

**PROGRAM FOR THE
1970 WORLD CENSUS
OF AGRICULTURE**



FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

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INTRODUCTION

A. Nature and purpose of the program

The countries which have joined together to form FAO have recognized the importance of agricultural statistics in carrying out the various purposes of the Organization, namely, to raise levels of nutrition, to improve the production and the distribution of food and other agricultural products and in general to better the conditions of rural populations. For these reasons they have given a position of great importance to agricultural statistics in the work of the Organization. Agricultural censuses are one of the main sources of agricultural statistics.

An agricultural census is a government-sponsored operation for the collection of quantitative information on agricultural structure, using as unit of enumeration the agricultural holding and covering the whole country within a single agricultural year. The coverage of the country may be achieved either by complete enumeration or by sampling. Enumeration may be done by interview, mail collection of census data or by objective procedures, such as measurements of areas, counting of livestock or by any combination of these methods.

The agricultural census results provide a bench mark against which future agricultural development is to be measured. Hence, the census results form the basic data for planning, formulating and appraising agricultural development projects. Agricultural censuses offer an excellent base and framework for planning surveys to secure agricultural statistics; its data can also be used as a bench mark and as supplementary information for improving the precision of current agricultural statistics. Technical and organizational training of the personnel required for carrying out the agricultural census can be exploited for the purpose of organizing other agricultural statistics. In countries where no statistical organization exists to collect agricultural statistics data, the trained census staff may be a nucleus for gradually developing a permanent agricultural statistical system.

The Eleventh Session of the FAO Conference, held in 1961, stressed "the need for an early beginning with preparations for the 1970 World Census of Agriculture and requested the Director-General to

include appropriate proposals in the Program of Work for 1964-65."

FAO's Statistics Advisory Committee, which met from 30 September to 11 October 1963, further stressed the desirability of early preparations for the 1970 World Census of Agriculture so as to leave sufficient time for countries to prepare their national plans.

A Draft Program for the 1970 World Census of Agriculture has been prepared as a first step to implement the above-mentioned directive of the Eleventh Session of the FAO Conference and has been submitted to governments for comments and discussions in the regional statisticians' meetings. Such meetings have been held in Addis Ababa for Africa, in Baghdad for the Near East, in Bangkok for Asia and the Far East, in Geneva for Europe, and in Washington, D.C., for the Western Hemisphere.

After considerations at regional meetings, the Program has been finalized on the basis of reports from these meetings by FAO's Statistics Advisory Committee in March 1965 and has been submitted for approval to the FAO Conference at its Thirteenth Session in November 1965.

In preparing the present Program, the importance of continuity and comparability with the 1960 and 1950 censuses has been kept in mind. At the same time, an effort has been made to take into account the new developments in agriculture. Certain items have been added and changes have been made on the basis of the experience gained in the 1960 Census.

Among the additions are suggestions to permit the classification of agricultural holdings according to type, i.e., whether they are holdings producing mainly for home consumption or for sale, subclassified further into:

- (a) crops holdings;
- (b) livestock and poultry holdings;
- (c) mixed holdings; and
- (d) others.

Very few countries have undertaken the successive surveys on agricultural employment suggested in the 1960 Program. The present Program proposes the collection of some simple basic information on this

topic which it is believed should be possible in all countries. However, the 1960 proposals are repeated for those countries able to undertake successive surveys of agricultural employment.

Still another suggestion is that countries ascertain whether or not agricultural holdings are associated with industry. This phenomenon is of particular importance in several countries and has far-reaching social and economic consequences. Therefore, a section (No. 10) has been added to the Program.

While preparing the Program, the varying conditions of different regions and countries have been kept in mind. For this reason, most of the new items and tabulations proposed have been deliberately left optional so that countries can select those items and those tabulations most appropriate to their conditions.

B. Outline

The Program includes the following sections corresponding to the main subjects proposed for inclusion in the World Census of Agriculture.

- 0 — HOLDING, HOLDER, TENURE AND TYPE OF HOLDING
- 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
- 10 — ASSOCIATION OF AGRICULTURAL HOLDINGS WITH OTHER INDUSTRIES

Each section of the Program has been made more or less self-contained. The contents of each section are subdivided as follows:

- (i) Introduction
- (ii) Proposed census items
- (iii) Definition of census items and explanatory notes
- (iv) Tabulation plans

C. Scope of the 1970 World Census of Agriculture

The 1970 World Census of Agriculture envisages that each government will obtain, as far as possible, accurate and comparable information on the structure of its agriculture. The Program therefore includes proposals relating to:

1. the number of agricultural holdings and their principal characteristics, such as size, form of tenure, utilization of the land by broad classes, type of holding (whether producing mainly for home consumption or for sale, etc.);
2. the area under crops and the volume of production of the principal crops;
3. the number of livestock and the volume of production of some livestock products;
4. the number and characteristics of persons employed in agriculture, the extent to which the work on holdings is carried on by the households of the holders or by hired agricultural workers;
5. the number and some characteristics of the farm population;
6. the number of agricultural machines owned, the use of agricultural machinery under different arrangements and availability of transport facilities;
7. irrigation and drainage;
8. the use of fertilizers and soil dressings;
9. wood and fishery products obtained from agricultural holdings;
10. the extent to which agriculture is associated with other industries.

Provision has been made in this Program for the enumeration of a large number of items so as to promote comparability of data in case countries enumerate such items in their census. It should be emphasized, however, that in the interest of economy, of facility of administration, and accuracy of essential items, it is necessary to restrict the scope of national censuses to major items, particularly in those countries which do not have a fairly long tradition in census taking.

D. Coverage

The Program for the 1970 World Census of Agriculture proposes that all types of agricultural holdings be covered, whether producing primarily for sale or for consumption by the holder and his family. Tribal and other groups, which may be outside of the normal marketing system, are also to be included.

Ideally, the census should include all agricultural holdings in a country, whatever their size and wherever located, whether in rural or urban areas. Practical considerations, however, often make it necessary to limit the enumeration to those holdings which conform to certain recognized criteria and which fall above certain lower limits as to size of holding, size of operation, or both. No uniform minimum limits in respect of area, volume of output, number of livestock, or number of trees are suggested, for

these will vary from country to country. But in view of the large number of small holdings in many countries and their considerable contribution to the production of some important foods, it is strongly recommended that the minimum limits be made as low as possible.

In any event, special surveys and studies should be undertaken to estimate efficiently the main census items on holdings below the minimum size adopted in the census. Data on holdings below these limits might be also collected by asking from such holdings much simpler information than from those included in the census proper.

E. Methods

COMPLETE ENUMERATION CENSUSES AND SAMPLE CENSUSES

The 1970 World Census of Agriculture envisages in principle the collection of data directly from all individual holdings by complete enumeration. This is the procedure which corresponds to the needs and traditions of many countries. Complete enumeration is essential in cases where:

- (a) data are needed for small administrative units as a basis for regional planning such as, e.g., agrarian reform schemes, rural electrification schemes or other forms of local improvements;
- (b) the census figures should provide bench mark information for current agricultural statistics;
- (c) adequate information should be obtained from the census on phenomena which occur rather rarely, such as the crops which occupy relatively minor acreage but are commercially important.

The taking of a complete enumeration census is a very large operation. A vast organization is required to cover the whole country without omission or duplication. It demands the employment of a large number of enumerators who are able to understand the various definitions and instructions. In a country where the average level of education is low this may be a most serious problem. Moreover, there must be adequate transportation facilities to transport all necessary census materials in time for enumeration. Important sums of money are needed for the printing of immense quantities of documents, for the adequate training and payment of staff, and for processing the returns of the census.

In some countries many holders may be unable to supply a large part of the information investigated in the census, so that this should be collected by applying objective methods. In such cases complete enumeration is not feasible. It must be replaced

by a sample census, that is, a census restricted to an adequately selected sample of agricultural holdings.

Other countries may not have the necessary funds, personnel and facilities to prepare and carry out the operations required for a complete enumeration census. Frequently, in such countries the development planning in agriculture is only at its initial stage. The targets of the plan are then set out broadly and the census data required for planning purposes are sufficient if these are available at the national level or for large areas of the country. In all such cases sample censuses can be effectively used as substitutes for complete enumeration censuses provided that they are properly designed and carried out. However, planning and taking of a sample census is generally more complicated than that of complete enumeration and calls for even more intensive preparations. An efficient use of sampling methods requires a good knowledge of the sampling theory and skill in its application. The sample census must therefore be designed by someone who is thoroughly conversant with the sampling theory and its application.

In some situations sample censuses can provide data with greater accuracy than complete enumeration, owing to the possibility of reducing the extent of the nonsampling errors as results of:

- (a) the use of a smaller number of enumerators, which makes it possible to select those having better qualifications and to give them more intensive training and closer supervision;
- (b) introducing objective methods of enumeration, such as measuring areas, weighing of crops from small plots, etc., as a safeguard against biases. The use of these methods may be particularly important for developing countries.

Although consideration has been given above to the choice between a sample census and a complete enumeration census, both methods of enumeration can be combined in practice. For example, information regarding some items can be collected from all agricultural holdings covered by the census, while the other information can be collected only from a sample of holdings; during the sample census some categories of agricultural holdings, such as, for instance, large agricultural holdings or holdings of a special pattern may be enumerated completely. Sampling methods can also be used in an agricultural census for the purposes mentioned below.

SAMPLING METHODS FOR BROADENING THE SCOPE OF THE CENSUS

Experience shows that the quality of data is directly affected by the size of the questionnaire. A long

questionnaire is apt to tire both the agricultural holder and the enumerator and consequently may result in inaccurate returns. Broadening the national census program can be realized through the judicious use of sampling methods. For this purpose the scope of the census may be divided into two parts, one to be carried out by means of complete enumeration, and the other through sample enumeration. Such an approach leads also to savings of costs of enumeration and processing by reducing the number of entries in the census schedules of the complete enumeration.

The precise parts of the Program to be obtained through sampling and through complete enumeration will depend on the nature of the specific items and the uses for which the data are intended, as well as upon the conditions in each country. Generally, complete enumeration should be limited to items which are needed for tabulation by administrative or other limited areas for the purposes of regional planning and administration or to items for which the sufficiently accurate data cannot be obtained from the sample enumeration.

AUXILIARY AND CHANGE SAMPLE SURVEYS

The value of conducting surveys during the census year which could be linked with the results of the census should be stressed. Two cases are specially mentioned here: (i) estimation of information required to complete the coverage of the census; and (ii) evaluation of changes in figures subjected to seasonal variations.

The first problem was already considered in paragraph D above. Auxiliary sample surveys covering holdings below the minimum limits adopted for the census may be the way to obtain information regarding main census items.

Employment in agriculture may be an example of the phenomenon being subject to large seasonal variations. Therefore, the 1970 Program suggests that a survey of agricultural employment be conducted at various times during the census year and linked with the census. The same procedure could be followed for other items such as livestock and poultry numbers, which have important seasonal variation. In these cases, attention is called to the need for the use of sampling techniques.

USE OF SAMPLING METHODS IN PILOT CENSUSES AND PRETESTING SURVEYS

Pilot censuses and pretesting surveys (see also page 6) can be carried out on a sample basis only. Two different cases might be considered when planning such surveys: (a) where the aim of testing is to obtain some quantitative measures on the basis

of which some decisions would be taken regarding the census itself; and (b) where no quantitative measures are expected from data obtained by the tests. In the former case (a), a sample for the purposes of the pilot census or the pretesting survey should be randomly selected. This, for instance, is the only way to estimate some parameters required for the decision on the best design in case the census itself is taken on a sample basis. The results of such a pilot census can give unbiased estimates of the census costs, the time required for different census operations, and some other quantitative measures needed for comparing the effectiveness of different procedures. The other case (b) will occur, e.g., if the aim is to check the questionnaires, the definitions and the instructions for the cases of specific conditions in agricultural holdings without deriving any quantitative conclusions. Then, purposively selected areas or holdings might be investigated. However, caution should be taken in order not to introduce biases of great significance for the problems investigated if nonrandom sampling is used in a pretesting survey.

SAMPLING METHODS TO ASSESS THE QUALITY OF FIELD WORK

Experience has shown that various errors exist in statistical data deriving from a census. These are due to several reasons, among which are incomplete coverage, misunderstanding on the part of enumerators, ignorance of the correct answer on the part of respondents, etc. Sampling methods can be used to assess the accuracy of census data. For these purposes postenumeration (evaluation) sample surveys may be undertaken. Through employment of better qualified enumerators, and use of objective methods wherever possible, the magnitude of the response errors can be checked. The same method can be used to evaluate the completeness of coverage of the census. Checking the magnitude of biases arising from these causes has become necessary both for the users of statistical data who find, in the results of evaluation surveys, the information on the degree of reliance they can place on the census data, and for statisticians themselves to whom these checks show the deficiencies of their methods and the directions for work on future improvements. It is emphasized that an evaluation survey must be properly designed and properly carried out, otherwise its results might be misleading and might not indicate the real accuracy of the census data.

USE OF SAMPLING METHODS TO CONTROL ERRORS OF PROCESSING

Equally important is the possibility of using sampling methods to control the errors in various process-

ing operations, such as editing, coding, etc. These procedures have developed into an important census methodology because, if properly carried out, they not only result in substantial savings in time and money but also help in improving the quality of the final results.

USE OF SAMPLING METHODS IN TABULATION

Tabulation and other processing programs should pay close attention to a practice which has proven very valuable in a number of countries.

Advance estimates of census results

This refers to the use of sampling methods to obtain advance estimates of census results. When regular tabulation of collected data is likely to be time-consuming, advance estimates so obtained can supply census data needed urgently.

Broadening the scope of tabulation programs

Samples of punch cards can be used especially to enlarge the program for cross-tabulations which would be costly and time-consuming on a 100 percent basis.

Particular attention is drawn to the possibility that, in countries with large numbers of holdings, the use of sampling methods permits detailed tabulations and cross-tabulations which would prove unduly burdensome and costly if they were attempted for all holdings included in the census.

F. Preparatory work for the taking of a census.

Several years may be required to prepare an agricultural census properly, especially in those countries which do not have much experience in census taking and processing. Consideration will be given below to some more important activities connected with the preparatory work for an agricultural census.

CENSUS LEGISLATION

The creation of a legal basis for an agricultural census is one of the first items to be considered in a census plan. Legal authority for the census is required for fixing primary administrative responsibility, obtaining the necessary funds, determining the general scope and timing of the census, and placing upon the public a legal obligation to co-operate. In countries lacking permanent legal authority for the taking of periodic censuses, it is important to act early in establishing one-time legal authority or, preferably, legislation calling for a system of periodic

censuses. In the census legislation the confidentiality of the individual information should be strongly and clearly established and guaranteed by adequate sanctions so as to form a basis for confident co-operation of the public.

CENSUS BUDGETING

Effective planning, and control of the various census operations is not possible without making a very careful financial estimate of the cost of each census operation. No part of the census work is too small to be clearly recognized as a component of the total cost. The budgetary appropriations of the various census operations should not be restricted only to collection of information in the field but should include costs of preparatory census work, costs of the postenumeration survey, processing of census data and preparation and publication of the results. It is important that persons at the administrative and supervisory levels, who will be responsible for the execution of a census operation, participate in estimating the budget items. It is also advisable that in the census committees the representatives of the financial authorities participate at all stages of the preparatory work on the census.

GEOGRAPHIC PREPARATIONS FOR THE TAKING OF A CENSUS

The enumeration of all the agricultural holdings of a country without omission or duplication, in a short period of time, requires much attention. It necessitates the exact delineation of the area which each enumerator must cover. The most efficient way to define each area is to provide each enumerator with a map of his enumeration area showing clearly the exact boundaries. In countries where no detailed maps are available, sketches should be provided wherever possible.

Long before the date of the enumeration, census authorities should explore the map resources of the country, and where maps are not available, an effort should be made to provide sketches showing boundaries of areas very clearly. To simplify the compilation of totals, the enumeration areas should be designed in such a way that a simple addition of the subtotals for these areas will give the totals for the required administrative or other areas.

In developing countries, where no detailed maps are available and where the agricultural census will be undertaken on a sample basis, at least a complete list of villages in the country should be prepared in advance with complementary information such as size of village in terms of agricultural population or people engaged in agriculture, ethnic groups of its population, main crops cultivated, etc. This

would be extremely useful for the purposes of proper stratification of villages for sample selection.

Another very important operation in the preparatory work for the agricultural census is the listing of potential enumeration units in order to assure full coverage in the census. Lists of holdings available from administrative offices frequently appear to be very incomplete, not up to date and therefore not quite useful for census enumeration purposes. The listing operation is essential for the agricultural census itself but could also serve as a frame for conducting further surveys.

PREPARATION OF CENSUS QUESTIONNAIRES AND INSTRUCTIONS

The preparation of census questionnaires is one of the most important steps in the preparation of a census because the quality of the enumeration depends on it to a large extent. After selection of the items for which information is desired, the questions should be stated so clearly that they would be understood by all enumerators and all respondents.

While designing the questionnaires, the anticipated difficulties of the enumerator and also the problems of tabulation should be kept in mind. If the census is to be tabulated by punch card methods, the items should be in the same order on the questionnaire as on the punch card. Precoding of the questionnaires, i.e., printing the codes which shall be used for processing on the questionnaire, may very much facilitate the processing of data.

Questionnaires should be prepared sufficiently in advance of the date of the census so that they can be thoroughly tested by using staff of the same educational level as those who will be called upon to take the census as enumerators. Such a check shows the deficiencies of the questionnaires as well as the reaction of the agricultural holders to them. Questionnaires should be available in advance to be distributed on time.

Instructions should be prepared as simply and clearly as possible, giving definitions of concepts involved in the questionnaire and explaining how the enumerator should complete it.

PILOT CENSUSES AND PRETESTING SURVEYS

The attention of countries is called to the importance of pilot censuses and pretesting surveys for testing the questionnaires, the definitions, the enumeration procedures, equipment, and to determine the appropriate methods for the collection and the processing of data. The function of a pilot census is to examine the plan of operations with regard to such objectives as economy, accuracy and speed.

Such surveys can also be used for training senior and other officials in the different aspects of census taking. Pilot censuses are particularly recommended in less developed countries where there is little previous experience in census work and where, consequently, adequate census techniques have to be determined. If purposively selecting areas for a pilot census, care should be taken to choose areas which are representative of the various conditions which are likely to be encountered during the taking of the census.

TRAINING OF SUPERVISORY AND SPECIALIZED PERSONNEL

The need for intensive training of census personnel cannot be overemphasized. Special attention should be paid to this phase of preparatory work because the quality of the census results largely depends on the extent to which supervisory and specialized personnel have received adequate training.

The proper training of supervisory personnel is particularly important, as they usually will be required to train others. Only few key people may get training outside the country, e.g., in the regional or interregional training centers, but training of national personnel as such is a national responsibility.

With regard to training of enumerators, a program should ensure that all enumerators understand the questions that are contained in the questionnaire, that they will know how to ask them and be able to explain their meaning and purpose to respondents. The time for this training will vary from country to country but it should be adequate for the taking of a good census.

PUBLICITY FOR THE CENSUS

The importance of publicity for the census cannot be overstressed. Experience from some countries shows that the lack of adequate publicity may jeopardize the agricultural census.

The purpose of publicity is to bring the census to the attention of the people. Its aim should be that all agricultural holders or at least one member of their families should know about the census. The scope of the census might be clearly explained in the national and local press to familiarize people with the questions which will be asked. The publicity program should explain the uses made of some of the data thus collected, particularly for planning agricultural policies. It should try to make the census mean something to people and it should establish confidence between the people and the census authorities. Its confidential character and the need for accurate replies should be emphasized.

It is not possible to state the most effective means for publicity, as these will vary from country to coun-

try. In many countries the daily and weekly press, the cinema, radio, television and posters have been used. In other countries, the co-operation of members of the clergy, chiefs of communities, heads of business associations, labor groups and public service organizations has been most effective in bringing the census to the attention of the people. A National Census Committee or local committees could also play an important role in the publicity campaign. In some countries committees have been organized in villages to carry out verbal publicity among the illiterate farmers by reading out and explaining to them census publicity material. The use of visual publicity media under these conditions may be of great help in informing the population about the purpose and the scope of the agricultural census.

TIMELY PLANNING OF DATA PROCESSING

It is extremely important that the methods to be used in processing the agricultural census returns be decided upon early in the planning stage, so that the census questionnaires can be designed in accordance with specific processing needs. By adopting suitable design and format of the questionnaires, the quality of census data can be improved and the costs can be considerably reduced.

To improve the quality of census data the list of checks should be prepared well in advance during the preparations for the census. In case of mechanical or electronic tabulation of the census returns, a program should be established for detecting errors, e.g., omissions in punching or losses of punched cards, certain coding errors, inaccurate reading of returns by the punch operators, improper alignment of perforations, errors in gang punching, etc. It is also necessary to compose in advance a synoptic table of discrepancies that the machine would detect. The efficiency of these devices should be checked on the basis of material collected during the pilot census.

G. Time reference

Countries are urged to take their censuses in 1970 or, if this is not possible, in another year close to 1970. Information collected for the census refers to one year, to one week period, or to a specific date according to the subject investigated. However, the duration of the enumeration should be rather short and, if possible, should not extend beyond one month, in order to avoid omissions or duplications because of changes in figures on some items collected in the census caused by variability of some events, e.g., changes in employment in agriculture, movement of livestock, etc. In cases of

census enumeration through more than one round, the observations made above relate to each round separately. The detailed time reference by subjects can be indicated as follows.

1. A *specific year*, such as the last agricultural year, or the year preceding the date of enumeration, i.e., the period of one year, which ends at the date of enumeration, refers to information regarding: type of holding; aggregate area under crops and crop production; production of livestock products; extent to which the work on the holding is carried out by the holder's household members (Major group 41); use of agricultural power on the holding (Groups 61.1 and 61.2); agricultural machines used on the holding; general transport facilities; area of land irrigated (Groups 71.2, 71.3 and 71.4); fertilizers and soil dressings; wood and fishery products; contract operations (Major group 102).
2. The *week* preceding the date of enumeration, i.e., the period of one week length, which ends at the day of enumeration, refers to information on "Employment in agriculture" (Major groups 42 and 43).
3. A *specific date* refers to information regarding: holding, holder, and tenure of holding (Major groups 01, 02 and 03); land utilization; area under crops if reported as "at the census date" and not as "aggregate area"; number of trees or vines; livestock and poultry (excluding livestock products); farm population; source of electric power on the holding (Group 61.3); agricultural machines owned by the holder; area of land provided with irrigation facilities (Group 71.1) and drainage (Major group 72); type of industry with which the holding is integrated (Major group 101). A specific date is usually considered the day of enumeration or some other day close to this. In countries where there is more than one crop season during the year, information on total area of holding, areas under different forms of tenure, and areas classified according to utilization should relate to a specific date in the major crop season.

H. Production

Production of crops, livestock and poultry products is included in the "Expanded List" (see part I below, page 8), although production data are often better collected by methods other than a census. In many parts of the world, satisfactory estimates of

crop production are impossible without crop-cutting sample surveys. With items whose production extends over the whole year, such as milk or coconuts, sampling in time may be needed or some form of recording.

However, production figures are so important that they should be made available in a form which permits relating them to the data from the census. In some countries the census offers the only opportunity to obtain information about production and relating it to size and tenure of holdings or the use of improved agricultural practices. In all cases in which production figures are given in the census reports, a statement should be included, clearly indicating the basis on which they were obtained and giving available information about their limitations.

I. Short and Expanded List of items

A uniform questionnaire is not proposed since the exact form of the questionnaire will vary from country to country in accordance with local conditions. The recommendations are therefore in the form of a list of items for which internationally comparable statistics are expected from the 1970 World Census of Agriculture.

The items on the list are printed in two distinct types, namely, in **bold type** and in ordinary type. Those printed in bold type constitute what is termed the "Short List." The "Expanded List" is composed of all items irrespective of whether they are printed in bold or in ordinary type.

The items included in the Short List are those for which data are desired from all countries, as they are considered of major importance in the world's agriculture. However, no country is expected to collect information concerning an item which is of negligible or of no importance to the country, even though that item is included in the Short List.

The Expanded List contains items which are primarily of regional importance and on which some countries may be able to collect information through the census. It also provides a breakdown in greater detail on several items on the Short List.

In developing a questionnaire, some countries may wish to obtain greater detail than is provided in the Short List, or even add items not included in the Expanded List. They are, however, urged to prepare their items in such a way that they correspond to or can be combined to provide the equivalent of the appropriate items given in the 1970 Program. Countries should be cautious not to include too many secondary items because they are burdensome to the main census-taking and processing operations, the accuracy of which may be reduced thereby.

J. Tabulation of results

The tabulation of the results of the 1970 World Census of Agriculture should be undertaken as soon as possible after the enumeration has been completed. The Program includes suggestions to tabulate information regarding all items on the Expanded List by size classes of holdings. The items and the size classes for which data are desired from all countries are printed in **bold type**. From those printed in ordinary type, countries may select only those appropriate to their circumstances.

Countries in which tribal agriculture exists together with a more developed type of agriculture are urged to tabulate separately the data concerning these two types of agriculture. Information on holdings operated jointly by two or more households should be tabulated separately from the data on other holdings.

