2007 Census Of Agriculture

This application is designed to provide quick access to the 2007 Census data. It can be run directly from a CD or placed onto your computer's hard drive or a network drive (see instructions in "read me" file).

The data resulting from your queries may be exported as a comma-separated value file (csv) and imported into a spreadsheet or other software. The data may also be exported for use with Geographical Information Systems (GIS) mapping software to create maps and perform spatial analysis of the data.

Even though the data for each census table is stored in ".DBF" format (Microsoft Visual Foxpro), which may offer the opportunity to import the data into other software, it is more advisable to use the csv export option mentioned above. The export provides identity to the data that can only be obtained by linking multiple files.

Refer to main screen for instructions to make a data query.

Selected sections of the census publication have been included to help you better understand the data.

United States

Acknowledgments

Introduction

Appendix A

Appendix B

Index of Commodities

Puerto Rico

Acknowledgments - English

Acknowledgments - Spanish

Introduction - English

Introduction - Spanish

Appendix A - English

Appendix A - Spanish

Appendix B - English

Appendix B - Spanish

Index of Commodities

Main Screen

Where multiple selections are available from a list (data items and geographical locations), selection follows standard Windows procedures (CTRL+Click to select an additional item or deselect an item that is already selected; Shift+Click to select a range of entries).

To perform a data query,

1. Select a data type.
   US - State Data - State-level data.
   State - County Data - county data and the State data associated with it.
   Puerto Rico - Commonwealth Data - Commonwealth-level data for Puerto Rico.
   Puerto Rico - Municipio Data - municipio data and the Commonwealth data associated with it.

2. Select a table. The list of tables reflect the selected data type. To determine which table contains a particular item, click the "Index" button.

3. Select the data item(s) for which you wish to retrieve data. Note that the first data item retrieves all data items in the table. The data descriptions are often quite long and can not be completely displayed in the list of data items. An auxilary box has been provided below the list that displays the entire description of the last item clicked.

Some data items may contain a footnote marker. Notes for the selected table can be accessed by clicking the "Table Notes" button. For Data items that are referenced in the Appendix the statement (see text) is displayed as part of the label. Clicking the "See Text" button will display text for the Appendix which provides a more in-depth explanation for various items.

The data items may be displayed in alphabetical order or the order in which they appear in the printed report. The latter makes data items with categories display in a more logical order. Data results can also be sorted by column values. See results screen for more detail..

4. Select the geographic location(s) for which the data should be retrieved. The list changes to reflect the data type and table selected. More geographic locations can be selected by clicking the "Plus symbol" (e.g., clicking the "+" beside United States will allow you to select any of the 50 States). Since this list can get very long when working with county data, a box to the right of the list displays the location(s) you currently have selected. Once selected, the geographical information remains in place until you make another geo selection or another table is chosen.

NOTE: For county data, selecting a State denotes that the state-level record is to be retrieved. Counties must be chosen by selecting individual county(ies) or "all counties" under the appropriate state(s).

5. Click "Get Data."

The results screen displays the data from your query.

Results Screen

The screen's layout is quite flexible. You can resize any column, re-order the columns, or even split the screen.

To resize a column, position the mouse pointer over the column-separation line in the table header (the mouse pointer will change to a cross). Hold down the left mouse button and drag to the right or left to size the column as desired.

To move a column, position the mouse pointer over the header of the column to be moved (the pointer will become a large down-arrow). Hold down the left mouse button, and drag the column left or right until it is in the desired position. This can be helpful when comparing data between columns. Note: Changing the column order only affects the visual portion. When printing, the columns will remain in the original order.

To split the screen, position the mouse pointer over the small black rectangle in the lower left corner of the screen (the mouse pointer will change to arrows pointing both right and left). Hold down the left mouse button and drag to the right until the desired amount of information is displayed in the left pane. You can now scroll right of left in the right pane without losing the information in the left pane (they both scroll up and down together).

Toolbar buttons:

Exit (Esc) - Close results screen. Pressing the escape key is equivalent to clicking this button. You may also click the "X" in the top right corner of results screen.'

Sort Ascending - Arrange data into ascending order (smallest to largest or A to Z) based on values in the column with cursor. To arrange the data, click a cell in the column that should be used to arrange the data, then click this button. The column header of the column used for the sort is changed to yellow. When the "item" column is involved with the sort (when you sort on item or when you sort on geo and an item column is present), the data items may be displayed in alphabetical (or reverse alphabetical) order or the order in which they appear in the printed report (or reverse of order). The latter makes data items with categories display in a more logical order.

