therefrom. This was achieved by providing the services of census experts to these countries.

#### REGIONAL CENSUS ADVISERS

A joint UN/FAO Census Technical Assistance Programme was initiated on an experimental basis in Asia and the Far East, introducing a new concept of technical assistance to a group of countries by making available the services of a small number of experts working as a team of regional census advisers. This programme was made possible through a substantial financial grant from the Ford Foundation to the United Nations and FAO, to be used (over a period of

three years) for direct technical assistance for censuses of population, housing and agriculture to the governments of countries in the Economic Commission for Asia and the Far East (ECAFE) region. The programme was initiated in February 1958 and was successfully completed in December 1961.

There were, in all, six advisers in the team for various periods of time between 1958 and 1961. Three out of the six advisers were selected for the census of agriculture, two for data processing, and one for the population census. The headquarters of the team was Bangkok, except for one adviser whose duty station was New Delhi. While the team of census advisers consisted, at any one time, of two or three persons, it had the support and resources of the United Nations, FAO, ECAFE, the Ford Foundation, the Conference of Asian Statisticians, and FAO's Regional Conference for Asia and the Far East. The successful outcome of the work of the team was the result of the coordinated efforts of all these bodies.

The regular programme visits began in April 1959, although visits had also been made during the second half of 1958 to Afghanistan, Ceylon and China (Taiwan). Between April 1959 and December 1961, a total of 99 visits to 19 countries or nonself-governing territories was made by the advisers, involving about 193 man-weeks in the field. Out of this, the number of visits and the number of man-weeks spent in the field by the agricultural census advisers alone were 36 and 61 respectively. Table 1 shows the number of visits by the advisers to each country.

The success of this pioneering project in making available the services of regional census advisers was evident from the increased number of censuses taken in the region. Agricultural

TABLE I. - NUMBER OF VISITS BY REGIONAL CENSUS ADVISERS TO COUNTRIES IN ASIA AND THE FAR EAST DURING APRIL 1959-DECEMBER 1961

Country	Number of visits	Number of weeks
<i>Total advisers</i> .....	99	193
Afghanistan .....	4	7
Brunei .....	4	11
North Borneo .....		
Sarawak .....		
Burma .....	6	5 $\frac{1}{2}$
Cambodia .....	10	13
Ceylon .....	5	8
China (Taiwan) .....	8	10
Hong Kong .....	3	1 $\frac{1}{2}$
India .....	2	2
Indonesia .....	9	22
Iran .....	6	13
Korea, Rep. of .....	10	23
Laos .....	1	2
Malaya, Fed. of .....	7	20
Nepal .....	9	16
Pakistan .....	4	8
Philippines .....	8	22
Viet-Nam, Rep. of .....	3	9

censuses were effected in 15 countries and territories in the region participating in the *Program for the 1960 World Census of Agriculture*. Only four countries, viz., Afghanistan, Burma, Cambodia and Laos, could not participate, but they manifested interest in taking a census at a future date. The project demonstrated, beyond doubt, the value that could accrue from the team approach to regional advisory services in census taking.

#### CENSUS EXPERTS

With regard to participation in the 1960 world programme, there was a great demand for assistance in planning and undertaking the agricultural census by the countries that were intending to take the census around 1960. To meet this demand the services of census experts were provided through a number of programmes, such as Technical Assistance (TA), Expanded Program for Technical Assistance (EPTA) and the United Nations Special Fund (UNSF). This was in addition to the services of individual experts requested and obtained by many countries to assist them

in developing agricultural statistics in general or to aid them in conducting specific surveys and censuses.

Altogether, 29 countries on a worldwide basis availed themselves of the services of census experts in connection with the 1960 agricultural census. According to the number which utilized these services, the Latin-American region had the highest total, namely, 11; followed by Africa, 7; the Far East, 6; the Near East, 4; and Europe, 1. Two countries (Sudan; and Liberia) had more than 1 expert for the census. There were 33 census experts who assisted these countries in taking the census of agriculture around 1960; 5 of them served in more than one country. As a result of this assistance, 27 countries took part in the 1960 world census programme.

#### Training centres and seminars

##### REGIONAL CENSUS TRAINING CENTRES

In addition to providing technical assistance in the form of services of regional census advisers and census experts, with a view to achieving wider participation of countries in the 1960 census, FAO continued the promotional work by organizing census training centres in different regions. The primary objective of the centres was to impart instructions in census principles and techniques to the participants; to offer them the opportunity to gain insight into census procedures followed in countries with longer census experience; to exchange information and opinions; to understand and handle census problems; and to appreciate better the ways in which particular census tasks fitted into an overall census programme. Another important aim of the training was to promote uniformity in concepts and definitions of census items so as to secure a reasonable degree of international comparability in census results both within and between regions, thus increasing overall usefulness of the censuses.

There were three census training centres held before 1960 in three different regions. Details are given below.

##### *Centre for Latin America*

The first regional training centre for Latin America was officially opened in August 1958



at Lima, Peru. This was sponsored and organized by the United Nations, FAO, IASI and the Government of Peru. The International Cooperation Administration (ICA) of the United States also gave valuable assistance to the centre. The United Nations, FAO and the Organization of American States (OAS) provided funds for the international transportation of non-Peruvian participants and their subsistence while in Peru through the granting of individual fellowships.

The total number of participants at the centre from 18 Latin-American countries was 76. The largest single group was from Peru, consisting of 23 persons. Venezuela had the second largest group, 6 persons. Argentina, Bolivia, Colombia, Ecuador, Panama and Paraguay had 4 participants each; and 3 each from Brazil, Costa Rica, El Salvador and Honduras; 2 each from Chile, Cuba, Guatemala, Nicaragua, Uruguay, and only 1 from Haiti. Almost all were employees of their respective governments, holding positions in the national statistical, census or agricultural bureaux.

The training programme consisted of classroom lectures and field work. The first series of lectures dealt with the organization and administration of censuses in general. These were followed by lectures on concepts, definitions and methodology, including methods of processing census data. The field work included an experimental census conducted in rural areas of the province of Canta and urban areas of the province of Lima. Participants split up into working groups and, advised by the lecturers, worked on the preparation of the questionnaire, instructions and other census documents. There were separate working groups for agriculture, housing and population. Participants interested primarily in a particular census took part in the relevant group. The five weeks from mid-October to mid-November were devoted almost exclusively to the experimental census, including training of the participants as enumerators, training of additional local enumerators, enumeration itself and processing of data. All participants were directly involved in the field work as enumerators and supervisors and subsequently worked in groups to edit and code the census returns, and for the tabulation of the data.

Courses on census planning, organization and administration, sampling, data processing, the

history and general aspects of censuses in Latin America were designed for attendance by all the participants, regardless of their major field of interest. Classes in mathematics and statistics were held for those participants who lacked an adequate background in these fields and also for those who desired a review of these subjects. These introductory lectures were so arranged that they could be attended by all the participants. Other lectures were for those interested mainly in population and housing or in agriculture, and were delivered concurrently. Most were in Spanish, and those in English were provided with simultaneous translation in Spanish.

#### *Centre for the Near East*

In December 1958 the FAO Fourth Regional Conference for the Near East emphasized the need for holding a census training centre in the Near East region. The Government of the United Arab Republic offered its facilities for the centre at Damascus, which was to be held 20 May to 30 July 1959 under the sponsorship of FAO and the Government of the United Arab Republic.

In all there were 32 participants: 2 each from Afghanistan, Ethiopia, Jordan, Pakistan and Sudan; 3 each from Lebanon and Libya; 1 each from Iran, Saudi Arabia and Turkey; and 13 from the United Arab Republic.

The programme of the centre consisted of lectures, courses, seminars and field work. Most of the lectures were followed by discussion on special problems in the countries from which participants originated and on the methods of meeting such problems. The laboratory programme included (a) preparation of forms, questionnaires and related instructions; (b) editing, coding and manual processing of the census returns; (c) computation of expected sampling errors of some of the census estimates. The field work undertaken by the participants related to: (a) the experimental census of Duma town; and (b) the national pilot sample survey for the estimation of areas and yields of the wheat crop carried out in the then Syrian region.

The working language at the centre was English. Simultaneous translation into Arabic was provided for lecturers and the questionnaire and instructions were also translated into Arabic.

### *Centre for Asia and the Far East*

The regional census training centre for Asia and the Far East was conducted at Tokyo, Japan, from 1 September to 13 December 1958. The centre was created subsequent to a request by the Conference of Asian Statisticians at its first session held at Bangkok, Thailand, in 1957. Japan had offered to serve as host to the centre and to contribute technical and administrative services and facilities. The United Nations and FAO cooperated in the organization of the centre under the then Expanded Program of Technical Assistance, together with the Government of Japan. In addition, funds were also made available by the Ford Foundation to meet part of the cost of the centre.

The contribution of the two organizations included the services of lecturers, administrative and interpretation staff, and stipends and travel fellowships to most participants from outside Japan. Basic technical documents and some training materials were also provided. The Government of Japan contributed the services of lecturers, administrative staff, equipment and facilities for transport, mail and telephone communications. It also bore the cost of organizing and carrying out the experimental census and of processing the data thus collected.

There were 51 participants in all, including 10 from Japan. They came from the following 17 countries and 2 territories in the region: Afghanistan, Burma, Cambodia, Ceylon, China (Taiwan), the Federation of Malaya, India, Indonesia, Iran, the Republic of Korea, Laos, Nepal, North Borneo, Pakistan, the Philippines, Ryukyu Islands, Thailand and the Republic of Viet-Nam. The academic background of the participants varied greatly: most had had a university education; all were secondary school graduates; about one third had had no previous experience in census or survey work. Almost all were expected to take part in the planning and execution of the censuses of population, housing or agriculture in their respective countries.

The programme consisted of lectures and seminars as well as field work, i.e., enumeration work and observation of census and survey operations. The classwork was designed largely to explain the methods and concepts used in the experimental censuses and to demonstrate how these

methods could be applied in practice. A substantial part of the overall programme was closely related to the planning and execution of experimental censuses, and to the processing and analysis of the results.

Experimental censuses of population, housing and agriculture were conducted by Japanese officials, jointly with the staff of the centre and the participants. They afforded to the participants an opportunity of gaining a more intimate knowledge of all aspects of a census operation, overall planning and time phasing; preparation of questionnaires, forms, field work instructions, table formats, preliminary listing and enumeration in the field, postenumeration surveys, processing of data and final tabulations. The censuses were conducted in October 1958 in the community of Adachi Machi, which presented both rural and urban characteristics.

The principal working language at the centre was English. Special efforts, however, were made to provide adequate translation into French for the seven participants from Cambodia, Iran, Laos and Viet-Nam. The field work of the experimental census was carried out in Japanese, with translation into English and French. Experimental schedules and instructions were printed in the three languages.

### *Training Centre on Tabulation of Agricultural Census Data for the Near East*

This centre was organized by FAO in cooperation with the Government of the United Arab Republic, at Cairo, for training national officials who had supervisory and operational responsibility for the processing of national agricultural censuses and other agricultural data. The centre aimed at providing training which was as closely related as possible to the conditions existing in the area and which was tailored to meet the processing needs of the Near Eastern countries.

The Government of the United Arab Republic served as host for the centre, which was formally opened on 14 December 1961, and which terminated on 3 February 1962. There were 29 participants from 9 countries; countrywise distribution was as follows: 1 from Ethiopia; 2 each from Iraq, Pakistan, Sudan and Turkey; 3 each from Jordan, Lebanon and Libya; and 11 from the United Arab Republic. All were government

officials, from ministries of agriculture and from the national statistical services; most were connected with the planning, organization or execution of data processing work in their respective countries.

The training programme of the centre consisted of lectures, seminars, group discussion and practical work. The courses were determined after the assessment of the participants' background, experience and interest. The lecture courses largely covered material on manual and punch-card processing methodology and an introduction to electronic processing. The principles of processing were demonstrated in detail around actual processing operations of an agricultural census, current agricultural statistics, food consumption surveys and other data in the United Arab Republic. Most of the demonstrations of processing equipment and practical work were organized by the Department of Statistics. Visits were also arranged to several other government offices to see the various aspects of actual processing work.

The methodological aspects covered at the centre included:

- (a) scope, nature and functional aspects of data processing;
- (b) basic operating principles of manual and punch-card methods;
- (c) basic elements in planning and organizing the processing of data, including estimation of resources, questionnaire and table designs, operating procedure and time schedule;
- (d) elements in planning and operating the machine installations;
- (e) selection of processing equipment;
- (f) requirements, selection and training of processing staff;
- (g) developing measures for the control, appraisal and improvement of various operations;
- (h) consolidation, reproduction and publication of tables.

The other aspect of the work at the centre covered the assigned and guided work, and was especially geared to processing problems. In addition to personal consultation on special problems of the participants, the work also included group discussion, seminars, accessibility to actual

processing equipment, and use of methodology pertinent to the region under realistic operating conditions. Special arrangements were made for those participants who desired such assistance to have courses in special machine programme techniques. Demonstration and laboratory work was held at the Department of Statistics.

The working languages at the centre were English and Arabic. Most of the lectures were delivered in English, with translation into Arabic. A few, given by local lecturers, were in Arabic and were translated into English.

#### REGIONAL SEMINARS

In addition to the training centres, FAO organized three seminars: in Europe, Asia and the Far East, and Africa. The objectives of these seminars were, in general, to provide opportunities to the countries to discuss problems in agricultural census taking and to exchange experience in this respect.

##### *Seminar on Agricultural Censuses and Surveys, Poland*

The seminar was conducted jointly by FAO and the Conference of European Statisticians, in cooperation with the Government of Poland. It was held in Warsaw, from 15 to 30 June 1959.

The participants were from 13 countries, besides 6 persons from the FAO Secretariat, 1 from the Economic Commission for Europe (Secretariat), and 1 observer from the Organization for European Economic Cooperation, Paris. Country-wise distribution of the 24 participants from 13 countries was as follows: 1 each from Albania, Czechoslovakia, France, Federal Republic of Germany, Israel and the U.S.S.R.; 2 each from Austria, Bulgaria, Greece and Turkey; 3 each from Poland and Romania; and 4 from Yugoslavia.

The main topics included in the discussions related to sampling methods, relationship between different censuses, uses and analysis of census results, and manpower statistics. Discussion leaders, appointed for each group, introduced the respective subject matter and, after discussion, summarized the main conclusions.

English and French were used for the most part, and simultaneous translation for Russian.

### *Seminar on Analysis, Evaluation and Uses of Agricultural Census Results in Asia and the Far East*

This seminar was organized by FAO, with the Government of the Philippines as host country. It was held in Manila from 5 to 20 December 1960.

There were 26 participants from 13 countries. Countrywise distribution was: 1 each from Ceylon, India, Iran, North Borneo, Pakistan, Thailand; 2 each from Afghanistan, Burma, Indonesia, Japan, the Republic of Korea, the Federation of Malaya; and 8 participants from the Philippines. FAO provided 7 staff members for the work of the seminar and, in addition, invited 3 experts to guide discussions. The Economic Commission for Asia and the Far East was represented by one of its staff members to help in running the seminar. The Government of the Philippines contributed accommodations and secretarial facilities.

The main topics discussed related to evaluation of results, review of census work in various countries, study of tabulation and publication plans, the agricultural census as a framework for current agricultural statistics and as an aid in price and income support policies, uses of agricultural census results in general, and in specific fields. English was used as the basic working language of the seminar.

### *Seminar on Analysis, Evaluation and Uses of Agricultural Census Results for the African Region*

The seminar was organized by FAO in cooperation with the Government of Kenya. It was held in Nairobi from 21 August to 1 September 1961.

There were 36 participants from 18 countries. Countrywise distribution was: 1 each from Basutoland, Cameroon, the Central African Republic, Ethiopia, Mali, South Africa, Swaziland, Togo and Tunisia; 2 each from Congo (Leopoldville, at present the Democratic Republic of the Congo), Madagascar, Nigeria, Portugal, the Federation of Rhodesia and Nyasaland, Sudan and Tanganyika; 3 from Ruanda-Urundi and 10 from Kenya. FAO was represented by 4 of its professional staff; the Economic Commission for Africa provided 2 members to help in running the seminar.

The main subjects covered during discussions related to a review of agricultural censuses and surveys in Africa; tabulation and publication plans; evaluation of results; and uses of agricul-

tural census and survey results in different fields of agricultural development.

The languages used were English and French, with facilities for simultaneous translation.

### **Centralized tabulation on transferred processing**

The importance of timely processing of agricultural census data and publication of results cannot be overemphasized. Processing and tabulation of masses of statistical data collected in censuses involve great outlay in money, staff and other national resources. It is estimated that approximately 40 percent of the total cost of censuses are used for the tabulation of data.

Many countries had encountered difficulties in processing data of the agricultural censuses taken around 1950. One of the means of coping with the problem was centralized tabulation or transferred processing, i.e., processing of data outside the countries in which the data originated. The Ninth Session of the FAO Conference, held in 1957, recommended that FAO explore the possibility of centralized tabulation of census data by electronic equipment for those countries which so requested. FAO, therefore, undertook to investigate its possibilities.

Several countries expressed interest in participating in such a project provided it were feasible technically, logistically and economically. However, it was realized that there was a serious lack of information as to the problems involved in preparing data and transferring them from the countries concerned to the processing centre. This made it difficult to estimate the costs of the project. The matter was discussed in Rome in 1959 by a group of experts consisting of the technical representatives of several suppliers of processing equipment, and personnel from universities and other institutions connected with electronic processing. The group of experts suggested that, in order to fill the gap in technical knowledge, a pilot project should be undertaken to process the actual census data of several countries, at a centralized tabulation centre.

### **PILOT PROJECT, LIBYA**

Consequent to the experts' suggestion, FAO investigated the possibilities of electronic equipment

for such a pilot project. Libya agreed to provide the 1960 agricultural census data for processing under the supervision of FAO. The (then provisional) International Computation Centre (established in 1957 by a bilateral agreement between Unesco and the Italian Institute of Higher Mathematics) arranged with the Institute for Practical Mathematics at Darmstadt, Germany, for the necessary computer time and the technical services of their computer staff, on economic terms. The German Federal Office of Statistics, in Wiesbaden, agreed to undertake the punching and verification of data and gave other assistance on specially reduced terms. FAO accepted to help plan and organize the work and provide the necessary supervision and control of the project. The technicians of Libya remained actively associated with all the aspects of its execution.

All the parties concerned entered into an agreement in January 1961. A schedule of work was drawn up starting from dispatching the census questionnaire, after editing and coding done in Libya, to Wiesbaden, in June 1961 and up to the completion of tabulation work. The entire work was scheduled to be completed by the first quarter of 1962. All concerned treated the project as a scientific pioneering undertaking and worked in complete collaboration. The work was completed in January 1962.

#### ADVANTAGES ACCRUING FROM THE PROJECT

This pilot project for transferred processing was the first undertaking of its kind. The tabulation of the Libyan 1960 agricultural census data was completed in the record time of seven months from the start of the punching operation. All operations proceeded smoothly. The time schedules were realistically estimated and maintained. In fact, several operations were completed even a few weeks ahead of schedule. Owing to the scientific nature of the project, the Government of Libya obtained the necessary tabulations with improved quality and coverage at less than half the cost of conventional methods. Furthermore, there was a considerable saving in tabulation time of about three years. The project also provided training facilities.

In addition to the savings in cost and time and the training itself, other important technical advantages were also derived from this pioneering

effort. The project provided very useful information on the technical, logistic and administrative problems, of which there was a serious gap in knowledge. Detailed records of all aspects of the experimentation and execution of the project were kept and were subsequently incorporated in a report<sup>1</sup> published by the International Computation Centre, in collaboration with FAO, Libya and other parties concerned.

The successful and efficient execution of the pilot project in Libya showed that transferred processing projects involving large-scale statistical data are feasible technically, logistically and economically. It was expected that the experience gained and the information gathered from this pilot project would make an important contribution in this field toward the organization and provision of similar services in the future.

#### Publications and studies

In addition to the other means described above to promote the 1960 world census of agriculture, FAO also made available to governments the experience gathered from the 1950 world census of agriculture in the form of publications and studies. FAO, jointly with the United Nations, also prepared studies on data processing methods. Details of these publications and studies follow.

#### PUBLICATIONS ON THE 1950 WORLD CENSUS OF AGRICULTURE

##### *Census results by countries*

This constitutes Volume I of the *Report on the 1950 World Census of Agriculture*. It contains results made available to FAO by the participating countries and territories in the 1950 world census of agriculture. The publication contains the results of almost 80 countries.

##### *Census methodology*

This is Volume II of the *Report on the 1950 World Census of Agriculture* and provides an analysis of the scope of participation and concepts and definitions used in the various national

<sup>1</sup> *Report of the pilot project for central tabulation of the agricultural census data for the United Kingdom of Libya by electronic computers*. Rome, 1962.

censuses. The information contained therein was based mainly on the national questionnaires and instructions used in the censuses. Additional information was drawn from the census reports and other sources, insofar as they could clarify contents of the questionnaires and instructions.

#### STUDIES ON WORLD AGRICULTURAL STRUCTURE

These studies are the first factual account of the world agricultural structure and are based on the wealth of statistical material collected for the *Report on the 1950 World Census of Agriculture*. Not all the census data collected were equally valuable for this purpose. Nevertheless, an analysis was attempted for guidance to the users of the material by illustrating the implications of various conceptual and methodological differences between the national censuses. This analysis was limited to a few basic characteristics which showed a high degree of stability in most countries.

Three studies in the World Agricultural Structure Series were issued under the following headings:

Study No. 1: *General introduction, number and size of holdings*

Study No. 2: *Land tenure*

Study No. 3: *Land utilization*

Study No. 1 gives information on sources of data, limitations, and their treatment for use in connection with all three studies.

#### STUDIES ON DATA PROCESSING

The preparation of studies on data processing was undertaken jointly by the FAO Statistics Division and the United Nations Statistical Office, with a view to assisting countries in meeting difficulties in this field. Twelve studies were prepared. They were issued by FAO in two parts, under the title *Handbook on data processing methods*. Part I was issued in 1959 and Part II in 1962. However, in order to make these studies available for use in the countries participating in the 1960 world censuses of population and agriculture, they were distributed separately as each one was completed.

These studies included major political aspects, from the planning and organizing stage to controlling and improving processing productivity. The major part of the first three studies was prepared with a view to assisting senior government officials and others in appreciating the problems involved and in making decisions on financial, administrative and organizational matters. The remaining studies dealt with the methodological and other processing aspects. They were intended mainly for the statisticians and the supervisory and operational personnel of the processing services.



**Part B**

**CONCEPTS AND SCOPE OF PARTICIPATION**





## 4. CONCEPTS AND DEFINITIONS

The concepts and definitions used by the countries in taking agricultural censuses around 1960 are analysed in this chapter in the light of the FAO recommendations as explained under the definitions and explanatory notes for each section of the 1960 programme. More than one concept was involved in most of the sections. The description of each of the programme concepts is followed by an analysis of practices in the national censuses. This analysis is based on the definitions and explanations contained in the countries' census documents, such as questionnaires, manuals of instruction and national reports made available to FAO.

### Section 0 : Holder, holding and tenure

#### HOLDER AND HOLDING

The *Program for the 1960 World Census of Agriculture* of FAO recommended that individual holdings should be considered as units of enumeration for collecting agricultural data through the agricultural census in a country, and gave the following *definition of a holding*:

“A holding, for census purposes, is all land which is used wholly or partly for agricultural production and is operated by one person (the holder), alone or with the assistance of others, without regard to title, size or location. Livestock kept for agricultural purposes without agricultural land is to be considered as constituting a holding. The holding may consist of one or more separated parcels, provided that they are located in a single territorial division (administrative or censal), in adjacent territorial divisions or, if the territorial divisions are very small, in the same neighbourhood, and that as a whole

form a part of the same technical unit. The holding may be known as a lot, piece or parcel of land, garden, orchard, vineyard, estate, ranch, plantation, rural establishment, communal establishment, or by some other name.

“Establishments and other units not including any agricultural land but producing livestock or livestock products (piggeries, hatcheries, poultry batteries, city dairies with livestock, livestock kept by nomadic tribes, rabbitries, apiaries, etc.) are to be considered as holdings, whether they are located in rural or urban areas. Establishments engaged in the production of only forest products, fish, frogs, dogs, or wild game are not to be considered as holdings.”

The definition of holding quoted above points out five basic elements, namely:

- (a) land used wholly or partly for agricultural production;
- (b) operated by one person (the holder), alone or with the assistance of others;
- (c) without regard to title, size or location;
- (d) if consisting of two or more separated parcels, they should form part of the same technical unit;
- (e) livestock kept for agricultural purposes without agricultural land was to be considered as constituting a holding.

In respect of point (a), the programme defined *agricultural production* as :

“the growing of field crops, fruit, grapes, nuts, seeds, tree nurseries (except those of forest trees), bulbs, vegetables and flowers, both in the open and under glass; production of coffee, tea, cocoa, rubber; the forest production in parcels of land which form part of the enumerated holding; and the production of livestock and livestock prod-

ucts, poultry and poultry products, honey, rabbits, fur-bearing animals, silkworm cocoons, etc." Exceptions to the definition of agricultural production refer to those establishments engaged in the production of *only* forest products, fish, frogs, dogs or wild game which were not considered as holdings.

National practices in this respect conformed to this requirement in the majority of cases. Major deviations were the inclusion of land not used for agricultural production, such as forestry holdings (i.e., establishments engaged in the production of forest products only), and establishments providing machinery or other facilities to agricultural holdings. Inactive, unused or unoccupied holdings were also included in a few national censuses of agriculture. Forestry holdings were included in the censuses of Austria, Belgium, Finland, the Federal Republic of Germany, Ireland, Italy, Luxembourg, Poland, Spain; Brazil and Mexico. Eight countries (Belgium, Ireland, Italy, Luxembourg, the Netherlands, Norway, Spain and Yugoslavia) included in their censuses establishments or units such as machine stations, machine contractors, machine cooperatives, etc., engaged exclusively in providing specialist services to agricultural holdings. Spain called these units auxiliary agricultural holdings and defined them as:

"units which cooperated for agricultural, forestry and livestock production, providing tractors, harvesting machinery and any other services wholly required on the holding, regardless of the type of contract under which the services or machines are provided."

Eight countries (Canada; Brazil, Mexico, Venezuela; South Africa, South West Africa; Australia and New Zealand) included in their censuses units that were not actually used for agricultural production, such as inactive holdings, unoccupied holdings and unused holdings.

Regarding point (b) above, the programme stated that the land should be "operated by one person (*the holder*), alone or with the assistance of others." The persons indicated might be a civil or juridical person having the economic and technical initiative and responsibility for the operation of the holding and who operated the holding directly or through a hired manager. Whenever the responsibility was shared between two

or more related or associated persons, they were to be considered as constituting a single holder for the purpose of the census.

Twenty-nine countries did not include in their census documents a definition of holder. Other countries did not provide a complete or clear definition, making it difficult to conclude whether or not the FAO definition was observed in their national censuses. However, 43 countries used the definition suggested by FAO. Others identified the hired manager as the holder, although this was a deviation from the programme's definition, which stated that the holder might operate the holding directly or through a hired manager. Thus the hired manager could not be the holder unless he had the major technical and economic responsibility for the operation of the holding. In many countries where the unit of enumeration was the household, the head of the household (or sometimes the household itself) was identified as the holder. Some of the countries adopting the "household" approach were Brunei, China (Taiwan), India, Indonesia, Japan, the Republic of Korea, the Federation of Malaya, North Borneo, Sarawak; Congo (Brazzaville) and Gabon. Various countries defined holder in different ways, as, for example, the United Kingdom:

"the person who has the right to carry on any agricultural activity in relation to the land."

In Jamaica the holder was considered to be:

"the person who is financially responsible for the business of farming on the given parcel or parcels; the person who pays the bills and bears the risks and makes the profits directly resulting from the farming operation. He may be the owner/occupier or a tenant or a free occupant (squatter or otherwise). He may do manual work on his farm or he may only direct the labour, or he may delegate control of the farm to an overseer or manager."

With respect to point (c), it may be pointed out that the definition of holding states clearly that the land operated for agricultural production is a holding irrespective of the title, size or location.

Regarding *title*, it should be pointed out that the concept of holding deals exclusively with the operational aspects of this technical unit. This means that the land constituting the holding

might be owned, rented, operated on a squatter basis, etc., and that the title held over the land is irrelevant as far as the concept is concerned. At the same time it is clearly stated that the location or geographical position of the holding should be disregarded. This means that all holdings, whether or not located in rural, urban, less accessible areas, semidesert areas, etc., should be included in the census. The *size* was another condition to be disregarded in connexion with the definition of holding. Although theoretically the census programme requested countries to include all holdings, whether large or small, nevertheless it was stated that practical considerations made it necessary to limit the enumeration to those holdings which conformed to certain recognized criteria and which fall above certain lower limits as to size of holding or size of operation or both. It was further indicated that no uniform minimum limits in respect of area, volume of output, or number of livestock could be suggested because these varied from country to country.

The minimum area limit was adopted by 49 countries. In many places this limit was combined with additional limitations such as the number of livestock and/or poultry, and the value or income from the sale of farm products. For instance, the area limit criterion was used together with the minimum number of livestock and the minimum income from sales by the United States; the Virgin Islands of the United States; Brunei, China (Taiwan) and Thailand. Other countries, such as Austria, Belgium, Finland, the Federal Republic of Germany, Ireland, Italy, Luxembourg, combined this limit with the inclusion of forestry holdings and the minimum number of livestock. The Federal Republic of Germany, the Netherlands; Trinidad and Tobago; Ceylon, Indonesia, the Philippines and the Republic of Viet-Nam combined the minimum area criterion with that of minimum number of livestock.

It may be mentioned here that the differences in the national practices regarding the minimum area limit referred not only to the size of the holding but also to the concept of area used. For instance, some countries used the total area concept, others the cultivated area, and still others the agricultural area.

Twenty-five countries used the minimum number of livestock and/or poultry criterion for excluding very small holdings. Eleven countries

used the minimum value or quantity of production criterion to exclude small holdings from the census. Alaska, Canada, Hawaii, the United States; Jamaica, the Virgin Islands; Brunei, China (Taiwan), Japan and Thailand used the minimum value of the production and not the minimum quantity of production as the appropriate limiting factor.

In dealing with element (*d*) of the definition of a holding, the programme stated that the holding :

“ may consist of one or more separated parcels, provided that they are located in a single territorial division (administrative or censal), in adjacent territorial divisions or, if the territorial divisions are very small, in the same neighbourhood, and that as a whole form a part of the same technical unit. ”

It can be further explained that “ forming part of the same technical unit ” means that the pieces of land, although physically separated from each other, were worked by the same labour force, the same draft animals, or agricultural tools or machinery, and under the same technical and economic responsibility.

Thirty-two countries specifically mentioned the conditions under which the parcels were to be located geographically in order to be considered as forming part of the same technical unit. No indications were available on this subject from 58 countries. In the census of Sweden, it was indicated that, in the case of holdings situated in more than one parish, the *area* was to be distributed among the different parishes.

Condition (*e*) was mentioned in the definition of the holding to include other establishments not having any agricultural land but producing livestock or livestock products, etc. The condition was further elaborated in the programme when it was indicated that:

“ establishments and other units not including any agricultural land but producing livestock and livestock products (piggeries, hatcheries, poultry batteries, city dairies with livestock, livestock kept by nomadic tribes, rabbitries, apiaries, etc.) are to be considered as holdings whether they are located in rural or urban areas. ”

Forty-two countries included this extension of definition in their censuses. Most of them specifically indicated that landless units with livestock

TABLE 2. - DEVIATIONS FROM FAO'S CONCEPT OF HOLDING

Region and country	Enlargement of the concept		Limitations of the concept				
	Inclusion of forestry	Other	Minimum area	Minimum number of livestock and/or poultry	Minimum value or quantity of production	Destination of the production	Other limitations
EUROPE							
Austria .....	X	—	<sup>1</sup> X	—	—	X	Excluded noncommercial holdings growing vegetables; fruit and vines with less than 0.5 hectare of land
Belgium 1959 - I .....	X	Contractors; machine stations; machine cooperatives; purchasing and marketing and storehousing cooperatives; owners of 2 ares or more of uncultivated land, ponds, woods or poplars not forming part of any agricultural holding	X	X	—	—	—
1959 - II .....	—	—	<sup>2</sup> X	X	—	X	Excluded not mainly commercial holdings and landless holdings producing livestock or livestock products, unless operated by prisons, rest homes, asylums, religious and other communities and institutions
Denmark .....	—	—	X	—	—	—	—
Finland .....	X	—	X	X	—	—	—
Germany (Fed. Rep.) .....	X	Fishing waters; gardens; holdings consisting entirely of temporarily uncultivated land	X	—	—	—	—
Greece .....	—	—	X	X	—	—	Minimum number of olive trees
Ireland .....	X	Landless agricultural machinery holders; areas belonging to railways, canals, and other public companies, churches, graveyards, schools, gardens and military barracks, sports grounds, hospitals and other public institutions where normally no crops are raised or livestock grazed; areas consisting entirely of woods, plantations, marsh, turf, bog and other nonagricultural areas	X	—	—	—	Land let in conacre, included in the holding of the rated occupier of the land
Italy .....	X	Establishments operated by one physical or legal person not performing directly any agricultural operation, which coordinate the agricultural operations of a group of holdings and maintain work animals and different agricultural machinery and equipment for the common use of these holdings	X	—	—	X	Excluded land cultivated only occasionally (building sites in urban areas); excluded kitchen gardens located in urban areas and small livestock holdings for domestic consumption not forming part of any agricultural holding
Luxembourg I .....	X	—	<sup>3</sup> X	—	—	X	Excluded noncommercial holdings producing fruit and vegetables, bread grains, and vineyards with less than 20 ares of land
II .....	X	Machine contractors; machine stations, cooperatives and local associations	<sup>3</sup> X	—	—	X	Excluded noncommercial holdings producing fruit and vegetables, flowers or tree nurseries operating less than 1 hectare of land; excluded noncommercial livestock and poultry keepers
Malta and Gozo .....	—	—	X	—	—	—	—
Netherlands							
May 1959 - I .....	—	—	X	X	—	X	Excluded land under osiers, reeds and bushes
May 1960 - II .....	—	Machine contractors; machine stations and cooperatives	X	X	—	—	—
Norway .....	—	Machine stations	—	—	—	—	—

TABLE 2. - DEVIATIONS FROM FAO'S CONCEPT OF HOLDING (continued)

Region and country	Enlargement of the concept		Limitations of the concept				
	Inclusion of forestry	Other	Minimum area	Minimum number of livestock and/or poultry	Minimum value or quantity of production	Destination of the production	Other limitations
<b>EUROPE</b>							
Poland .....	X	Plots of land assigned to individuals for their own use were recorded as part of the collective or state holdings and not as separate holdings	X	—	—	—	—
Spain .....	X	Establishments providing machinery or other facilities	—	*X	—	—	Excluded landless holdings keeping less than a given minimum number of livestock, poultry or beehives
Sweden .....	—	—	*X	—	—	—	Holdings not including minimum area of arable land were enumerated only in selected areas
United Kingdom .....	—	—	X	—	—	X	Excluded woodland, osiers and land under buildings, roads, yards, ponds (England and Wales, census of 3 June 1960); land let in conacre included in the holding of the rated occupier of the land (Northern Ireland)
Yugoslavia .....	—	Service-supplying establishments; general cooperatives; machine cooperatives	X	X	—	X	Excluded holdings located in large towns
<b>NORTH AMERICA</b>							
Alaska .....	—	—	X	—	*X	X	—
Canada .....	—	Inactive holdings during last 12 months, if sales in next 12 months estimated to be \$50 or more	X	—	*X	X	—
Hawaii .....	—	—	X	—	*X	X	—
United States .....	—	—	X	X	*X	X	—
<b>LATIN AMERICA</b>							
Argentina .....	—	Vineyards operated by contractors and land operated by sharecroppers included in the owner's land	—	—	—	X	Excluded land within the area of dwellings where crops are grown or livestock kept for home consumption or occasional sale
Barbados .....	—	—	X	X	—	—	Excluded holdings with less than ten bearing trees
Brazil .....	X	Inactive holdings; production obtained from uncultivated trees or plants	—	—	—	—	Holdings consisting of contiguous pieces of land only; excluded kitchen gardens for home use
Costa Rica .....	—	—	X	—	—	—	—
Dominican Republic .....	—	—	—	—	—	—	Holdings consisting only of contiguous pieces of land
Guatemala .....	—	—	—	—	*X	X	Excluded landless holdings producing livestock or livestock products (dairies, poultry batteries, hatcheries, piggeries, etc.), which were enumerated in the housing census

TABLE 2. - DEVIATIONS FROM FAO'S CONCEPT OF HOLDING (continued)

Region and country	Enlargement of the concept		Limitations of the concept				Other limitations
	Inclusion of forestry	Other	Minimum area	Minimum number of livestock and/or poultry	Minimum value or quantity of production	Destination of the production	
<b>LATIN AMERICA</b>							
Jamaica .....	—	—	X	X	X	—	Excluded holdings under 1 acre, unless containing minimum cultivated area, or minimum number of trees of economic value or minimum number of livestock or poultry
Mexico .....	X	Inactive holdings; production obtained from uncultivated trees or plants	—	—	—	—	—
Peru .....	—	—	—	—	—	*X	—
Puerto Rico .....	—	—	X	X	—	X	—
Surinam .....	—	—	X	X	—	<sup>10</sup> X	—
Trinidad and Tobago .....	—	—	X	X	—	—	—
Uruguay .....	—	—	X	—	—	—	—
Venezuela .....	—	Inactive holdings	—	—	—	—	—
Virgin Islands (U.S.) .....	—	—	X	X	—	X	Minimum number of fruit or nut trees or plants
<b>NEAR EAST</b>							
Iraq .....	—	—	—	—	—	—	Excluded livestock holdings without agricultural land
Lebanon .....	—	—	X	—	—	—	—
Libya .....	—	—	X	X	X	—	Minimum number of date palm trees or productive olive trees
<b>FAR EAST</b>							
Brunei .....	—	—	X	X	*X	X	Minimum number of coconut, fruit or sago palms growing in a specific area
Ceylon .....	—	—	X	<sup>10</sup> X	—	—	—
China (Taiwan) .....	—	—	X	<sup>11</sup> X	*X	X	—
India .....	—	—	—	—	—	—	Excluded holdings used exclusively as pastures or for livestock raising or production of livestock products
Indonesia .....	—	—	X	<sup>10</sup> X	—	—	—
Japan .....	—	—	X	—	*X	X	Excluded forest land not used for mowing or grazing
Korea, Rep. of .....	—	—	X	—	—	—	—
Malaya, Fed. of .....	—	—	X	—	—	—	—
North Borneo .....	—	—	X	—	—	—	For holdings under 0.5 acre only the livestock kept was enumerated; excluded land used in partnership with other holdings and land used in common by the whole community
Pakistan .....	—	—	—	X	—	—	—

TABLE 2. — DEVIATIONS FROM FAO'S CONCEPT OF HOLDING (*concluded*)

Region and country	Enlargement of the concept		Limitations of the concept				
	Inclusion of forestry	Other	Minimum area	Minimum number of livestock and/or poultry	Minimum value or quantity of production	Destination of the production	Other limitations
<b>FAR EAST</b>							
Philippines .....	—	—	X	X	—	—	—
Sarawak .....	—	—	X	—	—	—	For holdings under 0.5 acre only the livestock kept was enumerated; excluded land used in partnership with other holdings and land used in common by the whole community
Thailand .....	—	—	X	X	<sup>6</sup> X	X	Excluded holdings raising only pack-horses or pack-cattle
Viet-Nam, Rep. of ..	—	—	X	X	—	—	Excluded holdings raising exclusively pigeons, rabbits, bees
<b>AFRICA</b>							
Basutoland .....	—	Only owned fields usually operated by members of the household	—	—	—	—	—
Ghana .....	—	—	—	X	—	—	Excluded area cultivated by persons mainly occupied in other activities, as trade, handicraft, etc., who cultivate some plants without much value in their gardens
Portuguese Guinea ..	—	—	—	—	—	—	Excluded holdings producing livestock or livestock products, enumerated separately; excluded pastureland
Rhodesia and Nyasaland, Fed. of .....	—	—	X	—	—	—	—
Seychelles .....	—	—	X	—	—	—	—
Tanganyika <sup>12</sup> .....	—	—	X	—	—	—	Excluded holdings occupied under rights other than "rights of occupancy or freehold," unless carrying out extensive types of cultivation
South Africa .....	—	Unoccupied holdings or farming units <sup>13</sup>	—	—	—	<sup>12</sup> X	Excluded holdings, the products of which were not intended for sale in urban areas
South West Africa ..	—	Unoccupied holdings or farming units <sup>13</sup>	—	—	—	<sup>12</sup> X	
<b>OCEANIA</b>							
American Samoa .....	—	—	—	X	—	—	—
Australia .....	—	Area and production of crops grown under share agreements included with the owner's land, provided that he lives on, and operates, a portion of some holding; commercial beekeepers without own holding (Queensland); unoccupied holdings (Victoria)	<sup>14</sup> X	—	—	<sup>15</sup> X	Excluded small plots under fruit and vegetables for table use on the holding (Capital Territory, Northern Territory, Queensland); for holdings under 1 acre, minimum number of trees (New South Wales)
Guam .....	—	—	—	X	—	—	Excluded land used by U.S. Military Services
New Zealand .....	—	Unused holdings	X	—	—	—	Excluded land inside borough boundaries

<sup>1</sup> Except for commercial holdings growing vegetables, fruit or vines. — <sup>2</sup> Only for holdings operated by prisons, rest houses, asylums, religious and other communities, experimental and research stations, regardless of the destination of the products obtained. — <sup>3</sup> Excluding area operated by commercial growers of fruits and vegetables. — <sup>4</sup> Only for landless holdings keeping livestock, poultry or beehives. — <sup>5</sup> All farms with more than 2 hectares of arable land were enumerated; farms with 2 hectares or less of arable land were enumerated only within certain parishes selected for the agricultural census. — <sup>6</sup> Of sales. — <sup>7</sup> Of sales, excluding sales of forest products but including returns of rental of land for grazing. — <sup>8</sup> Minimum quantity of production for holdings in urban areas. — <sup>9</sup> For flower gardens only. — <sup>10</sup> For holdings with less than minimum area. — <sup>11</sup> Excluding draft cattle. — <sup>12</sup> Large-scale commercial farming, excluding African "shamba" type farming. — <sup>13</sup> Non-Bantu holdings. — <sup>14</sup> Only in New South Wales, southern Australia, Queensland, Victoria. — <sup>15</sup> Only in Queensland, Tasmania, western Australia.



were considered as agricultural holdings. More than 40 countries gave no indication as to the inclusion or exclusion of these establishments or units.

Additional explanations were included in the programme in order to clarify the definition of holding in special cases. For instance, in the case of several farm units sharing the same technical or economic services, as in plantations, collective farms, cooperative farms and similar establishments, it was difficult to identify the holding without further explanation.

The programme indicated that the area in each unit should be considered as a separate holding if a distinct area of land was assigned to the individual operator and such operator shared in the livestock or poultry products. Furthermore, it was explained that when individuals, labourers, etc., on farms or plantations comprising several farm units were not assigned a distinct area of land or group of animals and had not received a share of the agricultural products derived therefrom, then the entire group of units was to be considered as a single holding. In the case of two or more establishments under the same ownership and general direction, if managed by different persons, they were, according to the FAO programme, to be considered as separate holdings.

About 20 countries adhered to the definition of the holding as a whole. For 9 countries the definition of the holding was not made known to FAO, either because the census documents were not made available or because no explicit definition was included in these documents. The deviations for the rest of the countries are shown in tabular form in Table 2. In this table, a cross indicates that the extension or deviation concerned was applied; a dash shows that, according to available documents, no deviation has appeared.

A few examples of the deviations serve as illustrations:

In Libya, the holding was defined as:

“all land used wholly or partly for agricultural production and operated by one person (the holder) alone or with the assistance of others, without regard to title or location.” However, the census in Libya covered only those holdings “which had at least either one tenth of a hectare

irrigated or half a hectare of nonirrigated arable land, or ten sheep or goats (combined), or a lesser number of those combined with at least one head of cattle, one camel or one horse; or five productive date palms or five productive olive trees.”

In the Virgin Islands, the holding was defined as follows:

“All places of 3 or more acres were counted as holdings if any agricultural operations were conducted. Places of less than 3 acres were counted as holdings if 1959 sales of agricultural products amounted to at least 100 dollars or if they could normally be expected to produce agricultural products in sufficient quantity to allow sales of at least 100 dollars. *Place* included all land under the control or supervision of one person or partnership. Control may have been exercised through ownership or management or through a lease, rental or cropping arrangement. Agricultural operations were considered to be conducted on a place if:

- (a) one or more horses, cattle, pigs, sheep or goats were kept at the time of the enumeration;
- (b) a combined total of ten or more chickens, turkeys, ducks, geese or other poultry was kept at the time of the enumeration, or had been kept on the place in 1959;
- (c) a combined total of ten or more fruit or nut trees and plants existed at the time of the enumeration;
- (d) any field crop, such as maize, sugarcane, or yams, was harvested on the place in 1959;
- (e) any vegetables, flowers, ornamental plants, trees, seeds or bulbs were there growing for sale in 1959.”

#### TENURE

The main purpose of the programme in respect of tenure was to obtain information for each country on the legal and traditional relations between persons, groups or institutions regulating the use of the land, transfer of the same, and the obligations accompanying these rights. The pro-

gramme included five main items regarding land tenure:

- (a) area of the holding owned by the holder or held in ownerlike possession;
- (b) area of the holding rented from others;
- (c) area of the holding operated on a squatter basis;
- (d) area of the holding operated under tribal or traditional communal tenure forms;
- (e) area of the holding operated under other forms of tenure, not included in the previous categories, and area for which the form of tenure cannot be determined.

Each of these items is discussed below in the light of national practices.

#### *Area owned or held in ownerlike possession*

This category included two main concepts:

- (a) That of the land owned by the holder or members of his household; that is, land over which the holder possessed title of ownership and the right to determine the nature and extent of its use as well as the right of transfer. The essential condition was that the holder legally used the land without interference from others and had always the full economic responsibility for its operation.
- (b) That the holder operated the land under special conditions in an ownerlike way even though he did not possess a title of ownership. This concept included land under perpetual lease, hereditary tenure, long-term leases, land without legal title of ownership or a long-term lease and operated without payment of rent for long periods of time (e.g., more than 30 years), and land received by a holder from *ejidal* or other communal land and retained by him as long as he kept it under cultivation by his own labour and that of his family and under which he could not sell or mortgage their holding.

Of the 94 countries which participated in the 1960 world census of agriculture, 78 included different items on land tenure in their census questionnaires. Definitions of forms of tenure were not available for 13 countries.

Most of the participating countries used roughly the definition proposed in the FAO programme. A typical example of the definition of land ownership is provided by Peru. Here the area owned was considered to cover those areas on which the holder or his family had ownership rights whether by written title or not. This category also included family patrimony and areas operated peacefully and uninterruptedly during 30 years or more by the holder or his family without payment of rent. Of the countries participating, only 3 defined the area owned as that on which the holder had an *ownership title*. In Ghana, the ownership of the land was associated with the right of transfer and the right of determining the use of the land, without consideration of the legal aspects of ownership.

Belgium; the United States; Barbados, Peru, Puerto Rico, Trinidad and Tobago, the Virgin Islands; China (Taiwan), India, Sarawak; Tunisia and Upper Volta considered the ownership of the family members of the household or members of the holder's household as ownership of the holder. In India, land owned was considered that owned by the household if the right of permanent heritable possession with or without the right to transfer title rested on a member or members of the household. The census of Sarawak defined the area owned as that on which any member of the household possessed title of ownership and consequently the right to determine the nature and extent of its use, as well as the right of transfer. It included also land held in ownerlike possession even without an ownership title.

The concept of area owned was enlarged by some countries, as is shown in the following illustrations.

*Federation of Malaya* (farm households). Area owned included land held in the form of an approved title from the Government; the holder had virtually unrestricted power to transfer the land by sale or gift; this also included land owned on a temporary title, i.e., temporary licences from the Government to occupy the land at a nominal fee, usually as a first step toward obtaining a more permanent title.

*Netherlands*. Included all area owned and land under hereditary tenure, usufruct and perpetual lease at a fixed rent.

*Costa Rica.* Included all areas operated by holders lacking an ownership title and not paying any rent for it although they retained the total usufruct. Land occupied by squatters could be either private or public property and occupancy occurred without consent of the owner, even though it was sometimes tolerated by him.

#### *Area under tribal or traditional communal tenure forms*

The land included under this category was held under a tenure form in which the joint or communal exploitation was not the result of careful planning but of tradition or tribal conditions. The latter case was common in Latin America and in most parts of Africa, where land was held on a tribal, village, kindred or family basis, and individuals had certain rights to this land by virtue of their membership in the respective social unit. Title to the land, which was often vested in the chief of the tribe, was communal in character and not absolute; it was only usufructuary.

Although most of the African countries excluded this question from their censuses, it was evident that this form of tenure was of frequent occurrence in the so-called "nonmodern" holdings. The absence of questions on area under tribal or traditional communal tenure forms should be examined in the context of the few African countries that included questions on land tenure and the difficulties involved in collecting information on this subject. It is probable that in most cases the census authorities judged it more practical and less complicated to exclude information on land tenure from the census, in order to facilitate the procedure of field operations. In fact, of the 94 countries which participated in the world census, only 13 included this form of tenure in their census questionnaires. Only 8 countries in the African and Latin-American regions followed the FAO definition, and 3 countries, namely Spain; the Republic of Vietnam; and Uganda, specifically included this form of tenure under other items (area owned, and area under other forms of tenure), respectively. Ecuador; and Morocco, although including questions on this type of tenure, did not provide FAO with their corresponding definition.

The following definitions used in selected countries are given to illustrate how the concept of tribal or communal area was applied.

*Bolivia.* Communal land included those areas operated by communities for the use of which no payment was made and had been conceded to the communities by special law.

*Libya.* Area operated under tribal tenure included land held on a tribal village, kindred family basis, where individuals had certain rights to this land by virtue of their membership in the respective social unit. Title to the land was communal in character.

*Togo.* Area under traditional or communal forms of tenure included those areas where the ownership was collective in character (village, tribe) and the usufruct of the land was given to each individual by the head of the village or the head of the land, because the individual formed part of that community.

#### *Area under other forms of tenure*

Under other forms of tenure may be mentioned, for example, the land operated under transitory forms of tenure, such as the lands under trusteeship (operated by a trustee) or holdings, the owner of which is on trial for delinquent payment of private or fiscal debts, land under inheritance proceedings, etc. The area for which tenure could not be determined was also included here.

Out of the 14 countries which included forms of tenure that could not be classified under the different types of tenure indicated in the programme, 6 (Bolivia, Costa Rica, the Dominican Republic, El Salvador, Guatemala and Mexico) included in this category the area operated under a special form of tenure called *colonato*. However, the concept used was not the same in the different countries. For instance, El Salvador defined it as those areas operated by holders fulfilling the following conditions:

- (a) permanently residing on the holding;
- (b) receiving from the owner or manager of the land one or more parcels for agricultural work, regardless of its size;

- (c) paying against the land received in form of work part of the harvest obtained, etc.

Costa Rica defined the area operated under *colonato* as all land adjudicated to holders who were members of legally constituted colonies for which the state was responsible and occasionally directed its activities.

In Mexico, holdings operated by *colonos* were considered those possessed and operated by physical persons forming part of an agricultural colony constituted according to the Colonization Law. In this country there was also a form of tenure of the holdings (*ocupantes*), defined as holdings operated by physical persons on state land being subject to the National Land Law of 30 December 1960.

Under other forms of tenure were included, apart from those types which were not determined or were unknown, various forms of tenure that had only national importance.

Major deviations could be observed in Spain, where under other forms of tenure were included areas *operated gratuitously* through special agreements, *areas operated by squatters*, and *areas operated under communal forms of tenure*.

The agricultural census of Thailand included under this item the *areas operated rent-free*, *areas operated by squatters*, *areas operated in exchange for services*, and *areas rented on both a cash and crop basis*.

The census of the Republic of Korea defined this item as: including all areas under other single forms of tenure *excluding areas owned* by the holder, i.e., areas rented, areas cultivated without payment of rent, areas under entrust contract or without any agreement with the landowner.

In the Republic of Viet-Nam, the category of area under other forms of tenure included the *area operated in exchange for services, rent-free, or under communal or tribal forms of tenure*.

Besides Spain and Thailand, for which illustrations have been given, the censuses of Guatemala; the Federation of Malaya and the Philippines included under this item the *area operated by squatters*.

In 58 countries and territories no questions were included regarding this item. In most cases this was due to the fact that the previous categories of land tenure already covered all forms of tenure existing in the country or, in other

cases, because no questions on land tenure were included at all in their national census questionnaires.

## Section 1 : Land utilization

The major aim of the programme regarding this subject was to obtain, in some detail, information on the structural composition of the land utilization of holdings. The proposals were contained in the following five major groups:

- (a) Arable land
- (b) Land under permanent crops
- (c) Land under permanent meadows and pastures
- (d) Wood or forest land
- (e) All other land

A discussion of the above concepts, along with national practices, follows.

### ARABLE LAND

Arable land was defined as all land generally under rotation. This was subdivided into: land under temporary crops (*except* market and kitchen gardens); land under temporary meadows (for mowing or pasture); land under market and kitchen gardens, including cultivation under glass; land temporarily fallow, and all other arable land.

1. Land under temporary crops, except market and kitchen gardens, included all land used for crops whose growing cycle was under one year and sometimes only a few months, and which had to be newly sown or planted after the harvest of each crop. Examples of such crops are wheat, barley, maize, rice, beans, potatoes, cotton, etc. Crops remaining in the field for more than one year were also to be considered as temporary crops if the harvesting destroyed the plant, as for example in the case of cassava and yams.
2. Land under temporary meadows was defined as all land temporarily cultivated with forage crops for mowing or pasture. In order to obviate difficulties in differentiating temporary meadows from permanent meadows

and pastures, a period for rotation not over five years was used to classify the land as under temporary meadows.

3. Land used as market and kitchen gardens included the cultivation of vegetables, flowers and bulbs, irrespective of whether they were grown in market gardens, kitchen gardens, or in greenhouses, and whether they were intended for consumption on the holding, for marketing, or both.
4. Land temporarily fallow was defined as the land resting for a period of time before being planted again. However, if the land remained fallow for too long, it might acquire certain characteristics which would determine its inclusion in other major groups of land utilization, such as permanent meadows and pastures, if it were possible to use it for grazing; wood or forest land, if it became overgrown with trees utilizable as timber, firewood, etc.; and as all other land, when it reverted to wasteland. Hence, the programme suggested that a maximum length of time should be adopted for such land to remain idle and still be considered as fallow. This period was recommended to be not more than five years. It was also stipulated that it should be possible to bring the land back into cultivation by means of normal cultivation practices.
5. All other arable land included all land under rotation not put to any of the uses mentioned above, such as arable land damaged by floods, land prepared for cultivation but not sown due to unforeseen circumstances, crop failure, etc.

As regards national practices, 39 countries used the concept of arable land in conformity with that cited above. In most cases, however, these countries failed to indicate the period of rotation (not over five years) necessary to differentiate temporary meadows from permanent meadows and pastures. At the same time, some countries did not point out the maximum length of time necessary to distinguish the land temporarily fallow from permanent meadows and pastures, wood or forest land, etc. It was also observed that in a few countries no subdivision of arable land was provided in the national questionnaires or in the instructions to enumerators.

A typical and comprehensive definition of arable land was indicated in the agricultural census of Lebanon: arable land included land under temporary crops, land under temporary meadows, market and kitchen gardens, temporarily fallow land and other arable land. Land under temporary crops included those crops for which the growing cycle was less than one year and which had to be newly sown or planted after harvest, e.g., wheat, maize, beans, potatoes, etc. This group also included crops remaining longer than one year in the field if the harvest destroyed the plant. Land under temporary meadows included cultivated grasses for pasture with a rotation period of less than five years. Land under market and kitchen gardens included areas under vegetables and flowers irrespective of whether vegetables were grown for home use or for sale. Other arable land included land used for temporary crops but not cultivated in the current year, due to floods, etc., and areas on which the crops failed.

Apart from the 39 countries complying with FAO's definition, there were 11 countries which deviated to a minor degree from FAO's programme. These countries were Denmark, Spain, Yugoslavia; Brazil; Ceylon, the Federation of Malaya, the Philippines, the Republic of Viet-Nam; Ghana; Australia and New Zealand. Of these, Ceylon, the Federation of Malaya, the Philippines; and Spain classified under the category land under permanent crops those areas of temporary crops associated with permanent crops. Australia excluded the areas of short or summer fallow from arable land. Brazil classified under all other land the fallow areas that were not going to be used immediately or were resting for a long period of time without any future use for temporary crops. Denmark; and the Republic of Viet-Nam included under arable land all areas grown with strawberries. In the census of Ghana, under arable land were included the areas with the following crops: pineapples, plantains, bananas and papayas. While New Zealand excluded the land under market gardens from arable land, Yugoslavia included the area of vine nurseries under this category.

Major deviations were observed in 22 countries and territories. The most common deviation was to group together the categories of land under temporary crops and land under per-

manent crops. This was noted, with some additional variations, in the following countries: Belgium, the Federal Republic of Germany, Malta and Gozo, Norway; Canada, the United States; Jamaica, Puerto Rico, the Virgin Islands; Pakistan; and Guam. Some additional examples are given below.

In Argentina the category of arable land excluded fallow land, arable land damaged by floods and land prepared for cultivation but not sown due to unforeseen circumstances. These subitems were classified under all other land. Finland excluded from arable land garden vegetables and cultivation under glass but included under this category permanent artificial (cultivated) pastures.

The census of Ireland included under arable land permanent meadows, ornamental trees and nurseries of fruit trees but excluded rotation pastures. In Luxembourg, from the category of arable land were excluded the areas of commercial gardening (peas, beans, carrots, all other vegetables, roses and other flowers) and also cultivation under glass, kitchen gardens and flower gardens. In the Netherlands, under the category horticultural land were included all horticultural crops in the open and under glass, vegetables, early potatoes, onions, pome and stone fruits, small fruits, flower bulbs and tubers, flower nurseries, tree nurseries and horticultural seeds, all insofar as they were grown for commercial purposes.

#### LAND UNDER PERMANENT CROPS

Land under permanent crops was defined as the land cultivated with crops which occupied the land for a long period of time without being replanted for many years after each harvest, such as cocoa, coffee, rubber, shrubs and fruit trees, nuts and vines, but excluding wood and timber. It included nurseries, except those for forest trees.

Forty countries closely followed the definition given above. Some countries, however, did not give an explicit definition of permanent crops; instead, they provided examples of individual permanent crops.

Different ways of defining permanent crops are found in the national questionnaires. Nevertheless, they substantially conform with the

concept suggested by FAO. Some examples are given below.

*El Salvador.* Included the areas occupied with crops whose growing cycle is more than one year, such as coffee, cocoa, fruit trees, etc. It also included areas with nurseries but excluded areas with forest trees and their nurseries.

*Morocco.* Included areas under crops occupying the land for a long period of time before needing to be planted again, e.g., vineyards, fruit trees and bushes, nurseries, etc. Trees devoted to wood production and nurseries of forest trees were excluded.

*Peru.* Included areas under crops whose growing cycle lasted several years and did not need to be sown after each harvest, i.e., fruit trees, cocoa, tea, olives, etc.

Minor deviations, most of them referring to the classification of areas of permanent crops associated with temporary crops, were noted in 10 countries, namely: Ireland, Italy, Poland, Yugoslavia; Ecuador, Surinam, Trinidad and Tobago; the Federation of Malaya, the Philippines; and New Zealand. In Ecuador, for instance, although the concept of land under permanent crops was the same as in the programme, areas of permanent crops associated with temporary crops (maize) or fodder crops (alfalfa, pastures) were classified as permanent crops or temporary crops, depending on which of these types of crops had more economic importance.

In the Philippines, when temporary crops were associated with permanent plants or trees, the whole area was reported as being under temporary crops if the permanent crops were merely scattered. However, if both the temporary and the permanent crops were equally distributed on the same piece of land, then the whole area was reported as being under permanent crops.

In Poland; and in Trinidad and Tobago the areas of permanent crops, if associated with temporary crops, were classified as under permanent crops.

In other countries, like Italy; Surinam; and New Zealand different components of other land utilization categories were included in land under permanent crops. Italy, for example, included the areas of nurseries of forest trees, provided the area was not less than 100 square metres.

New Zealand included the area of market gardens, Surinam included the area under sugarcane but excluded areas under bananas and plantains cultivated as cash crops or as shade for permanent crops.

In Ireland, in the case of old orchards associated with temporary crops, the area was to be classified as under temporary crops, provided the production of these crops was the main use of the land. In the Federation of Malaya the area of rubber trees associated with vegetables or other temporary crops was exclusively considered as area of permanent crops regardless of whether the land was used for other purposes.

Major deviations from FAO's programme were observed in 21 countries and territories. A frequent deviation was to classify both land under temporary and permanent crops in one category (cropland). This feature, with some minor additions, was noted in Belgium (including osiers), the Federal Republic of Germany (excluding strawberries and fruit plantations with subcultivation, fruit trees with meadows and pastures and scattered fruit trees), Malta and Gozo, Norway; Canada, the United States; Jamaica, Puerto Rico, the Virgin Islands; Pakistan; and Guam.

In Argentina and Greece, under the category of land under permanent crops were also included areas with artificial (cultivated) forest trees and, in the latter, areas of nurseries of forest trees.

In the census of Luxembourg, under the heading of other horticultural area, were included together areas of strawberries, peas, beans, carrots, all other vegetables, roses and other flowers, cultivation under glass, kitchen gardens, flower gardens, orchards, vineyards, nurseries and osiers.

In the Netherlands, the category horticultural land included also pome and stone fruits, small fruits and tree nurseries.

In Sudan, the definition of land under permanent crops comprised also the land with permanent meadows for mowing or grazing. In the census of Finland, the category of permanent crops included areas of nurseries of forest trees, cultivation under glass, and garden vegetables.

#### LAND UNDER PERMANENT MEADOWS AND PASTURES

This meant land in the holding used permanently (i.e., --- years or more) for herbaceous

forage crops, either seeded and cared for or existing naturally (wild prairie or grazing land). Permanent meadows and pastures growing trees and shrubs were to be recorded under this heading only if the growing of forage crops thereon was the most important use of the area. This major group was divided into two groups, one dealing with cultivated and the other with uncultivated meadows and pastures.

Approximately 47 countries followed this concept in the broad sense of the programme. Most of them, however, failed to indicate the period of time (five years or more) for qualifying these areas as permanent, and to differentiate them from the subcategory of land under temporary meadows. Different terms were used by countries for this category, e.g., grassland, land under pasture, permanent meadows, pasture and grazing land, etc.

In Ceylon, the category of permanent meadows and pastures, called grassland in the national questionnaire, was defined as follows: "It includes land which is exclusively used for the growing of grass either seeded and cared for or existing naturally."

The same category was defined in Guatemala so as to include land with permanent cultivated or uncultivated meadows and pastures.

A few selected examples of the definitions of land under permanent meadows and pastures will serve to illustrate the degree of variation found in the different countries:

*Nicaragua.* Included all areas with cultivated and natural pasture forming part of the holding.

*Philippines.* Included land used permanently for at least five years for herbaceous forage crops, either seeded, cared for, or existing naturally (grazing or ranch land). Where a few fruit or nut trees were grown on this type of land, it was classified as permanent pastures only if the growing of forage crops was considered the most important use of the area.

*Poland.* Included land permanently cultivated with herbaceous forage crops harvested every year or grazed by livestock.

*Tanganyika.* Included the area with natural pastures used for grazing purposes.



Minor deviations were noted in five countries only. In Taiwan, zebra grassland was included under all other land. In Spain, the grass areas within forest were classified as forest land. Venezuela included under permanent meadows and pastures the areas with maize and millet used as forage crops. Denmark included under this category the areas used as peat-drying ground, and the Federal Republic of Germany the areas of meadows and pastures with scattered fruit trees.

Major deviations occurred in 12 countries and territories. Basutoland, for instance, included the area of permanent meadows and pastures under the category nonarable land (grazing land, nongrazing land, areas under bare rock, rivers and land used for roads and village dwellings). Sudan classified the areas of permanent meadows and pastures under the category of permanent crops. In the Republic of Viet-Nam, the category of permanent meadows and pastures was not included but provision was made to incorporate into the land utilization class, all other land, all areas not included in the rest of the land utilization groups. In Canada, the coverage of this land utilization category included only cultivated pastures. Natural pastures or hay land that had not been cultivated and grazing land were classified as all other land. The latter category also comprised areas of grass sold or that were to be sold as sod for sodding purposes.

The census of Finland excluded land under artificial (cultivated) permanent pastures from the category of permanent meadows and pastures. The Indian census broadened the scope of this land class by including all grazing land irrespective of whether it consisted of permanent meadows and pastures or not.

Norway; and the Federation of Malaya classified as all other land the grass land areas and the areas of unclosed pastures and other outlying pastures, respectively.

#### WOOD OR FOREST LAND

This included all wood lots or tracts of timber, natural or planted, which constituted part of the holding and which had, or could have, value as wood, timber or forest products.

Approximately 40 countries used a definition of wood or forest land that conformed approximately with the definition given above. Some

examples will serve to illustrate the different definitions used by various countries:

*Barbados.* Included land with trees which had or should have had value as wood, timber or forest products.

*Bolivia.* Included those plots of land occupied by natural or cultivated trees from which firewood, wood, etc., could be obtained.

*El Salvador.* Included areas occupied with trees (natural or planted) which could have value as wood, timber or forest products. It included also nurseries of forest trees.

*Iran.* Included the area under nonfruit trees, timber areas and nurseries of forest trees.

*Morocco.* Included the forest areas, whether natural or planted, and those that could produce timber or forest products.

*Philippines.* Included lots covered with wood or forest trees, natural or planted, such as ipil-ipil, shrubs and other nonfruit trees.

*Poland.* Included all wood lots, natural or planted, comprising nurseries of forest trees.

Seven countries could be classified as deviating to a minor extent from FAO's definition. In the case of Italy, for instance, nurseries of forest trees were included under permanent crops. In the category of wood or forest land there was included the forest area with herbaceous crops if these crops had only a marginal importance.

In Nicaragua, the land class wood or forest land included also land that had not been cultivated during the past five years. North Borneo and Sarawak included also land remaining idle for more than three years. Spain included areas of grassland located within forest areas whether livestock was grazing or not in those areas.

Finland included areas of nurseries of forest trees under permanent crops.

In Yugoslavia, forest tree areas where there was no grazing although grasses were available, were included under the category wood or forest land, otherwise they were classified under permanent meadows and pastures.

Major deviations were observed in 12 countries. Of these, 7 included the group wood or



forest land under all other land: namely, Ireland, United Kingdom (except Scotland); the Federation of Malaya, the Republic of Viet-Nam; Ghana; Australia and Guam.

Greece excluded specific questions on wood or forest land in its census questionnaire; however, under permanent crops were included artificial plantations of forest trees and their nurseries. In Argentina only uncultivated forest trees were included under wood or forest land. Japan limited the scope of this land utilization category by including only wood or forest land used for mowing or grazing.