Countries collecting information in their census for establishments which are not agricultural holdings, such as those which are wholly engaged in the production of wood and forest products, are urged to tabulate separately the data for the agricultural holdings and for the other establishments.

It is recognized that classification by size of holdings as proposed in the Program is not the only significant classification of census results. The 1970 Program proposes, therefore, wherever possible, a series of tabulations by tenure and by type of holding. In addition to tabulations by size classes according to total area of holdings, some countries may wish also to prepare tabulations based, e.g., on the agricultural area of holdings defined as the sum of arable land, land under permanent crops, and land under permanent meadows and pastures (Major groups 11, 12 and 13 of Section 1). Whatever classification is adopted, international comparison based on the total area of individual holdings is clearly the most practicable from the point of view of feasibility, and it is therefore proposed in the present Program as in previous world censuses.

Tabulation plans indicated in the Program refer to data for a country as a whole. However, there is also a need for tabulation of census data by major administrative or geographical regions, and some tables can also be prepared for minor localities. The scope of the tables presenting data for minor localities should be properly reduced in comparison with the information prepared for the whole country or its major subdivisions.

Attention is drawn to the fact that much additional valuable information may be obtained from the census reports through appropriate tabulations and cross-tabulations. Countries are urged to take full advantage of the possibilities offered by the census returns.

K. Countries not using the metric system

Countries which do not use the metric system are urged to arrange their area classification as far as possible in such a way as to enable approximate comparison with the size groups in hectares proposed in the Program.

L. Forwarding census material to FAO

Governments are requested to provide FAO, as soon as they are available, with:

- (a) census documents, e.g., texts of census legislation, census questionnaires and instructions to enumerators, supervisors, editing and coding instructions, samples of working sheets and punch cards and other materials describing all phases of census operations;
- (b) preliminary and final results of the census, and census reports.

Countries adopting a size classification of holdings other than by total area are requested to provide FAO, in the interest of international comparability, with data tabulated by total area of holdings at least for the items included in the Short List of the Program.

M. Publication of census results

It is recommended that publications giving census results include the following:

1. Historical background.
2. Objectives of the census.
3. Census legislation.
4. Organization of the census at headquarters and in the field indicating, wherever possible, estimates of personnel and expenditure, including costs of processing and tabulating the data.
5. Preparatory work (geographical work, preparation of questionnaire, instructions, definitions and concepts, publicity, etc.).
6. Timetable of operation and reference period.
7. Pilot census.
8. Methods and procedures used in collecting the data and organization of the supervision of the field work.
9. Processing and tabulation methods.
10. Quality checks.
11. Analytical summary of the census results.
12. Copy of the questionnaires, a summary of the main instructions and other forms used.

Data secured by enumeration should be distinguished clearly from collateral estimates prepared as part of the census. When transmitting the census results to FAO, countries are urged to report any deviation from the definitions proposed in the Program.

N. Relation of the Program to a census of population

The 1970 World Census of Agriculture includes in its scope information on employment in agriculture. The same topic can be investigated in the population census. The census of population, covering all branches of economy, provides data on employment in all occupations and branches of industry. It also provides, therefore, a count of the persons working in agriculture. It eliminates the duplicate enumeration which occurs in the agricultural census in relation to persons engaged on different holdings; these persons are reported in the census of agriculture by each holder for whom they work. However, the population census does not always give a good account of the persons working in agriculture, as the results depend largely on the time reference adopted for the census. The time reference of the population census frequently overlaps the period when agricultural work is on the ebb, and then the population census figures may seriously underestimate the population engaged in agriculture.

Censuses of agriculture and censuses of population have both been used to secure information on the persons who are connected with agriculture. However, the concepts used in both censuses necessarily vary. Because of different enumeration units in both censuses, their criterion for enumerating the agricultural population differs. A census of agriculture as a census of agricultural holdings uses the residence criterion. Hence, it enumerates as the agricultural population those people who are living on the agricultural holdings or in the households of the agricultural holders. This population is therefore called "farm population." A census of agriculture, however, cannot be the means of enumerating also the agricultural laborers and their dependents who live outside the agricultural holdings, because information on these persons, specifically on their dependents, cannot be generally obtained from respondents in the agricultural census. A census of population using the occupational affiliation with agriculture as a criterion for enumerating agricultural population would include these persons. Nevertheless, a number of people living on and operating small holdings, but whose main economic activity is outside agriculture, would usually be excluded from the agricultural population together with persons dependent on them, even though they are connected with agri-

culture. Moreover, it is often not feasible to include in the population census information on holdings necessary to relate agricultural population data to the characteristics of agricultural holdings with which they are associated.

Thus, both censuses produce meaningful though different series of population data connected with agriculture. Where the two censuses are taken simultaneously, it is possible to secure information about the population connected with agriculture in such a way that the characteristics of the population can be related directly to the characteristics of the holdings. In the case where population and agricultural censuses are taken separately but close in time, there would be a possibility of matching a sample of the population census returns with the information obtained from the agricultural census and to relate population census data to the characteristics of agricultural holdings. However, this operation is rather difficult and costly.

Information on employment in agriculture and on farm population obtained in an agricultural census can be easily related to size and other characteristics

of the agricultural holdings. This can also be done to some extent in a population census by the inclusion of a few questions regarding the holdings. Countries should therefore examine to what extent it is feasible to incorporate in their population census programs questions aimed at eliciting information on the economic and social characteristics of their agricultural population. Consideration should also be given to the possibility of including a few other questions, making it possible to relate this type of information to the size, tenure and type of holding.

Since the census of agriculture is usually limited to holdings above a specified minimum size, some countries have found it useful to ask, in their population census, for some limited information concerning agricultural activities outside the holdings covered by the census of agriculture, in particular with regard to livestock and production of certain vegetables and horticultural specialities, in order to obtain additional agricultural data not collected in the agricultural census itself. Similarly, the population census may be the best source of information on persons who provide services directly to agriculture.

Section 0 - HOLDING, HOLDER, TENURE, AND TYPE OF HOLDING

Introduction

This section deals with four main concepts proposed for investigation, namely, the holding, the holder, tenure, and type of holding.

The items included in this section are essentially the same as those included in the 1960 Program. The main differences between the two programs are:

1. the introduction of the new topic, namely, "Type of holding," and
2. the addition of some items, the clarification of the definition of "holding," and the addition of a definition of "hired manager."

In enumerating forms of land tenure, several countries included an item for the area operated by hired managers, thus treating this mode of operation as though it were a form of tenure. In these cases, no information became available as to the form of tenure of the land operated by hired managers. As the form of tenure has not lost its importance because the holding is operated by a hired manager, countries are urged to report land so operated under the land tenure to which it belongs.

Considering the difficulty experienced by certain countries in collecting information on land tenure which varies greatly between countries, it is suggested that the countries which experience these difficulties might make a survey of the various forms of land tenure before the taking of the census.

Proposed census items

Items printed in **bold type** represent those for which information is desired from all countries. These items constitute the Short List of the Program. The Expanded List includes, in addition to the items printed in bold type, the items printed in ordinary type. Countries may choose therefrom such items as are suitable to their conditions.

SECTION 0 — HOLDING, HOLDER, TENURE, AND TYPE OF HOLDING

Major
group
Group

01. **HOLDING**

- 01.1 **Location of the holding**
- 01.2 **Number of noncontiguous parcels of land which constitute the holding**
- 01.3 **Total area of the holding**

Major
group
Group

02. **HOLDER**

- 02.1 **Name of the holder**
- 02.2 **Age of the holder**
- 02.3 **Main occupation of the holder**
 - 02.31 Agricultural
 - 02.32 Nonagricultural
- 02.4 **Address of the holder if he does not live on the holding**
- 02.5 **Indication as to whether the holding is managed entirely by the holder or whether the holder has a hired manager**
- 02.6 **Name of the hired manager and his address if he does not live on the holding**
- 02.7 **Is the holding operated jointly by two or more households?**
 - Yes
 - No
- 02.8 **Legal status of the holder**
 - 02.81 **Civil person**
 - 02.82 **Corporation**
 - 02.83 **Co-operative or consciously planned collective**
 - 02.84 **Government**
 - 02.85 **Tribe and/or clan**
 - 02.89 **Other**
- 02.9 **Name of the respondent and his relationship to the holder**

03. **TENURE**

- 03.1 **Area of the holding which is owned by the holder or is held in ownerlike possession**
- 03.2 **Area of the holding which is rented from others**
 - 03.21 Area rented for a fixed amount of money
 - 03.22 Area rented for a fixed amount of produce
 - 03.23 Area rented for a fixed amount of money and some produce
 - 03.24 Area rented for a share of the produce or its equivalent in money
 - 03.25 Area rented in exchange for services
 - 03.29 Area operated under other forms of renting, including area operated gratuitously (rent-free) and in right of usufructuary mortgages
- 03.3 **Area of the holding which is operated on a squatter basis**
- 03.4 **Area of the holding which is operated under tribal or traditional communal forms of tenure**
- 03.9 **Area of the holding which is operated under other forms of tenure not included in the previous categories (specify)**

04. **TYPE OF HOLDING**

- 04.1 **Indicate if the holding is producing mainly for**
 - 04.11 Home consumption
 - 04.12 Sale
- In the case of holdings producing mainly for sale, check the appropriate box below:**
 - (a) Crops holding
 - (b) Livestock and poultry holding
 - (c) Mixed holding
 - (d) Other

Definition of census items and explanatory notes

HOLDING

The basic unit of tabulation in the agricultural censuses is the agricultural holding. A holding, for census purposes, is all the land which is used wholly or partly for agricultural production and is operated as one technical unit by one person alone, or with others, without regard to title, legal form, size or location.

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

A technical unit is the unit which, under the same management, has the same means of production, such as labor force, machinery and animals.

The holding may consist of one or more separate parcels, located in one or more territorial divisions, provided that all these separate parcels 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.

Agricultural production for census purposes includes the growing of field crops, fruits, 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; and the production of livestock and livestock products, poultry and poultry products, honey, rabbits, fur-bearing animals, silkworm cocoons, etc.

Forestry and fishery production carried on as an ancillary activity on an agricultural holding is also considered as agricultural production. However, if agricultural activity is carried on as an ancillary activity in a unit, the major activity of which is forestry, the forest area and production should be excluded from the census but the area devoted to agriculture should be included.

Establishments producing *only* forest products, race horses, fish, frogs, dogs or wild game are not to be considered as agricultural holdings.

Where several farm units such as plantations, co-operative or collective farms and similar establishments share the same technical service, if a distinct area is assigned to an individual and such individual shares in the agricultural products of this land, or if a specific number of livestock or poultry is assigned to an individual and he shares in the livestock or poultry products, each such area or number of live-

stock should be considered as a holding and each individual as a holder.

However, if a member of the holder's household independently operates land for agricultural production, this land should be considered as a separate holding. When individuals, laborers, etc., on farms or plantations comprising several farm units are not assigned a distinct area of land or a specific number of animals and do not receive any share of the agricultural products derived therefrom, then the entire group of units is to be considered a single holding.

When two or more establishments are under the same ownership and/or general direction but the immediate management is done by different persons, they should be classified as separate holdings.

Land which is used in common for grazing purposes by livestock kept by holders in the proximity of their holdings qualifies as *communal grazing land-holding* if the following two conditions are found:

1. the area (usually a fixed area) is delimited by fencing, by herding, or by any other form of boundary demarcation; and
2. supervision is exercised in regard to the use of the land.

Land not conforming to the above criteria should not be included in the census. However, if other criteria are used on which a decision has been made to distinguish communal grazing land from open range land, they should be indicated.

Information collected for communal grazing land-holdings should include only the following items:

- (a) Legal status of the holder (government, tribe and/or clan, etc.)
- (b) Area of the holding
- (c) If possible, number of holders of livestock who have access to the holding

These items should be shown in a separate table but otherwise left out of the tabulation program.

Ideally, the census should include all agricultural holdings in a country, whether large or small. Practical considerations, however, make it necessary to limit the enumeration to those holdings which conform to certain recognized criteria and which fall above certain lower limits as to size of holding or size of operation or both. No uniform minimum limits in respect of area, volume of output, numbers of livestock or number of trees are suggested here, for these will vary from country to country. But in view of the large number of small holdings in many countries and their considerable contribution to the production of some important foods, it is strongly urged that the minimum limits be made as low as possible.

LOCATION OF THE HOLDING

The location of the holding should be indicated in detail in the schedule. If the holding is in a village or hamlet, the name of the village or hamlet and the administrative area in which it is located should be given. This information will facilitate control of the enumeration, summarization by territorial divisions, subsequent inquiries for purposes of verification, sampling inquiries, etc.

PARCEL

A parcel is any land in the holding entirely surrounded by land or water of other holdings or by land or water not forming part of any holding. It may consist of one or more cadastral units, plots or fields.

TOTAL AREA OF THE HOLDING

The total area of the holding should include the total of all land forming part of a unit which is under the same technical responsibility and management. It should also comprise the land occupied by the farm buildings, including the house of the holder, wherever these are located.

Special rules should be applied in the case of shifting cultivation, i.e., the custom of cultivating clearings scattered in the reservoir of natural vegetation (forest or grass-woodland) and of abandoning them as soon as the soil is exhausted.

The total area of the holding should in that case be considered as the sum of:

- (a) the area under crops during the reference period of the census; and
- (b) the area prepared for cultivation but not sown or planted at the time of the enumeration.

In the case of holdings composed partly of settled agricultural land and partly of shifting cultivation, each part should follow its own rules when recording total area.

Holders who have access to communal grazing land should not include their estimated share of the communal grazing land in the total area of their holding.

HOLDER

The holder, for census purposes, is the person who has the responsibility for the operation of the agricultural holding. He exercises the technical initiative and responsibility for the operation of the holding and may have full economic responsibility

(e.g., as an owner) for it or share this with others (as a tenant). When two or more persons share jointly (as partners) in the economic and technical responsibility for the operation of an agricultural holding, each is to be considered as the holder if they belong to different households. In these cases, the names of the partners should be entered under item 02.1 "Name of the holder" but the questions on age and main occupation of the holder, i.e., items 02.2 and 02.3, should remain unfilled. However, if the persons jointly operating the holding are members of the same household, one of them should be considered as the holder and all information requested on the holder should be supplied in relation to this person.

If a holding is operated by a hired manager, special provision should be made for recording this in the census. Many countries enumerate the hired manager separately, while others list him as a holder. In either case, the name of the person or organization which pays him a salary or wage and/or a part of the produce also should be entered.

When a holding is operated by a co-operative or consciously planned collective, a tribe and/or clan, or by a central or local government or government agency, this fact should be separately recorded. (With regard to employment in agriculture and farm population, special arrangements are to be made to collect information about all persons in the household of members of a co-operative, a consciously planned collective, a tribe or a clan.)

HIRE MANAGER

A hired manager is a person responsible for making day-to-day decisions and for supervising others. These functions include the current decisions in running or operating the holding and in the employment of hired labor. He is not to be confused with a caretaker or a laborer. In cases in which the hired manager is listed as a holder of a holding which he operates for the account of somebody else, neither the personal information nor information about his household is to be recorded for this holding.

MAIN OCCUPATION OF THE HOLDER

The main occupation of the holder is the occupation at which the holder spends most of his working time.

LEGAL STATUS OF THE HOLDER

A holding may be operated by a civil person or a juridical person, i.e., corporation, co-operative or

consciously planned collective, or by the government or by a tribe and/or clan.

Civil person. By a civil person is to be understood:

- (a) an individual operating a holding;
- (b) two or more persons who share the technical and economic responsibility of the operation without a legal contract;
- (c) two or more households operating jointly, without legal contract, while at the same time each of the households may operate a holding of its own (see definition of household under section on Farm population).

Corporation. A holding is to be considered as operated by a corporation if it is operated by, or on behalf of, two or more persons who have a separate legal status as such without being a co-operative or a collective. Joint-stock companies are examples of corporations.

Co-operative or consciously planned collective. A holding is said to be operated by a co-operative if it is operated by a body constituted as a co-operative according to applicable legislation. This includes several kinds of farm organizations in which the principles of individual and joint ownership or leasehold are combined in different degrees.

A holding is said to be operated by a consciously planned collective if it is operated by a group of persons not necessarily related by blood, who voluntarily or by mandate of the governing authority join together to exercise land rights in common: for example, ownership, occupation as a single unit, and usufruct. This includes, e.g., land operated by monastic orders, the communal farms or "kol-khozes" of the Soviet Union, the collective "ejidos" of Mexico, and other collective arrangements of recent origin.

Government. Government holdings operated by a central or local government, either directly or through a special body, are to be included under this heading.

Tribe and/or clan. A holding is to be included under this heading when it is operated jointly by a tribe, a clan or a part thereof. If, however, the tribal land is subdivided for individual use, the area cultivated by each member should be considered as a separate holding.

Other. This group includes those holders not belonging to any of the previous groups.

TENURE

Land tenure in an agricultural census is concerned with the rights under which the land is operated, and not with the ownership of the land.

Area owned or held in ownerlike possession. Two different concepts are involved:

- (a) that of land owned by the holder or members of his household, which is understood to mean land over which the holder possesses title of ownership and consequently the right to determine the nature and extent of its use, as well as the right of transfer; and
- (b) land operated under such special conditions that the holder operates it in an ownerlike way even though he does not possess a title of ownership.

Some common types of ownerlike possession include:

- (i) land operated under perpetual lease, hereditary tenure, and under long-term leases usually ranging from 30 to 99 years, and the rent of which is sometimes only nominal;
- (ii) land which, without legal title of ownership nor of a long-term lease, has been peacefully and uninterruptedly operated by the holder for a period of over 30 years without payment of rent; and
- (iii) the system under which a villager receives a plot, rent-free, from tribal, ejidal or other communal land and retains it as long as he keeps it under cultivation by his own labor and that of his family and under which he cannot sell or mortgage his holding.

In all such cases, the holder legally uses the land without consideration of other interests and without interference from others, and always has complete economic responsibility. Whenever feasible, the census returns should indicate clearly into which of the above categories the data fall.

Area rented. This includes:

- (i) area rented for a fixed amount of money;
- (ii) area rented for a fixed amount of produce;
- (iii) area rented for a fixed amount of money and some produce;
- (iv) area rented for a share of the produce, or its equivalent in money;
- (v) area rented in exchange for services; and
- (vi) other forms of renting, including area operated gratuitously (rent-free) and area operated in right of usufructuary mortgage.

Area rented for a fixed amount of money, a fixed amount of produce, a fixed amount of money and some produce. By this is meant all land leased to the holder by individuals, by corporations, or by the government or other public or related bodies, usually for a short period of time. Payment may be in the form of a specified amount of money, a specified amount of produce, a specified amount of money

and of produce, or a specified amount of money and in addition some share of produce. The administration and management of the land in general are the responsibility of the holder.

Area rented for a share of the produce, or its equivalent in money. This means all land for the use of which the holder delivers to the landlord a share of the produce or its equivalent in money. The amount of the share varies according to local conditions and to the type of agriculture undertaken, i.e., crop production, production of livestock and livestock products, poultry production, etc. The technical responsibility in the management of the holding may be exclusive to the holder or may be shared to a limited degree (but without imperiling the holder's independence) with the landlord if the latter contributes tools, fertilizers, or other aids. The economic risks of the operation, as far as income is concerned, are always shared by the holder and the landlord.

Area rented in exchange for services. By this is meant land, the usufruct of which is granted to the holder instead of wages. Two cases are most common:

- (a) that in which agricultural laborers receive a piece of land from the landlord in return for which they must work, unpaid, for a certain number of days per week; and
- (b) that in which the holder is granted a piece of land in part payment for services to the government, to the church or to others.

Area under other forms of renting including area operated gratuitously and usufructuary mortgages. This means all land which has been granted rent-free to the holder under special arrangements for his exclusive use and usufruct.

By usufructuary mortgages is meant a mortgage by which the mortgagee, in right of the mortgage, has the usufruct of the mortgaged property.

Area operated on a squatter basis. This is understood to mean all land operated by a holder who lacks title of ownership and for which use he does not pay rent, notwithstanding the fact that he retains its total usufruct. Land occupied by squatters may be either private or public property, and occupancy occurs without consent of the owner, even though it may sometimes be tolerated by him, especially in the case of public domain.

Area under tribal or traditional communal forms of tenure. The land included under this category is held under a form of tenure in which the joint or communal exploitation is not the result of careful planning but of tradition or tribal conditions. The latter is common in most parts of Africa, where land is held on a tribal, village, kindred, or family basis, and individuals have certain rights in this land by

virtue of their membership in the respective social unit. Title to the land, which often is vested in the chief of the tribe, is communal in character but not absolute; it is only usufructuary.

Area under other forms of tenure. Forms of tenure other than those described in the preceding paragraphs may be of common or limited occurrence in some countries. Among these may be mentioned, as examples, the land operated under transitory forms of tenure, such as the *land under trusteeship* (operated by a trustee) or land received in some countries by members of collective agricultural holdings for individual use, land under inheritance proceedings, etc.

A holding may be operated under more than one form of tenure. In such cases, the holdings should be classified under "Holdings operated under more than one form of tenure" when reporting tenure of holding. In addition, when reporting tenure of the land, the area under each tenure within the holding should be reported separately under the appropriate tenure form.

TYPE OF HOLDING

The purpose of the items under this heading is to classify holdings according to whether they are producing mainly for home consumption or mainly for sale and then to classify the holdings belonging to the latter category by the most important types of agricultural production. The first classification is based on the destination of the agricultural output of the holding during the year in question. By "Agricultural output" is understood the value of that part of the yearly agricultural production on the holding which remains after deduction of the produce used on the holding for further agricultural production, e.g., as forage or seed. However, for the purpose of the classification the output should be adjusted by deducting that part which has been paid by the holder as rent in kind to the landlord.

Holding producing mainly for home consumption. This applies to holdings which produce mainly for home consumption. By "mainly" is meant that 50 percent or more of the adjusted agricultural output of the holding is consumed by the holder's household.

Holding producing mainly for sale. This applies to holdings where more than 50 percent of the adjusted agricultural output of the holding is produced for sale.

Holdings producing mainly for sale could be classified further according to the most important activity of the holding.

- (a) *Crops holding.* Where more than 50 percent of the value of the sales of the holding is from the sale of crops.

(b) *Livestock and poultry holding.* Where more than 50 percent of the value of sales of the holding is from the sale of livestock, livestock products or poultry.

(c) *Mixed holding.* Where no one of the above accounts for more than 50 percent of the value of sales of the holding.

(d) *Other.* This group includes holdings not belonging to any of the previous groups, e.g., silkworm holdings, where more than 50 percent of the value of sales of the holding is from the sale of silkworm products as cocoon silk; or beekeepers' holdings, where more than 50 percent of the value of sales of the holding is from the sale of honey and beeswax.

Countries which so desire can further classify these types by selecting specific species of temporary crops (e.g., market vegetable gardens, wheat, etc.) or of permanent crops (e.g., fruit, rubber, coffee, sisal, etc.) where these crops account for more than 50 percent of the value of the sales of the holding. Similarly, from livestock and poultry, one species of livestock or livestock product can be selected for classification (e.g., cattle holdings, dairy holdings, sheep holdings, etc.) where one of these items accounts for more than 50 percent of the value of the sales of the holding.

Tabulation plans

The tables attached are submitted to indicate the comparable data which are desired on this section from countries participating in the 1970 World Census of Agriculture. The items printed in **bold type** are those for which information is desired from all countries. From the items printed in ordinary type, countries may select those which are suitable to their conditions.

In countries where there is more than one crop season during the year, the total area of the holding, for purposes of tabulation by size of holding, should be the total area reported for the major crop season (see page 7, G. Time reference).

Tables giving tenure (Tables 0.6 and 0.7) show:

- (a) tenure of holding; and
- (b) tenure of the land.

Under (a), holdings are classified according to whether they are operated under one single form of tenure or more than one (e.g., holdings owned, rented; or partly owned and partly rented, partly owned and partly occupied on a squatter basis, etc.), and their number and total area are shown in Table 0.6.

Under (b), holdings operated under more than one form of tenure are dissolved into their different land tenure components, showing the area owned, rented, operated by squatters, etc.

Table 0.1. - Number, area, mode of operation and fragmentation of holdings, by size

Size class	Holdings		Mode of operation				Fragmentation	
	Number	Area	By the holder ¹		Through a hired manager		Number of parcels in the holdings reporting ²	Average number of parcels per holding ²
			Number	Area	Number	Area		
All holdings with and without land								
Holdings without land		xxx		xxx		xxx	xxx	
Holdings under 0.5 hectare								
under 0.1 hectare								
0.1 hectare and under 0.2								
0.2 hectare and under 0.5								
Holdings 0.5 hectare and over								
0.5 hectare and under 1								
1 hectare and under 2								
2 hectares and under 3								
3 hectares and under 4								
4 hectares and under 5								
5 hectares and under 10								
10 hectares and under 20								
20 hectares and under 50								
50 hectares and under 100								
100 hectares and under 200								
200 hectares and under 500								
500 hectares and under 1,000								
1,000 hectares and under 2,500								
2,500 hectares and over								
Holdings of size not reported		xxx		xxx		xxx		

¹ Excludes holdings where the hired manager is considered as the holder. - ² Optional for holdings under 0.5 hectare and for those over 50 hectares.