Sort Descending - Arrange data into descending order (largest to smallest or Z to A) based on values in the column with cursor. To arrange the data, click a cell in the column that should be used to arrange the data, then click this button. The column header of the column used for the sort is changed to yellow. When the "item" column is involved with the sort (when you sort on item or when you sort on geo and an item column is present), the data items may be displayed in alphabetical (or reverse alphabetical) order or the order in which they appear in the printed report (or reverse of order). The latter makes data items with categories display in a more logical order.

Export GIS - Export data shown in the results screen to files suitable for importing into Geographical Information Systems (GIS) mapping software.

Export CSV - Export data shown in the results screen to a comma-separated-value file (csv) suitable for importing into a spread sheet or other software.

Print - Send the results-screen information to the printer. One of several generic print formats will be used, based on the number of columns of data. You are prompted to select the columns you wish to print if 1) the number of columns in the results-screen

exceeds the print limitation of any print format or 2) the number of columns would require landscape orientation or 14-inch paper. For "2," you may choose to continue or reduce the number of columns until the format you prefer can be used.

Table Notes - View the head note and footnote(s) associated with the selected table. In addition, the symbols and abbreviations used throughout the census data are displayed.

See Text - Provides a link to the appendix that further explains certain data labels.

Help - Access the Help menu.

Acknowledgments

The success of the census of agriculture is directly dependent upon the participation of America's farmers and ranchers, and we are grateful for every agricultural operator who furnished the information requested. Their cooperation and support helped make the 2007 Census of Agriculture the most successful count in history. It was their future, their voice, and their responsibility and they spoke out for their farms and their industry.

The 2007 census was the most comprehensive effort to date to reach all agriculture operations, regardless of size. We appreciate our relationship with the American Indian community and the many community based organizations across the country that helped educate their constituents about the importance of the census. Their support aided greatly in our efforts.

Additionally, there were many organizations and partners who recognize the importance of good data and helped encourage producers to respond. The farm organizations, stakeholder groups, and agricultural media were instrumental in building awareness of the census and encouraging farmers and ranchers to participate. They truly were effective partners driving the message that the census is every producer's voice, future, and responsibility.

Other USDA agencies and representatives from State departments of agriculture offered invaluable advice during the planning, data collection, and processing phases of the census. They also provided critical assistance at the local level to farmers and ranchers completing census forms. Special thanks are extended to the enumerators who collect data locally through NASS's cooperative agreement with the National Association of State Departments of Agriculture. By helping NASS build and maintain quality relationships with our primary stakeholders, the enumerators are important contributors to quality statistics.

Members of the Advisory Committee on Agriculture Statistics and representatives of both public and private organizations offered recommendations on census content. NASS appreciates their strong and consistent support for our programs.

Finally, NASS acknowledges the services provided by the U.S. Department of Commerce, National Processing Center in Jeffersonville, IN.

Detailed census of agriculture information is available online at www.agcensus.usda.gov. Information about NASS and its programs is available at www.nass.usda.gov. If you would like more information, you can also call (800) 727-9540 or email nass@nass.usda.gov.

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HISTORY

For 156 years (1840 - 1996), the U.S. Department of Commerce, Bureau of the Census was responsible for collecting census of agriculture data. The 1997 Appropriations Act contained a provision that transferred the responsibility for the census of agriculture from the Bureau of the Census to the U.S. Department of Agriculture (USDA), National Agricultural Statistics Service (NASS). The 2007 Census of Agriculture is the 27th Federal census of agriculture and the third conducted by NASS.

The first agriculture census was taken in 1840 as part of the sixth decennial census of population. The agriculture census continued to be taken as part of the decennial census through 1950. A separate mid-decade census of agriculture was conducted in 1925, 1935, and 1945. From 1954 to 1974, the census was taken for the years ending in 4 and 9. In 1976, Congress authorized the census of agriculture to be taken for 1978 and 1982 to adjust the data reference year so that it coincided with other economic censuses. This adjustment in timing established the agriculture census on a 5-year cycle collecting data for years ending in 2 and 7.

USES OF CENSUS DATA

The census of agriculture is the leading source of facts and statistics about the Nation's agricultural production. It provides a detailed picture of U.S. farms and ranches every five years and is the only source of uniform, comprehensive agricultural data for every state and county or county equivalent in the U.S.