In the Netherlands, wood or forest land included the areas of forest, osiers, shelterbelts wider than 4 metres, as well as coppices.

India included, under cropland areas, casuarina trees, bamboo bushes and groves for fuel.

#### ALL OTHER LAND

This included all other land in the holding, whether potentially productive or not. This category was subdivided into two groups:

1. *Unused land potentially productive for agriculture or forestry.* This was to include the area of uncultivated land which comprised part of the holding not included under the preceding categories but which was either producing some kind of utilizable vegetable product, such as reeds and rushes for matting and bedding for livestock, wild berries, plants and fruit, or land which could be brought into crop production through relatively small expenditure of effort in addition to that required in common cultivation practices.
2. *Land in the holding not classified elsewhere.* This included all land constituting part of the holding but which was occupied by buildings, parks and ornamental gardens, roads and lanes, wasteland, land under water, and any other land not reported under the previous groups.

About 43 countries used a definition of all other land that conformed approximately with the concept given above. In various cases, however, this category was considered as a "balance" area between the previous four land utilization

classes and the total area of the holding. Morocco, for example, used a definition that could be called typical of the concept used by countries conforming with FAO's definition. All other land was defined to include the uncultivated areas of the holding (unproductive land or land producing in negligible quantity) and that could be eventually used for agriculture or forestry production, and land not classified in any of the previous land utilization categories. Although other countries used a different wording, the meaning was to include under this category the *rest* of the holding area not included in the categories of arable land, land under permanent crops, permanent meadows and pastures and wood or forest land. The "all other land" class was defined as follows in some selected countries:

*Ceylon.* Included unused land that could be cultivated, wasteland, rocky land (agriculturally unproductive), land occupied by buildings, roads, and all other land of the holding not classified above.

*Lebanon.* Included unproductive land, built-on areas, lanes, roads, land under water and land unused yet potentially productive for agriculture or forestry but which could be brought into cultivation with relatively minor effort.

*Poland.* Included area of lakes, ponds, including ditches, rivers and canals within the boundaries of the holdings unless they were public property, land occupied by buildings, yards, farm roads, land cultivated with red osiers, peatland, gravel land, quarry land and areas from which clay, sand, etc., are obtained.

*Sudan.* Included land which was not already accounted for in one of the previous groups; land which had never been cultivated though it might be potentially productive, land under some shrubs and herbs, and wild plants which were grazed *in loco* by animals, land in roads, lanes, livestock barns, and yards, buildings, water ponds, etc.

Minor deviations were noted in 9 countries. Taiwan, for instance, included under this category land with gardens and zebra grassland. The census of New Zealand included under all other land areas of private gardens and orchards less than  $\frac{1}{4}$  acre; Thailand included areas of orna-

mental plants, and Venezuela stubble land not used for more than two years. The census of Surinam included fallow land and land around the holder's dwelling which was not cropped at all or eventually used for growing vegetables or flowers. In Tanganyika it was possible that some of the areas under all other land, including uncleared bush, were used as grazing land. The census of Argentina included fallow land, arable land damaged by floods and land prepared for cultivation but not sown due to unforeseen circumstances. Brazil recorded under all other land fallow land that was not going to be used the following year. The Netherlands, on the other hand, included the area of home and kitchen gardens.

Major deviations were observed in 13 countries. For instance, in Ireland, the United Kingdom (except for Scotland); the Republic of Vietnam; and Ghana, the area under wood or forest land was included under all other land. Basutoland provided for only two land utilization categories: arable land and nonarable land. Malta and Gozo also provided two categories, *viz.*, cropland and all other land (unproductive). In the Federation of Malaya, under all other land were included grassland, forest land and land used solely for the keeping of livestock. In Norway, areas of unclosed pastures and other outlying pastures were comprised in this category. Pakistan included under all other land the holding area which was fit for cultivation but which was not cropped during the census year nor in the preceding year.

## Section 2 : Crops

### CROP AREA

The programme stressed the need for carefully defining the area to be reported under each crop. It suggested that for crops grown on arable land, area harvested should be reported. Any other type of area reported was to be clearly stated as, for instance, area sown or area under crops at the census date. These cases were expected to arise depending on the period of census taking, *i.e.*, whether the census was taken during the growing season or at the end of harvest.

Various practices were followed in the national censuses. A number of countries asked for

area sown; examples are Argentina, Bolivia; Libya; India, the Philippines; and Australia. Others such as the United States; Brazil, Mexico and Peru, recorded area harvested. A few others, such as Ecuador, Trinidad and Tobago, and Turkey, obtained both the sown and harvested areas.

In Taiwan, area sown was recorded for crops in general irrespective of whether or not it was harvested. For vegetables, however, no area was recorded if not harvested. In Costa Rica and Ecuador, crops sown but not harvested during the crop year were not included, but crops harvested during the year but sown before the crop year were included.

Few countries indicated specifically whether the area recorded was gross, *i.e.*, total area of the field including headlands, bunds, uncultivated patches, ditches, etc., or the net area, *i.e.*, the area actually under crops.

### TREES OF PRODUCTIVE AND NONPRODUCTIVE AGE

The programme proposed that for tree crops in compact plantation the number of trees of productive and of nonproductive age should be enumerated. Trees of productive age were those which, after having attained the age of productivity, had continued to produce until they became senile. They were to be enumerated regardless of the fact that, owing to meteorological conditions or other reasons, there might have been no harvest in the year preceding the census.

All the countries participating in this part of the programme did not provide a definition of trees of productive and nonproductive age. However, judging from those that gave an explanation, it is safe to conclude that the majority of the participants adopted the concept as provided in the programme. Nevertheless, there were a few cases where the given definition did not wholly correspond with that of the programme. Argentina, for instance, defined bearing trees as those in production on 30 September 1960; non-bearing trees were all those trees which had not by then reached the productive age or were not bearing the fruit at that time for any other reason. Jamaica similarly included, under non-productive trees, not only old trees which had gone out of production but also those mature (six years and over) trees which should nor-

mally be bearing but did not produce fruit during the 1960/61 season. In Guatemala, the trees included in the nonproductive age group were limited exclusively to the young plants which had not borne the first crop by then. Brunei defined the trees of productive age as those trees "that have reached the age to produce fruit." In Thailand trees beginning to sprout but not yet due for harvest were also included in the category of bearing trees. Panama excluded from the nonproductive group the trees too old to bear and included any of the young ones not bearing. Similarly, in Venezuela, too old or deteriorated trees were not considered worthwhile enumerating at all. Lebanon included under the trees of productive age all those trees which had reached the age when they normally started bearing fruit, regardless of whether or not they did actually produce fruit in previous seasons due to meteorological or other reasons.

Among the participants, a large number of countries asked for information on trees both of productive age and of nonproductive age separately. The Federal Republic of Germany, Malta and Gozo; Canada, the United States; Argentina, Brazil, Guatemala, Jamaica, Paraguay, Peru, Puerto Rico, Uruguay, the Virgin Islands; Iran, Libya, Sudan, Turkey; Brunei, Indonesia; Ghana, Morocco, Tunisia; Australia, may be listed as examples of those countries which asked for both categories. Countries limiting their inquiry to total number of trees only were not very many; among these were Belgium, Norway; Ecuador; the Federation of Rhodesia and Nyasaland; American Samoa and Guam. There were others which asked for the total number of trees and trees of productive age separately, such as the Dominican Republic, Mexico; Lebanon; the Philippines and Thailand. Austria asked for the number of trees of productive age only. El Salvador asked for the number of trees of nonproductive age and for the total number of trees.

One other recommendation of the programme was the enumeration of the number of scattered trees as distinct from those grown in compact plantation. While the participation in this item is indicated in the synoptic tables in Chapter 6, a few variations may be mentioned here. Libya; and Japan subdivided the number of scattered trees into the two groups: of productive age; and of nonproductive age.

The programme suggested that wild plants or trees should not be enumerated. Although no country specifically indicated their inclusion or exclusion in the enumeration, Brunei was one of the few countries that specifically stated in the instructions that wild trees and plants were not to be included.

#### CROPS CULTIVATED SIMULTANEOUSLY ON THE SAME LAND

It was not uncommon to find cultivation of different crops simultaneously on the same plot of land. Simultaneous cultivation could take a variety of forms. Temporary crops of different kinds could be mixed together; various kinds of permanent crops could be grown together; or temporary crops could be cultivated in association with, or in combination with, the permanent crops. The programme suggested that, in reporting areas under separate crops, an effort should be made to estimate the area which each crop would have covered had it been grown alone. It was also suggested that crops harvested as mixed crops might be treated as a single crop.

This practice of simultaneous cultivation was given different names with varying degrees of meaning. In many countries associated crops were defined as the combination of permanent crops and temporary crops grown in association or together in the same area. In other countries a similar combination was known as interplanted crops. The phrase "mixed crops" was understood to mean, in several countries, the growing together of temporary crops of different kinds, or of permanent crops of various species. This terminology was, however, not applicable in all cases. They have been used with interchanging meanings in several countries.

A large number of countries included special instructions concerning the enumeration of area under mixed crops. Spain, Yugoslavia; Peru; Lebanon, Libya; Ceylon, China (Taiwan), the Republic of Viet-Nam; and Australia, were among the countries that followed the programme recommendation of estimating and recording apportioned area under each crop, as if grown alone, wherever it could be determined. Canada, the United States; Brazil and Guatemala reported total acreage for each of the mixed crops; Guatemala restricted the practice to cases where the harvested

product amounted to at least 100 kilogrammes. Examples of cases where total area was recorded only once against the main crop regardless of the presence of other crops were provided by Greece; Barbados, the Dominican Republic and Mexico.

There were numerous variations in the national practices other than those straightforward cases mentioned above. It was sometimes difficult to estimate the area harvested for each of the permanent crops grown together. In these cases only the number of trees of each crop was recorded, as was the case in Brazil. In Ecuador, wherever it was difficult to establish the area under each associated crop, names of crops in association were mentioned against the total area sown; the area harvested was reported as a percentage of the total area sown and the proportion of seed used was also recorded. When maize, beans and sorghum were grown in association or interplanted in Nicaragua, half of the total area sown was recorded as area harvested for each crop but, for other temporary crops grown in association, half of the area harvested was recorded for each crop. In Taiwan, where during the growing period of a main crop another crop was interplanted between rows of the main crop, the total area was recorded for the main crop, while the interplanted crop area was converted to a single planting area on the basis of the amount of seed sown or number of trees planted, but this figure was recorded in parenthesis to indicate the interplanted area. The Republic of Korea subdivided the simultaneous cultivation into three categories: (a) where one crop was planted between rows of another crop the total area was recorded for each crop; (b) in the case of crops grown in mixture but harvested separately the area for each crop was calculated by a conversion table for the quantity of seed planted, and the share of land relating to each crop was recorded; (c) in the other case, when mixed crops were harvested together, the total area was recorded for one crop in the mixture selected as being representative. The idea of reporting total area against a principal or predominant crop, i.e., the crop occupying the major part of the area was used, for instance, in the Federation of Malaya and North Borneo, whenever the FAO recommendation could not be implemented. If crops grown simultaneously differed in their growing and harvesting periods, as was the case in

Pakistan, for example, with sugarcane and tobacco, the entire area was recorded for each crop. Following the same principle in cases where crops were grown in orchards in which fruit trees had not reached the bearing age, the entire area was recorded both for the crops as well as for the fruit trees. If, however, the orchard was fully grown, then the whole area was recorded for the fruit trees, while for the interplanted crops the area was recorded according to local conditions and practice. In Mali and Togo, the share of land occupied by each crop in association with others was recorded as a percentage of the total area of the plot. In several countries in Africa, the Central African Republic, Congo (Brazzaville), Gabon, Seychelles, South Africa and Upper Volta, names of crops in mixture were recorded against the entire area but the extent of land under each crop was not.

#### AREA SOWN MORE THAN ONCE DURING THE YEAR

The programme had made provision for enumerating the areas sown more than once during an agricultural year. It was not considered an uncommon practice for several crops to be grown and harvested successively on the same land more than once during a year. The programme therefore urged the countries, particularly those with crop seasons of importance, to report under crop area the aggregate area that might result from either successive planting or successive harvests on the same physical area during the specified period of time to which the census might refer.

The recording of area of successive crops in the national census depended upon the importance attached to the successive cropping as well as on the period of enumeration. Countries which collected information on areas under crop at the census date sometimes did not record the secondary crops which were not there at that time. The Federal Republic of Germany, for instance, limited collection of information to areas under main crop only. Nevertheless, most of the participating countries adopted the recommendation as laid down in the programme. Among the countries that gave specific instructions to this effect are Italy, Spain; Canada,

the United States; Barbados, Brazil, Bolivia, Costa Rica, Ecuador, Mexico, Nicaragua, Peru, Uruguay, the Virgin Islands; Libya; Ceylon, Pakistan, the Philippines, Thailand, the Republic of Viet-Nam; South Africa; American Samoa, Australia, Papua and New Guinea. A few countries made a distinction in the first and the second sowings in recording the respective areas, as was the case in Costa Rica.

A few variations to the above practice were also observed. For example, in the Republic of Korea, when one crop was harvested twice in a year, the area was counted only once. Similarly in Tanganyika, areas sown or harvested two or more times were counted only once. Spain counted market and kitchen garden crops only once, regardless of the number of harvests. Guatemala recorded total area under vegetables only once, regardless of the number of sowings and harvests. If, however, sowing of crops followed harvesting of vegetables, then the total area was recorded under both crops and vegetables. Area under vegetables was recorded only once under "miscellaneous" in Peru. Area under hay, in Canada and the United States, was reported only once even when two or more cuttings were taken from the same area during the year.

### Section 3 : Livestock and poultry

The programme proposed that the agricultural census include, *at the time of enumeration*, all livestock used mainly for agricultural purposes, whether (a) on the holding, irrespective of ownership; or (b) owned by the holder but in transit or temporarily away from the holding (but not on other agricultural holdings). Livestock temporarily away from the holding included those grazing on common pastures, unenclosed prairies, or on uncultivated land not included in any agricultural holdings. Livestock associated with more than one agricultural holding were to be enumerated only in the place where they were kept during the night.

The time reference for recording the number of livestock in the national censuses, in general, coincided with that proposed in the programme, i.e., the time of enumeration. Several countries, the United States; Iran; India, the Republic of

Viet-Nam; and Togo, recorded the livestock at the time the questionnaire was filled. Ireland recorded those found on the evening of 1 June 1960. In Nicaragua, poultry was recorded as on the census date but the livestock listed were those on the night preceding the census. The enumeration of livestock and poultry was carried out, in the Central African Republic and in the Congo (Brazzaville), at two different periods, namely, at the first and later at the fourth visit of the enumerator to the holding. The time reference for livestock in Basutoland was the census year, i.e., 1 August 1959 to 31 July 1960.

As regards the concepts used in the national censuses, for livestock coverage, more than 60 percent of the participating countries adopted, in general, the programme recommendations. There were variations practised by a few of these countries, some of which are mentioned here. Animals sold to others but still on the holding on enumeration day were included as part of livestock on the holding in Austria, but were excluded by the Dominican Republic. This latter country, on the other hand, included animals bought but not yet arrived at the holding on the census day. Belgium enumerated also nonagricultural horses used both for industry or for commercial purposes, saddle horses, coach horses and racing horses. El Salvador excluded animals owned but not on the holding at the census date. Tanganyika limited its farm livestock by the exclusion of stock belonging to resident African labour. Iran, in addition, recorded increase due to purchase, reproduction, etc., and decrease due to sales, death, slaughter, etc., from the autumn to the time of enumeration. Examples of various phrases used to cover the enumeration of livestock approximating to the concept in the programme may also be given here. "On hand," or "on this place" (used by Alaska, Hawaii, the United States; "under control and responsibility of holder" (Libya; Seychelles); "kept, used or raised" by the farm household or cultivator on the farm or holding (China [Taiwan], Japan, Republic of Korea, Pakistan, the Philippines; Ghana and Mali); "on the occupied land" (Thailand); and "kept by the holder" (Barbados).

The enumeration of livestock was limited only to those owned by the holder in several countries as, for example, in the Federal Republic

of Germany, Greece; Ecuador; India, Federation of Malaya; Kenya, Morocco, the Federation of Rhodesia and Nyasaland, Uganda; Papua and New Guinea. Furthermore, animals owned by others (e.g., community-owned bulls, boars owned by companies) but kept on the holding for a long period of time, were included in the Federal Republic of Germany but those taken in for feeding on the holding were excluded. In Greece, in the case of mixed herds composed of several herds owned by many persons, each owner reported his own animals only. Where this was not possible, the chief of the group of cattle breeders reported all the animals together. In the case of joint ownership, the person with the bigger share was considered as the livestock holder. In the case of equal shares, the one who fed them and looked after them was considered the holder. Morocco covered all livestock owned by the holding and raised on the holding; raised away from the holding; and placed in association "outside the holding." Uganda enumerated those owned and present on the holding, excluding cattle away from the holding for a considerable time.

The programme proposed subdivision by age of various livestock in order to be able to draw a distinction between mature and young animals. From this viewpoint, the programme provided an option of maturity in the case of cattle in particular, since in some countries the maturity age for cattle could be 3 years instead of 2.

In countries where the division point was 3 years for cattle instead of 2, these have been shown in the synoptic tables against the programme items without any distinction. Among them are Spain; Jamaica; Sudan; Ceylon, India, Indonesia, the Federation of Malaya, Nepal; Bechuanaland, Republic of Guinea, South Africa, Tanganyika. Several countries asked for immature and mature animals without specifying the age (Barbados) and nonadult and adult (Angola). Ireland and South Africa provided a subdivision, under 2 years, 2 to under 3 years, 3 years and over, that made it possible to obtain the data for both age groups, namely, under and over 2 years, as well as for under and over 3 years. Morocco asked for cattle under 1 year and those for 1 year and over.

As regards beehives and colonies, the programme suggested that they should be enumerated on the holding of their owner regardless of

their location at the date of the census. Almost all countries adopted this suggestion. Argentina recorded only those hives which were in production on 30 September 1960.

## Section 4 : Employment in agriculture

### AGRICULTURAL WORK

The world programme defined agricultural work as any farm work or planning necessary for the operation of the holding. It included feeding and caring of livestock and poultry, working in the field, working in the market or kitchen gardens, planning farm work, supervising other agricultural workers, keeping farm records, hauling farm products to market, hauling feed, fertilizer or other supplies from town to the holding, repairing fences, farm equipment, machinery, etc., constructing buildings and fences with farm help, and related activities. It excluded work related to the operation of the home, contract construction, work done by persons employed specifically to do such work, labour performed by inmates of institutions, workers included in the cost of hired machinery and handicraft work.

Almost all countries, with the exception of a few, adopted the programme definition of agricultural work in general. Austria, the Federal Republic of Germany, Italy and Norway included forestry workers as well. Countries which comprised domestic workers in their enumeration were Austria, the Federal Republic of Germany; the Federation of Rhodesia and Nyasaland; and New Zealand. Italy excluded workers occasionally employed on the holding on the basis of a daily wage. In Italy, when a holding was operated under the system of sharecropping, the sharecropper was considered as a worker and the owner of the holding as the holder. Ireland counted only males engaged in farm work, and persons on the holding whose principal occupation was not agricultural were excluded. In Norway, the holder and his spouse were not included in the total labour force and only persons aged 15 years and over were counted; this was also the case in Canada and other countries. The United Kingdom excluded office and salaried staff from labour; Brazil also did not include

administrative staff. There were, however, numerous countries which included staff engaged in planning farm work, supervision, administration, bookkeeping and accountancy, etc. (Belgium, Spain; the United States; Barbados, Colombia, Ecuador, Mexico, Panama, Venezuela; Ghana). The Federation of Malaya included lorry drivers as well, and Sudan also enumerated caretakers, mechanics, drivers, accountants, clerks, etc., employed as permanent staff.

#### TIME REFERENCE

The programme suggested enumerating persons employed on the holding *during the census week*. Despite the limited value of the information on agricultural employment during the census week, it was all that could be expected to be collected, with a reasonable degree of accuracy, in an agricultural census, according to past experience. The 1950 programme proposed to relate the question to the whole year, in the case where the week preceding the census date was not representative of the usual or prevailing situation. The 1960 programme additionally proposed, in major group 42, to undertake successive surveys during an entire year to collect information on employment at different seasons. This latter suggestion was hardly followed by any country during the 1960 census and, therefore, major group 42 items have been suppressed from the synoptic table.

The participants in the 1960 programme adopted various time references. Thirteen countries adopted a week, although it was not the census week in all cases. Morocco used the census week; Alaska, the week of April 1960; Hawaii, the week during December 1959 or January 1960. Others adopted the week preceding the census enumeration. Twenty countries enumerated employment during one year, whether calendar, agricultural or any other. For instance, Norway's year was 14 April 1958 to 13 April 1959; Costa Rica's agricultural year was April 1962 to March 1963; Ecuador, the calendar year 1961, Jamaica, the previous 12 months; Taiwan, the year preceding the census; Congo (Brazzaville), the current or last crop year; Upper Volta, the last dry season 1960/61. Ten countries specified one particular day. Census date, for example, was adopted by Austria; and Brazil. Among the countries

which had fixed a date were Denmark, Ireland; Brunei, North Borneo; Seychelles, Tanganyika; and New Zealand. The United Kingdom had different dates for different parts of the country, namely, for England and Wales, 3 June 1960; for Scotland, 4 June 1960; and Northern Ireland, 1 June 1960. The calendar month was adopted by a few countries, among which were the Federal Republic of Germany (May 1960); South Africa (June 1960); Australia (March 1960).

#### HOUSEHOLD WORKERS (UNPAID) AND PAID WORKERS

The programme subdivided persons employed in agricultural work into three distinct categories, *viz.*: (a) holder and unpaid members of his household (including unrelated persons living in his household not receiving full wages in money) and who were engaged in agricultural activities; (b) participants in cooperative, collective and communal holdings; and (c) all persons working for pay on the holding.

Furthermore, workers on the holding, in all the categories, were proposed to be classified as permanent, temporary and occasional workers. The guidelines given in the programme for distinguishing one class from another were as follows. Permanent workers were those employed on the holding for a total period of at least half the working time during the year. Temporary workers worked for a total period of less than one half but more than one third of the working time during the year. And, finally, those who had been employed for less than one third of the working time were to be considered as occasional workers. The programme offered no definition for "working time during the year," leaving it to the countries to determine it in the light of their own existing conditions.

In reporting the number of persons employed in the category holder and unpaid members of his household, a majority of the countries participating in this group did not draw the distinction between those paid and those unpaid, as suggested in the programme. Varied approaches were practised among the countries that classified members of the household as unpaid. Spain included all unpaid workers in this category, irrespective of whether they were members of the household or not. Jamaica called them



unpaid labour. Other countries that grouped all unpaid workers, including the holder and his family members, were the Dominican Republic, Panama and Venezuela. Uruguay asked for total workers and workers who received salaries, thus making it possible to estimate the unpaid workers by subtraction. A few countries placed a minimum limit for work before the holder and members of his household could be considered as unpaid. For instance, the United States stated that farm work performed without pay by any member of the farm operator's family was considered unpaid family labour, provided the family member(s) had worked 15 hours or more during the specified week. In the case of Ceylon, this limit referred to at least 12 hours during the week under reference.

As regards the coverage of permanent, temporary and occasional workers, many countries accepted the definition proposed in the programme. Some countries did not draw a clear distinction between temporary and occasional workers. Only a few countries specified duration of period worked to distinguish one category of worker from another. Illustrations are given below.

Paid permanent workers, in Italy, were those employed on a yearly basis or for not less than 200 days. The second category, also in Italy, of paid nonpermanent workers, constituted those persons who were engaged on a daily basis for a guaranteed minimum of less than 200 working days. Permanent workers in the United States and Hawaii included regular workers whose period of employment was 150 days or more during a year. In the case of the Republic of Korea, the three categories of the programme included, respectively (a) employed workers who worked for 7 or more months; (b) monthly workers who worked for 1 to less than 7 months; and (c) daily workers hired for pay for farm work. The Federation of Malaya placed the limits on periods of employment as (a) 10 or 11 or 12 months a year, as on rubber farms; (b) 4 to 9 months a year, as on coconut farms; and (c) infrequently for 1 to 3 months, as on paddy (rice) farms.

In the case of New Zealand, persons working for 30 or more hours per week were considered permanent workers; those working for 14 but less than 30 hours per week were considered as temporary workers; and those working for less than 14 hours per week were placed under the

programme category of occasional workers. The Federal Republic of Germany had separate criteria for family and nonfamily workers to classify as permanent workers. Family workers were expected to be working the entire month full time, but nonfamily workers were to be engaged uninterruptedly for at least 3 months.

Other countries did not specify the period of time but indicated the classification either by the method of payment or by the nature of the work. For instance, Brazil considered as temporary workers those who were engaged for work of short duration, such as sowing or harvesting, and similarly permanent workers, as those engaged for work of long duration. The Seychelles considered as permanent workers those who were paid monthly at monthly rates; those paid daily at casual rates were named casual labour.

Canada inquired about the number of days or weeks worked and laid down these standards for conversion: 8 hours = 1 day; 6 days = 1 week; and 26 days = 1 month.

## Section 5 : Farm population

The programme suggested that the data on farm population in the census of agriculture should be collected by enumerating (a) persons living in the holder's household; and (b) all other persons living on the agricultural holding. This population would naturally include those engaged in nonagricultural activities but living in the holder's household or on the holding. Nevertheless, these persons would be participating in farm community life and therefore could be regarded as forming part of the farm population. On the other hand, this proposal would exclude landless agricultural labourers and their dependents living outside the holding. This group, because of its economic connection with agriculture, would be more adequately covered in a population census under the agricultural population than in the agricultural census where the unit of enumeration was a holding and not the household. In the past, both series of population connected with agriculture — i.e., the one collected through the census of population, using the criterion of occupational affiliation with agriculture, and the other enumerated through the cen-



sus of agriculture, using the criteria of membership of the holder's household and of residence on the holding — were named as agricultural population. In the 1960 programme, the series derived from the census of agriculture was given the name of farm population, to distinguish it from that obtained from the population census.

In the agricultural census, both criteria, *viz.*, membership and residence, were considered useful to cover the total farm population. The first criterion could be most useful in countries where holders, in general, did not live on the farm but away from it, e.g., in villages. The residence criterion could cover also the nonmembers of the holder's household living on the holding, regardless of whether they worked on the holding or not.

Countries that covered total farm population by asking both items of the programme were Bolivia, the Dominican Republic, Panama, Paraguay; Bechuanaland, Congo (Brazzaville), Gabon, Madagascar, Mali, Morocco, South Africa, Togo and Upper Volta. These countries included, in the holder's household, also servants living in the household as well as persons normally residing in the household but temporarily absent from the household for business, on vacation, in hospital or at school, etc. Visitors, relatives or friends visiting a member of the household, and staying for some days, who spent the night preceding the enumeration on the holding were also listed (in Togo as members of the holder's household). South Africa required all persons to be recorded by race.

Other countries asked for the members of the holder's household only. They used varied concepts. Domestic servants residing on the holding were excluded by some countries (Belgium; India) and included by several others (Argentina, Panama; Ceylon, the Republic of Korea; and Ghana) as members of the household. Turkey included in the household servants, adopted persons, helpers, gardeners and shepherds who did not receive any wages but permanently lived under the same roof and shared meals. Taiwan excluded long-term hired workers. Madagascar excluded persons working for only one day on the holding and receiving food and drink in exchange.

Persons temporarily away from, but normally residing in, the household were considered as members of the holder's household by several

countries: Belgium; Panama; Iran; India, North Borneo, the Philippines, Sarawak; Ghana, Madagascar, Mali, Togo; Australia. This temporary absence could be for various reasons, such as vacation, business, pilgrimages, visits to relatives, for seasonal jobs, etc., at school, in hospital, etc., and these absentees were expected to return to the household where they normally resided. Basutoland considered temporarily absent persons and children at school as members of the holder's household, provided they did not live on other agricultural holdings, otherwise they were likely to be counted twice. Brunei included also those away from home for work as long-term labourers or employees. In Iran, on the other hand, household members currently in prison or in a hospital were excluded from their household although those seasonally leaving their household for a job outside the village were included.

Boarders living in the household were included as members of the household by Ceylon. The general practice, however, was to exclude boarders, lodgers and paying guests, for instance in Jamaica; Brunei, China (Taiwan), India and Japan. Two countries, the Philippines; and Ghana, qualified lodgers who were not considered members of the household as those who prepared their own meals.

The coverage of the farm population and the definition of household in the national census, in a majority of cases, were similar to the programme recommendations, with various limitations. A few typical cases are stated here.

Farm population in Portuguese Guinea consisted of only members of the family. Family, in this case, was defined: "A group of persons living in the same dwelling unit who, although not working on a communal basis, join together in such a way that some food products are intended exclusively for consumption by the persons in that dwelling unit."

Tunisia explained the agricultural population as "a group of persons, whether residing on the holding or not, who are members of the families whose head or one of the members is permanently engaged in agricultural work on the holding. These families draw their major source of earnings from the resources of the holding (production and wages). Members of the holder's family, families of permanent workers and those of *khammes* (tenants) are included."

The Republic of Guinea subdivided the agricultural population into (a) active population, i.e., persons who participated in agricultural production; and (b) nonactive population, consisting of children under six years of age, aged persons, disabled or ill persons, visitors, students and others.

Iran defined a household as one or more persons living in a single dwelling and having common eating arrangements. Explaining it further, it was stated: "A large place maintaining, for example, three separate and distinct eating arrangements of dwellings in which a single family was residing was classified as three separate households, regardless of the closeness of family relationships."

The world programme had also suggested, in order to determine the dependency of the farm population on agriculture, to inquire, for every individual, as to whether the major occupation was agriculture or nonagriculture.

It was observed that a variety of approaches had been adopted in the national censuses. Instead of asking for major occupation, several countries limited themselves to inquiring whether the occupation was agricultural or nonagricultural, without distinguishing which was the major one. Among the countries in this category were Libya; India, the Republic of Korea; the Central African Republic and Senegal; the Federal Republic of Germany inquired about the occupation on the holding as well as outside the holding. Malta and Gozo asked about the farmer's occupation, if he was not a full-time farmer. Uganda placed the emphasis on the period of time during which members of the holder's household remained engaged in agricultural work on the holding, as follows: (a) full time; (b) part time; (c) not working on holding.

The following cases might be mentioned of countries which adopted a slightly different approach from the programme. Luxembourg asked about (a) main occupation or other main source of income, e.g., pension, disability pension, etc.; and (b) secondary occupation or secondary source of income. Turkey subdivided main occupation into (a) gainfully occupied (agriculture, nonagriculture); and (b) nongainfully occupied. In Ceylon, main occupation was analogous to greater source of income, and the operator with more than one occupation was asked about his subsidiary occupation as well.

## Section 6 : Agricultural power and machinery and general transport facilities

The programme, in this section, suggested collecting information according to:

- (a) the use and source of power for farm work;
- (b) general transport facilities for carrying agricultural products of the holding to the first place of sale outside the holding; and
- (c) the specific items of agricultural machinery and equipment used for agricultural purposes on the holding.

The information to be collected for (a) and (b), as suggested in the programme, was limited to checking the items concerned in order to indicate their use on the holding. National practices, on the whole, were in close conformity with the programme requirements. Several variations might be illustrated here. Electricity used for illumination purposes was generally included in enumeration. Sudan, however, instructed the enumerators not to include the generators used exclusively to provide electric light for the household. Similarly, transportation of agricultural products from the holding to the market was generally considered as farm work and the means of transport for the purpose were enumerated. But Guatemala was an exception to this practice. It was stated, in the census document, that vehicles were not to be enumerated if used exclusively for nonagricultural purposes, e.g., carrying the products of the holding to the market.

Regarding (c), the programme suggested that the following information for each machinery item might be collected:

- (i) Number of machinery owned by the holder. In case of joint ownership the machinery was to be counted as owned by the holding where it was located at the census date.
- (ii) An indication, by checking each relevant item, was required if used on the holding. Furthermore, in case the machinery was used, the arrangement under which it was provided to the holder was also to be indicated. The possible arrangements mentioned in the programme were: (a) owned solely

by the holder; (b) provided by the landlord; (c) provided by the private contractors; (d) provided by a cooperative; (e) jointly owned by the holder and others; (f) provided under government-sponsored projects.

At least 40 countries specifically asked for the number of machinery owned by the holder. Several of these countries (e.g., Belgium, the Federal Republic of Germany; Peru; Sudan; Japan; Mali) inquired about the number separately for solely owned and jointly owned. A few other countries (e.g., Sweden; Barbados, Jamaica; the Federation of Malaya) covered all machinery owned by the holder wholly or in part. Jointly owned machinery was normally recorded as owned by the holding where it was located at the time of enumeration or at the census date as, for example, in Yugoslavia; Canada; Guatemala, Peru; New Zealand. Jointly owned machinery was also enumerated on the holding where it was ordinarily kept. Examples of this practice were provided by Belgium; Barbados, Jamaica and the Virgin Islands. In the case of the Republic of Korea, the machinery jointly owned by several persons was enumerated with the person who was responsible for maintaining it. In a few cases, such as Sweden; and Taiwan, share of partnership was also asked in the case of jointly owned machinery. Australia asked for the name and address of the co-owners as well.

Some countries investigated the machinery on the holding, farm, or place at the census date, regardless of ownership. This could include that owned, hired or borrowed. Among these were Denmark, Malta and Gozo; Alaska, Hawaii, the United States; Argentina, Ecuador, Paraguay, Puerto Rico, Surinam, Uruguay, the Virgin Islands; Brunei, the Philippines (on farm or home lot and how many owned, not owned), the Republic of Viet-Nam; Tanganyika; Australia and New Zealand. A few countries, such as Finland; Brazil, limited their inquiry exclusively to the machinery (number) used on the holding on the census date.

The degree of conformity with the part of the programme requiring indication of the use and of various arrangements under which machinery was used was by no means universal. About 20 countries participated in this part of the pro-

gramme showing a variety of arrangements under which the machinery was used on the holding. Guatemala; Iran, Lebanon, Sudan; Ghana and Morocco were among the few countries which asked almost the same sources of supply of the machinery for use as in the programme; namely, private contractor, cooperative, government, landlord. The Federal Republic of Germany inquired about the machinery not owned and used as rented, on an assistance basis, or as neighbourhood assistance. Italy listed the providers of the machinery used on the holding, such as agricultural cooperatives, land reclamation associations, private contractors, etc. Japan added rural communes as providers of machinery for use. Trinidad and Tobago; and Angola listed machinery not owned and used as hired or borrowed. Tunisia required the indication of the use of machinery owned by others without specifying the owners.

As regards the period of reference, the programme mentioned two periods. For the number of machinery owned, the point of time was *on the date of the census*, but for its use the period was *during the year preceding the census*. The national practices in many cases conformed with the programme recommendations. Among the countries that enumerated machinery owned as on the census date were Italy, Sweden; Barbados, Paraguay; and Australia. Some, such as Jamaica, Trinidad and Tobago; and Lebanon listed it as at the time of enumeration. Others (United States; Republic of Korea, the Philippines) fixed a particular date which could be the census date or the enumeration day. Mexico used the date of filling the census questionnaire for its enumeration. All those countries which inquired about the machinery on the holding referred to the enumeration time or the enumerator's visit.

Regarding the second period of reference, namely, the year preceding the census for the machinery used, several countries referred to a complete annual period as against a particular date mentioned by a few countries. Several countries mentioned the agricultural year, e.g., Bolivia, El Salvador, Guatemala, Peru (specifying the agricultural year as from 31 July 1960 to 2 July 1961); Iraq, Turkey (1963 crop year). Belgium specified the year as from 15 May 1958 to 15 May 1959, South Africa stated 12 months end-

ing June 1960. The Federal Republic of Germany; Japan and Thailand used the last year or past 12 months as the time reference. The calendar year was used by Colombia. Nepal had mentioned a specific period of less than 12 months, i.e., 15 February 1961 to 14 December 1961. Examples of a few countries that used the census date or a specific date as the period of reference were Finland (15 June 1960), Luxembourg (1 December 1960), Italy (census date); Brazil (census date).

The programme also suggested collecting information about the machinery *used*. It could be inferred, therefrom, that the intention of the programme was obviously to include machinery which was in working condition; in other words, un-serviceable, worn-out or obsolete machinery no longer in use would be excluded. However, machinery temporarily out of order was intended to be included in the number of machinery owned. Although the programme did not specifically require information on these points, several countries provided it in their censuses. Alaska, Hawaii, the United States; Argentina, Brazil, Puerto Rico, Surinam and the Virgin Islands were among those which issued specific instructions to include, in the enumeration, those temporarily out of order, under repair on the holding and temporarily away from the holding for repairs, at the reference period. Similarly, several countries specifically required the exclusion of the machinery which was un-serviceable, worn-out, obsolete, scrapped, or out of order but not intended to be repaired. This was the case, for example, in Norway, Sweden; Canada; Guatemala, Panama; the Republic of Korea, the Federation of Malaya; Australia and New Zealand. The case of Turkey could be cited as an illustration of a deviation from this general practice. Machinery not in working condition was excluded from the enumeration.

Some other examples of deviations from the programme may be cited. Generally, countries had indicated the machinery *used*. Austria, however, included all machinery in operating condition regardless of whether or not it was used exclusively or mainly for agricultural or forestry work. Norway included all machinery in working order maintained as part of the holding. This included also machinery held in reserve or readiness but not normally used.

## Section 7 : Irrigation and drainage

### IRRIGATION

The programme defined irrigation as the practice of providing land with water other than rain for the production of crops. This concept was generally used in the national censuses. However, a few countries considered it necessary to inquire also about the area dependent on rain alone. One of the questions Iraq included in its census questionnaire was about the area of land irrigated by rainfall only. According to the Republic of Korea, "irrigation is to supply paddy (rice) fields with water to raise crops."

The conditions of irrigation were classified, in Korea, into four categories:

- (i) paddy fields benefited from an irrigation association (which was supposed to irrigate the area with its facilities);
- (ii) paddy fields not benefited from the irrigation association, with adequate water supply without rainfall;
- (iii) paddy fields that can be cultivated with a minimum of rainfall;
- (iv) paddy fields dependent entirely upon rainfall.

The programme suggested collection of information on irrigation in two broad categories: (a) area of land provided with irrigation facilities; and (b) area of land actually irrigated during the year preceding the census.

Regarding the area provided with irrigation facilities, in some cases it was not quite clear from the question in the national censuses whether the area related to that provided with irrigation facilities or to that actually irrigated. The case of the Republic of Korea, quoted above, is a typical example. The standard used to classify conditions of irrigation depended on the experiences of the past several years. If a paddy field depended chiefly upon rainfall but received water from an irrigation dam, it was to be classified as irrigated by the irrigation association, according to the instructions. Two more examples of different approaches can be cited. Norway first asked if there were an irrigation plant on the holding, and followed this up by inquiring about the area that would be irrigated by means

of the present plant. The United Kingdom asked about the greatest area likely to be irrigated in any one dry season with the present equipment or system.

The programme proposed that the area actually irrigated be classified by source of water (i.e., from the holding itself, from outside the holding, and from both inside and outside the holding), and by the methods of irrigation, such as gravity flow, pumping, etc.

Most of the countries interpreted "source of water" and "method of irrigation" in ways different from those intended in the programme. Four countries, namely, Malta and Gozo; Mexico; Nepal; and Morocco, asked for the source of water from the holding itself or from outside the holding. Several countries mentioned the sources of water as rivers, canals, streams, springs, ponds, reservoirs, wells, deep boreholes, etc., but did not specify the way in which the water was obtained — by gravity flow or pumping. Turkey; China (Taiwan), India, Pakistan; Ghana and Upper Volta are such examples. Similarly, in many cases the method of irrigation was stated as mechanical pumping, by water pumps or by hand, but the source from which the water was drawn was not mentioned. Examples are Iraq, Libya; and the Republic of Guinea.

The reference period for the area irrigated, as suggested in the programme, was the year preceding the census. Brazil and Colombia were among those which complied with the programme suggestion. Several countries did not specify the period during which the area was irrigated, i.e., Malta and Gozo, Spain, the United Kingdom; Uruguay; Libya; and Taiwan. Some indicated periods other than the one mentioned in the programme. For instance, the United States and Hawaii stated "this year;" Bolivia "census year," El Salvador, Mexico, Peru; and Ghana "agricultural year;" and Lebanon "past agricultural year."

#### DRAINAGE

Drainage was described in the programme as the removal of excess water from the surface of the land and from the upper layer of the soil for the purpose of making nonproductive wet land productive and wet lands more productive. The programme proposed that the area provided

with drainage facilities be subdivided into irrigated and nonirrigated land. Furthermore, the programme required separate data for area drained by pumping and by gravity flow through open and through covered drains separately for the irrigated land.

Each one of the six countries shown in the synoptic tables as having participated in the items for drainage had a different approach and coverage. Belgium asked for the area drained by a system — if there was one on the holding — of underground drains with pipes made of hard material. It was not mentioned whether the land was irrigated or nonirrigated, as proposed in the programme. Spain inquired about the area of nonirrigated as well as of irrigated land drained but did not specify whether by covered drains or not for the nonirrigated land. Mexico inquired if there was a system of drainage for arable land on the holding other than the natural one. Where one existed, the area benefited by this system was to be recorded. India asked for the area with and without drainage facilities for the irrigated as well as the nonirrigated land separately.

#### Section 8 : Fertilizers and soil dressings

The first question proposed in this section of the FAO programme was whether any *inorganic* fertilizers were applied on the holding *in the year preceding the census*. A few countries either did not mention the period during which the fertilizers were used or asked for information for the current period (e.g., Dominican Republic) and not for the year preceding the census, as recommended in the programme.

The programme's recommendations regarding organic fertilizers were to investigate the area treated with farmyard and green manure. A variation regarding organic fertilizers was observed, in that some countries did not investigate the two items, *viz.*, farmyard and green manures, specified in the programme, but asked for organic fertilizers as a whole. This group could include many other fertilizers than the two specified. Many countries did not distinguish between organic and inorganic fertilizers as proposed in the world programme but simply asked the total area fertilized.

## Section 9 : Wood and fishery products

According to the programme, information to be collected under this section related to the wood and fishery products obtained on agricultural holdings.

Almost all countries covered the wood products obtained on the agricultural holding. Yugoslavia asked only for quantities used or consumed. Canada included those sold or used during the previous 12 months as well. It was not necessary for the products sold or used during the previous 12 months to be also cut during the same period; they could have been cut at some time previous. The United States included all trees on the place except trees growing in orchards or nurseries, and the questions asked were:

- (a) How much was or *will be* cut in 1959?
- (b) How much was or *will be* sold in 1959?

Brazil included also products obtained from the land outside the holding. In Mexico forest products related to the forest land forming part of the agricultural holding but the quantity used in sawmills or other industrial managements was excluded. Venezuela limited the question to quantity *used* for purposes other than cooking or that sold during the agricultural year. The Federation of Malaya included the wood cut not only from forest land on the holding but also from state land or from forests, under permit, etc.

Regarding the period of reference, i.e., census year as recommended in the programme, most of the countries used one year but not necessarily the census year. Some countries, such as Libya; and the Federation of Malaya used "last year;" Barbados used "12-month period." A few others, Brazil, Mexico, Paraguay, Trinidad and Tobago, Venezuela; and the Seychelles specified the year. On the other hand, Jamaica used "past week" as the period of reference for collecting information on the fence posts cut or used.

## 5. SCOPE OF PARTICIPATION IN THE 1960 WORLD CENSUS OF AGRICULTURE

### Participating countries in the 1960, 1950 and 1930 world censuses of agriculture

The countries that participated in the world agricultural censuses of 1960, 1950 and 1930 are shown in Table 3. This table includes independent countries as well as territories and possessions. The year during which the respective census was taken is also indicated. The nomenclature of countries used throughout this volume is the same as at the time of conducting the latest census. Variations from one decennial census to another have been indicated by footnotes. Changes in the names of the countries after the 1960 world census of agriculture have also been footnoted in this table.

There were two criteria for a census of agriculture to be considered as participating in the world census of agriculture:

1. The census — a government-sponsored operation — is to be taken by enumerating agricultural holdings within the framework of the FAO world programme.
2. The census is to be undertaken within a specified period.

The application of the first criterion in relation to the 1950 and 1930 world censuses had been rather flexible. In those two censuses, countries and territories that could not take a proper census but had made other efforts to obtain the required minimum data by estimation, were also considered participants. These were mostly the colonial territories where local conditions did not permit an actual census. In the 1960 world census, however, this criterion was applied strictly. All the three world censuses included also those in which the basic unit of enumeration was other than agricultural holding, such as farm household.

Nevertheless, in order to make the comparison between the censuses valid, the participating countries in the 1950 and the 1930 world censuses are indicated in two separate columns, depending on whether they participated by taking the census or by obtaining special estimates. This factor, therefore, needs to be borne in mind when comparing participation in the three censuses.

As regards the periods of the agricultural census, it was decided, for the 1930 world census of agriculture, that the censuses in the northern hemisphere should refer to crops harvested in the calendar year 1929, and in the southern hemisphere to those harvested during the season July 1929 to June 1930. Each country was left free to carry out the census at a time during this period which appeared most convenient. In actual practice the period of participation extended from 1929 through 1933 (both years inclusive) and all those countries which had taken the census, in the broad sense, during this period were considered as participants in the 1930 world census of agriculture. For participation in the 1950 world census of agriculture, this period extended from 1948 to 1955, and for the 1960 world census from 1958 to 1964.

Ninety-four countries took part in the 1960 world census of agriculture in the sense described above. This number excluded Fiji, which derived the data by estimation, and the Leeward and Windward Islands, where details were lacking as to the methods used. It should be observed that Alaska and Hawaii are listed and counted as separate countries, one of the reasons being that the United States decided, for publication purposes, to show these territories separately from the "conterminous United States" as it existed before the two territories became states.

TABLE 3. - PARTICIPATING COUNTRIES IN THE WORLD CENSUSES OF AGRICULTURE OF 1960, 1950 AND 1930

Region and country	Participation in the world censuses of:				
	1960	1950		1930	
	Census taking	Census taking	Special estimates	Census taking	Special estimates
<i>Total participants in the world</i> .....	94	78	28	52	15
EUROPEAN PARTICIPANTS .....	17	20	—	23	—
Albania .....	—	—	—	1929	—
Austria .....	1960	1951	—	1930	—
Belgium .....	1959/60	1950	—	1929/30	—
Czechoslovakia .....	—	1950	—	1930	—
Denmark.....	1959	1949	—	1929	—
Estonia .....	—	—	—	<sup>4</sup> 1929	—
Finland .....	1959	1950	—	1929/30	—
France .....	—	—	—	1929/30	—
Germany (Fed. Rep.).....	1960	<sup>2</sup> 1949	—	<sup>2</sup> 1933	—
Saar .....	—	1948	—	—	—
Greece .....	1961	1950	—	1929/30	—
Hungary .....	—	1948	—	—	—
Iceland .....	—	—	—	1930	—
Ireland .....	1960	1949	—	<sup>2</sup> 1929	—
Italy .....	1961	—	—	1930	—
Latvia .....	—	—	—	<sup>1</sup> 1929	—
Lithuania .....	—	—	—	<sup>1</sup> 1930	—
Luxembourg.....	1960	1950	—	—	—
Malta and Gozo <sup>4</sup> .....	1960	1950	—	—	—
Netherlands .....	1960	1950	—	1930	—
Norway .....	1959	1949	—	1929	—
Poland .....	1960	—	—	—	—
Portugal .....	—	1952/54	—	—	—
Romania .....	—	1948	—	1930	—
Spain .....	1962	—	—	1929	—
Sweden .....	1961	1951	—	1932	—
Switzerland.....	—	1950	—	1929	—
United Kingdom .....	1960/61	1950	—	<sup>2</sup> 1931	—
Yugoslavia .....	1960	1951	—	1931	—
NORTH AMERICAN PARTICIPANTS .....	4	4	—	4	—
Alaska .....	1960	1950	—	1929	—
Canada .....	1961	1951	—	1931	—
Hawaii .....	1959	1950	—	1930	—
United States.....	1959	1950	—	1930	—
LATIN-AMERICAN PARTICIPANTS .....	22	20	9	10	4
Argentina .....	1960	1952	—	1930	—
Bahamas .....	—	—	1950	—	1929/30
Barbados .....	1961	—	1950	1929/30	—
Bermuda .....	—	—	1950	—	—
Bolivia .....	1964	1950	—	—	—
Brazil .....	1960	1950	—	—	—
British Guiana <sup>2</sup> .....	—	—	1950	—	—
British Honduras .....	—	—	1950	—	—
Chile .....	—	1955	—	1930	—
Colombia .....	1960	1951	—	—	—
Costa Rica .....	1963	1950	—	—	—
Cuba .....	—	1952	—	—	—
Dominican Republic .....	1960	1950	—	—	—
Ecuador .....	1962	1954	—	—	—
El Salvador .....	1961	1950	—	1929	—
Falkland Islands .....	—	—	1950	—	1929/30



TABLE 3. — PARTICIPATING COUNTRIES IN THE WORLD CENSUSES OF AGRICULTURE  
OF 1960, 1950 AND 1930 (continued)

Region and country	Participation in the world censuses of:				
	1960	1950		1930	
	Census taking	Census taking	Special estimates	Census taking	Special estimates
<b>LATIN-AMERICAN PARTICIPANTS (cont'd)</b>					
Guatemala .....	1964	1950	—	1930	—
Haiti .....	—	1950	—	—	—
Honduras .....	—	1952	—	—	—
Jamaica .....	1961	1950	—	—	—
Leeward Islands <sup>7</sup> .....	—	—	1950	—	1929/30
Mexico .....	1960	1950	—	1930	—
Nicaragua .....	1963	—	—	—	—
Panama .....	1961	1950	—	—	—
Paraguay .....	1961	—	—	—	—
Peru .....	1961	—	—	1929	—
Puerto Rico .....	1959	1950	—	1930	—
Surinam .....	1959	—	—	—	—
Trinidad and Tobago .....	1964	—	1951	—	—
Uruguay .....	1961	1951	—	1930	—
Venezuela .....	1961	1950	—	—	—
Virgin Islands .....	1960	1950	—	1930	—
Windward Islands <sup>8</sup> .....	—	—	1950	—	1929/30
<b>NEAR EAST PARTICIPANTS</b> .....	<b>7</b>	<b>5</b>	<b>1</b>	<b>1</b>	<b>1</b>
Cyprus .....	—	—	1950	—	—
Iran .....	1960	—	—	—	—
Iraq .....	1958	1952	—	—	—
Israel .....	—	1950/51	—	—	—
Jordan .....	—	1953	—	—	—
Lebanon .....	1960/61/62	—	—	—	<sup>9</sup> 1929/30
Libya .....	1960	—	—	—	—
Sudan .....	1963	—	—	—	—
Turkey .....	1963/64	1950	—	—	—
United Arab Republic .....	1960/61	<sup>10</sup> 1950	—	<sup>10</sup> 1929	—
<b>FAR EAST PARTICIPANTS</b> .....	<b>15</b>	<b>7</b>	<b>6</b>	<b>3</b>	<b>2</b>
Aden Protectorate <sup>11</sup> .....	—	—	1950	—	—
Brunei .....	1964	—	1950	—	—
Burma .....	—	1953/54	—	—	—
Ceylon .....	1962	1952	—	1929	—
China (Taiwan) .....	1961	—	—	—	—
India .....	1960/61	1954	—	1929/30	—
Indonesia .....	1963	—	—	—	—
Japan .....	1960	1950	—	1929	—
Korea, Rep. of .....	1961	—	—	—	—
Malaya, Fed. of <sup>12</sup> .....	1960	—	1950	—	<sup>13</sup> 1929/30
Nepal .....	1962	—	—	—	—
North Borneo <sup>14</sup> .....	1961	—	1950	—	—
Pakistan .....	1960	—	—	—	—
Philippines .....	1960	1948	—	—	—
Ryukyu Islands .....	—	1951	—	—	—
Sarawak <sup>15</sup> .....	1961	—	1950	—	1929/30
Singapore .....	—	—	1950	—	—
Thailand .....	1963	1951	—	—	—
Viet-Nam, Rep. of .....	1960/61	—	—	—	—
<b>AFRICAN PARTICIPANTS</b> .....	<b>24</b>	<b>16</b>	<b>6</b>	<b>7</b>	<b>3</b>
Algeria .....	—	1950/51	—	1930	—
Angola .....	1961	—	—	—	—
Basutoland <sup>16</sup> .....	1960	—	—	—	—

TABLE 3. - PARTICIPATING COUNTRIES IN THE WORLD CENSUSES OF AGRICULTURE  
OF 1960, 1950 AND 1930 (concluded)

Region and country	Participation in the world censuses of:				
	1960	1950		1930	
	Census taking	Census taking	Special estimates	Census taking	Special estimates
<b>AFRICAN PARTICIPANTS (concluded)</b>					
Bechuanaland <sup>17</sup>	1962	1950	—	—	—
Belgian Congo <sup>18</sup>	—	1950	—	—	—
Central African Republic	1960	—	—	—	—
Congo (Brazzaville)	1960	—	—	—	—
Gambia	—	—	1950	—	—
Gabon	1960	—	—	—	—
Ghana	1964	—	<sup>19</sup> 1950	—	—
Guinea, Rep. of	1964	—	—	—	<sup>20</sup> 1929/30
Kenya	1961	1954	—	1930	—
Madagascar	1961/62	—	—	—	—
Mali	1961	—	—	—	<sup>20</sup> —
Mauritius	—	1950	—	1929/30	—
Morocco	1962	—	—	—	—
Mozambique	—	1951	—	1930	—
Niger	1960	—	—	—	<sup>20</sup> —
Nigeria	—	<sup>21</sup> 1950	—	—	1929/30
Portuguese Guinea	1960/61	—	—	—	—
Rhodesia and Nyasaland, Fed. of <sup>22</sup>	1960/61	<sup>21</sup> 1950	—	—	<sup>21</sup> 1929/30
Senegal	1960	—	—	—	<sup>20</sup> —
Seychelles	1960	1950	—	1929/30	—
Sierra Leone	—	—	1950	—	—
Somalia <sup>25</sup>	—	—	<sup>22</sup> 1950	—	—
South Africa	1960	1950	—	<sup>21</sup> 1930	—
South West Africa	1959/60	—	—	—	—
St. Helena	—	—	1950	—	—
Swaziland	—	1950	—	1930	—
Tanganyika <sup>28</sup>	1960	1950	—	—	—
Togo	1961	—	—	—	—
Tunisia	1961/62	1949/50	—	—	—
Uganda	1963/64	1950	—	—	—
Upper Volta	1961	—	—	—	<sup>20</sup> —
Zanzibar and Pemba <sup>28</sup>	—	—	1950	—	—
<b>OCEANIAN PARTICIPANTS</b>	<b>5</b>	<b>6</b>	<b>6</b>	<b>4</b>	<b>5</b>
American Samoa	1960	1950	—	1930	—
Australia	1960	1950	—	1929/30	—
British Solomon Islands	—	—	1950	—	<sup>21</sup> 1929/30
Cook Islands	—	—	1950	—	—
Fiji	—	—	1950	—	<sup>21</sup> 1929/30
Gilbert and Ellice Islands	—	—	1950	—	<sup>21</sup> 1929/30
Guam	1960	1950	—	1930	—
New Hebrides	—	—	1950	—	<sup>21</sup> 1929/30
New Zealand	1960	1950	—	1930	—
Papua and New Guinea	1961/62	1951	—	—	—
Tonga	—	—	1950	—	<sup>21</sup> 1929/30
Western Samoa	—	1950	—	—	—

<sup>1</sup> Later became part of the U.S.S.R. - <sup>2</sup> At the time Germany with different boundaries. - <sup>3</sup> Then called Irish Free State. - <sup>4</sup> Now called Malta. - <sup>5</sup> Then called Great Britain and Northern Ireland, and counted as one country. In Northern Ireland the census was taken in 1929. - <sup>6</sup> Now called Guyana. - <sup>7</sup> Consisting of the now separate territories of Antigua, Montserrat, St. Kitts-Nevis, Virgin Islands (United Kingdom). - <sup>8</sup> Consisting of the now separate territories of Dominica, Grenada, St. Lucia, St. Vincent. - <sup>9</sup> Then called Lebanese Republic. - <sup>10</sup> Then called Egypt. - <sup>11</sup> Now called People's Republic of Southern Yemen. - <sup>12</sup> Now forms part of Malaysia. - <sup>13</sup> Then called Malaya. - <sup>14</sup> Now called Sabah and forms part of Malaysia. - <sup>15</sup> Now forms part of Malaysia. - <sup>16</sup> Now called Lesotho. - <sup>17</sup> Now called Botswana. - <sup>18</sup> Now called Democratic Republic of the Congo. - <sup>19</sup> Then was Gold Coast and British Togoland, counted as one. - <sup>20</sup> Then formed part of French West Africa, which was counted as one, and consisted of Dahomey, Guinea, Ivory Coast, Mali, Mauritania, Niger, Senegal and Upper Volta. - <sup>21</sup> Then included British Cameroon. - <sup>22</sup> Now three separate countries: (a) Malawi (former Nyasaland); (b) Zambia (former Northern Rhodesia); and (c) Rhodesia (former Southern Rhodesia). - <sup>23</sup> Then counted as three separate countries, called Northern Rhodesia, Southern Rhodesia and Nyasaland. - <sup>24</sup> Relates to Nyasaland only. - <sup>25</sup> Now called Somali Republic, consisting of former British and Italian Somaliland. - <sup>26</sup> Relates to British Somaliland only. - <sup>27</sup> Then called Union of South Africa. - <sup>28</sup> Now forms part of Tanzania. - <sup>29</sup> One of the five British islands of the western Pacific.

Of the countries that had been registered, 106 participated in the 1950 world census of agriculture. This number included the territories and countries which had obtained data by estimation and not by conducting agricultural censuses. However, for purposes of comparison with the 1960 censuses, these territories, which number 28, have been indicated in a separate column. Thus, there remained 78 participating countries in the 1950 census compared with 94 in the 1960 census. This represents an almost 20 percent increase in participation. Substantial increases were recorded in the regions of the Far East and Africa. In the Far East participation increased from 7 in 1950 to 15 in 1960, and in Africa from 16 in 1950 to 24 in 1960. In Europe a few countries which had not participated in the 1950 census but took part in the 1960 world census of agriculture were Italy, Poland and Spain. On the other hand, those which did not participate in the 1960 census although they had participated in the 1950 world census of agriculture were Czechoslovakia, the Saar (which was included in the Federal Republic of Germany), Hungary, Portugal, Romania and Switzerland. The net effect was that European participation in the 1960 world census of agriculture was diminished by 3.

### Regional distribution of the participants

The regional distribution of the participants, in the restricted sense, in all the three world censuses, namely, 1960, 1950 and 1930, is shown in Table 4. The total number of participants in the broad sense has been shown in brackets against the regions concerned, if different from the number in the restricted sense. It can readily be seen from this table that the largest increases in participation in the 1960 censuses over the previous ones were registered in the Far Eastern and African regions, followed by the Near East and Latin-American regions. North American participation remained constant, while in Oceania participation fell by one country (Western Samoa) in 1960 compared with that in 1950. It is, however, curious to note that participation in Europe has been falling constantly by three in each successive census. A few countries (Czechoslovakia, Hungary and Romania) did not participate in the 1960 census because of the political changes

and the modifications in the system of land tenure; others (Portugal and Switzerland) did not take the census during the specified period to qualify for participation.

TABLE 4. — REGIONAL DISTRIBUTION OF THE PARTICIPANTS <sup>1</sup>

Region	1960	1950	1930
Europe .....	17	20	23
North America .....	4	4	4
Latin America .....	22(24)	20(29)	10(14)
Near East .....	7	5(6)	1(2)
Far East .....	15	7(13)	3(5)
Africa .....	24	16(22)	7(10)
Oceania .....	5(6)	6(12)	4(9)
<i>World total</i> .....	94(97)	78(106)	52(67)

<sup>1</sup> Figures in brackets include countries which obtained data by special estimate.

### Regional distribution of agricultural area covered by the participants

Table 5 shows the regional distribution of the agricultural area covered by the countries which

TABLE 5. — AGRICULTURAL AREA COVERED BY THE PARTICIPANTS

Region	Agricultural area		Percentage of agricultural area covered
	All countries	Participants	
	<i>Million hectares</i>		
Europe (excluding U.S.S.R.) .....	244	158	64.8
North America .....	504	504	100.0
Latin America .....	598	470	78.6
Near East .....	158	129	81.6
Far East (excluding Mainland China) .....	298	267	89.6
Africa .....	923	571	61.9
Oceania .....	484	483	99.8
<i>World total (excluding U.S.S.R. and Mainland China) .....</i>	3 209	2 582	80.5
U.S.S.R. ....	591	—	—
China (Mainland) .....	287	—	—
<i>World total (including U.S.S.R. and Mainland China) .....</i>	4 087	2 582	63.2

participated in the 1960 world census of agriculture. The coverage in North America was 100 percent complete, and in Oceania almost the same. Next in order were the Far East, excluding Mainland China (89.6 percent), the Near East (81.6 percent) and Latin America (78.6 percent), Europe (64.8 percent) and Africa (61.9 percent). The coverage of the world area (excluding the U.S.S.R. and Mainland China which did not participate) by the participants was 80.5 percent. Inclusion of the estimated agricultural areas of the U.S.S.R. and Mainland China in the world total area brought the coverage down to 63.2 percent.

Compared with the coverage of agricultural area in the 1950 world census of agriculture, there was an overall improvement in that of the 1960 census. Total world coverage increased from 71 percent in the 1950 census to 80.5 percent in 1960, excluding the areas for the U.S.S.R. and Mainland China. With the inclusion of these two countries the comparative figures were 58.6 percent in 1950 and 63.2 percent in 1960.

The data for the agricultural area of the countries were derived from the *Production yearbook*, and related to the years around 1960 or around the year of the census of the participating countries.

## 6. SCOPE OF THE NATIONAL CENSUSES

### Introduction

This chapter is devoted to the comparison of individual items included in the national censuses of the participating countries in the 1960 world census of agriculture with those proposed by FAO in the world programme. For the sake of convenience, the analysis is presented in the same order as the sections of the programme.

It may be observed that, in a few cases, names of certain countries do not appear in some of the tables in this chapter although they were included in the table showing participating countries in Chapter 5. The reason is twofold:

- (a) either the country in its census did not include any question from among the questions proposed in that particular section of the programme; or
- (b) the copies of the questionnaires and instructions used in the census were not made available to FAO and, therefore, due to lack of information the name of the country concerned does not appear in the table.

The tables have also been prepared to show countries' participation or nonparticipation for each item in the programme. A cross indicates that a question about the item was included in the national census questionnaire; a dash indicates that the item concerned was either not investigated at all through the census questionnaire of the country or, if included, was in a substantially different form from that proposed in the FAO programme. To cite an example of the latter: if a country had asked whether irrigation facilities were available or not and if the expected answer was to be either "yes" or "no," then this was not considered as participation in conformity with the FAO programme, which clearly

required *area* irrigated under specified methods or by source of water. Similarly, if a country required only names of the crops grown or livestock on the holding without asking the area or production and number as proposed in the FAO programme, then such a country was not considered as having participated in that section. A question regarding expenditure on fertilizer without asking for its quantity or the area fertilized, as recommended in the FAO programme, was not considered to be in conformity with the FAO programme.

It was difficult to decide about the participation of a country in those items which could possibly be mentioned at the time of enumeration under a catch-all item like "others (specify)." In such cases the practice followed in the *Report on the 1950 World Census of Agriculture* was continued, i.e., if the items to be specified were listed either in the questionnaire itself or in the accompanying instructions, then all such listed items were considered as census items; otherwise the relevant table would show nonparticipation with a dash, even though items might appear in the national census reports. In other words, items appearing in the national results but not specifically included in the questionnaire generally are not shown in these tables.

Another reason for items appearing in the national results but not shown in these tables could be that the data for such items were collected through means other than the census questionnaire, or were estimated.

Items included in the national censuses did not always correspond exactly with those proposed in the FAO programme. If they provided, in essence, substantial basic information suggested by the programme items, they were considered as census items within the framework of the

participated in the 1960 world census of agriculture. The coverage in North America was 100 percent complete, and in Oceania almost the same. Next in order were the Far East, excluding Mainland China (89.6 percent), the Near East (81.6 percent) and Latin America (78.6 percent), Europe (64.8 percent) and Africa (61.9 percent). The coverage of the world area (excluding the U.S.S.R. and Mainland China which did not participate) by the participants was 80.5 percent. Inclusion of the estimated agricultural areas of the U.S.S.R. and Mainland China in the world total area brought the coverage down to 63.2 percent.

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- (b) the copies of the questionnaires and instructions used in the census were not made available to FAO and, therefore, due to lack of information the name of the country concerned does not appear in the table.

The tables have also been prepared to show countries' participation or nonparticipation for each item in the programme. A cross indicates that a question about the item was included in the national census questionnaire; a dash indicates that the item concerned was either not investigated at all through the census questionnaire of the country or, if included, was in a substantially different form from that proposed in the FAO programme. To cite an example of the latter: if a country had asked whether irrigation facilities were available or not and if the expected answer was to be either "yes" or "no," then this was not considered as participation in conformity with the FAO programme, which clearly

required *area* irrigated under specified methods or by source of water. Similarly, if a country required only names of the crops grown or livestock on the holding without asking the area or production and number as proposed in the FAO programme, then such a country was not considered as having participated in that section. A question regarding expenditure on fertilizer without asking for its quantity or the area fertilized, as recommended in the FAO programme, was not considered to be in conformity with the FAO programme.

It was difficult to decide about the participation of a country in those items which could possibly be mentioned at the time of enumeration under a catch-all item like "others (specify)." In such cases the practice followed in the *Report on the 1950 World Census of Agriculture* was continued, i.e., if the items to be specified were listed either in the questionnaire itself or in the accompanying instructions, then all such listed items were considered as census items; otherwise the relevant table would show nonparticipation with a dash, even though items might appear in the national census reports. In other words, items appearing in the national results but not specifically included in the questionnaire generally are not shown in these tables.

Another reason for items appearing in the national results but not shown in these tables could be that the data for such items were collected through means other than the census questionnaire, or were estimated.

Items included in the national censuses did not always correspond exactly with those proposed in the FAO programme. If they provided, in essence, substantial basic information suggested by the programme items, they were considered as census items within the framework of the

programme, and have thus been marked with a cross in the synoptic tables. Several pertinent examples may be quoted here to illustrate the point: if a country inquired about the average quantity of wool per sheep and not the total quantity of wool produced during the census year, as proposed in the programme. With the additional information of the number of sheep clipped during the census year, this information could be considered as participation in the programme item, since the total quantity of wool could evidently be derived therefrom. Similarly, where a country asked for the amount of expenditure on the purchase of various fertilizers but did not inquire about the area fertilized and/or quantity used, while this could not be considered as participation in those items of the programme requiring area and quantity of fertilizer applied, it does provide an indication of the use of the fertilizers on the holding. It could, therefore, be considered as approximating to the participation in the programme item 81: "Have any inorganic fertilizers been applied on the holding in the year preceding the census? (yes/no)."