Table 0.2. - Fragmentation of holdings, by tenure and by size of holding¹

Size class	All holdings					Holdings fully owned ²				
	Number of holdings consisting of:					Number of holdings consisting of:				
	1 parcel	2 to 3 parcels	4 to 5 parcels	6 to 9 parcels	10 parcels and over	1 parcel	2 to 3 parcels	4 to 5 parcels	6 to 9 parcels	10 parcels and over
All holdings with land										
Holdings under 0.5 hectare										
under 0.1 hectare										
0.1 hectare and under 0.2										
0.2 hectare and under 0.5										
Holdings 0.5 hectare and over										
0.5 hectare and under 1										
1 hectare and under 2										
2 hectares and under 3										
3 hectares and under 4										
4 hectares and under 5										
5 hectares and under 10										
10 hectares and under 20										
20 hectares and under 50										
50 hectares and under 100										
100 hectares and under 200										
200 hectares and under 500										
500 hectares and under 1,000										
1,000 hectares and under 2,500										
2,500 hectares and over										
Holdings of size not reported										

¹ Some countries may wish to prepare this table also by legal status of holder. - ² Holdings in which all the land is owned by the holder.

Table 0.3. - Holders, by age class and by size of holding¹

(This table refers only to holders who are civil persons, excluding holdings jointly operated by two or more households)

Size class	Number of holders reporting	Number of holders who are:				
		Under 35 years of age	35 to 44 years of age	45 to 54 years of age	55 to 64 years of age	65 years of age and over
		All holdings with and without land				
Holdings without land						
Holdings under 0.5 hectare						
under 0.1 hectare						
0.1 hectare and under 0.2						
0.2 hectare and under 0.5						
Holdings 0.5 hectare and over						
0.5 hectare and under 1						
1 hectare and under 2						
2 hectares and under 3						
3 hectares and under 4						
4 hectares and under 5						
5 hectares and under 10						
10 hectares and under 20						
20 hectares and under 50						
50 hectares and under 100						
100 hectares and under 200						
200 hectares and under 500						
500 hectares and under 1,000						
1,000 hectares and under 2,500						
2,500 hectares and over						
Holdings of size not reported						

¹ Some countries may wish to prepare this table also by tenure of holding.

Table 0.4. - Number of holders and area operated, by main occupation and by size of holding
(This table refers only to holders who are civil persons, excluding holdings jointly operated by two or more households)

Size class	Holders with agricultural main occupation		Holders with non agricultural main occupation	
	Number of holders	Area operated	Number of holders	Area operated
All holdings with and without land				
Holdings without land		xxx		xxx ¹
Holdings under 0.5 hectare				
under 0.1 hectare				
0.1 hectare and under 0.2				
0.2 hectare and under 0.5				
Holdings 0.5 hectare and over				
0.5 hectare and under 1				
1 hectare and under 2				
2 hectares and under 3				
3 hectares and under 4				
4 hectares and under 5				
5 hectares and under 10				
10 hectares and under 20				
20 hectares and under 50				
50 hectares and under 100				
100 hectares and under 200				
200 hectares and under 500				
500 hectares and under 1,000				
1,000 hectares and under 2,500				
2,500 hectares and over				
Holdings of size not reported		xxx		xxx

Table 0.5. - Number and area of holdings, by legal status of the holder and by size of holding

Size class	Total holdings reported		Holdings by legal status of holder											
			Civil person		Corporation		Co-operative or consciously planned collective		Government		Tribe and/or clan		Other	
	Number	Area	Number	Area	Number	Area	Number	Area	Number	Area	Number	Area	Number	Area
All holdings with and without land														
Holdings without land		xxx		xxx		xxx		xxx		xxx		xxx		xxx
Holdings under 0.5 hectare														
under 0.1 hectare														
0.1 hectare and under 0.2														
0.2 hectare and under 0.5														
Holdings 0.5 hectare and over														
0.5 hectare and under 1														
1 hectare and under 2														
2 hectares and under 3														
3 hectares and under 4														
4 hectares and under 5														
5 hectares and under 10														
10 hectares and under 20														
20 hectares and under 50														
50 hectares and under 100														
100 hectares and under 200														
200 hectares and under 500														
500 hectares and under 1,000														
1,000 hectares and under 2,500														
2,500 hectares and over														
Holdings of size not reported		xxx		xxx		xxx		xxx		xxx		xxx		xxx

Table 0.6. - Number and area of holdings, by tenure and by size of holding

Size class	Holdings operated under one form of tenure												Holdings operated under more than one form of tenure ¹					
	Rented from others												Owned by the holder or in owner-like possession	Total	More than 50% of total area owned by the holder or in ownerlike possession	At least 50% of total area rented	All other	
	For a fixed amount of money		For a fixed amount of money and some produce		For a share of the produce or its equivalent in money		In exchange for services		Other forms of renting ²		On squatter basis	Under tribal or traditional communal forms of tenure						Under other single forms of tenure
No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	
All holdings with land																		
Holdings under 0.5 hectare																		
under 0.1 hectare																		
0.1 hectare and under 0.2																		
0.2 hectare and under 0.5																		
Holdings 0.5 hectare and over																		
0.5 hectare and under 1																		
1 hectare and under 2																		
2 hectares and under 3																		
3 hectares and under 4																		
4 hectares and under 5																		
5 hectares and under 10																		
10 hectares and under 20																		
20 hectares and under 50																		
50 hectares and under 100																		
100 hectares and under 200																		
200 hectares and under 500																		
500 hectares and under 1,000																		
1,000 hectares and under 2,500																		
2,500 hectares and over																		
Holdings of size not reported																		

¹ Include here all holdings which are held in part under one form of tenure and in part under another. - ² Including holdings operated gratuitously (rent-free) or holdings operated in right of usufructuary mortgage.

Table 0.7. - Total area of holdings, by tenure and by size of holding

Size class	Total area of holdings reporting	Area owned by the holder or in owner-like possession	Area rented from others						Area operated on a squat-ter basis	Area operated under tribal or traditional communal forms of tenure	Area operated under other forms of tenure
			Total rented from others	For a fixed amount of money	For a fixed amount of produce	For a fixed amount of money and some produce	For a share of the produce or its equivalent in money	In exchange for services				Under other forms of renting^{1}
All holdings with land											
Holdings under 0.5 hectare											
under 0.1 hectare											
0.1 hectare and under 0.2											
0.2 hectare and under 0.5											
Holdings 0.5 hectare and over											
0.5 hectare and under 1											
1 hectare and under 2											
2 hectares and under 3											
3 hectares and under 4											
4 hectares and under 5											
5 hectares and under 10											
10 hectares and under 20											
20 hectares and under 50											
50 hectares and under 100											
100 hectares and under 200											
200 hectares and under 500											
500 hectares and under 1,000											
1,000 hectares and under 2,500											
2,500 hectares and over											
Holdings of size not reported											

¹ Including area operated gratuitously (rent-free) and area operated in right of usufructuary mortgage.

Table 0.8. - Number and area of holdings, by type and by size of holding¹

Size class	Holdings producing mainly for home consumption		Holdings producing mainly for sale									
			Total		Crops holdings		Livestock and poultry holdings		Mixed holdings		Other holdings	
	Number	Area	Number	Area	Number	Area	Number	Area	Number	Area	Number	Area
All holdings with and without land												
Holdings without land		xxx		xxx		xxx		xxx		xxx		xxx
Holdings under 0.5 hectare												
under 0.1 hectare												
0.1 hectare and under 0.2												
0.2 hectare and under 0.5												
Holdings 0.5 hectare and over												
0.5 hectare and under 1												
1 hectare and under 2												
2 hectares and under 3												
3 hectares and under 4												
4 hectares and under 5												
5 hectares and under 10												
10 hectares and under 20												
20 hectares and under 50												
50 hectares and under 100												
100 hectares and under 200												
200 hectares and under 500												
500 hectares and under 1,000												
1,000 hectares and under 2,500												
2,500 hectares and over												
Holdings of size not reported		xxx		xxx		xxx		xxx		xxx		xxx

¹ Some countries may wish to prepare this table also by form of tenure.

Section 1 - LAND UTILIZATION

Introduction

This section of the Program proposes a classification of land utilization on agricultural holdings according to five major groups. Several countries may want to adopt a more detailed classification; the proposal, therefore, also includes subdivisions of some of the major groups. These, together with the major groups, constitute the Expanded List of items.

In order to ensure comparability between the 1970 and previous censuses, the land utilization groups have been retained exactly as in the 1960 Census of Agriculture.

In the case of shifting cultivation, where holdings consist only of land under crops and land prepared for cultivation, Group 11.4 and Major groups 13, 14 and 15 do not apply. Holdings which consist exclusively of communal grazing land should not be included in this classification but should be shown separately as indicated in Section 0.

Proposed census items

The Short List of items for which information is desired from all countries is printed in **bold type**. The Expanded List includes the items printed in bold type as well as in ordinary type. Countries may select from the items printed in ordinary type those suitable under their conditions.

SECTION 1 — LAND UTILIZATION

Major group

- Group
- 11. **ARABLE LAND**
 - 11.1 Land under temporary crops (except market and kitchen gardens and cultivation under glass)
 - 11.2 Land under temporary meadows (for mowing or pasture)
 - 11.3 Land under market and kitchen gardens, including cultivation under glass
 - 11.4 Land temporarily fallow
 - 11.9 All other arable land
 - 12. **LAND UNDER PERMANENT CROPS**

Major group

- Group
- 13. **LAND UNDER PERMANENT MEADOWS AND PASTURES**
 - 13.1 Cultivated meadows and pastures
 - 13.2 Uncultivated meadows and pastures
 - 14. **WOOD OR FOREST LAND**
 - 15. **ALL OTHER LAND**
 - 15.1 Unused land (unproductive, as well as that yielding insignificant production) and potentially productive for agriculture or forestry but not yet developed
 - 15.9 Land in the holding not classified elsewhere

Definition of census items and explanatory notes

COVERAGE

All the land in the holding should be classified according to its utilization and any duplication that may arise, for instance, in the case of associated and successive crops, should be avoided or clearly indicated as such.

TIME REFERENCE

Groups should be recorded at a certain date, and this date should be stated clearly. In any case, the date should be the same as for the determination of the total area of the holding.

AREA TO BE RECORDED

For purposes of classification of land utilization, gross area of the respective fields should be recorded, that is, all lands including bunds, headlands, shoulders, shelter belts, ditches, etc., attributable to each field.

ARABLE LAND

For the purposes of this Program, arable land means all land generally under rotation, whether it is under temporary crops, used as temporary meadows,

or market and kitchen gardens (including cultivation under glass), temporarily fallow or lying idle.

Land under temporary crops (except market and kitchen gardens and cultivation under glass). Includes all land used for crops whose growing cycle is under one year and sometimes only a few months, and which must 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 should also be considered as temporary crops if the harvesting destroys the plant, as, for example, in the case of cassava and yams. Crops when grown in rotation and therefore destroyed when the land is plowed (e.g., alfalfa, clovers, grasses, etc.) should be considered as temporary crops. Certain crops, like asparagus, strawberries and sugarcane, are sometimes grown as permanent crops and sometimes as annual or biennial crops. The area should be classified as under temporary or under permanent crops, as the case may be.

Land under temporary meadows (for mowing or pasture). Land under temporary meadows is understood to be land temporarily cultivated with herbaceous forage crops for mowing or pasture. It is recognized that some practical difficulties may arise in differentiating "Temporary meadows" from "Permanent meadows and pastures" to which reference will be made below. To obviate this difficulty, it is suggested that a period of rotation of less than five years be considered as temporary.

Land under market and kitchen gardens, including cultivation under glass. The specialized cultivation of vegetables, flowers, bulbs and ornamental plants should be included in this category, whether they are grown in market gardens, in kitchen gardens, or in greenhouses, and whether they are intended for consumption on the holding, for marketing, or both.

Land temporarily fallow. Land temporarily fallow is land resting for a period of time before it is planted again. If the land remains fallow 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 had become overgrown with trees utilizable as timber, firewood, etc.; "All other land" when it reverts to wasteland. Hence, a maximum length of time should be adopted for such land to remain idle and be considered as fallow. It is suggested herewith that this period be less than five years, and also that the land can be brought back into cultivation by normal cultivation practices.

If the census is taken at a time when the sowing or planting of the current season has not been fully completed, the area fallow at that time which

will be put under crops immediately afterward should be classified according to the crops with which it is going to be sown or planted and not as fallow land. Even though fallow land is temporarily used for grazing, it should be classified under fallow if the main purpose of the land is for the cultivation of temporary crops.

All other arable land. This includes all areas of rotation land not put to any of the uses mentioned above during the year of reference of the census, for example, arable land damaged by floods, land prepared for cultivation but not sown on account of unforeseen circumstances, etc.

LAND UNDER PERMANENT CROPS

Land under permanent crops means land cultivated with crops which occupy the land for a long period of time, and do not need to be planted for many years after each harvest, such as cocoa, coffee, rubber, shrubs and fruit trees, nut trees and vines, but excluding wood and timber. It includes nurseries, except those for forest trees which should be classified under "Wood or forest land." It excludes permanent meadows and pastures.

LAND UNDER PERMANENT MEADOWS AND PASTURES

This means land in the holding used permanently, i.e., five years or more, for herbaceous forage crops, either seeded and cared for or existing naturally (wild prairie or grazing land). Permanent meadows and pastures on which trees and shrubs are grown should be recorded under this heading only if the growing of forage crops thereon is the most important use of the area.

WOOD OR FOREST LAND

This includes all wood lots or tracts of timber, natural or planted, which constitute part of the holding and which have, or will have, value as wood, timber, or other forest products or for protection. Nurseries of forest trees should also be included in this category. It excludes wood and forest land used for recreation purposes only, which should be reported under the category of "Land in the holding not classified elsewhere."

ALL OTHER LAND

This includes all other land in the holding whether potentially productive or not.

Unused land potentially productive for agriculture or forestry but not yet developed. This should include the area of uncultivated land which comprises part of the holding not included under the preceding headings but which is 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.

Land in the holding not classified elsewhere. This includes all land which constitutes part of the holding but which is occupied by buildings, parks and ornamental gardens, roads or lanes, wasteland, land under water, and any other land not reported under previous groups.

SIMULTANEOUS UTILIZATION OF LAND FOR DIFFERENT TYPES OF CROPS

When recording data on land utilization, special care should be taken to avoid duplication in the case of land on which permanent crops and temporary crops or permanent meadows and pastures are grown simultaneously (see Section 2, Crops).

Tabulation plans

The following tables are submitted to indicate the comparable data which are desired on this section from countries participating in the 1970 World Census of Agriculture. The items printed in bold type are those on which information is desired from all countries. From the items printed in ordinary type countries may select those which are suitable to their conditions.

Table 1.1. - Number and area of holdings, by size and by land utilization

Size class	Total land		Arable land		Land under permanent crops		Land under permanent meadows and pastures					Wood or forest land		All other land			
	Hectares	Number	Area (hectares)	Number	Area (hectares)	Total		Cultivated		Uncultivated		Number	Area (hectares)	Total area	Unused and potentially productive	Land not classified elsewhere	
						Number	Area (hectares)	Number	Area (hectares)	Number	Area (hectares)						Hectares
All holdings with land																	
Holdings under 0.5 hectare																	
under 0.1 hectare																	
0.1 hectare and under 0.2																	
0.2 hectare and under 0.5																	
Holdings 0.5 hectare and over																	
0.5 hectare and under 1																	
1 hectare and under 2																	
2 hectares and under 3																	
3 hectares and under 4																	
4 hectares and under 5																	
5 hectares and under 10																	
10 hectares and under 20																	
20 hectares and under 50																	
50 hectares and under 100																	
100 hectares and under 200																	
200 hectares and under 500																	
500 hectares and under 1,000																	
1,000 hectares and under 2,500																	
2,500 hectares and over																	
Holdings of size not reported																	

Table 1.2. - Area, in hectares, of arable land, by size of holding and by land utilization

Size class	Area of arable land reported					
	Total	Under temporary crops	Under temporary meadows	Under market and kitchen gardens	Temporarily fallow	All other arable land
All holdings with land						
Holdings under 0.5 hectare						
under 0.1 hectare						
0.1 hectare and under 0.2						
0.2 hectare and under 0.5						
Holdings 0.5 hectare and over						
0.5 hectare and under 1						
1 hectare and under 2						
2 hectares and under 3						
3 hectares and under 4						
4 hectares and under 5						
5 hectares and under 10						
10 hectares and under 20						
20 hectares and under 50						
50 hectares and under 100						
100 hectares and under 200						
200 hectares and under 500						
500 hectares and under 1,000						
1,000 hectares and under 2,500						
2,500 hectares and over						
Holdings of size not reported						

Table 1.3. - Area, in hectares, of _____ holdings, by size and by land utilization
(Specify tenure of holdings)¹

Size class	Total land	Arable land	Land under permanent crops	Land under permanent meadows and pastures	Wood or forest land	All other land
All holdings with land						
Holdings under 0.5 hectare						
under 0.1 hectare						
0.1 hectare and under 0.2						
0.2 hectare and under 0.5						
Holdings 0.5 hectare and over						
0.5 hectare and under 1						
1 hectare and under 2						
2 hectares and under 3						
3 hectares and under 4						
4 hectares and under 5						
5 hectares and under 10						
10 hectares and under 20						
20 hectares and under 50						
50 hectares and under 100						
100 hectares and under 200						
200 hectares and under 500						
500 hectares and under 1,000						
1,000 hectares and under 2,500						
2,500 hectares and over						
Holdings of size not reported						

¹ A separate table should be prepared for each single form of tenure of the holdings.

Table 1.4. - Area, in hectares, of holdings classified by land utilization and by type of holding

Land utilization class	Holdings producing mainly for home consumption	Holdings producing mainly for sale				
		Total	Crops holdings	Livestock and poultry holdings	Mixed holdings	Other holdings
Total						
Arable land						
Land under permanent crops						
Land under permanent meadows and pastures						
Total						
Cultivated						
Uncultivated						
Wood or forest land						
All other land						

Table 1.5. - Area, in hectares, of _____ holdings, by land utilization
(Specify type of holdings)¹

Size class	Total land	Arable land	Land under permanent crops	Land under permanent meadows and pastures	Wood or forest land	All other land
All holdings with land						
Holdings under 0.5 hectare						
under 0.1 hectare						
0.1 hectare and under 0.2						
0.2 hectare and under 0.5						
Holdings 0.5 hectare and over						
0.5 hectare and under 1						
1 hectare and under 2						
2 hectares and under 3						
3 hectares and under 4						
4 hectares and under 5						
5 hectares and under 10						
10 hectares and under 20						
20 hectares and under 50						
50 hectares and under 100						
100 hectares and under 200						
200 hectares and under 500						
500 hectares and under 1,000						
1,000 hectares and under 2,500						
2,500 hectares and over						
Holdings of size not reported						

¹ A separate table should be prepared for each type of holdings, e.g., "Holdings producing mainly for home consumption," "Holdings producing mainly for sale," "Crops holdings," etc.

Section 2 - CROPS

Introduction

This section gives the list of crops for which data on area and the number of trees are desired from the countries. Data on production is also required, on an optional basis, for a certain number of crops. It is recognized that a census of agriculture may not be the best means of securing information on crop production and that this information can best be obtained through current surveys. However, a census affords the only opportunity in many countries to obtain information on production.

The proposals included in this section differ from those in the 1960 Program principally in respect of the following:

1. The scope of the Program has been broadened so as to obtain, when feasible, data on area irrigated and area nonirrigated for each temporary crop.
2. Developing countries are advised to collect information on the area treated with inorganic fertilizers separately for each of the major crops.
3. A few crops have been transferred from the list of temporary crops to that of permanent crops.
4. A few crops have been introduced into the Expanded List.

5. New tables have been suggested in the Expanded List to provide for the tabulation of data on crops by type of holding.

Proposed census items

The following is the list of crops for which data are desired from the countries participating in the 1970 World Census of Agriculture. It is grouped under three main heads:

1. Crops on arable land.
2. Permanent meadows and pastures.
3. Permanent crops.

The Short List of items for which information is desired from all countries is printed in **bold type**. The Expanded List includes the items printed in bold type as well as in ordinary type. Countries may select from the items printed in ordinary type those suitable to their conditions.

Countries which would have difficulties in collecting data on the number of trees or vines in the census might derive the information from specialized surveys.

SECTION 2 — CROPS

Major group Group	Area			Production
	Total ¹	Irrigated	Not irrigated	Total
21. CROPS ON ARABLE LAND				
21.1 CEREALS HARVESTED FOR GRAIN				
21.11 Wheat
(a) Winter wheat
(i) Hard wheat (including durum and semihard wheat)
(ii) Soft wheat
(b) Spring wheat
(i) Hard wheat (including durum and semihard wheat)
(ii) Soft wheat

¹ For developing countries it is advisable to report also on the area treated with inorganic fertilizers separately for each of the major crops (see Explanatory notes to Section 8, "Fertilizers and soil dressings" on page 67).

Major group Group	Area			Production
	Total ¹	Irrigated	Not irrigated	Total
21. 21.1				
21.12 Rye
(a) Winter rye
(b) Spring rye
21.13 Rice	2...	3...	...
21.14 Millet and sorghum
[Exclude broom millet and broom sorghum reported under 21.49 (e) and sweet sorghum which should be reported under 21.41 (c)]				
(a) Millet
(b) Sorghum
21.15 Maize
[Exclude area producing sweet corn, reported under 21.65 (b), hybrid seed for sowing and area producing parent strains for crossing which should be reported under 21.80]				
(a) Hybrid maize
(b) Ordinary maize
21.16 Barley
[Include barley for all uses]				
(a) Winter barley
(b) Spring barley
21.17 Oats
[Include oats for all uses and mature oats fed unthreshed]				
21.18 Mixed grains (maslin, etc.)
21.19 Other cereals harvested for grain (buckwheat, quinoa, spelt, etc.)
21.2 LEGUMINOUS PLANTS MAINLY FOR GRAIN				
[Include all dry pulse crops except soybeans and groundnuts]				
21.21 Dry broad beans
21.22 Edible dry beans
21.23 Lentils
21.24 Chick peas (gram)
21.25 Edible dry peas
21.29 Other legumes mainly for grain (lupines, vetches, fenugreek, pigeon peas, cowpeas, bambarra nuts [earth peas], etc.)
21.3 TUBER, ROOT AND BULB CROPS FOR FOOD OR FEED				
21.31 Potatoes
(Early and late crops for all purposes, including seed potatoes)				
21.32 Manioc (cassava)
21.33 Sweet potatoes
21.34 Arrowroot
21.35 Cocoyams and yams
21.36 Dry onions
21.37 Dry garlic
21.38 Tuber, root or bulb crops grown principally for feed				
(a) Turnips	xxx
(b) Mangels (fodder beets)	xxx
(c) Sugar beets for feed	xxx
(d) Jerusalem artichokes	xxx
(e) Carrots	xxx
(f) Swedes	xxx

¹ For developing countries it is advisable to report also on the area treated with inorganic fertilizers separately for each of the major crops (see Explanatory notes to Section 8, "Fertilizers and soil dressings" on page 67. - ² Wet rice. - ³ Dry rice.

Major group Group	Area			Production
	Total ¹	Irrigated	Not irrigated	Total
21. 21.3				
21.39	xxx
21.4				
21.4 TEMPORARY CROPS MAINLY FOR INDUSTRIAL PURPOSES				
21.41				
21.41 Sugar crops				
(a)
<i>(a) Sugarcane for sugar</i> [Include area cut for planting, for chewing, and for sugarcane juice. Sugarcane for feed should be reported under 21.51 (j) and sugarcane for thatching under 21.49 (e)]				
(b)
<i>(b) Sugar beets</i> [For sugar or for alcohol. Sugar beets for feed should be reported under 21.38 (c)]				
(c)
<i>(c) Other sugar crops (sweet sorghum, etc.)</i>				
21.42				
21.42 Fiber crops				
(a)
<i>(a) Cotton</i>				
(b)
<i>(b) Flax harvested for fiber</i>				
(c)
<i>(c) Hemp harvested for fiber (including hemp for paper mills)</i>				
(d)
<i>(d) Jute</i>				
(e)
<i>(e) Other fiber crops (sunn hemp, kenaf, urena, etc.)</i>				
21.4 21.43				
21.4 21.43 Oilseed crops				
(a)
<i>(a) Groundnuts (peanuts, for all purposes)</i>				
(b)
<i>(b) Soybeans (for all purposes)</i>				
(c)
<i>(c) Linseed [Flax for fiber is included under 21.42 (b)]</i>				
(d)
<i>(d) Mustard</i>				
(e)
<i>(e) Poppy seed</i>				
(f)
<i>(f) Hempseed</i>				
(g)
<i>(g) Castor beans</i>				
(h)
<i>(h) Sesame</i>				
(i)
<i>(i) Sunflower</i>				
(j)
<i>(j) Rapeseed or colza</i>				
(k)
<i>(k) Other oilseed crops (e.g., safflower seed, niger seed, etc.)</i>				
21.44				
21.44 Spices, condiments, aromatic, and medicinal plants				
(a)	xxx
<i>(a) Dry peppers, pimentos or chilies</i> (Exclude sweet peppers and fresh chilies used as vegetables which are to be reported under group 21.62)				
(b)	xxx
<i>(b) Other cultivated spices, condiments, medicinal and aromatic plants (e.g. aniseed, licorice, opium, cardamom, caraway seed, etc.)</i>				
21.45				
21.45 Essential oil plants (e.g., geranium, lavender, mint, etc.)				
21.49				
21.49 Other industrial crops				
(a)	xxx
(a) Tobacco				
(i)
<i>(i) Flue cured</i>				
(ii)
<i>(ii) Other types</i>				
(b)
<i>(b) Hops</i>				
(c)
<i>(c) Chicory [Exclude chicory for greens which should be reported under 21.61 (g)]</i>				
(d)
<i>(d) Pyrethrum</i>				
(e)	xxx
<i>(e) Other crops for industrial purposes not included elsewhere (e.g., indigo, henna, broom millet, broom sorghum, esparto grass, sugarcane for thatching, etc.)</i>				

¹For developing countries it is advisable to report also on the area treated with inorganic fertilizers separately for each of the major crops (see Explanatory notes to Section 8, page 67).

