
APPENDIX A.

General Explanation

DATA COLLECTION

Method of Enumeration

The CNMI agriculture census enumeration was based on a list of farm operators compiled by the Northern Mariana Islands' Department of Commerce. The core of this list was a compilation of all persons having a business licence to sell agricultural products. In addition, the local department of agriculture provided a list of known farmers. The statistics in this report were collected by personal enumeration from farm operators during January of 2008.

Each enumerator was an employee of the Department of Commerce and had responsibility for specified names on the list. The enumerators contacted all persons on their list and completed a census report form for all farm operations. If a person on the list was not operating a farm, the enumerator recorded whether the land had been sold or rented to someone else and was still being used for agriculture. If so, the enumerator got the name of that person and followed up to ensure that he or she was included in the census.

Training Program

The project manager, crew leaders, and enumerators employed for the census in CNMI received special training in accordance with instructions prepared by NASS. The training included practice in interviewing and filling out the report form and a detailed discussion of the enumerator's instructions.

Report Form

Prior to each agriculture census, the content of all census report forms is reviewed to eliminate inquiries no longer needed, to identify new items necessary to meet user needs, and to better describe the agricultural situation in the Islands. Data requests are solicited from farm organizations, land-grant colleges and universities, State and Federal agencies, local departments of agriculture, agribusinesses, and other users. Each user is asked to identify and justify its specific data needs.

The report form for the 2007 Census of Agriculture for CNMI was prepared by NASS, in cooperation with the Department of Commerce of CNMI. Based on comments from the Department of Commerce of CNMI (which coordinated review of the report form by data users in the CNMI), some minor changes were made to the wording on the report form. These changes were made to make the questions clearer to the respondents and do not affect the data collected.

DATA PROCESSING

The processing of the 2007 Census of Agriculture for CNMI was done by the CNMI Department of Commerce. Each report form was reviewed and coded prior to data keying. Reports for individuals or establishments not meeting the census farm definition were excluded. The remaining report forms were examined for accuracy, consistency, and completeness. Reporting errors in computations, units of measures, data inconsistencies, and misplaced entries were corrected. Missing information that could not be obtained from the operator was derived using reported data for similar type and size farms in nearby areas.

After all the report forms had been reviewed and coded, the data were keyed and subjected to a thorough computer edit. The edit performed comprehensive checks for consistency and reasonableness, corrected erroneous or inconsistent data, supplied missing data based on similar farms, and assigned farm classification codes necessary for tabulating the data. All substantial changes to the data generated by the computer edits were reviewed and verified by analysts. Inconsistencies were reviewed, corrected, and keyed to a correction file. The corrected data were then tabulated by the computer and reviewed by analysts.

Prior to publication, tabulated totals were reviewed by analysts in Saipan, with assistance from NASS personnel, to identify inconsistencies and potential coverage problems. Comparisons were made with previous census data, as well as other available data.

DEFINITIONS AND EXPLANATION

The following definitions and explanations relate to items that are in the tables. For an exact wording of the questions and instructions on the report form, see the report form in appendix B.

Crops. The report form contained individual inquiries for crops commonly grown and space to write in those less frequently produced. The information requested included acres of crops harvested and pounds harvested for sale in 2007.

Root crops. The land area from which individual root crops were harvested for sale was obtained in acres and tenths of acres. When two or more crops were harvested from the same land, the area was to be reported for each separate crop or planting. Total quantities of each crop harvested for sale were also reported.

Vegetables or melons. Land area for individual crops, and the quantity harvested for sale for each crop, were collected.

Fruits, nuts, or nursery crops. The total number of acres planted in bearing and nonbearing fruit and nut trees was collected. For individual fruit or nut crops, data for the number of bearing and nonbearing trees, and the quantity harvested for sale, were reported. For nursery crops, the land area harvested, both square feet under cover and acres in the open, were collected, along with the value of sales.

Equipment. The following types of equipment on the place at time of enumeration, regardless of ownership, were reported if they were operable:

Automobiles. Includes all vehicles used primarily as passenger cars.

Motortrucks. Includes pickup trucks and truck-trailer combinations.

Tractors. Includes all wheel and tracklaying (crawler) tractors and garden tractors.

Tillers of all kinds. Includes all mechanical tillers.

Expenses. The 2007 report form contained questions on seven types of farm expenses incurred between January 1 and December 31, 2007, whether made by the farm operator, his/her landlord, or both. A farm operator who rented part of his/her land to others reported only the expenses on the land he/she operated.