Figures showing the total number of countries participating in various items of the programme have been shown at the head of each table. The regional totals are shown against the respective regions. For this purpose, the listed countries have been counted only once, although more than one census was carried out in a country (different ones in different parts and at different times) or for different types of holdings. The Federation of Rhodesia and Nyasaland, for instance, is counted as one country even though there were different censuses in Northern Rhodesia and Southern Rhodesia separately for European holdings and for African agriculture.

The names of the countries listed in these tables are those at the time of census taking.

The number of countries in these tables would be generally less than the total number of participants in the 1960 world census of agriculture. Firstly, it should be noted that the total number of countries for the purposes of these synoptic tables should be taken as 91 and not 94 as shown in Table 3, the reason being that for three countries (United Arab Republic; Niger and South West Africa) it was not possible to determine the extent of participation owing to the nonavailability of their basic census documents, namely,

questionnaires and instructions. Secondly, the main reason for nonappearance of a participating country would be its nonparticipation in any of the items shown in that particular table.

#### **Additional information collected in the censuses**

Several countries included, in their agricultural censuses, additional items different from those proposed in the FAO programme. A few important ones have been mentioned within the relevant sections. Other additional items could not be considered as falling directly within the scope of any section. These items covered a wide range of subjects like mortgage, description of dwellings, distance of farm from activity centre, industrial activity conducted on farm, marketing and value of products, incidence of plant diseases, soil improvement methods, insecticides, fungicides and pesticides applied, method of reproduction of plants, source of seeds, grain storage facilities, visitors on holding, motive and duration of visits, and a host of other subjects too numerous to mention. However, the most important ones which were asked by many countries have been grouped into a few broad categories. These are mentioned below with the names of the countries asking related questions. It might be mentioned here that the number of countries listed hereunder and in the subsequent analysis of extent of participation is intended to serve as an illustration and may not necessarily be exhaustive in all cases. Countries have been grouped by regions.

1. *Description of dwellings, buildings and facilities or installations available.* Austria, Belgium, the Federal Republic of Germany, Italy, Norway, Sweden; Brazil, Dominican Republic, Ecuador, Paraguay, Surinam, Uruguay; Brunei, Taiwan; Basutoland, Tunisia; Australia.
2. *Income from the sales (marketing) of agricultural products and from other sources.* Belgium, Finland, the Federal Republic of Germany, Yugoslavia; Canada; Bolivia, Brazil, Ecuador, Jamaica, Mexico, Panama, Paraguay, Puerto Rico, Trinidad and Tobago, Virgin Islands; China (Taiwan), Indonesia,



TABLE 6. - EXTENT OF PARTICIPATION IN THE FAO PROGRAMME, BY SECTION

Region and country	Holder, holding and tenure	Land utilization	Crops	Livestock and poultry	Employment in agriculture	Farm population	Agricultural power and machinery and general transport facilities	Irrigation and drainage	Fertilizers and soil dressings	Wood and fishery products
Section										
Code number of section	0	1	2	3	4	5	6	7	8	9
<i>Participating countries in each section</i>	91	85	91	90	72	62	81	58	65	19
EUROPE (17) .....	17	17	17	17	15	10	15	8	7	3
Austria .....	X	X	X	X	X	X	X	—	—	X
Belgium .....	X	X	X	X	X	X	X	X	—	—
Denmark .....	X	X	X	X	X	—	X	—	X	—
Finland .....	X	X	X	X	X	X	X	—	X	—
Germany (Fed. Rep.) .....	X	X	X	X	X	X	X	—	—	—
Greece .....	X	X	X	X	—	—	—	X	—	—
Ireland .....	X	X	X	X	X	—	X	—	X	X
Italy .....	X	X	X	X	X	—	X	X	—	—
Luxembourg .....	X	X	X	X	X	X	X	—	—	—
Malta and Gozo .....	X	X	X	X	X	X	X	X	X	—
Netherlands .....	X	X	X	X	X	X	X	—	—	—
Norway .....	X	X	X	X	X	X	X	X	X	—
Poland .....	X	X	X	X	X	X	X	—	—	—
Spain .....	X	X	X	X	X	—	X	X	X	—
Sweden .....	X	X	X	X	—	—	X	—	—	—
United Kingdom .....	X	X	X	X	X	—	—	X	—	—
Yugoslavia .....	X	X	X	X	X	X	X	X	X	X
NORTH AMERICA (5) .....	4	4	4	4	4	—	4	3	3	4
Alaska .....	X	X	X	X	X	—	X	—	X	X
Canada .....	X	X	X	X	X	—	X	X	—	X
Hawaii .....	X	X	X	X	X	—	X	X	X	X
United States .....	X	X	X	X	X	—	X	X	X	X
LATIN AMERICA (22) .....	22	22	22	22	19	11	22	16	21	7
Argentina .....	X	X	X	X	X	X	X	X	X	—
Barbados .....	X	X	X	X	X	X	X	—	X	X
Bolivia .....	X	X	X	X	X	X	X	X	X	—
Brazil .....	X	X	X	X	X	—	X	X	X	X
Colombia .....	X	X	X	X	X	X	X	X	X	—
Costa Rica .....	X	X	X	X	X	—	X	X	X	—
Dominican Republic .....	X	X	X	X	X	X	X	X	X	—
Ecuador .....	X	X	X	X	X	—	X	X	X	—
El Salvador .....	X	X	X	X	X	—	X	X	X	—
Guatemala .....	X	X	X	X	—	—	X	X	X	—
Jamaica .....	X	X	X	X	X	X	X	—	X	X
Mexico .....	X	X	X	X	X	X	X	X	X	X
Nicaragua .....	X	X	X	X	—	—	X	—	—	—
Panama .....	X	X	X	X	X	X	X	X	X	—
Paraguay .....	X	X	X	X	X	X	X	X	X	X
Peru .....	X	X	X	X	—	—	X	X	X	—
Puerto Rico .....	X	X	X	X	X	—	X	X	X	—
Surinam .....	X	X	X	X	X	X	X	—	X	—
Trinidad and Tobago .....	X	X	X	X	X	—	X	—	X	X
Uruguay .....	X	X	X	X	X	X	X	X	X	—
Venezuela .....	X	X	X	X	X	—	X	X	X	X
Virgin Islands (U.S.) .....	X	X	X	X	X	—	X	—	X	—

TABLE 6. - EXTENT OF PARTICIPATION IN THE FAO PROGRAMME, BY SECTION (concluded)

Region and country	Holder, holding and tenure	Land utilization	Crops	Livestock and poultry	Employment in agriculture	Farm population	Agricultural power and machinery and general and transport facilities	Irrigation and drainage	Fertilizers and soil dressings	Wood and fishery products
Section	0	1	2	3	4	5	6	7	8	9
Code number of section	0	1	2	3	4	5	6	7	8	9
NEAR EAST (6).....	6	6	6	6	4	5	6	5	5	1
Iran .....	X	X	X	X	X	X	X	X	X	—
Iraq .....	X	X	X	X	—	—	X	X	—	—
Lebanon .....	X	X	X	X	—	X	X	X	X	—
Libya .....	X	X	X	X	—	X	X	X	X	X
Sudan .....	X	X	X	X	X	X	X	—	X	—
Turkey .....	X	X	X	X	X	X	X	X	X	—
FAR EAST (15).....	15	15	15	15	12	14	14	12	13	2
Brunei .....	X	X	X	X	X	X	X	X	X	—
Ceylon .....	X	X	X	X	X	X	X	X	X	—
China, Taiwan.....	X	X	X	X	X	X	X	X	X	—
India .....	X	X	X	X	X	X	X	X	X	—
Indonesia .....	X	X	X	X	X	X	—	X	X	—
Japan .....	X	X	X	X	X	X	X	—	X	X
Korea, Rep. of.....	X	X	X	X	X	X	X	X	X	—
Malaya, Fed. of.....	X	X	X	X	X	X	X	X	X	X
Nepal .....	X	X	X	X	—	X	X	X	X	—
North Borneo .....	X	X	X	X	X	X	X	—	—	—
Pakistan .....	X	X	X	X	X	X	X	X	X	—
Philippines .....	X	X	X	X	—	X	X	X	X	—
Sarawak .....	X	X	X	X	X	X	X	—	—	—
Thailand .....	X	X	X	X	—	—	X	X	X	—
Viet-Nam, Rep. of.....	X	X	X	X	X	X	X	X	X	—
AFRICA (22).....	22	17	22	21	16	20	17	12	15	2
Angola .....	X	X	X	X	X	X	X	X	X	X
Basutoland .....	X	X	X	X	—	X	X	—	X	—
Bechuanaland.....	X	X	X	X	X	X	X	X	X	—
Central African Republic.....	X	X	X	X	—	X	—	—	—	—
Congo (Brazzaville).....	X	X	X	X	—	X	X	—	—	—
Gabon .....	X	X	X	X	X	X	X	—	X	—
Ghana .....	X	X	X	X	X	X	X	X	X	—
Guinea, Rep. of.....	X	X	X	X	X	X	X	X	X	—
Kenya .....	X	X	X	X	—	X	—	—	—	—
Madagascar .....	X	X	X	X	X	X	X	X	X	—
Mali .....	X	—	X	X	—	X	X	X	X	—
Morocco .....	X	X	X	X	X	X	X	X	X	—
Portuguese Guinea.....	X	—	X	X	—	X	X	—	—	—
Rhodesia and Nyasaland, Fed. of.....	X	X	X	X	X	X	X	X	X	—
Senegal .....	X	—	X	—	X	X	—	—	X	—
Seychelles .....	X	X	X	X	X	—	—	—	—	X
South Africa .....	X	X	X	X	X	X	X	X	X	—
Tanganyika .....	X	X	X	X	X	—	X	—	—	—
Togo .....	X	—	X	X	X	X	X	X	X	—
Tunisia .....	X	X	X	X	X	X	X	X	X	—
Uganda .....	X	—	X	X	X	X	—	—	—	—
Upper Volta .....	X	X	X	X	X	X	X	X	X	—
OCEANIA (5).....	5	4	5	5	2	2	3	2	1	—
American Samoa .....	X	—	X	X	—	—	—	—	—	—
Australia .....	X	X	X	X	X	X	X	X	X	—
Guam .....	X	X	X	X	—	—	—	—	—	—
New Zealand .....	X	X	X	X	X	—	X	X	—	—
Papua and New Guinea.....	X	X	X	X	—	X	X	—	—	—

Japan, Republic of Korea, the Federation of Malaya, Thailand; Angola, Central African Republic, Congo (Brazzaville), Gabon, Madagascar, the Federation of Rhodesia and Nyasaland, South Africa, Tanganyika and Togo.

3. *Slaughter of livestock and poultry.* Belgium, Finland; Brazil, Jamaica, Uruguay; Turkey; Angola, Tanganyika, Tunisia; Australia, New Zealand.
4. *Educational background and vocational training.* Austria, Belgium, the Federal Republic of Germany, Yugoslavia; Iran; China (Taiwan), Indonesia, Thailand.
5. *Products sold directly to consumers, during the year preceding the census.* Another important addition to the world programme. The regional programme for Europe suggested an additional section, numbered as 10, relating to the quantity of products sold during the year preceding the census by the holders directly to consumers. This section included seven items: (1) whole milk; (2) butter; (3) cream; (4) cheese; (5) honey; (6) wool (indicating whether in grease or washed); (7) chicken eggs.

Six European countries participated in this section. Yugoslavia inquired about all the seven items; Norway inquired about four, excluding cream, cheese and honey; Finland asked three items, namely, milk, butter and eggs; Belgium, eggs and poultry as one item; Ireland, butter; and Malta and Gozo, milk. Belgium inquired about milk products as one item. On the other hand, Malta and Gozo asked separately for cow milk, goat milk and sheep milk. In addition, Belgium investigated five different systems of direct sales to consumers.

### Scope of participation in sections

Table 6 shows the countries' participation in the section of the programme. All countries participated in Section 0 - Holder, holding, and tenure, and Section 2 - Crops. As for Section 3 - Livestock and poultry, Senegal was the only country which did not investigate the number of livestock and poultry, but asked only to indicate the presence of livestock on the holding. Eighty-five countries participated in Section 1 - Land

utilization. The remaining 6 countries which did not investigate any item in this section were Mali, Portuguese Guinea, Senegal, Togo, Uganda; and American Samoa. The least participation occurred in Section 9 - Wood and fisheries products, wherein only 19 countries participated. One of the reasons could be the fact that many holdings did not have wood and fisheries products within the holding.

The items in the short list of the programme have been printed in bold type in the relevant tables.

### Section 0 : Holder, holding and tenure

#### HOLDER

The extent of participation in the part of Section 0, relating to the holder, is shown in Table 7.

All countries asked for the *name* of the holder, although a number of countries had different concepts of the holder from that given in the programme. The head of the family or of the household was considered the holder in countries where the census was based on the household and not the holding. This was the case, for example, in Brunei, India, Japan, North Borneo, Sarawak, the Republic of Viet-Nam; and Congo (Brazzaville). Countries like Canada, the United States; the Central African Republic and Gabon asked for the name of the operator or the person in charge who could be owner, tenant or hired manager. Sudan called him the licensee. The United Kingdom asked for the "present occupier."

The *age* of the holder was asked by 41 countries, a few of them having asked the age group to which the holder belonged. In Italy, for instance, the age grouping was given as: under 14; 14-65; over 65 years.

The programme suggested that the *main occupation* of the holder be indicated as agricultural or nonagricultural. While the majority of countries asked the question as suggested, a number of variations were observed. Some countries asked about the main or principal occupation and the secondary occupation. Others asked for the farmer's main source of cash income (Jamaica), or simply a money-earning job (Iran). The Federation of Malaya asked if the holder

derived his living mainly from his farm or from other jobs. Six countries in Africa (Central African Republic, Congo [Brazzaville], Gabon, Madagascar, Mali and Togo) asked one question only: "Is agricultural work on the holding the principal one?" They did not ask for the nonagricultural work. Turkey inquired about the usual principal activity, branch of economic activity and occupational status of the members of the household and whether gainfully or nongainfully occupied. Uganda had asked the occupation of the holder as (i) agriculture only; (ii) agriculture and other occupation (specify). The holder was put in the second category only if his other occupation brought in for him a significant income, and this occupation was also recorded.

Despite these variations, it was, in essence, possible to know, in these cases, the main occupation of the holder as agriculture or nonagriculture. In a few other cases, however, the main occupation of the holder outside the holding, or off the farm work was asked. This was not considered as participation in this item. Italy; Hawaii; and Puerto Rico were the cases involved.

Sixty-one countries asked for the *address* of the holder, in most cases without regard to the fact that the holder was or was not living on the holding.

Thirty-eight countries indicated, in one way or another, whether or not the holding was managed by a *hired manager*, and 22 of them asked for his name and address.

Forty-two countries included in their censuses a question, in one form or another, about the *legal status* of the holder. Forty-one of these countries had indicated a question relating to the status as civil person. Portuguese Guinea asked about the legal status without mentioning any category specifically. It has been marked under "other" (01.86). Poland did not include a direct question about it but had different forms to be filled in for (a) civil person; (b) consciously planned collective; and (c) government. This has been accepted as participation in these items. Although communes (in Finland and Greece) have been included under the category consciously planned collective, communal land in the Republic of Viet-Nam is placed under "government." While corporation includes companies, boards and foundations, the "cooperative" category contains "society" in Sudan.

## HOLDING AND TENURE

Table 8 shows the extent of participation by the census-taking countries in this part of the FAO programme.

Eighty-one countries included a direct question about the *location* of the holding in their census questionnaire. Most of the remaining countries did not consider it important enough to warrant a specific question, since during the course of preparation for the census this information had already been collected, or because the holding could be located otherwise.

Eleven countries did not ask for the *total area of the holding*, among which were Malta and Gozo in the European region; Iran in the Near East; and 8 from the African region, namely, Central African Republic, Congo (Brazzaville), Gabon, Ghana, Mali, Senegal, Togo and Upper Volta; and Papua and New Guinea in Oceania. In some of these cases, total area figures could be derived from the information contained in the questionnaire, although no direct question was asked.

Under the form of *tenure*, 77 percent of the countries included a question about the *area owned or held in ownerlike possession* by the holder; 68 percent asked for the *total area rented* from others but not many countries participated in the different forms of renting as suggested in the programme. In some cases, information regarding land tenure was asked for agricultural area only and not for the total area of the holding, as was the case in the Netherlands and Norway. In a few cases, like Jamaica; China (Taiwan) and India, the original source of ownership was also asked, whether by inheritance, through purchase, obtained from the government, or any other source and with or without right to transfer title. Similarly, in a case like the Republic of Viet-Nam, ownership of the land rented from others also included whether it was private land, commercial or communal and government land. Poland collected the data on area rented by source: (a) from the government; and (b) from private persons. This was effected through three different questionnaires, so that the total area rented had to be derived by summing up the data from the three respective questionnaires. Some countries had combined different forms of tenure in one question. For instance, the Federation of

Malaya asked for area rented in return for either a fixed sum in cash or for a fixed amount of the crop paid in kind at harvest, or for a share of the crop or in exchange for services in the form of ploughing, felling jungles or giving a loan of money. In such case, a bracket has been used over the two categories concerned, with a footnote to describe the additional forms of tenure included in that one question. All categories could not be marked to indicate participation because the area under each of these forms was not asked separately.

A few countries asked the respondent to indicate the nature of the tenure form of the holding, but no area was required to be given. These countries were not considered as participating in that part of Section 0 which deals with the tenure form of the holding. Examples are: the Central African Republic, Congo (Brazzaville), Gabon (which asked whether the area operated was owned or not owned), or Tanganyika (registered freehold or nonregistered freehold), or Togo (owned/rented/others).

There had been some terms used for the form of tenure, in more than one Latin-American country, with varying meanings implied by the same word. For instance, whereas *colonato*, in Colombia, was defined as the area operated on a squatter basis and has, therefore, been marked under item 03.3 of the programme, the same word in the Dominican Republic meant the area in the agricultural colonies of the state which was operated by the members in the colonies, and had consequently to be shown under other forms of tenure not specified elsewhere in the programme. Furthermore, *colono*, in Ecuador, referred to persons operating area on a squatter basis, but in Costa Rica, Guatemala and Nicaragua, it was defined so as to be classified under other forms of tenure.

#### ADDITIONAL ITEMS

Many countries had asked a variety of information relating to Section 0: Holder, holding and tenure form, suited specifically to the country concerned. It is not intended to list all such cases here. A few of the principal questions, more commonly asked by more than one country, are mentioned as illustrations.

The FAO programme did not suggest collection of information about sex, nationality, race, languages spoken, and educational background of the holder. However, some countries included questions in their censuses on these subjects. For instance, Belgium, Luxembourg; the Dominican Republic and Paraguay asked for the holder's nationality; Surinam; Brunei; and South Africa inquired about the race of the holder. Yugoslavia; the Dominican Republic and Trinidad and Tobago included questions about the sex of the holder as well.

Information relating to the area rented to others was collected by the Federal Republic of Germany; Bolivia, Costa Rica, Surinam, Trinidad and Tobago, and Venezuela. Ratable valuation of the holding consisting of land and building was asked by Ireland; and Canada, and the value of the farm by the Philippines. A few countries also asked for changes in the area rented to others.

The Federal Republic of Germany listed a few questions with a view to determining the relationship between the industrial enterprises and the agricultural or forestry holdings. Examples are given below.

- (a) Is the holder owner of some industrial enterprise or an independent manufacturer?
- (b) Is agricultural or forestry holding used exclusively for industrial enterprise?
- (c) Is any auxiliary manufacturing business (e.g., distillery) connected with the agricultural or forestry holding?

#### REGIONAL PROGRAMMES

Various additional items were suggested in the programmes for different regions. These items, with the participating countries, have been described below, for each region separately.

##### *Supplement for Europe*

It was considered useful, in this region, to obtain an indication on the main use of production, whether for sale or for home consumption. Furthermore, the total area received by members of cooperatives for individual use was also deemed to be of value, especially in countries where collective farming under communes or coopera-

tives was practised. Only Poland inquired about this last item.

The *Supplement for Europe* also added a new section, 10, concerning the quantity of products sold during the year preceding the census by the holders directly to consumers. This has been dealt with earlier under 6.2: Additional information (in the world programme).

Ten countries (Austria, Belgium, Finland, the Federal Republic of Germany, Ireland, Italy, Malta and Gozo, Norway, the United Kingdom and Yugoslavia) indicated sales of their products. Various practices were adopted in different countries. A few countries asked about the sale of one product only; for example, Malta and Gozo asked for milk sold; Austria inquired about Christmas trees for sale; and Belgium listed vegetables and strawberries grown for sale. Some countries asked for sales of various commodities by name, for instance, the Federal Republic of Germany investigated sales of grains, root and tuber crops, vegetables, fruits, livestock and a host of other items. Norway distinguished between regular and casual sales. The question that the United Kingdom included in the census questionnaire was: "Is at least a quarter of the value of this holding's annual produce sold?"

Regarding the main use of production for home consumption, 6 countries (Belgium, Finland, Ireland, Malta and Gozo, Spain and Yugoslavia) participated. Here again, some countries mentioned various products by name; others, only a single group of produce. Spain, for instance, inquired about livestock slaughtered on the holding for home consumption.

#### *Programme for the Americas*

Nationality of the holder, whether native-born or foreign-born, was added. Six countries (the Dominican Republic, Guatemala, Mexico, Paraguay, Surinam and Venezuela) investigated the nationality or race of the holder.

#### *Supplement for the Near East*

"Tribe" was added as a separate class under the legal status of the holder. Libya included this class in the census questionnaire.

#### *Supplement for Asia and the Far East*

There were four additional items for this region. The first two items related to the main

use of production: for sale and for home consumption. Brunei and Japan investigated both these items. While Brunei mentioned numerous temporary and permanent crops, Japan limited its inquiry in this respect to forest products. Indonesia, North Borneo and Sarawak inquired about the first item, i.e., for sale only.

The other two additional items in this region, related to the area rented from others, were subdivided into:

- (a) area used under usufructuary mortgage, by which was meant a mortgage in which the mortgagee has the usufruct of mortgaged property (Indonesia and Nepal investigated this problem); and
- (b) area operated under any other form of renting (in which Ceylon, India and the Philippines participated).

#### *Supplement for Africa south of the Sahara*

The items added in this regional programme, with the names of the participating countries, are stated below.

##### A. *Holder*

- (i) In order to be able to compare the output of holdings, where the holder remained away for a considerable time during the year, with the output of those which were under the continuous supervision of the holder, it was considered desirable to inquire about the absentee and nonabsentee holders. The two items suggested for this information were (a) the holding is under continuous supervision of the holder; (b) the holder works away from the holding during a considerable part of the year.

The countries investigating these two items were Angola, Basutoland, the Central African Republic, Congo (Brazzaville), Gabon, the Republic of Guinea, Madagascar, Mali, Senegal, Togo and Uganda. Examples of variation might be mentioned. Angola and Basutoland inquired about the holder being present on the holding or absent from the holding, without specifying the time. Uganda asked if the holder lived on the holding throughout the year or lived elsewhere for one to three months, four to six months, or more than six months.

TABLE 7. - EXTENT OF PARTICIPATION IN SECTION 0, RELATING TO *holder*

Region and country  Item	Name	Age	Main occupation (agricultural, nonagricultural),	Address if not living on the holding	Indication as to whether or not the holding is entirely managed by the holder	Name and address of the hired manager if he does not live on the holding	Name and relationship of respondent to the holder	Legal status					
								Civil person	Corporation	Cooperative	Consciously planned collective	Government	Other
Code number of item	01.1	01.2	01.3	01.4	01.5	01.6	01.7	01.81	01.82	01.83	01.84	01.85	01.86
<i>Total number of countries asking question (91)</i> .....	91	41	50	61	38	22	26	41	27	11	4	24	26
EUROPE (17) .....	17	11	11	12	3	1	1	9	6	5	3	7	7
Austria .....	X	X	X	X	—	—	—	X	—	—	—	—	X
Belgium .....	X	X	X	X	X	—	—	X	X	X	—	X	X
Denmark .....	X	—	—	—	—	—	—	X	X	X	—	X	X
Finland .....	X	—	—	—	—	—	—	X	X	X	X	X	X
Germany (Fed. Rep.) .....	X	X	X	X	X	X	—	—	—	—	—	—	X
Greece .....	X	X	—	X	—	—	—	X	X	X	X	X	—
Ireland .....	X	—	X	—	—	—	X	—	—	—	—	—	—
Italy .....	X	X	—	X	—	—	—	X	X	X	—	X	X
Luxembourg .....	X	X	X	X	—	—	—	X	X	—	—	X	—
Malta and Gozo .....	X	X	X	X	—	—	—	—	—	—	—	—	—
Netherlands .....	X	X	X	X	—	—	—	—	—	—	—	—	—
Norway .....	X	X	X	X	—	—	—	X	—	—	—	—	X
Poland .....	X	X	X	X	—	—	—	X	—	—	X	X	—
Spain .....	X	—	—	—	—	—	—	—	—	—	—	—	—
Sweden .....	X	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom .....	X	—	X	X	X	—	—	—	—	—	—	—	—
Yugoslavia .....	X	X	X	X	—	—	—	—	—	—	—	—	—
NORTH AMERICA (4) .....	4	2	—	4	3	3	4	—	—	—	—	—	—
Alaska .....	X	—	—	X	X	X	*X	—	—	—	—	—	—
Canada .....	X	X	—	X	—	—	X	—	—	—	—	—	—
Hawaii .....	X	—	—	X	X	X	*X	—	—	—	—	—	—
United States .....	X	X	—	X	X	X	*X	—	—	—	—	—	—
LATIN AMERICA (22) .....	22	8	12	19	11	4	11	11	8	4	1	6	9
Argentina .....	X	—	—	X	X	—	—	X	X	X	—	—	X
Barbados .....	X	—	X	X	—	—	—	X	X	X	—	X	X
Bolivia .....	X	—	X	X	—	—	X	—	—	—	—	—	—
Brazil .....	X	—	—	X	X	X	—	—	—	—	—	—	—
Colombia .....	X	—	X	X	X	—	—	X	—	—	—	X	X
Costa Rica .....	X	—	X	X	X	X	*X	X	X	X	—	—	X
Dominican Republic .....	X	X	X	—	X	—	—	X	X	X	—	X	X
Ecuador .....	X	—	—	X	X	—	*X	—	—	—	—	—	—
El Salvador .....	X	—	—	X	—	—	X	—	—	—	—	—	—
Guatemala .....	X	—	—	X	X	—	—	X	—	—	—	—	—
Jamaica .....	X	X	X	X	—	—	*X	—	—	—	—	X	X
Mexico .....	X	X	X	X	—	—	*X	X	—	—	X	—	—
Nicaragua .....	X	—	—	X	—	—	X	—	—	—	—	—	—
Panama .....	X	X	X	X	—	—	—	—	—	—	—	—	—
Paraguay .....	X	X	X	—	—	—	X	—	—	—	—	—	—
Peru .....	X	—	—	—	—	—	—	X	X	—	—	—	X
Puerto Rico .....	X	—	—	X	X	X	—	—	—	—	—	—	—
Surinam .....	X	X	X	X	—	—	—	X	X	—	—	X	X
Trinidad and Tobago .....	X	X	X	X	X	—	—	X	X	—	—	X	X
Uruguay .....	X	—	—	X	—	—	—	—	—	—	—	—	—
Venezuela .....	X	—	X	X	—	—	—	—	—	—	—	—	—
Virgin Islands (U.S.) .....	X	X	—	X	X	X	—	X	X	—	—	—	—

TABLE 7. - EXTENT OF PARTICIPATION IN SECTION 0, RELATING TO *holder (concluded)*

Region and country Item	Name	Age	Main occupation (agricultural, nonagricultural)	Address if not living on the holding	Indication as to whether or not the holding is entirely managed by the holder	Name and address of the hired manager if he does not live on the holding	Name and relationship of respondent to the holder	Legal status					
								Civil person	Corporation	Cooperative	Consciously planned collective	Government	Other
Code number of item	01.1	01.2	01.3	01.4	01.5	01.6	01.7	01.81	01.82	01.83	01.84	01.85	01.86
NEAR EAST (6).....	6	3	4	3	3	2	2	3	3	1	-	3	2
Iran .....	X	X	X	-	-	-	-	-	-	-	-	-	-
Iraq .....	X	-	-	-	-	-	-	-	-	-	-	-	-
Lebanon .....	X	X	X	X	X	X	X	X	X	X	-	X	X
Libya .....	X	-	-	X	X	-	X	X	X	-	-	X	X
Sudan .....	X	-	X	X	X	X	-	X	X	-	-	X	-
Turkey .....	X	X	X	-	-	-	-	-	-	-	-	-	-
FAR EAST (15).....	15	5	7	10	5	3	6	7	6	1	-	3	1
Brunei .....	X	-	X	X	X	-	X	-	-	-	-	-	-
Ceylon .....	X	-	X	X	X	-	-	X	X	-	-	X	-
China (Taiwan).....	X	-	-	X	-	-	-	-	-	-	-	-	-
India .....	X	-	-	-	-	-	X	-	-	-	-	-	-
Indonesia .....	X	-	-	X	X	X	X	-	-	-	-	-	-
Japan .....	X	-	X	-	-	-	-	-	-	-	-	-	-
Korea, Rep. of.....	X	X	-	-	-	-	-	X	-	X	-	X	X
Malaya, Fed. of.....	X	X	X	X	X	X	-	X	X	-	-	-	-
Nepal .....	X	X	X	-	X	X	-	-	-	-	-	-	-
North Borneo .....	X	-	X	X	-	-	X	X	X	-	-	-	-
Pakistan .....	X	-	-	X	-	-	-	X	X	-	-	-	-
Philippines .....	X	X	-	-	-	-	-	-	-	-	-	-	-
Sarawak .....	X	-	X	X	-	-	X	X	X	-	-	-	-
Thailand .....	X	X	-	X	-	-	X	-	-	-	-	-	-
Viet-Nam, Rep. of.....	X	-	-	X	-	-	-	X	X	-	-	X	-
AFRICA (22).....	22	11	15	10	11	7	1	10	4	-	-	4	7
Angola.....	X	X	X	X	X	-	-	X	X	-	-	X	X
Basutoland .....	X	X	X	-	-	-	-	-	-	-	-	-	-
Bechuanaland .....	X	-	-	X	-	-	-	-	-	-	-	-	-
Central African Republic.....	X	-	X	X	X	X	-	X	-	-	-	-	-
Congo (Brazzaville) .....	X	X	X	X	X	X	-	X	-	-	-	-	-
Gabon .....	X	X	X	-	X	X	-	X	-	-	-	-	-
Ghana .....	X	-	-	X	X	X	-	X	X	-	-	X	X
Guinea, Republic of .....	X	-	-	-	-	-	-	-	-	-	-	-	-
Kenya .....	X	-	-	-	-	-	-	-	-	-	-	-	-
Madagascar .....	X	X	X	-	X	-	-	X	-	-	-	-	X
Mali .....	X	X	X	-	-	-	-	-	-	-	-	-	-
Morocco .....	X	X	X	X	X	X	-	X	X	-	-	X	X
Portuguese Guinea .....	X	X	X	-	-	-	-	-	-	-	-	-	X
Rhodesia and Nyasaland, Fed. of.....	X	-	-	-	X	X	-	-	-	-	-	-	-
Senegal .....	X	X	X	-	-	-	-	-	-	-	-	-	-
Seychelles .....	X	-	-	X	-	-	-	-	-	-	-	-	-
South Africa .....	X	-	X	X	X	-	X	X	X	-	-	X	X
Tanganyika .....	X	-	-	X	-	-	-	-	-	-	-	-	-
Togo .....	X	-	X	-	X	X	-	X	-	-	-	-	-
Tunisia .....	X	-	X	X	-	-	-	-	-	-	-	-	-
Uganda .....	X	X	X	-	X	-	-	X	-	-	-	-	X
Upper Volta .....	X	X	X	-	-	-	-	-	-	-	-	-	-
OCEANIA (5).....	5	1	1	3	2	2	1	1	-	-	-	1	-
American Samoa .....	X	-	-	-	X	X	X	-	-	-	-	-	-
Australia .....	X	-	-	X	-	-	-	-	-	-	-	-	-
Guam .....	X	-	-	X	-	-	-	-	-	-	-	-	-
New Zealand .....	X	-	X	X	X	-	-	X	-	-	-	X	-
Papua and New Guinea.....	X	X	-	-	-	-	-	-	-	-	-	-	-

<sup>1</sup> Address not asked. - <sup>2</sup> Name not asked. - <sup>3</sup> Relationship not asked.



TABLE 8. - EXTENT OF PARTICIPATION IN SECTION 0 RELATING TO *holding and tenure*

Region and country  Item	Holding			Tenure										
	Location	Number of noncontiguous parcels of land constituting the holding	Total area	Total area owned or held in ownerlike possession	Area rented from others							Area operated on squatter basis	Area operated under tribal or traditional communal tenure forms	Area operated under other tenure forms and area for which tenure form cannot be determined
					Total	For fixed amount of money	For fixed amount of produce	For fixed amount of money and produce	For a share of the produce	In exchange for services	Operated gratuitously (rent-free)			
Code number of item	02.1	02.2	02.3	03.1	03.2	03.21	03.22	03.23	03.24	03.25	03.26	03.3	03.4	03.9
<i>Total number of countries asking question (91)</i> .....	81	64	80	70	62	3 17 11		5	19	12	18	17	6	37
EUROPE (17) .....	17	13	16	14	13	2	—	1	2	3	1	—	—	6
Austria .....	X	X	X	X	X	—	—	—	—	—	—	—	—	—
Belgium .....	X	X	X	X	X	—	—	—	—	—	—	—	—	—
Denmark .....	X	—	X	X	X	—	—	—	—	—	—	—	—	—
Finland .....	X	X	X	X	X	—	—	—	—	—	—	—	—	—
Germany (Fed. Rep.) .....	X	—	X	X	X	X	—	—	—	X	—	—	—	—
Greece .....	X	X	X	X	—	—	—	—	—	—	—	—	—	Not owned
Ireland .....	X	X	X	—	—	—	—	—	—	—	—	—	—	—
Italy .....	X	X	X	X	X	—	—	—	—	—	X	—	—	—
Luxembourg .....	X	X	X	X	X	—	—	—	—	—	—	—	—	—
Malta and Gozo .....	X	X	—	X	X	—	—	—	X	—	—	—	—	—
Netherlands .....	X	X	X	X	X	—	—	—	—	—	—	—	—	—
Norway .....	X	—	X	X	X	—	—	—	—	—	—	—	—	—
Poland .....	X	X	X	X	X	—	—	—	—	X	—	—	—	—
Spain .....	X	X	X	X	X	—	—	X	X	X	—	—	—	X
Sweden .....	X	—	X	—	—	—	—	—	—	—	—	—	—	—
United Kingdom .....	X	X	X	X	X	X	—	—	—	—	—	—	—	—
Yugoslavia .....	X	X	X	X	X	—	—	—	—	—	—	—	—	—
NORTH AMERICA (4) .....	4	1	4	4	4	—	—	—	—	—	—	—	—	—
Alaska .....	X	—	X	X	X	—	—	—	—	—	—	—	—	—
Canada .....	X	—	X	X	X	—	—	—	—	—	—	—	—	—
Hawaii .....	X	—	X	X	X	—	—	—	—	—	—	—	—	—
United States .....	X	X	X	X	X	—	—	—	—	—	—	—	—	—
LATIN AMERICA (22) .....	22	15	22	21	20	6	5	2	10	4	8	11	5	13
Argentina .....	X	—	X	X	X	X	X	X	—	—	X	—	—	Fiscal land and other forms
Barbados .....	X	X	X	X	X	X	X	—	—	—	X	—	—	—
Bolivia .....	X	—	X	X	X	—	—	—	—	—	X	X	X	Colono; other forms
Brazil .....	X	X	X	X	X	X	—	X	X	—	—	X	—	—
Colombia .....	X	X	X	X	X	X	X	X	X	X	X	X	—	X
Costa Rica .....	X	X	X	X	X	X	—	—	X	—	X	—	X	Colono; other forms
Dominican Republic .....	X	X	X	X	X	—	—	—	X	—	—	X	—	Colonato; on co cession; other forms
Ecuador .....	X	X	X	X	X	—	—	—	X	X	—	X	X	X
El Salvador .....	X	—	X	X	X	—	—	—	—	—	—	—	X	X
Guatemala .....	X	X	X	X	X	—	—	—	—	—	—	—	X	Colono; other forms
Jamaica .....	X	X	X	X	X	—	—	—	—	—	X	X	—	—
Mexico .....	X	—	X	—	—	—	—	—	—	—	—	—	—	—
Nicaragua .....	X	X	X	X	—	X	X	—	X	X	X	X	—	Colono; other forms
Panama .....	X	X	X	X	X	—	—	—	—	—	—	—	—	—
Paraguay .....	X	X	X	X	X	—	—	—	X	—	—	X	—	—
Peru .....	X	—	X	X	X	—	—	—	X	—	—	—	X	X
Puerto Rico .....	X	—	X	X	X	—	—	—	—	—	—	—	—	—
Surinam .....	X	—	X	X	X	—	—	—	—	—	—	—	—	—
Trinidad and Tobago .....	X	X	X	X	X	—	—	—	—	X	X	X	—	X
Uruguay .....	X	—	X	X	X	—	—	—	X	—	—	X	—	X
Venezuela .....	X	X	X	X	X	—	X	—	X	—	—	X	—	—
Virgin Islands (U.S.) .....	X	X	X	X	X	—	—	—	—	—	—	—	—	—

TABLE 8. - EXTENT OF PARTICIPATION IN SECTION 0 RELATING TO *holding and tenure (concluded)*

Region and country  Item	Holding			Tenure										
	Location	Number of noncontiguous parcels of land constituting the holding	Total area	Total area owned or held in ownerlike possession	Area rented from others							Area operated on squatter basis	Area operated under tribal or traditional communal tenure forms	Area operated under other tenure forms and area for which tenure form cannot be determined
					Total	For fixed amount of money	For fixed amount of produce	For fixed amount of money and produce	For a share of the produce	In exchange for services	Operated gratuitously (rent-free)			
Code number of item	02.1	02.2	02.3	03.1	03.2	03.21	03.22	03.23	03.24	03.25	03.26	03.3	03.4	03.9
NEAR EAST (6) .....	5	4	5	4	3	1		X	2	1	1	-	-	3
Iran .....	X	X	-	-	-	-	-	-	-	-	-	-	-	X
Iraq .....	X	-	X	X	X	-	-	-	-	-	-	-	-	Miri sif land; other forms
Lebanon .....	X	X	X	X	X	X		-	X	X	X	-	-	X
Libya .....	X	X	X	X	-	X	-	-	-	-	-	-	-	-
Sudan .....	X	-	X	X	X	-	-	-	-	-	-	-	-	-
Turkey .....	-	X	X	X	X	-	-	-	X	-	-	-	-	X
FAR EAST (15) .....	14	13	15	14	10	2		1	4	3	6	3	-	11
Brunei .....	X	X	X	X	X	X	X	-	-	-	X	X	-	X
Ceylon .....	X	X	X	X	X	-	-	-	-	-	-	-	-	X
China (Taiwan) .....	-	-	X	X	X	-	-	-	X	X	X	X	-	X
India .....	X	X	X	X	X	X	X	X	X	X	X	X	-	X
Indonesia .....	X	X	X	X	X	X	X	X	X	X	X	X	-	On pawn
Japan .....	X	X	X	X	X	-	-	-	-	-	-	-	-	-
Korea, Rep. of .....	X	X	X	X	X	-	-	-	-	-	-	-	-	X
Malaya, Fed. of .....	X	X	X	X	X	X		-	-	-	X	-	-	Other <sup>2</sup>
Nepal .....	X	X	X	X	-	X	-	-	X	X	-	-	-	On mortgage
North Borneo .....	X	X	X	X	X	-	-	-	-	-	-	-	-	X
Pakistan .....	X	X	X	X	X	X		-	X	-	X	-	-	-
Philippines .....	X	X	X	X	X	-	-	-	-	-	-	-	-	X
Sarawak .....	X	X	X	X	X	-	-	-	-	-	-	-	-	X
Thailand .....	X	X	X	X	X	X	X	-	-	-	X	-	-	X
Viet-Nam, Rep. of .....	X	-	X	X	X	-	-	-	-	-	-	X	-	X
AFRICA (22) .....	16	17	14	10	8	2	2	1	1	1	1	2	1	4
Angola .....	X	X	X	X	X	-	-	-	-	-	-	X	-	-
Basutoland .....	X	X	X	X	X	-	-	-	-	-	-	-	-	-
Bechuanaland .....	X	X	X	X	X	-	-	-	-	-	-	-	-	-
Central African Republic .....	X	X	X	X	X	-	-	-	-	-	-	-	-	-
Congo, Brazzaville .....	X	X	X	X	X	-	-	-	-	-	-	-	-	-
Gabon .....	X	X	X	X	X	-	-	-	-	-	-	-	-	-
Ghana .....	X	X	X	X	X	X	X	-	-	-	-	X	-	-
Guinea, Rep. of .....	X	X	X	X	X	-	-	-	-	-	-	-	-	-
Kenya .....	X	X	X	X	X	-	-	-	X	-	-	-	-	X
Madagascar .....	X	X	X	X	X	-	-	-	-	-	-	-	-	X
Mali .....	X	X	X	X	X	X	X	-	-	X	-	-	-	X
Morocco .....	X	X	X	X	X	X	X	-	-	-	-	-	X	X
Portuguese Guinea .....	X	X	X	X	X	-	-	-	-	-	-	-	-	X
Rhodesia and Nyasaland, Fed. of .....	X	X	X	X	X	-	-	-	-	-	-	-	-	-
Senegal .....	X	X	X	X	X	-	-	-	-	-	-	-	-	X
Seychelles .....	X	X	X	X	X	-	-	-	-	-	-	-	-	X
South Africa .....	X	X	X	X	X	-	-	-	-	-	-	-	-	-
Tanganyika .....	X	X	X	X	X	-	-	-	-	-	-	-	-	-
Togo .....	X	X	X	X	X	-	-	-	-	-	-	-	-	-
Tunisia .....	X	X	X	X	X	-	-	-	-	-	-	-	-	Mgharsa, dhana, mous- sakat, etc.
Uganda .....	X	X	X	-	-	-	-	X	-	-	X	-	-	-
Upper Volta .....	X	X	-	X	X	-	-	-	-	-	-	-	-	-
OCEANIA (5) .....	3	1	4	3	4	-	-	-	-	-	1	1	-	-
American Samoa .....	X	X	X	X	X	-	-	-	-	-	-	-	-	-
Australia .....	X	-	X	X	X	-	-	-	-	-	-	-	-	-
Guam .....	X	-	X	X	X	-	-	-	-	-	X	X	-	-
New Zealand .....	X	-	X	X	X	-	-	-	-	-	-	-	-	-
Papua and New Guinea .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-

<sup>1</sup> Separate questions for: (a) Owned singly; (b) Jointly owned; (c) Under Land Development Ordinance; (d) Crown lease. - <sup>2</sup> Also included here is land obtained for a share of the crop, and also in exchange for services or for loan of money. - <sup>3</sup> Included here is also land cultivated free of any fees or rent, as well as squatter land.

- (ii) The world programme item, civil person, under the legal status was subdivided, in this region's programme, to investigate separately individual and joint and extended family. Seven countries inquiring about both these items were the Central African Republic, Congo (Brazzaville), Gabon, Madagascar, Mali, Togo and Upper Volta. In addition, three countries, namely, Angola, South Africa and Uganda, asked for the first item only.

#### B. *Holding*

- (i) "Does the holding consist of communal grazing land?" The answer to this additional question was to be "yes" or "no." South Africa, in the questionnaire for the Bantu area, included an item: Does the holding include communal grazing land?
- (ii) "If the holding does not consist of communal grazing land, has it access to communal grazing land?" Again the answer was to be "yes" or "no." Angola and Uganda included this question in their censuses.
- (iii) Another item suggested in the regional programme related to obtaining an indication as to whether the holding was operated under a definite plan, or under a traditional system. Angola, Kenya and South Africa provided this indication. In the case of Angola and Kenya, it was evident that the holding was operated under a traditional system, since the questionnaire related to African agriculture only.

#### C. *Tenure*

Two additions, introduced in the tenure form of area rented from others, were:

- (i) area used under usufructuary mortgages; and
- (ii) area operated under other forms of renting.

No country in the region included any of these items in its census questionnaires.

## Section 1 : Land utilization

### INTRODUCTION

Participation of the countries in this section of the programme is shown in two ways in Table 9. Items in the national censuses which corresponded exactly or very nearly to those in the programme have been indicated in the table with a cross. Secondly, in view of the varying terminology used for the land utilization categories in the national census documents, the national wordings have been written in the table, to denote participation.

Items appearing in the national questionnaires sometimes corresponded to more than one single group or major group of the programme. These items have been written as one entry, between the adjacent groups involved, the extent of coverage having been indicated by an extended line. For instance, area under cropland in some countries covered arable land and land under permanent crops — the two major groups 11 and 12 of the programme; or agricultural land, in a few national programmes covered arable land, land under permanent crops, as well as land under permanent meadows and pastures — three major groups, 11, 12 and 13 of the programme. The extent of all such terms has been clearly marked by lines. However, in some cases, it was not possible to follow this procedure because the national census items corresponded to, or appeared to correspond to, more than one *nonadjacent* group of the programme. Here lines could not be used. The items have, therefore, been shown under one group of the programme, taking into consideration different indications from the national census material. For instance, in the case of Ireland, first year's grassland for hay has been shown under the temporary meadows group of the programme, but the second category in the national census, namely, other than first year's grassland for hay including permanent meadows, has been placed under the group for land under permanent meadows and pastures. Another example, nurseries including those of forest trees, has been retained in the group land under permanent crops, although "those of forest trees" legitimately belongs to the wood or forest land group, according to the FAO programme.

This method has been adopted as a convenient presentation device. The fact that the national terminology is retained in all such cases obviates the possibility of misunderstanding. Conceptual differences have been analysed in Chapter 4.

#### LAND UTILIZATION

Many countries have asked for more information than proposed in the programme. Programme groups have also been further specified for greater detail. These details have been omitted from Table 9. For instance, it has not been found necessary to indicate that information was asked in the national questionnaire on the area under crops grown for sale or for home consumption, or about vineyards bearing or nonbearing.

The majority of countries included, in their census questionnaires, a breakdown of the total area into land utilization categories. There have been a few exceptions as well. Greece gave a breakdown of the agricultural area only. A few countries in Africa (Central African Republic, Congo [Brazzaville] and Gabon) inquired about the area under crops only, broken down into area under temporary and that under permanent crops.

The countries that did not provide a breakdown for temporary and permanent crops individually but included one general question concerning the area under both types of crops were Malta and Gozo, Norway, Sweden, the United Kingdom; Alaska, Canada, Hawaii, the United States; Jamaica, Puerto Rico, the Virgin Islands; and the Republic of Guinea. Among the countries which omitted from their questionnaires the area under permanent crops were the Netherlands; the Federation of Rhodesia and Nyasaland, Upper Volta; and Papua and New Guinea. There were only 6 countries which did not participate at all in this section of the programme; they were Portuguese Guinea, Mali, Senegal, Togo, Uganda; and American Samoa.

#### REGIONAL PROGRAMMES

Three regions had suggested collecting additional information in the section on land utilization. Agricultural holders, in several countries

in Europe, had the right to make use of communal grassland or communal forest land for grazing purposes or to obtain wood. Although the area concerned could not be included in the total area of the holding, it was felt that additional information on this subject was required. The following items were therefore suggested in the regional programme for Europe.

1. Area of (a) communal pastures; and (b) communal forests.
2. Under the heading of animals kept on common pastures, the two items required were:
  - (i) average number of animals that have grazed;
  - (ii) total number of animals/months pastured.

This information was required for cattle (two age groups), sheep and goats.

Only Yugoslavia participated in this part of the programme, inquiring about communal pasture and also the number of animals (cattle without age classification, and sheep) that have grazed.

In the programme for Asia and the Far East it was suggested that the area of the land in *transit to permanent crops* be recorded separately. This contingency might arise where permanent crops like rubber were being established and, during the transitional period, where temporary crops were grown in the same field. No country in the region incorporated this suggestion in the agricultural census questionnaire.

The programme for Africa south of the Sahara took note of the problem of land utilization under shifting cultivation in the region and proposed that countries classify arable land according to year of clearing, and land under permanent crops, taking into account the year of planting. Furthermore, it was suggested that the areas newly taken under cultivation should be classified according to their former vegetative cover, namely (a) rainforest; (b) dry forest; (c) savanna; and (d) mangrove.

Eleven countries in the region participated in this part of the programme. Nine of them, namely, Angola, the Central African Republic, Congo (Brazzaville), Gabon, Kenya, Madagascar, Senegal, Togo and Upper Volta, classified arable land according to year of clearing, and land

TABLE 9. - EXTENT OF PARTICIPATION IN SECTION 1, RELATING TO land utilization

Region and country	Arable land				Land under permanent crops	Land under permanent meadows and pastures		Wood or forest land	All other land		
	Land under temporary crops (for mowing or pasture)	Land under market and kitchen gardens, including cultivation under glass	Land temporarily fallow	All other arable land		Cultivated meadows and pastures	Uncultivated meadows and pastures		(unproductive, as well as that yielding insignificant production), potentially productive for agriculture or forestry	Land in the holding not classified elsewhere	
Item	11.1	11.2	11.3	11.4	11.9	12	13.1	13.2	14	15.1	15.2
Group number	60	29	21	51	11	62	30	36	65	18	33
Total number of countries asking question (85)	20										
	21										
	9										
	3										
	3										
	44										
EUROPE (17)											
Austria	<p>ARABLE LAND</p> <p>Land for gardening (for sale and for home use) —</p> <p>Land under temporary crops —</p> <p>Land under permanent crops —</p> <p>Land under market and kitchen gardens, including cultivation under glass —</p> <p>Land temporarily fallow —</p> <p>All other arable land —</p> <p>Land under permanent crops —</p> <p>Cultivated meadows and pastures —</p> <p>Uncultivated meadows and pastures —</p> <p>Wood or forest land —</p> <p>Land in the holding not classified elsewhere —</p>										
Belgium	<p>ARABLE LAND</p> <p>Land for gardening (for sale and for home use) —</p> <p>Land under temporary crops —</p> <p>Land under permanent crops —</p> <p>Land under market and kitchen gardens, including cultivation under glass —</p> <p>Land temporarily fallow —</p> <p>All other arable land —</p> <p>Land under permanent crops —</p> <p>Cultivated meadows and pastures —</p> <p>Uncultivated meadows and pastures —</p> <p>Wood or forest land —</p> <p>Land in the holding not classified elsewhere —</p>										
Denmark	<p>ARABLE LAND</p> <p>Land for gardening (for sale and for home use) —</p> <p>Land under temporary crops —</p> <p>Land under permanent crops —</p> <p>Land under market and kitchen gardens, including cultivation under glass —</p> <p>Land temporarily fallow —</p> <p>All other arable land —</p> <p>Land under permanent crops —</p> <p>Cultivated meadows and pastures —</p> <p>Uncultivated meadows and pastures —</p> <p>Wood or forest land —</p> <p>Land in the holding not classified elsewhere —</p>										
Finland	<p>ARABLE LAND</p> <p>Land for gardening (for sale and for home use) —</p> <p>Land under temporary crops —</p> <p>Land under permanent crops —</p> <p>Land under market and kitchen gardens, including cultivation under glass —</p> <p>Land temporarily fallow —</p> <p>All other arable land —</p> <p>Land under permanent crops —</p> <p>Cultivated meadows and pastures —</p> <p>Uncultivated meadows and pastures —</p> <p>Wood or forest land —</p> <p>Land in the holding not classified elsewhere —</p>										

Germany (Fed. Rep.)	ARABLE LAND (including agricultural area under fruit trees)		orchards, fruit plantations, berry plantations excluding straw-berries (b) Nurseries (including forestry nurseries on agricultural holdings) (c) Willow plantations (d) Vineyards: fruit-bearing; nonfruit-bearing	meadows (excluding arable meadows): (a) one mowing; (b) two or more mowings (ii) Pastures, permanent pastures (excluding arable and extensive grazing) (iii) Alpine pastures and extensive grazing	wooded areas (including glades and nurseries on forest holdings)	uncultivated peatland	dens, private parks and lawns Ponds and lakes for fishing Other waters (lakes, ponds, ditches, etc.) Wasteland (including quarries and sand pits) Areas of buildings, yards, ways, and all other areas
Greece	AGRICULTURAL AREA						
Ireland	AGRICULTURAL AREA						
Italy	Fields already sown or planted or intended to be sown or planted for harvest within 1961	Fallow land (resting for less than 5 years)	Land with fruit trees Vineyards Areas of cultivated land covered with poplar and cypress trees Nurseries of trees and plants	Grassland (for hay) Pastureland	Other land (not included elsewhere, e.g. rough grazing, turf bog, marsh, waters, roads, town and building grounds, etc.)	Land occupied by buildings and yards, etc.	
Luxembourg	ARABLE LAND (excluding market and kitchen gardens)						
Malta and Gozo	LAND UNDER CULTIVATION OR CROPLAND						
Greece	Temporary crops on arable land	Land under market and kitchen gardens	Land under various permanent crops, including those of forest trees Poplars	Meadows and pastures: (a) for one mowing (b) for two mowings (c) for pastures	Forest land, including forest tree nurseries	Other area (land under buildings, yards, ways, wasteland, stone pits, etc.)	Wasteland
Ireland	Corn crops Root and green crops Vegetables Ryegrass for seed	Horticultural bulbs, flowers and bushes, including ornamental nurseries of fruit trees	Tree and berried fruit	Other than first year's grassland for hay, including permanent meadows Pastures 5 years old and over	Woods and plantations (excluding shelterbelts and hedgerow timber)	Land occupied by buildings and yards, etc.	
Italy	Land under various cereals	Land under horticultural crops	Land under permanent crops, including those of forest trees Poplars	Permanent meadows cut for hay Permanent pastures for grazing	Woodland	Land occupied by buildings and yards, etc.	
Luxembourg	Temporary crops on arable land	Land under market and kitchen gardens	Orchards Vineyards: (a) bearing (b) nonbearing Nurseries Osters	Meadows and pastures: (a) for one mowing (b) for two mowings (c) for pastures	Forest land, including forest tree nurseries	Other area (land under buildings, yards, ways, wasteland, stone pits, etc.)	Wasteland
Malta and Gozo	LAND UNDER CULTIVATION OR CROPLAND						
Greece	Temporary crops on arable land	Land under market and kitchen gardens	Orchards Vineyards: (a) bearing (b) nonbearing Nurseries Osters	Meadows and pastures: (a) for one mowing (b) for two mowings (c) for pastures	Forest land, including forest tree nurseries	Other area (land under buildings, yards, ways, wasteland, stone pits, etc.)	Wasteland

TABLE 9. — EXTENT OF PARTICIPATION IN SECTION 1, RELATING TO land utilization (continued)

Region and country	Item	Group number	Arable land			Land under permanent crops	Land under permanent meadows and pastures		Wood or forest land	All other land		
			Land under temporary meadows (for mowing or pasture)	Land under market and kitchen gardens, including cultivation under glass	Land temporarily fallow		All other arable land	Cultivated meadows and pastures		Uncultivated meadows and pastures	Unused (unproductive, as well as that yielding insignificant production), potentially productive for agriculture or forestry	Land in the holding not classified elsewhere
EUROPE (cont. d)	Netherlands	11.1	11.2	11.3	11.4	11.9	13.1	13.2	14	15.1	15.2	
		Land under temporary crops	Land under temporary meadows (for mowing or pasture)	Land under market and kitchen gardens, including cultivation under glass	Land temporarily fallow	All other arable land	Land under permanent crops	Cultivated meadows and pastures	Uncultivated meadows and pastures	Wood or forest land	Unused (unproductive, as well as that yielding insignificant production), potentially productive for agriculture or forestry	Land in the holding not classified elsewhere
Norway			11.1	11.2	11.3	11.4	11.9	13.1	13.2	14	15.2	
		Land under temporary crops, excluding horticultural land	Temporary cultivated grassland	Land under horticultural crops: (a) in the open (b) under glass	X	—	—	Permanent grassland	Forest land	Other land (farmyard, roads, built-up areas, outfields, unenclosed pastures, and other outlying pastures, and land not included elsewhere)	Other land	
TOTAL CROPLAND												
Fallow land												
Meadows for hay and ensilage												
Fully cultivated Pastures: Fully cultivated												
Meadows not in use: Fully cultivated												
Natural and superficially cultivated												
TOTAL AGRICULTURAL LAND												
Poland	Land under temporary crops, including land temporarily fallow, and unused land potentially productive for agriculture		—	—	—	—	—	—	X	—	—	
												Permanent meadows
Spain	(including temporary meadows and pastures and fallow land)		AREA WITH HERBACEOUS CROPS			Area under fruit trees, olive trees and vineyards	Area under permanent meadows and pastures	Area with forest trees: (a) grazed (b) not grazed	Area with spontaneous plants (like thyme, rosemary, broom, feather grass)	Area of unproductive land (e.g., buildings, roads, land under water and land not being used for agricultural purposes)	Ponds, land occupied by buildings, parks, ornamental gardens, roads, etc. Wasteland	—
			—	—	—							
Sweden	Pasturage on arable land		—	—	X	Temporarily unutilized arable land	Cultivated pastureland	Natural pastures	Forest land	Plots of land and gardens (includes building sites, yards, etc., and non-arable land used for vegetables, orchards, decorative gardens or parks)	Other land (e.g., roads, ditches, meadows, bogs, marshes and swamps, mountains and other land not included elsewhere)	—
Total area of arable land												

United Kingdom	Area under crops, grass, bare fallow and rough grazings (excluding seasonal grazings and common grazings)				Rough grazing (mountain, moor, deer, forest and heath land)	Buildings, ponds, farm roads, private flower gardens, shrubberies, lawns, waste ground, etc., excluding seasonal and common grazing
Yugoslavia	Arable land and kitchen gardens	Orchards and vineyards	Mendows Pastures	Forests Forest reserves	Reed bed	Yard, building and other nonagricultural land
NORTH AMERICA (4) Alaska	<p>(including hay cut, marsh, prairie or wild grasses as well as tame and cultivated grasses cut for hay)</p> <p>Crops harvested last year</p> <p>Land suitable for crops but pastured (or grazed) last year</p> <p>Crops failed last year</p> <p>Land suitable for crops but not pastured (or grazed) last year</p> <p>Land not suitable for crops but pastured (or grazed) last year</p>					
Canada	<p>Cropland</p> <p>Summer fallow</p> <p>Improved land for pasture or grazing</p> <p>Unimproved pastures</p> <p>Woodland (woodlots, sugar bush, tree wind-breaks, cut-over land, etc.)</p> <p>Other unimproved land (unimproved hayland, native pastures, sloughs, marshes, etc.)</p> <p>Other improved land (barnyards, lanes, home gardens, improved idle land, etc.)</p>					
Hawaii	<p>Crops harvested (including forage cut, orchards, and coffee plantations)</p> <p>Land suitable for crops but used only for pasture (or grazing)</p> <p>Crops harvested</p> <p>Crops completely failed</p> <p>Land suitable for crops but not pastured (or grazed)</p> <p>Other pasture (excluding cropland pasture)</p> <p>Improved pasture</p> <p>Woodland pastured</p> <p>Woodland not pastured</p> <p>Other land (house lots, barn lots, ditches and wasteland)</p>					
United States	<p>Crops harvested (including hay cut this year)</p> <p>Cropland in cultivated fallow this year</p> <p>Cropland used only for pasture or grazing this year</p> <p>Cropland used only for soil improvement, grasses and legumes, not harvested and not pastured</p> <p>Cropland not accounted for</p> <p>Other pastures (excluding cropland pasture)</p> <p>Woodland (or grazed) this year</p> <p>Woodland not pastured (or grazed) this year</p> <p>Other land (house lots, barn lots, roads, ditches and wasteland)</p>					



TABLE 9. - EXTENT OF PARTICIPATION IN SECTION 1, RELATING TO land utilization (continued)

Region and country	Arable land					Land under permanent crops	Land under permanent meadows and pastures		Wood or forest land	All other land		
	Land under temporary crops	Land under temporary meadows (for mowing or pasture)	Land under market and kitchen gardens, including cultivation under glass	Land temporarily fallow	All other arable land		Cultivated meadows and pastures	Uncultivated meadows and pastures		Unused (unproductive, as well as that yielding insignificant production), potentially productive for agriculture or forestry	Land in the holding not classified elsewhere	
Item	Group number	11.1	11.2	11.3	11.4	11.9	12	13.1	13.2	14	15.1	15.2
LATIN AMERICA (22)												
Argentina	X	Meadows for grazing with temporary forage crops	—	—	—	—	Area under permanent crops, including cultivated forest trees	Meadows for grazing with permanent forage crops	Natural pastures for grazing	Natural wood and forest land (excluding planted or cultivated forest)	Area suitable for agriculture and livestock but not utilized (including fallow land, land damaged by floods, land prepared for cultivation but not sown, etc.)	Wasteland (under water, lakes, swamps, etc.) Land occupied by dwellings, parks, roads, etc.
Barbados		Other (than permanent) cropland.....					X	Cultivated grassland	Uncultivated grassland	Forest and woodland	Built-on and service area (including buildings, yards, roads, and ornamental gardens)	Other land, including ruinate
Bolivia		.....Arable land.....					Permanent and semipermanent crops			X		X
Brazil	X	—	—	—	—	—	X	X	Natural pasture	Area of plains and natural forest Reforested area (i.e., cultivated with forest trees)	Uncultivated but productive land	Unproductive land
Colombia	X	X	X	X	X	—	X			X		X
Costa Rica	Temporary crops harvested	Temporary meadows for mowing	X	Land not cultivated (temporarily resting)	Other arable land (crops failed or not yet harvested)	X	X	High pastures (cultivated) for grazing (excluding those for mowing)	Permanent pastures, low or natural	Woodland with pastures without pastures	—	Wasteland All other land not included elsewhere (buildings, roads, etc.)
Dominican Republic	X	.....Arable land.....					Permanent crops (excluding pastures)	Natural and cultivated pastures (permanent)		X	Other land (productive or not)	
Ecuador	Temporary and semipermanent crops, including bananas and plantains	Alfalfa and cultivated pastures	X	X	—	—	X	—	Natural pastures and alpine land	X	Undergrowth, brushland, non-productive land or land not used for agriculture	

	X	—	—	X	—	X	X	X	^	^	
El Salvador	X	—	—	X	—	—	—	—	X	Other land (including rivers, beaches, etc.)	
Guatemala	X	Land under temporary or semipermanent pasture for cutting	—	X	—	Land under permanent and semipermanent crops	X	Natural permanent pastures	X	Other land (including rivers, beaches, etc.)	
Jamaica		-----Total cultivated land (including land under pure crops, under mixed crops and food forest)									
Mexico		-----Cropland									
	Rainfed land	—	—	—	—	Land with orchards, plantation and agaves	X	Land with pastures in plain	Total woodland	Other land (waste-ble) not in use	
	Naturally humid land	—	—	—	—	Fallow land under rotation	X	Land with pastures in moun-tains		Ruinmate (cultiva-ble) used as pasture	
	Irrigated land	—	—	—	—	Fallow due to other causes	X	Land with or- chards, plantation and agaves		Ruinmate (cultiva-ble) used as pasture	
Nicaragua	Area under annual crops	—	—	X	—	—	X	Land with pastures in plain	X	Other land (including land with stables and buildings, under water, etc., and all other land not usable for agriculture)	
Panama	X	—	—	X	—	Area planted with fruits and industrial per- manent crops	X	Area with natural pastures	X	Brushland, swampland etc., and other land not cultivated before	
Paraguay	X	X	Kitchen gardens	X	—	—	X	Permanent grazing land	X	—	
Peru	X	—	—	—	Fallow land or land in rotation	Cultivable but not cul- tivated for various rea- sons: lack of irrigation, fertilizers, capital	X	Natural pastures	X	Unproductive land (hills, rivers, roads, buildings, etc.)	
Puerto Rico		-----Cropland									
	Annual crops	—	—	—	—	—	—	Pastureland suitable for crops	—	All other land (occupied by buildings, roads, and wasteland)	
	Yard and crops	—	—	—	—	—	—	Pastureland not suitable for crops	—	Wooded land in hills, mountains, and brush- land not suitable for crops or for use as pas- tureland	
Surinam	Annual crops	—	—	—	—	Perennial crops	—	Grassland	—	Other land (fallow land, swamp- bush)	





TABLE 9. - EXTENT OF PARTICIPATION IN SECTION 1, RELATING TO land utilization (continued)

Region and country	Item	Arable land					Land under permanent crops	Land under permanent meadows and pastures		Wood or forest land	All other land	
		Land under temporary crops (for mowing or pasture)	Land under market and kitchen gardens, including cultivation under glass	Land temporarily fallow	All other arable land	Land under permanent crops		Cultivated meadows and pastures	Uncultivated meadows and pastures		Unused (unproductive, as well as that yielding insignificant production), potentially productive for agriculture or forestry	Land in the holding not classified elsewhere
FAR EAST (cont'd)	Indonesia	11.1	11.2	11.3	11.4	11.9	12	13.1	13.2	14	15.1	15.2
		Paddy land: irrigated, rainfall reclaimed, swamps and ponds; inundated	—	—	—	Dry land: (a) shifting cultivation (b) Nonshifting cultivation	Compact plantings	Meadows and pastures	Meadows and pastures	X	All other land (e.g., swamps)	House compound
Japan	Paddy fields Ordinary up-land fields	Temporary grassland	Hothouse	—	—	X	X	Permanent meadows and pastures	Wood forest land, of which: (a) used as meadows (b) used for grazing	—	Other land	Building site
		—	—	—	—	—	—	Grazing land and pastures	X	—	Other land (house lots, foot paths, reservoir, waterways and waste-land)	
Korea, Rep. of	Paddy fields Dry fields	—	—	—	—	—	X	(orchards, mulberry fields, nursery, and others)	—	—	—	—
		—	—	—	—	—	—	—	—	—	—	—
Malaya, Rep. of	—	Total cultivated land					—	—	—	—	—	—
		—	—	—	—	—	X	—	—	—	—	—
Nepal	X	—	—	—	X	—	Land under fruit trees Land under tea gardens	Land under permanent meadows	Land under woods	—	—	—
		—	—	—	—	—	—	—	—	—	—	—
North Borneo	X	Arable land					Land under permanent orchards and other tree crops	Pastureland	Wood forest land (unopened land) Natural Planted Jungle/old terami	—	—	—
		—	—	—	Fallow land	—	—	Grazing land	—	—	—	—
Pakistan	Kharif crop area Rabi crop area	Total cropped area					Area under orchards Fruit and tree area	—	—	Forest area	Total uncultivated area	Culturable area (such as built-up area, roads, waterways, hills, sand mounds, etc.)
		—	—	—	Current fallow	—	—	—	—	—	—	—

Philippines	Area planted to temporary crops	—	—	Lying idle (land temporarily fallow and land under temporary pastures)	—	Area planted to permanent crops	Permanent pastures	Forest growth	All other land (buildings, roads, wasteland, etc.)
Sarawak	X	—	—	Fallow land	—	X	Permanent pastures Rough grazing land	Unopened land (approved but not yet opened for agricultural use)	All other land not used for agricultural purposes (e.g., swamps, building sites, drying floors, smokehouses, wasteland, etc.)
Thailand	Arable land in annual and seasonal crops, including pineapple and papaya)	—	—	Fallowed and other arable land	—	Tree crops (including nurseries)	Permanent pasture	Woodland	Other land (e.g., homesteads, barns, fish ponds, ponds, marshes, poultry houses, livestock pens, ornamental plants, bushes, mat-making grasses)
Viet-Nam, Rep. of	X	—	—	—	—	X	—	—	All other land (abandoned land, buildings, paths, excluding pleasure gardens)
AFRICA (17)	X	X	Kitchen gardens	X	X	X	Natural meadows	X	X
Basutoland	Winter crops Summer crops Yard around homestead (used for raising of crops such as maize, beans, potatoes, etc.)	—	Vegetable gardens	X	—	—	—	—	—
Bechuana-land	Area of arable land available	Area of arable land actual		—	—	X	Natural grazing	—	—
Central African Republic	Annual crops	—	—	—	—	—	—	—	—
Congo (Brazzaville)	X	—	—	—	—	X	—	—	—
Gabon	X	—	—	—	—	X	—	—	—
Ghana	Land under annual/biennial crops (excluding pineapples, bananas, plantains, pawpaw)	—	Land under vegetables (grown either in the open or in green-houses)	X	X	Land under permanent crops (including pineapples, bananas, plantains, pawpaw)	X	—	All other land (as wood, forest, savanna, rocks, unused land, roads, yards, built-on areas, swamps, ponds, rivers, etc.)
Guinea, Rep. of	—	—	Area of land around homesteads	Area of fields resting	—	—	—	—	—
Cultivated area									



Upper Volta	Cultivated land		Fallow land		Area used for fruit (including vines, nuts and olives) Total area of orchards	Sown pasture (not cut for hay or seed) Area under clovers and grasses (other than native grass)	Native pasture (not cut for hay or seed) Other land used for grazing	Balance of holding (i.e., land not being used for cropping or grazing, but including forest and mountain areas)	
OCEANIA (4) Australia	Area used for crops (including permanent crops, and area of pasture cut for hay and seed)	—	Land lying fallow during 1959/60 season (excluding short or summer fallow)	—	Area used for fruit (including vines, nuts and olives) Total area of orchards	Sown pasture (not cut for hay or seed) Area under clovers and grasses (other than native grass)	Native pasture (not cut for hay or seed) Other land used for grazing	Balance of holding (i.e., land not being used for cropping or grazing, but including forest and mountain areas)	
Guam	Land used for crops (both temporary and permanent) excluding land used only for soil improvement crops	—	Cropland not used for crops (including pasture land planted to soil-improvement crops not harvested)	—	Land used for crops (both temporary and permanent)	Pastureland used for grazing (excluding land pastures)	All other land (home lots, barn lots, ponds, ditches, swamps, steep slopes, cliffs, roads, brushland, wasteland and forest areas)		
New Zealand	Total area of all temporary crops New Zealand flax ( <i>Phormium</i> )	New pasture grass clover and lucerne sown since January 1959 on pastured or previously cultivated land	Bare fallow during the whole season	—	Orchards, market gardens and nurseries	Old pastures established before January 1959 New pasture grass, lucerne and sown on virgin land since January 1959	Tussock grazing (rough) Naturally established <i>Dantonia</i> (grass)	Plantation of timber trees Standing native forest or forest	Residence, outbuildings, yards, private gardens, grounds (including orchard area of less than 1/4 acre) Fern, scrub, second growth, rushes, etc. Barren areas useless for grazing and incapable of being made productive (sand, roads, drains, etc.)
Papua and New Guinea	Cultivated area (cropped or fallow)								Newly cleared area (not yet cultivated)



under permanent crops according to year of planting. Besides these countries, Basutoland and Ghana inquired about arable land according to year of clearing. Ghana further asked about arable land cleared of original forest/bush, or of secondary forest/bush.