Major group Group	Area			Production
	Total ¹	Irrigated	Not irrigated	Total
21.				
21.5 TEMPORARY FODDER CROPS				
21.51				
21.51 Legumes, grasses and cereals cut for hay, green feed, or silage (Include all rotation land from which temporary crops were cut, even if also grazed before or after fodder was cut)				
(a)	xxx
<i>(a) Alfalfa alone</i>				
(b)	xxx
<i>(b) Clover alone</i>				
(c)	xxx
<i>(c) Other leguminous forage crops alone (lespedeza, sainfoin, soybean hay, etc.)</i>				
(d)	xxx
<i>(d) Leguminous forage crop, mixed</i>				
(e)	xxx
<i>(e) Grasses alone (timothy, red-top, sudan, orchard grass, etc.)</i>				
(f)	xxx
<i>(f) Grasses, mixed</i>				
(g)	xxx
<i>(g) Mixed legumes and grasses</i>				
(h)	xxx
<i>(h) Maize (corn) for silage</i>				
(i)	xxx
<i>(i) Other cereals cut for hay, green feed or silage</i>				
(j)	xxx
<i>(j) Other fodder crops cut for hay, green feed or silage (e.g., sugarcane for feed, maize and soybeans mixed, etc.)</i>				
21.52				
21.52 Legumes, grasses and cereals grown only for grazing (Exclude all rotation land from which grasses, legumes, cereals were cut for hay or for green feed and/or silage which should be reported under 21.51)				
(a)	xxx
<i>(a) Alfalfa, clover and other leguminous plants</i>				
(b)	xxx
<i>(b) Grasses</i>				
(c)	xxx
<i>(c) Mixed legumes and grasses</i>				
(d)	xxx
<i>(d) Cereals</i>				
21.59				
21.59 Other fodder crops not included elsewhere				
(a)	xxx
<i>(a) Cabbage for fodder</i>				
(b)	xxx
<i>(b) Pumpkins for fodder</i>				
(c)	xxx
<i>(c) Sunflower for fodder</i>				
(d)	xxx
<i>(d) Others</i>				
21.6				
21.6 VEGETABLES AND MELONS GROWN IN THE OPEN, PRINCIPALLY FOR HUMAN CONSUMPTION				
<i>(Groups 21.61 to 21.66 include all vegetables and melons produced mainly for sale, whether produced as field crops or in market gardens. Vegetables and melons grown principally for home consumption should be reported under 21.67. Crops used partly for human consumption and partly as fodder should be considered as vegetables only if their principal use is for human consumption. Crops used principally as fodder should be reported under Major Group 21.3 (Tuber, root and bulb crops for food or feed), or under group 21.59 (other fodder crops). Vegetables grown only for seed should be reported under Group 21.80)</i>				
21.61				
21.61 Leafy or stem vegetables produced mainly for sale				
(a)
<i>(a) Cabbage (red, white, savoy and Brussels sprouts)</i>				
(b)
<i>(b) Chinese cabbage</i>				

¹For developing countries it is advisable to report also on the area treated with inorganic fertilizers separately for each of the major crops (see Explanatory notes to Section 8, "Fertilizers and soil dressings" on page 67).

Major group Group	Area			Production
	Total ¹	Irrigated	Not irrigated	Total
21. 21.6				
(c) Kale
(d) Artichokes
(e) Asparagus
(f) Celery
(g) Chicory for greens
(h) Lettuce
(i) Spinach (Include silver beet or spinach beet)
(j) Leek
(k) Endive
(l) Cress (including watercress and American cress)
(m) Rhubarb
(n) Other leafy or stem vegetables (e.g., fennel, corn salad, etc.)	xxx
21.62 Fruit-bearing vegetables produced mainly for sale				
(a) Watermelons
(b) Cantaloupes and other melons
(c) Pumpkins
(d) Squash
(e) Gourds
(f) Cucumbers
(g) Eggplant
(h) Okra
(i) Tomatoes
(j) Chilies (fresh)
(k) Sweet peppers
(l) Other fruit-bearing vegetables (e.g., chayote, etc.)	xxx
21.63 Root, bulb, and tuberous vegetables produced mainly for sale				
(a) Green garlic
(b) Green onions
(c) Red beets
(d) Carrots
(e) Radishes (including horseradishes)
(f) Rutabagas or swedes and kohlrabi
(g) Turnips
(h) Other root, bulb and tuberous vegetables (e.g., cardoon, celeriac, parsnip, scorzonera, salsify, etc.)	xxx
21.64 Leguminous vegetables for human consumption produced mainly for sale				
(a) Beans (harvested green)
(b) Peas (harvested green)
(c) Other leguminous vegetables (e.g., broad beans harvested green, cowpeas harvested green, etc.)	xxx
21.65 Other vegetables for human consumption produced mainly for sale				
(a) Cauliflower and broccoli
(b) Corn (sweet)
(c) All other vegetables not reported elsewhere	xxx
21.66 Cultivated mushrooms mainly for sale (Include those grown in caves, cellars and elsewhere)
21.67 All vegetables and melons grown primarily for home consumption, including those from kitchen gardens	xxx
21.7 SPECIAL HORTICULTURAL CULTIVATION				
21.71 Flowers grown in the open (for sale, seed or industrial purposes)	xxx
21.72 Flower bulbs and corms	xxx
21.73 Ornamental plants grown in the open	xxx

¹ For developing countries it is advisable to report also on the area treated with inorganic fertilizers separately for each of the major crops (see Explanatory notes to Section 8, "Fertilizers and soil dressing" on page 67).

Major group Group	Area			Production
	Total ¹	Irrigated	Not irrigated	Total
21. 21.7				
21.74 Cultivation under glass (total)	xxx
(a) Cultivation of vegetables	xxx
(b) Cultivation of flowers and/or ornamental plants	xxx
(c) Mixed cultivation (e.g., vegetables and flowers)	xxx
21.8 CROPS GROWN FOR SEED FOR SOWING PURPOSES	xxx
(Include only those areas solely or mainly used for the production of seed not reported elsewhere)				
21.9 OTHER CROPS ON ARABLE LAND				
21.91 Green manure crops	xxx
21.99 Other crops on arable land not reported elsewhere	xxx
22. PERMANENT MEADOWS AND PASTURES				
22.1 Permanent grassland cut for hay	xxx
(Includes all permanent grassland from which hay was cut, even if also pastured or grazed before or after the hay was cut)				

¹ For developing countries it is advisable to report also on the area treated with inorganic fertilizers separately for each of the major crops (see explanatory notes to Section 8, "Fertilizers and soil dressings" on page 67).

Major group Group	Area in compact plantations			Number of trees or vines				Production
	Total	Trees or vines of productive age	Trees or vines of non-productive age	In compact plantations			Scattered total	
				Total	Of productive age	Of non-productive age		
23. PERMANENT CROPS								
23.1 FRUIT TREES AND VINES								
23.11 Citrus trees								
(a) Oranges
(b) Mandarines and tangerines (including clementines and satsuma)
(c) Lemons
(d) Grapefruit and pomelo
(e) Sour limes
(f) Other citrus fruit (e.g., bitter orange, sweet limes, citrons, bergamots, etc.)	xxx
23.12 Pome fruit trees								
(a) Apples
(b) Pears
(c) Quince
(d) Medlars
(e) Other pome fruit (e.g., loquat, etc.)	xxx
23.13 Stone fruit trees								
(a) Apricots
(b) Cherries
(c) Peaches (incl. nectarines)
(d) Plums and prunes
(e) Other stone fruit	xxx
23.14 Other cultivated fruit trees								
(a) Dates
(b) Figs
(c) Breadfruit
(d) Mangoes
(e) Avocados
(f) Custard apple
(g) Guava
(h) Pomegranate
(i) Zapote
(j) Persimmon
(k) Bananas	xxx	xxx	xxx	xxx	...
(l) Plantains	xxx	xxx	xxx	xxx	...
(m) Pineapples	xxx	xxx	xxx	xxx	...
(n) Papaya
23.15 Small cultivated fruit								
(a) Strawberries	xxx	xxx	xxx	xxx	...
(b) Raspberries	xxx	xxx	xxx	xxx	...
(c) Gooseberries	xxx	xxx	xxx	xxx	...
(d) Currants	xxx	xxx	xxx	xxx	...
(e) Blueberries	xxx	xxx	xxx	xxx	...
(f) Cranberries	xxx	xxx	xxx	xxx	...
(g) Other cultivated small fruit and berries (e.g., blackberries)	xxx	xxx	xxx	xxx	xxx
23.16 Cultivated edible nut trees								
(a) Almonds
(b) Walnuts
(c) Cashew nuts
(d) All other edible nut trees (e.g., pecan, hazelnut or filbert, chestnut, pistachio nut, Brazil nut, Macadamia [Queensland nut], etc. [excluding coconut])	xxx
23.17 Grapes								
(a) Grapes for wine and juice	xxx	xxx	xxx	xxx	...
(b) Grapes for table use	xxx	xxx	xxx	xxx	...
(c) Grapes for raisins	xxx	xxx	xxx	xxx	...

Major group Group	Area in compact plantations			Number of trees or vines				Production
	Total	Trees or vines of productive age	Trees or vines of non-productive age	In compact plantations			Scattered total	
				Total	Of productive age	Of non-productive age		
23. 23.1								
23.19 Other cultivated fruit (including mulberry grown for fruit, carob, litchi, etc.)	xxx
23.2 PERENNIAL CROPS YIELDING SPICES, CONDIMENTS, AND AROMATIC PRODUCTS								
23.21 Cinnamon
23.22 Cloves
23.23 Nutmeg and mace
23.24 Black pepper
23.25 Vanilla
23.26 Ginger
23.29 Other perennial crops yielding spices, condiments, and aromatic products (drumstick, etc.)	xxx
23.3 PERMANENT CROPS MAINLY FOR INDUSTRIAL PRODUCTION								
23.31 Crops for beverage and stimulant production								
(a) Coffee
(b) Cocoa
(c) Tea
(d) Yerba mate
(e) Other (e.g., cola, etc.)	xxx
23.32 Crops for oil production								
(a) Coconut
(b) Oil palm
(c) Olive
(d) Other (e.g., tung trees, etc.)	xxx
23.33 Crops for fiber production								
(a) Agave plants	xxx	xxx	xxx	xxx	...
(i) Sisal	xxx	xxx	xxx	xxx	...
(ii) Henequen	xxx	xxx	xxx	xxx	...
(iii) Other	xxx	xxx	xxx	xxx	xxx
(b) New Zealand flax (formio)
(c) Abaca (Manila hemp)
(d) Ramie and rhea
(e) Kapok
(f) Other (e.g., fique, etc.)	xxx
23.34 Crops for rubber and tanning production								
(a) Rubber (Hevea)
(b) Black wattle
(c) Quebracho
(d) Other	xxx
23.39 Other permanent crops mainly for industrial purposes which are not included elsewhere (e.g., sago palm, palmyra palm, citronella, lemon grass, mulberry for silkworms and paper, etc.)	xxx
23.4 NURSERIES								
23.41 Nurseries of fruit, nut trees and vines	...	xxx	xxx	xxx	xxx	xxx	xxx	xxx
23.42 Nurseries of industrial permanent plants	...	xxx	xxx	xxx	xxx	xxx	xxx	xxx
23.43 Nurseries of flower trees, ornamental trees, and bushes	...	xxx	xxx	xxx	xxx	xxx	xxx	xxx
23.5 PERMANENT CROPS GROWN PRIMARILY FOR HOME CONSUMPTION IN KITCHEN GARDENS								
23.9 OTHER PERMANENT CROPS NOT INCLUDED ELSEWHERE (specify)

Definition of census items and explanatory notes

COVERAGE

This section applies to cultivated field crops (including vegetables grown in market gardens and cultivation under glass) and trees only. Wild plants or trees should not be enumerated in the census. Information on production from uncultivated plants, if collected, should in any case be tabulated separately.

TIME REFERENCE

If aggregate areas under crops are reported, data for crops grown on arable land should refer to a specific year, such as an agricultural year or a year preceding the date of enumeration, i.e., the period of one year ending at the date of enumeration. Data on crop production should refer to the same period.

Some countries having only one crop season of importance may prefer to report areas under crops at a specific date, e.g., the day of enumeration or some other day close to this.

Information on land under permanent meadows and pastures, areas under permanent crops, number of trees and vines should refer to the same specific date as determined above.

The time reference for the above-mentioned topics should be clearly stated.

CROP AREA

The area to be reported under each crop should be carefully defined, both when reporting on crops grown on arable land and when reporting on land used for permanent crops. If the area cannot be reported directly, it may be possible to derive information on the area under crops by indirect methods, for instance, from the amount of seed sown or planted or from data on production.

For crops grown on arable land, "Area harvested" should be reported. When "Area sown" or "Area under crops at the census date" is reported, this should be stated clearly. Wherever possible, *net area* (that is, the area actually cultivated) rather than gross area (that is, the whole area of the field-bearing crop, including bunds, uncultivated patches, small irrigation ditches, etc.) should be reported.

For permanent crops the gross area occupied by each crop should be reported. Countries wishing also to report area under scattered trees, which item is not included in the Program, may convert the number of trees into area under these trees by allocating a standard area to each tree.

TREES OF PRODUCTIVE AGE

In the case of tree crops, the trees must have reached a certain age before they come into production. Trees in productive period should be enumerated as "Of productive age" regardless of the fact that, owing to meteorological conditions or other reasons, they have given no harvest in the year preceding the census. Senile trees or other trees no longer in production should generally not be enumerated at all. However, some countries may wish to include these trees in the census. In such cases, they should be reported separately.

PRODUCTION

In reporting crop production, countries are urged to indicate the stage of processing to which the figures relate. Production should be reported as closely as possible to the harvest stage, i.e., before further processing.

CROPS CULTIVATED SIMULTANEOUSLY ON THE SAME LAND

Different crops may be cultivated simultaneously on the same piece of land in such a way that it is difficult to ascertain which part of the total area is to be ascribed to each crop. In reporting area under crops it is suggested that whenever possible an effort should be made to estimate the area which each crop would have covered if it had been grown alone. There are two main types of such combinations of crops: i.e., mixed and associated crops. Mixed crops refer either to temporary crops grown simultaneously in the same field or to different permanent crops grown together. Associated crops refer to a combination of both temporary and permanent crops. For land utilization purposes in the case of associated crops, when possible the total physical area of the field occupied by these crops should be divided between the two groups: temporary and permanent, in proportion to the coverage of the area by each of the component groups. Otherwise, the whole area should be attributed to the group which the holder considers as being the more important. For estimation of area of individual crops, in the case of both mixed and associated crops, different methods to arrive at the single crop equivalent area can be used, such as quantities of seed used, densities of plants in crop mixtures as compared with the density in pure stands, eye estimates of the different areas occupied by component crops, number of trees per unit of area, etc.

The allocation of area in the case of mixed and associated crops could be made either in the field or at the central office. In the latter case, the enumerators should collect in the census all elements required for making this conversion.

Crops which are grown and harvested as mixtures, (e.g., mixed grains, grasses grown for hay, etc.) should be treated as a single crop and no attempt should be made to determine the area of each component crop.

AREA SOWN MORE THAN ONCE IN THE YEAR

Several crops may be grown and harvested successively on the same land several times during the agricultural year. Countries having more than one crop season of importance are urged to report under crop area the aggregate area which may result from either successive plantings or successive sowings on the same physical area during the specified period of time to which the census may refer. In the case of successive pickings from the same crop, however, the area should be reported only once.

CROPS YIELDING MORE THAN ONE PRODUCT

Where the same crop yields more than one product, as is the case for hemp, flax, or cotton (fiber and seed), and data on production are collected through the census for the different products obtained, the area should be given under the principal product and repeated under the secondary product, but in such a way that there is no risk of duplication in the area totals, e.g., including the area figures under the secondary product within brackets (...).

CROP AREA UNDER IRRIGATION

Irrigated area refers to the area purposively supplied with water other than rain (but including flooding of the land by river water) during the year of reference of the census.

Tabulation plans

The following tables are submitted to indicate the comparable data which are desired on this section of the census from the countries participating in the 1970 World Census of Agriculture. The items printed in **bold type** are those on which information is required from all countries. From the items printed in ordinary type, countries may select those which are suitable to their conditions.

Tables 2.1, 2.2 and 2.3 refer to all holdings with land. Countries which are in a position to do so are requested to tabulate the same tables also according to:

- single form of tenure of the holding, i.e., separately for holdings owned by the holder or in ownerlike possession, for holdings rented, etc.;
- type of the holding, i.e., separately for holdings producing mainly for home consumption, for holdings producing mainly for sale (total), for crop holdings, etc.

Table 2.1. - Area and production of _____, by size of holding¹
(State name of crop on arable land)

Size class	Number of holdings reporting (State name of crop on arable land)	Area of crop reported ²			Quantity produced (unit of measure)
		Total ³	Irrigated	Not irrigated	
All holdings with land					
Holdings under 0.5 hectare					
under 0.1 hectare					
0.1 hectare and under 0.2					
0.2 hectare and under 0.5					
Holdings 0.5 hectare and over					
0.5 hectare and under 1					
1 hectare and under 2					
2 hectares and under 3					
3 hectares and under 4					
4 hectares and under 5					
5 hectares and under 10					
10 hectares and under 20					
20 hectares and under 50					
50 hectares and under 100					
100 hectares and under 200					
200 hectares and under 500					
500 hectares and under 1,000					
1,000 hectares and under 2,500					
2,500 hectares and over					
Holdings of size not reported					

¹ A similar table should be prepared for each of the crops on "Arable land" (Major group 21) listed in the Program. Number of holdings reporting refers to the crop included in the table. - ² Indicate whether the area reported in the table is "Harvested," "Sown" or "Under crop at the census date," and also whether the data refer to net or gross area. - ³ In cases where a country also collects in the census information on the area of the crop treated with inorganic fertilizers, this column should be subdivided into "Total" and "Of which area treated with inorganic fertilizers."

Table 2.2. - (State name of permanent crop), area and number of trees and vines, and production¹

Size class	Number of holdings reporting (State name of permanent crop)	Compact plantations						Scattered trees or vines		Quantity produced (unit of measure)
		Number of holdings reporting	Area		Number of trees or vines			Number of holdings reporting	Number of trees or vines	
			Total	Trees or vines of productive age	Trees or vines of non-productive age	Total	Of productive age			
All holdings with land										
Holdings under 0.5 hectare										
under 0.1 hectare										
0.1 hectare and under 0.2										
0.2 hectare and under 0.5										
Holdings 0.5 hectare and over										
0.5 hectare and under 1										
1 hectare and under 2										
2 hectares and under 3										
3 hectares and under 4										
4 hectares and under 5										
5 hectares and under 10										
10 hectares and under 20										
20 hectares and under 50										
50 hectares and under 100										
100 hectares and under 200										
200 hectares and under 500										
500 hectares and under 1,000										
1,000 hectares and under 2,500										
2,500 hectares and over										
Holdings of size not reported										

¹ A similar table should be prepared for each of the "Permanent crops" (Major group 23) listed in the Program.

Table 2.3. - Holdings reporting¹ (State name of crop), by area harvested² and by size of holding

Size class	All holdings reporting	Number of holdings reporting (State name of crop)						
		Under 1 hectare	1 hectare and under 2	2 hectares and under 3	3 hectares and under 5	5 hectares and under 10	10 hectares and under 20	20 hectares and over ³
All holdings with land								
Holdings under 0.5 hectare								
under 0.1 hectare								
0.1 hectare and under 0.2								
0.2 hectare and under 0.5								
Holdings 0.5 hectare and over								
0.5 hectare and under 1								
1 hectare and under 2								
2 hectares and under 3								
3 hectares and under 4								
4 hectares and under 5								
5 hectares and under 10								
10 hectares and under 20								
20 hectares and under 50								
50 hectares and under 100								
100 hectares and under 200								
200 hectares and under 500								
500 hectares and under 1,000								
1,000 hectares and under 2,500								
2,500 hectares and over								
Holdings of size not reported								

¹ This table can be repeated for each crop, or at least for the most important ones. - ² Some countries report area "Sown" or "Under crop at the census date" rather than area "Harvested." In that case the table should so read. - ³ Countries may extend the classification of area reported under each crop to suit their needs.

Section 3 - LIVESTOCK AND POULTRY

Introduction

This section deals with the number of livestock and poultry on agricultural holdings and their distribution by species, age, sex and purpose.

The proposals in this section are essentially the same as those of the 1960 Program. A few items have been added and the elaborate classification of horses by age has been deleted. The classification of cattle by use or purpose has been changed somewhat and items on beehives and colonies have been transferred to the Expanded List.

Under tabulation plans, some tables are suggested for the classification of livestock and poultry by type of holding.

Proposed census items

The following is the list of items for which it is suggested that countries participating in the 1970 World Census of Agriculture produce comparable information. The Short List of items for which information is desired from all countries is printed in **bold type**. The Expanded List includes the items printed in bold type as well as those printed in ordinary type. Countries may select from the items printed in ordinary type those which are suitable to their conditions.

SECTION 3 — LIVESTOCK AND POULTRY

Major group Group	Number		
	Total	Male	Female
31. HORSES, MULES, ASSES, AND CAMELS			
31.1 Horses (all ages)			
31.11 Horses under 3 years of age	...	xxx	xxx
31.12 Horses 3 years of age and over	...	xxx	xxx
31.2 Mules (all ages)	...	xxx	xxx
31.3 Asses (all ages)	...	xxx	xxx
31.4 Camels (all ages)	...	xxx	xxx
31.41 Camels under 4 years of age	...	xxx	xxx
31.42 Camels 4 years of age and over	...	xxx	xxx
32. CATTLE¹			
32.1 Cattle (all ages), classified by age and sex
32.11 Cattle under 2 years of age
(a) Calves under 1 year of age
(b) Young stock 1 year of age and under 2 years
32.12 Cattle 2 years of age and over (including males whether castrated or not)
32.2 Cattle (all ages), classified by use or purpose
32.21 Cows in productive age	...	xxx	xxx
(a) Kept for milk production	...	xxx	xxx
(b) Kept for meat production	...	xxx	xxx
(c) Kept for draft	...	xxx	xxx
(d) Kept for mixed purposes	...	xxx	xxx

¹ Some countries may wish to inquire into milk production under "Cattle and buffaloes."

Major group Group	Number		
	Total	Male	Female
32. 32.2			
32.22 Heifers in calf	xxx	xxx
(a) Raised for milk production	xxx	xxx
(b) Raised for meat production	xxx	xxx
(c) Raised for draft and mixed purposes	xxx	xxx
32.23 Bulls used for service	xxx	xxx
32.24 Other cattle	xxx	xxx
(a) Calves for breeding	xxx	xxx
(b) Calves for meat production	xxx	xxx
(c) Cull cows for fattening	xxx	xxx
(d) Other adult animals for meat (including steers and bulls)	xxx	xxx
(e) Intended primarily for use as draft oxen	xxx	xxx
(f) Others	xxx	xxx
33. BUFFALOES¹			
33.1 Buffaloes (all ages), classified by age and sex
33.11 Buffaloes under 3 years of age
(a) Calves under 1 year of age
(b) Young buffaloes 1 year of age and under 3 years
33.12 Buffaloes 3 years of age and over
33.2 Buffaloes (all ages), classified by use or purpose
33.21 Buffalo cows	xxx	xxx
(a) Kept primarily for milk production	xxx	xxx
(b) Others	xxx	xxx
33.22 Heifers in calf	xxx	xxx
(a) Raised primarily for milk production	xxx	xxx
(b) Others	xxx	xxx
33.29 Other buffaloes	xxx	xxx
(a) Intended primarily as draft animals	xxx	xxx
(b) Others	xxx	xxx

¹ Some countries may wish to inquire into milk production under "Cattle and buffaloes."