Machine hire and customwork. Expenses for machine hire and customwork relate to tractor hire, plowing, and spraying. Any amount spent for the labor involved is considered to be part of the expense. The costs of hauling, trucking, or exchange work without pay are omitted.

Wages and salaries paid to employees or hired farm workers. Expenses for hired farm labor include total cash payments made to family members and others for farm labor. Payments to persons supplied by a contractor or a cooperative organization and paid directly by them or by the person in charge are also included.

Feed purchased for livestock, poultry, and fish. Expenses for feed for livestock, poultry, and fish include total cash payments made for pasture used, salt concentrates, mineral supplements, grain, hay, mill feeds, and any other items purchased for feeding livestock, poultry, and fish on the place. Expenses made for the grinding and mixing of feed and the estimated cost of items furnished to the operator by a landlord or others are also included. Payments made by a tenant to a landlord for feed grown on the tenant's farm are excluded.

Purchases of fertilizers and manure. These expenses include the total amount spent for manure and commercial fertilizers of all kinds for use on the farm.

Purchases of insecticides, fungicides, and herbicides. This category relates to total cash expenses for all chemicals, sprays, dusts, etc., used to control weeds, pests, insects, or disease on crops.

Purchases of livestock, poultry, and fish. This category includes all cash expenses for livestock, poultry, and fish purchased for the place. The cost of livestock and poultry bought and resold within 30 days is not included.

Seed cost. These expenses include all seed purchased for planting, as well as seedlings.

Farm operator. The term "operator" designates a person who operates a farm, either by doing the work himself/herself or by directly supervising the work. The operator may be the owner, a member of the owner's household, a hired manager, or a tenant, renter, or sharecropper. If the operator rents land to others or has land worked on shares by others, he/she is considered the operator only if the land is retained for his/her own operation. In the case of partnership, only one partner is counted as an operator. By definition, the number of operators is the same as the number of farms.

Farms or operators reporting. Figures for "farms reporting" or "operators reporting" represent the number of farms or operators reporting the specified item. The difference between the total number of farms and the number of farms reporting a particular item represents the number of farms not having that item.

Farms by age of operator. Enumerators entered the operator's age, as of his/her last birthday, on the report form. The computer edit classified the operator's age into one of the following age groups:

Under 35 years	35 to 44 years	45 to 54 years
55 to 64 years	65 years and over	

Farms by size. Farms were classified by size on the basis of the total land area established in each farm. According to the census definition, a farm is essentially an operating unit, not an ownership tract. All land operated or managed by one person or partnership represents one farm. In the case of tenants, the land assigned to each tenant is considered a separate farm, even though the landlord may consider the entire landholding to be one unit rather than several separate units. The farm sizes listed in the tables are ranges that include the lower boundary listed, up to, but not including, the upper boundary. Thus, farms listed in the size range of 4 to 8 acres have at least 4 acres, but less than 8 acres in the farm.

Farms by tenure of operator. In the 2007 census, farms were classified by tenure of operator on the basis of data reported for land owned, rented from others, worked on shares for others, and managed for others. The same classification has been used since 1970. During the processing operations, each report form was coded to indicate whether the operator was a full owner, part owner, or tenant.

Full owners. Operate only land they own

Part owners. Operate land they own and also land they rent from others

Tenants. Rent from others or work the land they operate on shares for others

Farms by value of agricultural products sold. The farms were classified on the basis of the total value of agricultural products sold. The total was obtained by adding the reported values of all products sold from the farm. The value of livestock, milk, poultry and eggs, fish, vegetables, fruits and nuts, all field crops, ornamental plants, and all other crops was obtained from the operator at the time of enumeration. The computer edit classified the value of agricultural products sold into one of the following categories:

Less than \$1,200	\$2,500 to \$4,999	\$7,500 to \$9,999
\$1,200 to \$2,499	\$5,000 to \$7,499	\$10,000 or more

Land in farms. The land in farms was determined from the answers to questions 1 through 4 in section 1 of the report form (see appendix B). The amounts of land reported as owned and reported as rented from others were added together, and the amount of land reported as rented to others was subtracted from that sum. The result represents "land in farms."

Land owned. This category includes all land that the operator or his/her spouse held under title, purchase contract, homestead law, or as heir or trustee of an undivided estate at the time of enumeration.

Land rented from others. This category includes land the operator rented or leased from others, worked on shares for others, or occupied rent free.

Land rented to others. This includes all land that the operator rented to others and all land assigned to others on shares or rent free. For the most part, land rented to others represents agricultural land, but it also includes land rented for residential or other purposes. The tenant is considered to be the operator of land leased, rented, or worked on shares, even though his/her landlord may supervise the operations. The landlord is considered to be the operator of only that portion of the land not assigned to tenants.