The programme had further suggested investigating whether the land under temporary crops and that under permanent crops was exclusively or mainly under the crops concerned. Angola and Ghana participated in this inquiry.

## Section 2 : Crops

### INTRODUCTION

The FAO programme suggested collecting data on area as well as production of temporary crops, and on area as well as the number of trees, in addition to production of permanent crops. Area and number of trees in compact plantation were further subdivided into: total; of productive age; and of nonproductive age.

The number of scattered trees (other than in compact plantations) was also recommended. It created the problem of presenting all the information in the synoptic tables.

It was observed that, in general, countries asked the same type of information for all the crops included in their censuses. In the case of temporary crops, for instance, if a country required data on area only, it was asked for all the crops included in the census material. Therefore, in the synoptic tables that follow under this section, the first column shows the type of information asked for by the country for the crops marked with a cross. In this context, "A" signifies area and "P" production, and one or both, as the case may be, are placed against each country. The abbreviations used for the permanent crops are explained under the paragraph "Permanent crops."

### TEMPORARY CROPS

Tables 10 to 19 (inclusive) show the extent of participation in Section 2 of the programme relating to temporary crops. Participation in this section is generally based on the crops mentioned in the basic census documents, *viz.*, census questionnaires and/or instructions according to the programme recommendations. Some exceptional

cases have also occurred, and the national reports of the census results have been taken into account in obtaining the names of crops.

In a few cases the relevant set of questionnaires was not available, as was the case for Poland; and Gabon, or names of crops were not mentioned although the space to indicate them had been provided, as was the case for Kenya. In all such instances the crops against which a cross has been marked in the synoptic tables are those mentioned in the national reports providing census results.

Some countries did not ask for area corresponding to each crop mentioned in a questionnaire. For example, Mali and Togo requested the area of each parcel separately, and the names of crops grown on each parcel. Presumably one crop at a time was expected to be grown on a parcel. Madagascar collected information on the structure of a holding by one sample survey, and data on crops on a regional/district basis. In the case of the Central African Republic, area by plot was recorded for sample plots only for yield purposes. Argentina asked for the number of rows of sugarcane per 100 metres instead of area under that crop. Lebanon inquired about the quantity of seed sown, if area was not given. All such cases were considered as having participated for the purposes of the synoptic tables.

Canada asked for production data for 11 forage seed crops listed in the questionnaire. This was not considered participation in the programme, since the programme recommended area, which was not asked. For the same reason, Costa Rica was not considered as having participated in the two groups of the programme relating to temporary fodder crops and crops grown for seed for sowing purposes, although it had asked for the quantity used as forage and as seed for each of the crops mentioned.

Several variations were observed in the collection of information on area. Some countries asked for area sown or planted and others harvested area, and still others asked for both. A few requested further details. For example, Ecuador asked for area sown and area harvested for crops grown alone, associated with other crops and successively cultivated. Morocco asked for area as well as quantity of seed sown for wheat. These details have not been brought out in the synoptic tables.

Many countries asked for information on different varieties or kinds of crops, or on crops harvested in different seasons not mentioned in the programme. While these cases have not been indicated in the tables, a few examples are mentioned below.

1. Winter/fall rye, summer/spring rye: Austria, Belgium, the Federal Republic of Germany, Luxembourg, Sweden; and Canada.
2. Swamp rice, hill rice: Trinidad and Tobago; lowland rice transplanted, broadcasted, upland rice: Thailand.
3. Millet and giant millet: Iraq; foxtail millet, proso and barnyard millet: Japan.
4. White maize, yellow maize: Basutoland, South Africa.
5. Brewing barley: Uruguay; naked barley: Japan, Republic of Korea.
6. Potatoes, early, middle or late: Belgium, Federal Republic of Germany, Ireland, Luxembourg, Malta and Gozo, the United Kingdom.
7. Musk melon: Turkey; Japan; Guam; white melon: Japan; rock melon: Australia.

Cabbage has been described as red, white, Chinese cabbage, early winter, spring, summer, autumn, and swamp cabbage.

A crop is called by different names in different countries. The coverage of several programme items is given here as an illustration:

Millet includes Bajra (India), French white millet, Japanese millet (Australia).

Sorghum includes jowar (India), Kafir corn (South Africa).

Guinea corn (Ghana), grain sorghum and sweet sorghum (Australia).

Chilies (fresh) include pepper (Virgin Islands; Ghana), green pepper (Iraq), green and red pepper (Libya).

A few programme items comprise more than one single item, e.g., cabbage (including brussels sprouts) or cantaloupes and other melon crops. Some countries have given component items separately or only part of the components; no distinction has been made in the synoptic tables.

Beans and peas, onions, garlic and pepper have been classified in the programme according to

whether they are dry or green. Many countries did not make this distinction in their censuses. These cases have been shown in the tables against the "dry" item concerned, with a footnote "Not specified whether dry or green."

Table 19 shows the number of countries, by region, which have inquired about the programme items in their national censuses. It will be recalled that the items included in the short list were those for which data were requested from all countries, since they were considered of major importance in the world's agriculture. It was not expected of countries to include these items in their censuses when they happened to be of little or no importance within the country. From this standpoint, there was no item in the programme which was investigated by all the participating countries. Maize was the only crop listed by the maximum number of countries in the world, i.e., 70 out of 91 participants, representing nearly 80 percent of participants. Region-wise, this item was investigated by all countries in Oceania, 14 out of 15 (93 percent) in the Far East, 19 out of 22 (86 percent) in Latin America, 82 percent in Africa and only 41 percent in the European region. Potatoes was the next item in order of importance, according to 65 countries. After the North American region, which had 100 percent coverage, the European region was the next highest, 16 out of 17 countries having requested information. Other items, also in order of importance, were tobacco (63 percent), groundnuts and rice (60 percent), and sugarcane (55 percent). Jute and sugar beet were the two typical examples of the items in the short list which were of regional importance only, although considered of major importance in the world's agriculture. Jute was investigated by only 7 countries (5 in the Far East and 2 in Latin America). Sugar beet was principally requested in the European region, where 13 out of 17 countries included it in their censuses. A total of 24 countries in the world asked for this item, the participation of the Far East and Oceania being nil. Although millet and sorghum as a combined item, being in the short list, was asked only by 5 countries, the two items separately were investigated by 27 and 26 countries respectively.

The items in the short list that were requested by 60 percent or more of the countries in the





TABLE 11. - EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO *leguminous plants for grain*

Region and country	Item	Information asked for: area (A), production (P)	Soybeans	Dry broad beans	Edible dry beans	Lentils	Chick-peas	Edible dry peas	Other legumes for grain
			21.21	21.22	21.23	21.24	21.25	21.26	21.29
<i>Total number of countries asking question (75) .....</i>			24	30	41	16	22	31	52
EUROPE (13) .....			—	6	7	1	1	8	8
Belgium .....	A	—	X	X	—	—	X	Vetches, lupines	
Denmark .....	A	—	—	—	—	—	—	Pulses	
Finland .....	A	—	—	—	—	—	<sup>1</sup> X	—	
Germany (Fed. Rep.) .....	A	—	<sup>1</sup> X	—	—	—	—	Dry pulses harvested for grain	
Ireland .....	A	—	—	—	—	—	—	Beans and peas	
Luxembourg .....	A	—	—	X	—	—	X	Vetches, sweet lupines, mixed pulses	
Netherlands .....	A	—	X	—	—	—	X	Kidney beans	
Norway .....	A	—	—	<sup>1</sup> X	—	—	X	—	
Poland .....	A	—	—	—	—	—	—	Vetches, lupines	
Spain .....	A	—	X	X	X	X	X	Vetches, bitter vetches, algaroba ( <i>Vicia articulata</i> )	
Sweden .....	A	—	—	X	—	—	X	—	
United Kingdom .....	A	—	<sup>1</sup> X	X	—	—	X	—	
Yugoslavia .....	A	—	X	<sup>1</sup> X	—	—	—	—	
NORTH AMERICA (2) .....			2	—	2	—	—	2	1
Canada .....	A	X	—	X	—	—	X	—	
United States .....	A P	X	—	X	—	—	X	Cowpeas, velvet beans, mung beans	
LATIN AMERICA (22) .....			6	12	16	7	8	8	15
Argentina .....	A	X	<sup>1</sup> X	X	X	X	X	—	
Barbados .....	A P	—	—	—	—	—	—	Pigeon peas	
Bolivia .....	A P	X	X	—	—	X	X	—	
Brazil .....	A P	X	<sup>1</sup> X	<sup>1</sup> X	X	—	<sup>1</sup> X	Pigeon peas	
Colombia .....	A P	X	X	X	X	X	—	Vetches	
Costa Rica .....	A P	—	—	X	—	—	—	—	
Dominican Republic .....	A P	—	X	X	—	X	X	Other beans, pigeon peas	
Ecuador .....	A P	—	X	X	X	—	X	Vetches	
El Salvador .....	A P	—	<sup>1</sup> X	X	—	—	—	—	
Guatemala .....	A P	—	<sup>1</sup> X	<sup>1</sup> X	—	—	—	—	
Jamaica .....	A P	—	—	—	—	—	<sup>1</sup> X	Other peas and beans	
Mexico .....	A P	—	<sup>1</sup> X	X	X	X	<sup>1</sup> X	Cowpeas, vetches	
Nicaragua .....	A P	—	—	X	—	—	—	—	
Panama .....	P	—	<sup>1</sup> X	—	—	—	—	Cowpeas <sup>2</sup>	
Paraguay .....	A P	—	—	—	—	—	—	Vetches	
Peru .....	A P	—	<sup>1</sup> X	<sup>1</sup> X	—	X	—	Vetches	
Puerto Rico .....	A P	—	—	<sup>1</sup> X	—	—	—	Pigeon peas, dry kidney beans	
Surinam .....	A	X	—	—	—	—	—	X	
Trinidad and Tobago .....	A P	—	—	<sup>2</sup> X	—	—	—	Pulses, pigeon peas, black-eyed peas <sup>1</sup>	
Uruguay .....	A P	—	X	X	X	X	<sup>1</sup> X	Pigeon peas	
Venezuela .....	A P	X	—	X	X	X	—	Vetches, pigeon peas	
Virgin Islands (U.S.) .....	A P	—	—	X	—	—	—	—	

TABLE 11. - EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO *leguminous plants for grain (concluded)*

Region and country	Item	Information asked for: area (A), production (P)	Soybeans	Dry broad beans	Edible dry beans	Lentils	Chick-peas	Edible dry peas	Other legumes for grain
			21.21	21.22	21.23	21.24	21.25	21.26	21.29
NEAR EAST (5) .....			2	4	4	5	5	4	5
Iraq .....	A P	—	<sup>1</sup> X	—	X	X	X	X	Vetches, cowpeas
Lebanon .....	A	—	X	X	X	X	X	X	Lupines, vetches
Libya .....	A P	—	X	X	X	X	X	X	X
Sudan .....	A	X	—	X	X	X	—	—	Cowpeas, field peas, pigeon peas, chickling vetch, bambarra groundnuts
Turkey .....	A P	X	<sup>1</sup> X	X	X	X	<sup>1</sup> X	—	Vetches, Kidney beans, wild vetches, other pulses
FAR EAST (12) .....			8	1	3	—	3	2	8
Ceylon .....	A	—	—	<sup>1</sup> X	—	X	—	—	Cowpeas
China (Taiwan) .....	A	X	—	—	—	—	—	—	Other beans
India .....	A	—	—	—	—	X	—	—	—
Indonesia .....	A	X	—	—	—	—	—	—	X
Japan .....	A P	X	X	—	—	—	—	X	Cowpeas, kidney beans, adzuki beans ( <i>Phaseolus angularis</i> )
Korea, Rep. of .....	A P	X	—	X	—	—	—	—	—
Nepal .....	A	A	—	—	—	—	—	—	X
North Borneo .....	A	X	—	—	—	—	—	—	—
Pakistan .....	A	—	—	—	—	X	—	—	X
Philippines .....	A P	—	—	X	—	—	—	X	Cowpeas, batiao ( <i>Dolichos lablab</i> ), lima beans, mung beans, wing beans, sitao ( <i>Vigna sesquipedalis</i> )
Thailand .....	A P	X	—	—	—	—	—	—	Mung beans, string beans, other vegetable beans and peas <sup>1</sup>
Viet-Nam, Rep. of .....	A P	X	—	—	—	—	—	—	—
AFRICA (17) .....			6	6	8	3	5	5	12
Angola .....	A P	X	X	X	—	—	—	X	—
Basutoland .....	A	—	—	X	—	—	—	X	—
Bechuanaland .....	A	—	—	—	—	—	—	—	Beans, pulses
Congo (Brazzaville) .....	A	—	—	<sup>1</sup> X	—	—	—	—	Legumes
Ghana .....	A P	X	—	—	—	—	—	—	Cowpeas, pigeon peas, bambarra groundnuts, lima beans
Kenya .....	A P	—	—	—	—	—	—	—	Pulses
Madagascar .....	A	—	X	—	—	—	—	—	—
Mali .....	A	—	X	—	—	X	—	—	X
Morocco .....	A P	—	X	X	X	X	X	X	X
Portuguese Guinea .....	A P	—	—	<sup>1</sup> X	—	—	—	—	—
Rhodesia and Nyasaland, Fed. of .....	A P	X	—	<sup>1</sup> X	—	—	—	—	Velvet beans, cowpeas
Senegal .....	A	—	—	—	—	—	—	—	Cowpeas, bambarra groundnuts
South Africa .....	A P	X	—	X	X	—	X	X	Lupines, cowpeas, others (specify)
Tanganyika .....	A P	X	—	—	—	—	—	—	—
Togo .....	A	—	X	—	—	X	—	—	X
Tunisia .....	A P	—	<sup>1</sup> X	—	X	X	<sup>1</sup> X	<sup>1</sup> X	Field beans, others
Uganda .....	A	X	—	<sup>1</sup> X	—	X	—	—	Tepary beans ( <i>Phaseolus acutifolius</i> )
OCEANIA (4) .....			—	1	1	—	—	2	3
Australia .....	A P	—	<sup>1</sup> X	<sup>1</sup> X	—	—	X	X	Tares ( <i>Lathyrus aphaca</i> ), including vetches
Guam .....	A P	—	—	—	—	—	—	—	Mung beans
New Zealand .....	A P	—	—	—	—	—	X	—	—
Papua and New Guinea .....	A P	—	—	—	—	—	—	—	Winged beans; other pulses

<sup>1</sup> Not specified whether dry or green. - <sup>2</sup> Production only. - <sup>3</sup> Area only.

TABLE 12. - EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO *tuber and root crops for food or feed*

Region and country	Information asked for: area (A), production (P)	Potatoes	Manioc	Sweet potatoes	Arrow-root	Coco-yams and yams	Dry onions	Dry garlic	Tuber and root crops grown principally for feed (or food)
		21.31	21.32	21.33	21.34	21.35	21.36	21.37	
<i>Total number of countries asking question (85)</i> .....		65	44	48	7	24	47	21	43
EUROPE (16) .....		16	—	1	—	—	7	1	14
Austria .....	A	X	—	—	—	—	—	—	Beets, cabbage, carrots, and Jerusalem artichokes for fodder
Belgium .....	A	X	—	—	—	—	<sup>1</sup> X	—	Carrots, turnips, and rutabagas for fodder
Denmark .....	A	X	—	—	—	—	—	—	Mangels, swedes and sugar beets for fodder
Finland .....	A	X	—	—	—	—	—	—	Feed sugar beet, turnips for fodder, other feed roots
Germany (Fed. Rep.) .....	A	X	—	—	—	—	—	—	Swedes, carrots, cabbage and other tuber and root crops for feed
Ireland .....	A	X	—	—	—	—	—	—	Turnips, mangels and fodder beets
Italy .....	A	X	—	—	—	—	—	—	—
Luxembourg .....	A	X	—	—	—	—	—	—	Sugar beets, turnips and carrots for feed
Malta and Gozo .....	A P	X	—	—	—	—	X	—	—
Netherlands .....	A	X	—	—	—	—	X	—	Fodder beets and mangels
Norway .....	A	X	—	—	—	—	<sup>1</sup> X	—	Turnips, beets and kale for feed
Poland .....	A	X	—	—	—	—	—	—	X
Spain .....	A	X	—	X	—	—	—	—	Turnips, and mangels for feed
Sweden .....	A	X	—	—	—	—	<sup>1</sup> X	—	Roots for feed
United Kingdom .....	A	X	—	—	—	—	X	—	Mangels, turnips and swedes for feed or seed and beets for feed
Yugoslavia .....	A	<sup>2</sup> X	—	—	—	—	<sup>1</sup> X	<sup>1</sup> X	Beets, carrots, Jerusalem artichokes and other root plants for fodder
NORTH AMERICA (4) .....		4	—	2	—	—	3	1	4
Alaska .....	A P	X	—	—	—	—	—	—	Root crops for feed (specify)
Canada .....	A	X	—	—	—	—	<sup>1</sup> X	—	Turnips, swedes and mangels for feed
Hawaii .....	A	<sup>2</sup> X	—	<sup>2</sup> X	—	—	X	—	Taro
United States .....	A	<sup>2</sup> X	—	<sup>2</sup> X	—	—	X	<sup>1</sup> X	Shallots; turnips for feed
LATIN AMERICA (21) .....		16	18	18	1	10	15	9	9
Argentina .....	A	X	X	X	—	—	<sup>1</sup> X	<sup>1</sup> X	—
Barbados .....	A P	—	—	X	—	X	—	—	Tannias, dasheen and edoes ( <i>Xanthosoma</i> spp.)
Bolivia .....	A P	X	X	X	—	—	X	—	Papa-lisa; ocas ( <i>Ullucus tuberosus</i> ; <i>Oxalis tuberosa</i> )
Brazil .....	A P	X	X	X	X	X	<sup>1</sup> X	<sup>1</sup> X	—
Colombia .....	A P	X	X	X	—	X	<sup>1</sup> X	<sup>1</sup> X	Arracacha
Costa Rica .....	A P	X	X	X	—	—	<sup>1</sup> X	<sup>1</sup> X	—
Dominican Republic .....	A P	X	X	X	—	X	<sup>1</sup> X	<sup>1</sup> X	Yautia
Ecuador .....	A P	X	X	X	—	—	<sup>1</sup> X	—	—
Guatemala .....	A P	X	—	—	—	—	—	—	—
Jamaica .....	A P	—	<sup>2</sup> X	X	—	<sup>2</sup> X	—	—	Tannias ( <i>Xanthosoma</i> spp.) (cocoas), baddho, toya ( <i>Colocasia antiquorum</i> ), dasheen ( <i>Xanthosoma</i> spp.), escallions
Mexico .....	A P	X	—	X	—	—	<sup>1</sup> X	<sup>1</sup> X	Jicama ( <i>Jatropha macrorhiza</i> ); beets for feed
Nicaragua .....	A P	X	X	—	—	—	<sup>1</sup> X	—	—
Panama .....	A	<sup>2</sup> X	X	—	—	X	—	—	—
Paraguay .....	A P	X	X	X	—	—	<sup>1</sup> X	<sup>1</sup> X	—
Peru .....	A	<sup>2</sup> X	<sup>2</sup> X	<sup>2</sup> X	—	—	<sup>1</sup> X	—	—
Puerto Rico .....	A P	X	X	X	—	X	<sup>1</sup> X	—	Tanier or taro
Surinam .....	A	—	X	X	—	—	—	—	X
Trinidad and Tobago .....	A P	—	X	X	—	X	—	—	Tannias, edoes and dasheen ( <i>Xanthosoma</i> spp.)
Uruguay .....	A P	X	X	X	—	—	<sup>1</sup> X	<sup>1</sup> X	—
Venezuela .....	A P	X	X	X	—	X	<sup>1</sup> X	<sup>1</sup> X	—
Virgin Islands (U.S.) .....	A	—	<sup>2</sup> X	<sup>2</sup> X	—	X	<sup>1</sup> X	—	—

TABLE 12. - EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO *tuber and root crops for food or feed (concluded)*

Region and country	Item	Information asked for: area (A), production (P)	Potatoes	Manioc	Sweet potatoes	Arrow-root	Coco-yams and yams	Dry onions	Dry garlic	Tuber and root crops grown principally for feed (or food)
			21.31	21.32	21.33	21.34	21.35	21.36	21.37	21.38
NEAR EAST (5)			5	1	2	—	2	5	4	4
Iraq	A		X	—	—	—	—	<sup>1</sup> X	—	—
Lebanon	A		X	—	X	—	X	X	X	Turnips, Jerusalem artichokes, etc., for feed
Libya	A P		X	—	—	—	—	X	X	X
Sudan	A		X	X	X	—	X	<sup>1</sup> X	<sup>1</sup> X	X
Turkey	A P		X	—	—	—	—	X	X	Jerusalem artichokes and beets for feed
FAR EAST (14)			9	10	12	2	2	6	4	4
Brunei	A P		—	X	X	—	X	—	—	—
Ceylon	A		X	X	X	—	—	<sup>1</sup> X	—	—
China (Taiwan)	A		—	X	X	—	—	—	—	—
Indonesia	A		X	X	X	—	—	<sup>1</sup> X	—	—
Japan	A		<sup>2</sup> X	—	<sup>2</sup> X	X	X	<sup>1</sup> X	<sup>1</sup> X	Turnips for fodder
Korea, Rep. of	A		X	—	X	—	—	—	<sup>1</sup> X	—
Malaya, Fed. of	A P		—	X	X	—	—	—	—	—
Nepal	A		X	—	X	—	—	—	—	X
North Borneo	A		X	X	X	—	—	—	—	—
Pakistan	A		X	—	X	—	—	<sup>1</sup> X	—	—
Philippines	A P		X	X	X	X	—	<sup>1</sup> X	<sup>1</sup> X	Gabi ( <i>Colocasia esculentum</i> ) and pao (galiang) ( <i>Cyrtosperma mercurii</i> )
Sarawak	A		—	X	—	—	—	—	—	—
Thailand	A		<sup>4</sup> X	<sup>2</sup> X	—	—	—	X	<sup>1, 2</sup> X	Shallots <sup>1</sup>
Viet-Nam, Rep. of	A P		—	X	X	—	—	—	—	—
AFRICA (20)			13	12	9	2	7	9	2	5
Angola	A P		X	—	X	—	X	—	—	X
Basutoland	A		X	—	—	—	—	—	—	—
Bechuanaland	A		X	—	—	—	—	<sup>1</sup> X	—	—
Central African Republic	A		—	X	—	—	—	—	—	—
Congo (Brazzaville)	A		—	—	—	X	X	X	—	—
Gabon	A		—	X	—	—	X	—	—	Taro
Ghana	A P		X	X	X	—	X	X	—	Shallots
Guinea, Rep. of	A		X	X	X	—	X	—	—	—
Kenya	A		<sup>2</sup> X	X	X	X	X	—	—	—
Madagascar	A		X	X	X	—	—	—	—	—
Morocco	A P		X	—	—	—	—	X	X	Other tuber and root crops (specify)
Portuguese Guinea	A P		—	X	—	—	—	—	—	—
Rhodesia and Nyasaland, Fed. of	A P		X	—	X	—	—	<sup>1</sup> X	—	—
Senegal	A		—	X	—	—	—	—	—	—
Seychelles	A P		—	X	X	—	—	—	—	—
South Africa	A P		X	—	X	—	—	<sup>1</sup> X	—	Other tuber and root crops, specify <sup>1</sup>
Tanganyika	A P		X	X	—	—	—	<sup>1</sup> X	—	—
Togo	A		—	X	—	—	X	—	—	—
Tunisia	A P		X	—	—	—	—	<sup>1</sup> X	<sup>1</sup> X	—
Uganda	A		X	X	X	—	—	<sup>1</sup> X	—	—
OCEANIA (5)			2	3	4	2	3	2	—	3
American Samoa	A P		—	X	X	X	X	—	—	Taro
Australia	A P		X	—	X	X	—	<sup>1</sup> X	—	—
Guam	A P		—	X	X	—	X	—	—	Taro
New Zealand	A P		X	—	—	—	—	<sup>1</sup> X	—	—
Papua and New Guinea	A P		—	X	X	—	X	—	—	Taro

<sup>1</sup> Not specified whether dry or green. - <sup>2</sup> Also production. - <sup>3</sup> Number of "hills" in place of area. - <sup>4</sup> Including sweet potatoes. - <sup>5</sup> Area only.



TABLE 13. — EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO *selected sugar, fibre and oilseed crops*

Region and country	Information asked for: area (A), production (P)	Sugar crops <sup>1</sup>		Fibre crops <sup>2</sup>			Oilseed crops <sup>3</sup>		
		Sugar-cane	Sugar beets	Cotton <sup>3</sup>	Flax harvested for fibre	Hemp harvested for fibre	Ground-nuts	Linseed	Other oilseed crops
Item number		21.41 (a)	21.41 (d)	21.42 (a)	21.42 (b)	21.42 (c)	21.43 (a)	21.43 (b)	21.43 (c)
<i>Total number of countries asking question (81) . . . . .</i>		50	24	47	16	8	55	14	22
EUROPE (14) . . . . .		1	13	1	7	2	1	2	10
Austria . . . . .	A	—	X	—	—	—	—	—	Rapeseed, poppyseed, linseed, hempseed, sunflower for oil
Belgium . . . . .	A	—	X	—	X	X	—	—	Colza
Denmark . . . . .	A	—	X	—	X	—	—	X	Mustard, hemp, rapeseed
Finland . . . . .	A	—	X	—	—	—	—	—	—
Germany (Fed. R ep.) . . . . .	A	—	X	—	—	—	—	—	Rapeseed
Ireland . . . . .	A	—	X	—	—	—	—	—	—
Luxembourg . . . . .	A	—	X	—	—	—	—	—	Rapeseed
Netherlands . . . . .	A	—	X	—	X	—	—	—	Colza
Norway . . . . .	A	—	—	—	X	—	—	—	—
Poland . . . . .	A	—	X	—	—	—	—	X	Rapeseed
Spain . . . . .	A	X	X	X	—	—	—	—	—
Sweden . . . . .	A	—	X	—	X	—	—	—	X
United Kingdom . . . . .	A	—	X	—	X	—	—	—	Rapeseed
Yugoslavia . . . . .	A	—	X	—	X	X	X	—	Colza
NORTH AMERICA (3) . . . . .		2	2	1	1	—	2	2	2
Canada . . . . .	A	—	X	—	X	—	—	X	Rapeseed, safflower
Hawaii . . . . .	A P	X	—	—	—	—	X	—	—
United States . . . . .	A P	X	X	X	—	—	X	X	Safflower
LATIN AMERICA (22) . . . . .		22	2	17	1	1	15	5	2
Argentina . . . . .	A	X	X	X	X	X	X	X	Rapeseed
Barbados . . . . .	A P	X	—	X	—	—	—	—	—
Bolivia . . . . .	A P	X	—	X	—	—	X	—	—
Brazil . . . . .	A P	X	—	X	—	—	X	—	—
Colombia . . . . .	A P	X	—	X	—	—	X	X	—
Costa Rica . . . . .	A P	X	—	X	—	—	—	—	—
Dominican Republic . . . . .	A P	X	—	X	—	—	X	—	—
Ecuador . . . . .	A P	X	—	X	—	—	X	X	—
El Salvador . . . . .	A P	X	—	X	—	—	X	—	—
Guatemala . . . . .	A P	X	—	X	—	—	X	—	—
Jamaica . . . . .	A P	X	—	—	—	—	X	—	—
Mexico . . . . .	A P	X	—	X	—	—	X	X	Rapeseed
Nicaragua . . . . .	A P	X	—	X	—	—	X	—	—
Panama . . . . .	A P	X	—	—	—	—	—	—	—
Paraguay . . . . .	A P	X	—	X	—	—	X	—	—
Peru . . . . .	A P	X	—	X	—	—	—	—	—
Puerto Rico . . . . .	A P	X	—	X	—	—	—	—	—
Surinam . . . . .	A	X	—	—	—	—	X	—	—
Trinidad and Tobago . . . . .	A P	X	—	—	—	—	—	—	—
Uruguay . . . . .	A P	X	X	X	—	—	X	X	—
Venezuela . . . . .	A P	X	—	X	—	—	X	—	—
Virgin Islands (U.S.) . . . . .	A P	X	—	—	—	—	—	—	—

TABLE 13. - EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO *selected sugar, fibre and oilseed crops (concluded)*

Region and country	Item	Information asked for: area (A), production (P)	Sugar crops <sup>1</sup>		Fibre crops <sup>2</sup>			Oilseed crops <sup>3</sup>		
			Sugar-cane	Sugar beets	Cotton <sup>3</sup>	Flax harvested for fibre	Hemp harvested for fibre	Ground-nuts	Linseed	Other oilseed crops
			21.41 (a)	21.41 (f)	21.42 (a)	21.42 (b)	21.42 (c)	21.43 (d)	21.43 (b)	21.43 (f)
NEAR EAST (5).....			2	4	4	2	2	4	3	2
Iraq.....	A P		—	X	X	—	—	—	X	X
Lebanon.....	A		X	X	X	—	X	X	—	—
Libya.....	A P		—	X	—	—	—	X	—	—
Sudan.....	A		X	—	X	X	—	X	X	Safflower
Turkey.....	A P		—	X	X	X	X	X	X	—
FAR EAST (14).....			11	—	9	1	2	13	—	3
Brunei.....	A P		—	—	—	—	—	X	—	—
Ceylon.....	A		X	—	X	—	—	X	—	—
China (Taiwan).....	A		X	—	—	—	—	X	—	—
India.....	A		X	—	X	—	—	X	—	—
Indonesia.....	A		X	—	—	—	—	X	—	—
Japan.....	A P		X	—	X	X	X	X	—	Rapeseed
Korea, Rep. of.....	A		—	—	X	—	X	—	—	—
Malaya, Fed. of.....	A P		X	—	—	—	—	X	—	—
Nepal.....	A		X	—	X	—	—	X	—	X
North Borneo.....	A		—	—	—	—	—	X	—	—
Pakistan.....	A		X	—	X	—	—	X	—	X
Philippines.....	A P		X	—	X	—	—	X	—	—
Thailand.....	A P		X	—	X	—	—	X	—	—
Viet-Nam, Rep. of.....	A P		X	—	X	—	—	X	—	—
AFRICA (21).....			10	3	14	3	1	18	1	3
Angola.....	A P		X	X	X	X	—	X	—	—
Bechuanaland.....	A		—	—	X	—	—	X	—	—
Central African Republic	A		—	—	—	—	—	X	—	—
Congo (Brazzaville).....	A		X	—	—	—	—	—	—	—
Gabon.....	A		X	—	—	—	—	X	—	—
Ghana.....	A P		X	—	X	—	—	X	—	—
Guinea, Rep. of.....	A		—	—	—	—	—	X	—	—
Kenya.....	A		X	—	X	—	—	X	—	—
Madagascar.....	A		X	—	—	—	—	X	—	—
Mali.....	A		—	—	X	—	—	X	—	—
Morocco.....	A P		—	X	X	X	X	X	X	X
Portuguese Guinea.....	A P		X	—	X	—	—	X	—	—
Rhodesia and Nyasaland, Fed. of	A P		—	—	X	—	—	X	—	—
Senegal.....	A		—	—	X	—	—	X	—	—
Seychelles.....	A		X	—	—	—	—	—	—	—
South Africa.....	A P		X	—	X	—	—	X	—	X
Tanganyika.....	A P		—	—	—	—	—	X	—	—
Togo.....	A		—	—	X	—	—	X	—	—
Tunisia.....	A P		—	X	X	X	—	—	—	—
Uganda.....	A		—	—	X	—	—	X	—	X
Upper Volta.....	A		—	—	X	—	—	X	—	—
OCEANIA (2).....			2	—	1	1	—	2	1	—
Australia.....	A P		X	—	X	X	—	X	X	—
Papua and New Guinea.....	A P		X	—	—	—	—	X	—	—

<sup>1</sup> Only two countries participated in the two additional items, viz., sugarcane under irrigation (21.41b) and "not irrigated" (21.41c). Spain asked for area under irrigation and Angola asked for both. "Other sugar crops" (21.41e) was not investigated by any country. - <sup>2</sup> See table 14 for other crops of this group mentioned in the FAO programme. - <sup>3</sup> Cotton subdivision into "under irrigation" (21.42a [i]) and "not irrigated" (21.41a [ii]) was investigated by Turkey and Morocco. Spain asked for area under irrigation.

TABLE 14. - EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO *miscellaneous fibre and oilseed crops*

Region and country	Information asked for: area (A), production (P)	Fibre crops <sup>1</sup>			Oilseed crops <sup>1</sup>		
		Jute	Ramie and rhea	Other fibre crops	Castor beans	Sesame	Sunflower <sup>2</sup>
		21.24 (f)	21.42 (g)	21.42 (h)	21.43 (f)	21.43 (g)	21.43 (h)
<i>Total number of countries asking question (41)</i> .....		7	4	8	18	21	13
LATIN AMERICA (13).....		2	1	—	6	9	3
Argentina.....	A	X	X	—	X	—	X
Brazil.....	A P	X	—	—	—	X	—
Colombia.....	A P	—	—	—	X	X	—
Dominican Republic.....	A P	—	—	—	X	X	—
Ecuador.....	A P	—	—	—	X	—	—
El Salvador.....	A P	—	—	—	—	X	—
Guatemala.....	A P	—	—	—	—	X	—
Mexico.....	A P	—	—	—	X	X	—
Nicaragua.....	A P	—	—	—	—	X	—
Panama.....	A P	—	—	—	—	X	—
Paraguay.....	A P	—	—	—	—	—	X
Uruguay.....	A P	—	—	—	—	—	X
Venezuela.....	A P	—	—	—	X	X	—
NEAR EAST (5).....		—	—	3	2	4	3
Iraq.....	A P	—	—	—	—	X	—
Lebanon.....	A	—	—	Other fibre crops	—	X	X
Libya.....	A P	—	—	Esparto grass	X	—	—
Sudan.....	A	—	—	Sunn hemp	X	X	X
Turkey.....	A P	—	—	—	—	X	X
FAR EAST (8).....		5	3	2	2	3	—
Ceylon.....	A	—	—	—	—	X	—
China (Taiwan).....	A	X	—	—	—	—	—
India.....	A	X	—	—	—	—	—
Japan.....	A P	—	X	—	—	X	—
Nepal.....	A	X	—	—	—	—	—
Pakistan.....	A	X	—	Sunn hemp	—	—	—
Philippines.....	A P	—	X	—	X	—	—
Thailand.....	A P	X	X	Kenaf	X	X	—
AFRICA (13).....		—	—	3	8	5	5
Angola.....	A P	—	—	—	X	—	—
Bechuanaland.....	A	—	—	—	X	—	X
Central African Republic.....	A	—	—	—	—	X	—
Ghana.....	A P	—	—	—	—	—	—
Kenya.....	A	—	—	—	X	X	—
Madagascar.....	A	—	—	—	—	—	—
Morocco.....	A P	—	—	Other fibre crops	—	X	X
Portuguese Guinea.....	A P	—	—	—	X	X	—
Rhodesia and Nyasaland, Fed. of.....	A P	—	—	Sunn hemp	X	—	—
South Africa.....	A P	—	—	Other fibre crops (specify)	X	—	X
Tanganyika.....	A P	—	—	—	X	—	X
Togo.....	A	—	—	—	—	—	—
Uganda.....	A	—	—	—	X	X	X

<sup>1</sup> The items in these two groups not shown in Tables 13 and 14 were investigated by a few countries, as follows:

Argentina; Republic of Guinea; New Zealand: New Zealand flax (21.42 d)

(A) (A) (A)

Philippines: Abaca (21.42 e)

(AP)

Netherlands; Canada, United States; Argentina, Colombia; Japan, Pakistan; Morocco: Mustard (21.43 c)

(A) (A) (AP) (A) (AP) (A) (AP)

Netherlands; Argentina: Poppyseed (21.43 d)

(A)

Poland; Turkey: Hemp seed (21.43 e)

(A) (AP)

<sup>2</sup> Canada and Australia also investigated sunflower.

(A) (AP)

TABLE 15. - EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO *miscellaneous industrial crops*

Region and country	Information asked for: area (A), production (P)	Spices, condiments, medicinal and aromatic plants		Essential oil plants		Other industrial crops			
		Dry peppers, pimientos or chilies	Other cultivated spices, condiments, medicinal and aromatic plants	Citronella	Other cultivated essential oil plants	Tobacco	Hops	Chicory	Other crops for industrial purposes not included elsewhere
Item	Item number	21.44(a)	21.44 (b)	21.45(a)	21.45 (b)	21.49(a)	21.49(b)	21.49(c)	21.49 (d)
<i>Total number of countries asking question (66) . . . . .</i>		20	18	3	7	57	9	5	21
EUROPE (10) . . . . .		1	4	—	1	5	4	3	4
Austria . . . . .	A	—	—	—	—	—	—	—	Tobacco, hops, chicory, flax for fibre, hemp, medicinal, aromatic and perfume plants
Belgium . . . . .	A	—	X	—	—	X	X	X	—
Denmark . . . . .	A	—	—	—	—	—	—	X	—
Germany (Fed. Rep.) . . . . .	A	—	Valerian, fennel, pepper-mint, caraway, marjoram	—	—	X	X	—	All other commercial crops: flax, hemp, chicory, poppy, mustard, fennels and grasses for seed and production
Netherlands . . . . .	A	—	Caraway seed	—	—	—	—	—	—
Poland . . . . .	—	—	—	—	—	—	—	—	Hops, tobacco, chicory, medicinal plants and others
Spain . . . . .	A	—	—	—	—	X	—	—	—
Sweden . . . . .	A	—	—	—	—	X	—	—	—
United Kingdom . . . . .	A	—	—	—	—	—	X	—	—
Yugoslavia . . . . .	A	X	Lavender, cumin seed	—	Mint	X	X	X	Sorghum and pyrethrum
NORTH AMERICA (2) . . . . .		1	1	—	1	2	2	—	1
Canada . . . . .	A	—	—	—	—	X	X	—	—
United States . . . . .	A P	X	Parsley †	—	Mint for oil	X	X	—	Sorghum for syrup
LATIN AMERICA (18) . . . . .		7	5	1	3	18	1	—	5
Argentina . . . . .	A	X	Aniseed, cumin seed	—	Mint, lavender	X	X	—	Broom sorghum, osiers and pyrethrum
Bolivia . . . . .	A P	—	—	—	—	X	—	—	—
Brazil . . . . .	A P	X	X	—	—	X	—	—	—
Colombia . . . . .	A P	—	Aniseed, coriander	—	—	X	—	—	—
Costa Rica . . . . .	A P	—	—	—	—	X	—	—	—
Dominican Republic . . . . .	A P	X	—	—	—	X	—	—	—
Ecuador . . . . .	A P	—	Aniseed	—	—	X	—	—	Pyrethrum
El Salvador . . . . .	A P	—	—	—	—	X	—	—	—
Guatemala . . . . .	A P	—	—	X	Té lemon, Lemon grass	X	—	—	—
Jamaica . . . . .	A P	X	—	—	—	X	—	—	—
Mexico . . . . .	A P	X	—	—	—	X	—	—	Broom sorghum
Nicaragua . . . . .	A P	—	—	—	—	X	—	—	—
Panama . . . . .	A P	—	—	—	—	X	—	—	—
Paraguay . . . . .	A P	—	—	—	—	X	—	—	—
Puerto Rico . . . . .	A P	X	—	—	—	X	—	—	—
Trinidad and Tobago . . . . .	A P	X	—	—	Thyme	X	—	—	—
Uruguay . . . . .	A P	—	X	—	—	X	—	—	Broom millet
Venezuela . . . . .	A P	—	—	—	—	X	—	—	Broom millet

TABLE 15. - EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO *miscellaneous industrial crops (concluded)*

Region and country	Information asked for: area (A), production (P)	Spices, condiments, medicinal and aromatic plants		Essential oil plants		Other industrial crops			
		Dry peppers, pimientos or chilies	Other cultivated spices, condiments, medicinal and aromatic plants	Citronella	Other cultivated essential oil plants	Tobacco	Hops	Chicory	Other crops for industrial purposes not included elsewhere
Item		21.44(a)	21.44 (b)	21.45(a)	21.45 (b)	21.49(a)	21.49(b)	21.49(c)	21.49 (d)
NEAR EAST (5) .....		2	3	—	—	5	—	—	3
Iraq .....	A P	—	—	—	—	X	—	—	—
Lebanon .....	A	—	Aniseed, etc.	—	—	X	—	—	Broom millet and broom sorghum
Libya .....	A P	—	—	—	—	X	—	—	X
Sudan .....	A	X	Chatta, caraway, cumin, fennel	—	—	X	—	—	—
Turkey .....	A P	X	Opium seed, anise, saffron	—	—	X	—	—	Colewort and rose for attar
FAR EAST (13) .....		5	3	2	1	11	1	—	2
Brunei .....	A P	X	—	—	—	—	—	—	—
Ceylon .....	A	—	Cardamom	X	—	X	—	—	—
China (Taiwan) .....	A	—	—	X	—	X	—	—	—
Indonesia .....	A	<sup>2</sup> X	—	—	—	X	—	—	—
Japan .....	A P	—	—	—	Peppermint	X	X	—	Pyrethrum, mitsumata ( <i>Edgeworthia papyrifera</i> ), sichitoui ( <i>Cyperus malaccensis</i> ) konnya kuimo ( <i>Amorphophallus konjac</i> ), mat rush ( <i>Juncus effusus</i> var. <i>decipiens</i> ), ichibi ( <i>Abutilon avicennae</i> )
Korea, Rep. of .....	A	X	—	—	—	—	—	—	—
Malaya, Fed. of .....	A P	<sup>1</sup> X	—	—	—	X	—	—	—
Nepal .....	A	—	X	—	—	X	—	—	X
North Borneo .....	A	—	—	—	—	X	—	—	—
Philippines .....	A P	—	—	—	—	X	—	—	—
Sarawak .....	A	—	—	—	—	X	—	—	—
Thailand .....	A P	X	Coriander <sup>1</sup>	—	—	X	—	—	—
Viet-Nam, Rep. of .....	A P	—	—	—	—	X	—	—	—
AFRICA (15) .....		4	2	—	1	13	—	1	4
Angola .....	A P	—	—	—	—	X	—	—	—
Bechuanaland .....	A	—	—	—	—	X	—	—	—
Congo (Brazzaville) .....	A	<sup>2</sup> X	—	—	—	X	—	—	—
Ghana .....	A P	—	—	—	—	X	—	—	—
Guinea, Rep. of .....	A	X	—	—	—	—	—	—	—
Kenya .....	A	—	—	—	—	X	—	—	Pyrethrum
Mali .....	A	—	—	—	—	X	—	—	—
Morocco .....	A P	X	Kif (Indian hemp)	—	Mint and rose, geranium, lavender, etc.	X	—	—	Datura, broom sorghum, broom millet, henna, coriander, indigo, etc.
Rhodesia and Nyasaland, Fed. of .....	A P	—	—	—	—	X	—	—	—
Senegal .....	A	—	—	—	—	—	—	—	Indigo
Seychelles .....	A P	—	—	—	—	X	—	—	—
South Africa .....	A P	—	Patchouli	—	—	X	—	X	—
Tanganyika .....	A P	—	—	—	—	X	—	—	Pyrethrum <sup>1</sup>
Tunisia .....	A P	—	—	—	—	X	—	—	—
Uganda .....	A	<sup>2</sup> X	—	—	—	X	—	—	—
OCEANIA (3) .....		—	—	—	—	3	1	1	3
American Samoa .....	A P	—	—	—	—	X	—	—	Sugarcane for thatching
Australia .....	A P	—	—	—	—	X	X	X	Millet broom (for fibre and seed)
Papua and New Guinea	A P	—	—	—	—	X	—	—	Pit-pit ( <i>Saccharum edule</i> )

<sup>1</sup> Area only. - <sup>2</sup> Not specified whether dry or green.

TABLE 16. — EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO AREA OF *temporary fodder crops*

Region and country	Grasses, legumes and grains cut for hay, green feed or silage										Grasses, legumes and grains grown only for grazing			Other fodder crops not included elsewhere	
	Alfalfa (alone)	Clover	Other leguminous forage crops	Leguminous forage crops (mixed)	Grasses (alone)	Grasses (mixed)	Mixed legumes and grasses	Maize for silage	Alfalfa, clover and other leguminous plants	21.52 (a)	21.52 (b)	21.52 (c)	Cabbage for fodder	Pumpkins for fodder	Other crops
Item number	21.51 (a)	21.51 (b)	21.51 (c)	21.51 (d)	21.51 (e)	21.51 (f)	21.51 (g)	21.51 (h)	21.52 (a)	21.52 (b)	21.52 (c)	21.52 (a)	21.52 (b)	21.52 (c)	
<i>Total number of countries asking question (47)</i> .....	24	16	10	7	15	5	6	10	1	3	2	5	2	33	
EUROPE (15) .....	7	9	5	4	4	2	1	3	—	—	2	5	1	11	
Austria .....	—	X	—	—	—	—	—	—	—	—	—	—	—	—	
Belgium .....	X	X	Sainfoin	—	Italian ryegrass	—	—	—	—	—	—	—	—	—	
Denmark .....	X	—	—	Other and mixed pulses	—	—	Clover and grass for hay	X	—	—	Clover and grass for grazing	—	—	Other grain for green fodder	
Finland .....	—	—	—	—	—	—	—	—	—	—	Temporary grazing fields	X	—	Feed rape, green fodder, meadows for hay, for silage	
Germany (Fed. Rep.) .....	X	X	—	—	—	—	—	X	—	—	—	—	—	Serradella, sainfoin, mixtures of clover and lucerne, vetches, lupines, mixtures of cereals and dry pulses, spurry, prickly comfrey	
Ireland .....	—	—	—	—	—	Grasses to be cut for hay in 1960	—	—	—	—	—	X	—	—	
Luxembourg .....	X	X	Fodder peas	—	Pure grass	—	—	X	—	—	—	—	—	Vetch for feed	
Malta and Gozo .....	—	X	Bread beans	—	—	—	—	—	—	—	—	—	—	Forage, green vetches, dried vetches	
Netherlands .....	X	X	—	—	—	—	—	—	—	—	—	—	—	—	
Norway .....	X	X	—	—	—	—	—	—	—	—	—	—	—	Grain for fodder	
Poland .....	X	X	—	—	—	—	—	—	—	—	—	—	—	Other fodder crops and grasses	
Spain .....	—	X	Sainfoin	—	—	—	—	—	—	—	—	X	X	Barley, rye, oats and maize for fodder	
Sweden .....	—	—	—	Fodder peas and vetches, green fodder of grain, peas and vetches, other green fodder and ensilage plants	Leys for hay	—	—	—	—	—	—	—	—	—	
United Kingdom .....	—	—	Beans for feed	Vetches, tares, rye, mashlum, beans, peas, etc.	Grasses cut for hay, for silage	Clover, sainfoin and other temporary grasses	—	—	—	—	—	X	—	Kale for stock feeding	
Yugoslavia .....	X	X	—	Vetch or broad beans with oats or barley	—	—	—	—	—	—	—	—	—	Other fodder crops, maize for fodder; Hungarian millet	

TABLE 16. - EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO AREA OF temporary fodder crops (concluded)

Region and country	Grasses, legumes and grains cut for hay, green feed or silage										Grasses, legumes and grains grown only for grazing			Other fodder crops not included elsewhere	
	Alfalfa (alone)	Clover	Other leguminous forage crops	Leguminous forage crops (mixed)	Grasses (alone)	Grasses (mixed)	Mixed legumes and grasses	Maize for silage	Alfalfa, clover and other leguminous plants	Grasses	Mixed legumes and grasses	Cabbage for fodder	Pumpkins for fodder	Other crops	
Item number	21.51 (a)	21.51 (b)	21.51 (c)	21.51 (d)	21.51 (e)	21.51 (f)	21.51 (g)	21.51 (h)	21.52 (a)	21.52 (b)	21.52 (c)	21.59 (a)	21.59 (b)	21.59 (c)	
NORTH AMERICA (4).															
Alaska .....	1	1	1	1	2	1	1	2	1	1	—	—	—	3	
Canada .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Hawaii .....	—	—	—	Alfalfa and mixtures	Tame hay, oats	—	—	X	—	—	—	—	—	—	
United States .....	X	X	Soybeans for hay, hogged or grazed or for silage, for green manure; cowpeas for fodder, hay, or hogged or for silage and green manure; lespedeza, vetches and peas for hay	—	Bermuda grass, Johnson grass, broome grass, June grass, orchard grass, Sudan grass, wheat grass	—	—	X	Alfalfa	Napier grass	—	—	—	Mixed grains cut for hay; marsh, prairie or wild grasses cut for hay Oats, other fodder crops — Corn hogged or grazed or cut for green or dry fodder; groundnut tops for hay; sorghum for silage, for dry forage, or hay, or hogged or grazed, oats, wheat, barley, rye or other small grains cut for hay	
LATIN AMERICA (11).															
Argentina .....	X	—	1	—	5	—	—	2	—	—	—	—	—	4	
Bolivia .....	X	—	—	—	Sweet sorghum, Sudan sorghum, Columbus grass	—	—	—	—	Alfalfa with (i) temporary forage crops; (ii) permanent grasses	—	—	—	Barley for feed	
Brazil .....	X	—	—	—	Elephant, Guatemala, Imperial, rye grass	—	—	—	—	—	—	—	—	Temporary pastures	
Colombia .....	X	—	—	—	Guinea grass, para grass, merker grass, Yaragua, patigola grass; other pastures	—	—	—	—	—	—	—	—	—	
Dominican Republic	—	—	—	—	Para grass, Guinea grass, merker grass, elephant grass, Yaragua grass, Guatemala grass, Sudan grass	—	—	—	—	—	—	—	—	—	
Mexico .....	X	—	Chick-peas	—	—	—	—	X	—	—	—	—	—	—	
Nicaragua .....	X	—	—	—	—	—	—	—	—	—	—	—	—	—	
Paraguay .....	X	—	—	—	—	—	—	—	—	—	—	—	—	—	
Peru .....	X	—	—	—	—	—	—	—	—	—	—	—	—	—	
Puerto Rico .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Uruguay .....	X	—	—	—	—	—	—	X	—	—	—	—	—	Barley, wheat, oats, sorghum for grazing; canary seed for fodder	









TABLE 17B. - EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO VEGETABLES AND MELONS GROWN IN THE OPEN  
principally for human consumption

Region and country	Information asked for: area (A), production (P)	Root, bulb and tuberous vegetables							Leguminous vegetables			Other vegetables			Mushrooms
		Green garlic	Green onions	Beets (red)	Carrots	Radishes (including horseradish)	Rutabagas or swedes and kohlrabi	Turnips	Other root, bulb and tuberous vegetables	Beans (harvested green)	Peas (harvested green)	Cauliflower and broccoli	Corn (sweet)	All other vegetables not reported elsewhere	
Item number		21.63 (a)	21.63 (b)	21.63 (c)	21.63 (d)	21.63 (e)	21.63 (f)	21.63 (g)	21.64 (a)	21.64 (b)	21.65 (a)	21.65 (b)	21.65 (c)	21.66	
Total number of countries asking question (62) .....		4	15	19	36	15	8	20	14	27	26	10	34	3	
EUROPE (14) .....	A	1	5	5	9	2	3	3	4	5	9		10	2	
Austria .....															
Belgium .....	A				X				Scorzonera, celeriac	X	X				
Denmark .....	A		X	X	X	X			Celeriac	X	X				
Finland .....	A		X	X	X	X			Scorzonera	X	X				
Germany (Fed. Rep.) .....	A														
Italy .....	A														
Luxembourg .....	A														
Malta and Gozo .....	A P														
Netherlands .....	A														
Norway .....	A														
Spain .....	A	X	X	X	X	X				X	X				
Sweden .....	A														
United Kingdom .....	A								Parsnips						
Yugoslavia .....	A														
NORTH AMERICA (4) .....															
Alaska .....	A														
Canada .....	A														
Hawaii .....	A														
United States .....	A														
LATIN AMERICA (17) .....															
Argentina .....	A														
Bolivia .....	A P														
Brazil .....	A P														
Colombia .....	A P														
Costa Rica .....	A P														
Dominican Republic .....	A P														
Ecuador .....	A P														
Jamaica .....	A P														
Mexico .....	A P														
Panama .....	A P														
Peru .....	A P														
Puerto Rico .....	A P														
Surinam .....	A P														
Trinidad and Tobago .....	A P														
Uruguay .....	A P														
Venezuela .....	A P														
Virgin Islands (U.S.) .....	A														

TABLE 17b. - EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO VEGETABLES AND MELONS GROWN IN THE OPEN  
principally for human consumption (concluded)

Region and country	Information asked for: area (A), production (P)	Root, bulb and tuberous vegetables							Leguminous vegetables			Other vegetables			Mushrooms
		Green garlic	Green onions	Beets (red)	Carrots	Radishes (including horse-radish)	Rutabagas or swedes and kohlrabi	Turnips	Other root, bulb and tuberous vegetables	Beans (harvested green)	Peas (harvested green)	Cauliflower and broccoli	Corn (sweet)	All other vegetables not reported elsewhere	
Item number		21.63 (a)	21.63 (b)	21.63 (c)	21.63 (d)	21.63 (e)	21.63 (f)	21.63 (g)	21.63 (h)	21.64 (a)	21.64 (b)	21.65 (a)	21.65 (b)	21.65 (c)	21.66
NEAR EAST (4)		2	2	2	2	1	1	3	2	3	2	3	—	4	—
Iraq	A	—	—	X	X	—	—	X	—	X	—	X	—	Total area under vegetables	—
Lebanon	A	X	X	—	—	—	X	X	X	X	X	X	—	Total area under vegetables	—
Libya	P	X	X	—	—	—	—	X	—	—	—	—	—	Total area under vegetables	—
Sudan	A	—	—	—	—	X	—	—	X	—	—	—	—	Total area under vegetables	—
FAR EAST (11)		—	1	2	3	4	—	3	2	2	2	3	2	6	—
Brunei	A, P	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ceylon	A	—	—	X	X	X	—	—	—	—	—	—	—	—	—
China (Taiwan)	A	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Indonesia	A	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Japan	A	—	—	X	X	X	—	X	Burdock, Indian lotus, edible lily, scallions	X	X	X	—	Yamanoimo ( <i>Dioscorea japonica</i> )	—
Korea, Rep. of	A	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nepal	A	—	—	—	—	—	—	—	—	—	—	—	—	—	—
North Borneo	A	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pakistan	A	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Philippines	A, P	—	—	—	X	X	—	X	—	—	—	X	—	Ampalaya (bitter melon), alogbate (East Indian spinach)	—
Thailand	A	—	X	—	—	—	—	X	X	—	—	X	X	—	—
AFRICA (9)		1	1	—	4	1	—	2	1	3	3	2	—	7	—
Ghana	A, P	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kenya	A	—	—	—	X	—	—	X	—	—	—	X	—	—	—
Madagascar	A	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Morocco	A, P	X	X	—	X	X	—	X	X	X	X	—	—	—	—
Seychelles	A	—	—	—	—	—	—	—	—	—	—	—	—	—	—
South Africa	A	—	—	X	—	—	—	—	—	X	—	X	—	—	—
Togo	A	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tunisia	A	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Uganda	P	—	—	—	X	—	—	—	—	—	—	—	—	—	—
OCEANIA (3)		—	1	1	1	1	—	1	1	1	1	1	—	2	—
Australia	A, P	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	A, P	—	X	X	—	X	—	X	—	X	X	X	—	—	—
Papua and New Guinea	A	—	—	—	—	—	—	—	—	—	—	—	—	—	—

<sup>1</sup> Turnips and swedes. - <sup>2</sup> Production only. - <sup>3</sup> Area only. - <sup>4</sup> Garlic and onions (green). - <sup>5</sup> Red beets and turnips. - <sup>6</sup> Cabbage and cauliflower.

TABLE 18. - EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO *miscellaneous temporary crops and permanent grassland*

Region and country	Item	Information asked for: area (A), production (P)	Special horticultural cultivation			Crops grown for seed for sowing purposes	Other crops on arable land		Permanent meadows and pastures
			Flowers (for sale, seed or industrial purposes)	Bulbs	Cultivation under glass		Green manure crops	Crops not reported elsewhere	Permanent grassland cut for hay
Item number			21.71	21.72	21.73	21.80	21.91	21.99	22.0
<i>Total number of countries asking question (45)</i> .....			24	7	14	23	10	15	16
EUROPE (17) .....			13	4	9	11	3	5	8
Austria	A	X	—	X	—	—	X	Edible peas, edible beans, legumes not mixed, peas for forage, field soybeans, lentils, different legumes or cereals mixed with legumes	X
Belgium	A	X	X	X	Gramineous seed, clover seed, sugar beet seed, chicory seed, forage beet seed, turnip seed, other crops for seed, potato plants	—	—	—	X
Denmark	A	—	—	—	Root crops for seed, market garden plants for seed, grasses for seed	—	—	—	—
Finland	A	—	—	X	Leguminous crops for seed, industrial plants for seed, meadows for clover seed, timothy seed, seed for specified crops	—	—	—	X
Germany (Fed. Rep.)	A	X	X	X	Sugar beets, beets, swedes and carrots for seed, vegetables for seed	X	Vegetables and other garden crops grown in the field and in market gardens (e.g., strawberries, flowers, etc.)	—	—
Greece	A	—	—	—	—	—	—	—	X
Ireland	A	X	—	—	Ryegrass grown for seed	—	Other root and green crops, including area under flax, arable crops for ensilage, vetches and root seed crops, but excluding carrots, onions, parsnips and other horticultural crops	—	X
Italy	A	X	—	—	—	—	Other crops grown in kitchen and market gardens	—	—
Luxembourg	A	X	—	X	—	X	—	—	X
Malta and Gozo	A	X	—	X	Land under seed cultivation	—	—	—	—
Netherlands	A	X	X	X	Sugar beets, fodder beets, beets for seed, grass, clover seed, horticultural and flower seed, other crops grown for seed	—	—	—	—
Norway	A	X	—	X	Meadow seed, other seed crops	—	—	—	X
Poland	A	X	—	—	—	—	—	—	—
Spain	A	X	—	—	Seed harvest (area)	—	—	—	—
Sweden	A	—	—	—	Ley for seed	—	—	—	—
United Kingdom	A	X	X	X	Grass for seed, root or fodder crops, vegetable crops, excluding potatoes	—	Other crops, including flowers	—	X
Yugoslavia	A	X	—	—	—	—	—	—	—
NORTH AMERICA (2) .....			2	1	2	1	1	1	—
Canada	A	X	—	X	—	—	—	X	—
United States	A	X	X	X	(28 kinds, named)	X	—	—	—

TABLE 18. - EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO *miscellaneous temporary crops and permanent grassland (concluded)*

Region and country	Item	Information asked for: area (A), production (P)	Special horticultural cultivation			Crops grown for seed for sowing purposes	Other crops on arable land		Permanent meadows and pastures
			Flowers (for sale, seed or industrial purposes)	Bulbs	Cultivation under glass		Green manure crops	Crops not reported elsewhere	Permanent grassland cut for hay
			21.71	21.72	21.73				
LATIN AMERICA (8) .....			3	—	—	3	—	3	1
Argentina .....	A		X	—	—	—	—	—	X
Colombia .....	A P		X	—	—	—	—	—	—
Costa Rica .....	A		—	—	—	—	—	—	—
Ecuador .....	A P		—	—	—	—	—	X	—
Guatemala .....	A P		—	—	—	—	—	X	—
Mexico .....	A P		X	—	—	—	—	X	—
Puerto Rico .....	A		—	—	—	X	—	—	—
Uruguay .....	A P		—	—	—	(14 kinds) X	—	—	—
NEAR EAST (2) .....			1	—	—	1	1	—	1
Sudan .....	—		—	—	—	—	—	—	X
Turkey .....	A P		X	—	—	Beets for seed, seed onions	X	—	—
FAR EAST (8) .....			2	—	1	2	3	4	—
China (Taiwan) .....	A		—	—	—	—	X	—	—
Indonesia .....	A		—	—	—	X	—	—	—
Japan .....	A		X	—	X	X	X	X	—
Korea, Rep. of .....	A		—	—	—	—	X	—	—
Malaya, Fed. of .....	A		—	—	—	—	—	X	—
North Borneo .....	A		—	—	—	—	—	X	—
Philippines .....	A P		X	—	—	—	—	—	—
Sarawak .....	A		—	—	—	—	—	X	—
AFRICA (6) .....			2	2	1	3	1	2	6
Angola .....	A		—	—	—	—	—	—	X
Bechuanaland .....	A		—	X	—	—	—	X	X
Morocco .....	A		X	—	X	Crops grown for seed	—	—	X
Rhodesia and Nyasaland, Fed. of .....	A P		—	—	—	Sunflower, sunn hemp, cowpeas, velvet beans, soybeans	X	—	X
South Africa .....	A		X	X	—	—	—	X	X
Tanganyika .....	A P		—	—	—	Seed beans	—	—	X
OCEANIA (2) .....			1	—	1	2	1	—	—
Australia .....	A P		X	—	X	Grass and clover, Japanese millet, vegetables, lucerne, Sudan grass, clover, sorghum, French beans, sugarcane, mustard, green peas	X	—	—
New Zealand .....	A		—	—	—	Grasses, clover, lucerne, other crops for seed	—	—	—

<sup>1</sup> Including horticultural bulbs, rose bushes and ornamental trees.