Agriculture census data are routinely used by farm organizations, businesses, state departments of agriculture, elected representatives and legislative bodies at all levels of government, public and private sector analysts, the news media, and colleges and universities. Agriculture census data are used to:

- Evaluate, change, promote, and formulate farm and rural policies and programs that help agricultural producers;
- Study historical trends, assess current conditions, and plan for the future;
- Formulate market strategies, provide more efficient production and distribution systems, and locate facilities for agricultural communities;
- Make energy projections and forecast needs for agricultural producers and their communities;
- Develop new and improved methods to increase agricultural production and profitability;
- Allocate local and national funds for farm programs, e.g. extension service projects, agricultural research, soil conservation programs, and land-grant colleges and universities;
- Plan for operations during drought and emergency outbreaks of diseases or infestations of pests.
- Analyze and report on the current state of food, fuel, feed, and fiber production in the United States.

In addition agricultural news media and agricultural associations use census data as background material for stories and articles on U.S. agriculture and the foods we produce.

AUTHORITY

The 2007 Census of Agriculture is required by law under the "Census of Agriculture Act of 1997," Public Law 105-113 (Title 7, United States Code, Section 2204g). The law directs the Secretary of Agriculture to conduct a census of agriculture in 1998 and in every fifth year after, covering the prior year. The census of agriculture includes each state, Puerto Rico, Guam, the U.S. Virgin Islands, the Commonwealth of Northern Mariana Islands, and American Samoa.

FARM DEFINITION

The census definition of a farm is any place from which $1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the census year. The definition has changed nine times since it was established in 1850. The current definition was first used for the 1974 Census of Agriculture and has been used in each subsequent agriculture census. This definition is consistent with the definition used for current USDA surveys. The farm definition used for each U.S. territory varies. The report for each territory includes a discussion of its farm definition.

DATA COMPARABILITY

Most data are comparable between the 2007 and 2002 censuses. A few changes were made to the 2007 census that affect comparability for some data items. See Appendix B, General Explanation and Census of Agriculture Report Form, Data Changes for a detailed discussion of these changes. Dollar figures are expressed in current dollars and have not been adjusted for inflation or deflation. In general, data for censuses since 1974 are not fully comparable with data for 1969 and earlier censuses due to changes in the farm definition.

REFERENCE PERIOD

Reference periods for the 2007 Census of Agriculture were similar to those used in the 2002 Census of Agriculture. Reference periods used were:

- Crop production is measured for the calendar year, except for a few crops such as avocados, citrus, and olives for which the production year overlaps the calendar year. See Appendix B, General Explanation and Census of Agriculture Report Form for details.

- Livestock, poultry, and machinery and equipment inventories, market value of land and buildings, and grain storage capacity are measured as of December 31 of the census year.

- Crop and livestock sales, farm expenses, income from federal farm programs, irrigation, Commodity Credit Corporation loans, Conservation Reserve, Farmable Wetlands, Conservation Reserve Enhancement, and Wetlands Reserve Program participation, direct sales income, chemical and fertilizer use, farm-related income, and hired farm labor data are measured for the calendar year.

TABLES AND APPENDICES

Chapter 1. Table 1 shows U.S.-level historical data through the 1978 census and tables 2 through 57 show detailed U.S.-level data usually accompanied by historical data from the 2002 census. Tables 58 through 65 show detailed U.S.-level data cross-tabulated by several categories for the 2007 census only.

Chapter 2. State-level data are presented in 56 tables in 2 different table formats - state and state summary. Most tables include 2002 historical data. State tables include general data for all states within the U.S. The state names are listed in alphabetical order in the column headings. State summary tables provide comprehensive data for all states reporting a data item.

Appendix A. Provides information about data collection and data processing activities and discusses the statistical methodology used in conducting and evaluating the census. Table A summarizes nonresponse and coverage adjustment for selected items for the U.S. Table B provides reliability estimates of U.S. totals for selected items. Table C summarizes nonresponse and coverage adjustment for selected items at the state level. Table D provides total number of American Indian or Alaska Native farm operators both on and off reservations by state.

Appendix B. Includes definitions of specific terms and phrases used in this publication, including items in the publication tables that carry the note "see text." It also provides facsimiles of the report form and instruction sheet used to collect data.

RESPONDENT CONFIDENTIALITY

In keeping with the provisions of Title 7 of the United States Code, no data are published that would disclose information about the operations of an individual farm or ranch. All tabulated data are subjected to an extensive disclosure review prior to publication. Any tabulated item that identifies data reported by a respondent or allows a respondent's data to be accurately estimated or derived, was suppressed and coded with a 'D'. However, the number of farms reporting an item is not considered confidential information and is provided even though other information is withheld.