Major group Group	Number
34. SHEEP	
34.1 Sheep (all ages) .....	...
34.11 Lambs under 1 year of age .....	...
34.12 Sheep 1 year of age and over .....	...
(a) Male (whether castrated or not) .....	...
(b) Female .....	...
34.2 Sheep (including lambs) clipped during the year .....	...
	Quantity
34.3 Wool (total production in the year, indicating whether in the grease or washed) .....	...
	Number
35. GOATS	
35.1 Goats (all ages) .....	...
35.11 Goats under 1 year of age .....	...
35.12 Goats 1 year of age and over .....	...
(a) Male .....	...
(b) Female .....	...
35.2 Goats clipped during the year .....	...
	Quantity
35.3 Goat hair and mohair (total production in the year, indicating whether in the grease or washed) .....	...
	Number
36. PIGS	
36.1 Pigs (all ages) .....	...
36.11 Pigs under 6 months of age .....	...
36.12 Pigs 6 months of age and over .....	...
(a) Sows and gilts for breeding 6 months of age and over .....	...
(b) All other pigs 6 months of age and over (include sows for fattening) .....	...
37. POULTRY AND RABBITS	
37.1 Hens, cocks, pullets, and chicks (total) .....	...
37.11 Cockerels, pullets, and chicks under 6 months of age .....	...
37.12 Cocks, capons, hens, and pullets 6 months of age and over .....	...
37.2 Laying hens (of those already reported under 37.12) .....	...
37.3 Ducks and ducklings (all ages) .....	...
37.4 Geese and goslings (all ages) .....	...
37.5 Turkeys and poults (all ages) .....	...
37.6 Guinea fowls (all ages) .....	...
37.7 Pigeons (all ages) .....	...
37.8 Rabbits and hares kept in captivity (all ages) .....	...
38. OTHER DOMESTICATED ANIMALS	
38.1 Bees	
38.11 Beehives and colonies .....	...
38.12 Honey (amount obtained in the year from beehives and colonies reported under 38.11)	Quantity
38.13 Beeswax (amount obtained in the year from beehives and colonies reported under 38.11) .....	...
38.2 Silkworms	
38.21 Silkworm eggs placed in incubation .....	...
38.22 Fresh cocoons produced .....	...
38.3 Llamas, guanacos, alpacas, and vicuñas (all ages)	Number
38.4 Fur-bearing animals (reared in captivity for fur or skin) .....	...
38.41 Foxes (total) .....	...
38.42 Minks (total) .....	...
38.49 Other fur-bearing animals .....	...
38.9 Other domesticated animals not included elsewhere (specify: reindeers, zebras, ostriches, elephants, etc.) .....	...

Definition of census items and explanatory notes

COVERAGE

It is proposed that the census include all livestock present on each holding, irrespective of its ownership, plus that owned by the holder which at the time of the enumeration is in transit or temporarily away from the holding to which it belongs but not on other agricultural holdings. Livestock found on communal grazing land at the time of the enumeration should be reported on the holding of the owner. Where livestock is associated with more than one agricultural holding, it should be enumerated only in the holding where it is kept during the night. The census should, in principle, be restricted to animals used mainly for agricultural purposes.

Beehives and colonies should be enumerated on the holding of their owner, regardless of the place where they are located at the date of the census.

TIME REFERENCE

Information on number of livestock and poultry should refer to a specific date, usually the day of enumeration or some other day close to this. Data on production of livestock products (Groups 34.3, 35.3, 38.12, 38.13 and 38.22) should refer to a specific year, such as the last agricultural year or the year preceding the date of enumeration. The same reference period should be selected for data on number of sheep clipped (Group 34.2), on number of goats clipped (Group 35.2) and on quantity of silkworm eggs placed in incubation (Group 38.21). It should also coincide with the time reference selected for recording crop production in Section 2.

AGE OF LIVESTOCK

The subdivision by age proposed for various kinds of livestock is intended for the separation of

data on mature animals from those on young animals. Keeping this in mind, countries where the age of maturity of some kind of livestock or poultry is higher than, or lower than, that indicated in the "Proposed census items," should change the age classes accordingly, e.g., if in a country the age of maturity of cattle is 3 years, items 32.11 and 32.12 should include "3" instead of "2." If, in a country, the age of maturity of cocks, capons, hens and pullets is 4 months, items 37.11 and 37.12 should include "4" instead of "6."

SHEEP OR GOATS CLIPPED

Sheep (including lambs) or goats clipped more than once during the year should be reported only once.

Tabulation plans

The following tables are submitted to indicate the comparable data which are desired in this section from the countries participating in the 1970 World Census of Agriculture. The items printed in **bold type** are those on which information is desired from all countries. From the items printed in ordinary type, countries may select those suitable to their conditions. Many countries may wish to classify all livestock by size of holding as part of the minimum program for tabulation, while countries in other regions may classify only certain species of livestock by these items, depending upon the role of the particular species in their agriculture.

The tables in the section relate to all agricultural holdings. Countries which are in a position to do so are requested to tabulate the data also by type of holding, i.e., separately for holdings mainly for home consumption, separately for holdings producing mainly for sale, separately for crops holdings, etc.

Table 3.1. - Number of horses, mules, and asses, by size of holding¹

Size class	Horses				Mules		Asses	
	Number of holdings reporting horses	Total number of horses reported	Number of horses under 3 years of age	Number of horses 3 years of age and over	Number of holdings reporting mules	Number of mules reported	Number of holdings reporting asses	Number of asses reported
All holdings with and without land								
Holdings without land								
Holdings under 0.5 hectare								
under 0.1 hectare								
0.1 hectare and under 0.2								
0.2 hectare and under 0.5								
Holdings 0.5 hectare and over								
0.5 hectare and under 1								
1 hectare and under 2								
2 hectares and under 3								
3 hectares and under 4								
4 hectares and under 5								
5 hectares and under 10								
10 hectares and under 20								
20 hectares and under 50								
50 hectares and under 100								
100 hectares and under 200								
200 hectares and under 500								
500 hectares and under 1,000								
1,000 hectares and under 2,500								
2,500 hectares and over								
Holdings of size not reported								

¹ Countries which are in a position to do so are requested to tabulate these data according to the form of tenure of the holding.

Table 3.2. - Number of cattle, by size of holding, age, and sex¹

Size class	Total cattle (all ages)		Number of cattle under 2* years of age		Number of calves under 1 year of age		Number of cattle 1 year of age and under 2*		Number of cattle 2* years of age and over	
	Number of holdings reporting	Number of head	Male	Female	Male	Female	Male	Female	Male	Female
All holdings with and without land										
Holdings without land										
Holdings under 0.5 hectare										
under 0.1 hectare										
0.1 hectare and under 0.2										
0.2 hectare and under 0.5										
Holdings 0.5 hectare and over										
0.5 hectare and under 1										
1 hectare and under 2										
2 hectares and under 3										
3 hectares and under 4										
4 hectares and under 5										
5 hectares and under 10										
10 hectares and under 20										
20 hectares and under 50										
50 hectares and under 100										
100 hectares and under 200										
200 hectares and under 500										
500 hectares and under 1,000										
1,000 hectares and under 2,500										
2,500 hectares and over										
Holdings of size not reported										

* For countries where the age of maturity is different from 2 years, the figure "2" should be changed accordingly.
¹ Countries which are in a position to do so are requested to tabulate these data according to the form of tenure of the holding.

Table 3.3. - Number of cattle, classified by use or purpose, by size of holding

Size class	Total number of head reported		Cows in active status				Heifers in calf			Other cattle							
	Total	Mixed purposes	Kept for			Total	Milk production	Draft and mixed purposes	Raised for		Total	Bulls used for service	Calves for	Cull cows for fattening	Other adult animals for meat	Intend-ed pri-marily for use as draft oxen	Others
			Milk production	Draft	Mixed purposes				Milk production	Meat production								Breeding	Meat production
All holdings with and without land																	
Holdings without land																	
Holdings under 0.5 hectare																	
under 0.1 hectare																	
0.1 hectare and under 0.2																	
0.2 hectare and under 0.5																	
Holdings 0.5 hectare and over																	
0.5 hectare and under 1																	
1 hectare and under 2																	
2 hectares and under 3																	
3 hectares and under 4																	
4 hectares and under 5																	
5 hectares and under 10																	
10 hectares and under 20																	
20 hectares and under 50																	
50 hectares and under 100																	
100 hectares and under 200																	
200 hectares and under 500																	
500 hectares and under 1,000																	
1,000 hectares and under 2,500																	
2,500 hectares and over																	
Holdings of size not reported																	

Table 3.4. - Number of holdings reporting specified number of cattle, by size of holding

Size class	Number of holdings reporting cattle										
	Total	1 head	2 head	3 to 4 head	5 to 9 head	10 to 19 head	20 to 49 head	50 to 99 head	100 to 199 head	200 to 499 head	500 head and over
All holdings with and without land											
Holdings without land											
Holdings under 0.5 hectare											
under 0.1 hectare											
0.1 hectare and under 0.2											
0.2 hectare and under 0.5											
Holdings 0.5 hectare and over											
0.5 hectare and under 1											
1 hectare and under 2											
2 hectares and under 3											
3 hectares and under 4											
4 hectares and under 5											
5 hectares and under 10											
10 hectares and under 20											
20 hectares and under 50											
50 hectares and under 100											
100 hectares and under 200											
200 hectares and under 500											
500 hectares and under 1,000											
1,000 hectares and under 2,500											
2,500 hectares and over											
Holdings of size not reported											

Table 3.5. - Number of buffaloes, by size of holding, age and sex¹

Size class	Total buffaloes (all ages)		Number of buffaloes under 3* years of age		Number of calves under 1 year of age		Number of buffaloes 1 year of age and under 3*		Number of buffaloes 3* years of age and over	
	Number of holdings reporting	Number of head	Male	Female	Male	Female	Male	Female	Male	Female
All holdings with and without land										
Holdings without land										
Holdings under 0.5 hectare										
under 0.1 hectare										
0.1 hectare and under 0.2										
0.2 hectare and under 0.5										
Holdings 0.5 hectare and over										
0.5 hectare and under 1										
1 hectare and under 2										
2 hectares and under 3										
3 hectares and under 4										
4 hectares and under 5										
5 hectares and under 10										
10 hectares and under 20										
20 hectares and under 50										
50 hectares and under 100										
100 hectares and under 200										
200 hectares and under 500										
500 hectares and under 1,000										
1,000 hectares and under 2,500										
2,500 hectares and over										
Holdings of size not reported										

* For countries where the age of maturity is different from 3 years the figure "3" should be changed accordingly.
¹ Countries which are in a position to do so are requested to tabulate these data according to the form of tenure of the holding.

Table 3.6. - Number of buffaloes, classified by use and purpose, by size of holding

Size class	Total number of head reported	Buffalo cows			Heifers in calf		Other buffaloes		
		Total	Kept primarily for milk production	Others	Raised primarily for milk production	Others	Total	Intended primarily as draft animals	Others
All holdings with and without land									
Holdings without land									
Holdings under 0.5 hectare									
under 0.1 hectare									
0.1 hectare and under 0.2									
0.2 hectare and under 0.5									
Holdings 0.5 hectare and over									
0.5 hectare and under 1									
1 hectare and under 2									
2 hectares and under 3									
3 hectares and under 4									
4 hectares and under 5									
5 hectares and under 10									
10 hectares and under 20									
20 hectares and under 50									
50 hectares and under 100									
100 hectares and under 200									
200 hectares and under 500									
500 hectares and under 1,000									
1,000 hectares and under 2,500									
2,500 hectares and over									
Holdings of size not reported									

Table 3.7. - Number of holdings reporting specified number of buffaloes, by size of holding

Size class	Number of holdings reporting buffaloes										
	Total	1 head	2 head	3 to 4 head	5 to 9 head	10 to 19 head	20 to 49 head	50 to 99 head	100 to 199 head	200 to 499 head	500 head and over
All holdings with and without land											
Holdings without land											
Holdings under 0.5 hectare											
under 0.1 hectare											
0.1 hectare and under 0.2											
0.2 hectare and under 0.5											
Holdings 0.5 hectare and over											
0.5 hectare and under 1											
1 hectare and under 2											
2 hectares and under 3											
3 hectares and under 4											
4 hectares and under 5											
5 hectares and under 10											
10 hectares and under 20											
20 hectares and under 50											
50 hectares and under 100											
100 hectares and under 200											
200 hectares and under 500											
500 hectares and under 1,000											
1,000 hectares and under 2,500											
2,500 hectares and over											
Holdings of size not reported											

Table 3.8. - Number of sheep and production of wool, by size of holding¹

Size class	Number of holdings reporting sheep	Total number of sheep reported	Number of lambs under 1 year of age	Number of sheep 1 year of age and over			Wool	
				Total	Male	Female	Number of sheep clipped during the year	Production (unit of measure)
All holdings with and without land								
Holdings without land								
Holdings under 0.5 hectare								
under 0.1 hectare								
0.1 hectare and under 0.2								
0.2 hectare and under 0.5								
Holdings 0.5 hectare and over								
0.5 hectare and under 1								
1 hectare and under 2								
2 hectares and under 3								
3 hectares and under 4								
4 hectares and under 5								
5 hectares and under 10								
10 hectares and under 20								
20 hectares and under 50								
50 hectares and under 100								
100 hectares and under 200								
200 hectares and under 500								
500 hectares and under 1,000								
1,000 hectares and under 2,500								
2,500 hectares and over								
Holdings of size not reported								

¹ Countries which are in a position to do so are requested to tabulate these data according to the form of tenure of the holding.

Table 3.9. - Number of goats and production of goat hair and mohair, by size of holding¹

Size class	Number of holdings reporting goats	Total number of goats reported	Number of goats under 1 year of age	Number of goats 1 year of age and over			Goat hair and mohair	
				Total	Male	Female	Number of goats clipped during the year	Production (unit of measure)
All holdings with and without land								
Holdings without land								
Holdings under 0.5 hectare								
under 0.1 hectare								
0.1 hectare and under 0.2								
0.2 hectare and under 0.5								
Holdings 0.5 hectare and over								
0.5 hectare and under 1								
1 hectare and under 2								
2 hectares and under 3								
3 hectares and under 4								
4 hectares and under 5								
5 hectares and under 10								
10 hectares and under 20								
20 hectares and under 50								
50 hectares and under 100								
100 hectares and under 200								
200 hectares and under 500								
500 hectares and under 1,000								
1,000 hectares and under 2,500								
2,500 hectares and over								
Holdings of size not reported								

¹ Countries which are in a position to do so are requested to tabulate these data according to the form of tenure of the holding.

Table 3.10. - Number of pigs, by size of holding¹

Size class	Number of holdings reporting pigs	Total number of pigs reported	Number of pigs under 6* months of age	Number of pigs 6* months of age and over	
				Sows and gilts for breeding	All other pigs
All holdings with and without land					
Holdings without land					
Holdings under 0.5 hectare					
under 0.1 hectare					
0.1 hectare and under 0.2					
0.2 hectare and under 0.5					
Holdings 0.5 hectare and over					
0.5 hectare and under 1					
1 hectare and under 2					
2 hectares and under 3					
3 hectares and under 4					
4 hectares and under 5					
5 hectares and under 10					
10 hectares and under 20					
20 hectares and under 50					
50 hectares and under 100					
100 hectares and under 200					
200 hectares and under 500					
500 hectares and under 1,000					
1,000 hectares and under 2,500					
2,500 hectares and over					
Holdings of size not reported					

* For countries where the age of maturity is different from 6 months the figure "6" should be changed accordingly.
¹ Countries which are in a position to do so are requested to tabulate these data according to the form of tenure of the holding.

Table 3.11. - Number of holdings reporting specified number of pigs, by size of holding

Size class	Number of holdings reporting pigs										
	Total	1 head	2 head	3 to 4 head	5 to 9 head	10 to 19 head	20 to 49 head	50 to 99 head	100 to 199 head	200 to 499 head	500 head and over
All holdings with and without land											
Holdings without land											
Holdings under 0.5 hectare											
under 0.1 hectare											
0.1 hectare and under 0.2											
0.2 hectare and under 0.5											
Holdings 0.5 hectare and over											
0.5 hectare and under 1											
1 hectare and under 2											
2 hectares and under 3											
3 hectares and under 4											
4 hectares and under 5											
5 hectares and under 10											
10 hectares and under 20											
20 hectares and under 50											
50 hectares and under 100											
100 hectares and under 200											
200 hectares and under 500											
500 hectares and under 1,000											
1,000 hectares and under 2,500											
2,500 hectares and over											
Holdings of size not reported											

Table 3.12. - Number of poultry and rabbits, by size of holding¹

Size class	Number of holdings reporting	Number of head reported								
		Chickens ²			Ducks	Geese	Turkeys	Guinea fowls	Pigeons	Rabbits and hares
		Total	Under 6* months of age	6* months of age and over						
All holdings with and without land										
Holdings without land										
Holdings under 0.5 hectare										
under 0.1 hectare										
0.1 hectare and under 0.2										
0.2 hectare and under 0.5										
Holdings 0.5 hectare and over										
0.5 hectare and under 1										
1 hectare and under 2										
2 hectares and under 3										
3 hectares and under 4										
4 hectares and under 5										
5 hectares and under 10										
10 hectares and under 20										
20 hectares and under 50										
50 hectares and under 100										
100 hectares and under 200										
200 hectares and under 500										
500 hectares and under 1,000										
1,000 hectares and under 2,500										
2,500 hectares and over										
Holdings of size not reported										

* For countries where the age of maturity is different from 6 months the figure "6" should be changed accordingly.
¹ Countries which are in a position to do so are requested to tabulate these data according to the form of tenure of the holding. - ² Hens, cocks, pullets and chicks.

Table 3.13. - Other domesticated animals

Camels	
Number of holdings reporting .....	...
Number of camels under 4 years of age .....	...
Number of camels 4 years of age and over .....	...
Llamas, guanacos, alpacas and vicuñas	
Number of holdings reporting .....	...
Number of head reported .....	...
Fur-bearing animals	
(a) Foxes	
Number of holdings reporting .....	...
Number of foxes reported .....	...
(b) Mink	
Number of holdings reporting .....	...
Number of mink reported .....	...
(c) Other fur-bearing animals	
Number of holdings reporting .....	...
Number of head reported .....	...
Bees	
Number of holdings reporting beehives .....	...
Total number of beehives .....	...
Quantity of honey produced	(unit of measure)
Quantity of beeswax produced	(unit of measure)
Silkworms	
Number of holdings reporting silkworms .....	...
Quantity of eggs placed in incubation	(unit of measure)
Quantity of fresh cocoons produced	(unit of measure)

Table 3.14. - Number of holdings without any cattle, buffaloes, sheep, goats, pigs, poultry or rabbits, by size of holding

Size class	Number of holdings reporting
All holdings with and without land	
Holdings without land	
Holdings under 0.5 hectare	
under 0.1 hectare	
0.1 hectare and under 0.2	
0.2 hectare and under 0.5	
Holdings 0.5 hectare and over	
0.5 hectare and under 1	
1 hectare and under 2	
2 hectares and under 3	
3 hectares and under 4	
4 hectares and under 5	
5 hectares and under 10	
10 hectares and under 20	
20 hectares and under 50	
50 hectares and under 100	
100 hectares and under 200	
200 hectares and under 500	
500 hectares and under 1,000	
1,000 hectares and under 2,500	
2,500 hectares and over	
Holdings of size not reported	

Section 4 - EMPLOYMENT IN AGRICULTURE

Introduction

An account of the agriculture of a country will be concerned with the extent to which agriculture is oriented to home consumption or to the market; the extent to which agriculture is carried on in combination with other activities, and the extent to which the work in agriculture is carried on by the household of the holders or by hired agricultural workers. There is also a need for information on the labor input in agriculture, both by members of the holder's household and by hired workers. Inquiries concerning the type of holding are proposed in Section 0; those relating to the extent to which agriculture is carried on in combination with other activities are included in Section 10. The other subjects are dealt with in this section.

This section of the present Program differs from that of 1960 principally in respect of the following:

1. Introduction of a new topic concerning the extent to which the agricultural work on the holding is carried on by the holder's household or by persons working for pay (hired workers).
2. Addition of new items on the number of man-hours worked on the holding by the holder and unpaid members of his household, and on the number of man-hours worked off the holding by these persons.
3. Extension of the age classes of persons employed in agricultural work to three instead of only two.
4. A suggestion to secure, whenever possible, information on the extent to which the households of the holders depend on the holding for their support.

With regard to (1), the main reason for introducing this topic is the difficulty of collecting information on labor input in agriculture. Employment in agriculture is subject to large seasonal variations. Adequate information should refer to a whole year, but because of the difficulty of remembering facts over a long period of time, it is necessary to limit the inquiry to a much shorter period, like a week. This is not a very satisfactory solution because the week which precedes the enumeration day may not be a typical week. Therefore, adequate information has

to be collected through a series of sample surveys conducted at different times during the agricultural year, and related to the census. Some countries may, however, be unable to perform such successive surveys. In view of this, the 1970 Program requires all countries to collect more simple information on the important subject of employment in agriculture, restricting it to a few indications of the degree to which agricultural work on the holding is dependent on hired workers. Some countries may also ask for the total amount of money paid to persons working for pay on the holding during the past agricultural year.

With regard to (2), the 1960 Program requested information only on the total number of man-days worked by these persons. Because of the prevalence in several countries of part-time workers, it is preferable to express their volume of work in the number of man-hours instead of number of man-days worked. Moreover, data on number of man-hours worked on the holding by the holder and unpaid members of his household give an important indication of the extent to which these persons participate in the agricultural work on the holding. It is also very useful to collect information on the number of man-hours worked by the same persons off the holding. All these proposals are included only in the Expanded List.

With regard to (3), it has been observed in some developed countries that the proportion of old people among the persons employed in agriculture steadily increases. In order to arrive at a clearer conception of this problem, the present Program subdivided the age class 15 years of age and over of the 1960 Program into two classes: 15 to 64 years of age and 65 years of age and over.

With regard to (4), it is advisable that countries which are able to do so secure information on the extent to which the households of holders depend on the holding for their support. For this purpose, inquiries should be included showing:

- (a) holders' households which are dependent entirely on the holding;
- (b) holders' households which derive the greater portion of their income from the holding but

which have some members securing income from other sources, including:

- (i) other activities carried out in the same household enterprise;
 - (ii) wage work on other agricultural holdings;
 - (iii) wage work or other employment in non-agricultural activities carried out outside the same household enterprise;
- (c) holders' households which have the majority of their income from sources other than the work on the holding, including:
- (i) other activities carried out in the same household enterprise;
 - (ii) wage work on other agricultural holdings;
 - (iii) wage work or other employment carried out outside the same household enterprise.

It is emphasized that this information can be collected in some countries only and that caution should be taken to frame the questions on this subject according to the conditions in the country. For these reasons they are not included in the "Proposed census items."

Proposed census items

The following is the list of items for which it is suggested that countries participating in the 1970 World Census of Agriculture produce comparable information. The Short List of items for which information is desired from all countries is printed in **bold type**. The Expanded List includes the items printed in bold type as well as those printed in ordinary type. Countries may select from the items printed in ordinary type those suitable to their conditions.

SECTION 4 — EMPLOYMENT IN AGRICULTURE

Major group Group	Total	Male			Female		
		Under 15 years of age	15 to 64 years of age	65 years of age and over	Under 15 years of age	15 to 64 years of age	65 years of age and over
41. EXTENT TO WHICH THE AGRICULTURAL WORK ON THE HOLDING IS CARRIED ON BY THE HOLDER'S HOUSEHOLD OR BY PERSONS WORKING FOR PAY (check the appropriate box of 41.1, 41.2 or 41.3 below)							
41.1 All agricultural work on the holding is done by the members of the holder's household (including work exchanged with others)							<input type="checkbox"/>
41.2 The bulk of agricultural work on the holding is done by the members of the holder's household, but persons working for pay are also employed							<input type="checkbox"/>
41.3 The bulk of agricultural work on the holding is done by persons working for pay							<input type="checkbox"/>
41.4 Total amount of money paid to persons working for pay on the holding during the last agricultural year (with proper recognition of payment in kind)							Amount (indicate currency unit)
42. EMPLOYMENT IN AGRICULTURAL WORK ON THE HOLDING DURING THE CENSUS WEEK							
42.1 Number of persons employed in agricultural work on the holding during the census week							
42.11 Holder and unpaid members of his household ¹							
(a) Permanent workers
(b) Temporary workers
(c) Occasional workers
42.12 Participants in co-operative, collective and communal holdings ¹
(a) Permanent workers
(b) Temporary workers
(c) Occasional workers
42.13 Persons working for pay on the holding ^{1, 2}
(a) Permanent workers
(b) Temporary workers
(c) Occasional workers

¹ Items 42.11, 42.12 and 42.13 are mutually exclusive. — ² Including the hired manager.