TABLE 19. — REGIONAL DISTRIBUTION OF COUNTRIES PARTICIPATING IN PROGRAMME ITEMS  
Temporary crops

Item	Europe	North America	Latin America	Near East	Far East	Africa	Oceania	Total
<i>Total participants</i> .....	(17)	(4)	(22)	(6)	(15)	(22)	(5)	(91)
<i>Number of participants in Table 10</i> ....	(16)	(4)	(22)	(6)	(15)	(22)	(5)	(90)
<b>21.11 Wheat</b> .....	8	3	12	4	6	8	2	43
(a) Under irrigation .....	1	—	—	2	1	2	—	6
(b) Not irrigated .....	—	—	—	2	1	2	—	5
(c) Winter .....	8	2	—	1	—	—	—	11
(d) Spring .....	8	2	—	1	—	—	—	11
<b>21.12 Rye</b> .....	14	3	3	1	1	3	1	26
<b>21.13 Rice</b> .....	1	2	19	5	11	13	3	54
(a) Wet .....	1	—	3	—	6	3	—	13
(b) Dry .....	—	—	3	—	7	3	—	13
<b>21.14 Millet and sorghum</b> .....	—	—	3	1	—	1	—	5
(a) Millet .....	2	—	3	2	5	14	1	27
(b) Sorghum .....	—	1	5	2	3	14	1	26
<b>21.15 Maize</b> .....	7	2	19	5	14	18	5	70
(a) Hybrid .....	—	—	3	—	—	2	1	6
(b) Ordinary .....	1	—	3	—	—	2	1	7
<b>21.16 Barley</b> .....	9	1	10	4	3	7	2	36
(a) Under irrigation .....	1	2	—	2	—	—	—	5
(b) Not irrigated .....	—	—	—	2	—	—	—	2
(c) Winter .....	6	—	—	1	—	—	—	7
(d) Spring .....	6	—	—	1	—	—	—	7
<b>21.17 Oats</b> .....	14	3	7	3	1	6	2	36
<b>21.18 Mixed grains</b> .....	11	3	—	1	—	1	—	16
<b>21.19 Other cereals harvested for grain</b> ..	6	2	5	3	3	4	1	24
<i>Number of participants in Table 11</i> ....	(13)	(2)	(22)	(5)	(12)	(17)	(4)	(75)
<b>21.21 Soybeans</b> .....	—	2	6	2	8	6	—	24
<b>21.22 Dry broad beans</b> .....	6	—	12	4	1	6	1	30
<b>21.23 Edible dry beans</b> .....	7	2	16	4	3	8	1	41
<b>21.24 Lentils</b> .....	1	—	7	5	—	3	—	16
<b>21.25 Chick-peas</b> .....	1	—	8	5	3	5	—	22
<b>21.26 Edible dry peas</b> .....	8	2	8	4	2	5	2	31
<b>21.29 Other legumes for grain</b> .....	8	1	15	5	8	12	3	52
<i>Number of participants in Table 12</i> ....	(16)	(4)	(21)	(5)	(14)	(20)	(5)	(85)
<b>21.31 Potatoes</b> .....	16	4	16	5	9	13	2	65
<b>21.32 Manioc</b> .....	—	—	18	1	10	12	3	44
<b>21.33 Sweet potatoes</b> .....	1	2	18	2	12	9	4	48
<b>21.34 Arrowroot</b> .....	—	—	1	—	2	2	2	7
<b>21.35 Cocoyams and yams</b> .....	—	—	10	2	2	7	3	24
<b>21.36 Dry onions</b> .....	7	3	15	5	6	9	2	47
<b>21.37 Dry garlic</b> .....	1	1	9	4	4	2	—	21
<b>21.38 Tuber and root crops grown principally for feed</b> .....	14	4	9	4	4	5	3	43
<i>Number of participants in Table 13</i> ....	(14)	(3)	(22)	(5)	(14)	(21)	(2)	(81)
<b>21.41 (a) Sugarcane</b> .....	1	2	22	2	11	10	2	50
<b>21.41 (d) Sugar beets</b> .....	13	2	2	4	—	3	—	24
<b>21.42 (a) Cotton</b> .....	1	1	17	4	9	14	1	47
<b>21.42 (b) Flax harvested for fibre</b> .....	7	1	1	2	1	3	1	16
<b>21.42 (c) Hemp harvested for fibre</b> .....	2	—	1	2	2	1	—	8
<b>21.43 (a) Groundnuts</b> .....	1	2	15	4	13	18	2	55
<b>21.43 (b) Linseed</b> .....	2	2	5	3	—	1	1	14
<b>21.43 (i) Other oilseed crops</b> .....	10	2	2	2	3	3	—	22

TABLE 19. - REGIONAL DISTRIBUTION OF COUNTRIES PARTICIPATING IN PROGRAMME ITEMS  
Temporary crops (continued)

Item	Europe	North America	Latin America	Near East	Far East	Africa	Oceania	Total
<i>Number of participants in Table 14....</i>	(—)	(1)	(13)	(5)	(8)	(13)	(1)	(41)
21.42 (f) Jute .....	—	—	2	—	5	—	—	7
21.42 (g) Ramie and rhea .....	—	—	1	—	3	—	—	4
21.42 (h) Other fibre crops .....	—	—	—	3	2	3	—	8
21.43 (f) Castor beans .....	—	—	6	2	2	8	—	18
21.43 (g) Sesame .....	—	—	9	4	3	5	—	21
21.43 (h) Sunflower .....	—	1	3	3	—	5	1	13
<i>Number of participants in Table 15....</i>	(10)	(2)	(18)	(5)	(13)	(15)	(3)	(66)
21.44 (a) Dry peppers, pimientos or chilies	1	1	7	2	5	4	—	20
21.44 (b) Other cultivated spices, condiments, medicinal and aromatic plants.....	4	1	5	3	3	2	—	18
21.45 (a) Citronella .....	—	—	1	—	2	—	—	3
21.45 (b) Other cultivated essential oil plants.....	1	1	3	—	1	1	—	7
21.49 (a) Tobacco.....	5	2	18	5	11	13	3	57
21.49 (b) Hops .....	4	2	1	—	1	—	1	9
21.49 (c) Chicory .....	3	—	—	—	—	1	1	5
21.49 (d) Other crops for industrial purposes not included elsewhere..	4	1	5	3	2	4	3	22
<i>Number of participants in Table 16....</i>	(15)	(4)	(11)	(4)	(4)	(7)	(2)	(47)
21.51 (a) Alfalfa (alone) .....	7	1	8	2	—	4	2	24
21.51 (b) Clover .....	9	1	—	2	1	2	1	16
21.51 (c) Other leguminous forage crops	5	1	1	—	1	1	1	10
21.51 (d) Leguminous forage crops (mixed)	4	1	—	—	1	1	—	7
21.51 (e) Grasses (alone) .....	4	2	5	1	1	1	1	15
21.51 (f) Grasses (mixed).....	2	1	—	—	1	1	—	5
21.51 (g) Mixed legumes and grasses ....	1	1	2	—	—	—	2	6
21.51 (h) Maize for silage .....	3	2	2	—	—	1	2	10
21.52 (a) Alfalfa, clover and other leguminous plants .....	—	1	—	—	—	—	—	1
21.52 (b) Grasses .....	—	1	—	—	1	1	—	3
21.52 (c) Mixed legumes and grasses ....	2	—	—	—	—	—	—	2
21.59 (a) Cabbage for fodder .....	5	—	—	—	—	—	—	5
21.59 (b) Pumpkins for fodder .....	1	—	—	—	—	—	1	2
21.59 (c) Other crops .....	11	3	4	4	3	6	2	33
<i>Number of participants in Table 17A..</i>	(11)	(4)	(20)	(5)	(6)	(14)	(2)	(62)
21.61 (a) Cabbage (including brussels sprouts) .....	10	4	14	3	6	5	2	44
21.61 (b) Kale .....	4	2	1	—	—	—	—	7
21.61 (c) Artichokes (French) .....	1	1	3	1	—	3	—	9
21.61 (d) Asparagus .....	6	2	2	2	1	2	1	16
21.61 (e) Celery .....	5	4	5	1	2	1	1	19
21.61 (f) Chicory for greens .....	2	1	1	—	—	—	1	5
21.61 (g) Lettuce .....	5	4	11	2	2	3	2	29
21.61 (h) Spinach .....	5	3	6	2	1	3	1	21
21.61 (i) Leeks.....	5	—	1	1	—	—	—	7
21.61 (j) Other leafy or stem vegetables	6	3	5	1	2	1	1	19
21.62 (a) Watermelons .....	3	2	6	5	5	3	2	26



TABLE 19. - REGIONAL DISTRIBUTION OF COUNTRIES PARTICIPATING IN PROGRAMME ITEMS  
Temporary crops (*concluded*)

Item	Europe	North America	Latin America	Near East	Far East	Africa	Oceania	Total
21.62 (b) Cantaloupes and other melon crops .....	3	2	7	5	2	3	2	24
21.62 (c) Pumpkins .....	2	3	6	3	2	3	2	21
21.62 (d) Squash .....	—	4	4	2	1	—	1	12
21.62 (e) Gourds .....	—	—	—	—	3	6	—	9
21.62 (f) Cucumbers .....	5	3	5	4	1	2	2	22
21.62 (g) Eggplant .....	1	2	8	4	4	1	1	21
21.62 (h) Okra .....	—	1	3	3	1	3	—	11
21.62 (i) Tomatoes .....	9	3	19	3	3	8	2	47
21.62 (j) Chilies (fresh) .....	—	—	6	3	3	3	—	15
21.62 (k) Sweet peppers .....	1	3	3	2	1	1	1	12
21.62 (l) Other fruit-bearing vegetables ..	2	1	3	1	1	1	—	9
<i>Number of participants in Table 17B..</i>	(14)	(4)	(17)	(4)	(11)	(9)	(3)	(62)
21.63 (a) Green garlic .....	1	—	—	2	—	1	—	4
21.63 (b) Green onions .....	5	3	2	2	1	1	1	15
21.63 (c) Beets (red) .....	5	3	6	2	2	—	1	19
21.63 (d) Carrots .....	9	4	13	2	3	4	1	36
21.63 (e) Radishes (including horseradish)	2	3	3	1	4	1	1	15
21.63 (f) Rutabagas or swedes and kohlrabi .....	3	3	1	1	—	—	—	8
21.63 (g) Turnips .....	3	3	5	3	3	2	1	20
21.63 (h) Other root, bulb and tuberous vegetables .....	4	2	2	2	2	1	1	14
21.64 (a) Beans (harvested green) .....	5	3	8	3	2	4	2	27
21.64 (b) Peas (harvested green) .....	8	3	1	2	2	3	1	20
21.65 (a) Cauliflower and broccoli .....	9	4	4	3	3	2	1	26
21.65 (b) Corn (sweet) .....	—	3	5	—	2	—	—	10
21.65 (c) All other vegetables not reported elsewhere .....	10	—	5	4	6	7	2	34
21.66. Mushrooms .....	2	1	—	—	—	—	—	3
<i>Number of participants in Table 18....</i>	(17)	(2)	(8)	(2)	(8)	(6)	(2)	(45)
21.71 Flowers (for sale, seed or industrial purposes) .....	13	2	3	1	2	2	1	24
21.72 Bulbs .....	4	1	—	—	—	2	—	7
21.73 Cultivation under glass .....	9	2	—	—	1	1	1	14
21.80 Crops grown for seed for sowing purposes .....	11	1	3	1	2	3	2	23
21.91 Green manure crops .....	3	1	—	1	3	1	1	10
21.99 Crops not reported elsewhere ..	5	1	3	—	4	2	—	15
22.0 Permanent grassland cut for hay	8	—	1	1	—	6	—	16

regions are given below. The figures in brackets against each region refer to the number of countries investigating the item concerned.

WHEAT: North America (3), Near East (4)  
 RYE: Europe (14), North America (3)  
 RICE: Latin America (19), Near East (5), Far East (11), Africa (13), and Oceania (3)

MILLET: Africa (14)  
 SORGHUM: Africa (14)  
 MAIZE: Latin America (19), Near East (5), Far East (14), Africa (18) and Oceania (5)  
 BARLEY: Near East (4)  
 OATS: Europe (14), North America (3)

- BEANS: Latin America (16)
- POTATOES: Europe (16), North America (4), Latin America (16), Near East (5), Far East (9), Africa (13)
- MANIOC: Latin America (18), Far East (10), Oceania (3)
- SWEET POTATOES: Latin America (18), Far East (12), Oceania (4)
- COCOYAMS: Oceania (3)
- SUGARCANE: Latin America (22), Far East (11)
- SUGAR BEETS: Europe (13), Near East (4)
- COTTON: Latin America (17), Near East (4), Far East (9), Africa (14)
- GROUNDNUTS: Latin America (15), Far East (13), Africa (18)
- TOBACCO: Latin America (18), Near East (5), Far East (11), Africa (13) and Oceania (3)

One item of the programme not investigated by any country was the total area of vegetables grown primarily for home consumption (21.67) and has therefore been dropped from Table 17B. A few countries (e.g., Iraq, Sudan) asked for total area under vegetables, without specifying whether primarily for home consumption or not. This item has been shown under 21.65 (c), all other vegetables not reported elsewhere.

Other programme items that were asked by less than 5 countries in the world were grasses, legumes and grains grown only for grazing, pumpkins, mushrooms, citronella, ramie and rhea, New Zealand flax, abaca, poppyseed and hempseed. In the case of total area of vegetables for home consumption and of grasses, etc., for grazing, there has been difficulty in identifying the national items as corresponding exactly to the programme items.

#### PERMANENT CROPS

As mentioned in the opening paragraph of this section, relating to crops, some abbreviations were inevitable in order to present the complete information on permanent crops. The abbreviations used in the first column of the tables are explained as follows:

#### *For area of trees in compact plantations:*

*At* denotes total area

*ap* denotes area of trees of productive age

*aq* denotes area of trees of nonproductive age

*A* denotes *At*, *ap* and *aq*

#### *For number of trees and vines:*

In compact plantations:

*Nt* denotes total number

*np* denotes number of trees of productive age

*nq* denotes number of trees of nonproductive age

*N* denotes *Nt*, *np* and *nq*

*S* denotes number of scattered trees

*P* denotes production

Participation in this part of the programme is presented in the synoptic Tables 20 to 30. In general, most of the countries asked the same type of information as indicated in the first column for all the items shown in the relevant tables. However, instances have been noticed where the information varied from item to item. For instance, only area was asked for one item and number of trees for others, yet the information column showed both area and number. These variations have been footnoted.

Certain items of the programme were investigated by very few countries in the world or only in a particular region, since they were not of importance to other regions or countries. Therefore, in order to avoid too much blank space marked mostly with dashes, the respective tables have been altered accordingly. Either the items have been dropped from the table altogether, or the relevant regions or countries have been omitted from the body of the main tables. The few countries that had asked for the information have been mentioned at the end of the table concerned.

Fourteen items of the programme have been dropped from the body of these synoptic tables, since very few countries in the world had asked for them. Small cultivated fruits and berries were of importance mainly in the European and North American regions, while bananas, plantains, pineapples, papayas, coffee, cocoa, tea, trees and palms for oil production, rubber and perennial plants for fibre and for bark were of little importance in these two regions. There-

TABLE 20. - EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO *citrus trees*

Region and country	Item	Information asked for:	Oranges	Mandarin and tangerines	Lemons	Grapefruit and pomelos	Sour limes	Other citrus fruit
			23.11 (a)	23.11 (b)	23.11 (c)	23.11 (d)	23.11 (e)	23.11 (f)
<i>Total number of countries asking question (61)</i> .....			47	27	31	29	19	32
EUROPE (4) .....			1	1	1	1	1	3
Greece		Nt	—	—	—	—	—	Citrus trees
Italy		At	—	—	—	—	—	Citrus trees
Malta and Gozo		At, np, nq	—	—	—	—	—	Citrus trees
Spain		At, Nt	X	X	X	X	<sup>1</sup> X	—
NORTH AMERICA (2) .....			2	2	1	1	1	1
Hawaii		Ap, np, nq, P	X	X	—	—	—	—
United States		np, nq, P	X	X	X	X	X	Kumquats, tangelos
LATIN AMERICA (22) .....			21	6	12	14	10	7
Argentina		np, nq	X	X	X	X	—	Kumquats
Barbados		At, np, nq, S, P	X	—	—	X	<sup>1</sup> X	—
Bolivia		At, S, P	X	X	X	X	<sup>1</sup> X	—
Brazil		At, np, nq, P	X	X	X	—	<sup>1</sup> X	—
Colombia		At, S, P	X	—	X	X	<sup>1</sup> X	—
Costa Rica		ap, aq, S, P	X	—	—	—	—	—
Dominican Republic		Nt, np, P	<sup>2</sup> X	—	<sup>2</sup> X	X	<sup>2</sup> X	Bitter oranges <sup>3</sup>
Ecuador		At, Nt, P	X	—	X	—	—	—
El Salvador		At, Nt, nq, S, P	X	—	—	—	—	—
Guatemala		ap, aq, np, nq, S, P	X	—	—	—	—	—
Jamaica		np, nq, P	X	—	—	X	—	—
Mexico		At, Nt, np, P	X	—	X	X	<sup>1</sup> X	—
Nicaragua		At, Nt, np, P	—	—	—	—	—	Citrus trees
Panama		N, P	X	—	—	—	—	—
Paraguay		np, nq, P	X	X	X	X	X	Bitter oranges
Peru		At, np, nq, S, P	X	—	—	—	—	—
Puerto Rico		At, np, nq, P	X	—	—	X	X	—
Surinam		At	X	—	—	X	—	X
Trinidad and Tobago		At, Nt, P	X	—	X	X	X	Citrons, sour oranges, Seville oranges, shaddock
Uruguay		np, nq, P	X	X	X	X	—	X
Venezuela		At, np, nq, P	X	X	X	X	X	—
Virgin Islands (U.S.)		np, nq, P	X	—	X	X	—	—
NEAR EAST (5) .....			5	4	5	4	1	2
Iraq		Nt, P	X	—	X	—	X	—
Lebanon		At, ap, Nt, np	X	X	X	X	—	X
Libya		At, np, nq, S, P	X	X	X	X	—	—
Sudan		At, N	X	X	X	X	—	—
Turkey		A, N, S, P	X	X	X	X	—	Seville oranges

TABLE 20. - EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO *citrus trees (concluded)*

Region and country	Item	Information asked for:	Oranges	Manda- rins and tangerines	Lemons	Grapefruit and pomelos	Sour limes	Other citrus fruit
			23.11 (a)	23.11 (b)	23.11 (c)	23.11 (d)	23.11 (e)	23.11 (f)
FAR EAST (11)			6	4	1	2	3	8
Brunei	ap, aq, np, nq, S, P		X	—	X	X	X	X
Ceylon	A, S		X	X	—	X	X	X
China (Taiwan)	ap, aq, np, nq, S		—	—	—	—	—	Citrus trees
Indonesia	At, N, S		—	—	—	—	—	Citrus trees
Japan	ap, aq, S		X	X	—	—	—	X
Malaya, Fed. of	A, np, nq, P, S		X	X	—	—	—	—
Nepal	ap, aq, np, nq		—	—	—	—	—	Citrus trees
North Borneo	At		—	—	—	—	—	Citrus trees
Pakistan	At		—	—	—	—	—	Citrus trees
Philippines	At, Nt, np, P		X	X	—	—	—	—
Thailand	Nt, np		X	—	—	—	X	—
AFRICA (14)			9	8	8	4	2	8
Angola	At, Nt, np, S, P		—	—	—	—	—	Citrus trees
Bechuanaland	At		—	—	—	—	—	Citrus trees
Ghana	ap, aq, np, nq, P		X	X	—	X	X	Sour oranges
Guinea, Rep. of	np, nq		X	X	X	X	—	—
Madagascar	At, P		X	X	X	—	—	—
Mali	S		X	X	—	—	—	—
Morocco	ap, aq, np, nq, S, P		X	X	X	X	—	X
Portuguese Guinea	N		X	X	X	—	—	—
Rhodesia and Nyasaland, Fed. of	Nt		X	—	—	—	—	X
Senegal	At		—	—	X	—	—	—
Seychelles	At		—	—	—	—	—	Citrus fruit
South Africa	np, nq		X	X	X	X	X	X
Tunisia	At, np, nq, P		X	X	X	—	—	X
Upper Volta	np, nq		—	—	X	—	—	—
OCEANIA (3)			3	2	3	3	1	3
American Samoa	Nt, P		X	—	X	X	X	Citrons
Australia	np, nq, P		X	X	X	X	—	X
Guam	Nt, P		X	X	X	X	—	Citrons

## ABBREVIATIONS

## 1. For area of trees in compact plantations:

- (a) *At* denotes total area  
*ap* denotes area of trees of productive age  
*aq* denotes area of trees of nonproductive age  
*A* denotes *At*, *ap*, and *aq*

(b) *P* denotes total production

## 2. For number of trees and vines:

- (a) In compact plantations:  
*Nt* denotes total number  
*np* denotes number of trees of productive age  
*nq* denotes number of trees of nonproductive age  
*N* denotes *Nt*, *np* and *nq*

(b) *S* denotes number of scattered trees

<sup>1</sup> Not specified whether sour or sweet lime. - <sup>2</sup> Separate questions for sour and sweet but no production for sour. - <sup>3</sup> Production not asked. - <sup>4</sup> Only number of trees in compact plantations (of productive age and nonproductive age separately). - <sup>5</sup> Including lime.

TABLE 21. - EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO *apples, pears and related fruit trees* \*

Region and country	Item	Information asked for:	Apples	Pears	Quince	Other pome fruit	Apricots	Cherries	Peaches	Plums and prunes	Other stone fruit
			23.12 (a)	23.12 (b)	23.12 (c)	23.12 (e)	23.13 (a)	23.13 (b)	23.13 (c)	23.13 (d)	23.13 (e)
<i>Total number of countries asking question (37).....</i>			31	29	10	6	17	18	27	29	7
EUROPE (8) .....			7	7	1	—	3	6	4	7	3
Austria .....	np		X	X	—	—	X	X	X	X	—
Belgium .....	At, Nt		X	X	—	—	X	X	X	X	—
Germany, (Fed. Rep.) .....	ap, aq, np, nq		X	X	—	—	X	X	X	X	—
Malta and Gozo .....	At, np, nq		—	—	—	—	—	—	—	—	Apple and pear trees, cherries, prunes, peaches, and other stone fruit
Netherlands .....	At		X	X	—	—	—	X	—	X	X
Norway .....	Nt		X	X	—	—	—	X	—	X	—
Spain .....	At, Nt		X	X	X	—	X	X	X	X	—
United Kingdom .....	At, Nt		X	X	—	—	—	—	—	X	Damson
NORTH AMERICA (3) .....			2	2	1	—	2	2	2	3	1
Canada .....	np, nq		X	X	—	—	X	X	X	X	—
Hawaii .....	Ap, np, nq, P		X	X	—	—	—	—	—	X	—
United States .....	np, nq, P		X	X	X	—	X	X	X	X	Nectarines
LATIN AMERICA (12) .....			10	9	4	—	2	4	9	9	—
Argentina .....	np, nq		X	X	X	—	X	X	X	X	—
Bolivia .....	At, S, P		X	X	—	—	—	—	X	X	—
Brazil .....	At, np, nq, P		X	—	—	—	—	—	X	X	—
Colombia .....	At, S, P		—	X	—	—	—	X	X	X	—
Ecuador .....	At, Nt, P		—	X	—	—	—	—	X	X	—
Guatemala .....	ap, aq, np, nq, S, P		X	X	—	—	—	—	—	X	—
Mexico .....	At, Nt, np, P		X	X	X	—	X	—	X	X	—
Paraguay .....	np, nq, P		X	X	—	—	—	—	X	—	—
Peru .....	At, np, nq, S, P		X	—	—	—	—	—	—	—	—
Uruguay .....	np, nq, P		X	X	—	—	X	X	X	X	—
Venezuela .....	At, np, nq, P		X	X	X	—	—	X	X	X	—
NEAR EAST (4) .....			4	4	2	—	4	2	4	4	1
Iraq .....	Nt, P		X	X	—	—	X	—	X	X	—
Lebanon .....	At, ap, Nt, np, S		X	X	X	—	X	X	X	X	—
Libya .....	At, np, nq, S, P		X	—	—	—	X	X	X	X	—
Turkey .....	A, N, S, P		X	X	X	—	X	X	X	X	Marlo cherries
FAR EAST (3) .....			2	3	—	2	1	1	2	—	—
Ceylon .....	A, S		—	X	—	Beli ( <i>Aegle marmelos</i> ) Loquats	—	—	—	—	—
Japan .....	ap, aq, S		X	X	—	—	X	X	X	—	—
Korea, Rep. of .....	At, N		X	X	—	—	—	—	X	—	—
AFRICA (6) .....			5	3	1	3	4	2	5	5	1
Angola .....	At, Nt, np, S, P		—	—	—	Pome fruit trees Loquats Other pome fruit	—	—	—	—	Stone fruit trees
Madagascar .....	At, P		X	—	—	—	X	—	X	X	—
Morocco .....	ap, aq, np, nq, S, P		X	X	—	—	X	X	X	X	—
Rhodesia and Nyasaland, Fed. of .....	Nt		X	—	—	—	—	—	X	X	—
South Africa .....	np, nq		X	X	X	—	X	X	X	X	—
Tunisia .....	At, np, nq, P		X	X	—	—	X	—	X	X	—
OCEANIA (1) .....			1	1	1	1	1	1	1	1	1
Australia .....	At, np, nq, P		X	X	<sup>1</sup> X	Loquats <sup>1</sup>	X	<sup>1</sup> X	X	X	Nectarines <sup>1</sup>

\* Programme item 23.12 (d), medlars, was investigated by Colombia, Dominican Republic; Lebanon; and Australia.

<sup>1</sup> Area not asked.

TABLE 22. - EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO *dates and related fruit trees* \*

Region and country	Item	Information asked for:	Dates	Figs	Bread-fruit	Man-goes	Avocado	Cus-tard apple	Guava	Pome-granate	Other fruit trees not included elsewhere
			23.21	23.22	23.23	23.24	23.25	23.29 (a)	23.29 (b)	23.29 (c)	23.29 (f)
Total number of countries asking question (56) .....			9	18	8	33	25	5	15	8	35
EUROPE * (6) .....			—	2	—	—	—	—	—	—	6
NORTH AMERICA (2) .....			1	1	—	2	2	—	1	—	1
Hawaii .....	Ap, np, nq, P	—	—	—	X	X	—	X	—	—	Litchi
United States .....	np, nq, P	X	X	—	X	X	—	—	—	—	—
LATIN AMERICA (18) .....			2	6	4	12	17	2	6	3	7
Argentina .....	np, nq	—	X	—	—	X	—	—	—	—	—
Barbados .....	At, np, nq, S, P	—	—	X	X	X	—	—	—	—	—
Bolivia .....	At, S, P	—	—	—	—	X	—	—	—	—	—
Brazil .....	At, np, nq, P	—	X	—	X	X	—	X	—	—	Hog plum, sweetsop, carambola, star apple
Colombia .....	At, S, P	—	X	—	X	X	—	X	X	—	Mulberry tree, <sup>1</sup> soursop
Costa Rica .....	S, P	—	—	—	—	X	—	—	—	—	—
Dominican Republic .....	Nt, np	—	—	X	X	X	X	—	—	—	—
Ecuador .....	At, Nt, P	—	—	—	X	X	—	—	—	—	—
Jamaica .....	np	—	—	<sup>2</sup> X	X	X	—	—	—	—	Naseberry, star apple
Mexico .....	At, Nt, np, P	X	X	—	X	X	—	X	X	—	Hog plum, anona
Panama .....	N, P	—	—	—	—	X	—	—	—	—	—
Paraguay .....	np, nq, P	—	—	—	X	X	—	X	—	—	Anona
Peru .....	At, np, nq, S, P	—	—	—	—	X	—	—	—	—	—
Puerto Rico .....	At, np, nq, P	—	—	—	X	X	—	X	—	—	—
Trinidad and Tobago .....	At, np, nq, P	—	—	—	X	X	—	—	—	—	—
Uruguay .....	np, nq, P	—	X	—	—	—	—	—	—	—	—
Venezuela .....	At, np, nq, P	X	X	X	X	X	X	X	X	X	Anona, star apple ( <i>Chrysophyllum cainito</i> )
Virgin Islands (U.S.) .....	np, nq, P	—	—	—	X	X	—	—	—	—	Soursop, mammee, sugar apple, Mespilus
NEAR EAST (5) .....			4	4	—	2	1	2	2	3	4
Iraq .....	Nt, P	X	X	—	—	—	—	—	—	X	X
Lebanon .....	At, ap, Nt, np, S	X	X	—	X	X	X	X	X	X	X
Libya .....	At, ap, nq, S, P	X	X	—	—	—	—	—	—	X	X
Sudan .....	At, N	X	—	—	X	—	—	X	X	—	—
Turkey .....	A, N, S, P	—	X	—	—	—	—	—	—	—	Mulberries for table use
FAR EAST (11) .....			1	1	1	8	1	—	1	—	9
Brunei .....	ap, aq, np, nq, S, P	—	—	—	X	—	—	—	—	—	X
Ceylon .....	A, S	—	—	X	X	X	—	X	—	—	X
Indonesia .....	At, N, S	—	—	—	X	—	—	—	—	—	Jackfruit
Japan .....	ap, aq, S	—	X	—	—	—	—	—	—	—	—
Korea, Rep. of .....	At, N	—	—	—	—	—	—	—	—	—	X
Malaya, Fed. of .....	At, S	—	—	—	X	—	—	—	—	—	Durian, mangosteen, rambutan, langsat, chiku ( <i>Sapodilla</i> )
Nepal .....	ap, aq, np, nq	—	—	—	X	—	—	—	—	—	X
Pakistan .....	At	X	—	—	X	—	—	—	—	—	Jackfruit
Philippines .....	At, Nt, np, P	—	—	—	X	—	—	—	—	—	—
Thailand .....	Nt, np	—	—	—	X	—	—	—	—	—	Jackfruit, rambutan, mangosteen
Viet-Nam, Rep. of .....	At, S	—	—	—	—	—	—	—	—	—	Fruit trees
AFRICA (11) .....			1	3	1	6	2	—	4	2	7
Angola .....	At, Nt, np, S, P	—	—	—	—	—	—	X	—	—	—
Ghana .....	ap, aq, np, nq, P	—	—	—	X	X	—	X	—	—	—
Madagascar .....	At, P	—	—	—	X	—	—	—	—	—	—
Mali .....	S	—	—	—	X	—	—	—	—	—	Mulberry trees
Morocco .....	ap, aq, np, nq, S, P	—	X	—	—	—	—	—	X	—	Baobab ( <i>Adansonia digitata</i> ), neré ( <i>Parkia</i> spp.)
Portuguese Guinea .....	N	—	—	—	X	—	—	—	—	—	Mulberry and carob, other fruit trees (specify)
Senegal .....	At	—	—	—	X	—	—	X	—	—	—
Seychelles .....	Nt	—	—	X	—	—	—	—	—	—	Jack trees
South Africa .....	np, nq	—	X	—	X	X	—	X	—	—	Litchi
Togo .....	At	—	—	—	—	—	—	—	—	—	Fruit trees
Tunisia .....	At, np, nq, P	X	X	—	—	—	—	—	—	X	X
OCEANIA (3) .....			—	1	2	3	2	1	1	—	1
American Samoa .....	Nt, P	—	—	X	X	X	—	—	—	—	—
Australia .....	np, nq, P	—	X	—	X	—	—	—	—	—	—
Guam .....	Nt, P	—	—	X	X	X	X	X	—	—	Soursop, starfruit, anona

NOTE: For abbreviations see p. 115.

\* Countries and programme items not shown in this table are given below:

Colombia, Dominican Republic, Mexico, Venezuela: Zapote (23.29 d)

Argentina; Japan, Republic of Korea; Australia: Persimmon (23.29 e)

European countries. Malta and Gozo, Spain: Figs (23.22)

Belgium, Greece, Italy, Malta and Gozo, Spain (carob), United Kingdom (mixed fruits): Other fruit trees (23.29 f)

<sup>1</sup> Number of scattered trees not asked. - <sup>2</sup> Also production and number of trees of nonproductive age.

TABLE 23. - EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO *cultivated edible nut trees*

Region and country	Item	Information asked for:	Almonds	Walnuts	Cashew nuts	All other edible nut trees
			23.31	23.32	23.33	23.39
Item number						
<i>Total number of countries asking question (28)</i>			11	11	9	17
EUROPE (3) .....			1	2	—	1
Austria .....	np		—	X	—	—
Germany (Fed. Rep.) .....	np, nq		—	X	—	—
Spain .....	At, Nt		X	—	—	Filbert
NORTH AMERICA (2) .....			1	1	—	2
Hawaii .....	Ap, np, nq, P		—	—	—	Macadamia nut
United States .....	np, nq, P		X	X	—	Filbert, pecan nut
LATIN AMERICA (8) .....			1	2	4	3
Argentina .....	np, nq		—	X	—	Chestnut
Bolivia .....	At, S, P		X <sup>1</sup>	—	—	—
Brazil .....	At, np, nq, P		—	—	X	—
Colombia .....	At, S, P		—	—	—	Butternut
Dominican Republic .....	Nt, np		—	—	X	—
Jamaica .....	np		—	—	X	—
Mexico .....	At, Nt, np, P		—	X	—	Pecan nut
Trinidad and Tobago .....	At, np, nq, P		—	—	X	—
NEAR EAST (4) .....			4	3	—	3
Iraq .....	Nt, P		X	X	—	Pistachio and other nut trees
Lebanon .....	At, ap, Nt, np, S		X	X	—	X
Libya .....	At, np, nq, S, P		X	—	—	—
Turkey .....	A, N, S, P		X	X	—	Pistachio, hazel nut, chestnut
FAR EAST (4) .....			—	—	3	3
Brunei .....	At, P		—	—	X	—
Ceylon .....	np, nq		—	—	X	Areca nut
Japan .....	ap, aq, S		—	—	—	Chestnut
Malaya, Fed. of .....	At, S		—	—	X	Areca nut
AFRICA (6) .....			3	2	2	4
Angola .....	At, Nt, np, S, P		—	—	—	Nut trees
Ghana .....	ap, aq, np, nq, P		—	—	X	—
Morocco .....	ap, aq, np, nq, S, P		X	X	—	Chestnut
South Africa .....	np, nq		X	X	—	Macadamia, nut, others pecan
Tanganyika .....	At, P		—	—	X	—
Tunisia .....	At, np, nq, P		X	—	—	Pistachio
OCEANIA (1) .....			1	1	—	1
Australia .....	np, nq, P		X	X	—	Australia nut trees, others (specify)

NOTE: For abbreviations see p. 115.

<sup>1</sup> Including chestnuts.

TABLE 24. - EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO *small cultivated fruits*

Region and country Item	Information asked for:	Strawberries	Raspberries	Gooseberries	Currants	Blueberries	Cranberries	Other cultivated small fruits and berries
		23.41	23.42	23.43	23.44	23.45	23.46	23.49
<i>Total number of countries asking question (26)</i> .....		23	10	8	7	2	2	5
EUROPE (10) .....		9	4	5	4	—	—	1
Belgium .....	At, Nt	<sup>1</sup> X	—	<sup>2</sup> X	—	—	—	—
Denmark .....	At	X	—	—	—	—	—	—
Germany (Fed. Rep.) .....	At, Nt	<sup>1</sup> X	<sup>1</sup> X	<sup>2</sup> X	<sup>2</sup> X	—	—	—
Luxembourg .....	At	X	—	—	—	—	—	—
Netherlands .....	At	—	X	X	X	—	—	—
Norway .....	At, Nt	<sup>1</sup> X	<sup>1</sup> X	<sup>2</sup> X	<sup>2</sup> X	—	—	—
Spain .....	At	X	—	—	—	—	—	—
Sweden .....	At	X	—	—	—	—	—	—
United Kingdom .....	At	X	X	X	X	—	—	Loganberries, blackberries
Yugoslavia .....	At	X	—	—	—	—	—	—
NORTH AMERICA (3) .....		3	3	2	1	2	2	2
Alaska .....	At, P	X	X	X	X	—	—	—
Canada .....	At	X	X	—	—	X	X	Cranberries, blueberries, etc.
United States .....	At, P	X	X	X	—	X	X	Blackberries, loganberries, youngberries
LATIN AMERICA (4) .....		4	1	—	—	—	—	—
Argentina .....	At	X	—	—	—	—	—	—
Colombia .....	At, S, P	X	—	—	—	—	—	—
Mexico .....	At, P	X	—	—	—	—	—	—
Uruguay .....	np, nq, P	X	X	—	—	—	—	—
NEAR EAST (3) .....		3	1	—	—	—	—	—
Iraq .....	At, P	X	—	—	—	—	—	—
Lebanon .....	At, ap, Nt, np, S	X	X	—	—	—	—	—
Turkey .....	A, N, S, P	X	—	—	—	—	—	—
FAR EAST (1) .....		1	—	—	—	—	—	—
Japan .....	At, P	X	—	—	—	—	—	—
AFRICA (4) .....		2	—	—	1	—	—	1
Angola .....	At, Nt, np, S	—	—	—	—	—	—	Small cultivated fruit
Morocco .....	ap, aq, np, nq, S, P	X	—	—	—	—	—	—
Tunisia .....	At, P	X	—	—	—	—	—	—
South Africa .....	np, nq	—	—	—	X	—	—	—
OCEANIA (1) .....		1	1	1	1	—	—	1
Australia .....	A, P	X	X	X	X	—	—	Loganberries

NOTE: For abbreviations see p. 115.

<sup>1</sup>Total area only. - <sup>2</sup>Total number of trees only.



TABLE 25. - EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO *other cultivated fruits*

Region and country	Item	Information asked for:	Bananas	Plantains	Pineapples	Papaya	Other cultivated fruits not included elsewhere
			23.51	23.52	23.53	23.54	23.59
<i>Total number of countries asking question (61)</i> .....			52	22	43	25	28
EUROPE/NORTH AMERICA (3)*			2	—	—	1	3
LATIN AMERICA (21) .....			20	17	19	9	8
Argentina	At, np, nq	X	—	X	—	—	—
Barbados	At, np, nq, S, P	X	X	—	—	—	—
Bolivia	At, S, P	<sup>1</sup> X	—	X	—	—	<sup>2</sup> X
Brazil	At, np, nq, P	X	—	X	—	—	—
Colombia	At, S, P	X	X	X	X	—	—
Costa Rica	ap, aq, S, P	<sup>2</sup> X	<sup>2</sup> X	X	X	—	Chirimoya, passion fruit, soursop
Dominican Republic	At, P	X	X	X	<sup>2</sup> X	—	Jagua, tamarind
Ecuador	At, Nt, P	X	X	X	X	—	Chirimoya, naranjilla ( <i>Solanum quitoense</i> )
El Salvador	At, Nt, S, P	X	X	X	—	—	—
Guatemala	ap, aq, np, nq, S, P	X	X	X	—	—	X
Jamaica	Nt, P	X	X	<sup>4</sup> X	—	—	—
Mexico	At, Nt, np, P	X	X	X	X	—	Passion fruit
Nicaragua	At	X	X	X	—	—	—
Panama	N, P	X	X	X	—	—	—
Paraguay	np, nq, P	X	—	X	—	—	—
Peru	At, np, nq, S, P	—	X	—	—	X	—
Puerto Rico	At, np, nq, P	X	X	<sup>1</sup> X	X	—	Azarole
Surinam	At	X	X	X	—	—	—
Trinidad and Tobago	At, P	X	X	X	—	—	—
Venezuela	At, np, nq, P	X	X	X	X	—	Passion fruit, coto-periza ( <i>Tallisia oliviformis</i> )
Virgin Islands (U.S.)	np, nq, P	X	X	X	X	—	—
NEAR EAST (4) .....			4	—	1	—	1
Lebanon	At, ap, Nt, np, S	X	—	—	—	—	—
Libya	At, np, nq, S, P	X	—	—	—	—	—
Sudan	At, N	X	—	X	—	—	X
Turkey	A, N, S, P	X	—	—	—	—	—
FAR EAST (12) .....			10	1	11	5	8
Brunei	ap, aq, np, nq, S, P	X	—	X	X	—	—
Ceylon	A, S	—	X	X	X	—	Passion fruit, goraka ( <i>Garcinia cambogia</i> ), nelli ( <i>Phyllanthus emblica</i> )
China (Taiwan)	ap, aq, np, nq, S	X	—	X	—	—	X
Indonesia	At, N, S	X	—	X	X	—	Durian
Japan	At, ap, aq, S	—	—	—	—	—	X
Malaya, Fed. of	A, S	X	—	<sup>5</sup> X	X	—	X
North Borneo	At	X	—	X	—	—	X
Pakistan	At	X	—	X	—	—	—
Philippines	At, Nt, np, P	X	—	X	X	—	—
Sarawak	At	X	—	X	—	—	X
Thailand	Nt, np	<sup>4</sup> X	—	<sup>4</sup> X	—	—	Durian
Viet-Nam, Rep. of	At, S, P	X	—	<sup>2</sup> X	—	—	X
AFRICA (17) .....			12	4	8	7	6
Angola	At, Nt, np, S, P	X	—	—	—	X	—
Central African Republic	At	X	—	—	—	—	—
Congo (Brazzaville)	At	—	—	X	—	—	—
Gabon	At	X	X	X	—	—	—
Ghana	ap, aq, np, nq, P	X	X	X	X	—	X
Guinea, Rep. of	np, nq	X	—	X	X	—	—
Kenya	At	X	—	X	—	—	X
Madagascar	At, P	X	—	X	—	—	—
Morocco	ap, aq, np, nq, S, P	X	—	—	—	—	X
Portuguese Guinea	N	<sup>5</sup> X	—	—	—	X	—
Senegal	At	X	—	X	—	—	—
Seychelles	At	X	—	—	—	—	—
South Africa	np, nq	<sup>4</sup> X	—	<sup>4</sup> X	X	—	Passion fruit
Tanganyika	At, P	—	—	—	X	—	X
Togo	At	—	—	—	—	—	X
Uganda	At	—	X	—	—	—	—
Upper Volta	np, nq	—	X	—	—	X	—
OCEANIA (4) .....			4	—	4	3	2
American Samoa	Nt, P	X	—	X	X	—	—
Australia	ap, aq, np, nq, P	<sup>7</sup> X	—	<sup>6</sup> X	<sup>7</sup> X	—	Passion fruit <sup>1</sup>
Guam	Nt, P	X	—	X	X	—	—
Papua and New Guinea	At, Nt, ap, S, P	<sup>7</sup> X	—	<sup>6</sup> X	—	—	Passion fruit <sup>1,7</sup>

NOTE: For abbreviations see p. 115.

\* Countries and programme items not shown in this table are given below:

Spain; and Hawaii: Bananas (23.51)

Hawaii: Papaya (23.54)

Malta and Gozo, Spain; Hawaii: Others (23.59)

<sup>1</sup> Including plantains. - <sup>2</sup> Number of scattered trees not asked. - <sup>3</sup> Only number of trees, total, and of productive age. - <sup>4</sup> Total area and production. - <sup>5</sup> Also production. - <sup>6</sup> Number of trees not asked. - <sup>7</sup> Area not asked.

TABLE 26. - EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO *grapes and selected perennial crops yielding spices, etc.* \*

Region and country	Information asked for:	Grapes			Perennial crops	
		Total	For wine	For table use	Black pepper	Others
Item	Item number	23.61	23.62	23.63	23.74	23.79
<i>Total number of countries asking question (43)</i> .....		21	10	9	6	6
EUROPE (5) .....		4	1	1	—	—
Austria .....	At	X	—	—	—	—
Greece .....	At	X	—	—	—	—
Italy .....	At	X	—	—	—	—
Malta and Gozo .....	At, np, nq, P	X	—	—	—	—
Spain .....	At	—	X	X	—	—
NORTH AMERICA (2) .....		2	—	—	—	—
Canada .....	At	X	—	—	—	—
United States .....	np, nq, P	X	—	—	—	—
LATIN AMERICA (12) .....		6	2	2	—	3
Argentina .....	ap, aq, np	X	—	—	—	—
Bolivia .....	At, S, P	X	—	—	—	—
Brazil .....	At, np, nq, P	X	—	—	—	—
Colombia .....	At, S, P	X	—	—	—	—
Dominican Republic .....	Nt, np, P	X	—	—	—	Arnotta
Ecuador .....	At, Nt, P	X	—	—	—	—
Mexico .....	At, Nt, np, P	—	X	X	—	—
Nicaragua .....	At, Nt, np, P	—	—	—	—	Arnotta
Trinidad and Tobago .....	At, np, nq, P	—	—	—	—	Tonka beans
Uruguay .....	np, nq, P	—	X	X	—	—
NEAR EAST (4) .....		2	3	2	—	—
Iraq .....	Nt, P	X	—	—	—	—
Lebanon .....	At, ap, Nt, np, S	X	X	—	—	—
Libya .....	At, np, nq, S, P	—	X	X	—	—
Turkey .....	A, N, S, P	—	X	X	—	—
FAR EAST (10) .....		2	—	—	6	1
Brunei .....	ap, aq, np, nq, S, P	—	—	—	X	—
Ceylon .....	np, nq	—	—	—	X	Drumsticks
China (Taiwan) .....	A, N	X	—	—	—	—
Indonesia .....	At, N, S	—	—	—	X	—
Japan .....	At	X	—	—	—	—
Malaya, Fed. of .....	At, S	—	—	—	—	—
North Borneo .....	ap, aq	—	—	—	X	—
Sarawak .....	ap, aq	—	—	—	X	—
Viet-Nam, Rep. of .....	At, S, P	—	—	—	X	—
AFRICA (9) .....		4	3	3	—	2
Angola .....	At, Nt, np, S	X	—	—	—	X
Bechuanaland .....	At	X	—	—	—	—
Madagascar .....	At, P	X	—	—	—	—
Morocco .....	ap, aq, np, nq, S, P	—	X	X	—	X
Rhodesia and Nyasaland, Fed. of .....	Nt	X	—	—	—	—
South Africa .....	np, nq	—	X	X	—	—
Tunisia .....	At, np, nq, P	—	X	X	—	—
OCEANIA (1) .....		1	1	1	—	—
Australia .....	np, nq, P	X	X	X	—	—

NOTE: For abbreviations see p. 115.

\* Countries and programme items not shown in this table are given below:

Morocco: Grapes under irrigation (23.61 a)

Grapes not irrigated (23.61 b)

Turkey; Morocco; Australia (for drying): Grapes for raisins (23.64)

Ceylon; Seychelles: Cinnamon (23.71)

Ceylon, Indonesia, Federation of Malaya: Cloves (23.72)

Trinidad and Tobago; Ceylon, Indonesia, Federation of Malaya: Nutmeg and mace (23.73)

Mexico; Seychelles: Vanilla (23.75)

Costa Rica, Jamaica, Trinidad and Tobago; Brunei, Japan, Philippines; Republic of Guinea: Ginger (23.76)

<sup>1</sup> Grapes for juice. — <sup>2</sup> Only area of productive and nonproductive vines.

TABLE 27. - EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO *coffee, cocoa, tea, yerba maté and mulberry*

Region and country	Item	Information asked for:	Coffee	Cocoa	Tea	Yerba maté	Mulberry for silkworm and paper
			23.81	23.82	23.83 (a)	23.83 (b)	23.84
Item number							
<i>Total number of countries asking question (50)</i>			43	28	16	3	5
NORTH AMERICA (1)			1	—	—	—	—
Hawaii		At, Nt, P	X	—	—	—	—
LATIN AMERICA (21)			19	18	4	3	1
Argentina		At, Nt	—	—	X	X	X
Barbados		At, np, nq, S, P	X	X	—	—	—
Bolivia		At, S, P	X	X	—	—	—
Brazil		At, np, nq, P	X	X	X	X	—
Colombia		At, S, P	X	X	—	—	—
Costa Rica		ap, aq, P	X	X	—	—	—
Dominican Republic		At, P	X	X	—	—	—
Ecuador		At, Nt, P	X	X	—	—	—
El Salvador		At, aq, Nt, nq, P	X	X	—	—	—
Guatemala		ap, aq, np, nq, S, P	X	X	—	—	—
Jamaica		np, nq, P	X	X	—	—	—
Mexico		At, Nt, np, P	X	X	—	—	—
Nicaragua		At, Nt, np, P	X	X	—	—	—
Panama		N, P	X	—	—	—	—
Paraguay		np, nq, P	X	X	—	X	—
Peru		At, np, nq, S, P	X	X	X	—	—
Puerto Rico		At, np, nq, P	—	X	—	—	—
Surinam		At	—	X	—	—	—
Trinidad and Tobago		At	X	X	—	—	—
Venezuela		At, Nt, P	X	X	—	—	—
Virgin Islands (U.S.)		At, np, nq, P	X	X	—	—	—
		np, nq	X	—	—	—	—
NEAR EAST (3)			1	—	2	—	2
Lebanon		At, np, Nt, np, S	—	—	—	—	X
Sudan		At, N	X	—	X	—	X
Turkey		A, N, S, P	—	—	X	—	X
FAR EAST (13)			10	5	7	—	1
Brunei		ap, aq, np, nq, S, P	X	—	—	—	—
Ceylon		A, N, S, P	X	X	X	—	—
China (Taiwan)		ap, aq, np, nq, S	—	—	X	—	—
India		At, P	X	—	—	—	—
Indonesia		At, ap, N, S, P	X	X	—	—	—
Japan		At, P	—	—	X	—	—
Malaya, Fed. of.		A, N, S, P	X	X	X	—	X
North Borneo		A, P	X	X	—	—	—
Pakistan		At	—	X	X	—	—
Philippines		At, Nt, np, P	X	X	—	—	—
Sarawak		At	X	—	—	—	—
Thailand		At, P	X	—	—	—	—
Viet-Nam, Rep. of		At, ap, P	X	—	X	—	—
AFRICA (10)			10	3	3	—	—
Angola		At, Nt, np, S, P	X	X	—	—	—
Central African Republic		At	X	—	—	—	—
Ghana		ap, aq, np, nq, P	X	X	—	—	—
Guinea, Rep. of		np, nq	X	—	—	—	—
Kenya		At	X	—	X	—	—
Madagascar		At, P	X	—	—	—	—
Seychelles		At	X	—	—	—	—
Tanganyika		At, P	X	—	X	—	—
Togo		At	X	X	—	—	—
Uganda		At	X	—	X	—	—
OCEANIA (2)			2	2	—	—	1
American Samoa		Nt, P	X	X	—	—	X
Papua and New Guinea		At, N, P	X	X	—	—	—

NOTE: For abbreviations see p. 115.

<sup>1</sup> Production not asked. - \* Total area only.

TABLE 28. - EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO *other industrial permanent plants* \*

Region and country	Item	Information asked for:	Primarily for oil production				Rubber (Hevea)	Perennial plants for fibre			Other perennial plants
			Olives	Coco-nuts	Oil palms	Others		Sisal and henequen	Kapok	Others	
Item number			23.85 (a)	23.85 (b)	23.85 (c)	23.85 (d)	23.86 (a)	23.87 (a)	23.87 (b)	23.87 (c)	23.89
Total number of countries asking question (57) .....			17	37	12	10	17	11	10	10	22
EUROPE/NORTH AMERICA (3) *....			3	—	—	1	—	—	—	—	—
LATIN AMERICA (22) ..			6	16	4	5	5	6	—	5	8
Argentina .....	np, nq	X	—	—	Tung trees <sup>1</sup>	—	—	—	—	—	—
Barbados .....	At, np, nq, S, P	—	X	—	—	—	—	—	—	—	—
Bolivia .....	At, S, P	—	—	—	—	X	—	—	—	—	Coca*
Brazil .....	At, np, nq, P	—	X	—	Tung trees	X	—	—	—	—	Cupuaçu ( <i>Theobroma grandiflora</i> )
Colombia .....	At, S, P	X	X	—	—	X	—	—	—	—	—
Costa Rica .....	ap, aq, P	—	X	X	—	—	X	—	—	—	—
Dominican Republic.	Nt, np	—	X	—	Oil palms	—	—	—	—	—	Reed cane
Ecuador .....	At, Nt, P	—	X	—	Oil palms	—	—	—	—	—	Ivory palm
El Salvador .....	At, Nt, nq, P	—	X	—	—	—	X	—	—	—	—
Guatemala .....	ap, aq, np, nq, S, P	—	—	—	—	X	X	—	—	—	—
Jamaica .....	np, nq, P	—	X	—	—	—	—	—	—	—	—
Mexico .....	At, Nt, np, P	X	X	X	—	—	X	—	—	—	Agave for alcohol
Nicaragua .....	At, Nt, np, P	—	X	—	—	—	X	—	—	—	Ipécacuanha ( <i>Euphorbia</i> spp.)
Panama .....	N, P	—	X	—	—	—	—	—	—	—	—
Paraguay .....	np, nq, P	X	—	—	Tung trees	—	—	—	—	—	—
Peru .....	At, np, nq, S, P	X	—	—	—	—	—	—	—	—	Barbasco, ( <i>Jacquinia</i> spp.), coca
Puerto Rico .....	At, np, nq, P	—	X	—	—	—	—	—	—	—	—
Surinam .....	At	—	X	X	—	—	—	—	—	—	—
Trinidad and Tobago	At, Nt, P	—	X	—	—	X	—	—	—	—	—
Uruguay .....	np, nq, P	X	—	—	—	—	—	—	—	—	—
Venezuela .....	At, np, nq, P	—	X	X	—	—	X	—	—	—	Tamarind
Virgin Islands (U.S.)	np, nq	—	X	—	—	—	—	—	—	—	—
NEAR EAST (5) .....			4	—	1	—	—	—	—	—	1
Iraq .....	Nt, P	X	—	—	—	—	—	—	—	—	—
Lebanon .....	At, ap, Nt, np, S	X	—	—	—	—	—	—	—	—	X
Libya .....	At, np, nq, S, P	X	—	—	—	—	—	—	—	—	—
Sudan .....	At, N	—	—	X	—	—	—	—	—	—	—
Turkey .....	A, N, S, P	X	—	—	—	—	—	—	—	—	—

TABLE 28. - EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO *other industrial permanent plants* \* (concluded)

Region and country	Item	Information asked for:	Primarily for oil production				Rubber (Hevea)	Perennial plants for fibre			Other perennial plants
			Olives	Coco-nuts	Oil palms	Others		Sisal and henequen	Kapok	Others	
Item number			23.85 (a)	23.85 (b)	23.85 (c)	23.85 (d)	23.86 (a)	23.87 (a)	23.87 (b)	23.87 (c)	23.89
FAR EAST (10)			—	10	3	1	8	1	6	3	8
Brunei	ap, aq, np, nq, S, P		—	X	—	—	X	—	—	—	Sago palm
Ceylon	A, N, S, P		—	X	—	Mee ( <i>Rubia tinctorum</i> )	X	—	<sup>2</sup> X	Sago palm fibre <sup>2</sup>	Palmyra, tamarind, betel <sup>2</sup>
Indonesia	At, ap, N, S, P		—	X	X	—	X	—	X	Agave	Bamboo
Malaya, Fed. of.	A, N, S, P		—	X	X	—	<sup>2</sup> X	—	<sup>1</sup> X	—	Sireh (betel leaf vine), sago palm <sup>1</sup>
North Borneo	A, Nt, P		—	X	<sup>1</sup> X	—	<sup>2</sup> X	—	<sup>1</sup> X	—	Sago palm <sup>1</sup>
Pakistan	At		—	X	—	—	—	—	—	—	Betel nut, pan
Philippines	At, Nt, np, P		—	X	—	—	—	<sup>2</sup> X	X	Pineapple	Betel nut, lumbang, bamboo, maguey (agave) <sup>2</sup>
Sarawak	ap, aq		—	X	—	—	X	—	—	—	—
Thailand	Nt, np, P		—	X	—	—	X	—	<sup>4</sup> X	—	Betel nut, tamarind <sup>3</sup> , sugar palm, longan
Viet-Nam, Rep. of	At, ap, S, P		—	X	—	—	<sup>2</sup> X	—	—	—	—
AFRICA (13)			3	8	4	3	3	4	3	2	4
Angola	At, Nt, np, S, P		—	X	X	—	—	—	—	Plants for fibre	X
Ghana	ap, aq, np, nq, P		—	X	X	—	X	—	—	—	Kola nut
Guinea, Rep. of	np, nq		—	X	X	—	—	—	—	—	Kola nut
Kenya	At		—	X	—	—	—	X	—	—	—
Madagascar	At		—	—	—	Aleurites (tung)	—	—	—	—	—
Mali	S		—	—	—	Karité (shea butter tree)	—	—	X	—	—
Morocco	ap, aq, np, nq, S, P		X	—	—	Argan tree	—	X	X	—	—
Portuguese Guinea	P		—	X	X	—	X	—	—	—	Kola nut <sup>6</sup>
Senegal	At		—	X	—	—	—	—	—	—	—
Seychelles	At, P		—	X	—	—	—	—	—	—	—
South Africa	np, nq		X	—	—	—	—	<sup>1</sup> X	—	<sup>1</sup> X	—
Tanganyika	At, P		—	X	—	—	X	X	<sup>1</sup> X	—	—
Tunisia	At, np, nq, P		X	—	—	—	—	—	—	—	—
OCEANIA (4)			1	3	—	—	1	—	1	—	1
American Samoa	Nt, P		—	X	—	—	—	—	X	—	—
Australia	np, nq, P		X	—	—	—	—	—	—	—	—
Guam	P		—	X	—	—	—	—	—	—	Betel nut
Papua and New Guinea	At, P		—	<sup>4</sup> X	—	—	X	—	—	—	—

NOTE: For abbreviations see p. 115.

\* Countries and programme items not shown in this table are given below:

Greece, Italy; and United States: Olives

United States: Tung nuts

Sudan; Papua and New Guinea: Other rubber, gum and resin plants (23.86b)

Indonesia; Tanganyika: Cinchona (23.88 a)

Angola, South Africa, Tanganyika: Others. for bark (23.88 b)

<sup>1</sup>Total area only. — <sup>2</sup>Production not asked. — <sup>3</sup>Number of trees not asked. — <sup>4</sup>Total area and number of scattered trees. — <sup>5</sup>Only total number of trees. — <sup>6</sup>Only number of trees (all three categories).

TABLE 29. - EXTENT OF PARTICIPATION IN SECTION 2, RELATING TO *nurseries*

Region and country	Information asked for:	Nurseries			
		Total	Of fruit and nut trees, vines and olive trees	Of ornamental trees and bushes	Other
Item					
Item number		23.9	23.91	23.92	23.99
<i>Total number of countries asking question (23)</i>		8	13	8	15
EUROPE (8) .....		3	5	4	5
Austria .....	At	—	X	X	Roses, others
Germany (Fed. Rep. of) .....	At	—	X	X	Fruit plants, roses Other ornamental plants, forest trees
Italy .....	At	X	—	—	—
Luxembourg .....	At	—	X	—	—
Norway .....	At	X	X	X	Roses
Spain .....	At	X	—	—	—
Sweden .....	At	—	—	—	Plant nurseries
United Kingdom .....	At	—	X	X	Alpines
NORTH AMERICA (2) .....		1	1	1	1
Canada .....	At	—	X	X	X
United States .....	At	X	—	—	—
LATIN AMERICA (2) .....		1	1	1	1
Argentina .....	At, Nt	X	X	—	Forest trees
Puerto Rico .....	At, P	—	—	X	—
NEAR EAST (2) .....		—	2	—	2
Lebanon .....	At, ap, Nt, np, S	—	X	—	Flowers
Turkey .....	A, N, S, P	—	X	—	X
FAR EAST (4) .....		—	2	—	4
Ceylon .....	A, N, S, P	—	—	—	Tea, rubber
Indonesia .....	At	—	—	—	Rubber, tea, coffee, cocoa, others
Korea, Rep. of .....	At	—	X	—	Forest trees, mulberry trees
Malaya, Fed. of .....	At	—	X	—	Rubber, tea, oil palms
AFRICA (4) .....		2	1	2	2
Angola .....	At	—	—	X	X
Bechuanaland .....	At	X	—	—	—
Morocco .....	At, Nt	—	X	X	X
South Africa .....	At	X	—	—	—
OCEANIA (1) .....		1	1	—	—
Australia .....	At	X	X	—	—

TABLE 30. - REGIONAL DISTRIBUTION OF COUNTRIES PARTICIPATING IN PROGRAMME ITEMS  
Permanent crops

Item	Europe	North America	Latin America	Near East	Far East	Africa	Oceania	Total
<i>Total participants</i> .....	(17)	(4)	(22)	(6)	(15)	(22)	(5)	(91)
<i>Number of participants in Table 20</i> ....	(4)	(2)	(22)	(5)	(11)	(14)	(3)	(61)
23.11 (a) Oranges .....	1	2	21	5	6	9	3	47
23.11 (b) Mandarins and tangerines .....	1	2	6	4	4	8	2	27
23.11 (c) Lemons .....	1	1	12	5	1	8	3	31
23.11 (d) Grapefruit and pomelos .....	1	1	14	4	2	4	3	29
23.11 (e) Sour limes .....	1	1	10	1	3	2	1	19
23.11 (f) Other citrus fruit .....	3	1	7	2	8	8	3	32
<i>Number of participants in Table 21</i> ....	(8)	(3)	(12)	(4)	(3)	(6)	(1)	(37)
23.12 (a) Apples .....	7	2	10	4	2	5	1	31
23.12 (b) Pears .....	7	2	9	4	3	3	1	29
23.12 (c) Quince .....	1	1	4	2	—	1	1	10
23.12 (d) Medlars .....	—	—	2	1	—	—	1	4
23.12 (e) Other pome fruit .....	—	—	—	—	2	3	1	6
23.13 (a) Apricots .....	3	2	2	4	1	4	1	17
23.13 (b) Cherries .....	6	2	4	2	1	2	1	18
23.13 (c) Peaches .....	4	2	9	4	2	5	1	27
23.13 (d) Plums and prunes .....	7	3	9	4	—	5	1	29
23.13 (e) Other stone fruit .....	3	1	—	1	—	1	1	7
<i>Number of participants in Table 22</i> ....	(6)	(2)	(18)	(5)	(11)	(11)	(3)	(56)
23.21 Dates .....	—	1	2	4	1	1	—	9
23.22 Figs .....	2	1	6	4	1	3	1	18
23.23 Breadfruit .....	—	—	4	—	1	1	2	8
23.24 Mangoes .....	—	2	12	2	8	6	3	33
23.25 Avocados .....	—	2	17	1	1	2	2	25
23.29 (a) Custard apple .....	—	—	2	2	—	—	1	5
23.29 (b) Guava .....	—	1	6	2	1	4	1	15
23.29 (c) Pomegranate .....	—	—	3	3	—	2	—	8
23.29 (d) Zapote .....	—	—	4	—	—	—	—	4
23.29 (e) Persimmons .....	—	—	1	—	2	—	1	4
23.29 (f) Other fruit trees not included elsewhere .....	6	1	7	4	9	7	1	35
<i>Number of participants in Table 23</i> ....	(3)	(2)	(8)	(4)	(4)	(6)	(1)	(28)
23.31 Almonds .....	1	1	1	4	—	3	1	11
23.32 Walnuts .....	2	1	2	3	—	2	1	11
23.33 Cashew nuts .....	—	—	4	—	3	2	—	9
23.39 All other edible nut trees .....	1	2	3	3	3	4	1	17
<i>Number of participants in Table 24</i> ....	(10)	(3)	(4)	(3)	(1)	(4)	(1)	(26)
23.41 Strawberries .....	9	3	4	3	1	2	1	23
23.42 Raspberries .....	4	3	1	1	—	—	1	10
23.43 Gooseberries .....	5	2	—	—	—	—	1	8
23.44 Currants .....	4	1	—	—	—	1	1	7
23.45 Blueberries .....	—	2	—	—	—	—	—	2
23.46 Cranberries .....	—	2	—	—	—	—	—	2
23.49 Other cultivated small fruits and berries .....	1	2	—	—	—	1	1	5

TABLE 30. — REGIONAL DISTRIBUTION OF COUNTRIES PARTICIPATING IN PROGRAMME ITEMS  
Permanent crops (*concluded*)

Item	Europe	North America	Latin America	Near East	Far East	Africa	Oceania	Total
<i>Number of participants in Table 25....</i>	(2)	(1)	(21)	(4)	(12)	(17)	(4)	(61)
23.51 Bananas .....	1	1	20	4	10	12	4	52
23.52 Plantains .....	—	—	17	—	1	4	—	22
23.53 Pineapples .....	—	—	19	1	11	8	4	43
23.54 Papaya .....	—	1	9	—	5	7	3	25
23.59 Other cultivated fruit not included elsewhere .....	2	1	8	1	8	6	2	28
<i>Number of participants in Table 26....</i>	(5)	(2)	(12)	(4)	(10)	(9)	(1)	(43)
23.61 Grapes, total .....	4	2	6	2	2	4	1	21
23.61 (a) Under irrigation .....	—	—	—	—	—	1	—	1
23.61 (b) Not irrigated .....	—	—	—	—	—	1	—	1
23.62 For wine .....	1	—	2	3	—	3	1	10
23.63 For table use .....	1	—	2	2	—	3	1	9
23.64 For raisins .....	—	—	—	1	—	1	1	3
23.71 Cinnamon .....	—	—	—	—	1	1	—	2
23.72 Cloves .....	—	—	—	—	3	—	—	3
23.73 Nutmeg and mace .....	—	—	1	—	3	—	—	4
23.74 Black pepper .....	—	—	—	—	6	—	—	6
23.75 Vanilla .....	—	—	1	—	—	1	—	2
23.76 Ginger .....	—	—	3	—	3	1	—	7
23.79 Other perennial crops .....	—	—	3	—	1	2	—	6
<i>Number of participants in Table 27....</i>	(—)	(1)	(21)	(3)	(13)	(10)	(2)	(50)
23.81 Coffee .....	—	1	19	1	10	10	2	43
23.82 Cocoa .....	—	—	18	—	5	3	2	28
23.83 (a) Tea .....	—	—	4	2	7	3	—	16
23.83 (b) Yerba maté .....	—	—	3	—	—	—	—	3
23.84 Mulberry for silkworms and paper .....	—	—	1	2	1	—	1	5
<i>Number of participants in Table 28....</i>	(2)	(1)	(22)	(5)	(10)	(13)	(4)	(57)
23.85 (a) Olives .....	2	1	6	4	—	3	1	17
23.85 (b) Coconuts .....	—	—	16	—	10	8	3	37
23.85 (c) Oil palms .....	—	—	4	1	3	4	—	12
23.85 (d) Other trees and palms cultivated primarily for oil production ...	—	1	5	—	1	3	—	10
23.86 (a) Rubber ( <i>Hevea</i> ) .....	—	—	5	—	8	3	1	17
23.86 (b) Other rubber, gum and resin plants .....	—	—	—	1	—	—	1	2
23.87 (a) Sisal and henequen .....	—	—	6	—	1	4	—	11
23.87 (b) Kapok .....	—	—	—	—	6	3	1	10
23.87 (c) Other perennial plants for fibre .....	—	—	5	—	3	2	—	10
23.88 (a) Cinchona .....	—	—	—	—	1	1	—	2
23.88 (b) Others, for bark .....	—	—	—	—	—	3	—	3
23.89 Other perennial plants .....	—	—	8	1	8	4	1	22
<i>Number of participants in Table 29....</i>	(8)	(2)	(2)	(2)	(4)	(4)	(1)	(23)
23.9 Nurseries: .....	3	1	1	—	—	2	1	8
23.91 Of fruit and nut trees, vines and olive trees .....	5	1	1	2	2	1	1	13
23.92 Of ornamental trees and bushes .....	4	1	1	—	—	2	—	8
23.99 Other nurseries .....	5	1	1	2	4	2	—	15



fore, these regions are not shown in the body of Tables 25 and 28.

Iran presented a particular case of nonparticipation. While space was provided in the census questionnaire for the names of crops (*ap*, *aq*), number of trees (*np*, *nq*) and production (*P*) for the area, the names of the crops were not mentioned and, therefore, it was not possible to show participation in any one particular item of the programme.

As regards more than one item, e.g., plums and prunes, some countries asked for one or the other, while others asked for both, as suggested in the programme. A few asked for both items separately. The synoptic tables include all these cases, and no effort is made to show the individual cases separately. On the other hand, there had been instances where single items of the programme were combined in the national censuses. For instance, Australia and Guam included limes with lemons in their investigation. Such cases have been footnoted. In many cases countries have asked for a group of items rather than individual items. Citrus trees, for example, have been investigated by Greece, Italy, Malta and Gozo; North Borneo, Pakistan, Taiwan; Angola, Bechuanaland, the Seychelles and others.

Regarding the subdivision of area and number of trees into (*a*) of productive age; and (*b*) of nonproductive age, different approaches have been adopted to obtain the information. For instance, for citrus fruits, Spain asked about trees of less than 10 years, 10 to 30 years and over 30 years of age; Canada inquired about apple and pear trees 10 years of age or over. The Federal Republic of Germany subdivided total area for strawberries into those (*a*) 3 years of age and older; (*b*) 1 and 2 years of age; and (*c*) new plants (1961). The Republic of Viet-Nam asked about the average number of trees per hectare for coffee, tea and rubber. South Africa inquired about the citrus trees planted before and after 1955. Trinidad and Tobago asked for mature, immature and newly planted trees.