SPECIAL EFFORTS DIRECTED AT MINORITIES

NASS implemented several activities to improve coverage of minority farm operators. These activities included, but were not limited to:

- Obtaining mail lists from organizations likely to contain names and addresses of minority farm operators; and

- Conducting pre-census promotion activities that targeted women, American Indian and Alaska Native, Black and African American, and Spanish, Hispanic, or Latino origin farm operators; and

- In 2002 an initial effort was made to collect data from individual operators on American Indian reservations in three states. In 2007 this effort was expanded to attempt to collect data from operators on reservations in all states with reservations; and

- Producing a Spanish report form version for Field Office and enumerator use.

SPECIAL STUDIES AND CUSTOM TABULATIONS

Special studies such as the 2008 Farm and Ranch Irrigation Survey, the 2008 Organic Production Survey, the 2009 Census of Horticultural Specialties, the 2010 Census of Aquaculture, and the 2010 Land and Economic Stability Survey are part of the census program and provide supplemental information to the 2007 Census of Agriculture in the respective subject area. Results are published in print and on the internet.

Custom-designed tabulations may be developed when data are not published elsewhere. These tabulations are developed to individual user specifications on a cost-reimbursable basis and shared with the public. The census Volume 1 on CD-ROM is an alternative data source that should be investigated before requesting a custom tabulation.

All special studies and custom tabulations are subject to a thorough disclosure review prior to release to prevent the disclosure of any individual respondent data. Requests for custom tabulations can be submitted via the internet from the NASS home page, by mail, or by e-mail to:

DataLab
National Agricultural Statistics Service
Room 6436A, Stop 2054
1400 Independence Avenue, S.W.
Washington, D.C. 20250 - 2054
or
Datalab@nass.usda.gov

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used throughout the tables:

- Represents zero.

(D) Withheld to avoid disclosing data for individual farms.

(H) Standard error or relative standard error of estimate is greater than or equal to 99.95 percent.

(IC) Independent city

(L) Standard error or relative standard error of estimate is less than .05 percent.

(NA) Not available.

(X) Not applicable.

(Z) Less than half of the unit shown.

cwt Hundredweight

sq ft Square feet

THE CENSUS POPULATION

The Census Mail List

The National Agricultural Statistics Service (NASS) maintains a list of farmers and ranchers from which the Census Mail List (CML) is compiled. The goal is to build as complete a list as possible of agricultural places that meet the NASS farm definition, that is, an operation that produces, or would normally produce and sell, $1,000 or more of agricultural products per year. The CML compilation begins with the list used to define sampling populations for NASS surveys conducted for the agricultural estimates program. Each record on the list includes name, address, and telephone number plus additional information that are used to efficiently administer the census of agriculture and agricultural estimates programs.

NASS builds and improves the list on an ongoing basis by obtaining outside source lists. Sources include State and federal government lists, producer association lists, seed grower lists, pesticide applicator lists, veterinarian lists, marketing association lists, and a variety of other agriculture-related lists. NASS also obtains special commodity lists to address specific list deficiencies. These outside source lists are matched to the NASS list using record linkage programs. Most names on newly acquired lists are already on the NASS list. Records not on the NASS list are treated as potential farms until NASS can confirm their existence as a qualifying farm. Staff in NASS field offices routinely contact these potential farms to determine if they meet the NASS farm definition. For the 2007 Census of Agriculture, NASS made a concerted effort to work with Community-Based Organizations not only to improve list coverage for minorities but also to increase census awareness and participation.

List building activities for developing the 2007 CML started in 2004. Between 2004 and 2007, NASS conducted a series of Agricultural Identification Surveys (AIS) on approximately 1.7 million records, which included nonrespondents from the 2002 census and newly added records from outside list sources. The AIS report form collected information that was used to determine if an operation met the NASS farm definition. If the definition was met, the operation was added to the NASS list and subsequently to the CML. Addressees that were nonrespondents were also added to the CML and identified with a special status code.

Measures were taken to improve name and address quality. Additional record linkage programs were run to detect and remove duplicate records both within each State and across States. List addresses were processed through the National Change of Address Registry and the Locatable Address Conversion System to ensure they were correct and complete. Records on the list with missing or invalid phone numbers were matched against a nationally available telephone database to obtain as many phone numbers as possible.