Land use. Land in farms at the time of enumeration is categorized according to the way it was used during the census year. The land is counted only once, even though it may have had more than one use during the year.

Total cropland. This category includes cultivated cropland, cropland used for pasture or grazing, cropland used for cover crops, cropland where all crops failed, and cropland at rest.

Cropland harvested. This category refers to all land from which any crop was harvested. It also includes land in field crops that were grazed when mature or almost mature and land in nonbearing fruit or nut trees and plants. Land from which two or more crops were harvested and which was also used for other purposes, either before or after the crops were harvested, was to be reported as cropland harvested without regard to the other uses.

Other cropland. This category includes all cropland on the place that was used for pasture and cropland on the place that was not used for crops or pasture. It includes land on which there was total crop failure due to hurricane, flood, drought, insects, fire, or other causes; cropland lying idle; and cropland planted with soil improvement grasses or other cover crops planted for improvement. It does not include land so hilly, rocky, or wet that the cost of improving it for cultivation would be more than the operator could pay. Nor does it include land in roads, streams, or swamps.

Pasture or grazing land. This category refers to all land used for pasture or grazing, except cropland. It includes all woodland where livestock pastured or grazed. It does not include cropland, even though cattle or other livestock may have been grazed on it.

Woodland. This category includes all land that is covered in woods or forests. It does not include woodland pasture.

Other land. This category includes land in house and other building lots, lanes, roads, ditches, ponds and wasteland. It includes all land in the farm operation not classified as cropland, pastureland, or woodland.

Livestock and poultry. Inventory data for livestock and poultry relate to the number on hand at the time of enumeration. All livestock and poultry were to be enumerated on the place where they were at the time of enumeration regardless of who owned them. Livestock on unfenced land were to be reported as being on the place identified as the headquarters of the person who had control over them. Sales data for livestock are for the calendar year 2007.

Operator characteristics. Data were obtained to classify the operators according to the following five characteristics:

Age of operator. Operators were classified by age into six groups. The average age was obtained by dividing the sum of the ages of all operators reporting by the number reporting.

Main occupation. If the operator devoted 50 percent or more of his/her work time to agricultural activities, his/her main occupation was considered to be agriculture, otherwise his/her occupation was considered to be nonagricultural.

Residence of operator. Operators were classified by residence according to whether or not they lived on the farms operated. Where all the land was rented from others or worked on shares for others, the dwelling was considered to be on the farm operated provided the dwelling he/she occupied was included in the rental agreement. In such cases, the dwelling was not necessarily on the land being operated. Similarly, an operator who did not live on the land being cultivated or grazed, but who had some agricultural operations (other than a home garden) at his/her dwelling, was considered to be living on the farm.

Work off farm. The extent to which operators rely on nonfarm sources for part of their income is indicated by the number of days worked off the farm during the year. Work off the farm was defined to include work on someone else's farm for pay as well as all types of nonfarm jobs, businesses, and professions whether the work was done on the farm premises or elsewhere. Exchange work was not included.

Years on present farm. Operators were classified by years on present farm into four groups. These data were based on the question asking the year the operator began operation of the present farm or any part of it.

Race or national origin of operator. Respondents were asked to choose between Chamorro, Chinese, Filipino, Japanese, White, or Other to describe their race or national origin.

Citizenship of operator. Operators were classified as one of four choices: U.S. citizen born in the CNMI, U.S. citizen born in other state or territory, naturalized U.S. citizen, or not a U.S. citizen.

Value of products sold. Data for value of products sold were obtained for each group of crops or main type of livestock sold from the farm in 2007. Data were obtained for sales of field and forage crops, vegetables, fruits and nuts, nursery crops, poultry and poultry products, cattle and calves, hogs and pigs, fish and other aquaculture products, and other livestock and livestock products. Value of sales was also collected for chicken eggs and milk.

RELIABILITY OF DATA

All data compiled in this report originated from a complete enumeration of a list of all farm operators and, therefore, are not subject to sampling variability. However, the data are subject to nonsampling errors. Nonsampling errors can be attributed to many sources: inability to identify all cases in the actual universe; inability or unwillingness on the part of respondents to provide correct information; definition and classification difficulties; differences in the interpretation of questions; errors in recording or coding the data obtained; and other errors of collection, response, coverage, and estimation for missing or misreported data.

The accuracy of these tabulated data is determined by the joint effects of the various nonsampling errors. No direct measures of these effects have been obtained; however, precautionary steps were taken in all phases of data collection, processing, and tabulation of the data in an effort to minimize the effects of nonsampling errors.