#### ADDITIONAL INFORMATION

Many countries collected information in addition to that proposed in the programme, according to need. Varieties of fruits like oranges,

with or without seeds, Japanese peas, western pears, yellow peaches, white, red, black currants, cherries mainly for table use, mainly for canning, sweet and sour cherries, had been investigated by many countries (the Federal Republic of Germany, Norway; the United States; Paraguay, Peru, Mexico; South Africa and others). Examples of other items, such as olives for table use and for oil, for instance, were asked by Libya; and Tunisia. Coffee, *arabica* and *robusta*, was requested by the Philippines; Tanganyika and Uganda; clonal rubber and ordinary rubber by North Borneo and Sarawak.

#### REGIONAL PROGRAMMES

##### *Supplement for Europe*

Additional breakdown was suggested, in the world programme items, of wheat, cultivation under glass, and permanent grassland cut for hay.

In view of the importance of hard wheat, particularly in the southern part of the continent, hard and soft wheat were the two recommended items for the region. Only Italy investigated these items.

The three additional subdivisions of the total area of cultivation under glass were vegetables, flowers and mixed cultivation. The countries that included these subdivisions in their censuses were Austria, Belgium, Finland, the Federal Republic of Germany, the Netherlands, Norway and the United Kingdom. Austria and Germany did not ask for mixed cultivation but Austria went a step further and inquired about hotbeds, heated greenhouses and unheated greenhouses.

Permanent grassland cut for hay was further subdivided according to whether it was cut "only once a year" or "more than once a year." This was done in view of the great variety in the quantity of permanent meadows, some yielding two or more cuttings of hay per year and, at the other extreme, once every two years, of very low quality. Austria, the Federal Republic of Germany and Luxembourg investigated these items.

##### *Programme of the Americas*

Chayote (*Sechium edule*) was the only additional item suggested in the programme of the

1960 census for the Americas; Venezuela listed this item.

#### *Supplement for the Near East*

Three changes were suggested in the region :

- (a) In view of the importance of irrigation for agricultural productivity in this region, the area of all crops was subdivided into irrigated and nonirrigated. Iran and Libya adopted the recommendation in their agricultural censuses.
- (b) The item esparto grass was added under programme item 21.49(d), other industrial crops. This was done in view of its importance in the region as a raw material for the production of banknotes. Libya included it in the census questionnaire.
- (c) Permanent crops. Apart from the subdivision of area in compact plantation into irrigated and nonirrigated, the number of scattered trees was also subdivided not only by water supply but also by productivity, that is, by investigating the number of trees of productive and nonproductive age. The world programme had recommended the total number of scattered trees, in view of the difficulties involved in collecting additional information. Iran and Libya followed the regional recommendation.

#### *Supplement for Asia and the Far East*

Since irrigation is of considerable importance in this region, it was recommended to collect information on all the crops of the area both irrigated and nonirrigated. In fact, hardly any country adopted this as a general rule for all crops. Almost all the rice-producing countries asked about paddy fields being irrigated or not. The Philippines inquired about the names of the crops irrigated but not area.

#### *Supplement for Africa south of the Sahara*

The main recommendation in this region was the addition of three columns for all crops, temporary as well permanent, the total area being subdivided into single crop equivalent area, area of crop grown singly, and area of crops

grown mixed or associated. No country investigated the single crop equivalent area; the Republic of Guinea and Togo inquired about the other two types of areas recommended.

Cocoyams and yams were divided into two separate items and a few countries considered them individually, such as Ghana, the Republic of Guinea, and Togo.

Hibiscus and cephalonema were the two items added under fibre crops but no country in the region considered them in the questionnaire.

Tobacco was subdivided to provide information according to variety, into Virginia flue-cured, Turkish, Orinico, etc. Countries asking one or more of these varieties were Angola, Bechuana-land, the Federation of Rhodesia and Nyasaland, South Africa and Tanganyika.

### **Section 3 : Livestock and poultry**

#### INTRODUCTION

Participation in this section of the programme is shown in Tables 31 to 41. While in general the total number of animals was proposed to be investigated by countries in their censuses, the programme recommended that, in the case of cattle and buffaloes, countries should endeavour to ask the sex of these animals as well. For the information to be complete, the device used in Section 2 for crops has also been adopted here. Therefore, the first column in Tables 32, 33 and 34 indicates the type of information required for the items marked with crosses. T denotes total number, M the number of males, and F the number of females.

Almost all the participating countries in the 1960 world census investigated this section of the programme, the only exception being Senegal, which inquired whether there were cattle, sheep, goats, horses and pigs on the holding, the answer to be "yes" or "no." The number of animals was not requested; therefore, it was not considered as having participated in this section. The case of Upper Volta was unusual. It had asked for the total number of livestock to be specified by name or species in the space provided for the purpose. It had also asked the subdivision of the total into number of livestock belonging to different persons, to be

specified as: collectively owned by holder, head of the family, wives or a single person. Yet, in the questionnaire, it had not named the livestock to be investigated. It was left to the enumerator to list the name and record the number. Thus, it was not possible to show participation by items in any of the synoptic tables in this section. However, it was evident that the country had obtained information through this questionnaire regarding the number of livestock by species. Consequently, while its participation could not be shown in the synoptic tables, it was considered as having participated in this section of the programme and has therefore been shown in Table 6 (p. 64), where extent of participation is shown by section.

Although participation in this section was very large indeed, almost 99 percent, the degree of conformity to the programme items was by no means universal. Various approaches to the subject have been adopted. This was particularly true regarding the classification of cattle and buffaloes by age and sex, where participation had not been very uniform; in fact, at times diverging considerably from that proposed in the programme. Outstanding deviations are mentioned under various livestock in each table. However, in general, the emphasis placed on participation in the items of the programme has been more on factual than literal conformity. For instance, if somewhat different age groups or classifications in the national censuses could reasonably yield the information required in the programme, it has been considered as being in approximate conformity with the programme and has, therefore, been shown in the synoptic tables. Examples of vastly divergent cases have also been recorded under the kind of livestock involved.

#### HORSES, MULES, ASSES AND CAMELS

It will be observed that a number of programme items in these groups have been dropped from Table 31, as only a few countries, mainly in Europe, had asked for them. The subdivision of age groups under 3 years and 3 years of age and over, for horses, was not investigated very much outside Europe. Camels were listed in the Near East, Far East and the African regions; only 2 countries in the Near Eastern region asked

for age distribution. The countries investigating the cancelled items have been noted at the end of the table.

It was in the *Supplement for the Near East Region* that changes were made in the programme items. In view of the importance of the region, the item for camels, with its subdivision by age, was required to be investigated by all the countries in the region and was therefore placed on the short list. In addition, livestock tenure was also considered important in the region, and it was suggested that the total number of livestock be subdivided into owned and not owned.

All the participating countries inquired about the total number of camels but only 2, Libya and Sudan, investigated camels by age. Both countries, however, had a different age classification: Libya asked for camels under 4 years of age, 4 years of age and over, while age classes in Sudan were under 3 years and 3 years of age and over, which differed from that proposed in the programme where the age distribution point was 4 years. Also requested was the breakdown into male and female camels. Regarding livestock tenure, Iran listed the subdivision into owned and not owned for the livestock and poultry item in the programme. Libya asked about the ownership of horses, camels, cattle, sheep and goats.

Additional information was collected by many countries on horses, mules and asses. Several asked for a further subdivision of age groups for horses. Belgium, for instance, added a subgroup, 3-4 years and then 4 years and over. The example of Norway was unique: five subdivisions by age, viz., 1-2 years, 3-4 years, 5-10 years, 11-16 years, and 17 years and over. Turkey inquired about the age of mules as under 3 years and 3 years and over; Nepal also requested similar age grouping for mules, with an additional subgroup, under 1 year of age.

Ireland inquired about total horses and ponies and also as regards working horses, thoroughbred horses, and other horses and ponies. The United Kingdom included mares for breeding under the item horses, and then asked additional questions about all other horses and ponies. Argentina and Brazil listed stallions and horses separately. Several countries asked for the sex of mules and asses, such as the United States; Venezuela; Angola, the Republic of Guinea. Belgium asked

TABLE 31. - EXTENT OF PARTICIPATION IN SECTION 3, RELATING TO *horses, mules, asses and camels* \*

Region and country	Horses			Mules (all ages)	Asses (all ages)
	Total (all ages)	Under 3 years	3 years of age and over		
Item	31.1	31.11	31.12	31.2	31.3
Item number	31.1	31.11	31.12	31.2	31.3
Total number of countries asking question (73).....	65	23	23	43	41
				6	
EUROPE (17).....	13	8	9	5	4
				2	
Austria .....	—	X	X	—	—
Belgium .....	X	—	—	—	X
Denmark .....	X	—	—	—	—
Finland .....	—	X	—	—	—
Germany (Fed. Rep.) .....	X	X	X	—	—
Greece .....	X	—	—	X	—
Ireland .....	X	—	—	—	X
Italy .....	—	X	X	X	X
Luxembourg .....	X	—	—	—	—
Malta and Gozo.....	X	—	—	X	X
Netherlands .....	X	—	X	—	—
Norway .....	X	<sup>1</sup> X	<sup>1</sup> X	—	—
Poland .....	X	X	X	—	—
Spain .....	X	—	—	X	X
Sweden .....	X	X	X	—	—
United Kingdom.....	X	—	X	—	—
Yugoslavia .....	—	<sup>2</sup> X	<sup>2</sup> X	X	X
NORTH AMERICA (4).....	4	—	—	3	—
Alaska .....	<sup>3</sup> X	—	—	<sup>3</sup> X	—
Canada .....	X	—	—	—	—
Hawaii .....	<sup>3</sup> X	—	—	<sup>3</sup> X	—
United States .....	X	—	—	X	—
LATIN AMERICA (21).....	19	8	7	17	17
				4	
Argentina .....	X	<sup>4</sup> X	<sup>4</sup> X	X	X
Barbados.....	X	—	—	X	X
Bolivia .....	X	—	—	X	X
Brazil .....	—	X	X	X	X
Colombia .....	X	—	—	X	X
Dominican Republic.....	—	<sup>4</sup> X	<sup>4</sup> X	X	X
Ecuador.....	X	—	—	X	X
El Salvador.....	X	—	—	X	X
Guatemala .....	X	—	—	X	X
Jamaica .....	X	—	—	X	X
Mexico .....	X	<sup>5</sup> X	<sup>5</sup> X	X	X
Nicaragua .....	X	—	—	X	X
Panama .....	<sup>4</sup> X	<sup>4</sup> X	<sup>4</sup> X	—	X
Paraguay .....	X	X	—	X	X
Peru .....	<sup>4</sup> X	<sup>4,6</sup> X	<sup>4,6</sup> X	X	X
Puerto Rico .....	X	—	—	—	X
Surinam .....	X	—	—	—	X
Trinidad and Tobago .....	X	—	—	X	X
Uruguay .....	X	—	—	—	X
Venezuela .....	X	<sup>4</sup> X	<sup>4</sup> X	X	X
Virgin Islands (U.S.) .....	X	—	—	X	X

TABLE 31. - EXTENT OF PARTICIPATION IN SECTION 3, RELATING TO *horses, mules, asses and camels* \* (concluded)

Region and country	Horses			Mules (all ages)	Asses (all ages)
	Total (all ages)	Under 3 years	3 years of age and over		
	Item number	31.1	31.11	31.12	31.2
NEAR EAST (6) .....	5	1	1	6	6
Iran <sup>7</sup> .....	X	—	—	X	X
Iraq .....	<sup>4</sup> X	—	—	X	X
Lebanon .....	X	—	—	X	X
Libya .....	<sup>4, 5</sup> X	—	—	X	X
Sudan .....	X	—	—	X	X
Turkey .....	—	X	X	X	X
FAR EAST (8) .....	8	5	5	2	1
India .....	X	X	—	X	X
Indonesia .....	<sup>4</sup> X	<sup>4</sup> X	<sup>4</sup> X	—	—
Japan .....	X	<sup>4</sup> X	<sup>4</sup> X	—	—
Nepal .....	X	—	X	X	—
North Borneo .....	X	<sup>4</sup> X	<sup>4</sup> X	—	—
Pakistan .....	X	—	—	—	—
Philippines .....	X	X	X	—	—
Thailand .....	X	—	—	—	—
AFRICA (13) .....	12	1	1	9	13
Angola .....	<sup>4</sup> X	—	—	X	X
Basutoland .....	X	—	—	X	X
Bechuanaland .....	X	—	—	X	X
Ghana .....	X	—	—	—	X
Guinea, Rep. of .....	<sup>4</sup> X	—	—	X	X
Madagascar .....	X	—	—	X	X
Mali .....	X	—	—	—	X
Morocco .....	X	X	X	X	X
Rhodesia and Nyasaland, Fed. of .....	X	—	—	X	X
South Africa .....	X	—	—	X	X
Tanganyika .....	X	—	—	—	X
Tunisia .....	X	—	—	X	X
Uganda .....	—	—	—	—	X
OCEANIA (4) .....	4	—	—	1	—
American Samoa .....	<sup>3</sup> X	—	—	<sup>3</sup> X	—
Australia .....	X	—	—	—	—
Guam .....	X	—	—	—	—
New Zealand .....	X	—	—	—	—

\* Countries and programme items not shown in this table are given below:

HORSES

Belgium, Denmark, Finland, Netherlands, Norway, Spain, Sweden, Yugoslavia; Mexico; Nepal; Australia: Young stock under 1 year (31.11 a)  
 Belgium, Denmark, Finland, Netherlands, Norway, Spain, Yugoslavia; Mexico; Nepal: Young stock 1 year but under 3 years (31.11 b)  
 Belgium, Denmark, Finland, Netherlands, Spain, Yugoslavia; United States (male horses); Argentina (male horses), Brazil, Paraguay: Stallions 3 years of age and over (31.12 a)  
 Belgium, Denmark, Finland, Netherlands, Yugoslavia: Geldings 3 years of age and over (31.12 b)  
 Belgium, Denmark, Netherlands, Spain, Yugoslavia; United States; Argentina, Brazil, Paraguay; Philippines: Mares 3 years of age and over (31.12 c)

CAMELS

Iran, Iraq, Lebanon, Libya, Sudan, Turkey; India; Mali, Morocco, Tunisia, Uganda: All ages (31.4)  
 Libya, Sudan: Under 4 years of age (31.41)  
 Libya, Sudan: 4 years of age and over (31.42)

<sup>1</sup> Separate questions for: (a) Foals born in 1959 (census year); (b) 1 to 2 years; (c) 3 to 4 years; (d) 5 to 10 years; (e) 11 to 16 years; (f) 17 years and over. - <sup>2</sup> (a) Under 5 months; (b) Over 5 months. - <sup>3</sup> Horses and mules together. - <sup>4</sup> Separate questions for male and female. - <sup>5</sup> (a) Under 4 years; (b) 4 years and over. - <sup>6</sup> (a) Under 2 years; (b) 2 years and over. - <sup>7</sup> Iran inquired about horses, mules, asses and camels as owned and not owned separately. - <sup>8</sup> Separate questions for owned and not owned.

separately for stallions, mares and geldings between 1 and 3 years of age; mares over 3 years of age were subdivided into three groups:

- (a) mares for breeding before 3-4 years;
- (b) mares for breeding 4 years of age and over; and
- (c) other mares.

#### CATTLE

Participation in the programme items, relating to cattle, have been shown in two tables. Table 32 lists items for cattle by age and sex, and Table 33 by use or purpose.

From Table 32, it can be readily seen that 82 out of 91 participating countries, or 90 percent, included at least one item from this part of the programme in their national censuses. In fact, participation in the items for cattle on the whole will increase by 4 countries, taking into account Table 33 as well, since Malta and Gozo, Yugoslavia; Surinam; and Congo (Brazzaville), which do not appear in Table 32, are shown in Table 33. Five countries, the Central African Republic, Portuguese Guinea, Senegal, Upper Volta; Papua and New Guinea, did not investigate any items of the programme in their censuses.

A majority of the participating countries adopted the age distribution item as proposed. There have, however, been many variations; outstanding examples are recorded here. Barbados asked for mature and immature cattle; Angola adult and nonadult animals; Tunisia inquired about adult and young animals.

The main reason for the subdivision of cattle into broad categories, *viz.*, under 2 years, and 2 years of age, was to distinguish mature animals from young ones. It was suggested in the programme that 3 years of age should be considered the subdivision point for countries where the maturity of animals was 3 years. All these countries have been listed in the synoptic tables against the programme items, without footnotes. Among them are Spain; Jamaica; Sudan; Ceylon, India, Indonesia, the Federation of Malaya, Nepal; Bechuanaland, the Republic of Guinea, South Africa and Tanganyika.

As regards the subdivisions under 2 years of age, the main variation was that adopted by Austria, which included in its census calves under

3 months of age and young cattle 3 months and under 2 years of age.

The case of Trinidad and Tobago may be cited here as an example of approximate conformity to the programme. The age classification, under 2 years, and 2 years and over, was asked separately for cows for milk and bulls for service. The addition of the two corresponding subgroups could give the total cattle under the two age groups. This case was similar to those of the United Kingdom; Japan; and New Zealand, where the age group totals could be arrived at by the simple addition of the relevant subgroups under dairy and beef cattle. All such cases were considered as conforming to the relevant programme items and have been marked thus in the tables.

A few countries included heifers with cows and have been shown against total cows. Examples of such cases are Belgium, Denmark; Alaska, Hawaii and the United States. In a few other cases, it has been more difficult to determine participation in the item for total cows, especially for those countries which included, in one question, heifers with cows, without specifying whether in calf or not. This was the case for Canada, Costa Rica and Puerto Rico. Yugoslavia; and Brazil included heifers in calf with cows. Such cases could not be considered as participation in the strict sense, yet they have been included in the table, with footnotes.

The programme item cows used primarily for milk production includes dry cows, as requested by the Federal Republic of Germany, Spain, the United Kingdom; Nicaragua; Pakistan; Australia. It also includes cows for breeding, asked by Brunei; and Angola.

The item heifers in calf also produced divergent approaches with varying degrees of coverage. For instance, Alaska, Hawaii, the United States; and the Virgin Islands asked for heifers and heifer calves that had not had a calf, excluding heifers already calved; Tanganyika asked for females that had not yet had a calf; Denmark, Luxembourg, Norway, heifers not yet calved; Madagascar, heifers for breeding; Australia, heifers within three months of calving, and a separate question for other heifers 1 year of age and over; and a number of other countries (Finland; South Africa, Tunisia, Uganda) did not specify whether in calf or not. All these cases have

TABLE 32. - EXTENT OF PARTICIPATION IN SECTION 3, RELATING TO *cattle*, by age and sex

Region and country	Item	Information asked for: (T for total, M for male, F for female)	Total (all ages)	Under 2 years of age			2 years of age and over
				Total	Calves under 1 year	Young stock 1 year but under 2 years	
	Item number		32.1	32.11	32.11 (a)	32.11 (b)	32.12
<i>Total number of countries asking question (82)</i>			66	30	43	31	49
EUROPE (15) .....			12	1	13	10	7
Austria .....		T	—	—	<sup>1</sup> X	<sup>1</sup> X	X
Belgium .....		T	X	—	X	X	X
Denmark .....		T	X	—	X	—	—
Finland .....		T	—	—	X	X	—
Germany (Fed. Rep.) .....		T	X	—	X	X	—
Greece .....		T M F	X	—	—	—	—
Ireland .....		T	X	—	X	X	X
Italy .....		T	X	<sup>2</sup> X	—	—	<sup>2</sup> X
Luxembourg .....		T	X	—	<sup>3</sup> X	<sup>3</sup> X	X
Netherlands .....		T	X	—	<sup>3</sup> X	<sup>3,4</sup> X	—
Norway .....		T	—	—	X	—	—
Poland .....		T	X	—	X	<sup>4</sup> X	—
Spain .....		T	X	—	X	<sup>5</sup> X	X
Sweden .....		T	X	—	X	—	—
United Kingdom .....		T	X	—	<sup>2</sup> X	<sup>2</sup> X	<sup>3</sup> X
NORTH AMERICA (4) .....			4	—	1	—	—
Alaska .....		T	X	—	—	—	—
Canada .....		T	X	—	X	—	—
Hawaii .....		T	X	—	—	—	—
United States .....		T	X	—	—	—	—
LATIN AMERICA (21) .....			17	7	14	11	13
Argentina .....		T	X	—	<sup>3</sup> X	<sup>3</sup> X	<sup>3</sup> X
Barbados .....		T M F	X	<sup>6</sup> X	—	—	<sup>6</sup> X
Bolivia .....		T M F	X	—	—	—	—
Brazil .....		T	X	—	X	<sup>5</sup> X	—
Colombia .....		T	X	<sup>3</sup> X	—	—	<sup>3</sup> X
Costa Rica .....		T	X	—	<sup>5</sup> X	<sup>5</sup> X	<sup>5</sup> X
Dominican Republic .....		T	X	—	X	X	X
Ecuador .....		T	X	—	X	<sup>5</sup> X	—
El Salvador .....		M F	—	—	X	X	X
Guatemala .....		T M F	—	X	—	—	X
Jamaica .....		T	X	—	—	—	—
Mexico .....		T	X	X	X	—	X
Nicaragua .....		T	X	—	<sup>5</sup> X	<sup>5</sup> X	<sup>5</sup> X
Panama .....		T	X	<sup>3</sup> X	<sup>3</sup> X	<sup>3</sup> X	X
Paraguay .....		T	X	—	X	X	—
Peru .....		T M F	—	X	—	—	X
Puerto Rico .....		T	X	—	<sup>3,7</sup> X	—	—
Trinidad and Tobago .....		T	—	<sup>3</sup> X	—	—	<sup>3</sup> X
Uruguay .....		T M F	X	—	X	<sup>6</sup> X	<sup>6</sup> X
Venezuela .....		T M F	X	—	X	X	—
Virgin Islands (U.S.) .....		T	X	—	X	—	—

TABLE 32. - EXTENT OF PARTICIPATION IN SECTION 3, RELATING TO *cattle, by age and sex (concluded)*

Region and country	Item	Information asked for: (T for total, M for male, F for female)	Total (all ages)	Under 2 years of age			2 years of age and over
				Total	Calves under 1 year	Young stock 1 year but under 2 years	
	Item number		32.1	32.11	32.11 (a)	32.11 (b)	32.12
NEAR EAST (6)			4	4	1	—	4
Iran		T	—	—	X	—	—
Iraq		M F	X	—	—	—	—
Lebanon		T	X	<sup>2</sup> X	—	—	<sup>3</sup> X
Libya		T	X	<sup>2</sup> X	—	—	<sup>2</sup> X
Sudan		T M F	X	X	—	—	X
Turkey		T	—	X	—	—	<sup>6</sup> X
FAR EAST (15)			14	10	5	4	11
Brunei		T M F	X	X	X	X	X
Ceylon		T	X	—	<sup>2</sup> X	<sup>2</sup> X	—
China (Taiwan)		T	X	—	<sup>2</sup> X	<sup>2</sup> X	<sup>2</sup> X
India		T	X	X	—	—	<sup>2</sup> X
Indonesia		M F	X	X	—	—	X
Japan		T	X	<sup>2</sup> X	—	—	<sup>2</sup> X
Korea, Rep. of		T	X	<sup>2</sup> X	—	—	<sup>2</sup> X
Malaya, Fed. of		T M F	X	X	—	—	X
Nepal		M F	—	X	X	X	X
North Borneo		T	X	<sup>2</sup> X	—	—	<sup>2</sup> X
Pakistan		T	X	—	X	—	—
Philippines		T	X	X	—	—	<sup>2</sup> X
Sarawak		T	X	<sup>2</sup> X	—	—	<sup>2</sup> X
Thailand		T M F	X	—	—	—	—
Viet-Nam, Rep. of		T M F	X	—	—	—	—
AFRICA (17)			12	7	8	6	13
Angola		M F	—	—	<sup>2</sup> X	<sup>2</sup> X	<sup>2</sup> X
Basutoland		T M F	X	X	—	—	X
Bechuanaland		T	X	X	—	—	X
Gabon		T	X	—	—	—	—
Ghana		T	X	X	<sup>2</sup> X	<sup>2</sup> X	X
Guinea, Rep. of		M F	—	—	X	X	X
Kenya		T	X	—	—	—	—
Madagascar		M F	—	X	—	—	X
Mali		T	X	X	—	—	—
Morocco		T M F	X	—	X	—	<sup>4</sup> X
Rhodesia and Nyasaland, Fed. of		T	X	—	X	X	—
Seychelles		T	X	X	—	—	X
South Africa		T	X	—	<sup>2</sup> X	<sup>2</sup> X	X
Tanganyika		T	—	—	—	—	X
Togo		T M F	X	X	—	—	X
Tunisia		T	—	—	X	—	X
Uganda		T M F	X	—	X	<sup>6</sup> X	<sup>6</sup> X
OCEANIA (4)			3	1	1	—	1
American Samoa		T	X	—	—	—	—
Australia		T	—	—	X	—	—
Guam		T	X	—	—	—	—
New Zealand		T	X	X	—	—	X

<sup>1</sup> (a) Under 3 months; (b) 3 months and under 2 years. — <sup>2</sup> Additional question for female. — <sup>3</sup> Separate questions for male and female. — <sup>4</sup> 1 year and over. — <sup>5</sup> (a) Mature or adult; (b) Immature or nonadult or young. — <sup>6</sup> Male only. — <sup>7</sup> Age not specified. — <sup>8</sup> Female only.



TABLE 33. - EXTENT OF PARTICIPATION IN SECTION 3, RELATING TO *cattle, by use or purpose*

Region and country	Information asked for: (T for total, M for male, F for female)	Classified by use or purpose						Other cattle			
		Cows				Heifers in calf	Bulls used for service	Total	Raised primarily for meat production	Intended primarily for use as draft animals	Others
		Total	Used primarily for milk production	Raised primarily for meat production	Others						
Item number		32.21	32.21 (a)	32.21 (b)	32.31 (c)	32.22	32.23	32.24	32.24 (a)	32.24 (b)	32.24 (c)
<i>Total number of countries asking question (68) .....</i>		32	38	12	18	27	46	35	15	28	3
EUROPE (16) .....		9	6	3	5	9	13	7	3	4	—
Austria .....	T	X	—	—	—	—	X	—	—	X	—
Belgium .....	T	X	—	—	X	X	X	—	X	X	—
Denmark .....	T	X	—	—	—	X	X	X	—	—	—
Finland .....	T	X	—	—	—	X	X	—	—	—	—
Germany (Fed. Rep.) .....	T	—	X	—	X	—	X	X	—	X	—
Ireland .....	T	—	X	—	—	X	X	—	—	—	—
Italy .....	T	—	X	—	X	—	X	X	—	—	—
Luxembourg .....	T	—	X	X	—	X	X	X	—	—	—
Malta and Gozo .....	T	X	—	—	—	X	X	—	—	X	—
Netherlands .....	T	—	—	—	—	X	—	—	X	—	—
Norway .....	T	X	—	X	—	X	—	X	—	—	—
Poland .....	T	X	—	—	—	—	—	—	—	—	—
Spain .....	T	—	X	—	X	—	X	X	—	—	—
Sweden .....	T	X	—	—	—	—	X	—	X	—	—
United Kingdom .....	T	—	<sup>1</sup> X	<sup>2</sup> X	—	X	X	—	—	—	—
Yugoslavia .....	T	<sup>3</sup> X	—	—	X	—	X	X	—	—	—
NORTH AMERICA (4) .....		4	1	—	—	3	1	4	—	—	—
Alaska .....	T	X	—	—	—	X	—	X	—	—	—
Canada .....	T	<sup>3</sup> X	<sup>3</sup> X	—	—	—	X	X	—	—	—
Hawaii .....	T	X	—	—	—	X	—	X	—	—	—
United States .....	T	X	—	—	—	X	—	X	—	—	—
LATIN AMERICA (19) .....		8	12	2	6	6	11	11	5	7	—
Argentina .....	T	—	X	—	—	—	X	X	—	—	—
Barbados .....	T M F	—	—	—	—	—	—	—	—	X	—
Bolivia .....	T	X	—	—	—	—	—	—	—	—	—
Brazil .....	T	<sup>3</sup> X	—	—	—	—	X	—	X	X	—
Costa Rica .....	T	<sup>3</sup> X	—	—	—	—	X	—	X	X	—
Dominican Republic .....	T	X	X	—	—	—	X	X	—	—	—
Ecuador .....	T	—	X	X	—	—	X	—	—	X	—
El Salvador .....	M F	—	X	—	X	—	X	X	—	—	—
Jamaica .....	T	—	X	—	X	X	—	X	—	—	—
Mexico .....	T	X	—	—	—	—	X	—	X	X	—
Nicaragua .....	T	—	X	—	—	X	—	X	—	—	—
Panama .....	T	—	X	—	X	X	X	X	X	—	—
Paraguay .....	T	—	X	—	X	—	X	X	—	—	—
Puerto Rico .....	T	<sup>3</sup> X	X	—	—	—	—	X	—	X	—
Surinam .....	T	X	—	—	—	—	—	—	—	—	—
Trinidad and Tobago .....	T	—	X	—	—	—	X	—	—	X	—
Uruguay .....	T M F	—	X	X	X	X	—	X	—	—	—
Venezuela .....	T M F	—	X	—	X	X	X	X	X	—	—
Virgin Islands (U.S.) .....	T	X	—	—	—	X	—	X	—	—	—

TABLE 33. - EXTENT OF PARTICIPATION IN SECTION 3, RELATING TO *cattle, by use or purpose (concluded)*

Region and country	Information asked for: (T for total, M for male, F for female)	Classified by use of purpose						Other cattle			
		Cows				Heifers in calf	Bulls used for service	Total	Raised primarily for meat production	Intended primarily for use as draft animals	Others
		Total	Used primarily for milk production	Raised primarily for meat production	Others						
Item	Item number	32.21	32.21 (a)	32.21 (b)	32.21 (c)	32.22	32.23	32.24	32.24 (a)	32.24 (b)	32.24 (c)
NEAR EAST (2) .....		2	—	—	—	—	—	1	—	1	1
Iran .....	T	X	—	—	—	—	—	—	—	X	X
Turkey .....	T	X	—	—	—	—	—	X	—	—	—
FAR EAST (11) .....		2	10	2	4	—	7	3	2	10	2
Brunei .....	T M F	—	X	<sup>1</sup> X	—	—	X	—	<sup>1</sup> X	<sup>1</sup> X	—
Ceylon .....	T	—	X	—	X	—	X	—	—	X	X
China (Taiwan) .....	T	—	<sup>1</sup> X	—	—	—	—	—	—	X	—
India .....	T	X	X	—	X	—	X	—	—	X	X
Indonesia .....	M F	—	X	—	X	—	X	—	—	X	—
Japan .....	T	—	X	<sup>1</sup> X	—	—	X	—	<sup>1</sup> X	<sup>1</sup> X	—
Malaya, Fed. of .....	T M F	—	X	—	—	—	X	X	—	—	—
Nepal .....	M F	X	X	—	—	—	—	X	—	X	—
Pakistan .....	T	—	X	—	X	—	X	X	—	X	—
Philippines .....	T	—	X	—	—	—	—	—	—	X	—
Thailand .....	T M F	—	—	—	—	—	—	—	—	X	—
AFRICA (12) .....		7	5	3	2	8	12	7	3	6	—
Angola .....	M F	X	X	—	X	X	X	—	—	X	—
Bechuanaland .....	T	—	X	X	—	—	X	—	—	X	—
Congo (Brazzaville) .....	T	X	—	—	—	—	X	X	—	—	—
Ghana .....	T	X	—	X	—	X	X	X	X	X	—
Madagascar .....	M F	—	—	—	—	X	X	—	—	X	—
Mali .....	T	X	—	—	—	—	X	X	—	—	—
Rhodesia and Nyasaland, Fed. of .....	T	—	X	X	—	X	X	—	X	X	—
South Africa .....	T	X	—	—	—	X	X	X	—	—	—
Tanganyika .....	T	—	X	—	X	X	X	—	X	—	—
Togo .....	T M F	X	—	—	—	—	X	X	—	—	—
Tunisia .....	T	—	X	—	—	X	X	X	—	—	—
Uganda .....	T M F	X	—	—	—	X	X	X	—	X	—
OCEANIA (4) .....		—	4	2	1	1	2	2	2	—	—
American Samoa .....	T	—	X	—	—	—	—	X	—	—	—
Australia .....	T	—	X	X	—	X	X	—	X	—	—
Guam .....	T	—	X	—	—	—	—	X	—	—	—
New Zealand .....	T	—	X	X	X	—	X	—	X	—	—

<sup>1</sup> Dairy cattle. - <sup>2</sup> Beef cattle. - <sup>3</sup> Cows including heifers. - <sup>4</sup> For meat and/or for draft.

been included in the table as participating in the broad sense. None of the countries in the two regions, the Near East and the Far East, inquired about this item.

Similarly, participation in the programme item of bulls used for service was taken into consideration in a broad sense. Not many countries indicated specifically if the bulls were actually used for service. Even those intended or presumed to be used for service were also included. Among the countries which did not clearly specify this fact are Ireland; Canada; the Dominican Republic, El Salvador; Congo (Brazzaville), Mali, South Africa, Togo and Uganda. Bulls of various age groups were also included in this item, although the intention was to include only adult bulls. Denmark; and Australia included bulls 1 year of age and over; Bechuanaland those under 3 years of age. Breeding bulls (Japan) have also been included in this item.

Regarding "other cattle," several countries did not specify the purpose for which they were used. Although in many countries oxen and bullocks are used primarily for work, in some other countries they are utilized for meat production as well. Therefore, to be consistent, all the unspecified cattle have been indicated in Table 33 under the item for total other cattle. Countries that had classified oxen were Italy, Norway, Spain (oxen and bulls not for service), Yugoslavia; Argentina, the Dominican Republic, El Salvador, Nicaragua, Panama, Paraguay, Uruguay, Venezuela; Congo (Brazzaville) and Mali. Those that asked for bullocks specifically were Denmark; Ghana, Tunisia and Uganda. Several countries asked for a combination of animals in one question, as Alaska, Hawaii, the United States; and the Virgin Islands, which inquired about bulls, steers and their calves; Ceylon and China (Taiwan) listed cattle for draft purposes; Turkey oxen and bulls.

The item other cattle for meat production includes cattle (cows, calves, oxen, young stock, bulls, male cattle) for fattening, which was listed by the Netherlands; Mexico, Venezuela and others. It also includes heifers for slaughtering (Norway).

The programme item other cattle for use as draft animals, besides including those cattle classified as such, adds working bulls, draft cows (Malta and Gozo); male work cattle (Indonesia),

workable and unworkable cattle (Thailand); and trained oxen (Bechuanaland).

Ceylon and India investigated cattle used for purposes other than those specified in the programme and were, therefore, classified under the programme item others (32.24c).

The *Supplement for Europe* had subdivided separately calves under 1 year of age into those for fattening and those for breeding. Belgium and the Netherlands investigated calves for fattening; and Norway inquired about those for breeding.

The programme for the Americas suggested inquiring the sex of calves under 2 years of age and cattle 2 years of age and over. Most of the countries in the American region adopted the recommendation. Countries have been shown in synoptic Table 32, with a footnote: separate question for male and female.

In the Near East region, Iran investigated cattle owned and not owned; Libya asked for cattle owned only.

Several countries asked for much more information on cattle than had been suggested in the programme. The questionnaire for England and Wales was one of the most extensive in respect of livestock. The subdivision of cattle by use or purpose was as follows:

- (a) cows and heifers in milk;
- (b) cows in calf but not in milk;
- (c) heifers in calf;
- (d) bulls being used for service;
- (e) bulls (including bull calves) being reared for service;
- (f) other cattle.

Groups (a) (b) and (c) were further classified as: (i) intended mainly for producing milk or rearing calves for dairy herd; and (ii) intended mainly for rearing calves for beef. Additional items were (a) store cattle imported from the Republic of Ireland; and (b) number of calvings during March, April and May 1960. The questionnaire for Scotland grouped all cattle into two major groups: dairy cattle and beef cattle, and subdivided each into groups (a) to (f) as above. Distribution by age and sex was given for group (f), i. e., other cattle only.

Australia classified cattle into dairy cattle and beef cattle and then subdivided each of these groups into four to six different subgroups.

Belgium and the Netherlands asked also for heifers not in calf in addition to those in calf. Belgium further inquired about the number of calvings, first, second, third, fourth and more than four times, whereas Norway investigated calvings as once, two to four times, and more than four times. Cows by breed were investigated by Finland and Italy. Ceylon subdivided cattle (by age, sex and purpose) into local, foreign and crossbred. Tunisia was among the few countries which inquired into the birth, death, purchase and sale of cattle. A few countries further subdivided calves under 1 year of age. For instance, Norway inquired about calves under 1 month and between 1 month and 1 year; Luxembourg, under 3 months, 3 to 6 months, 6 months to 1 year; and the Federal Republic of Germany, under 3 months and 3 months to 1 year. The age group 2 years and over was subdivided in Madagascar as 2 years and under 7 years, 7 years and over. Austria listed heifers in two questions: (a) heifers 3 months and under 2 years; (b) over 2 years, for future milk production. New Zealand asked for heifers for dairying and for beef; and Madagascar included cows for milk and cattle for fattening in one question.

#### BUFFALOES

Participation in the programme items for buffaloes has been presented in Tables 34 and 35, buffaloes classified by age and sex being shown separately from those by use or purpose. Evidently buffaloes were of major importance to countries in the Near East and Far East regions. Outside those two regions, other countries inquiring about the total number of buffaloes were Greece, Italy, Yugoslavia; Barbados, Surinam, Trinidad and Tobago; Guam. Subdivision by age group was provided by Trinidad and Tobago, where the point of division was 2 years and not 3 as proposed in the programme. The item for heifers in calf (33.22) was not investigated by any country and was, therefore, deleted from Table 35. Yugoslavia was the only country, apart from the Near East and Far East, which inquired for buffaloes by use or purpose (as draft animals).

The item other uses or purposes (33.29b) included male buffaloes (Pakistan) assumed to be intended primarily for service.

Swamp buffaloes in the Federation of Malaya included those unworkable, and have been marked against the item for buffaloes intended primarily as draft animals. This country divided both milk buffaloes and swamp buffaloes by age.

Regional programmes did not add any items, but the Near East region had listed "ownership or otherwise" of buffaloes. Iran was the only country which requested this information.

#### SHEEP

Table 36 shows the extent of participation in programme items relating to sheep. Variations in age grouping were followed by a few countries. The programme had proposed the item under 1 year and 1 year of age and over. However, Finland asked for lambs under 6 months of age and 6 months of age and over. On the other hand, Mexico raised the subdivision level of age to 2 years, inquiring about sheep under 2 years and those 2 years of age and over. There were cases where the age of lambs was not specified, for example, in the Netherlands; and Argentina. They have been presumed to be under 1 year of age and have thus been shown under the corresponding item. Ceylon included goats with sheep; this fact has been footnoted. Yugoslavia inquired about average wool per head, and it has been accepted as conforming to the programme item for wool where quantity had been proposed.

The programme for Europe recommended the classification of sheep 1 year of age and over by use or purpose, providing information for milk production, meat or for wool production. Only Belgium inquired about sheep used mainly for milk production.

Iran and Libya, in the Near East region, investigated ownership as proposed in the regional programme.

A variety of additional information was required by several countries. For instance, the sex of lambs under 1 year of age was asked by Belgium; Libya, Sudan; Indonesia, Japan, the Federation of Malaya. A few of these countries subdivided the total number of sheep into male and female. Ireland and Spain provided an additional age group, 1 to 2 years, and then 2 years and over. Some countries asked for informa-

TABLE 34. - EXTENT OF PARTICIPATION IN SECTION 3, RELATING TO *buffaloes, by age and sex*

Region and country	Information asked for: (T for total, M for male, F for female)	All ages	Under 3 years of age			3 years of age and over
			Total	Calves under 1 year	Young buffaloes 1 year and under 3 years	
Item						
Item number		33.1	33.11	33.11 (a)	33.11 (b)	33.12
Total number of countries asking question (22)		18	9	6	3	11
EUROPE (3)		3	—	—	—	—
Greece	T	X	—	—	—	—
Italy	T F	X	—	—	—	—
Yugoslavia	T	X	—	—	—	—
LATIN AMERICA (3)		3	1	—	—	1
Barbados	T	X	—	—	—	—
Surinam	T	X	—	—	—	—
Trinidad and Tobago	T	X	X	—	—	X
NEAR EAST (3)		1	1	1	—	1
Iran	T	—	—	<sup>1</sup> X	—	—
Iraq	M F	X	—	—	—	—
Turkey	T	—	X	—	—	<sup>2</sup> X
FAR EAST (12)		10	7	5	3	9
Brunei	T M F	<sup>3</sup> X	X	X	X	X
Ceylon	T	X	—	<sup>4</sup> X	<sup>4</sup> X	—
India	T	X	X	—	—	<sup>4</sup> X
Indonesia	M F	X	X	—	—	X
Malaya, Fed. of	T M F	—	X	—	—	X
Nepal	T M F	X	—	X	X	X
North Borneo	T	X	<sup>4</sup> X	—	—	<sup>4</sup> X
Pakistan	T	X	—	X	—	—
Philippines	T	X	—	—	—	X
Sarawak	T	X	<sup>4</sup> X	—	—	<sup>4</sup> X
Thailand	T M F	X	—	—	—	—
Viet-Nam, Rep. of	T M F	—	—	X	—	<sup>5</sup> X
OCEANIA (1)		1	—	—	—	—
Guam	T	X	—	—	—	—

<sup>1</sup> Age not specified. - <sup>2</sup> Males only. - <sup>3</sup> Total bulls. - <sup>4</sup> Separate question for male and female. - <sup>5</sup> Over 1 year of age.

TABLE 35. - EXTENT OF PARTICIPATION IN SECTION 3, RELATING TO *buffaloes, by use or purpose* \*

Region and country	Item	Buffalo cows			Others		
		Total	Used primarily for milk production	Others	Total	Intended primarily as draft animals	
Item number		33.21	33.21 (a)	33.21 (b)	33.29	33.29 (a)	
						33.29 (b)	
Total number of countries asking question (11)		5	6	1	—	9	4
EUROPE (1)		—	—	—	—	1	—
Yugoslavia		—	—	—	—	X	—
NEAR EAST (2)		2	—	—	—	1	1
Iran		X	—	—	—	X	X
Turkey		X	—	—	—	—	—
FAR EAST (8)		3	6	1	—	7	3
Brunei		X	—	—	—	—	—
Ceylon		—	X	—	—	X	X
India		—	X	X	—	X	X
Malaya, Fed. of		—	X	—	—	X	—
Nepal		X	X	—	—	X	—
Pakistan		—	X	—	—	X	—
Philippines		X	X	—	—	X	X
Thailand		—	—	—	—	X	—

\* (a) Heifers in calf (33.22) has been suppressed from Table 35 as no country asked for this item.

TABLE 36. - EXTENT OF PARTICIPATION IN SECTION 3, RELATING TO *sheep*

Region and country	Sheep						
	Item	All ages	Lambs under 1 year of age	1 year of age and over		Clipped during the census year	Wool
				Total	Male		
Item number	34.1	34.11	34.12	34.12 (a)	34.12 (b)	34.2	34.3
<i>Total number of countries asking question (79)</i>	65	41	24	23	26	12	22
<b>EUROPE (17)</b> .....	12	10	7	5	5	2	3
Austria .....	X	—	—	—	—	—	—
Belgium .....	X	X	X	X	X	—	—
Denmark .....	X	—	—	—	—	—	—
Finland .....	—	<sup>1</sup> X	<sup>2</sup> X	—	—	—	X
Germany (Fed. Rep.) .....	X	X	X	—	—	—	—
Greece .....	X	—	—	—	—	—	—
Ireland .....	X	<sup>3</sup> X	<sup>3</sup> X	<sup>3</sup> X	<sup>3</sup> X	—	—
Italy .....	X	—	—	—	—	—	—
Luxembourg .....	X	—	—	—	—	—	—
Malta and Gozo .....	X	X	—	—	—	—	—
Netherlands .....	—	X	X	—	—	—	—
Norway .....	—	X	X	—	—	—	—
Poland .....	X	—	—	—	—	—	—
Spain .....	X	X	—	X	X	X	X
Sweden .....	X	—	—	—	—	—	—
United Kingdom .....	—	X	X	X	X	—	—
Yugoslavia .....	—	<sup>4</sup> X	—	X	X	X	X
<b>NORTH AMERICA (4)</b> .....	4	4	1	3	3	3	3
Alaska .....	X	X	—	X	X	X	X
Canada .....	X	X	X	—	—	—	—
Hawaii .....	X	X	—	X	X	X	X
United States .....	X	X	—	X	X	X	X
<b>LATIN AMERICA (19)</b> .....	18	5	4	4	7	4	9
Argentina .....	X	X	—	X	X	X	X
Barbados .....	X	—	—	—	X	—	—
Bolivia .....	X	—	—	—	—	—	X
Brazil .....	X	X	—	X	X	X	X
Colombia .....	—	X	X	—	—	—	—
Dominican Republic .....	X	—	—	—	—	—	—
Ecuador .....	X	—	—	—	—	X	X
El Salvador .....	X	—	—	—	—	—	—
Guatemala .....	X	—	X	—	—	—	X
Jamaica .....	X	—	—	—	<sup>5</sup> X	—	—
Mexico .....	X	<sup>6</sup> X	—	<sup>6</sup> X	<sup>5</sup> X	—	X
Paraguay .....	<sup>6</sup> X	—	—	—	—	—	X
Peru .....	X	—	—	—	—	—	X
Puerto Rico .....	X	—	—	—	—	—	—
Surinam .....	X	—	—	—	—	—	—
Trinidad and Tobago .....	X	—	—	—	<sup>2</sup> X	—	—
Uruguay .....	X	—	X	X	X	X	X
Venezuela .....	X	X	X	—	—	—	—
Virgin Islands (U.S.) .....	X	—	—	—	—	—	—

TABLE 36. - EXTENT OF PARTICIPATION IN SECTION 3, RELATING TO *sheep (concluded)*

Region and country	Sheep							
	Item	All ages	Lambs under 1 year of age	1 year of age and over			Clipped during the census year	Wool
				Total	Male	Female		
Item number	34.1	34.11	34.12	34.12 (a)	34.12 (b)	34.2	34.3	
NEAR EAST (6) .....	5	5	2	3	3	—	3	
Iran .....	X	—	—	—	—	—	X	
Iraq .....	X	X	—	—	—	—	—	
Lebanon .....	X	X	—	X	X	—	—	
Libya .....	X	X	—	X	X	—	X	
Sudan .....	X	X	X	X	X	—	—	
Turkey .....	—	X	X	—	—	—	X	
FAR EAST (11) .....	9	10	6	4	4	—	—	
Ceylon <sup>7</sup> .....	—	X	X	—	—	—	—	
China (Taiwan) .....	—	X	X	—	—	—	—	
India .....	X	X	—	—	—	—	—	
Indonesia .....	X	X	—	X	X	—	—	
Japan .....	X	X	—	X	X	—	—	
Malaya, Fed. of .....	X	X	X	X	X	—	—	
Nepal .....	X	X	X	—	—	—	—	
North Borneo .....	X	X	—	X	X	—	—	
Pakistan .....	X	X	X	—	—	—	—	
Philippines .....	X	X	X	—	—	—	—	
Thailand .....	X	—	—	—	—	—	—	
AFRICA (19) .....	16	6	4	3	3	1	3	
Angola .....	X	—	—	—	—	—	—	
Basutoland .....	X	—	—	—	—	—	—	
Bechuanaland .....	X	X	—	X	X	X	X	
Central African Republic .....	X	—	—	—	—	—	—	
Congo (Brazzaville) .....	X	—	—	—	—	—	—	
Gabon .....	X	—	—	—	—	—	—	
Ghana .....	X	X	X	—	—	—	—	
Guinea, Rep. of. ....	—	X	—	X	X	—	—	
Kenya .....	X	—	—	—	—	—	—	
Madagascar .....	—	X	X	—	—	—	—	
Mali .....	X	—	—	—	—	—	—	
Morocco .....	—	X	X	X	X	—	X	
Rhodesia and Nyasaland, Fed. of .....	X	—	—	—	—	—	—	
Seychelles .....	X	—	—	—	—	—	—	
South Africa .....	X	X	X	—	—	—	X	
Tanganyika .....	*X	—	—	—	—	—	—	
Togo .....	X	—	—	—	—	—	—	
Tunisia .....	X	—	—	—	—	—	—	
Uganda .....	X	—	—	—	—	—	—	
OCEANIA (3) .....	1	1	—	1	1	2	1	
American Samoa .....	X	—	—	—	—	—	—	
Australia .....	—	X	—	X	X	X	X	
New Zealand .....	—	—	—	—	—	X	—	

<sup>1</sup> Under 6 months. - <sup>2</sup> 6 months and over. - <sup>3</sup> Sheep kept for breeding purposes is subdivided by sex only; Other sheep is classified by age only. - <sup>4</sup> Lambs under 5 months and young sheep. - <sup>5</sup> (a) Under 2 years; (b) 2 years and over. - <sup>6</sup> (a) Castrated sheep; (b) Female sheep. - <sup>7</sup> Including goats. - \* (a) Breeding ewes and rams; (b) Other than breeding ewes and rams, including lambs; age not specified.

tion on the number of clippings. For instance, Argentina requested data on both sheep and wool separately for the first (in spring) and second clippings (in autumn).

A few of the countries, where wool was investigated, indicated the basis on which wool data were collected; for instance, Spain specified a "grease" basis. Bolivia inquired about wool also from llamas and alpacas. Mexico asked for fleece wool, belly wool and lamb wool separately, and Paraguay also investigated wool sold.

## GOATS

The two items in this part of the programme, cancelled from the main body of Table 37, have been shown at the bottom of the table with the names of the few countries that had asked for them. The items relate to the number of goats clipped and the quantity of goat hair and mohair.

It will be readily seen from the table that, whereas 68 countries inquired about the total number of goats, not even half of these countries were interested in distinguishing between adult goats and young ones; even fewer countries investigated them by sex. On the other hand, a few countries asked for the sex not only for goats 1 year of age and over, as proposed, but also for those under 1 year of age. This was true of Sudan.

Additional information was collected by several countries. Spain subdivided goats of 1 year of age and over into two groups: 1 to 2 years, and 2 years and over. Mexico provided three age classifications: under 6 months, 6 months to 2 years, and 2 years and over. Trinidad and Tobago investigated goats in detail, asking separately for female goats for milk and for meat, and male goats for service and for meat. In neither case was age specified. The Philippines requested separate information on female goats for milk. Turkey; and South Africa distinguished goats by species, such as common goats and Angora goats.

Libya and Iran inquired about the ownership of goats as for other livestock. No other regional programme had suggested amendments to the world programme items.

## PIGS

Participation in this section of the programme had been among the highest — more than 90 percent of the participating countries had asked questions relating to pigs (Table 38). All countries in the regions for Europe, North America, Latin America and Oceania participated. Four countries in the Near East (Iraq, Libya, Sudan, Turkey), 1 in the Far East (Pakistan) and 3 countries in the African region (Portuguese Guinea, Uganda, Upper Volta) did not include any question relating to pigs in their censuses.

A majority of the countries followed the age grouping under 6 months and 6 months and over, as proposed in the programme. Nevertheless, there had been numerous variations in the national classification of pigs by age. Before citing the various cases, however, it might be recalled here that the regional programme for Europe had suggested three additional items according to age distribution. Pigs under 6 months of age were further subdivided into those under 8 weeks and those between 8 weeks and under 6 months of age. The third addition related to boars for breeding, 6 months of age and over. Participation by the European countries in these regional programme items has been shown in the main table, with footnotes.

Most of the European countries followed the regional classification with slight variations in age limit. Countries asking both age groups were Belgium, Finland, the Federal Republic of Germany, Luxembourg, Malta and Gozo, Norway, and the United Kingdom. European countries which asked for the first age group but not the second were Denmark (sucking pigs), Ireland, Malta and Gozo, the Netherlands (piglets). Denmark did not inquire the age of the sucking pigs nor did the Netherlands for piglets, but evidently their ages would not be far removed from the proposed item. Three countries had introduced another age group within this item. Finland and Luxembourg listed the age group as 2 to 3 months, and 3 and under 6 months. Norway subdivided the age group into 2 to 4 months and 4 to 6 months. The United Kingdom asked for pigs of 2 and under 5 months of age. Twelve countries (Austria, Belgium, Denmark, Finland, the Federal Republic of Germany, Ireland, Luxembourg, the Netherlands, Norway, Spain, Sweden



TABLE 37. - EXTENT OF PARTICIPATION IN SECTION 3, RELATING TO *goats* \*

Region and country	Item	Goats				
		All ages	Under 1 year of age	1 year of age and over		
				Total	Male	Female
Item number	35.1	35.11	35.12	35.12 (a)	35.12 (b)	
<i>Total number of countries asking question (75).....</i>	68	30	14	16	19	
EUROPE (10) .....	9	4	1	2	2	
Austria .....	X	—	—	—	—	
Belgium .....	X	X	—	X	X	
Finland .....	X	—	—	—	—	
Germany (Fed. Rep.) .....	X	—	—	—	—	
Greece .....	X	—	—	—	—	
Italy .....	X	—	—	—	—	
Malta and Gozo .....	X	X	—	—	—	
Norway .....	—	X	X	—	—	
Spain .....	X	X	—	X	X	
Yugoslavia .....	X	—	—	—	—	
NORTH AMERICA (4) .....	4	—	—	—	—	
Alaska .....	X	—	—	—	—	
Canada .....	X	—	—	—	—	
Hawaii .....	X	—	—	—	—	
United States .....	X	—	—	—	—	
LATIN AMERICA (19) .....	19	3	1	2	4	
Argentina .....	X	—	—	—	—	
Barbados .....	X	—	—	—	X	
Bolivia .....	X	—	—	—	—	
Brazil .....	X	—	—	—	—	
Colombia .....	X	—	—	—	—	
Dominican Republic .....	X	—	—	—	—	
Ecuador .....	X	—	—	—	—	
El Salvador .....	X	—	—	—	—	
Guatemala .....	X	—	—	—	—	
Jamaica .....	X	—	—	—	—	
Mexico .....	X	X	—	X	X	
Paraguay .....	X	—	—	—	X	
Peru .....	X	—	—	—	—	
Puerto Rico .....	X	—	—	—	—	
Surinam .....	X	—	—	—	—	
Trinidad and Tobago .....	X	X	—	X	X	
Uruguay .....	X	—	—	—	—	
Venezuela .....	X	X	X	—	—	
Virgin Islands (U.S.) .....	X	—	—	—	—	
NEAR EAST (6) .....	5	5	2	2	2	
Iran .....	X	—	—	—	—	
Iraq .....	X	X	—	—	—	
Lebanon .....	X	X	—	X	X	
Libya .....	X	X	—	X	X	
Sudan .....	X	X	X	—	—	
Turkey .....	—	X	X	—	—	

TABLE 37. - EXTENT OF PARTICIPATION IN SECTION 3, RELATING TO goats \* (concluded)

Region and country	Goats					
	Item	All ages	Under 1 year of age	1 year of age and over		
				Total	Male	Female
				Item number	35.1	35.11
FAR EAST (14) .....	12	12	6	7	8	
Brunei .....	X	X	X	X	X	
Ceylon <sup>1</sup> .....	—	X	X	—	—	
China (Taiwan) .....	—	X	X	—	—	
India .....	X	X	—	—	—	
Indonesia .....	X	X	—	X	X	
Japan .....	X	X	—	X	X	
Korea, Rep. of .....	X	—	—	—	—	
Malaya, Fed. of .....	X	X	X	X	X	
Nepal .....	X	X	—	X	X	
North Borneo .....	X	X	—	X	X	
Pakistan .....	X	X	X	—	—	
Philippines .....	X	<sup>4</sup> X	<sup>6</sup> X	—	<sup>6</sup> X	
Sarawak .....	X	X	—	X	X	
Thailand .....	X	—	—	—	—	
AFRICA (19) .....	16	6	4	3	3	
Angola .....	X	—	—	—	—	
Basutoland .....	X	—	—	—	—	
Bechuanaland .....	—	X	—	X	X	
Central African Republic .....	X	—	—	—	—	
Congo (Brazzaville) .....	X	—	—	—	—	
Gabon .....	X	—	—	—	—	
Ghana .....	X	X	X	—	—	
Guinea, Rep. of .....	—	X	—	X	X	
Kenya .....	X	—	—	—	—	
Madagascar .....	—	X	X	—	—	
Mali .....	X	—	—	—	—	
Morocco .....	X	X	X	X	X	
Rhodesia and Nyasaland, Fed. of .....	X	—	—	—	—	
Seychelles .....	X	—	—	—	—	
South Africa .....	X	X	X	—	—	
Tanganyika .....	X	—	—	—	—	
Togo .....	X	—	—	—	—	
Tunisia .....	X	—	—	—	—	
Uganda .....	X	—	—	—	—	
OCEANIA (3) .....	3	—	—	—	—	
American Samoa .....	X	—	—	—	—	
Guam .....	X	—	—	—	—	
Papua and New Guinea .....	X	—	—	—	—	

\* Countries and programme items not shown in this table are given below:  
 United States; Bechuanaland: Goats clipped during the census year (35.2)  
 United States; Iran, Libya, Turkey; Bechuanaland, Morocco, South Africa: Hair and mohair (35.3)

<sup>1</sup> (a) Under 6 months; (b) 6 months to 2 years. — <sup>2</sup> 2 years and over. — <sup>3</sup> Including sheep. — <sup>4</sup> Under 5 months. — <sup>5</sup> 5 months and over.

TABLE 38. — EXTENT OF PARTICIPATION IN SECTION 3, RELATING TO *pigs*

Region and country	Item	All ages	Under 6 months of age	Pigs 6 months of age and over		
				Total	Sows and gilts for breeding	All other pigs
				Item number	36.1	36.11
<i>Total number of countries asking question (82)....</i>		72	48	33	40	34
EUROPE (17) .....		13	15	6	16	16
Austria .....	—	X	—	X	1, 2 X	
Belgium .....	X	3 X	—	X	1, 3 X	
Denmark .....	X	X	—	X	1, 2 X	
Finland .....	—	3 X	—	4 X	1, 4, 5 X	
Germany (Fed. Rep.) .....	X	3 X	—	X	1, 2 X	
Greece .....	X	—	—	—	—	
Ireland .....	X	6 X	—	7 X	1, 5 X	
Italy .....	X	—	—	X	X	
Luxembourg .....	X	3 X	X	7 X	1, 2 X	
Malta and Gozo .....	X	8 X	9 X	7 X	1, 2, 5 X	
Netherlands .....	X	X	—	X	1, 3 X	
Norway .....	—	3 X	—	X	1, 2 X	
Poland .....	X	6 X	—	X	X	
Spain .....	X	X	10 X	11 X	1, 5, 11 X	
Sweden .....	X	6 X	X	X	1, 2 X	
United Kingdom .....	X	8 X	9 X	7 X	1, 2 X	
Yugoslavia .....	—	8 X	12 X	X	1, 2 X	
NORTH AMERICA (4) .....		4	3	3	1	—
Alaska .....	X	X	X	—	—	
Canada .....	X	X	X	X	—	
Hawaii .....	X	X	X	—	—	
United States .....	X	—	—	—	—	
LATIN AMERICA (22) .....		19	11	12	7	5
Argentina .....	X	—	—	X	X	
Barbados .....	X	—	X	—	X	
Bolivia .....	X	—	—	—	—	
Brazil .....	X	X	—	X	X	
Colombia .....	—	X	X	—	—	
Costa Rica .....	—	X	—	X	X	
Dominican Republic .....	—	—	13 X	X	—	
Ecuador .....	X	—	—	—	—	
El Salvador .....	X	X	X	—	—	
Guatemala .....	X	—	—	X	—	
Jamaica .....	X	—	—	X	—	
Mexico .....	X	X	X	—	—	
Nicaragua .....	X	X	X	—	—	
Panama .....	X	X	X	X	—	
Paraguay .....	X	X	X	—	—	
Peru .....	14 X	—	—	—	—	
Puerto Rico .....	X	15 X	16 X	—	—	
Surinam .....	X	—	—	—	—	
Trinidad and Tobago .....	X	—	X	—	X	
Uruguay .....	X	14 X	14 X	—	—	
Venezuela .....	X	—	—	—	—	
Virgin Islands (U.S.) .....	X	15 X	15 X	—	—	

TABLE 38. - EXTENT OF PARTICIPATION IN SECTION 3, RELATING TO pigs (concluded)

Region and country	Item	All ages	Under 6 months of age	Pigs 6 months of age and over		
				Total	Sows and gilts for breeding	All other pigs
	Item number	36.1	36.11	36.12	36.12 (a)	36.12 (b)
NEAR EAST (2)		2	—	—	—	—
Iran	X	—	—	—	—	—
Lebanon	X	—	—	—	—	—
FAR EAST (14)		13	13	10	9	8
Brunei	<sup>11</sup> X	—	<sup>14</sup> X	<sup>14</sup> X	X	X
Ceylon	—	—	X	<sup>11</sup> X	—	—
China (Taiwan)	X	—	X	X	<sup>16</sup> X	X
India	X	—	—	—	—	—
Indonesia	<sup>11</sup> X	—	<sup>14</sup> X	<sup>14</sup> X	—	—
Japan	X	—	X	—	<sup>16</sup> X	X
Korea, Rep. of	X	—	X	—	X	X
Malaya, Fed. of	X	—	<sup>14, 17</sup> X	<sup>14, 17</sup> PX	—	X
Nepal	X	—	X	<sup>11</sup> X	—	—
North Borneo	X	—	X	—	X	X
Philippines	X	—	X	X	X	—
Sarawak	X	—	X	X	X	X
Thailand	X	—	X	X	X	—
Viet Nam, Rep. of	X	—	<sup>16</sup> X	<sup>16</sup> X	X	X
AFRICA (18)		16	6	2	5	3
Angola	—	—	<sup>14</sup> X	—	X	X
Basutoland	X	—	—	—	—	—
Bechuanaland	X	—	—	—	X	—
Central African Republic	X	—	—	—	—	—
Congo (Brazzaville)	X	—	—	—	—	—
Gabon	X	—	—	—	—	—
Ghana	X	—	X	—	X	X
Guinea, Rep. of	—	—	<sup>14</sup> X	<sup>14</sup> X	—	—
Kenya	X	—	—	—	—	—
Madagascar	X	—	<sup>14</sup> X	<sup>14</sup> X	—	—
Mali	X	—	—	—	—	—
Morocco	<sup>14</sup> X	—	—	—	—	—
Rhodesia and Nyasaland, Fed. of	X	—	—	—	—	—
Seychelles	X	—	X	—	X	X
South Africa	X	—	<sup>16b</sup> X	—	X	—
Tanganyika	X	—	—	—	—	—
Togo	X	—	—	—	—	—
Tunisia	X	—	—	—	—	—
OCEANIA (5)		5	—	—	2	2
American Samoa	X	—	—	—	—	—
Australia	X	—	—	—	X	X
Guam	X	—	—	—	—	—
New Zealand	X	—	—	—	<sup>11</sup> X	X
Papua and New Guinea	X	—	—	—	—	—

<sup>1</sup> Boars for breeding. - <sup>2</sup> Pigs for fattening and slaughtering. - <sup>3</sup> (a) Under 8 weeks; (b) 8 weeks and under 6 months. - <sup>4</sup> 9 months and over. - <sup>5</sup> Other pigs. - <sup>6</sup> Other pigs under 3 months. - <sup>7</sup> (a) Gilts and pigs; (b) Sows; age not specified. - <sup>8</sup> Other pigs under 2 months. (b) 2 months to 5 months. - <sup>9</sup> Other pigs 5 months and over. - <sup>10</sup> 6 months to 1 year. - <sup>11</sup> 1 year and over. - <sup>12</sup> (a) Under 5 months; (b) 5 months and over. - <sup>13</sup> 10 months and over. - <sup>14</sup> Separate questions for male and female. - <sup>15</sup> (a) Under 4 months; (b) 4 months and over. - <sup>16</sup> Including boars for breeding. - <sup>17</sup> (a) Under 3 months; (b) 3 months and over. - <sup>18</sup> (a) Under 2 months; (b) 2 months and over.

and the United Kingdom) inquired about boars for breeding. Five of these countries (Denmark, Malta and Gozo, the Netherlands, the United Kingdom and Yugoslavia) did not request information on age; Finland listed those 9 months of age and over; Ireland 5 months and over; and Spain 1 year and over.

Variations in age grouping were used in countries outside the European region as well; these have been footnoted.

Bechuanaland; and Australia were among those countries which did not specify the age of breeding sows and other pigs. Angola only asked for adults and nonadults.

The programme item other pigs (36.12 *b*), besides including boars for breeding, and other swine, also listed pigs (both male and female) for slaughtering and for fattening. Some countries asked separately for each category and others collectively. European countries that asked for information on fattening and slaughtering pigs were Austria, Belgium, Denmark, the Federal Republic of Germany, Luxembourg, Malta and Gozo, the Netherlands, Norway, Spain, Sweden, the United Kingdom and Yugoslavia. Male pigs for service (Yugoslavia) and castrated animals (Argentina) were also included under others.

As regards additional information, several countries requested items outside the programme, such as pregnant and nonpregnant sows (Ireland, Luxembourg), sows for slaughtering and pigs for fattening (mentioned above). Denmark may be cited as an example of the few countries that had made an extensive inquiry about pigs, classified as follows:

- (a) Boars for service
- (b) Sows
  - (i) to farrow for the first time
  - (ii) to farrow, other times
  - (iii) with litters
  - (iv) barren
  - (v) taken out for slaughtering
- (c) Sucking pigs
- (d) Breeding and fat pigs
  - (i) weaned pigs less than 35 kilogrammes
  - (ii) pigs 35-60 kilogrammes
  - (iii) fat pigs for slaughtering:
    - 60-80 kilogrammes
    - 80 kilogrammes and over

## POULTRY AND RABBITS

Participation in this part of the programme was among the highest, 84 countries having made inquiry (Table 39). The countries which did not include a single item of the programme were Poland; Bechuanaland, Portuguese Guinea, Mali, Senegal, Upper Volta; New Zealand. The item relating to pigeons (37.7), not shown in the table, was investigated by 8 countries, namely, Puerto Rico; Sudan; Brunei, Nepal, the Philippines; Angola, Ghana; Guam.

It will be recalled that almost all the programme items in this part consist of more than one particular item. A cross, indicating participation, does not necessarily mean that all the component parts have been requested. It does, however, indicate that at least one of the elements has been investigated. Several countries asked for each component separately, as was done by Argentina, the Dominican Republic, Uruguay, Venezuela; Ghana inquired about hens, cocks, pullets and chicks separately as individual items. On the other hand, many countries asked about one part only, e.g., Spain; Puerto Rico, included hens only, or Ceylon cocks only. Contrary to this practice, several countries combined two programme items in their investigation. Austria; Bolivia, Costa Rica, Panama, for example, inquired about ducks and geese together, or Jamaica and Paraguay combined all the three items, ducks, geese and turkeys.

Several countries, while inquiring about hens, cocks, chicks, etc., indicated the group item as poultry (e.g., in Basutoland, Gabon, the Republic of Guinea, etc.) or as fowls (India, the Federation of Malaya, North Borneo, Sarawak; the Federation of Rhodesia and Nyasaland, etc.). These have been considered as participation in the programme item (37.1).