The official CML was established on September 1, 2007. The list contained 3,194,373 records. There were 2,198,410 records that were thought to meet the NASS farm definition and 995,963 potential farm records, which included AIS nonrespondents, other records added to the CML by the NASS field offices, and late adds to the CML that were not included in any previous AIS or State screening survey.

Not on the Mail List

To account for farming operations not on the CML, NASS used its area frame. The NASS area frame covers all land in the U.S. and includes all farms. The land in the U.S. is stratified by characteristics of the land. Segments of approximately equal size are delineated within each strata and designated on aerial photographs. A probability sample of segments is drawn within each strata for the NASS annual area frame survey, known as the June Agricultural Survey (JAS). The JAS sample of segments is allocated to strata to provide accurate measures of acres planted to widely grown crops and inventories of hogs and cattle. Sampled segments in the June Survey are personally enumerated. Each operation identified within a segment boundary is known as a tract.

The 2007 JAS sample was allocated to strata so that it would provide additional measures of small and minority owned farms. The 2007 JAS consisted of 10,912 regular sampled segments, supplemented with 3,692 Agricultural Coverage Evaluation Survey (ACES) segments – segments selected to provide measures of small and minority owned farms. These additional ACES segments targeted farming demographics that typically had lower coverage rates on the list.

The information from each tract (operation) within a segment is matched against operations on the NASS list to determine the amount of undercoverage that exists for a wide range of farming sectors and farmer demographics. The names and addresses collected in the 2007 JAS and 2007 ACES were matched to the CML and checked for duplication. Farms from the June 2007 survey that did not match were determined to be Not on the Mail List (NML) and sent a report form of a different color to be easily identified. Data from the NML operations provided a measure of the undercoverage of the CML operations. Instructions on the census report form guided the respondent to complete the CML form and mail back both CML and NML forms together if duplicate forms were received. Those who returned a CML census form and an NML census form had been erroneously classified as NML and were removed from the NML.

The percentage of farms not represented on the CML varied considerably by State. In general, farms not on the mail list tended to be small in acreage, production, and sales of agricultural products. Farm operations were missed for various reasons, including the possibility that the operation started after the mail list was developed, the operation was so small that it did not appear in any

agriculture-related source lists, or the operation was erroneously classified as a nonfarm prior to mailout.

The NML consisted of 12,821 tracts. The CML was used with the NML in multiple frame estimation to represent all farming operations across all States, with the exception of Alaska. It is financially and logistically unfeasible to maintain an area frame in Alaska due to its vast land mass and relatively sparse agriculture.

DATA COLLECTION

Method of Enumeration

Mailout and mailback was the primary data collection method. It was supplemented with Electronic Data Reporting (EDR) on the Internet and non-response follow-ups by telephone and personal enumeration. The enumeration methods used in the 2007 census were similar to those used in the 2002 census.

Report Forms

A master report form was developed that included all data items to be collected in the census. From the master, two types of report forms were developed to be used in the 2007 census - a regionalized report form with 7 versions and a national report form. Each of the 24-page regionalized report forms (07-A0201, 07-A0202, 07-A0203, 07-A0204, 07-A0205, 07-A0206, 07-A0207) were designed to facilitate reporting crops most commonly grown within the report form region. The 12-page national report form (07-A0100) was designed for operations throughout the country with few commodities. The national report form collected the same information as the regional form, but it was formatted to fit on fewer pages. All of the forms allowed respondents to write in specific commodities that were not identified on their form. The national form was mailed to approximately 528,000 addresses on the CML (about 20 percent) and the regional form was mailed to 2.67 million addresses on the CML (about 80 percent).

Report Form Mailings and Respondent Follow-up

The initial mailout took place at the end of December 2007. Approximately 3.2 million packets were mailed. Each packet contained a cover letter, instruction sheet, a labeled report form, and a return envelope. Mailout packet preparation, initial mailout, and two follow-up mailings to nonrespondents were handled by the Census Bureau's National Processing Center (NPC) in Jeffersonville, IN. The first follow-up was mailed during the last two weeks of February 2008 to approximately 1.3 million nonrespondents. The second follow-up was mailed the beginning of April 2008 to approximately 1.0 million nonrespondents. Additionally, NPC received, checked-in, scanned, and keyed (from image) returned report forms. NASS statisticians on site at NPC provided technical guidance and monitored NPC processing activities.