Major group	Group	Total	Male			Female		
			Under 15 years of age	15 to 64 years of age	65 years of age and over	Under 15 years of age	15 to 64 years of age	65 years of age and over
42.								
42.2	Total number of man-hours worked on the holding during the census week by the holder and unpaid members of his household	...	...	...	...	...	...
42.3	Total number of man-hours worked on the holding during the census week by other persons, including participants in co-operative, collective and communal holdings	...	...	...	...	...	...
42.4	Total number of man-hours worked off the holding during the census week by the persons reported in 42.11	...	...	...	...	...	...
43.	EMPLOYMENT IN AGRICULTURAL WORK ON THE HOLDING AT DIFFERENT SEASONS (To be recorded by successive sample surveys of agricultural holdings during the agricultural year)							
43.1	Number of persons employed in agricultural work on the holding during the survey week	...	...	...	...	...	...
43.11	Holder and unpaid members of his household ³	...	...	...	...	...	...
	(a) as of (date)	...	...	...	...	...	...
	(b) as of (date)	...	...	...	...	...	...
	(c) as of (date)	...	...	...	...	...	...
	etc. ....	...	...	...	...	...	...
43.12	Participants in co-operative, collective, and communal holdings ³	...	...	...	...	...	...
	(a) as of (date)	...	...	...	...	...	...
	(b) as of (date)	...	...	...	...	...	...
	(c) as of (date)	...	...	...	...	...	...
	etc. ....	...	...	...	...	...	...
43. 43.1	43.13 Persons working for pay on the holding ^{2, 3}	...	...	...	...	...	...
	(a) as of (date)	...	...	...	...	...	...
	(b) as of (date)	...	...	...	...	...	...
	(c) as of (date)	...	...	...	...	...	...
	etc. ....	...	...	...	...	...	...
43.2	Total number of man-hours worked on the holding during the survey week by the holder and unpaid members of his household	...	...	...	...	...	...
	(a) as of (date)	...	...	...	...	...	...
	(b) as of (date)	...	...	...	...	...	...
	(c) as of (date)	...	...	...	...	...	...
	etc. ....	...	...	...	...	...	...
43.3	Total number of man-hours worked on the holding during the survey week by other persons, including participants in co-operative, collective and communal holdings	...	...	...	...	...	...
	(a) as of (date)	...	...	...	...	...	...
	(b) as of (date)	...	...	...	...	...	...
	(c) as of (date)	...	...	...	...	...	...
	etc. ....	...	...	...	...	...	...
43.4	Total number of man-hours worked off the holding during the survey week by the persons reported in 43.11	...	...	...	...	...	...
	(a) as of (date)	...	...	...	...	...	...
	(b) as of (date)	...	...	...	...	...	...
	(c) as of (date)	...	...	...	...	...	...
	etc. ....	...	...	...	...	...	...

³ Including the hired manager. - ³ Items 43.11, 43.12 and 43.13 are mutually exclusive.

Definition of census items and explanatory notes

TIME REFERENCE

Information on the extent to which the agricultural work on the holding is carried on by the holder's household or by persons working for pay (Major group 41) should refer to a specific year, such as the last agricultural year or the year preceding the date of enumeration. Data on employment in agriculture should relate to the week preceding the date of enumeration, i.e., the period of one week length which ends at the day of enumeration. Of course, the day of enumeration will be different for the census and for each of the successive surveys devoted to collection of data on employment in agriculture.

It is emphasized that, although the data on employment in agriculture collected in the census refer to one week only, the classification of workers as permanent, temporary or occasional is based on the amount of time they have worked on the same holding the entire year or during a shorter period, if agricultural work is done generally during part of the year only (see also the explanatory notes on "Permanent, temporary, and occasional workers" below).

AGRICULTURAL WORK

By agricultural work or agricultural activities is meant any farm work or planning necessary to the operation of the holding. It includes feeding and caring for livestock and poultry; working in the field; working in the market or kitchen gardens; planning farm work; supervising other agricultural workers; keeping farm records; taking farm products to market; bringing 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. Land reclamation and improvements, if carried out by the farmer and his labor force, should be considered as agricultural work. It excludes work related to the operation of the home, contract construction work done by persons employed specifically to do such work, labor performed by inmates of institutions, workers employed by a contractor, and handicraft work.

PERSONS EMPLOYED IN AGRICULTURAL WORK

The persons employed in agricultural work include:

- (a) the holder, regardless of the amount of time he has spent in agricultural work;

- (b) members of his family and unrelated persons living in his household,¹ not receiving full wages in money or kind,² and who are engaged in agricultural activities (including care of poultry, cheesemaking, etc., but excluding domestic servants);

- (c) participants in co-operative, collective, and communal holdings;
- (d) all persons working for pay on the holding.

Members of the holder's household who work on the holding and receive full wages in money or kind for their work are to be classified as persons working for pay.

Some countries may wish to modify the definition for (b), "Unpaid members of the holder's household" to include only those members of the holder's household who did agricultural work on the holding during the reference week for at least one third of the number of hours which constitute a normal work week.

PERMANENT, TEMPORARY, AND OCCASIONAL WORKERS

Workers on the holding during the census week may be classified as permanent, temporary, or occasional workers, depending on the amount of time they worked on the same holding during the year adopted as time reference.

Permanent workers are those who had been employed on the holding for a total period of at least half the working time during the year.

Temporary workers are those who had been employed on the holding for a total period of less than one half but at least one third of the working time during the year.

Occasional workers are those who had not worked on the holding before the census week and others who had been employed on the holding for a total period of less than one third of the working time during the year.

No definition is offered for "working time during the year." Countries will need to determine, in the light of their own conditions, whether to use the entire year or a shorter period, such as the part of the year during which agricultural work is done. The country's census reports should specify which basis was used.

Persons who are engaged in agricultural work but generally work less than a full day may be classified according to the number of days on which

¹ The definition of "household" is given in the explanatory notes to Section 5 on page 56.

² In such cases there is no contract (written or oral) regarding the wages which the person should receive for the work on the holding, and the person usually depends on the holder or on some member of his household.

they worked, or according to the total number of hours which they worked. The country's census reports should also specify which basis was used.

EMPLOYMENT IN AGRICULTURAL WORK AT DIFFERENT SEASONS

It is proposed that countries collect information on the labor input in agriculture by means of successive sample surveys conducted at different times during the agricultural year, and related to the census. Information collected at each survey should relate to the survey week, i.e., the period of one week which ends on the day of enumeration. Data on man-hours worked on the holding and off the holding obtained from the successive surveys combined with those obtained from the census would permit to esti-

mate man-hours worked on the holding and off the holding during the entire agricultural year.

Tabulation plans

The following tables are submitted to indicate the comparable data which are desired in this section by the 1970 World Census of Agriculture. The items in **bold type** are those desired from all countries, while from those printed in ordinary type countries may select those which are suitable to their conditions.

The tables in the section relate to all agricultural holdings. Countries which are in a position to do so are requested to tabulate the data also by type of holding, i.e., separately for holdings producing mainly for home consumption, separately for holdings producing mainly for sale, and separately for crops holdings, etc.

Table 4.1. - Extent to which agricultural work on the holding is carried on by the holder's household or by persons working for pay, by size of holding

Size class	Total number of holdings reporting	Number of holdings on which			Total amount of money paid to persons working on the holding during the last agricultural year ²
		All agricultural work is done by the members of the holder's household ¹	Bulk of agricultural work is done by members of the holder's household but also by persons working for pay	Bulk of agricultural work on the holding is done by persons working for pay	
All holdings with and without land					
Holdings without land					
Holdings under 0.5 hectare					
under 0.1 hectare					
0.1 hectare and under 0.2					
0.2 hectare and under 0.5					
Holdings 0.5 hectare and over					
0.5 hectare and under 1					
1 hectare and under 2					
2 hectares and under 3					
3 hectares and under 4					
4 hectares and under 5					
5 hectares and under 10					
10 hectares and under 20					
20 hectares and under 50					
50 hectares and under 100					
100 hectares and under 200					
200 hectares and under 500					
500 hectares and under 1,000					
1,000 hectares and under 2,500					
2,500 hectares and over					
Holdings of size not reported					

¹ Including work exchanged with others. - ² With proper recognition of payment in kind.

Table 4.2. - Number of persons employed in agricultural work on the holding during the census week, by size of holding
All persons¹

Size class	Number of holdings reporting		Total number of workers	
	Permanent workers	Temporary workers	Occasional workers	Total
	Male	Female	Male	Female
All holdings with and without land				
Holdings without land				
Holdings under 0.5 hectare				
under 0.1 hectare				
0.1 hectare and under 0.2				
0.2 hectare and under 0.5				
Holdings 0.5 hectare and over				
0.5 hectare and under 1				
1 hectare and under 2				
2 hectares and under 3				
3 hectares and under 4				
4 hectares and under 5				
5 hectares and under 10				
10 hectares and under 20				
20 hectares and under 50				
50 hectares and under 100				
100 hectares and under 200				
200 hectares and under 500				
500 hectares and under 1,000				
1,000 hectares and under 2,500				
2,500 hectares and over				
Holdings of size not reported				

¹ This table should be repeated for (a) holders and unpaid members of their households; (b) participants in co-operative, collective and communal holdings; (c) persons working for pay on the holding.

Section 5 - FARM POPULATION

Introduction

This section deals with the enumeration of persons who are members of the holder's household and all other persons living on the agricultural holding. The population so defined includes, among others, the holders, participants in co-operative, collective and communal holdings, and members of their households. Information is required from all countries concerning these groups, whether living on holdings or not. Agricultural laborers who do not live on the holding should not be included.

In addition to the items included in the 1960 Program, the 1970 Program suggests the classification of the farm population into three age groups. Items on major occupation included in the 1960

Program have been deleted from the 1970 Program.

Attention should be drawn to the fact that in many countries a considerable number of holders do not live on agricultural holdings but information about these persons and members of their households should be collected.

Proposed census items

The following are the items for which it is suggested that countries produce comparable information. The items on which information is desired from all countries are printed in **bold type**. Countries might include the other items in their census if this is suitable to their conditions.

SECTION 5 — FARM POPULATION

Major group	Total	Male	Female
51. FARM POPULATION			
51.1 Members of the holder's household (Include the holder and participants in co-operative, collective and communal holdings together with members of their families and unrelated persons living in their households)
(a) under 15 years of age
(b) 15 to 64 years of age
(c) 65 years of age and over
51.2 Other persons living on the holding (Include all persons living on the holding, who are not members of the holder's household, whether or not such persons work on the holding)
(a) under 15 years of age
(b) 15 to 64 years of age
(c) 65 years of age and over

Definition of census items and explanatory notes

TIME REFERENCE

Information on farm population should relate to a specific date, such as the day of enumeration or some other day close to this.

HOUSEHOLD

The term "household" means the aggregate of persons generally bound by ties of kinship who normally reside together, not necessarily under the same roof. This includes the holder, the relatives living with him, and the other persons who share that community of life for reasons of work or because of other connections. The other persons who share the rooms occupied by the holder's family

or who use separate rooms in the same dwelling unit but take their meals with the family, should also be considered as members of the household. Persons who live alone and lodgers who occupy separate rooms in the dwelling unit and do not take their meals with the holder's family, should not be considered as part of the holder's household.

Tabulation plans

The following tables are submitted to indicate the comparable data which are desired on this section from countries participating in the 1970 World Census of Agriculture. The items printed in bold type are those for which information is desired from all countries. From the items printed in ordinary type countries may select those which are suitable to their conditions.

Table 5.1. - Farm population, by size of holding¹

Size class	Number of holdings reporting	Number of members of the holder's household and participants in co-operative, collective and communal holdings			Number of other persons living on holdings		
		Total	Male	Female	Total	Male	Female
All holdings with and without land							
Holdings without land							
Holdings under 0.5 hectare							
under 0.1 hectare							
0.1 hectare and under 0.2							
0.2 hectare and under 0.5							
Holdings 0.5 hectare and over							
0.5 hectare and under 1							
1 hectare and under 2							
2 hectares and under 3							
3 hectares and under 4							
4 hectares and under 5							
5 hectares and under 10							
10 hectares and under 20							
20 hectares and under 50							
50 hectares and under 100							
100 hectares and under 200							
200 hectares and under 500							
500 hectares and under 1,000							
1,000 hectares and under 2,500							
2,500 hectares and over							
Holdings of size not reported							

¹ Countries which are in a position to do so are requested to tabulate these data by type of the holding.

Table 5.2. - Farm population by sex and age, by size of holding¹

Size class	Number of holdings reporting	Total population	Male			Female		
			Under 15 years of age	15 to 64 years of age	65 years of age and over	Under 15 years of age	15 to 64 years of age	65 years of age and over
All holdings with and without land								
Holdings without land								
Holdings under 0.5 hectare								
under 0.1 hectare								
0.1 hectare and under 0.2								
0.2 hectare and under 0.5								
Holdings 0.5 hectare and over								
0.5 hectare and under 1								
1 hectare and under 2								
2 hectares and under 3								
3 hectares and under 4								
4 hectares and under 5								
5 hectares and under 10								
10 hectares and under 20								
20 hectares and under 50								
50 hectares and under 100								
100 hectares and under 200								
200 hectares and under 500								
500 hectares and under 1,000								
1,000 hectares and under 2,500								
2,500 hectares and over								
Holdings of size not reported								

¹ Countries which are in a position to do so are requested to tabulate these data by type of the holding.

Section 6 - AGRICULTURAL POWER AND MACHINERY AND GENERAL TRANSPORT FACILITIES

Introduction

The proposals of the 1970 World Census of Agriculture Program on agricultural power and machinery and general transport facilities are as follows:

1. Minor changes as compared with the 1960 Program are introduced on questions related to the use and source of power on the holding.
2. The list of the 1960 Program has been expanded to include a more complete inventory of agricultural machinery and implements on the holding.
3. It is proposed to enumerate the number of machines owned by the holder at the date of the census.
4. Questions are proposed on different arrangements under which machinery is used during the year preceding the census. An indication

is therefore requested in the Program as to whether the machine or implement was (a) owned solely by the holder; (b) jointly owned by the holder and others; (c) provided by the landlord; (d) provided by private contractors; (e) provided by a co-operative; and (f) provided under government-sponsored projects.

5. A general question is asked on transport facilities.

Proposed census items

These are printed in two types, bold and ordinary. Information indicated in **bold type** is desired from all countries. These items constitute the Short List. The Expanded List includes, besides the Short List, items printed in ordinary type. Countries may choose therefrom items which are suited to their conditions.

SECTION 6 — AGRICULTURAL POWER AND MACHINERY AND GENERAL TRANSPORT FACILITIES

Major group
Group

61. USE AND SOURCE OF POWER ON THE HOLDING

- 61.1 **Mechanical power**
(Check this box if any agricultural work in the field or on the farmstead was done by some machine or machines propelled or operated by petrol, oil, gas, steam, water, wind or electricity)
- 61.2 **Animal power**
(Check this box if any agricultural work in the field or on the farmstead was done by animal power)
- 61.3 Source of electric power
(Check the appropriate box if electric power is used on the holding)
- (a) purchased;
- (b) produced on the holding

Major group
Group

62. STATIONARY POWER-PRODUCING MACHINERY

Major group Group	Number owned by the holder at a specific date	Used on the holding during the year				
		Indicate by marking the appropriate box whether the corresponding machines or implements were used and were:				
		Owned solely by the holder	Owned jointly by the holder and others ¹	Provided by the landlord	Provided by private contractors	Provided by a co-operative	Provided under government-sponsored projects
62.1 Prime movers						
62.11 Internal combustion engines...	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
62.12 Steam engines, including locomotives	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
62.13 Windmills	...	xxx	xxx	xxx	xxx	xxx
62.14 Water wheels	...	xxx	xxx	xxx	xxx	xxx
62.19 Other prime movers (specify)...	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
62.2 Electric generators	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
62.3 Electric motors	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

¹Excludes machines or implements owned by co-operatives, which should be recorded in the column under the heading "Provided by a co-operative."

Major group Group	Number owned by the holder at a specific date	Used on the holding during the year				
		Indicate by marking the appropriate box whether the corresponding machines or implements were used and were:				
		Owned solely by the holder	Owned jointly by the holder and others ¹	Provided by the landlord	Provided by private contractors	Provided by a co-operative	Provided under government-sponsored projects
63. Tractors (total)	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
63.1 Tracklaying tractors	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
63.11 less than 18 hp	...	xxx	xxx	xxx	xxx	xxx
63.12 18 hp and less than 27	...	xxx	xxx	xxx	xxx	xxx
63.13 27 hp and less than 37	...	xxx	xxx	xxx	xxx	xxx
63.14 37 hp and less than 56	...	xxx	xxx	xxx	xxx	xxx
63.19 56 hp and over	...	xxx	xxx	xxx	xxx	xxx
63.2 Wheel tractors (excluding single-axle tractors)	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
63.21 less than 18 hp	...	xxx	xxx	xxx	xxx	xxx
63.22 18 hp and less than 27	...	xxx	xxx	xxx	xxx	xxx
63.23 27 hp and less than 37	...	xxx	xxx	xxx	xxx	xxx
63.24 37 hp and less than 56	...	xxx	xxx	xxx	xxx	xxx
63.29 56 hp and over	...	xxx	xxx	xxx	xxx	xxx
63.3 Power tillers and other single-axle traction power units	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64. TILLAGE, PLANTING, AND CULTIVATING EQUIPMENT						
64.1 Plows						
64.11 Animal-operated	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64.12 Tractor-operated	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64.2 Rotary tillers (tractor-operated)	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64.3 Rotary harrows (disk type and other types)						
64.31 Animal-operated	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64.32 Tractor-operated	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64.4 Disk harrows						
64.41 Animal-operated	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64.42 Tractor-operated	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64.5 Seed drills (includes combined seed drills and fertilizer distributors)						
64.51 Hand-operated	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64.52 Animal-operated	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64.53 Tractor-operated	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64.6 Cultivators and other weeding machines						
64.61 Animal-operated	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64.62 Tractor-operated	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64.7 Fertilizer distributors						
64.71 Hand-operated	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64.72 Animal-operated	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64.73 Tractor-operated	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64.8 Sprayers and dusters						
64.81 Hand-operated	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64.82 Animal-operated	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64.83 Tractor-operated	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64.9 Other selected tillage, planting, and cultivating machinery and implements (specify type and kind of traction)	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65. HARVESTING AND THRESHING EQUIPMENT						
65.1 Mowers						
65.11 Animal-operated	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65.12 Tractor-operated or self-propelled	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65.2 Rakes (side delivery and others)						
65.21 Horse rakes	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65.22 Tractor-operated or self-propelled	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65.3 Reapers and binders (including field forage harvesters)						
65.31 Animal-operated	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65.32 Tractor-operated or self-propelled	...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

¹Excludes machines or implements owned by co-operatives, which should be recorded in the column under the heading "Provided by a co-operative."

Major group Group

Major group Group	Number owned by the holder at a specific date	Used on the holding during the year					
		Indicate by marking the appropriate box whether the corresponding machines or implements were used and were:					
		Owned solely by the holder	Owned jointly by the holder and others ¹	Provided by the landlord	Provided by private contractors	Provided by a co-operative	Provided under government-sponsored projects
65.							
65.4	Combines (harvester-threshers)						
65.41	Tractor-operated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65.42	Self-propelled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65.42 (a)	Of which those used also for corn harvesting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65.5	Corn pickers and picker shellers (excluding self-propelled combines)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65.6	Potato-harvesting machinery						
65.61	Animal-operated diggers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65.62	Tractor-operated or self-propelled diggers and harvesters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65.7	Sugar-beet harvesting machinery						
65.71	Animal-operated sugar-beet lifters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65.72	Tractor-operated or self-propelled sugar-beet harvesters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65.8	Threshers (engine-operated)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65.9	Other selected harvesting and threshing equipment (specify type and kind of traction)						
65.91	Hay balers (stationary only)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65.92	Pick-up balers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65.93	Cotton harvesters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65.99	Other harvesting and threshing equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
66.	FARMSTEAD EQUIPMENT, INCLUDING TRANSPORT MEANS						
66.1	Food and feed processing and handling equipment						
66.11	Grain cleaners and sorters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
66.12	Potato, onion, and fruit sorters and graders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
66.13	Grain grinders and crushers	xxx	xxx	xxx	xxx	xxx	xxx
66.14	Sugarcane crushers	xxx	xxx	xxx	xxx	xxx	xxx
66.15	Corn shellers and shredders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
66.16	Root cutters	xxx	xxx	xxx	xxx	xxx	xxx
66.17	Chaff cutters	xxx	xxx	xxx	xxx	xxx	xxx
66.18	Crop drying equipment						
(a)	Grain driers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b)	Fodder driers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
66.19	Other selected food and feed processing and handling equipment						
(a)	Coffee pulping machines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b)	Others (specify)	xxx	xxx	xxx	xxx	xxx	xxx
66.2	Livestock equipment (including dairy, poultry, etc.)						
66.21	Milking machines (number of units)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
66.22	Milk coolers	xxx	xxx	xxx	xxx	xxx	xxx
66.23	Cream separators	xxx	xxx	xxx	xxx	xxx	xxx
66.24	Incubators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
66.25	Shearing equipment						
(i)	Hand-operated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ii)	Power-operated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
66.26	Power-operated barn cleaners	xxx	xxx	xxx	xxx	xxx	xxx
66.29	Other selected livestock equipment (specify)	xxx	xxx	xxx	xxx	xxx	xxx
66.3	Transport means						
66.31	Wheelbarrows	xxx	xxx	xxx	xxx	xxx	xxx
66.32	Carts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
66.33	Trailers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
66.34	Jeeps, station wagons, and trucks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
66.35	Automobiles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
66.36	Conveyors and elevators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
66.37	Power-dumping or unloading equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
66.39	Other means of transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

¹Excludes machines or implements owned by co-operatives, which should be recorded in the column under the heading "Provided by a co-operative."

Major group Group

67. GENERAL TRANSPORT FACILITIES

- 67.1 Are agricultural products from the holding sold outside the holding? (Yes or No)
- 67.2 If the answer to the previous question is "Yes," check one or more of the following principal means (including private or public transport means) used to transport agricultural products from the holding to the first place of sale
- 67.21 By foot
- 67.22 By pack animal
- 67.23 By animal-drawn or man-drawn cart or wagon
- 67.24 By bicycle
- 67.25 By truck, jeep or other motor vehicle
- 67.26 By train
- 67.27 By boat
- 67.28 By plane
- 67.29 By other means (specify)

Definition of census items and explanatory notes

Information on the number of machines owned by the holder and on the source of electric power (Group 61.3) should relate to a specific date, such as the day of enumeration or some other day close to this. The other data in this section, i.e., on use of power on the holding (Groups 61.1 and 61.2), on machines used on the holding and on general transport facilities (Major group 67) should refer to a specific year, such as the last agricultural year or the year preceding the date of enumeration.

USE AND SOURCE OF POWER

The items under this heading should be checked only if the form of power concerned was used for agricultural work as defined in Section 4, "Employment in agriculture," whether or not the animals or the mechanical power used belong to the holding. It should include only power used for activities mentioned in Major group 01, Agriculture, of the *International Standard Classification of All Economic Activities*, 1958 edition (Statistical Papers Series M No. 4, Rev. 1, UN). It should not include power used for activities listed in the other Major groups of this classification, and should also exclude power used in the residential part of the farmstead.

NUMBER OWNED BY THE HOLDER

If a machine is owned solely by a holder, it should be enumerated on his holding no matter where it is located at the time of the census. On the other hand, if a machine or a piece of equipment is owned by more than one holder, it should be counted as owned by the holder on whose holding it is located at the date of the census, but its use should be reported by each of the owners as "Owned jointly by the holder and others."

HORSEPOWER OF TRACTORS

There are various ways of measuring and indicating the horsepower of a tractor, such as: engine horsepower, drawbar horsepower, power take-off (pto) horsepower and, finally, the nominal horsepower indicated on the plate of the tractor. The intention of the 1970 World Census of Agriculture is to obtain information on the number of tractors classified by engine horsepower. However, countries can collect the information by different methods, for instance, by asking for make, model and year of the tractor and converting this information into engine horsepower classes, as desired by the Program, while processing the collected data. In all cases, countries should make clear to FAO the definition of horsepower that they actually have used.

MILKING MACHINES

As the unit of milking machines, an installation and not a pail should be reported.

Tabulation plans

Five tables are submitted for which comparable data are desired on this section from countries taking part in the 1970 World Census of Agriculture. The items printed in **bold type** are those on which information is desired from all countries. From the items printed in ordinary type, countries may select those which are suitable to their conditions.

Table 6.1. Use and source of power on agricultural holdings, by size of holding¹

Size class	Total number of holdings	Number of holdings reporting use of:				Number of holdings reporting electric power	
		Mechanical power only	Animal power only	Mechanical and animal power	Human power only (i.e., neither mechanical nor animal power used) ²	Purchased	Produced on the holding
All holdings with and without land							
Holdings without land							
Holdings under 0.5 hectare							
under 0.1 hectare							
0.1 hectare and under 0.2							
0.2 hectare and under 0.5							
Holdings 0.5 hectare and over							
0.5 hectare and under 1							
1 hectare and under 2							
2 hectares and under 3							
3 hectares and under 4							
4 hectares and under 5							
5 hectares and under 10							
10 hectares and under 20							
20 hectares and under 50							
50 hectares and under 100							
100 hectares and under 200							
200 hectares and under 500							
500 hectares and under 1,000							
1,000 hectares and under 2,500							
2,500 hectares and over							
Holdings of size not reported							

¹ Countries which are in a position to do so are requested to tabulate these data by tenure and by type of holding. - ² Holdings where no boxes of items 61.1 or 61.2 were checked.