A few countries included in their censuses an omnibus item, other poultry, in addition to inquiring about hens, cocks and chicks. In a few cases, its possible composition was indicated as turkeys, geese, ducks, pigeons, etc., but only the total number, without specification of the species, was required. There being no corresponding item in the programme, these cases were excluded from the synoptic table. Countries concerned in this category were Peru, Surinam, the Virgin Islands; the Republic of Guinea, Tunisia; American Samoa.

TABLE 39. - EXTENT OF PARTICIPATION IN SECTION 3, RELATING TO *poultry and rabbits* \*

Region and country	Hens, cocks, pullets and chicks (total)	Cockerels, pullets and chicks, under 6 months of age	Cocks, capons, hens and pullets, 6 months of age and over	Laying hens	Ducks and ducklings (all ages)	Geese and goslings (all ages)	Turkeys and poulets (all ages)	Rabbits and hares kept in captivity (all ages)
Item	37.1	37.11	37.12	37.2	37.3	37.4	37.5	37.6
Item number	37.1	37.11	37.12	37.2	37.3	37.4	37.5	37.6
<i>Total number of countries asking question (84)</i> .....	68	20	26	22	53	35	46	15
EUROPE (16) .....	8	8	10	4	11	9	9	4
Austria .....	X	—	—	—	<sup>1</sup> X	<sup>1</sup> X	—	—
Belgium .....	X	—	—	X	X	X	X	X
Denmark .....	X	X	X	—	X	X	X	—
Finland .....	—	X	X	—	—	—	—	—
Germany (Fed. Rep.) .....	—	—	X	—	X	X	—	—
Greece .....	X	—	—	—	—	—	—	—
Ireland .....	—	X	X	—	X	X	X	—
Italy .....	—	—	—	X	—	—	—	—
Luxembourg .....	X	X	X	X	—	—	—	—
Malta and Gozo .....	X	X	X	—	X	—	X	X
Netherlands .....	X	—	—	X	X	—	—	—
Norway .....	—	X	X	—	X	X	X	X
Spain .....	—	—	<sup>1</sup> X	—	X	X	X	X
Sweden .....	—	X	X	—	—	—	X	—
United Kingdom .....	—	X	X	—	X	X	X	—
Yugoslavia .....	X	—	—	—	X	X	X	—
NORTH AMERICA (4) .....	1	1	4	1	1	1	4	—
Alaska .....	—	—	<sup>2</sup> X	—	—	—	X	—
Canada .....	X	<sup>4</sup> X	<sup>4</sup> X	X	X	X	X	—
Hawaii .....	—	—	<sup>2</sup> X	—	—	—	X	—
United States .....	—	—	<sup>2</sup> X	—	—	—	X	—
LATIN AMERICA (22) .....	20	3	4	8	14	11	16	4
Argentina .....	X	—	—	—	X	X	X	X
Barbados .....	X	—	X	—	—	—	—	—
Bolivia .....	X	—	—	X	<sup>1</sup> X	<sup>1</sup> X	X	—
Brazil .....	<sup>2</sup> X	—	—	—	X	X	X	X
Colombia .....	X	—	—	—	X	X	X	—
Costa Rica .....	—	X	X	—	<sup>1</sup> X	<sup>1</sup> X	X	—
Dominican Republic .....	X	—	—	—	X	—	X	—
Ecuador .....	X	—	—	—	—	—	—	—
El Salvador .....	X	—	—	X	X	—	X	—
Guatemala .....	X	—	—	X	—	—	X	—
Jamaica .....	X	—	—	X	<sup>2</sup> X	<sup>2</sup> X	<sup>2</sup> X	—
Mexico .....	X	—	—	—	X	X	X	—
Nicaragua .....	X	—	—	X	—	—	—	—
Panama .....	X	X	X	X	<sup>1</sup> X	<sup>1</sup> X	X	—
Paraguay .....	X	—	—	X	<sup>2</sup> X	<sup>2</sup> X	<sup>2</sup> X	—
Peru .....	X	—	—	—	—	—	—	—
Puerto Rico .....	X	<sup>2</sup> X	—	—	X	X	X	—
Surinam .....	X	—	—	—	—	—	—	—
Trinidad and Tobago .....	X	—	—	X	X	—	X	—
Uruguay .....	X	—	—	—	—	—	X	X
Venezuela .....	X	—	—	—	X	X	X	X
Virgin Islands (U.S.) .....	—	—	<sup>2</sup> X	—	—	—	—	—

TABLE 39. - EXTENT OF PARTICIPATION IN SECTION 3, RELATING TO *poultry and rabbits* \* (concluded)

Region and country	Hens, cocks, pullets and chicks (total)	Cockerels, pullets and chicks, under 6 months of age	Cocks, capons, hens and pullets, 6 months of age and over	Laying hens	Ducks and ducklings (all ages)	Geese and goslings (all ages)	Turkeys and poults (all ages)	Rabbits and hares kept in captivity (all ages)
Item	37.1	37.11	37.12	37.2	37.3	37.4	37.5	37.6
Item number	37.1	37.11	37.12	37.2	37.3	37.4	37.5	37.6
NEAR EAST (6) .....	6	—	—	—	1	1	2	1
Iran .....	X	—	—	—	—	—	—	—
Iraq .....	X	—	—	—	—	—	X	—
Lebanon .....	X	—	—	—	—	—	—	—
Libya .....	X	—	—	—	—	—	—	X
Sudan .....	X	—	—	—	—	—	—	—
Turkey .....	X	—	—	—	X	X	X	—
FAR EAST (15) .....	12	7	6	6	15	8	6	2
Brunei .....	—	X	X	—	X	X	X	—
Ceylon .....	—	X	X	X	X	—	X	—
China (Taiwan) .....	—	X	X	—	X	X	X	—
India .....	X	—	—	—	X	—	—	—
Indonesia .....	X	—	—	X	X	X	X	—
Japan .....	X	X	X	—	X	X	X	X
Korea, Rep. of .....	X	—	—	X	X	—	—	X
Malaya, Fed. of .....	X	—	—	X	X	X	—	—
Nepal .....	X	X	—	—	X	—	—	—
North Borneo .....	X	—	—	—	X	X	—	—
Pakistan .....	X	—	—	—	X	—	—	—
Philippines .....	X	X	X	X	X	X	X	—
Sarawak .....	X	—	—	—	X	X	—	—
Thailand .....	X	—	—	X	X	—	—	—
Viet-Nam, Rep. of .....	X	X	X	—	X	—	—	—
AFRICA (17) .....	17	1	1	3	9	4	7	4
Angola .....	X	—	—	X	X	—	X	X
Basutoland .....	X	—	—	—	—	—	—	—
Central African Republic .....	X	—	—	—	X	—	—	—
Congo (Brazzaville) .....	X	—	—	—	X	—	—	—
Gabon .....	X	—	—	—	—	—	—	—
Ghana .....	X	X	X	—	X	X	X	X
Guinea, Rep. of .....	X	—	—	—	X	—	X	X
Kenya .....	X	—	—	—	—	—	—	—
Madagascar .....	X	—	—	—	X	X	X	X
Morocco .....	X	—	—	—	—	—	—	—
Rhodesia and Nyasaland, Fed. of ..	X	—	—	X	X	X	X	—
Seychelles .....	X	—	—	—	X	—	X	—
South Africa .....	X	—	—	—	X	X	X	—
Tanganyika .....	X	—	—	—	—	—	—	—
Togo .....	X	—	—	—	—	—	—	—
Tunisia .....	X	—	—	—	—	—	—	—
Uganda .....	X	—	—	X	—	—	—	—
OCEANIA (4) .....	4	—	1	—	2	1	2	—
American Samoa .....	X	—	—	—	—	—	—	—
Australia .....	X	—	—	—	X	X	X	—
Guam .....	X	—	X	—	X	—	X	—
Papua and New Guinea .....	X	—	—	—	—	—	—	—

\* Pigeons (37.7) were investigated by Puerto Rico; Sudan; Brunei, Nepal, the Philippines; Angola, Ghana; and Guam.

<sup>1</sup> Ducks and geese together. - <sup>2</sup> Age not specified. - <sup>3</sup> 4 months and over. - <sup>4</sup> (i) Chicks under 2 months; (ii) Pullets 2 to 6 months for laying; (iii) 6 months and over for laying; (iv) All others over 2 months not for laying. - <sup>5</sup> (a) Under 2 months; (b) 2 months and over. - <sup>6</sup> Ducks, geese and turkeys together. - <sup>7</sup> (a) Under 3 months; (b) 3 months and over.

TABLE 40. - EXTENT OF PARTICIPATION IN SECTION 3, RELATING TO *other domesticated animals* \*

Region and country	Item	Beehives and colonies	Honey	Silkworms
		38.11	38.12	Fresh cocoons produced 38.22
	Item number			
<i>Total number of countries asking question (41)</i> .....		37	30	8
EUROPE (7) .....		7	2	1
Austria .....		X	—	—
Belgium .....		X	—	—
Finland .....		X	—	—
Greece .....		X	—	—
Norway .....		X	—	—
Spain .....		X	X	—
Yugoslavia .....		X	X	X
NORTH AMERICA (1) .....		1	1	—
Hawaii .....		X	X	—
LATIN AMERICA (16) .....		13	15	2
Argentina .....		X	X	X
Bolivia .....		—	X	—
Brazil .....		X	X	X
Colombia .....		X	X	—
Costa Rica .....		X	X	—
Dominican Republic .....		X	X	—
El Salvador .....		X	X	—
Guatemala .....		X	X	—
Mexico .....		X	X	—
Panama .....		—	X	—
Paraguay .....		X	X	—
Peru .....		X	X	—
Puerto Rico .....		X	X	—
Surinam .....		X	—	—
Trinidad and Tobago .....		—	X	—
Venezuela .....		X	X	—
NEAR EAST (6) .....		6	4	2
Iran .....		X	X	X
Iraq .....		X	—	—
Lebanon .....		X	X	—
Libya .....		X	X	—
Sudan .....		X	—	—
Turkey .....		X	X	X
FAR EAST (4) .....		3	2	3
Ceylon .....		X	—	—
China (Taiwan) .....		—	X	X
Japan .....		X	—	X
Korea, Rep. of .....		X	X	X
AFRICA (6) .....		6	5	—
Angola .....		X	X	—
Guinea, Rep. of .....		X	—	—
Madagascar .....		X	X	—
Morocco .....		X	X	—
Portuguese Guinea .....		X	X	—
South Africa .....		X	<sup>1</sup> X	—
OCEANIA (1) .....		1	1	—
Australia .....		X	X	—

\* Countries and programme items not shown in this table are given below:

- Iran, Turkey: Silkworm eggs placed in incubation (38.21)
- Argentina, Bolivia, Peru: Llamas, guanacos, vicuñas (38.3)
- Norway; Argentina; Japan: Foxes (38.41)
- Norway; Argentina; Japan: Mink (38.42)
- Argentina: Other fur-bearing animals (38.49)
- Bolivia, Dominican Republic, Peru, Puerto Rico, Venezuela: Other domesticated animals not included elsewhere (38.9)

<sup>1</sup> Honey sold.



TABLE 41. - REGIONAL DISTRIBUTION OF COUNTRIES PARTICIPATING IN PROGRAMME ITEMS  
Livestock and poultry

Item	Europe	North America	Latin America	Near East	Far East	Africa	Oceania	Total
<i>Total participants</i> .....	(17)	(4)	(22)	(6)	(15)	(22)	(5)	(91)
<i>Number of participants in Table 31</i> ...	(17)	(4)	(21)	(6)	(8)	(13)	(4)	(73)
<b>31.1 Horses (all ages)</b> .....	13	4	19	5	8	12	4	65
31.11 Under 3 years .....	8	—	8	1	5	1	—	23
(a) Under 1 year of age .....	8	—	1	—	1	—	1	11
(b) 1 year of age but under 3 years .....	7	—	1	—	1	—	—	9
31.12 3 years of age and over .....	9	—	7	1	5	1	—	23
(a) Stallions 3 years of age and over .....	6	1	3	—	—	—	—	10
(b) Geldings 3 years of age and over .....	5	—	—	—	—	—	—	5
(c) Mares 3 years of age and over .....	5	1	3	—	1	—	—	10
<b>31.2 Mules (all ages)</b> .....	5	3	17	6	2	9	1	43
<b>31.3 Asses (all ages)</b> .....	4	—	17	6	1	13	—	41
<b>31.2 and 31.3 Mules and asses (not a programme item)</b> .....	2	—	4	—	—	—	—	6
<b>31.4 Camels (all ages)</b> .....	—	—	—	6	1	4	—	11
31.41 Under 4 years of age .....	—	—	—	2	—	—	—	2
31.42 4 years of age and over .....	—	—	—	2	—	—	—	2
<i>Number of participants in Table 32</i> ...	(15)	(4)	(21)	(6)	(15)	(17)	(4)	(82)
<b>32.1 Cattle (all ages)</b> .....	12	4	17	4	14	12	3	66
32.11 Under 2 years of age .....	1	—	7	4	10	7	1	30
(a) Calves under 1 year of age ...	13	1	14	1	5	8	1	43
(b) Young stock 1 year of age and under 2 years .....	10	—	11	—	4	6	—	31
<b>32.12 2 years of age and over</b> .....	7	—	13	4	11	13	1	49
<i>Number of participants in Table 33</i> ...	(16)	(4)	(19)	(2)	(11)	(12)	(4)	(68)
<b>32.21 Cows</b> .....	9	4	8	2	2	7	—	32
(a) Used primarily for milk production .....	6	1	12	—	10	5	4	38
(b) Raised primarily for meat production .....	3	—	2	—	2	3	2	12
(c) Others .....	5	—	6	—	4	2	1	18
<b>32.22 Heifers in calf</b> .....	9	3	6	—	—	8	1	27
<b>32.23 Bulls used for service</b> .....	13	1	11	—	7	12	2	46
<b>32.24 Other cattle</b> .....	7	4	11	1	3	7	2	35
(a) Raised primarily for meat production .....	3	—	5	—	2	3	2	15
(b) Intended primarily for use as draft animals .....	4	—	7	1	10	6	—	28
(c) Others .....	—	—	—	1	2	—	—	3
<i>Number of participants in Table 34</i> ...	(3)	(—)	(3)	(3)	(12)	(—)	(1)	(22)
<b>33.1 Buffaloes (all ages)</b> .....	3	—	3	1	10	—	1	18
33.11 Under 3 years of age .....	—	—	1	1	7	—	—	9
(a) Calves under 1 year of age ...	—	—	—	1	5	—	—	6
(b) Young buffaloes 1 year of age and under 2 years .....	—	—	—	—	3	—	—	3
<b>33.12 3 years of age and over</b> .....	—	—	1	1	9	—	—	11
<i>Number of participants in Table 35</i> ...	(1)	(—)	(—)	(2)	(8)	(—)	(—)	(11)
<b>33.21 Buffalo cows</b> .....	—	—	—	2	3	—	—	5
(a) Used primarily for milk production .....	—	—	—	—	6	—	—	6
(b) Others .....	—	—	—	—	1	—	—	1
<b>33.29 Other buffaloes</b> .....	—	—	—	—	—	—	—	—
(a) Intended primarily as draft animals .....	1	—	—	1	7	—	—	9
(b) Others .....	—	—	—	1	3	—	—	4

TABLE 41. - REGIONAL DISTRIBUTION OF COUNTRIES PARTICIPATING IN PROGRAMME ITEMS  
Livestock and poultry (*concluded*)

Item	Europe	North America	Latin America	Near East	Far East	Africa	Oceania	Total
<i>Number of participants in Table 36....</i>	(17)	(4)	(19)	(6)	(11)	(19)	(3)	(79)
34.1 Sheep (all ages).....	12	4	18	5	9	16	1	65
34.11 Lambs under 1 year of age.....	10	4	5	5	10	6	1	41
34.12 Sheep 1 year of age and over.....	7	1	4	2	6	4	—	24
(a) Male.....	5	3	4	3	4	3	1	23
(b) Female.....	5	3	7	3	4	3	1	26
34.2 Sheep clipped during the census year	2	3	4	—	—	1	2	12
34.3 Wool.....	3	3	9	3	—	3	1	22
<i>Number of participants in Table 37....</i>	(10)	(4)	(19)	(6)	(14)	(19)	(3)	(75)
35.1 Goats (all ages).....	9	4	19	5	12	16	3	68
35.11 Under 1 year of age.....	4	—	3	5	12	6	—	30
35.12 1 year of age and over.....	1	—	1	2	6	4	—	14
(a) Male.....	2	—	2	2	7	3	—	16
(b) Female.....	2	—	4	2	8	3	—	19
35.2 Goats clipped during the census year	—	1	—	—	—	1	—	2
35.3 Goat hair and mohair.....	—	1	—	3	—	3	—	7
<i>Number of participants in Table 38....</i>	(17)	(4)	(22)	(2)	(14)	(18)	(5)	(82)
36.1 Pigs (all ages).....	13	4	19	2	13	16	5	72
36.11 Under 6 months of age.....	15	3	11	—	13	6	—	48
36.12 6 months of age and over.....	6	3	12	—	10	2	—	33
(a) Sows and gilts for breeding 6 months of age and over.....	16	1	7	—	9	5	2	40
(b) All other pigs 6 months of age and over.....	16	—	5	—	8	3	2	34
<i>Number of participants in Table 39....</i>	(16)	(4)	(22)	(6)	(15)	(17)	(4)	(84)
37.1 Hens, cocks, pullets and chicks (total).....	8	1	20	6	12	17	4	68
37.11 Cockerels, pullets and chicks under 6 months of age.....	8	1	3	—	7	1	—	20
37.12 Cocks, capons, hens and pullets 6 months of age and over.....	10	4	4	—	6	1	1	26
37.2 Laying hens (of those already reported under 37.12).....	4	1	8	—	6	3	—	22
37.3 Ducks and ducklings (all ages)....	11	1	14	1	15	9	2	53
37.4 Geese and goslings (all ages).....	9	1	11	1	8	4	1	35
37.5 Turkeys and poults (all ages).....	9	4	16	2	6	7	2	46
37.6 Rabbits and hares kept in captivity (all ages).....	4	—	4	1	2	4	—	15
37.7 Pigeons (all ages).....	—	—	1	1	3	2	1	8
<i>Number of participants in Table 40....</i>	(7)	(1)	(16)	(6)	(4)	(6)	(1)	(41)
38.11 Beehives and colonies.....	7	1	13	6	3	6	1	37
38.12 Honey.....	2	1	15	4	2	5	1	30
38.21 Silkworm eggs placed in incubation	—	—	—	2	—	—	—	2
38.22 Fresh cocoons produced.....	1	—	2	2	3	—	—	8
38.3 Llamas, guanacos and vicuñas (all ages).....	—	—	3	—	—	—	—	3
38.4 Fur-bearing animals (reared in cap- tivity for fur or skin).....	—	—	—	—	—	—	—	—
38.41 Foxes (total).....	1	—	1	—	1	—	—	3
38.42 Mink (total).....	1	—	1	—	1	—	—	3
38.49 Other fur-bearing animals.....	—	—	1	—	—	—	—	1
38.9 Other domesticated animals not included elsewhere.....	—	—	5	—	—	—	—	5

Regarding the age distribution proposal of the programme, under 6 months and 6 months and over, different practices and indirect approaches had been adopted. One approach was to inquire about the number hatched or raised during the census year, and prior to the census year, both periods approximating to the two recommended age groups. For instance, Ireland asked for those hatched before and during 1960, and Luxembourg inquired about "young poultry hatched this year." Another approach was to distinguish between chicks and full-grown poultry (Norway) without specifying age. Examples of variations and additions in age group may also be cited here. Malta and Gozo asked separately for chicks under 5 months, pullets 6 to 12 months, hens over 1 year, cocks and cockerels (no age specified). South Africa subdivided the item under 6 months further into those under 3 months and 3 to 6 months.

Several countries (e.g., the Federal Republic of Germany, Norway; Alaska, Hawaii; Brunei, China (Taiwan), Indonesia, the Republic of Viet-Nam) inquired about the age of ducks, geese, turkeys and rabbits included in their national censuses. Brunei also asked for the number of pigeons 3 months of age and over. The Netherlands distinguished between hens raised for meat and those raised for egg production.

#### OTHER DOMESTICATED ANIMALS

The extent of participation in this part of the programme is presented in Table 40. Seven of the programme items have been deleted from the main body of the table, and six have been recorded at the end of the table with the names of the few countries that had asked for them. The item 38.4 (total), fur-bearing animals, was not included in the census questionnaire by any country in the world.

Norway asked detailed information about the other two individual items, namely, fox (38.41) and mink (38.42). Foxes were grouped into (a) silver and platinum foxes; and (b) blue foxes; both groups were further subdivided into full-grown and young foxes. Similarly, mink was subdivided into full-grown and young mink. The former category was further classified into standard, brown, blue and others.

Thirty-seven countries inquired about the number of beehives and colonies, and 30 asked for the quantity of honey. Eleven countries which asked for beehives but not honey were Austria, Belgium, Finland, Greece, Norway; Surinam; Iraq, Sudan; Ceylon, Japan; the Republic of Guinea. On the other hand, there were 4 countries which asked for honey but not beehives; these were Bolivia, Panama, Trinidad and Tobago; Taiwan. South Africa had asked for honey sold instead of quantity produced. Paraguay had also asked for honey sold, but this was an additional question.

Variations and additions were observed in a few cases. For example, Belgium inquired about beehives on straw, and on boxes with moving frames, separately; Argentina, similarly, asked separately for those in boxes and in common; the Dominican Republic had them in boxes and in barrels, separately. Morocco had individual questions for beehives and colonies. Turkey had inquired about the number of silkworm boxes opened in 1963 as an item approximating to the programme item silkworm eggs placed in incubation (38.21). As regards programme item 38.3, llamas, guanacos and vicuñas, 3 countries had participated with varying degree of coverage. Argentina inquired about llamas and vicuñas separately. Bolivia investigated only llamas, and Peru covered all of them in one item. Alpaca was an item suggested in the programme for the Americas and was listed by Argentina and Bolivia.

Portuguese Guinea also asked for beeswax obtained.

The regional programme for Africa south of the Sahara suggested ostriches as an additional item to be investigated by the countries concerned; only South Africa included this item.

### Section 4 : Employment in agriculture

#### INTRODUCTION

Participation in this section of the programme, shown in Table 42, has been interpreted broadly because not many countries abided by the proposed items. The crosses in this table should, therefore, be taken more as an indication than as factual participation. There have been various points of divergence.

## EMPLOYMENT IN AGRICULTURE

The programme requested the number of persons employed in agricultural work on the holding *during the census week*. Very few countries limited their inquiry to the census week. The closest conformity to this recommendation was the "last week" or "week before the census." Among the countries that adopted this approach, or did so very closely, were Spain; Alaska, Hawaii, the United States; Puerto Rico and Uruguay. The point of time that Australia investigated was "at the end of March 1960"; New Zealand "as at 31 January 1960"; Tunisia "on census day." Several countries adopted one full year (present, past, census year or crop year) as the period of inquiry. Among the latter were: Austria, Belgium, Finland, Malta and Gozo, the Netherlands; Canada; China (Taiwan), Indonesia, Japan, the Federation of Malaya and the Republic of Viet-Nam. The Federal Republic of Germany and Luxembourg limited it to one particular month specified in the questionnaire.

Another point of divergence was the classification of persons into three categories: permanent, temporary and occasional. Here again there were numerous variations and the question was therefore treated and dealt with in a broad sense, giving liberal interpretation to the countries' terminology for the purpose of showing participation in the synoptic table. A few examples giving the coverage under these three categories of the programme may be cited here.

Crosses under the category permanent workers included cases such as "engaged fully" (Austria); regular hired workers (Finland); hired for the year (Japan); over 7 months (Republic of Korea); employed for permanent jobs (Federation of Malaya); full time (Australia); 30 or more hours per week (New Zealand). As regards the temporary and occasional categories, crosses were placed against both when two separate questions were asked, e.g., nonpermanent workers, occasional seasonal workers (Austria); working part time, irregular (Belgium); hired seasonally for more than 1 month during the past year, hired by day or for less than 1 month during the past year (Japan). But the difficulty of presentation arose when countries asked one question, the terminology of which could include

both categories. For instance, "not full time" (Malta and Gozo) could cover both categories; other similar cases are casual hired labour (Norway); seasonal workers (Brunei); daily paid labour (Indonesia); part time (Uganda); seasonal and casual workers (one item) (Australia). In some of these cases additional information was required as to the number of days worked, or paid on weekly, daily, hourly or piece-work basis. It would be possible, in view of this additional information, to demarcate clearly the boundaries of temporary and occasional workers. However, for the purpose of presenting these cases in the table, crosses have been placed against both these categories with the footnote "nonpermanent," covering cases other than those classified under the permanent category.

The programme had suggested subdivision of the total number of persons into male and female which, in turn, were to be subdivided by two age groups, namely, under 15 years of age, 15 years of age and over. The type of information asked by each country is indicated by the prescribed alphabets placed in the first column. T stands for total, M and F for male and female, and U and O for the two age groups respectively.

The division point for the age, *viz.*, 15 years as suggested in the programme, was not adopted by several countries. In fact, quite a few variations were observed. Many countries used 14 years as the subdivision point, e.g., Italy, Spain; Brazil, the Dominican Republic, Uruguay; Iraq; the Republic of Korea. Ceylon subdivided the age at 16 years, North Borneo at 12 years, Sarawak at 10. Japan; and Upper Volta inquired about the age to be given in years. All such variations from the programme recommendation have been footnoted as "age limit different."

Kenya did not include specific questions in the body of the questionnaire regarding labour. Nevertheless, instructions to the enumerators were stated as follows: "If there are any paid workers on the holding at the time of the visit, give full details, under Remarks" (on page 1 of the questionnaire). The details were to include information as to whether the labour was employed full time or casually, was paid in cash or kind, whether a relative or not, and whether male or female.

TABLE 42. - EXTENT OF PARTICIPATION IN SECTION 4, RELATING TO *employment in agriculture* \*

Region and country	Information asked for: total (T) male (M) female (F) Under 15 years of age (U) 15 years of age and over (O)	Number of persons employed in agricultural work on the holding during the census week								Total number of man-days worked by persons working for pay on the holding during the census week
		Holder and unpaid members of his household				Persons working for pay on the holding				
		Total	Perma- nent workers	Tempo- rary workers	Occa- sional workers	Total	Perma- nent workers	Tempo- rary workers	Occa- sional workers	
Item number	41.1	41.11	41.12	41.13	41.3	41.31	41.32	41.33	41.4	
<i>Total number of countries asking question (73).....</i>		44	21	17	15	28	46	34	28	20
<b>EUROPE (14) .....</b>		5	11	8	9	1	12	11	7	10
Austria .....	M F, U O <sup>1</sup>	—	<sup>2</sup> X	<sup>2</sup> X	<sup>2</sup> X	—	X	<sup>2</sup> X	<sup>2</sup> X	X
Belgium .....	M F U O	—	X	X	X	—	X	X	X	X
Denmark .....	M F U O	<sup>2</sup> X	—	—	—	—	X	X	X	—
Finland.....	M F, U	<sup>2</sup> X	—	—	—	—	X	X	—	X
Germany (Fed. Rep.) .....	M F, O <sup>1</sup>	—	<sup>2</sup> X	<sup>2</sup> X	<sup>2</sup> X	—	X	<sup>2</sup> X	—	X
Ireland .....	M, U O <sup>1</sup>	<sup>2</sup> X	—	—	—	—	X	X	—	—
Italy .....	T M F, U O <sup>1</sup>	<sup>2</sup> X	<sup>2</sup> X	—	—	—	X	X	—	X
Luxembourg .....	M F, U O	—	<sup>2</sup> X	<sup>2,3</sup> X	<sup>2,3</sup> X	—	X	<sup>2</sup> X	<sup>2</sup> X	X
Malta and Gozo .....	M F, O <sup>1</sup>	—	<sup>2</sup> X	<sup>2,3</sup> X	<sup>2,3</sup> X	—	—	—	—	X
Netherlands.....	M F	—	X	X	—	—	X	X	—	X
Norway .....	M F, O	—	<sup>2</sup> X	<sup>2</sup> X	<sup>2</sup> X	—	X	X	X	<sup>2</sup> X
Spain .....	<sup>2</sup> M F, U O <sup>1</sup>	X	X	—	X	X	X	—	X	X
United Kingdom.....	M F, U O <sup>1</sup>	—	<sup>2</sup> X	<sup>2</sup> X	<sup>2,3</sup> X	—	X	X	X	—
Yugoslavia.....	T M F	—	<sup>2</sup> X	—	<sup>2</sup> X	—	—	—	—	—
<b>NORTH AMERICA (4) .....</b>		3	—	—	—	4	3	3	3	1
Alaska .....	T	X	—	—	—	X	X	X	X	—
Canada.....	T M F	—	—	—	—	X	—	—	—	X
Hawaii .....	T	X	—	—	—	X	X	X	X	—
United States.....	T	X	—	—	—	X	X	X	X	—
<b>LATIN AMERICA (18) .....</b>		14	4	3	2	11	9	6	4	2
Argentina.....	T M F, U O	X	—	—	—	X	X	X	—	—
Barbados .....	M F	X	—	—	—	X	—	—	—	—
Bolivia .....	T M F	X	—	—	—	X	—	—	—	—
Brazil .....	M F, U O <sup>1</sup>	X	—	—	—	—	X	X	—	—
Colombia .....	M F	—	X	X	X	—	X	X	X	—
Costa Rica .....	T	—	<sup>2</sup> X	<sup>2</sup> X	—	—	<sup>2</sup> X	<sup>2</sup> X	—	—
Dominican Republic.....	T M F, U O <sup>1</sup>	X	—	—	—	X	—	—	—	—
Ecuador .....	T M F, U O <sup>1</sup>	<sup>2</sup> X	—	—	—	—	X	—	X	—
El Salvador.....	T, U O	—	X	—	—	—	X	—	—	—
Jamaica .....	T	<sup>2</sup> X	—	—	—	X	X	X	X	—
Mexico .....	T M F, U O	<sup>2</sup> X	—	—	—	X	—	—	—	—
Panama .....	T, U O	X	—	—	—	X	—	—	—	X
Paraguay .....	M F, U O	—	X	X	X	—	X	X	X	—
Puerto Rico .....	T, O <sup>1</sup>	X	—	—	—	X	—	—	—	X
Surinam .....	T M F, O	<sup>2</sup> X	—	—	—	—	X	—	—	—
Trinidad and Tobago.....	T M F	X	—	—	—	X	—	—	—	—
Uruguay.....	T M F, U O <sup>1</sup>	<sup>2</sup> X	—	—	—	X	—	—	—	—
Venezuela .....	T M F, U O	X	—	—	—	X	—	—	—	—

TABLE 42. - EXTENT OF PARTICIPATION IN SECTION 4, RELATING TO *employment in agriculture* \* (concluded)

Region and country	Information asked for: total (T) male (M) female (F) Under 15 years of age (U) 15 years of age and over (O)	Number of persons employed in agricultural work on the holding during the census week								Total number of man-days worked by persons working for pay on the holding during the census week
		Holder and unpaid members of his household				Persons working for pay on the holding				
		Total	Permanent workers	Temporary workers	Occasional workers	Total	Permanent workers	Temporary workers	Occasional workers	
Item number		41.1	41.11	41.12	41.13	41.3	41.31	41.32	41.33	41.4
NEAR EAST (3)		2	—	—	—	2	1	—	—	—
Iran	M F	X	—	—	—	X	—	—	—	—
Iraq	M F U O <sup>1</sup>	<sup>2</sup> X	—	—	—	X	—	—	—	—
Sudan	T	—	—	—	—	—	X	—	—	—
FAR EAST (13)		10	2	3	2	2	11	6	5	4
Brunei	T M F	—	<sup>2</sup> X	<sup>2,3</sup> X	<sup>2,3</sup> X	—	X	<sup>2</sup> X	<sup>2</sup> X	—
Ceylon	M F, U O <sup>1</sup>	X	—	—	—	—	X	—	—	X
China (Taiwan)	T M F	<sup>2</sup> X	—	—	—	—	X	—	—	X
India	T M F	<sup>2</sup> X	—	—	—	—	—	—	—	—
Indonesia	T M F	<sup>2</sup> X	—	—	—	—	X	<sup>2</sup> X	<sup>2</sup> X	—
Japan	T M F, U O <sup>1</sup>	<sup>2</sup> X	—	X	—	—	X	X	X	X
Korea, Republic of	M F, U O <sup>1</sup>	—	<sup>2</sup> X	<sup>2</sup> X	<sup>2</sup> X	—	X	X	X	—
Malaya, Fed. of	T M F	<sup>2</sup> X	—	—	—	—	X	X	X	X
North Borneo	T M F, U O <sup>1</sup>	<sup>2</sup> X	—	—	—	X	X	—	—	—
Pakistan	T	<sup>2</sup> X	—	—	—	X	X	—	—	—
Sarawak	T M F, U O <sup>1</sup>	<sup>2</sup> X	—	—	—	—	X	—	—	—
Thailand	T	<sup>2</sup> X	—	—	—	—	—	—	—	—
Viet-Nam, Rep. of	T	—	—	—	—	—	X	X	—	—
AFRICA (19)		10	3	3	2	8	8	6	7	3
Angola	M F	X	—	—	—	—	X	—	X	X
Basutoland	M F	<sup>2</sup> X	—	—	—	—	—	—	—	—
Bechuanaland	T U O <sup>1</sup>	—	—	—	—	—	X	X	—	—
Central African Republic	M F, O <sup>1</sup>	X	—	—	—	—	—	—	—	—
Congo (Brazzaville)	T M F, O <sup>1</sup>	X	—	—	—	X	—	—	—	—
Gabon	T M F, O <sup>1</sup>	X	—	—	—	X	—	—	—	—
Ghana	M F	—	—	—	—	X	—	—	—	—
Guinea, Rep. of	M F	—	<sup>2</sup> X	<sup>2</sup> X	—	—	X	X	—	—
Madagascar	M F	—	—	—	—	—	—	X	X	X
Mali	T M F	<sup>2</sup> X	—	—	—	—	—	—	—	—
Morocco	T M F, U O	X	X	X	X	X	X	X	X	—
Rhodesia and Nyasaland, Fed. of	M F	<sup>2</sup> X	—	—	—	X	—	—	—	—
Seychelles	M F	—	—	—	—	—	X	—	X	—
South Africa	T M F	<sup>2</sup> X	—	—	—	X	—	—	—	—
Tanganyika	T M F	—	—	—	—	X	—	—	—	—
Togo	M F	—	—	—	—	—	X	—	X	—
Tunisia	T, M F	<sup>2</sup> X	—	—	—	—	X	<sup>2</sup> X	<sup>2</sup> X	X
Uganda	T, M F, U O	—	<sup>2</sup> X	<sup>2,3</sup> X	<sup>2,3</sup> X	—	X	X	X	—
Upper Volta	M F U O <sup>1</sup>	—	—	—	—	X	—	—	—	—
OCEANIA (2)		—	1	—	—	—	2	2	2	—
Australia	M F, O <sup>1</sup>	—	X	—	—	—	X	<sup>2</sup> X	<sup>2</sup> X	—
New Zealand	M F	—	—	—	—	—	X	X	X	—

\* Countries and programme items not shown in this table are given below:

Italy; Mexico; Venezuela; Ghana; Morocco; Tunisia; Uganda;

Participants in cooperative, collective and communal holdings (41.2)

Only Morocco inquired about permanent, temporary and occasional workers under this group; Ghana asked for members working full time, part time.

<sup>1</sup> Members of household but nonfamily permanent workers were classified under three age groups: 14 years and under 18; 18 years and under 65 for males, under 60 for females; 65 years and over for males, 60 years and over for females. - <sup>2</sup> Not specified whether paid or unpaid. - <sup>3</sup> Not permanent. - <sup>4</sup> Age limit different. - <sup>5</sup> Includes number of working days worked by children under 15 years. - <sup>6</sup> Sex classification for workers between 18 and 64 years of age.

## ADDITIONAL INFORMATION

A variety of additional information was collected through the agricultural census. For instance, Norway inquired about the number of days worked by children under 15 years of age, according to type of work, such as weeding and thinning, haymaking and harvesting, potato planting and digging, picking of fruit and cultivated berries. Alaska, Hawaii and the United States, besides other countries, asked for the number of workers, by mode of payment such as monthly, weekly, daily, hourly, with rates of pay in each of these categories. A few countries investigated exchange of services. For example, Venezuela asked about the persons working on a communal basis or in exchange for services; Jamaica inquired if the farmer exchanged any labour with others during the past year. Similarly, the Federation of Malaya included the following questions: (a) How many exchange labour did you employ? (b) How much money did you spend on contract labour? A few African countries, such as the Central African Republic, Congo (Brazzaville) and Mali, also inquired about the exchange of labour. Mali particularly asked the motives of exchange: as to whether such labour was used for cultivating (i) cotton; (ii) food crops; (iii) tree crops.

## REGIONAL PROGRAMMES

The regional programme for Europe added a few items considered useful for the western European countries in particular.

Paid family workers, in the world programme, were included with persons working for pay on the holding (41.3). This was subdivided in the European programme into paid members of the holder's household and other persons working for pay on the holding, so that countries desiring to show separately all the members of the household working on the holding, irrespective of whether they received full remuneration or not, could do so. Almost all the countries in the region were uniform in their practice of not specifying whether the members of a holder's household working on the holding were unpaid or paid. This fact has been footnoted, in the synoptic table, for the countries involved. Belgium and Spain had asked separately for the number of paid family workers.

Instead of classifying the various group workers into permanent, temporary and occasional, it was considered preferable to have two classes only: (a) permanent workers; and (b) other workers (i.e., temporary and/or occasional workers). This was done in view of the difficulty, in several European countries, of making a distinction between temporary and occasional workers. Austria, the Federal Republic of Germany, Luxembourg, Malta and Gozo, Norway and the United Kingdom followed this practice and did not specifically make a distinction between temporary and occasional workers.

Permanent workers working for pay on the holding were classified, in the European programme, as (a) manual; and (b) nonmanual workers. While few countries included these items in their censuses in the proposed form, a number of countries inquired about the nature of the work (administrators, supervisors, clerks, etc.) performed by each of the salaried staff or paid employees and it could, therefore, be subsequently possible to tabulate them as manual and nonmanual workers. Austria, Denmark, the Federal Republic of Germany, Italy and the United Kingdom adopted this approach.

A separate item was introduced to account for the number of persons working on agricultural holdings operated by prisons, asylums, homes for the aged, etc. No country in the region asked the item specifically. Nevertheless, such institutions were also required to fill in the census form, and thus it was possible to collect the required information.

A further subdivision of age of workers, 15 years of age and over, was introduced to collect information on persons under 60 years of age and those 60 years of age and over. Countries inquiring about this age category varied the age limit slightly. Austria asked for males 65 years, females 60 years of age and over; Belgium asked for data on birth; Italy, 65 years and over; Spain, under 64 years, 64 years and over; the United Kingdom limited the question to males 65 years of age and over.

### *Programme for the Americas*

In this programme, members of the holder's household were subdivided into working for pay and not working for pay, for at least one third

of the number of hours that constitute a normal working week.

Argentina and Bolivia specifically inquired about this distinction.

#### *Programme for Africa south of the Sahara*

The short period of the census week was considered of little significance in view of the seasonal fluctuations of employment in agriculture in the region. It was therefore suggested that, in addition to the number of persons employed during the census week, the maximum number of persons employed *during the census year* should be investigated. Several countries listed this additional item but not exactly as proposed. Angola inquired about the number of agricultural workers during the last agricultural year; Gabon asked for the number of workers employed during the agricultural year. Ghana included, in its *Station questionnaire* for the second phase of the census, two questions: (a) number of persons normally employed on the station; and (b) number of additional extra labour engaged during peak periods. Madagascar and Upper Volta limited their inquiry to occasional workers employed during the last 12 months; Tunisia asked for the labour employed "en bloc" during the last 12 months.

Migrant labour was considered important in many countries in the region. It was suggested that countries concerned include certain items in their census questionnaire to collect information on migrant labour. The Central African Republic and Gabon included a question about visitors participating in agricultural work on the holding, inquiring also about the duration and motive of their visits. Upper Volta included a few questions regarding persons staying away from the holding during the last 12 months, with dates of departure and return, and other related questions.

### **Section 5 : Farm population**

#### EXTENT OF PARTICIPATION

Participation in this section of the programme is shown through synoptic Table 43. More than 60 percent of the countries included questions relating to farm population in their agricultural censuses. A number of others collected related

information through their population censuses, which were taken at about the same time as the agricultural census. Poland; and Papua and New Guinea were among the countries which utilized the population census for collecting this information.

Fifty-nine countries inquired about the members of the holder's household, of which 10 did not subdivide them by sex. Thirty-four countries participated in the inquiry for the major occupation of the population. Many countries did not include, in their census questionnaires, major occupation as agricultural and nonagricultural, as suggested in the programme, but required the main and secondary occupation to be specified. The replies, in such cases, could then be tabulated for agricultural and nonagricultural occupation separately. Norway asked two questions to determine major occupation: (a) other occupation besides working on holding; (b) number of working days devoted to this occupation. The Central African Republic, like many other countries, limited its inquiry to persons aged 12 years and over.

The response to the second item of the programme, other persons living on the holding, was not very large. Europe, the Near East and the Far East did not investigate this item. Four countries in Latin America and 9 in the African region inquired about it specifically. Perhaps the occurrence of persons living on the holding outside the holder's household is so small that it was considered unimportant to include it specifically as an item in the agricultural census.

#### ADDITIONAL INFORMATION

Age of the population was asked by several countries other than those in the Near East region, where age classification was recommended. The age limit differed from country to country and this limit ranged between 10 and 16 years.

#### REGIONAL PROGRAMMES

##### *Programme for Europe*

The main addition introduced in this region's programme was the investigation about professional training in agriculture as an indication of



TABLE 43. - EXTENT OF PARTICIPATION IN SECTION 5, RELATING TO *farm population*

Region and country	Number of the holder's household					Other persons living on the holding				
	Total	Male	Female	Major occupation		Total	Male	Female	Major occupation	
				Agri-cultural	Non-agri-cultural				Agri-cultural	Non-agri-cultural
Item	51.1					51.2				
Item number	51.1					51.2				
<i>Total number of countries asking question (59)</i> .....	36	49	49	34	28	7	12	12	11	11
EUROPE (9) .....	5	8	8	6	5	—	—	—	2	2
Austria .....	—	X	X	X	X	—	—	—	—	—
Belgium .....	—	X	X	—	—	—	—	—	X	X
Germany (Fed. Rep.) .....	—	X	X	—	—	—	—	—	X	X
Ireland .....	X	—	—	—	—	—	—	—	—	—
Luxembourg .....	X	X	X	X	X	—	—	—	—	—
Malta and Gozo .....	X	X	X	X	X	—	—	—	—	—
Netherlands .....	X	X	X	X	X	—	—	—	—	—
Norway .....	—	X	X	—	—	—	—	—	—	—
Yugoslavia .....	X	X	X	X	X	—	—	—	—	—
LATIN AMERICA (11) .....	11	7	7	1	1	4	3	3	1	1
Argentina .....	X	X	X	—	—	—	—	—	—	—
Barbados .....	X	X	X	—	—	—	—	—	—	—
Bolivia .....	X	X	X	—	—	X	—	—	—	—
Colombia .....	X	—	—	—	—	—	X	X	—	—
Dominican Republic .....	X	—	—	—	—	—	—	—	—	—
Jamaica .....	X	—	—	—	—	X	—	—	—	—
Mexico .....	X	—	—	—	—	—	—	—	—	—
Panama .....	X	X	X	—	—	X	X	X	—	—
Paraguay .....	X	X	X	X	X	X	X	X	X	X
Surinam .....	X	X	X	—	—	—	—	—	—	—
Uruguay .....	X	X	X	—	—	—	—	—	—	—
NEAR EAST (5) .....	3	4	3	4	3	—	—	—	—	—
Iran .....	—	X	X	X	X	—	—	—	—	—
Iraq .....	X	—	—	—	—	—	—	—	—	—
Lebanon .....	X	X	—	X	—	—	—	—	—	—
Libya .....	X	X	X	X	X	—	—	—	—	—
Turkey .....	—	X	X	X	X	—	—	—	—	—
FAR EAST (14) .....	12	11	11	11	7	—	—	—	1	1
Brunei .....	X	X	X	—	—	—	—	—	—	—
Ceylon .....	X	X	X	X	X	—	—	—	—	—
China (Taiwan) .....	X	X	X	X	—	—	—	—	—	—
India .....	X	X	X	X	X	—	—	—	—	—
Indonesia .....	X	X	X	X	X	—	—	—	—	—
Japan .....	—	X	X	X	X	—	—	—	—	—
Korea Rep. of .....	X	X	X	X	X	—	—	—	—	—
Malaya, Fed. of .....	—	X	X	X	X	—	—	—	—	—
Nepal .....	X	X	X	X	X	—	—	—	—	—
North Borneo .....	X	X	X	X	X	—	—	—	X	X
Pakistan .....	X	—	—	X	X	—	—	—	—	—
Philippines .....	X	—	—	—	—	—	—	—	—	—
Sarawak .....	X	X	X	X	—	—	—	—	—	—
Viet-Nam, Rep. of .....	X	—	—	—	—	—	—	—	—	—
AFRICA (19) .....	5	18	19	12	12	3	9	9	7	7
Angola .....	—	X	X	X	X	—	—	—	—	—
Basutoland .....	—	X	X	X	X	—	—	—	—	—
Bechuanaland .....	—	X	X	—	—	—	X	X	—	—
Central African Republic .....	—	X	X	X	X	—	—	—	—	—
Congo (Brazzaville) .....	—	X	X	X	X	—	X	X	X	X
Gabon .....	—	X	X	X	X	—	X	X	X	X
Ghana .....	—	X	X	X	X	—	—	—	—	—
Guinea Rep. of .....	—	X	X	—	—	—	—	—	—	—
Kenya .....	—	X	X	—	—	—	—	—	—	—
Madagascar .....	—	X	X	X	X	—	—	—	—	—
Mali .....	X	X	X	X	X	X	X	X	X	X
Morocco .....	X	X	X	X	X	X	X	X	X	X
Portuguese Guinea .....	X	—	—	—	—	X	X	X	X	X
Senegal .....	—	X	X	X	X	—	—	—	—	—
South Africa .....	X	X	X	X	X	X	X	X	—	—
Togo .....	—	X	X	X	X	—	X	X	X	X
Tunisia .....	—	X	X	—	—	—	—	—	—	—
Uganda .....	X	X	X	—	—	—	—	—	—	—
Upper Volta .....	—	X	X	X	X	—	X	X	X	X
OCEANIA (1) .....	—	1	1	—	—	—	—	—	—	—
Australia .....	—	X	X	—	—	—	—	—	—	—

<sup>1</sup> Number of persons living on the holding. - <sup>2</sup> Separate questions for: (a) active population (in agriculture); (b) nonactive population.

its influence on the structure of the agricultural holdings. The question required an indication as to the number of persons (in the holder's household) who had attended one or more of the following agricultural schools or courses: (a) part-time day schools; (b) short courses; (c) winter schools; (d) full-time schools below university level; (e) correspondence schools; (f) university faculties. Only the highest level of instruction received was required to be indicated. Austria, Belgium, the Federal Republic of Germany and Norway investigated this item, as it best suited conditions prevalent in their respective countries. The Federal Republic of Germany, for instance, included one question about professional education or long experience for each of the permanent nonfamily workers. Norway listed separate questions for: (a) agricultural college; (b) horticultural college; (c) forestry college; (d) domestic science college.

#### *Programme for the Americas*

When censuses of population and agriculture were taken at the same time or sufficiently close together, it was suggested that, for international purposes, the population census be used to provide data for the population dependent on agriculture. Where the agricultural census was taken alone, data on farm population were to be collected. Two definitions were suggested and the choice was left to the respective countries, in accordance with their particular needs. The two suggestions were: (a) total number of persons resident on agricultural holdings; and (b) total number of persons employed during the reference period on the enumerated holdings, and their dependents. None of the countries that participated in this section adopted the second approach. The general practice approximated to the world programme item, i.e., members of the holder's household. The Dominican Republic asked for the number of persons living on the holding.

#### *Regional programme for the Near East*

A subdivision by age classes was introduced: (a) under 15 years; (b) 15 years of age and over. Iran, Libya and Turkey complied with this recommendation. The age distribution limit in the case of Turkey was 10 years.

#### *Programme for Asia and the Far East*

The major occupation of each male and female was required to be investigated. Most of the participants in this region followed the recommendation.

#### *Programme for Africa south of the Sahara*

In view of the modified definition of the household in this region, the number of households was also required to be tabulated in addition to the number of holdings reporting.

Major occupation in the world programme was modified to read "main occupation on which dependent." Furthermore, population mainly dependent on agriculture subdivided by sex was further subdivided into active and nonactive population, both for members of the household and for others. A majority of the participants, shown in Table 43, followed these recommendations. The exceptions were Angola, Bechuanaland, Ghana, Portuguese Guinea, Kenya, Madagascar, Mali, Morocco, Tunisia. South Africa, Togo and Upper Volta limited the inquiry to the active population in this respect.

## **Section 6: Agricultural power and machinery and general transport facilities**

### INTRODUCTION

The participation of the countries in this part of the programme has been presented in Tables 44 to 54. Almost 85 percent of the countries participating in the 1960 world census of agriculture included at least one item from this section of the world programme in their census questionnaires. However, the type of information collected differed considerably from that proposed in the programme. Because of the wide range of variation in the national censuses, no attempt has been made to indicate, through these synoptic tables, the degree of conformity of the national coverage with the information proposed in the programme. This comparison and analysis have been made in Chapter 4, dealing with concepts and definitions. The crosses in the tables indicate that the relevant programme item had been investigated in the censuses of

TABLE 44. - EXTENT OF PARTICIPATION IN SECTION 6, RELATING TO *source of power*

Region and country	Item	Mechanical power	Animal power			Source of electrical power		Human power only
			Total	Owned	Not owned	Purchased	Produced on holding	
	Item number	61.1	61.2	61.21	61.22	61.11 (a)	61.11 (b)	61.3
<i>Total number of countries asking question (46)</i>								
		33	33	11	9	15	12	23
<i>EUROPE (6)</i>								
		2	1	1	—	3	2	—
Austria		—	—	—	—	X	X	—
Belgium		—	—	—	—	X	X	—
Germany, (Fed. Rep.)		X	—	—	—	—	—	—
Ireland		—	—	—	—	X	—	—
Luxembourg		X	—	X	—	—	—	—
Spain		—	X	—	—	—	—	—
<i>NORTH AMERICA (3)</i>								
		—	—	—	—	3	2	—
Alaska		—	—	—	—	X	X	—
Canada		—	—	—	—	X	X	—
Hawaii		—	—	—	—	X	X	—
<i>LATIN AMERICA (16)</i>								
		14	14	2	2	5	4	12
Argentina		—	—	—	—	X	X	—
Bolivia		X	X	—	—	X	X	X
Brazil		X	X	—	—	X	X	X
Colombia		X	X	—	—	—	—	X
Costa Rica		X	X	—	—	X	X	X
Dominican Republic		X	X	—	—	—	—	X
Ecuador		X	X	X	X	—	—	X
El Salvador		X	X	—	—	—	—	X
Guatemala		X	X	—	—	—	—	X
Mexico		X	X	—	—	—	—	X
Nicaragua		X	X	—	—	—	—	—
Panama		X	X	—	—	—	—	X
Paraguay		X	X	X	X	—	—	X
Peru		X	X	—	—	—	—	X
Venezuela		X	X	—	—	—	—	X
Virgin Islands (U.S.)		—	—	—	—	X	—	—
<i>NEAR EAST (5)</i>								
		4	4	1	1	—	—	1
Iran		—	—	X	X	—	—	X
Iraq		X	X	—	—	—	—	—
Lebanon		X	X	—	—	—	—	—
Libya		X	X	—	—	—	—	—
Turkey		X	X	—	—	—	—	—
<i>FAR EAST (10)</i>								
		9	10	5	4	2	2	6
Brunei		X	X	X	X	—	—	—
Indonesia		X	X	X	X	—	—	X
Japan		X	X	—	—	—	—	X
Korea, Rep. of		X	X	—	—	—	—	X
Malaya, Fed. of		—	X	X	X	X	X	—
Nepal		X	X	—	—	—	—	X
North Borneo		X	X	X	—	—	—	X
Philippines		X	X	X	—	X	X	X
Sarawak		X	X	X	X	—	—	—
Thailand		X	X	—	—	—	—	X
<i>AFRICA (6)</i>								
		4	4	2	2	2	2	4
Angola		X	X	—	—	—	—	X
Basutoland		—	—	X	X	—	—	—
Bechuanaland		X	X	—	—	—	—	X
Guinea, Rep. of		X	X	—	—	—	—	X
Morocco		X	X	X	X	X	X	X
Rhodesia and Nyasaland, Fed. of		—	—	—	—	X	X	—

NOTE: Oceania did not participate in this part of section 6.

TABLE 45. - EXTENT OF PARTICIPATION IN SECTION 6, RELATING TO *stationary power-producing machinery*

Region and country	Item	Prime movers				Other prime movers (specify)	Electric generators	Electric motors
		Internal combustion motors	Steam engines, including locomobiles	Windmills	Water-wheels			
	Item number	62.11	62.12	62.13	62.14	62.19	62.2	62.3
<i>Total number of countries asking question (45)</i>		30	11	14	10	9	12	39
EUROPE (12) .....		9	5	2	2	3	2	12
Austria .....	X	X	—	—	—	—	—	X
Belgium .....	X	X	X	—	—	X	—	X
Finland .....	X	X	—	—	—	—	—	X
Germany (Fed. Rep.) .....	—	X	—	—	—	—	—	X
Ireland .....	—	—	—	—	—	X	—	X
Italy .....	X	X	—	X	X	X	X	X
Luxembourg .....	X	—	—	—	—	—	—	X
Netherlands .....	—	—	—	—	—	—	—	X
Norway .....	X	—	—	—	—	—	—	X
Poland .....	X	—	X	X	—	—	X	X
Spain .....	X	—	—	—	—	—	—	X
Yugoslavia .....	X	—	—	—	—	—	—	X
NORTH AMERICA (1) .....		—	—	—	—	—	—	1
Canada .....	—	—	—	—	—	—	—	X
LATIN AMERICA (12) .....		10	2	4	3	2	3	11
Argentina .....	X	X	X	X	—	—	—	X
Barbados .....	X	—	—	—	—	—	—	X
Colombia .....	X	—	—	—	—	—	—	X
El Salvador .....	X	—	—	—	—	—	—	X
Guatemala .....	X	—	—	—	—	X	X	X
Mexico .....	—	—	—	—	—	—	—	X
Panama .....	X	—	—	—	—	—	—	X
Paraguay .....	X	—	X	—	—	—	—	X
Peru .....	X	—	—	—	X	—	—	X
Trinidad and Tobago .....	—	X	—	—	—	—	X	X
Uruguay .....	X	—	X	X	—	X	X	X
Venezuela .....	X	—	X	X	—	—	—	X
NEAR EAST (5) .....		3	1	3	2	—	2	4
Iraq .....	—	—	X	—	—	—	—	X
Lebanon .....	X	X	X	X	—	—	X	X
Libya .....	X	—	X	—	—	—	X	X
Sudan .....	X	—	—	—	—	—	—	X
Turkey .....	—	—	—	X	—	—	—	—
FAR EAST (7) .....		3	2	2	2	2	—	5
Brunei .....	—	—	X	X	—	—	—	—
Indonesia .....	X	—	—	—	—	—	—	X
Japan .....	X	—	—	—	—	—	—	X
Korea, Rep. of .....	X	—	—	—	—	X	—	X
Malaya, Fed. of .....	X	X	—	—	—	X	—	X
North Borneo .....	—	X	—	—	—	X	—	X
Thailand .....	—	—	X	X	—	—	—	X
AFRICA (7) .....		5	1	3	1	2	5	5
Angola .....	X	X	X	X	—	—	X	X
Bechuanaland .....	X	—	X	—	—	—	X	—
Ghana .....	X	—	—	—	—	—	—	X
Madagascar .....	—	—	—	—	—	X	X	—
Morocco .....	X	—	—	—	—	X	X	X
South Africa .....	X	—	X	—	—	X	X	X
Tunisia .....	X	—	—	—	—	—	—	X
OCEANIA (1) .....		—	—	—	—	—	—	1
New Zealand .....	—	—	—	—	—	—	—	X

<sup>1</sup> Windmill and waterwheel together.

TABLE 46. - EXTENT OF PARTICIPATION IN SECTION 6, RELATING TO *tractors*

Region and country	Item	Tractors			Garden tractors and other one-axle motorized equipment	Aggregate horsepower of tractors owned by holder
		Total	Wheel tractors (two-axle only)	Tracklaying tractors (two-axle only)		
	Item number	63	63.1	63.2	63.3	63.4
<i>Total number of countries asking question (71) ...</i>		49	30	28	22	6
EUROPE (15) .....		11	3	2	8	2
Austria .....	X	—	—	—	X	—
Belgium .....	X	—	—	—	X	—
Denmark .....	—	X	—	—	X	—
Finland .....	X	—	—	—	—	—
Germany (Fed. Rep.) .....	X	—	—	—	X	—
Ireland .....	X	—	—	—	—	—
Italy .....	X	—	—	—	—	X
Luxembourg .....	—	X	—	—	X	—
Malta and Gozo .....	—	X	X	X	X	—
Netherlands .....	X	—	—	—	—	—
Norway .....	—	—	X	X	X	—
Poland .....	X	—	—	—	—	—
Spain .....	X	—	—	—	X	X
Sweden .....	X	—	—	—	—	—
Yugoslavia .....	X	—	—	—	—	—
NORTH AMERICA (4) .....		1	3	3	3	—
Alaska .....	—	X	X	X	X	—
Canada .....	X	—	—	—	—	—
Hawaii .....	—	X	X	X	X	—
United States .....	—	X	X	X	X	—
LATIN AMERICA (21) .....		15	8	8	4	2
Argentina .....	X	—	—	—	—	—
Barbados .....	—	X	X	X	X	—
Bolivia .....	—	X	X	X	—	—
Brazil .....	X	—	—	—	—	—
Colombia .....	X	—	—	—	—	X
Costa Rica .....	—	X	X	X	—	—
Dominican Republic .....	X	—	—	—	—	—
Ecuador .....	—	X	X	X	—	—
El Salvador .....	X	—	—	—	—	—
Guatemala .....	X	—	—	—	—	—
Jamaica .....	—	X	X	X	—	—
Mexico .....	X	—	—	—	—	X
Panama .....	—	X	X	X	—	—
Paraguay .....	X	—	—	—	—	—
Peru .....	X	—	—	—	—	—
Puerto Rico .....	X	—	—	—	—	—
Surinam .....	X	X	X	X	X	—
Trinidad and Tobago .....	X	—	—	—	X	—
Uruguay .....	X	—	—	—	—	—
Venezuela .....	X	X	X	X	X	—
Virgin Islands (U.S.) .....	X	—	—	—	—	—

TABLE 46. - EXTENT OF PARTICIPATION IN SECTION 6, RELATING TO *tractors (concluded)*

Region and country	Item	Tractors			Garden tractors and other one-axle motorized equipment	Aggregate horsepower of tractors owned by holder
		Total	Wheel tractors (two-axle only)	Tracklaying tractors (two-axle only)		
Item number	63	63.1	63.2	63.3	63.4	
NEAR EAST (6)	5	1	1	1	—	
Iran	X	—	—	—	—	
Iraq	X	—	—	—	—	
Lebanon	X	—	—	—	—	
Libya	—	X	X	X	—	
Sudan	X	—	—	—	—	
Turkey	X	—	—	—	—	
FAR EAST (11)	9	5	4	2	—	
Brunei	X	—	—	X	—	
Ceylon	X	—	—	—	—	
China (Taiwan)	—	X	—	—	—	
India	X	—	—	—	—	
Indonesia	X	X	X	—	—	
Japan	X	—	—	—	—	
Malaya, Fed. of	X	X	X	X	—	
North Borneo	—	X	X	—	—	
Philippines	X	—	—	—	—	
Thailand	X	—	—	—	—	
Viet-Nam, Rep. of	X	X	X	—	—	
AFRICA (12)	7	8	8	4	1	
Angola	X	—	—	—	—	
Basutoland	X	—	—	—	—	
Bechuanaland	X	X	X	X	—	
Ghana	X	X	X	—	—	
Guinea, Rep. of	—	X	X	X	—	
Madagascar	—	X	X	X	—	
Mali	X	—	—	—	—	
Morocco	—	X	X	X	X	
Rhodesia and Nyasaland, Fed. of	X	—	—	—	—	
South Africa	X	X	X	—	—	
Tanganyika	—	X	X	—	—	
Tunisia	—	X	X	—	—	
OCEANIA (2)	1	2	2	—	1	
Australia	X	X	X	—	X	
New Zealand	—	X	X	—	—	

TABLE 47. - EXTENT OF PARTICIPATION IN SECTION 6, RELATING TO *tillage, planting and cultivating equipment*

Region and country	Ploughs	Rotary tillers	Tine harrows	Disk harrows	Seed drills	Culti-vators and hoes	Fertilizer distribu-tors	Sprayers and dusters	Other selected tillage, planting and cultivating machinery and imple-ments
Item									
Item number	64.1	64.2	64.3	64.4	64.5	64.6	64.7	64.8	64.9
<i>Total number of countries asking ques-tion (64)</i> .....	52	9	32	35	40	43	19	43	30
EUROPE (13) .....	11	2	4	8	11	11	8	11	8
Austria .....	—	—	—	—	X	X	X	X	X
Belgium .....	<sup>1</sup> X	—	X	X	<sup>1</sup> X	<sup>1</sup> X	X	<sup>2</sup> X	X
Finland .....	<sup>1a</sup> X	—	—	<sup>1</sup> X	<sup>1</sup> X	<sup>1</sup> X	—	—	X
Germany (Fed. Rep.) .....	<sup>1b</sup> X	—	—	—	<sup>1</sup> X	<sup>1b</sup> X	X	X	X
Ireland .....	X	—	X	X	X	X	X	<sup>2</sup> X	—
Italy .....	<sup>1b</sup> X	—	—	—	X	X	—	—	—
Luxembourg .....	<sup>1</sup> X	—	—	X	X	X	X	<sup>2</sup> X	X
Malta and Gozo .....	—	X	—	—	—	—	—	<sup>2</sup> X	—
Netherlands .....	<sup>1</sup> X	X	—	<sup>1</sup> X	—	<sup>1</sup> X	<sup>1</sup> X	<sup>2</sup> X	X
Norway .....	<sup>1</sup> X	—	—	<sup>1</sup> X	<sup>1</sup> X	<sup>1</sup> X	<sup>1</sup> X	<sup>2</sup> X	X
Poland .....	<sup>1</sup> X	—	—	—	X	<sup>2</sup> X	—	X	—
Spain .....	<sup>1</sup> X	—	<sup>1, 1</sup> X	<sup>1, 1</sup> X	X	—	X	<sup>2</sup> X	X
Yugoslavia .....	X	—	<sup>1</sup> X	<sup>1</sup> X	X	X	—	X	—
NORTH AMERICA (1) .....	—	—	—	—	—	—	—	1	—
Hawaii .....	—	—	—	—	—	—	—	X	—
LATIN AMERICA (17) .....	16	3	10	10	14	12	4	11	4
Argentina .....	<sup>1</sup> X	—	<sup>1</sup> X	<sup>1</sup> X	<sup>1</sup> X	<sup>1</sup> X	—	<sup>2</sup> X	—
Barbados .....	<sup>1</sup> X	X	<sup>1, 1</sup> X	<sup>1, 1</sup> X	—	<sup>1</sup> X	—	<sup>2</sup> X	—
Bolivia .....	<sup>1</sup> X	—	—	—	<sup>1</sup> X	—	—	—	—
Brazil .....	<sup>1</sup> X	—	<sup>1</sup> X	<sup>1</sup> X	X	X	—	X	—
Costa Rica .....	<sup>1</sup> X	—	<sup>1</sup> X	<sup>1</sup> X	X	—	—	X	—
Dominican Republic .....	X	—	—	—	X	X	—	—	—
Ecuador .....	<sup>2</sup> X	—	—	—	X	—	—	X	—
Guatemala .....	X	—	—	—	X	X	—	—	—
Jamaica .....	<sup>1</sup> X	—	—	—	—	<sup>6</sup> X	—	<sup>2</sup> X	X
Mexico .....	X	—	<sup>1</sup> X	<sup>1</sup> X	X	X	—	—	—
Panama .....	<sup>1</sup> X	—	—	—	<sup>1</sup> X	—	—	—	—
Paraguay .....	<sup>1</sup> X	—	<sup>1</sup> X	<sup>1</sup> X	<sup>1</sup> X	<sup>1</sup> X	<sup>1</sup> X	<sup>1</sup> X	—
Peru .....	—	—	—	—	X	X	—	—	—
Surinam .....	<sup>1, 7</sup> X	—	<sup>7</sup> X	<sup>7</sup> X	—	—	—	<sup>1</sup> X	—
Trinidad and Tobago .....	X	X	<sup>9</sup> X	<sup>9</sup> X	X	<sup>6</sup> X	X	<sup>2</sup> X	X
Uruguay .....	X	X	X	X	X	X	X	X	X
Venezuela .....	X	—	X	X	X	X	X	X	X

TABLE 47. - EXTENT OF PARTICIPATION IN SECTION 6, RELATING TO *tillage, planting and cultivating equipment (concluded)*

Region and country	Ploughs	Rotary tillers	Tine harrows	Disk harrows	Seed drills	Cultivators and hoes	Fertilizer distributors	Sprayers and dusters	Other selected tillage, planting and cultivating machinery and implements
Item									
Item number	64.1	64.2	64.3	64.4	64.5	64.6	64.7	64.8	64.9
NEAR EAST (4).....	3	1	2	3	4	3	1	2	2
Lebanon .....	X	X	<sup>1</sup> X	<sup>1</sup> X	X	X	X	X	—
Libya .....	—	—	—	—	X	—	—	—	—
Sudan .....	<sup>1</sup> X	—	—	<sup>1</sup> X	<sup>1</sup> X	<sup>1</sup> X	—	<sup>1</sup> X	X
Turkey .....	<sup>1</sup> X	—	<sup>2</sup> X	<sup>2</sup> X	X	<sup>2</sup> X	—	—	X
FAR EAST (12).....	10	1	6	7	2	4	1	9	4
Brunei .....	<sup>1</sup> X	—	—	X	—	X	—	X	—
Ceylon .....	X	—	<sup>4</sup> X	<sup>4</sup> X	X	—	—	<sup>2</sup> X	—
China (Taiwan).....	<sup>1b</sup> X	—	X	X	<sup>1b</sup> X	<sup>1b</sup> X	<sup>1b</sup> X	X	X
India .....	X	—	<sup>4</sup> X	<sup>4</sup> X	—	—	—	—	—
Indonesia .....	X	—	—	—	—	X	—	X	X
Japan .....	—	—	—	—	—	—	—	<sup>2</sup> X	—
Korea, Rep. of.....	X	—	—	—	—	—	—	<sup>2</sup> X	X
Malaya, Fed. of.....	<sup>1</sup> X	—	<sup>4</sup> X	<sup>4</sup> X	—	<sup>1b</sup> X	—	<sup>2</sup> X	—
Nepal .....	X	—	<sup>4</sup> X	<sup>4</sup> X	—	—	—	—	X
Pakistan .....	X	—	—	—	—	—	—	—	—
Philippines .....	X	—	<sup>4</sup> X	<sup>4</sup> X	—	—	—	X	—
Thailand .....	—	—	—	—	—	—	—	X	—
AFRICA (16).....	11	2	10	7	8	12	4	8	11
Angola.....	X	—	X	—	—	X	—	—	X
Basutoland .....	X	—	X	—	—	X	—	—	X
Bechuanaland.....	<sup>1</sup> X	—	<sup>1</sup> X	<sup>1</sup> X	<sup>1</sup> X	<sup>1</sup> X	—	<sup>2</sup> X	X
Central African Republic.....	—	—	—	—	—	X	—	—	X
Congo (Brazzaville).....	—	—	—	—	—	X	—	—	X
Gabon.....	—	—	—	—	—	X	—	X	X
Ghana.....	<sup>1</sup> X	X	<sup>1, 4</sup> X	<sup>1, 4</sup> X	—	—	<sup>1</sup> X	<sup>2</sup> X	X
Guinea, Rep. of.....	—	—	—	X	X	—	—	—	X
Madagascar .....	X	—	<sup>4</sup> X	<sup>4</sup> X	X	—	—	—	X
Mali.....	X	X	X	—	X	X	—	X	X
Morocco .....	X	—	X	X	X	X	X	X	X
South Africa .....	X	—	X	X	X	X	X	X	—
Tanganyika.....	X	—	X	—	—	—	—	X	—
Togo .....	—	—	—	—	—	X	—	—	—
Tunisia .....	<sup>1</sup> X	—	—	—	X	X	X	<sup>1</sup> X	—
Upper Volta.....	X	—	<sup>4</sup> X	<sup>4</sup> X	X	X	—	—	X
OCEANIA (1).....	1	—	—	—	1	1	1	1	1
Australia .....	X	—	—	—	X	X	X	X	X

<sup>1</sup> Separate questions for (a) animal-operated; (b) tractor-operated. - <sup>2</sup> Separate questions for (a) knapsack; (b) tractor-operated. - <sup>3</sup> Cultivators and spring harrows together. - <sup>4</sup> Not specified whether tine or disk harrows. - <sup>5</sup> Ploughs (tractor-operated), including rakes. - <sup>6</sup> Rotary hoes and motor scythes. - <sup>7</sup> Ploughs (tractor-operated), including harrows. - <sup>8</sup> Harrows (unspecified) and cultivators.