Table 6.2 - Number of holdings reporting stationary power-producing machinery¹ and number owned by holders, by size of holding

Size class	Internal combustion engines		Steam engines		Windmills		Water wheels		Other prime movers (specify)		Electric generators		Electric motors	
	Number of holdings reporting	Number owned by holders	Number of holdings reporting	Number owned by holders	Number of holdings reporting	Number owned by holders	Number of holdings reporting	Number owned by holders	Number of holdings reporting	Number owned by holders	Number of holdings reporting	Number owned by holders	Number of holdings reporting	Number owned by holders
All holdings with and without land														
Holdings without land														
Holdings under 0.5 hectare														
under 0.1 hectare														
0.1 hectare and under 0.2														
0.2 hectare and under 0.5														
Holdings 0.5 hectare and over														
0.5 hectare and under 1														
1 hectare and under 2														
2 hectares and under 3														
3 hectares and under 4														
4 hectares and under 5														
5 hectares and under 10														
10 hectares and under 20														
20 hectares and under 50														
50 hectares and under 100														
100 hectares and under 200														
200 hectares and under 500														
500 hectares and under 1,000														
1,000 hectares and under 2,500														
2,500 hectares and over														
Holdings of size not reported														

¹ This table should be repeated for (a) tillage, planting and cultivating equipment; (b) harvesting and threshing equipment, and (c) farmstead equipment, including transport means; showing data for each kind of machine in these Major groups.

Table 6.3. - Number of holdings reporting tractors and number of tractors owned by the holder, by horsepower and by size of holding

Size class	Number of holdings reporting tractors owned ¹	Number of tractors owned by the holders													
		Track-laying tractors						Wheel tractors					Power tillers and other single-axle traction power units		
		Total	Less than 18 hp	18 hp and less than 27	27 hp and less than 37	37 hp and less than 56	56 hp and over	Total	Less than 18 hp	18 hp and less than 27	27 hp and less than 37	37 hp and less than 56		56 hp and over	
All holdings with and without land															
Holdings without land															
Holdings under 0.5 hectare															
under 0.1 hectare															
0.1 hectare and under 0.2															
0.2 hectare and under 0.5															
Holdings 0.5 hectare and over															
0.5 hectare and under 1															
1 hectare and under 2															
2 hectares and under 3															
3 hectares and under 4															
4 hectares and under 4															
5 hectares and under 10															
10 hectares and under 20															
20 hectares and under 50															
50 hectares and under 100															
100 hectares and under 200															
200 hectares and under 500															
500 hectares and under 1,000															
1,000 hectares and under 2,500															
2,500 hectares and over															
Holdings of size not reported															

¹ Including holdings reporting power tillers, etc.

Table 6.4. - Number of holdings reporting selected equipment used on holdings, classified by type of ownership of equipment

Kind of equipment used	Total number of holdings reporting	Number of holdings reporting use of equipment which was:				
		Owned solely by the holder	Owned jointly by the holder and others	Provided by the landlord	Provided by private contractors	Provided by co-operatives	Provided under government sponsored projects
Stationary power-producing machinery						
— } Specify						
Tractors						
Wheel tractors						
Tracklaying tractors						
Power tillers and other single-axle traction power units						
Tillage, planting, and cultivating equipment						
— } Specify						
Harvesting and threshing equipment						
— } Specify						
Farmstead equipment, including transport means						
— } Specify						

Table 6.5. - Means used to transport products from holding, by size of holding

Size class	Total number of holdings reporting on transport	Means used to transport products from holding to the place of sale ¹								
		By foot	By pack animal	By cart or wagon ²	By bicycle	By truck, jeep or other motor vehicle	By train	By boat	By plane	By other means (specify)
..... Number of holdings reporting										
All holdings with and without land										
Holdings without land										
Holdings under 0.5 hectare										
under 0.1 hectare										
0.1 hectare and under 0.2										
0.2 hectare and under 0.5										
Holdings 0.5 hectare and over										
0.5 hectare and under 1										
1 hectare and under 2										
2 hectares and under 3										
3 hectares and under 4										
4 hectares and under 5										
5 hectares and under 10										
10 hectares and under 20										
20 hectares and under 50										
50 hectares and under 100										
100 hectares and under 200										
200 hectares and under 500										
500 hectares and under 1,000										
1,000 hectares and under 2,500										
2,500 hectares and over										
Holdings of size not reported										

¹ Because the holding may use more than one means of transport, the sum of the number of holdings reporting specified means of transport may be larger than the total number of holdings reporting transport. - ² Animal-drawn or man-drawn.

Section 7 - IRRIGATION AND DRAINAGE

Introduction

This section of the Program deals with the area and methods of irrigation and drainage on agricultural holdings.

The items proposed in this section are the same as those proposed in the 1960 Program, with the exception that provision has been made for the enumeration of nonirrigated areas drained through open drains.

Proposed census items

The following is the list of items for which it is suggested that countries participating in the 1970 World Census of Agriculture produce comparable information. For item 71.2 printed in **bold type**, information is desired from all countries. From the items printed in ordinary type countries may select those which are suitable to their conditions.

SECTION 7 — IRRIGATION AND DRAINAGE

Major group	Group	Hectares
71.	IRRIGATION	
71.1	Area of land provided with irrigation facilities .....	...
71.2	Area of land actually irrigated at any time of the year by source of water .....	...
71.21	Area supplied with water from the holding itself...	...
71.22	Area supplied with water from outside the holding.	...
71.23	Area supplied with water from inside and outside the holding .....	...
71.3	Area of land actually irrigated at any time of the year by method of water supply	
71.31	Area supplied with water by gravity flow.....	...
71.32	Area supplied with water by pumping from streams, canals, tanks, lakes, and other surface-water sources	...

Major group	Group	Hectares
71.		
71.33	Area supplied with water by pumping from ground water. (Includes all devices for raising water, e.g., Persian wheels, buckets, etc.)	...
71.34	Area supplied with water by other means (e.g., flowing wells, springs, etc. — Specify) .....	...
71.4	Of the land actually irrigated (reported under Group 71.2), how much was irrigated by the sprinkler method? .....	...
72.	DRAINAGE	
72.1	Area of irrigated land provided with drainage facilities .....	...
72.11	Area drained by pumping through open drains .....	...
72.12	Area drained by pumping through covered drains ...	...
72.13	Area drained by gravity flow through open drains	...
72.14	Area drained by gravity flow through covered drains	...
72.2	Area of nonirrigated land provided with drainage facilities .....	...
72.21	Area drained through open drains .....	...
72.22	Area drained through covered drains .....	...

Definition of census items and explanatory notes

TIME REFERENCE

Information on area of land actually irrigated should refer to a specific year, such as the last agricultural year or the year preceding the date of enumeration. Information on area of land actually provided with irrigation facilities (Group 71.1) and that provided with drainage facilities (Major group 72) should refer to a specific date, usually the day of enumeration or some other day close to this.

IRRIGATION

For purposes of this census, irrigation is considered to denote the practice of purposely providing land

with water other than rain (but including flooding of the land by river water) for crop production or pasture improvement. However, when rain water has been collected and brought to the field later, that practice should also be considered as irrigation.

AREA OF LAND ACTUALLY IRRIGATED

Land actually irrigated should be considered any land of the holding irrigated during the year in question, whether several times or only once. The *physical area* of such a land should be reported.

GROUNDWATER

The water that occurs beneath the land surface and from which wells are supplied.

SOURCE AND METHOD OF WATER SUPPLY

The information required on source of water relates solely to the source from which the holder draws the water directly for irrigation. The information on method used relates solely to the methods of water supply used on the holding without regard to the method by which water is brought to the holding.

DRAINAGE

Drainage should be considered the removal of excess water from the surface of the land from the upper layers of the soil or subsoil by *artificial means* for the purpose of making nonproducing land productive and producing land more productive.

An area provided with small drains should be considered as provided with drainage facilities, even if large drains are needed for effective drainage.

Tabulation plans

The tables attached are submitted to indicate the comparable data which are desired from countries taking part in the 1970 World Census of Agriculture. The items printed in **bold type** are those on which information is desired from all countries. From the items printed in ordinary type countries may select those which are suitable to their conditions.

Table 7.1. - Number of holdings reporting, area of land provided with irrigation facilities and area of land actually irrigated, by source of water and method of water supply

Number of holdings reporting area of land actually irrigated .....	...
Area of land provided with irrigation facilities .....	...
Area of land actually irrigated .....	...
<i>By source of water</i>	
By water supplied from the holding itself .....	...
By water supplied from outside the holding .....	...
By water supplied from inside and outside the holding .....	...
<i>By method of water supply</i>	
By gravity flow .....	...
By pumping from streams, canals, tanks, lakes, and other surface water sources .....	...
By pumping from ground water .....	...
By other means (specify) .....	...
Area irrigated by sprinklers .....	...

Table 7.2. - Number of holdings reporting and area of land provided with drainage facilities

Number of holdings reporting land provided with drainage facilities .....	...
Area of irrigated land provided with drainage facilities (total)	Hectares
By pumping through open drains .....	...
By pumping through covered drains .....	...
By gravity flow through open drains .....	...
By gravity flow through covered drains .....	...
Area of nonirrigated land provided with drainage facilities (total) .....	...
Drained through open drains .....	...
Drained through covered drains .....	...

Section 8 - FERTILIZERS AND SOIL DRESSINGS

Introduction

This section deals with the enumeration of the use of fertilizers and soil dressings. The items suggested are precisely the same as those of the 1960 Program, except for some rearrangements.

As in the 1960 Program, inorganic fertilizers have been subdivided (in the Expanded List) according to the main plant nutrients. Data on the amount of chemical inorganic fertilizers used are more significant when they are classified according to the plant nutrients. Countries which are in a position to do so are requested to investigate, by means of a sample survey undertaken as part of the census, the quantity of fertilizers used in terms of plant nutrients, separately for the various crops.

Proposed census items

The following is the list of items for which it is suggested that countries participating in the 1970 World Census of Agriculture supply comparable information. For item 81.1 printed in **bold type** information is desired from all countries. From the others printed in ordinary type countries may select the items which are suitable to their conditions.

SECTION 8 — FERTILIZERS AND SOIL DRESSINGS

Major group	Group	Yes	No	Area treated (ha)	Amount applied (kg)
81.	CHEMICAL INORGANIC AND ORGANIC MANURES AND OTHER FERTILIZERS	<input type="checkbox"/>	<input type="checkbox"/>		
81.1	Have any inorganic fertilizers been applied on the holding during the year?				
81.2	Chemical inorganic fertilizers ... (Enter the total area to which any chemical inorganic fertilizer was applied. If more than one type of this fertilizer was applied to any field, the total area treated may be less than the sum of the areas reported under 81.21 to 81.24 inclusive).				
81.	81.21 Nitrogenous fertilizers ...				
	81.22 Phosphate fertilizers				
	81.23 Potash fertilizers				
	81.24 Mixed, compound and complex inorganic fertilizers..				

Major group	Group	Area treated (ha)	Amount applied (kg)
81.	81.3 Organic manures		
	81.31 Farmyard manure and/or compost		xxx
	81.32 Green manure		xxx
	81.33 Seaweed		xxx
	81.4 Other fertilizers (specify) (e.g., guano, bone meal, oilcake, wood-ash etc.)		
82.	SOIL DRESSINGS		
	82.1 Lime		
	82.2 Gypsum		
	82.3 Other soil dressing, including microbiologic soil dressing (specify)		

Definition of census items and explanatory notes

TIME REFERENCE

Information should refer to a specific year, such as the last agricultural year or the year preceding the census.

AREA TREATED WITH FERTILIZERS

An area treated more than once with the same kind of fertilizer applied to the same crop or group of crops cultivated simultaneously on the same land is to be reported only once. However, if it was applied to different crops grown successively in the year on the same land, the area should be reported for each crop separately.

An area receiving more than one kind of chemical inorganic fertilizer should be reported only once in reporting the total area treated with chemical inorganic fertilizers (Group 81.2) but it should also be reported under each of the fertilizers concerned.

Chemical inorganic fertilizers containing a single plant nutrient are to be reported in 81.21, 81.22 or 81.23, accordingly.

Tabulation plans

The table attached is submitted to indicate the comparable data which are desired from countries taking part in the 1970 World Census of Agriculture. Items printed in bold type are those on which information is desired from all countries. From the other items printed in ordinary type, countries may select those which are suitable to their conditions.

Table 8.1. - Number of holdings reporting, area treated with fertilizers and soil dressings, and amount applied, by size of holding¹

Size class	Chemical inorganic fertilizers ²			Organic manures			Soil dressings		
	Number of holdings reporting	Area treated (ha)	Amount applied (kg)	Number of holdings reporting	Area treated (ha)	Amount applied (kg)	Number of holdings reporting	Area treated (ha)	Amount applied (kg)
All holdings with land									
Holdings under 0.5 hectare									
under 0.1 hectare									
0.1 hectare and under 0.2									
0.2 hectare and under 0.5									
Holdings 0.5 hectare and over									
0.5 hectare and under 1									
1 hectare and under 2									
2 hectares and under 3									
3 hectares and under 4									
4 hectares and under 5									
5 hectares and under 10									
10 hectares and under 20									
20 hectares and under 50									
50 hectares and under 100									
100 hectares and under 200									
200 hectares and under 500									
500 hectares and under 1,000									
1,000 hectares and under 2,500									
2,500 hectares and over									
Holdings of size not reported									

¹ Countries which are in a position to do so are requested to tabulate these data by tenure and by type of the holding. - ² Countries which are in a position to do so should report separately on the number of holdings reporting, on the area treated with, and the amount applied of nitrogenous, phosphate, and mixed, compound and complex chemical inorganic fertilizers.

Section 9 - WOOD AND FISHERY PRODUCTS

Introduction

This section deals with the enumeration of wood obtained from agricultural holdings and of fishery products from the water areas located within the boundaries of agricultural holdings. It covers the total production of the holding whether for home consumption or for sale.

The number of items on wood products has been increased to include specific items which were included in "Other roundwood" in the 1960 Program.

The questions on fishery products have been increased and changed so as to indicate the source of fishery output, e.g., from fish culture in ponds, dams, hatcheries and reservoirs, from rice fields, etc.

The collection of information on wood and fishery products has been included in the Program because in some countries the production of these commod-

ities on agricultural holdings is not sufficiently covered by the forestry and fishery statistics. The data collected in the agricultural census would thus complement the information provided by the specialized statistics. However, no items in this section are suggested for the Short List. Some countries may obtain information on wood and fishery products on agricultural holdings through other means than the agricultural census.

Proposed census items

The following are the items for which information is requested from countries participating in the 1970 World Census of Agriculture. Countries may select from the list the items which are suitable to their conditions.

SECTION 9 — WOOD AND FISHERY PRODUCTS

Major group	Quantity (indicate unit of measure)
91. WOOD PRODUCTS OBTAINED FROM THE HOLDING DURING THE YEAR	...
91.1 Fuelwood (including wood for charcoal)
91.2 Sawlogs and veneer logs
91.3 Pulpwood and pitprops
91.4 Christmas trees
91.9 Other roundwood (e.g., posts for fencing, poles, piling etc.)
92. FISHERY OUTPUT FROM WATERS WITHIN THE BOUNDARIES OF THE HOLDING	
92.1 Total fishery (animal) output
(a) From fish culture in ponds, dams, hatcheries and reservoirs
(b) From rice fields
92.2 Indicate if any seaweed (marine algae) were taken from the water within the boundaries of the holding	Yes <input type="checkbox"/> No <input type="checkbox"/>

Definition of census items and explanatory notes

TIME REFERENCE

Information on wood and fishery products should refer to a specific year, such as the year preceding the date of enumeration, i.e., the period of one year which ends at the date of enumeration, or some other one-year period.

WOOD PRODUCTS

The intention of the Program is to record wood products excluding bark. However, in general, the holders may be unable to report the quantities produced excluding bark. In such cases, conversion of the production data by exclusion of bark could be done at the time of processing of the information on wood products.

FUELWOOD

This includes all wood cut on the holding for heating purposes, for cooking, tobacco curing, and other uses, whether by the holder or someone else, including that for home use as well as that for sale. It includes also wood consumed in the manufacture of charcoal and for gasogenes.

CHRISTMAS TREES

It includes all coniferous trees cut during the year to be used as Christmas trees.

OTHER ROUNDWOOD

This item should include all other roundwood cut from the holding not included in any of the previous groups, whether for home use or for sale.

FISHERY (ANIMAL) OUTPUT

By fishery output is understood the quantity of aquatic animals caught during the year in the waters within the boundaries of the holding, after deduction of that part of the catch retained for breeding and restocking. Under aquatic animals are included, e.g., fish, crustaceans, mollusks, amphibia and aquatic reptiles.

Tabulation plans

The tables attached are submitted to indicate the comparable data which are desired from countries taking part in the 1970 World Census of Agriculture. Countries may select from these tables the items which are suitable to their conditions.

Table 9.1. - Number of holdings reporting wood products and quantity produced, by size of holding

Size class	Fuelwood		Sawlogs and veneer logs		Pulpwood and pitprops		Christmas trees		Other roundwood	
	Number of holdings reporting	Quantity (unit of measure)	Number of holdings reporting	Quantity (unit of measure)	Number of holdings reporting	Quantity (unit of measure)	Number of holdings reporting	Number of trees	Number of holdings reporting	Quantity (unit of measure)
All holdings with land										
Holdings under 0.5 hectare										
under 0.1 hectare										
0.1 hectare and under 0.2										
0.2 hectare and under 0.5										
Holdings 0.5 hectare and over										
0.5 hectare and under 1										
1 hectare and under 2										
2 hectares and under 3										
3 hectares and under 4										
4 hectares and under 5										
5 hectares and under 10										
10 hectares and under 20										
20 hectares and under 50										
50 hectares and under 100										
100 hectares and under 200										
200 hectares and under 500										
500 hectares and under 1,000										
1,000 hectares and under 2,500										
2,500 hectares and over										
Holdings of size not reported										

Table 9.2. - Number of holdings reporting fishery output, source and quantities, by size of holding

Size class	Fishery (animal) output from the waters within the boundaries of the holdings								Number of holdings reporting seaweed gathering from their waters
	Total		From fish culture in ponds, dams, hatcheries and reservoirs		From rice fields		Other		
	Number of holdings reporting	Quantity (unit of measure)	Number of holdings reporting	Quantity (unit of measure)	Number of holdings reporting	Quantity (unit of measure)	Number of holdings reporting	Quantity (unit of measure)	
All holdings with land									
Holdings under 0.5 hectare									
under 0.1 hectare									
0.1 hectare and under 0.2									
0.2 hectare and under 0.5									
Holdings 0.5 hectare and over									
0.5 hectare and under 1									
1 hectare and under 2									
2 hectares and under 3									
3 hectares and under 4									
4 hectares and under 5									
5 hectares and under 10									
10 hectares and under 20									
20 hectares and under 50									
50 hectares and under 100									
100 hectares and under 200									
200 hectares and under 500									
500 hectares and under 1,000									
1,000 hectares and under 2,500									
2,500 hectares and over									
Holdings of size not reported									

Section 10 - ASSOCIATION OF AGRICULTURAL HOLDINGS WITH OTHER INDUSTRIES

Introduction

This section deals with a new concept, namely, the association of agricultural holdings with various other industries. There has been a tendency in recent years for certain industries to become interested in the operation of agricultural holdings. As a result, nonfarming establishments are integrated with agricultural holdings as part of the same enterprise. There has also been a tendency for business enterprises such as feed dealers, processors such as meat packers, canning factories, retailers, co-operatives, etc., to enter into contracts with agricultural holders for the production of certain crops or commodities of animal origin. Another tendency appearing in agricultural holdings of some countries is to have contracts with enterprises providing agricultural services.

The reason for suggesting the enumeration of this topic in the 1970 World Census of Agriculture Program is to investigate to what extent these types of association of agricultural holdings with other industries have developed.

Proposed census items

The following items are suggested to be investigated in this section. No item is proposed for the Short List.

SECTION 10 — ASSOCIATION OF AGRICULTURAL HOLDINGS WITH OTHER INDUSTRIES

Major group Group

101. TYPE OF INDUSTRY WITH WHICH THE HOLDING IS INTEGRATED

- 101.1 Ascertain if the holding is part of an enterprise having one or more activities other than farming..... Yes
No

Major group Group

101.

- 101.2 If the answer to 101.1 is "Yes," indicate one or more of the following industries according to the kind of economic activities of this enterprise by checking the appropriate box or boxes
- 101.21 Slaughter, preparation and preservation of meat
 - 101.22 Manufacturing of dairy products
 - 101.23 Canning or preserving of fruits and/or vegetables
 - 101.24 Manufacturing of grain mill products
 - 101.25 Sugar factory and refinery.....
 - 101.26 Forestry and logging.....
 - 101.27 Manufacturing of rubber products
 - 101.28 Fishing
 - 101.29 Other industries
 - (a) Wholesale or retail trade
 - (b) Other industries (specify)..

102.

CONTRACT OPERATIONS

- 102.1 Ascertain if any part of the agricultural produce of the holding is produced under contract for the manufacturing industry (check the appropriate box):
- (a) Total agricultural production
 - (b) Part of agricultural production
 - (c) None
- 102.2 If 102.1 (a) or 102.1 (b) has been checked, indicate one or more of the items which are produced under contract by checking the appropriate box or boxes:
- 102.21 Cereals
 - 102.22 Oilseed crops
 - 102.23 Fruits and grapes.....
 - (a) Olives.....
 - (b) Grapes
 - (c) Other fruits
 - 102.24 Sugar crops (sugarcane or sugar beets)
 - 102.25 Vegetables
 - 102.26 Tobacco
 - 102.27 Livestock and livestock products
 - (a) Cattle
 - (b) Pigs
 - (c) Poultry.....
 - (d) Other livestock (specify) ...
 - (e) Milk
 - (f) Eggs
 - (g) Other livestock products (specify)
 - 102.29 Other agricultural products (specify)
- 102.3 Did the holding have any contract during the year with agencies providing agricultural services? Yes
No

Definition of census items and explanatory notes

TIME REFERENCE

Information on the type of industry with which the holding is integrated (Major group 101) should refer to a specific date, usually the day of enumeration or some other day close to this. Data on contract operations (Major group 102) should refer to a specific year, such as the last agricultural year or the year preceding the date of enumeration.

TYPE OF INDUSTRY WITH WHICH THE HOLDING IS INTEGRATED

The various types of industries listed under Group 101.2 are those which are most likely to have agricultural holdings integrated with them, but they are not the only ones. Many other types of industries could be interested in the operation of agricultural holdings. These might be specified under item 101.29 (b).

An agricultural holding which includes forest land should not automatically be considered integrated with the forestry and logging industry. It should be considered integrated with this industry only if it is a part of a forestry and logging enterprise.

CONTRACT OPERATIONS

By contracts (usually written contracts) is understood a reciprocal agreement between a holder and

a private firm, a co-operative or the state, specifying what the holder is to do or provide, and the obligation of the second party. Two kinds of contract operations are investigated in this section: (a) where a contract concerns the production of certain crops or animal products; and (b) where a contract concerns provision of some kinds of agricultural services to the holding. In case (a), a contract provides for the delivery of a certain quantity of one or more agricultural products from the holding, frequently on conditions stipulated with respect to quality, delivery time and prices, the said quantity being determined by count, measurement or area. Rental contracts between the holder and the landlord should be excluded from consideration as contract operations. In case (b), a contract determines what kind of agricultural services will be provided by the contractor to the holder. Agencies providing agricultural services may include agencies for seed cleaning, hatcheries service, and other custom work.

Under Group 102.2, the various crops, livestock and livestock products listed are those which are more likely to be produced under contract, but there could be many others. These might be specified under item 102.29.

Tabulation plans

The following tables are submitted to indicate the comparable data desired from countries which might wish to investigate the topic of this section in their census.

Table 10.1. - Number of holdings¹ reporting integration with industry, by size of holding

Size class	Total number of holdings reporting	Type of industry with which the holding is integrated										Other (specify)	
		Slaughter, preparation and preservation of meat	Manufacturing of dairy products	Canning or preserving of fruits and/or vegetables	Manufacturing of grain mill products	Sugar factory and refinery	Forestry and logging	Manufacturing of rubber products	Fishing	Wholesale or retail trade			
All holdings													
Holdings under 0.5 hectare													
under 0.1 hectare													
0.1 hectare and under 0.2													
0.2 hectare and under 0.5													
Holdings 0.5 hectare and over													
0.5 hectare and under 1													
1 hectare and under 2													
2 hectares and under 3													
3 hectares and under 4													
4 hectares and under 5													
5 hectares and under 10													
10 hectares and under 20													
20 hectares and under 50													
50 hectares and under 100													
100 hectares and under 200													
200 hectares and under 500													
500 hectares and under 1,000													
1,000 hectares and under 2,500													
2,500 hectares and over													
Holdings of size not reported													

¹ Countries which are in a position to do so are requested to tabulate these data by type of holding.