TABLE 48. - EXTENT OF PARTICIPATION IN SECTION 6, RELATING TO *harvesting and threshing equipment*

Region and country	Mowers	Rakes	Reapers and binders	Com-bines	Corn pickers	Potato harvest-ing machinery	Sugar-beet harvest-ing machinery	Thresh-ers	Others	Hay balers
Item number	65.1	65.2	65.3	65.4	65.5	65.6	65.7	65.8	65.9	65.91
<i>Total number of countries asking ques-tion (62)</i> .....	34	23	23	40	6	15	5	47	27	15
EUROPE (15) .....	11	10	12	11	—	9	4	13	9	6
Austria .....	<sup>1</sup> X	—	X	X	—	X	X	X	X	X
Belgium .....	<sup>1</sup> X	X	<sup>1</sup> X	X	—	X	X	X	X	X
Denmark .....	—	—	—	X	—	—	—	—	X	—
Finland .....	—	X	<sup>1</sup> X	—	—	<sup>1</sup> X	—	X	—	—
Germany (Fed. Rep.) .....	<sup>1</sup> X	X	<sup>1</sup> X	<sup>1</sup> X	—	X	X	X	X	X
Ireland .....	<sup>1</sup> X	X	X	X	—	X	—	X	X	—
Italy .....	X	—	X	X	—	—	—	X	—	—
Luxembourg .....	<sup>1</sup> X	X	X	<sup>1</sup> X	—	<sup>1</sup> X	—	X	X	—
Malta and Gozo .....	—	X	—	—	—	—	—	X	X	X
Netherlands .....	X	X	X	X	—	X	X	X	X	X
Norway .....	<sup>1</sup> X	X	<sup>1</sup> X	<sup>1</sup> X	—	<sup>1</sup> X	X	X	X	X
Poland .....	X	X	—	X	—	X	—	X	—	—
Spain .....	X	X	X	—	—	—	—	X	—	—
Sweden .....	—	X	X	X	—	—	—	X	—	X
Yugoslavia .....	X	—	X	—	—	—	—	X	X	—
NORTH AMERICA (4) .....	—	—	1	3	1	1	—	1	4	3
Alaska .....	—	—	—	X	—	X	—	—	X	—
Canada .....	—	—	X	X	—	—	—	X	X	X
Hawaii .....	—	—	—	X	—	—	—	—	X	X
United States .....	—	—	—	X	X	—	—	—	X	X
LATIN AMERICA (17) .....	11	4	4	13	1	1	—	13	4	3
Argentina .....	<sup>1</sup> X	<sup>1</sup> X	<sup>1b</sup> X	X	X	<sup>1</sup> X	—	X	—	X
Bolivia .....	—	—	—	X	—	—	—	—	—	—
Brazil .....	<sup>1</sup> X	—	—	<sup>1</sup> X	—	—	—	—	—	—
Colombia .....	—	—	—	X	—	—	—	X	—	—
Costa Rica .....	—	—	—	X	—	—	—	—	—	—
Dominican Republic .....	—	X	—	X	—	—	—	X	—	—
Ecuador .....	X	<sup>1</sup> X	—	X	—	—	—	X	—	—
El Salvador .....	—	—	—	—	—	—	—	X	—	—
Guatemala .....	X	—	—	X	—	—	—	X	—	—
Mexico .....	X	—	X	X	—	—	—	X	X	X
Panama .....	—	—	—	X	—	—	—	—	X	—
Paraguay .....	<sup>1</sup> X	<sup>1</sup> X	—	X	—	—	—	X	X	—
Peru .....	X	—	—	X	—	—	—	X	—	—
Surinam .....	X	—	—	X	—	—	—	X	—	—
Trinidad and Tobago .....	X	—	—	—	—	—	—	X	—	—
Uruguay .....	X	—	—	—	—	—	—	X	X	X
Venezuela .....	X	—	X	X	—	—	—	X	X	—
NEAR EAST (6) .....	3	2	2	6	—	—	1	5	3	—
Iran .....	X	—	—	X	—	—	—	X	—	—
Iraq .....	—	—	—	X	—	—	—	X	—	—
Lebanon .....	X	X	X	X	—	—	X	X	—	—
Libya .....	—	—	—	X	—	—	—	—	X	—
Sudan .....	<sup>1</sup> X	—	—	X	—	—	—	X	X	—
Turkey .....	—	X	X	X	—	—	—	X	X	—
FAR EAST (9) .....	3	1	—	1	—	—	—	8	1	—
Brunei .....	—	—	—	—	—	—	—	X	—	—
Ceylon .....	—	—	—	—	—	—	—	X	—	—
China (Taiwan) .....	—	—	—	—	—	—	—	X	—	—
Japan .....	—	—	—	—	—	—	—	X	—	—
Korea, Rep. of .....	—	—	—	—	—	—	—	X	—	—
Malaya, Fed. of .....	<sup>1b</sup> X	<sup>1b</sup> X	—	—	—	—	—	X	—	—
Nepal .....	X	—	—	—	—	—	—	X	—	—
Philippines .....	X	—	—	X	—	—	—	X	—	—
Thailand .....	—	—	—	—	—	—	—	X	—	—
AFRICA (9) .....	5	4	4	6	3	3	—	7	4	2
Bechuanaland .....	X	X	X	X	—	X	—	X	X	—
Ghana .....	—	—	—	X	X	—	—	—	—	—
Guinea, Rep. of .....	—	—	X	—	—	—	—	X	—	—
Madagascar .....	X	X	—	—	—	—	—	X	X	—
Mali .....	—	—	—	—	—	—	—	X	—	—
Morocco .....	X	—	—	X	X	X	—	X	X	—
South Africa .....	<sup>1</sup> X	X	—	X	X	X	—	X	X	X
Tanganyika .....	—	—	X	X	—	—	—	—	—	—
Tunisia .....	X	X	X	X	—	—	—	X	—	X
OCEANIA (2) .....	1	2	—	—	1	1	—	—	2	1
Australia .....	<sup>1</sup> X	X	—	—	X	X	—	—	X	X
New Zealand .....	—	X	—	—	—	—	—	—	X	—

<sup>1</sup> Separate questions for (a) animal-operated; (b) tractor-operated or self-propelled. - \* Rakes, including ploughs (tractor-operated).

TABLE 49. - EXTENT OF PARTICIPATION IN SECTION 6, RELATING TO *food and feed processing and handling equipment*

Region and country	Item	Grain cleaners and sorters	Potato, onion, and fruit sorters and graders	Grain grinders and crushers	Sugarcane crushers	Corn shellers and shredders	Root cutters	Chaff cutters	Other selected food and feed processing and handling equipment
		66.11	66.12	66.13	66.14	66.15	66.16	66.17	66.19
<i>Total number of countries asking question (51)</i>		14	5	10	10	14	4	6	36
EUROPE (12) .....		7	2	4	—	3	3	4	7
Austria .....	—	—	—	—	—	—	—	X	X
Belgium .....	X	X	X	—	—	—	X	X	X
Finland .....	X	—	—	—	—	—	—	—	—
Germany (Fed. Rep.) .....	—	—	—	—	—	—	—	X	X
Ireland .....	—	—	X	—	—	—	—	—	—
Italy .....	—	—	—	—	—	X	—	—	X
Luxembourg .....	X	X	—	—	—	—	X	—	X
Malta and Gozo .....	—	—	X	—	—	—	—	—	—
Netherlands .....	X	—	—	—	—	—	—	—	—
Poland .....	X	—	—	—	—	—	—	X	—
Spain .....	X	—	X	—	—	X	X	—	X
Yugoslavia .....	X	—	—	—	—	X	—	—	X
NORTH AMERICA (3) .....	—	—	—	—	—	—	—	—	3
Alaska .....	—	—	—	—	—	—	—	—	X
Hawaii .....	—	—	—	—	—	—	—	—	X
United States .....	—	—	—	—	—	—	—	—	X
LATIN AMERICA (14) .....	1	2	2	6	7	—	—	—	8
Argentina .....	—	—	—	—	X	—	—	—	—
Bolivia .....	—	—	—	X	—	—	—	—	—
Colombia .....	—	—	—	X	—	—	—	—	—
Dominican Republic .....	—	—	—	—	X	—	—	—	X
Ecuador .....	—	—	—	X	—	—	—	—	X
Guatemala .....	—	—	—	X	—	—	—	—	X
Jamaica .....	—	—	X	—	X	—	—	—	X
Mexico .....	—	—	—	—	X	—	—	—	X
Panama .....	—	—	—	X	—	—	—	—	—
Paraguay .....	X	X	X	—	X	—	—	—	—
Puerto Rico .....	—	—	—	—	—	—	—	—	X
Trinidad and Tobago .....	—	X	—	—	—	—	—	—	X
Uruguay .....	—	—	—	—	X	—	—	—	X
Venezuela .....	—	—	—	X	X	—	—	—	X
NEAR EAST (2) .....	1	—	—	—	—	—	—	—	1
Lebanon .....	—	—	—	—	—	—	—	—	X
Turkey .....	X	—	—	—	—	—	—	—	—
FAR EAST (9) .....	1	—	1	4	—	—	1	—	7
China (Taiwan) .....	—	—	—	—	—	—	X	—	X
India .....	—	—	—	—	X	—	—	—	X
Indonesia .....	X	—	—	—	X	—	—	—	X
Korea, Rep. of .....	—	—	—	—	—	—	—	—	X
Nepal .....	—	—	X	—	—	—	—	—	—
North Borneo .....	—	—	—	—	—	—	—	—	X
Pakistan .....	—	—	—	—	X	—	—	—	—
Philippines .....	—	—	—	—	X	—	—	—	X
Thailand .....	—	—	—	—	—	—	—	—	X
AFRICA (10) .....	4	1	3	—	4	—	—	2	9
Angola .....	X	—	—	—	—	—	—	—	X
Bechuanaland .....	X	X	X	—	X	—	—	X	X
Ghana .....	X	—	X	—	X	—	—	—	X
Guinea, Rep. of .....	—	—	X	—	—	—	—	—	—
Madagascar .....	X	—	—	—	X	—	—	—	X
Mali .....	—	—	—	—	X	—	—	—	X
Morocco .....	—	—	—	—	—	—	—	—	X
South Africa .....	—	—	—	—	—	—	—	X	X
Togo .....	—	—	—	—	—	—	—	—	X
Tunisia .....	—	—	—	—	—	—	—	—	X
OCEANIA (1) .....	—	—	—	—	—	—	—	—	1
Australia .....	—	—	—	—	—	—	—	—	X

TABLE 50. - EXTENT OF PARTICIPATION IN SECTION 6, RELATING TO *livestock equipment*

Region and country	Item	Milking machines (number of units)	Cream separators	Incubators		Other selected livestock equipment
				Capacity under 500 eggs	Capacity 500 eggs and over	
	Item number	66.21	66.22	66.23	66.24	66.29
<i>Total number of countries asking question (32).....</i>		24	10	10	11	18
EUROPE (10) .....		10	2	1	2	3
Austria .....		X	—	—	—	—
Belgium .....		X	X	X	X	X
Denmark .....		X	—	—	—	—
Germany (Fed. Rep.) .....		X	—	—	—	X
Ireland .....		X	—	—	—	—
Italy .....		X	X	—	—	X
Luxembourg .....		X	—	—	—	—
Malta and Gozo .....		X	—	—	—	—
Netherlands .....		X	—	—	—	—
Norway .....		X	—	—	X	—
NORTH AMERICA (4) .....		4	—	—	—	4
Alaska .....		X	—	—	—	X
Canada .....		X	—	—	—	X
Hawaii .....		X	—	—	—	X
United States .....		X	—	—	—	X
LATIN AMERICA (6) .....		4	3	4	4	4
Argentina .....		X	X	—	—	X
Ecuador .....		X	—	<sup>1</sup> X	<sup>1</sup> X	—
Paraguay .....		X	X	<sup>1</sup> X	<sup>1</sup> X	—
Puerto Rico .....		—	—	—	—	X
Uruguay .....		X	X	<sup>1</sup> X	<sup>1</sup> X	X
Venezuela .....		—	—	<sup>1</sup> X	<sup>1</sup> X	X
NEAR EAST (3) .....		1	1	—	—	1
Lebanon .....		—	—	—	—	X
Libya .....		X	—	—	—	—
Turkey .....		—	X	—	—	—
FAR EAST (2) .....		—	—	2	2	1
Brunei .....		—	—	<sup>1</sup> X	<sup>1</sup> X	X
Philippines .....		—	—	<sup>1</sup> X	<sup>1</sup> X	—
AFRICA (5) .....		3	3	3	3	3
Bechuanaland .....		—	X	<sup>1</sup> X	<sup>1</sup> X	—
Ghana .....		X	—	<sup>1</sup> X	<sup>1</sup> X	X
Madagascar .....		X	X	—	—	—
Morocco .....		—	—	—	—	X
South Africa .....		X	X	<sup>1</sup> X	<sup>1</sup> X	X
OCEANIA (2) .....		2	1	—	—	2
Australia .....		X	—	—	—	X
New Zealand .....		X	X	—	—	X

<sup>1</sup>Incubators, capacity not specified.

TABLE 51. - EXTENT OF PARTICIPATION IN SECTION 6, RELATING TO *transport means*

Region and country	Wheelbarrows	Carts	Trailers	Jeeps, station wagons and trucks	Automobiles	Light railways	Conveyers and elevators	Other means of transport
Item	66.31	66.32	66.33	66.34	66.35	66.36	66.37	66.38
Item number	66.31	66.32	66.33	66.34	66.35	66.36	66.37	66.38
Total number of countries asking question (62)	7	39	25	46	28	4	10	19
EUROPE (13)	1	9	6	9	5	—	7	3
Austria	—	X	—	X	X	—	X	X
Belgium	—	—	X	X	—	—	X	—
Finland	—	X	—	—	—	—	—	—
Germany (Fed. Rep.)	—	X	—	X	X	—	X	X
Ireland	—	X	X	X	X	—	—	—
Italy	—	—	—	X	—	—	X	—
Luxembourg	X	X	X	X	X	—	X	X
Malta and Gozo	—	—	—	—	—	—	—	—
Netherlands	—	X	—	—	—	—	X	—
Norway	—	<sup>1</sup> X	<sup>1</sup> X	X	X	—	X	—
Poland	—	—	X	—	—	—	—	—
Spain	—	X	X	X	—	—	—	—
Yugoslavia	—	X	—	—	—	—	—	—
NORTH AMERICA (4)	—	—	—	4	4	—	2	—
Alaska	—	—	—	X	X	—	X	—
Canada	—	—	—	X	X	—	—	—
Hawaii	—	—	—	X	X	—	X	—
United States	—	—	—	X	X	—	—	—
LATIN AMERICA (16)	1	13	7	15	9	—	1	5
Argentina	—	X	X	X	X	—	—	—
Barbados	—	X	X	X	X	—	—	—
Bolivia	—	X	—	X	X	—	—	X
Brazil	—	—	—	X	—	—	—	X
Dominican Republic	—	—	—	X	—	—	—	—
Guatemala	—	X	—	X	—	—	—	—
Jamaica	—	X	X	X	—	—	—	—
Mexico	—	X	—	X	—	—	—	—
Panama	—	X	—	X	—	—	—	—
Paraguay	X	X	X	X	X	—	—	—
Puerto Rico	—	X	—	X	—	—	—	—
Surinam	—	X	—	X	X	—	—	X
Trinidad and Tobago	—	X	X	X	X	—	X	X
Uruguay	—	X	X	X	X	—	—	X
Venezuela	—	X	—	—	X	—	—	—
Virgin Islands (U.S.)	—	—	—	—	X	—	—	—
NEAR EAST (4)	—	2	2	3	1	1	—	2
Lebanon	—	—	—	—	—	—	—	X
Libya	—	—	—	X	—	—	—	X
Sudan	—	X	X	X	—	X	—	—
Turkey	—	X	X	X	X	—	—	—
FAR EAST (8)	1	6	3	5	2	1	—	5
Brunei	—	—	X	X	X	—	—	—
China (Taiwan)	—	X	X	X	—	—	—	X
India	—	X	—	—	—	—	—	X
Indonesia	—	X	—	X	—	—	—	X
Korea, Rep. of	X	X	—	—	—	—	—	X
Malaya, Fed. of	—	X	X	X	X	X	—	X
Nepal	—	—	—	—	—	—	—	X
Philippines	—	X	—	X	—	—	—	—
AFRICA (15)	4	9	7	8	7	2	—	4
Basutoland	—	X	—	X	—	—	—	—
Bechuanaland	X	X	X	X	X	—	—	—
Congo (Brazzaville)	X	—	—	—	—	—	—	X
Gabon	—	—	—	—	—	—	—	—
Ghana	—	X	X	X	—	—	—	—
Guinea, Rep. of	X	—	—	—	—	—	—	—
Madagascar	X	X	X	X	X	—	—	X
Mali	—	X	—	—	—	—	—	—
Morocco	—	X	X	X	X	—	—	X
Rhodesia and Nyasaland, Fed. of	—	—	—	X	X	—	—	—
South Africa	—	—	X	X	X	X	—	—
Tanganyika	—	—	X	—	X	X	—	—
Togo	—	X	—	—	—	—	—	X
Tunisia	—	X	X	X	X	—	—	—
Upper Volta	—	X	—	—	—	—	—	—
OCEANIA (2)	—	—	—	2	—	—	—	—
Australia	—	—	—	X	—	—	—	—
New Zealand	—	—	—	X	—	—	—	—

<sup>1</sup> One item for farm wagons, carts and trailers.

TABLE 52. - EXTENT OF PARTICIPATION IN SECTION 6, RELATING TO *irrigation machinery*

Region and country	Item	Irrigation machinery		
		Operated by mechanical power	Operated by animals	Human power only
Item number	67.1	67.2	67.3	
<i>Total number of countries asking question (28)</i> .....	28	5	5	
EUROPE (4) .....	4	1	1	
Austria .....	X	—	—	
Finland .....	X	—	—	
Spain .....	X	—	—	
Yugoslavia .....	X	X	X	
LATIN AMERICA (4) .....	4	—	1	
Ecuador .....	X	—	—	
Jamaica .....	X	—	X	
Uruguay .....	X	—	—	
Venezuela .....	X	—	—	
NEAR EAST (5) .....	5	—	—	
Iran .....	X	—	—	
Iraq .....	X	—	—	
Lebanon .....	X	—	—	
Sudan .....	X	—	—	
Turkey .....	X	—	—	
FAR EAST (8) .....	8	2	3	
Brunei .....	X	—	—	
Ceylon .....	X	<sup>1</sup> X	—	
India .....	X	X	—	
Indonesia .....	X	—	X	
Japan .....	X	—	—	
Korea, Rep. of .....	X	—	X	
Malaya, Fed. of .....	X	—	—	
Pakistan .....	X	—	X	
AFRICA (6) .....	6	2	—	
Bechuanaland .....	X	—	—	
Ghana .....	X	X	—	
Guinea, Rep. of .....	X	—	—	
Madagascar .....	X	—	—	
Morocco .....	X	X	—	
South Africa .....	X	—	—	
OCEANIA (1) .....	1	—	—	
Australia .....	X	—	—	

<sup>1</sup> Irrigation wheel.

TABLE 53. — EXTENT OF PARTICIPATION IN SECTION 6, RELATING TO *general transport facilities*

Region and country	Principal means used to transport agricultural products from holding to first place of sale									
	Item	On foot	On pack animals	In carts or wagons	By bicycle	By truck	By train	By boat	By cable	By airplane
Item number	68.20	68.21	68.22	68.23	68.24	68.25	68.26	68.27	68.28	68.29
<i>Total number of countries asking question (23)</i> .....	21	19	17	10	20	10	14	—	—	14
LATIN AMERICA (9) .....	9	8	9	1	9	6	7	—	5	7
Bolivia .....	X	X	X	—	X	X	X	—	X	—
Colombia .....	X	X	X	—	X	X	—	—	—	X
Costa Rica .....	X	X	X	—	X	X	X	—	X	X
Ecuador .....	X	X	X	—	X	X	X	—	X	—
El Salvador .....	X	X	X	—	X	—	—	—	—	X
Panama .....	X	X	X	—	X	—	X	—	—	X
Paraguay .....	X	X	X	—	X	X	X	—	X	X
Surinam .....	X	—	X	X	X	—	X	—	—	X
Venezuela .....	X	X	X	—	X	X	X	—	X	X
FAR EAST (6) .....	6	5	2	4	5	3	5	—	—	3
Brunei .....	X	—	—	X	X	—	X	—	—	—
China (Taiwan) .....	X	X	—	X	X	X	X	—	—	X
Indonesia .....	X	X	X	X	X	X	X	—	—	X
Nepal .....	X	X	X	—	X	X	—	—	—	—
North Borneo .....	X	X	—	X	X	—	X	—	—	—
Sarawak .....	X	X	—	—	—	—	X	—	—	X
AFRICA (8) .....	6	6	6	5	6	1	2	—	—	4
Congo (Brazzaville) .....	—	—	—	X	—	—	X	—	—	X
Ghana .....	X	—	X	X	X	—	—	—	—	—
Guinea, Rep. of .....	X	X	—	X	X	X	—	—	—	X
Madagascar .....	X	X	X	X	X	—	—	—	—	—
Mali .....	X	X	X	—	X	—	X	—	—	X
Morocco .....	—	X	X	—	X	—	—	—	—	X
Togo .....	X	X	X	X	X	—	—	—	—	—
Upper Volta .....	X	X	X	—	—	—	—	—	—	—

TABLE 54. - REGIONAL DISTRIBUTION OF COUNTRIES PARTICIPATING IN PROGRAMME ITEMS  
Agricultural machinery and transport

Item	Europe	North America	Latin America	Near East	Far East	Africa	Oceania	Total
<i>Total participants</i> .....	(17)	(4)	(22)	(6)	(15)	(22)	(5)	(91)
<i>Number of participants in Table 44</i> .....	(6)	(3)	(16)	(5)	(10)	(6)	(—)	(46)
<b>61.1 Mechanical power</b> .....	2	—	14	4	9	4	—	33
61.11 (a) Purchased electrical power.....	3	3	5	—	2	2	—	15
61.11 (b) Electrical power produced on holding.....	2	2	4	—	2	2	—	12
<b>61.2 Animal power</b> .....	1	—	14	4	10	4	—	33
61.21 Owned.....	1	—	2	1	5	2	—	11
61.22 Not owned.....	—	—	2	1	4	2	—	9
<b>61.3 Human power only</b> .....	—	—	12	1	6	4	—	23
<i>Number of participants in Table 45</i> .....	(12)	(1)	(12)	(5)	(7)	(7)	(1)	(45)
<b>62.11 Internal combustion motors</b> ...	9	—	10	3	3	5	—	30
62.12 Steam engines incl. locomobiles.....	5	—	2	1	2	1	—	11
62.13 Windmills.....	2	—	4	3	2	3	—	14
62.14 Water wheels.....	2	—	3	2	2	1	—	10
62.19 Other prime movers.....	3	—	2	—	2	2	—	9
62.2 Electric generators.....	2	—	3	2	—	5	—	12
<b>62.3 Electric motors</b> .....	12	1	11	4	5	5	1	39
<i>Number of participants in Table 46</i> .....	(15)	(4)	(21)	(6)	(11)	(12)	(2)	(71)
<b>63 Tractors</b> .....	11	1	15	5	9	7	1	49
63.1 Wheel tractors, two-axle only..	3	3	8	1	5	8	2	30
63.2 Tracklaying tractors, two-axle only.....	2	3	8	1	4	8	2	28
63.3 Garden tractors and other one-axle motorized equipment.....	8	3	4	1	2	4	—	22
63.4 Aggregate horsepower of tractors owned by holder.....	2	—	2	—	—	1	1	6
<i>Number of participants in Table 47</i> .....	(13)	(1)	(17)	(4)	(12)	(16)	(1)	(64)
64.1 Ploughs.....	11	—	16	3	10	11	1	52
64.2 Rotary tillers.....	2	—	3	1	1	2	—	9
64.3 Tine harrows.....	4	—	10	2	6	10	—	32
64.4 Disk harrows.....	8	—	10	3	7	7	—	35
64.5 Seed drills.....	11	—	14	4	2	8	1	40
64.6 Cultivators and hoes.....	11	—	12	3	4	12	1	43
64.7 Fertilizer distributors.....	8	—	4	1	1	4	1	19
64.8 Sprayers and dusters.....	11	1	11	2	9	8	1	43
64.9 Other selected tillage, planting and cultivating machinery, and implements.....	8	—	4	2	4	11	1	30
<i>Number of participants in Table 48</i> .....	(15)	(4)	(17)	(6)	(9)	(9)	(2)	(62)
65.1 Mowers.....	11	—	11	3	3	5	1	34
65.2 Rakes.....	10	—	4	2	1	4	2	23
65.3 Reapers and binders.....	12	1	4	2	—	4	—	23
65.4 Combines.....	11	3	13	6	1	6	—	40
65.5 Corn pickers.....	—	1	1	—	—	3	1	6
65.6 Potato harvesting machinery...	9	1	1	—	—	3	1	15
65.7 Sugar-beet harvesting machinery.....	4	—	—	1	—	—	—	5
<b>65.8 Threshers</b> .....	13	1	13	5	8	7	—	47
65.9 Other harvesting and threshing equipment.....	9	4	4	3	1	4	2	27
65.91 Hay balers.....	6	3	3	—	—	2	1	15

TABLE 54. - REGIONAL DISTRIBUTION OF COUNTRIES PARTICIPATING IN PROGRAMME ITEMS  
Agricultural machinery and transport (*concluded*)

Item	Europe	North America	Latin America	Near East	Far East	Africa	Oceania	Total
<i>Number of participants in Table 49.....</i>	(12)	(3)	(14)	(2)	(9)	(10)	(1)	(51)
66.11 Grain cleaners and sorters.....	7	—	1	1	1	4	—	14
66.12 Potato, onion, and fruit sorters and graders .....	2	—	2	—	—	1	—	5
66.13 Grain grinders and crushers ..	4	—	2	—	1	3	—	10
66.14 Sugarcane crushers .....	—	—	6	—	4	—	—	10
66.15 Corn shellers and shredders ..	3	—	7	—	—	4	—	14
66.16 Root cutters .....	3	—	—	—	1	—	—	4
66.17 Chaff cutters .....	4	—	—	—	—	2	—	6
66.19 Other selected food and feed processing and handling equipment .....	7	3	8	1	7	9	1	36
<i>Number of participants in Table 50.....</i>	(10)	(4)	(6)	(3)	(2)	(5)	(2)	(32)
66.21 Milking machines (number of units) .....	10	4	4	1	—	3	2	24
66.22 Cream separators .....	2	—	3	1	—	3	1	10
66.23 Incubators capacity under 500 eggs .....	1	—	4	—	2	3	—	10
66.24 Incubators capacity 500 eggs and over .....	2	—	4	—	2	3	—	11
66.29 Other selected livestock equipment .....	3	4	4	1	1	3	2	18
<i>Number of participants in Table 51.....</i>	(13)	(4)	(16)	(4)	(8)	(15)	(2)	(62)
66.31 Wheelbarrows .....	1	—	1	—	1	4	—	7
66.32 Carts .....	9	—	13	2	6	9	—	39
66.33 Trailers .....	6	—	7	2	3	7	—	25
66.34 Jeeps, station wagons and trucks	9	4	15	3	5	8	2	46
66.35 Automobiles .....	5	4	9	1	2	7	—	28
66.36 Light railways .....	—	—	—	1	1	2	—	4
66.37 Conveyers and elevators .....	7	2	1	—	—	—	—	10
66.38 Other means of transport .....	3	—	5	2	5	4	—	19
<i>Number of participants in Table 52.....</i>	(4)	(—)	(4)	(5)	(8)	(6)	(1)	(28)
67.1 Irrigation machinery: Operated by mechanical power	4	—	4	5	8	6	1	28
67.2 Operated by animals .....	1	—	—	—	2	2	—	5
67.3 Human power only .....	1	—	1	—	3	—	—	5
<i>Number of participants in Table 53 .....</i>	(—)	(—)	(9)	(—)	(6)	(8)	(—)	(23)
68.20 On foot .....	—	—	9	—	6	6	—	21
68.21 On pack animals .....	—	—	8	—	5	6	—	19
68.22 In carts or wagons .....	—	—	9	—	2	6	—	17
68.23 By bicycle .....	—	—	1	—	4	5	—	10
68.24 By truck .....	—	—	9	—	5	6	—	20
68.25 By train .....	—	—	6	—	3	1	—	10
68.26 By boat .....	—	—	7	—	5	2	—	14
68.27 By cable .....	—	—	—	—	—	—	—	—
68.28 By airplane .....	—	—	5	—	—	—	—	5
68.29 By other means .....	—	—	7	—	3	4	—	14



the countries concerned, regardless of whether the type of information collected conformed with the programme or not.

#### AGRICULTURAL MACHINERY AND TRANSPORT

The programme had suggested investigating machinery under the two major groups 64 (tillage, planting and cultivating equipment) and 65 (harvesting and threshing equipment), whether animal-operated or tractor-operated. While this information is not recorded in the body of the table for each item concerned, an appropriate footnote has been placed against these items.

In the case of group items, such as sprayers and dusters, reapers and binders, a variety of approaches had been adopted. In some cases only one of the two items was asked, in others both items were enumerated separately, and in still other cases group item as such was asked. All these cases have been shown with a cross against the programme item concerned without any distinction.

Fifteen countries inquired about the source of electric power on the holding; whether purchased or produced on the holding. The category purchased included also cases such as power line, source of electricity (Canada; the Philippines), connected to electric supply (Ireland), Electric Supply Commission or municipality (Federation of Rhodesia and Nyasaland) or main electricity as opposed to privately generated electricity (Federation of Malaya).

Almost half of the participating countries investigated stationary power-producing machinery. North America and Oceania did not include any questions about prime movers and electric generators.

Canada; and New Zealand asked about electric motors only. The programme item steam engines, including locomobiles (62.12), included diesel engines (Austria, the Federal Republic of Germany; and the Federation of Malaya) and nonelectric engines (Trinidad and Tobago). Other prime movers (62.19) included water wheels and hydraulic turbines (Belgium).

The participation in the major group for tractors was highest (almost 80 percent). The item for tractors included all kinds of unspecified tractors, since the countries concerned, generally

in Europe, had not made any distinction between wheel or tracklaying tractors. The programme had suggested the following classification for horsepower of wheel and tracklaying tractors: less than 18 hp; 18 and less than 27, 27 and less than 37, 37 and less than 56, 56 hp and over. Spain; and Peru adopted this classification in their censuses. Venezuela also had almost the same classification, except that they had combined different classes between 18 and 56 into one class, 18 and less than 56, and retained the first and the last classes of the programme. Several other countries inquired about the horsepower, and prescribed different classifications too numerous to be reproduced here. However, a few cases have been recorded as illustrations:

- (a) Under 15 hp; 15-27; 27-37; 37-47; 47 hp and over (South Africa)
- (b) 10-15 hp; 15-20; 20-25; 25-30; over 30 hp (Luxembourg)
- (c) Up to 16 hp, more than 16 and up to 30; more than 30 hp (Austria)
- (d) Under 20 hp; 20-35; 35 hp and over (Ireland)
- (e) Under 20, 20-40, 40 hp and above (Norway);
- (f) Up to 25 hp; 25-30; 30-35; 35-40; 40-50 and over 50 hp (Argentina)

In Yugoslavia, the choice of specifying horsepower was left to the respondent.

Participation in the major group of the programme relating to tillage, planting and cultivating equipment, was as high as 70 percent. The item for ploughs was investigated by the largest number of countries (52) in this group. Several countries asked for harrows, without specifying whether tine or disk harrows. In such cases a cross has been placed against both items with a footnote to this effect. The item 64.7, fertilizer distributors, includes lime spreaders and farmyard manure spreaders. Numerous countries included in their questionnaires various other machinery and equipment not mentioned in the programme. Therefore, these have been listed under item 64.9, other selected tillage, planting and cultivating machinery and implements. A few cases can be mentioned here: potato plant-

ers and planting machines, in general, was asked by a few countries, among which Austria, Belgium, Finland; Australia asked for maize or cotton planters and sugarcane planters separately; rollers were investigated by Belgium; Venezuela; Sudan; Taiwan; Madagascar, etc.

Participation in major group 65, harvesting and threshing equipment, was almost as much as in the previous group. The omnibus group, 65.9, other selected harvesting and threshing equipment, included various kinds of harvesting machines. A few of the more common are mentioned below, along with the names of some of the countries asking information about them.

Pickup balers: Belgium, Ireland, Luxembourg, the Netherlands; New Zealand

Hay tedders: Belgium, the Netherlands

Peanut pickers: Sudan; South Africa; Australia

Forage harvesters: Ireland, Yugoslavia; Canada; Venezuela; Australia and New Zealand

More than 50 percent of the countries participated in the group for food and feed processing and handling equipment. The item 66.19, others, included numerous items such as:

Potato meshers, oilcake breakers, beet washers, potato steamers, livestock feed steamers: Belgium

Grain driers: Austria

Grape crushers and presses, olive mills and presses: Italy

Mixers, fruit presses, wine presses, seed cleaners: Luxembourg

Raisin beaters, fruit presses, crushers: Yugoslavia

Crop driers: Alaska, Hawaii, United States

Coffee-pulping machines: the Dominican Republic, Guatemala, Puerto Rico

Groundnut shellers: Bechuanaland, South Africa

Winnowing machines: Madagascar, Mali, Tunisia

Livestock equipment was asked by about one third of the participating countries. The item other (66.29), in this group, included:

Milk coolers: Belgium, Federal Republic of Germany; Alaska, Canada, Hawaii, United States; Puerto Rico, Venezuela; South Africa

Churns: Belgium; Uruguay

Milk boilers: Italy

Wool clippers and shearing machines: Argentina, Uruguay; Australia, New Zealand

The degree of conformity with the programme items under group 66.3, transport means, was almost 70 percent. Other means of transport included boats (Surinam; India; Sudan; Gabon); bicycles (China [Taiwan], Indonesia, Federation of Malaya), motorcycles (Austria; Taiwan), agricultural wire line or cable car (Austria, Italy), etc.

Not more than 30 percent of the countries investigated the items under major groups 67, irrigation machinery, and 68, general transport facilities. Four regions, namely Europe, North America, the Near East and Oceania, did not include any item in their censuses regarding general transport.

#### ADDITIONAL INFORMATION

A variety of information other than that proposed in the programme had been collected by countries to suit their respective needs and conditions. A few cases are mentioned here for purposes of illustration. Norway asked about the degree of ownership of jointly-owned machinery maintained as part of the holding, or at an agricultural machine centre, borrowed or rented. Horsepower of electric motors was added by several countries, among which were Norway, the Netherlands; Argentina; Canada; Federation of Malaya. Several countries (the Federal Republic of Germany, Ireland, Luxembourg; Taiwan) adopted the subdivision of fertilizer distributors into various kinds and types, such as farmyard manure spreaders, lime spreaders, distributors for artificial fertilizers, for solid natural fertilizers. Some countries also distinguished between various kinds of ploughs. For instance, mould board ploughs (Belgium; Venezuela; Taiwan), disk ploughs (Belgium; Mexico, Paraguay, Venezuela; Brunei, Taiwan), wooden ploughs and iron ploughs (Guatemala, Paraguay; Ceylon, India). Examples of other additional information are: weighing machines for livestock and for vehicles (Belgium), harvesting platforms for specified crops (Argentina), kind of fuel used in machines (Republic of Viet-Nam).

## REGIONAL PROGRAMMES

The regional programme for Europe introduced a new class of horsepower for tractors, under the programme item less than 18 hp, by subdividing this class into (a) less than 12 hp; and (b) 12 and less than 18 hp. For countries which could not make a distinction between animal-operated and tractor-operated ploughs, provision was made to report total ploughs. For the same reason, two additional items were added for seed drills: total and other sowing machines. Furthermore, under the major group for general transport facilities, an item was introduced to provide for means of transport by trailers.

Of those countries which included horsepower by class, none in Europe followed the regional recommendation regarding horsepower classification. Malta and Gozo asked for all the four classes of horsepower, *viz.*, 2-4, 5-6, 7-10, and 10 hp and over.

Ireland and Yugoslavia did not specify whether ploughs were animal- or tractor-operated. Eleven countries in Europe investigated seed drills, 4 of which asked for animal/tractor-operated (see Table 47). Countries that asked for other sowing machines were Austria, Belgium, Denmark, Finland, the Federal Republic of Germany, Ireland, Luxembourg, the Netherlands, Norway and Yugoslavia.

The programme for the Americas provided an additional item to show mechanical and animal power combined. Out of the 14 countries that had asked for the use of these two sources of power separately (see Table 44), countries that asked for a combination of the two sources of power were Bolivia, Brazil, Colombia, the Dominican Republic, El Salvador, Nicaragua, Panama and Peru.

The regional programme for the Near East recommended collection of information regarding centrifugal pumps classified by capacity. Iran, Iraq, Sudan and Turkey inquired about this item. Iran and Iraq asked for capacity in horsepower. Iran also included in the questionnaire separate questions regarding the diameter of the pipe, in inches and height of water pipes from the surface of the water. Sudan asked for the diameter of suction pipes, make and year of purchase. Turkey did not ask for the capacity of centrifugal pumps.

Electric motors were classified by horsepower in the programme for Asia and the Far East. The four classes were: less than 2 hp, 2 and under 5, 5 and under 10, 10 hp and over. The Federation of Malaya provided classification by horsepower for electric motors which was different from that proposed in the regional programme, which was under 5 hp, 5-9, 10-19, 20 hp and over.

There was no addition in the regional programme for Africa south of the Sahara.

## Section 7 : Irrigation and drainage

### INTRODUCTION

Participation in this section of the programme is shown in Table 55. Fifty-eight countries representing more than 60 percent of the participants in the programme investigated at least one of the questions on irrigation and drainage. It will be observed that seven items of the programme have been excluded from this synoptic table. The few countries that had included them in their censuses have been recorded below.

Area supplied with water from:

Holding itself (71.21): Malta and Gozo; Mexico; Nepal; Morocco

Outside holding (71.22): Malta and Gozo; Mexico; Nepal; Morocco

Inside or outside the holding (71.23): Malta and Gozo; Mexico; Federation of Malaya, Nepal; Morocco

The last four items of the programme relating to the area drained by pumping or by gravity flow through open or covered drains (items 72.21 to 72.24) were included in the census questionnaires of the Republic of Guinea and Morocco, with certain variations described further.

In this section of the programme complete compliance of approach and coverage is not very marked. Nepal and Morocco could be mentioned among the few countries which followed the suggestions made in the programme. The items included in their censuses were the same as those proposed, with minor amendments.

TABLE 55. — EXTENT OF PARTICIPATION IN SECTION 7, RELATING TO *irrigation and drainage*

Region and country	Irrigation								Drainage	
	Area of land provided with irrigation facilities	Area of land actually irrigated during the year preceding the census, by source of water	Area of land actually irrigated during the year preceding the census, by method of irrigation					Of the land actually irrigated, how much was irrigated by the sprinkler method?	Area of nonirrigated land drained through covered drains	Area of irrigated land provided with drainage facilities
			Total	Area supplied with water by gravity flow	Area supplied with water by pumping from streams, canals, tanks, lakes, and other surface water sources	Area supplied with water by pumping from ground-water	Area supplied with water by other means			
Item	71.1	71.2	71.3	71.31	71.32	71.33	71.34	71.4	72.1	72.2
<i>Total number of countries asking question (58)</i> .....	11	36	10	15	12	18	19	11	6	5
EUROPE (8) .....	5	4	—	1	1	1	2	4	2	1
Belgium .....	X	—	—	—	—	—	—	X	X	—
Greece .....	X	—	—	—	—	—	—	—	—	—
Italy .....	X	—	—	X	X	—	Flooding	X	—	—
Malta and Gozo .....	—	X	—	—	—	—	—	X	—	—
Norway .....	X	—	—	—	—	—	—	—	—	—
Spain .....	—	X	—	—	—	X	X	X	X	X
United Kingdom .....	X	X	—	—	—	—	—	—	—	—
Yugoslavia .....	—	X	—	—	—	—	—	—	—	—
NORTH AMERICA (3) .....	—	3	—	—	—	—	—	3	—	—
Canada .....	—	X	—	—	—	—	—	X	—	—
Hawaii .....	—	X	—	—	—	—	—	X	—	—
United States .....	—	X	—	—	—	—	—	X	—	—
LATIN AMERICA (16) .....	1	16	1	1	1	1	1	—	—	1
Argentina .....	—	X	—	—	—	—	—	—	—	—
Bolivia .....	—	X	—	—	—	—	—	—	—	—
Brazil .....	—	X	—	—	—	—	—	—	—	—
Colombia .....	—	X	—	—	—	—	—	—	—	—
Costa Rica .....	—	X	—	—	—	—	—	—	—	—
Dominican Republic .....	—	X	—	—	—	—	—	—	—	—
Ecuador .....	—	X	—	—	—	—	—	—	—	—
El Salvador .....	—	X	—	—	—	—	—	—	—	—
Guatemala .....	—	X	—	—	—	—	—	—	—	—
Mexico .....	X	X	X	X	X	X	Springs, etc.	—	—	X
Panama .....	—	X	—	—	—	—	—	—	—	—
Paraguay .....	—	X	—	—	—	—	—	—	—	—
Peru .....	—	X	—	—	—	—	—	—	—	—
Puerto Rico .....	—	X	—	—	—	—	—	—	—	—
Uruguay .....	—	X	—	—	—	—	—	—	—	—
Venezuela .....	—	X	—	—	—	—	—	—	—	—
NEAR EAST (5) .....	—	2	2	3	4	3	4	—	—	—
Iran .....	—	X	—	—	—	—	—	—	—	—
Iraq .....	—	—	—	X	X	X	X	—	—	—
Lebanon .....	—	—	X	X	X	X	X	—	—	—
Libya .....	—	X	—	—	X	—	Dalu, others	—	—	—
Turkey .....	—	—	X	X	X	X	Springs or lakes; others	—	—	—

TABLE 55. - EXTENT OF PARTICIPATION IN SECTION 7, RELATING TO *irrigation and drainage (concluded)*

Region and country  Item	Irrigation								Drainage	
	Area of land provided with irrigation facilities	Area of land actually irrigated during the year preceding the census, by source of water	Area of land actually irrigated during the year preceding the census, by method of irrigation					Of the land actually irrigated, how much was irrigated by the sprinkler method?	Area of nonirrigated land drained through covered drains	Area of irrigated land provided with drainage facilities
			Total	Area supplied with water by gravity flow	Area supplied with water by pumping from streams by canals, tanks, lakes, and other surface water sources	Area supplied with water by pumping from ground-water	Area supplied with water by other means			
Item number	71.1	71.2	71.3	71.31	71.32	71.33	71.34	71.4	72.1	72.2
FAR EAST (12) .....	—	8	4	3	2	5	5	—	1	1
Brunei .....	—	<sup>a</sup> X	—	—	—	—	—	—	—	—
Ceylon .....	—	—	—	X	—	X	Major schemes, minor schemes	—	—	—
China (Taiwan) .....	—	X	X	X	—	X	Fountain water, pond water	—	—	—
India .....	—	—	X	—	X	X	X	—	X	X
Indonesia .....	—	X	—	—	—	—	—	—	—	—
Korea, Rep. of .....	—	X	—	—	—	—	—	—	—	—
Malaya, Fed. of .....	—	X	—	—	—	—	—	—	—	—
Nepal .....	—	X	—	—	—	—	—	—	—	—
Pakistan .....	—	—	X	—	X	X	X	—	—	—
Philippines .....	—	—	X	X	—	X	X	—	—	—
Thailand .....	—	X	—	—	—	—	—	—	—	—
Viet-Nam, Rep. of .....	—	X	—	—	—	—	—	—	—	—
AFRICA (12) .....	4	2	2	7	4	8	7	4	3	2
Angola .....	X	—	—	—	—	—	Flooded	—	—	—
Bechuanaland .....	X	—	X	X	—	X	—	X	—	—
Ghana .....	—	—	—	X	—	X	Dams or ponds	—	<sup>a</sup> X	—
Guinea, Rep. of .....	—	—	—	X	—	<sup>a</sup> X	—	X	X	X
Madagascar .....	—	—	—	X	X	X	X	—	—	—
Mali .....	X	—	—	—	—	—	Flooded	—	—	—
Morocco .....	—	X	—	X	X	X	X	—	X	X
Rhodesia and Nyasaland, Fed. of .....	—	X	—	—	—	—	—	—	—	—
South Africa .....	—	—	X	X	X	X	Springs, flooding, Irrigation Board schemes, weirs	X	—	—
Togo .....	X	—	—	—	—	—	—	X	—	—
Tunisia .....	—	—	—	—	X	X	—	—	—	—
Upper Volta .....	—	—	—	X	—	X	Natural flooding, artificial flooding	—	—	—
OCEANIA (2) .....	1	1	1	—	—	—	—	—	—	—
Australia .....	—	X	X	—	—	—	—	—	—	—
New Zealand .....	X	—	—	—	—	—	—	—	—	—

<sup>1</sup> By elevated waters. - <sup>2</sup> By water pumps; the source of water not specified. - <sup>3</sup> Sources of water (with area) are given as reservoir, windmill, river water and separate question for government equipped and privately equipped. - <sup>4</sup> Acreage of any area drained.

## IRRIGATION

This subject has been approached, in the national census, in a variety of ways which differ from the programme. In several cases, it has been largely a matter of interpreting the national census items in the best possible manner in the light of available information. The participation of countries, as indicated in the synoptic tables, should not be interpreted as closely approximating to the programme items, against which a cross has been placed; it should rather be interpreted broadly.

A few countries (e.g., United Kingdom; Dominican Republic, Peru; Iran, Libya) had asked for source of water but not the corresponding area. However, these countries indicated area irrigated independent of its source and had therefore been shown against programme item 71.2. Many countries interpreted "source" of water differently from that suggested in the programme, *viz.*, inside or outside the holding. The source of water to them had meant the origin from which the water for irrigation was obtained, e.g., river, canals, streams, wells, etc. Similarly, the method of irrigation, in many cases, was investigated as by pumping (mechanical or otherwise), but the origin of the water from which it was pumped (as from canals, etc.) was not requested simultaneously, as proposed in the programme. Further, the year preceding the census as the period of reference was not adopted in many instances and, in other cases, either no mention was made of such a period, or a different period was used. Thus, the participation shown in the table with crosses should be considered, in a large number of cases, as only approximations to the relevant programme items considered in a broader context.

In general, national items relating to water-courses like rivers, etc. (e.g., China [Taiwan]; Ghana, Republic of Guinea), have been marked against item 71.31: Area supplied with water by gravity flow, water obtained from canals, tanks, etc. (India, Pakistan) and by pumping through water pumps, etc. (Iraq, Lebanon, Libya), have been placed against 71.32: Area supplied with water by pumping from streams, canals, tanks, etc., and water obtained through wells (Turkey) or through Persian wheels (Iraq), power pumps (Philippines), water-raising devices (Lebanon), lift

irrigation (Ceylon), or "elevated water" (Spain) have been shown against 71.33: Area supplied with water by pumping from groundwater. The item 71.34: Area supplied with water by other means, included irrigation from springs, etc. (Mexico), fountain or pond waters (Taiwan), flooding (natural or artificial) (Italy; Upper Volta), major and minor schemes (Ceylon) or Irrigation Board schemes (South Africa). Irrigation by sprinkler method (71.4) included "overhead system of irrigation" (Malta and Gozo).

## DRAINAGE

Very few countries inquired about drainage. Three regions, North America, the Near East and Oceania, did not participate in the drainage items of the programme. Those few (Belgium, Spain; Mexico; India; Ghana, Republic of Guinea, Morocco) shown in the table as participants, had not complied with the requirements of the programme. This participation should therefore be taken more as an indication than as actual participation in the programme items. A few countries, e.g., Barbados, Trinidad and Tobago, limited their inquiries to the availability of drainage facilities on the holding but did not ask for the area; therefore, such cases were not marked as participation even in a broad sense.

## Section 8: Fertilizers and soil dressings

### FERTILIZERS

Synoptic Table 56 shows the participation of countries in this section of the programme. Sixty-five countries, or about 70 percent of the participants, included in their censuses at least one of the questions proposed. Thirteen countries had asked only the first question in the section, namely, whether or not fertilizers had been used. Twenty-eight inquired about both area fertilized and quantity used, whereas 16 countries had asked for area only and 8 quantity only. One country in the world (Morocco) asked for the area and quantity of the wood ash used.

TABLE 56. - EXTENT OF PARTICIPATION IN SECTION 8, RELATING TO *fertilizers and soil dressings*

Region and country	Information asked for: area (A), quantity (Q)	Have any inorganic fertilizers been applied on the holding in the year preceding the census?	Organic and inorganic fertilizers									Soil dressings		
			Farm-yard manure	Green manure	Inorganic fertilizers						Other fertilizers	Lime	Gypsum	Other soil dressings
					Total	Nitrogenous fertilizers	Phosphate fertilizers	Potash fertilizers	Wood ash	Mixed inorganic fertilizers				
Item number	81	82.1	82.2	82.3	82.31	82.32	82.33	82.34	82.35	82.4	83.1	83.2	83.3	
<i>Total number of countries asking question (65)</i> .....		38	30	12	29	14	14	11	1	9	29	14	3	7
EUROPE (7) .....		1	3	1	2	3	3	3	—	3	3	4	—	2
Belgium .....	Q	—	X	—	—	X	X	X	—	X	Guano, horn meal and blood meal, shoddy	X	—	X
Finland .....	Q	—	—	—	—	X	X	X	—	X	—	X	—	X
Ireland .....	AQ	—	—	—	—	—	—	—	—	—	Fertilizers	X	—	—
Malta and Gozo .....	Q	—	—	—	—	—	—	—	—	—	Imported fertilizers	—	—	—
Norway .....	—	X	—	—	—	—	—	—	—	—	—	—	—	—
Spain .....	AQ	—	X	X	X	X	X	X	—	X	—	X	—	—
Yugoslavia .....	AQ	—	X	—	X	—	—	—	—	—	—	—	—	—
NORTH AMERICA (3) .....		1	—	—	1	—	—	—	—	—	2	3	—	—
Alaska .....	AQ	—	—	—	—	—	—	—	—	—	Fertilizers	X	—	—
Hawaii .....	AQ	X	—	—	—	—	—	—	—	—	Fertilizers	X	—	—
United States .....	AQ	—	—	—	X	—	—	—	—	—	—	X	—	—
LATIN AMERICA (21) .....		18	5	—	9	1	1	—	—	1	8	1	—	—
Argentina .....	—	X	—	—	—	—	—	—	—	—	—	—	—	—
Barbados .....	—	X	—	—	—	—	—	—	—	—	—	—	—	—
Bolivia .....	A	X	X	—	X	—	—	—	—	—	Fertilizers	—	—	—
Brazil .....	—	X	—	—	—	—	—	—	—	—	—	—	—	—
Colombia .....	A	X	—	—	X	—	—	—	—	—	—	—	—	—
Costa Rica .....	AQ	X	<sup>1,2</sup> X	—	X	—	—	—	—	—	Fertilizers	—	—	—
Dominican Republic .....	AQ	X	<sup>1,2</sup> X	—	<sup>2</sup> X	—	—	—	—	—	Fertilizers <sup>3</sup>	—	—	—
Ecuador .....	A	—	—	—	—	—	—	—	—	—	Fertilizers <sup>3</sup>	—	—	—
El Salvador .....	Q	X	<sup>1</sup> X	—	X	—	—	—	—	—	Fertilizers	—	—	—
Guatemala .....	AQ	X	—	—	X	—	—	—	—	—	—	—	—	—
Jamaica .....	—	X	—	—	—	—	—	—	—	—	—	—	—	—
Mexico .....	A	X	—	—	—	—	—	—	—	—	Manure, fertilizer, soil dressing	—	—	—
Panama .....	AQ	X	—	—	X	—	—	—	—	—	—	—	—	—
Paraguay .....	—	X	—	—	—	—	—	—	—	—	—	—	—	—
Peru .....	AQ	—	<sup>1</sup> X	—	X	—	—	—	—	—	Guano	—	—	—
Puerto Rico .....	—	X	—	—	—	—	—	—	—	—	—	—	—	—
Surinam .....	—	X	—	—	—	—	—	—	—	—	—	—	—	—
Trinidad and Tobago .....	—	X	—	—	—	—	—	—	—	—	—	—	—	—
Uruguay .....	AQ	—	—	—	—	X	X	—	—	X	Guano, others	X	—	—
Venezuela .....	AQ	X	—	—	X	—	—	—	—	—	—	—	—	—
Virgin Islands (U.S.) .....	—	X	—	—	—	—	—	—	—	—	—	—	—	—
NEAR EAST (5) .....		3	1	—	2	1	1	1	—	—	2	—	—	—
Iran .....	A	X	—	—	—	—	—	—	—	—	Fertilizers	—	—	—
Lebanon .....	—	X	—	—	—	—	—	—	—	—	—	—	—	—
Libya .....	AQ	—	—	—	X	—	—	—	—	—	—	—	—	—
Sudan .....	AQ	—	—	—	—	X	X	X	—	—	—	—	—	—
Turkey .....	A	X	X	—	X	—	—	—	—	—	Vegetables, fish, sea plants, etc.	—	—	—

TABLE 56. - EXTENT OF PARTICIPATION IN SECTION 8, RELATING TO *fertilizers and soil dressings (concluded)*

Region and country	Information asked for: area (A), quantity (Q)	Have any inorganic fertilizers been applied on the holding in the year preceding the census?	Organic and inorganic fertilizers								Soil dressings			
			Farm-yard manure	Green manure	Inorganic fertilizers					Other fertilizers	Lime	Gypsum	Other soil dressings	
					Total	Nitrogenous fertilizers	Phosphate fertilizers	Potash fertilizers	Wood ash					Mixed inorganic fertilizers
Item number	81	82.1	82.2	82.3	82.31	82.32	82.33	82.34	82.35	82.4	83.1	83.2	83.3	
FAR EAST (13) .....		7	9	5	6	6	5	4	—	4	8	3	1	1
Brunei .....	AQ	X	X	<sup>1</sup> X	X	—	—	—	—	—	—	—	—	—
Ceylon .....	AQ	X	X	X	X	—	—	—	—	—	Bone meal, fish meal	—	—	X
China (Taiwan) .....	AQ	—	<sup>2</sup> X	—	—	<sup>2</sup> X	<sup>2</sup> X	<sup>2</sup> X	—	—	Synthetic <sup>3</sup> chemical fertilizer, molasses, distilled refuse, cane residue, garbage, others	<sup>2</sup> X	<sup>2</sup> X	—
India .....	A	—	X	—	X	—	—	—	—	—	—	—	—	—
Indonesia .....	A	X	X	X	—	—	—	—	—	—	Fertilizers (specify)	—	—	—
Japan .....	Q	—	—	—	—	X	X	X	—	X	Others (specify)	—	—	—
Korea, Rep. of .....	Q	—	X	X	—	X	X	—	—	X	Others	X	—	—
Malaya, Fed. of .....	AQ	X	X	—	<sup>3</sup> X	<sup>2</sup> X	<sup>2</sup> X	<sup>2</sup> X	—	<sup>2</sup> X	Ground <sup>4</sup> magnesium limestone, bat guano, bone meal, fish meal, filter cake, others	—	—	—
Nepal .....	A	—	X	—	X	—	—	—	—	—	—	—	—	—
Pakistan .....	AQ	—	—	—	<sup>2</sup> X	<sup>2</sup> X	—	—	—	—	Manure <sup>4</sup>	—	—	—
Philippines .....	—	X	—	—	—	—	—	—	—	—	—	—	—	—
Thailand .....	—	X	—	—	—	—	—	—	—	—	—	—	—	—
Viet-Nam, Rep. of ..	AQ	X	<sup>2</sup> X	<sup>2</sup> X	—	X	X	X	—	X	Others	X	—	—
AFRICA (15) .....		8	12	6	9	3	3	3	1	1	5	3	2	3
Angola .....	AQ	—	X	X	X	—	—	—	—	—	—	—	—	X
Basutoland .....	A	X	<sup>1</sup> X	—	X	—	—	—	—	—	—	—	—	—
Bechuanaland .....	AQ	—	X	X	—	X	X	X	—	X	—	X	X	—
Gabon .....	A	X	—	—	—	—	—	—	—	—	Fertilizers	—	—	—
Ghana .....	AQ	X	—	—	—	—	—	—	—	—	Fertilizers (specify)	—	—	—
Guinea, Rep. of .....	AQ	—	X	<sup>4</sup> X	—	X	X	X	—	—	—	—	—	—
Madagascar .....	A	X	X	—	X	—	—	—	—	—	Guano	—	—	—
Mali .....	A	X	X	—	X	—	—	—	—	—	—	—	—	—
Morocco .....	AQ	—	X	X	X	X	X	X	X	—	Others (specify)	X	X	X
Rhodesia and Nyasaland, Fed. of .....	Q	—	—	—	—	—	—	—	—	—	Fertilizers	—	—	—
Senegal .....	A	—	<sup>1</sup> X	—	X	—	—	—	—	—	—	—	—	—
South Africa .....	AQ	X	<sup>2</sup> X	<sup>2</sup> X	X	—	—	—	—	—	—	X	—	X
Togo .....	A	X	X	—	X	—	—	—	—	—	—	—	—	—
Tunisia .....	AQ	—	X	—	—	—	—	—	—	—	—	—	—	—
Upper Volta .....	A	X	X	X	X	—	—	—	—	—	—	—	—	—
OCEANIA (1) .....		—	—	—	—	—	1	—	—	—	1	—	—	1
Australia .....	AQ	—	—	—	—	—	X	—	—	—	Other artificial fertilizers including blood and bone	—	—	X

<sup>1</sup> Organic fertilizers. - <sup>2</sup> Only quantity was asked. - <sup>3</sup> Only area was asked. - <sup>4</sup> Artificial manure.



While most of the countries had investigated the subject as proposed in the programme, varied approaches had been observed. For instance, in investigating whether inorganic fertilizers were applied on the holding in the year preceding the census, many countries did not limit the question to inorganic fertilizers but extended it to any fertilizers used. This has been accepted as participation. Norway; Mexico, Puerto Rico and the Virgin Islands investigated expenditure on the purchase of fertilizers without asking for the area or quantity used. While these cases were not considered as having participated in the specific items of the programme, the question was considered as an indication of the use of fertilizers on the holding and has, therefore, been marked as participation in that item in the synoptic tables.

As regards organic fertilizers, many countries did not ask for farmyard and green manure separately, as proposed in the programme, but inquired about organic fertilizers as a group. These cases have been recorded, and footnoted, in the synoptic tables under the item farmyard manure. Similarly, in a few cases no distinction was made between organic and inorganic fertilizers when investigating the items relating to inorganic fertilizers. In such cases the question generally related to the area to which the fertilizers were applied and/or the quantity of fertilizers applied. Such cases have been shown under the item other fertilizers, and indicated as fertilizers to show that it was not specified whether organic or inorganic, or both. In the case of the two American regions, however, the word fertilizers applied to both organic and inorganic fertilizers. The regional programme for the Americas had recommended investigating only area under the following items: (a) inorganic and organic fertilizers; (b) organic only; (c) inorganic only. Bolivia, Costa Rica, El Salvador and Peru asked for area treated with organic fertilizer but the Dominican Republic inquired about quantity rather than area. Seven countries, namely: Alaska, Hawaii; Bolivia, Costa Rica, the Dominican Republic, Ecuador and El Salvador, investigated the area treated with both organic and inorganic fertilizers. Malta has asked for the quantity of *imported manure* used during the year, specifically instructing participants not to include manure originating in Malta and Gozo.

## SOIL DRESSINGS

Seventeen countries asked at least one of the three items of soil dressings included in Table 56. Of these, 14 inquired about lime, and 3, Taiwan; Bechuanaland and Morocco, asked for gypsum. Seven countries are marked in the table as having asked for the item other soil dressings. This number includes Ceylon; Angola; and Australia, which asked only one question about soil dressings as a group, and not by item.

Brazil inquired whether lime was used as a soil dressing but did not ask for the area or the quantity involved, and hence it was not accepted as participation in that item.

## ADDITIONAL INFORMATION

Additional questions not proposed in the programme were included in the censuses of various countries: Austria asked for the number and size of tanks for fermentation of fodder and of manure pits; a few countries, e.g., Belgium, Spain; Uruguay; Brunei, China (Taiwan), Japan, the Republic of Korea and the Federation of Malaya asked for information on each of the individual chemical fertilizers listed in the questionnaire. The United States; Colombia, Costa Rica; Gabon and others asked for the area treated and/or the amount applied to different crops specified by name.

## Section 9 : Wood and fishery products

### WOOD PRODUCTS

The participation of 19 countries in this section of the programme is shown in synoptic Table 57. Most of these countries asked direct questions on the quantity of the wood products cut on the holding and specified the type of wood in terms clear enough to be classified as firewood or other rounded wood, as proposed in the programme. A few countries, e.g., Yugoslavia; and Venezuela, asked for the quantities consumed or used on the holding for different purposes. These cases have been accepted as participating in the programme. A few other countries approached the subject from a different

TABLE 57. - EXTENT OF PARTICIPATION IN SECTION 9, RELATING TO *wood and fishery products*

Region and country	Item	Wood products obtained on the holding during the census year	Firewood	Other roundwood	Fishery products from fish culture on the holding
	Item number	91	91.1	91.9	92
Total number of countries asking question (19).....		2	16	16	2
EUROPE (3).....		1	2	2	—
Austria.....		—	X	X	—
Ireland.....		<sup>1</sup> X	—	—	—
Yugoslavia.....		—	X	X	—
NORTH AMERICA (4).....		—	4	4	—
Alaska.....		—	X	X	—
Canada.....		—	X	X	—
Hawaii.....		—	X	X	—
United States.....		—	X	X	—
LATIN AMERICA (7).....		1	5	5	—
Barbados.....		—	X	X	—
Brazil.....		—	X	—	—
Jamaica.....		—	—	X	—
Mexico.....		—	X	X	—
Paraguay.....		—	X	X	—
Trinidad and Tobago.....		X	—	—	—
Venezuela.....		—	X	X	—
NEAR EAST (1).....		—	1	1	—
Libya.....		—	X	X	—
FAR EAST (2).....		—	2	2	1
Japan.....		—	X	X	—
Malaya, Fed. of.....		—	X	X	X
AFRICA (2).....		—	2	2	1
Angola.....		—	X	X	<sup>2</sup> X
Seychelles.....		—	X	X	—

<sup>1</sup> Timber cut on the holding and used on farm for firewood, fencing, etc. - <sup>2</sup> Average quantity sold and average consumption on the holding was asked instead of quantity produced.

point of view and did not ask for quantity at all. For instance, the Virgin Islands asked whether or not any fence posts, wood for charcoal, etc., were cut on the holding last year, for family use or for sale, the answer being "yes" or "no." The value of the forest products sold during the previous year was also investigated. Similarly, Brunei asked if the household raised or sold any forest or fishery products during the past year;

Indonesia asked the purpose for which the wood was extracted; and in Taiwan the census specified the sale of bamboo, fuelwood, etc., grown on the farm during the past year. All these cases were excluded from the table and considered as nonparticipants.

Firewood included fuelwood, wood for charcoal, and rubber trees cut for firewood. Other rounded wood included timber, pine, pulpwood,

fence posts, sawlogs, veneer logs, wood poles, brushwood, bamboo, rattan, attap, etc.

Many countries asked additional questions regarding the value of forest products sold.

#### FISHERY PRODUCTS

Only two countries participated in the programme item for fishery products as proposed. Whereas the Federation of Malaya asked for quantity caught, Angola did not do so directly, but inquired about the average quantity sold and average consumption on the holding. Indonesia asked for the area of ponds but not quantity, and was, therefore, not considered as a participant in this instance. Similarly, Guam asked for the number and dimension of the fish ponds but not the quantity of products.

#### ADDITIONAL INFORMATION

A variety of additional questions was asked by countries. For example, Austria listed numerous questions on holdings, indicating the existence of some forest land. The questions related

to forest management, planning, workers engaged in forest management, agricultural and forestry education. Trinidad and Tobago asked for the area and the number of trees for planted forest, specifying teak, pine, cedar, and for all other forest. Brunei asked for wild fruits also.

#### REGIONAL PROGRAMMES

The regional programme for Europe had suggested two additional items to be investigated, as they were considered of some importance in that region. One of these, namely, wood from trees outside the forests, was not asked by any countries in their censuses. Perhaps the reason was that the quantity required was already included in major group 91 of the world programme, which related to wood products obtained *on the holding*, i.e., outside the forests. The other item added to the regional programme was the quantity of wood consumed from the production of the holding itself. Ireland was the only country in the region asking this question specifically, but this was the only question in this part of the programme that was included in the census for Ireland.