Table 10.2. - Number of holdings reporting¹ operations under contract, by size of holding

Size class	Total number of holdings reporting products under contract	Type of products under contract												Number of holdings having contracts with enterprises providing agricultural services				
		Cereals	Oilseed crops	Fruits and grapes			Sugar crops	Vegetables	Tobacco	Cattle	Pigs	Poultry	Other live-stock (specify)		Milk	Eggs	Other live-stock products (specify)	Other agricultural products (specify)
				Total	Olives	Grapes													Other fruits
All holdings																		
Holdings under 0.5 hectare																		
under 0.1 hectare																		
0.1 hectare and under 0.2																		
0.2 hectare and under 0.5																		
Holdings 0.5 hectare and over																		
0.5 hectare and under 1																		
1 hectare and under 2																		
2 hectares and under 3																		
3 hectares and under 4																		
4 hectares and under 5																		
5 hectares and under 10																		
10 hectares and under 20																		
20 hectares and under 50																		
50 hectares and under 100																		
100 hectares and under 200																		
200 hectares and under 500																		
500 hectares and under 1,000																		
1,000 hectares and under 2,500																		
2,500 hectares and over																		
Holdings of size not reported																		

¹ Countries which are in a position to do so are requested to tabulate these data by type of holding.

APPENDIX

Alphabetical list of crops with botanical names

The purpose of this list is to help countries in identifying crops listed in Section 2, Crops, of the Program by indicating their botanical names. The number given opposite each item is the corresponding item number in Section 2. An asterisk before a reference number indicates that the crop is included with others in a general or composite item. The references shown below are not complete, as they are restricted only to those items in the list of Section 2 where the name of the crop has been specifically mentioned.

CROP	REFERENCE NUMBER	BOTANICAL NAME
Abaca (Manila hemp)	23.33(c)	<i>Musa textilis</i>
Alfalfa for grazing	*21.52(a)	} <i>Medicago sativa</i>
Alfalfa for hay, green feed or silage	21.51(a)	
Almonds	23.16(a)	
American cress	*21.61(l)	<i>Barbarea verna</i>
Aniseed	*21.44(b)	<i>Pimpinella anisum</i>
Apples	23.12(a)	<i>Malus sylvestris</i>
Apricots	23.13(a)	<i>Prunus armeniaca</i>
Arrowroot	21.34	<i>Maranta</i> spp., <i>Curcuma</i> spp.
Artichokes	21.61(d)	<i>Cynara scolymus</i>
Artichokes, Jerusalem	21.38(d)	<i>Helianthus tuberosus</i>
Asparagus	21.61(e)	<i>Asparagus officinalis</i>
Avocados	23.14(e)	<i>Persea americana</i>
Bambarra nuts (earth peas)	*21.29	<i>Voandzeia subterranea</i>
Bananas	23.14(k)	<i>Musa sapientium</i> , <i>Musa cavendishii</i>
Barley	21.16	<i>Hordeum</i> spp.
Beans, dry, edible	21.22	<i>Phaseolus</i> spp.
Beans, harvested green	21.64(a)	<i>Phaseolus</i> spp.
Beets, fodder (mangels)	21.38(b)	<i>Beta vulgaris</i> var. <i>alba</i>
Beets, red	21.63(c)	<i>Beta vulgaris</i> var. <i>rubra</i>
Beets, silver or spinach	*21.61(i)	<i>Beta vulgaris</i> var. <i>maritima</i>
Beets, sugar for feed	21.38(c)	} <i>Beta vulgaris</i> var. <i>altissima</i>
Beets, sugar for sugar or for alcohol	21.41(b)	
Bergamots	*23.11(f)	
Blackberries	*23.15(g)	<i>Citrus aurantium</i> var. <i>bergamia</i>
Black pepper	23.24	<i>Rubus</i> spp.
Black wattle	23.34(b)	<i>Piper nigrum</i>
Blueberries	23.15(e)	<i>Acacia</i> spp.
Brazil nut	*23.16(d)	<i>Vaccinium myrtillus</i>
Breadfruit	23.14(c)	<i>Bertholletia excelsa</i>
Broad beans, dry	21.21	<i>Artocarpus altilis</i> (<i>incisus</i>)
Broad beans, harvested green	*21.64(c)	} <i>Vicia faba</i>
Broccoli	*21.65(a)	
		<i>Brassica oleracea</i> var. <i>italica</i>

CROP	REFERENCE NUMBER	BOTANICAL NAME
Broom millet	*21.49(e)	<i>Pennisetum glaucum</i> ; <i>eleusine coracana</i> ; <i>Panicum miliaceum</i> ; <i>Setaria italica</i> ; <i>Echinochloa crusgalli</i> and similar spp.
Broom sorghum	*21.49(e)	<i>Sorghum vulgare</i>
Brussels sprouts	*21.61(a)	<i>Brassica oleracea</i> var. <i>gemmifera</i>
Buckwheat	*21.19	<i>Fagopyrum esculentum</i>
Cabbage (red, white, savoy, Brussels sprouts)	*21.61(a)	<i>Brassica oleracea</i> var. <i>capitata</i> (<i>brassica oleracea</i> var. <i>rubra</i> ; <i>brassica oleracea</i> var. <i>alba</i> ; <i>brassica oleracea</i> var. <i>bullata</i> ; <i>brassica oleracea</i> var. <i>gemmifera</i>)
Cabbage, Chinese	21.61(b)	<i>Brassica sinensis</i> , <i>Brassica pekinensis</i>
Cabbage, for fodder	21.59(a)	<i>Brassica oleracea</i> var. <i>capitata</i>
Cacao	23.31(b)	<i>Theobroma cacao</i>
Cantaloupes	*21.62(b)	<i>Cucumis melo</i>
Caraway seed	*21.44(b)	<i>Carum carvi</i>
Cardamom	*21.44(b)	<i>Elettaria cardamomum</i>
Cardoon	*21.63(h)	<i>Cynara cardunculus</i>
Carob	*23.19	<i>Ceratonia siliqua</i>
Carrots, edible	21.63(d)	} <i>Daucus carota</i>
Carrots, for feed	21.38(e)	
Cashew nuts	23.16(c)	<i>Anacardium occidentale</i>
Cassava (manioc)	21.32	<i>Manihot esculenta</i> (<i>utilissima</i>)
Castor beans	21.43(g)	<i>Ricinus communis</i>
Cauliflower	*21.65(a)	<i>Brassica oleracea</i> var. <i>botrytis</i>
Celeriac	*21.63(h)	<i>Apium graveolens</i> var. <i>rapaceum</i>
Celery	21.61(f)	<i>Apium graveolens</i>
Chayote	*21.62(l)	<i>Sechium edule</i>
Cherries	23.13(b)	<i>Prunus cerasus</i> ; <i>Prunus avium</i>
Chestnut	*23.16(d)	<i>Castanea</i> spp.
Chick-peas (gram)	21.24	<i>Cicer arietinum</i>
Chicory	21.49(c)	} <i>Cichorium intybus</i>
Chicory for greens	21.61(g)	
Chilies, dry	*21.44(a)	
Chilies, fresh	21.62(j)	} <i>Capsicum frutescens</i> (<i>annuum</i>)
Chinese cabbage	21.61(b)	
Cinnamon	23.21	<i>Brassica sinensis</i> , <i>Brassica pekinensis</i>
Citronella	*23.39	<i>Cinnamomum</i> (<i>Zeylanicum</i>) spp.
Citrons	*23.11(f)	<i>Cymbopogon nardus</i>
Clementines	*23.11(b)	<i>Citrus medica</i>
Clover for grazing	*21.52(a)	<i>Citrus nobilis</i>
Clover for hay, green feed or silage	21.51(b)	} <i>Trifolium</i> spp.
Cloves	23.22	
Coconut	23.32(a)	<i>Eugenia aromatica</i>
Cocoyams	*21.35	<i>Cocos nucifera</i>
Coffee	23.31(a)	<i>Colocasia</i> spp.; <i>Xanthosoma</i> spp.
Cola	*23.31(e)	<i>Coffea</i> spp.
Colza (rapeseed)	21.43(j)	<i>Cola</i> spp.
Corn, for silage	21.51(h)	<i>Brassica campestris</i> , <i>brassica napus</i> , <i>brassica rapa</i>
Corn salad	*21.61(n)	<i>Zea mays</i>
Corn, sweet	21.65(b)	<i>Valerianella olitoria</i>
		<i>Zea mays</i>

CROP	REFERENCE NUMBER	BOTANICAL NAME
Cotton	21.42(a)	<i>Gossypium</i> spp.
Cowpeas	*21.29	<i>Vigna sinensis</i>
Cowpeas, harvested green	*21.64(c)	
Cranberries	23.15(f)	
		<i>Vaccinium oxycoccus, vaccinium macrocarpum</i>
Cress	*21.61(l)	<i>Lepidium sativum</i>
Cress, water	*21.61(l)	<i>Nasturtium officinale</i>
Cress, American	*21.61(l)	<i>Barbarea verna</i>
Cucumbers	21.62(f)	<i>Cucumis sativus</i>
Currants	23.15(d)	<i>Ribes rubrum; Ribes nigrum</i>
Custard apple	23.14(f)	<i>Anona</i> spp.
Dates	23.14(a)	<i>Phoenix dactylifera</i>
Drumstick	*23.29	<i>Moringa pterygosperma</i>
Dry beans, edible	21.22	<i>Phaseolus</i> spp.
Dry broad beans	21.21	<i>Vicia faba</i>
Dry chilies	*21.44(a)	<i>Capsicum frutescens (annuum)</i>
Dry garlic	21.37	<i>Allium sativum</i>
Dry onions	21.36	<i>Allium cepa</i>
Dry peas, edible	21.25	<i>Pisum sativum</i>
Dry peppers	*21.44(a)	<i>Capsicum frutescens (annuum)</i>
Earth peas (bambarra nuts)	*21.29	<i>Voandzeia subterranea</i>
Eggplant	21.62(g)	<i>Solanum melongena</i>
Endive	21.61(k)	<i>Cichorium endivia</i>
Esparto grass	*21.49(e)	<i>Lygeum spartum</i>
Fennel	*21.61(n)	<i>Foeniculum vulgare</i>
Fenugreek, for grain	*21.29	<i>Trigonella foenumgraecum</i>
Figs	23.14(b)	<i>Ficus carica</i>
Filbert (hazelnut)	*23.16(d)	<i>Corylus</i> spp.
Fiqué	*23.33(f)	<i>Furcraea macrophylla</i>
Flax for fiber	21.42(b)	<i>Linum usitatissimum</i>
Fodder beets (mangels)	21.38(b)	<i>Beta vulgaris</i> var. <i>alba</i>
Formio (New Zealand flax)	23.33(b)	<i>Phormium tenax</i>
Garlic, dry	21.37	<i>Allium sativum</i>
Garlic, green	21.63(a)	
Geranium	*21.45	<i>Pelargonium</i> spp.
Ginger	23.26	<i>Zingiber officinale</i>
Gooseberries	23.15(c)	<i>Ribes uva-crispa</i>
Gourds	21.62(e)	<i>Lagenaria vulgaris</i>
Gram (chick peas)	21.24	<i>Cicer arietinum</i>
Grapefruit	*23.11(d)	<i>Citrus decumana; Citrus grandis</i>
Grapes	23.17	<i>Vitis vinifera</i>
Grapes for raisins	23.17(c)	
Grapes for table use	23.17(b)	
Grapes for wine and juice	23.17(a)	
Grass, orchard	*21.51(e)	<i>Dactylis glomerata</i>
Green garlic	21.63(a)	<i>Allium sativum</i>
Green onions	21.63(b)	<i>Allium cepa</i>
Groundnuts (peanuts)	*21.43(a)	<i>Arachis hypogaea</i>
Guava	23.14(g)	<i>Psidium</i> spp.

CROP	REFERENCE NUMBER	BOTANICAL NAME
Hazelnut (filbert)	*23.16(d)	<i>Corylus</i> spp.
Hemp, for fiber or for paper mills	21.42(c)	<i>Cannabis sativa</i>
Hemp, Manila (abaca)	23.33(c)	<i>Musa textilis</i>
Hempseed	21.43(f)	<i>Cannabis sativa</i>
Hemp, sunn	*21.42(e)	<i>Crotalaria juncea</i>
Henequen	23.33(a) (ii)	<i>Agave fourcroydes</i>
Henna	*21.49(e)	<i>Lawsonia alba</i>
Hops	21.49(b)	<i>Humulus lupulus</i>
Horse radishes	21.63(e)	<i>Cochlearia armoracia</i>
Hybrid maize	21.15(a)	<i>Zea mays</i>
Indigo	*21.49(e)	<i>Indigofera</i> spp.
Jerusalem artichokes	21.38(d)	<i>Helianthus tuberosus</i>
Jute	21.42(d)	<i>Corchorus</i> spp.
Kale	21.61(c)	<i>Brassica oleracea</i> var. <i>acephala</i>
Kapok	23.33(e)	<i>Ceiba pentandra</i>
Kenaf	*21.42(e)	<i>Hibiscus cannabinus</i>
Kohlrabi	*21.63(f)	<i>Brassica oleracea</i> var. <i>caulo-rapa</i>
Lavender,	*21.45	<i>Lavandula</i> spp.
Leek	21.61(j)	<i>Allium porrum</i>
Lemons	23.11(c)	<i>Citrus limonum</i>
Lemon grass	*23.39	<i>Cymbopogon citratus</i>
Lentils	21.23	<i>Lens esculenta (Ervum lens)</i>
Lespedeza	*21.51(c)	<i>Lespedeza</i> spp.
Lettuce	21.61(h)	<i>Lactuca sativa</i>
Licorice	*21.44(b)	<i>Glycyrrhiza glabra</i>
Limes, sour	23.11(e)	<i>Citrus aurantifolia</i>
Limes, sweet	*23.11(f)	<i>Citrus limetta</i>
Linsced	21.43(c)	<i>Linum usitatissimum</i>
Litchi	*23.19	<i>Litchi sinensis</i>
Loquat	*23.12(e)	<i>Eriobotrya japonica</i>
Lupines for grain	*21.29	<i>Lupinus</i> spp.
Macadamia (Queensland nut)	*23.16(d)	<i>Macadamia</i> spp.
Mace	23.23	<i>Myristica fragrans</i>
Maize	21.15	<i>Zea mays</i>
Maize, hybrid	21.15(a)	
Maize, ordinary, for grain	21.15(b)	
Maize for silage	21.51(h)	
Mandarins	*23.11(b)	<i>Citrus nobilis</i>
Mangels (fodder beets)	21.38(b)	<i>Beta vulgaris</i> var. <i>alba</i>
Mangoes	23.14(d)	<i>Mangifera indica</i>
Manila hemp (abaca)	23.33(c)	<i>Musa textilis</i>
Manioc (cassava)	21.32	<i>Manihot esculenta (utilissima)</i>
Maslin	*21.18	Mixture of <i>Triticum</i> spp. and <i>Secale cereale</i>
Medlars	23.12(d)	<i>Mespilus germanica</i>
Melons (excl. watermelons)	*21.62(b)	<i>Cucumis melo</i>

CROP	REFERENCE NUMBER	BOTANICAL NAME
Millet	21.14(a)	<i>Pennisetum glaucum</i> ; <i>Eleusine coracana</i> ; <i>Panicum miliaceum</i> ; <i>Setaria italica</i> ; <i>Echinochloa crusgalli</i> and similar spp.
Millet, broom	*21.49(e)	
Millet and sorghum	*21.14	
Mint	*21.45	<i>Mentha piperita</i>
Mulberry for fruit	*23.19	<i>Morus</i> spp.
Mulberry for paper	*23.39	<i>Broussonetia papyrifera</i>
Mulberry for silkworms	*23.39	<i>Morus alba</i>
Mushrooms	21.66	<i>Fungi</i>
Mustard	21.43(d)	<i>Brassica nigra</i> ; <i>Sinapis alba</i>
Nectarines	*23.13(c)	<i>Prunus persica</i> ; <i>Prunus persica</i> var. <i>nectarina</i>
Niger seed	*21.43(k)	<i>Guizotia abyssinica</i>
New Zealand flax (formio)	23.33(b)	<i>Phormium tenax</i>
Nutmeg	23.23	<i>Myristica fragrans</i>
Oats	21.17	<i>Avena</i> spp.
Oil palm	23.32(b)	<i>Elaeis guineensis</i>
Okra	21.62(h)	<i>Hibiscus esculentus</i>
Olive	23.32(c)	<i>Olea europaea</i>
Onions, dry	21.36	<i>Allium cepa</i>
Onions, green	21.63(b)	
Opium	*21.44(b)	<i>Papaver somniferum</i>
Oranges	23.11(a)	<i>Citrus sinensis</i>
Oranges, bitter	*23.11(f)	<i>Citrus aurantium</i>
Orchard grass	*21.51(e)	<i>Dactylis glomerata</i>
Palm, oil	23.32(b)	<i>Elaeis guineensis</i>
Palm, palmyra	*23.39	<i>Borassus flabellifer</i>
Palm, sago	*23.39	<i>Metroxylon</i> spp.; <i>Cycas</i> spp.
Papaya	23.14(n)	<i>Carica papaya</i>
Parsnip	*21.63(h)	<i>Peucedanum sativum</i>
Peaches	23.13(c)	<i>Prunus persica</i>
Peanuts (groundnuts)	21.43(a)	<i>Arachis hypogaea</i>
Pears	23.12(b)	<i>Pyrus communis</i>
Peas, edible dry	21.25	<i>Pisum sativum</i>
Peas, harvested green	21.64(b)	
Pecan nut	*23.16(d)	<i>Carya pecan</i> (<i>Carya illinoensis</i>)
Pepper, black	23.24	<i>Piper nigrum</i>
Peppers, dry	21.44(a)	<i>Capsicum frutescens</i> (<i>annuum</i>)
Peppers, sweet	21.62(k)	
Persimmon	23.14(j)	<i>Diospyros kaki</i> and <i>Diospyros virginiana</i>
Pigeon peas	*21.29	<i>Cajanus cajan</i> ; <i>Cajanus indicus</i>
Pimentos	*21.44(a)	<i>Capsicum</i>
Pineapples	23.14(m)	<i>Ananas comosus</i> (<i>sativus</i>)
Pistachio nut	*23.16(d)	<i>Pistacia vera</i>
Plantains	23.14(l)	<i>Musa paradisiaca</i>
Plums and prunes	23.13(d)	<i>Prunus domestica</i>
Pomegranate	23.14(h)	<i>Punica granatum</i>
Pomelo	*23.11(d)	<i>Citrus decumana</i> ; <i>Citrus grandis</i>
Poppy seed	21.43(e)	<i>Papaver somniferum</i>
Potatoes	21.31	<i>Solanum tuberosum</i>
Potatoes, sweet	21.33	<i>Ipomoea batatas</i>

CROP	REFERENCE NUMBER	BOTANICAL NAME
Prunes and plums	23.13(d)	<i>Prunus domestica</i>
Pumpkins, edible	21.62(c)	<i>Cucurbita pepo</i>
Pumpkins for fodder	21.59(b)	
Pyrethrum	21.49(d)	
Quebracho	23.34(c)	<i>Aspidosperma</i> spp.
Queensland nut (macadamia)	*23.16(d)	<i>Macadamia</i> spp.
Quince	23.12(c)	<i>Cydonia oblonga</i> (<i>vulgaris</i>); <i>Cydonia japonica</i>
Quinoa	*21.19	<i>Chenopodium quinoa</i>
Radishes (incl. horseradishes)	21.63(e)	<i>Raphanus sativus</i> (incl. <i>Cochlearia armoracia</i>)
Ramie	*23.33(d)	<i>Boehmeria nivea</i>
Rapeseed (colza)	21.43(j)	<i>Brassica campestris</i> ; <i>Brassica napus</i> ; <i>Brassica rapa</i>
Raspberries	23.15(b)	<i>Rubus idaeus</i>
Red beets	21.63(c)	<i>Beta vulgaris</i> var. <i>rubra</i>
Red cabbage	*21.61(a)	<i>Brassica oleracea</i> var. <i>rubra</i>
Red-top	*21.51(e)	<i>Agrostis</i> spp.
Rhea	*23.33(d)	<i>Boehmeria tenacissima</i>
Rhubarb	21.61(m)	<i>Rheum</i> spp.
Rice	21.13	<i>Oryza sativa</i>
Rubber (hevea)	23.34(a)	<i>Hevea</i> spp.
Rutabagas (swedes)	*21.63(f)	<i>Brassica napobrassica</i>
Rye	21.12	<i>Secale cereale</i>
Safflower	*21.43(k)	<i>Carthamus tinctorius</i>
Sago palm	*23.39	<i>Metroxylon</i> spp; <i>Cycas</i> spp.
Salsify	*21.63(h)	<i>Tragopogon porrifolius</i>
Sainfoin	*21.51(c)	<i>Onobrychis</i> spp.
Sapodilla (zapote)	23.14(i)	<i>Achras sapota</i>
Satsuma	*23.11(b)	<i>Citrus nobilis</i>
Savoy cabbage	*21.61(a)	<i>Brassica oleracea</i> var. <i>bullata</i>
Scorzonera	*21.63(h)	<i>Scorzonera hispanica</i>
Sesame	21.43(h)	<i>Sesamum indicum</i>
Silver beets	*21.61(i)	<i>Beta vulgaris</i> var. <i>maritima</i>
Sisal	23.33(a) (i)	<i>Agave sisalana</i>
Sorghum	21.14(b)	<i>Sorghum vulgare</i>
Sorghum, broom	*21.49(e)	
Sorghum, sweet	*21.41(c)	
Sour limes	23.11(e)	<i>Citrus aurantifolia</i>
Soybeans	21.43(b)	<i>Glycine soja</i>
Soybean hay	*21.51(c)	
Spelt	*21.19	<i>Triticum spelta</i>
Spinach	*21.61(i)	<i>Spinacia oleracea</i>
Spinach beets	*21.61(i)	<i>Beta vulgaris</i> var. <i>maritima</i>
Spring barley	21.16(b)	<i>Hordeum</i> spp.
Spring rye	21.12(b)	<i>Secale cereale</i>
Spring wheat	21.11(b)	<i>Triticum</i> spp.
Spring wheat, hard	21.11(b) (i)	
Spring wheat, soft	21.11(b) (ii)	
Sprouts, Brussels	*21.61(a)	<i>Brassica oleracea</i> var. <i>gemmifera</i>
Squash	21.62(d)	<i>Cucurbita</i> spp.

CROP	REFERENCE NUMBER	BOTANICAL NAME
Strawberries	23.15(a)	<i>Fragaria</i> spp.
Sudan grass	*21.51(e)	<i>Sorghum sudanense</i>
Sugar beets for feed	21.38(c)	<i>Beta vulgaris</i> var. <i>altissima</i>
Sugar beets for sugar or for alcohol	21.41(b)	
Sugarcane for feed	*21.51(j)	<i>Saccharum officinarum</i>
Sugarcane for sugar	21.41(a)	
Sugarcane for thatching	*21.49(e)	
Sunflower for fodder	21.59(c)	<i>Helianthus annuus</i>
Sunflower for seed	21.43(i)	
Sunn hemp	*21.42(e)	<i>Crotalaria juncea</i>
Swedes (rutabagas)	*21.63(f)	<i>Brassica napobrassica</i>
Swedes for feed	21.38(f)	
Sweet corn	21.65(b)	<i>Zea mays</i>
Sweet limes	*23.11(f)	<i>Citrus limetta</i>
Sweet peppers	21.62(k)	<i>Capsicum frutescens</i> (annuum)
Sweet potatoes	21.33	<i>Ipomoea batatas</i>
Sweet sorghum	*21.41(c)	<i>Sorghum vulgare</i>
Tangerines	*23.11(b)	<i>Citrus nobilis</i>
Tea	23.31(c)	<i>Thea sinensis</i> ; <i>Thea assamica</i>
Timothy	*21.51(e)	<i>Phleum pratense</i>
Tobacco	21.49(a)	<i>Nicotiana tabacum</i> ; <i>Nicotiana rustica</i>
Tomatoes	21.62(i)	<i>Lycopersicon esculentum</i>
Tung trees	*23.32(d)	<i>Aleurites fordii</i> ; <i>Aleurites triloba</i> A. mon- tana, A. moluccana
Turnips for feed	21.38(a)	<i>Brassica rapa</i>
Turnips, edible	21.63(g)	
Urena	*21.42(e)	<i>Urena lobata</i>
Vanilla	23.25	<i>Vanilla planifolia</i>
Vetches for grain	*21.29	<i>Vicia sativa</i>
Walnuts	23.16(b)	<i>Juglans</i> spp.
Water cress	*21.61(l)	<i>Nasturtium officinale</i>
Watermelons	21.62(a)	<i>Citrullus vulgaris</i>
Wattle, black	23.34(b)	<i>Acacia</i> spp.
Wheat	21.11	<i>Triticum</i> spp.
White cabbage	*21.61(a)	<i>Brassica oleracea</i> var. <i>alba</i>
Winter barley	21.16(a)	<i>Hordeum</i> spp.
Winter rye	21.12(a)	<i>Secale cereale</i>
Winter wheat	21.11(a)	<i>Triticum</i> spp.
Winter wheat, hard	21.11(a) (i)	
Winter wheat, soft	21.11(a) (ii)	
Yams	*21.35	<i>Dioscorea</i> spp.
Yerba maté	23.31(d)	<i>Ilex paraguensis</i>
Zapote (sapodilla)	23.14(i)	<i>Achras sapota</i>