Select groups of census records were identified to receive special handling procedures. Report forms were labeled at NPC and shipped to the field offices for enumeration. These respondents were excluded from the initial and both follow-up mailings, and were referred to as "must" operations. Each "must" operation was enumerated by telephone or face-to-face. If a record was determined to be no longer in operation, their non-farm status was verified and documented. The field offices were responsible for enumerating or resolving all non-response "must" records in their State. Computer Assisted Telephone Interview (CATI) calling for nonrespondent "must" records was conducted between March 2008 and June 2008. Once enumerated, the report forms were either sent to NPC for check-in and data capture or the data were keyed directly from the form at the field office. The 169,000 "must" records fell into one of five groups.

The first "must" group consisted of 46,000 records "tagged" by the NASS field offices for personal enumeration rather than mailout and mailback enumeration. The second "must" group consisted of 4,000 "specialized" records including such operations as grazing associations, governmental units, research farms, college farms, etc.. The third "must" group was characterized by location. All 3,000 records in Alaska and Rhode Island were identified as "must" records because census statistics for these two States were based on responses to the CML because nonresponse was not permitted. The last two groups consisted of a total of 116,000 records expected to have either a large number of acres in farm land or a large value of sales. Threshold levels were identified for each State.

Advanced Follow-up was conducted between February 2008 and April 2008. It focused on three groups of nonrespondents that included: respondents least likely to respond because they were nonrespondents to the 1997 and 2002 Censuses of Agriculture, even though they may have responded to other NASS surveys; respondents viewed as easy and quick interviews based on expected sales of zero, including respondents who received Conservation Reserve Program (CRP) payments and respondents to the AIS with expected future sales; and new records whose farm status was uncertain due to unsuccessful earlier screening attempts. The field offices conducted CATI and field enumeration for operations in their State. This phase was followed by Low-Response County Follow-up to attempt to reach a minimum response rate of at least 75 percent in all counties. It was conducted by the field offices using CATI between March 2008 and June 2008.

DATA COLLECTION OUTREACH AND PROMOTIONAL EFFORTS

NASS engaged in an unprecedented level of public outreach for the 2007 Census of Agriculture, seeking to increase the level of awareness and response among U.S. agricultural producers and, in particular, minority and small farm operators. This was accomplished through an integrated marketing communications program that focused on four primary areas: partnership building, public relations, paid media, and the Internet. External support was provided by a private agricultural marketing communications agency.

The unifying force behind the 2007 marketing campaign was the theme "Your Voice, Your Future, Your Responsibility." This was accompanied by supporting messages and artwork that created a consistent look and feel for all census communications.

Partnership

At the national level, NASS officials met with leaders from dozens of key agricultural organizations and other USDA agencies, successfully securing their support in promoting the census among their constituencies through publications, special mailings, speeches, and other communications. In addition, NASS made special efforts to reach out to minority and limited-resource farmers and ranchers by partnering with a number of community-based organizations. The national-level outreach was mirrored by field offices at the State and local levels. Among the features of these collective efforts was the production of State-specific radio public service announcements (PSAs) featuring State secretaries and commissioners of agriculture, as well as a national radio PSA featuring the U.S. Secretary of Agriculture.

Coverage of American Indian and Alaska Native Farm Operators

To maximize coverage of American Indian and Alaska Native farm operators, special procedures were followed in the census. A concerted effort was made to get individual reports from every American Indian and Alaska Native farm operator in the country. If this was not possible within some reservations, a single reservation-level census report was obtained from knowledgeable reservation officials. These reports covered agricultural activity on the entire reservation. NASS reviewed these data and removed duplication with any data reported by American Indian or Alaska Native farm operators who responded on an individual census report form. Additionally NASS obtained, from knowledgeable reservation officials, the count of American Indian and Alaska Native farm operators (on reservations) who were not counted through individual census report forms, but whose agricultural activity was included in the reservation-level report form.

This information is summarized in Table D, **American Indian and Alaska Native Operators: 2007** (Table A in the Alaska publication), providing the number of farm operators (for up to three operators per farm) reported as American Indian or Alaska Native in the race category, either as a single race or in combination with other races, on the individual census report forms, plus the total number of American Indian or Alaska Native operators farming on reservations as reported by reservation officials. The count from the individual report forms is summarized in the "Individually reported" column. It includes operators on or off reservations. The "Other" column provides counts of operators on reservations as reported by a reservation or tribal official. The "Total" column is simply a sum of the "Individually reported" and the "Other" columns. Tables in other parts of the publication count the reservation-level reports as single farms.

Public Relations

In the public relations arena, NASS and the contractor worked with the agriculture media at the national level and equipped NASS's 46 field offices with communications tools that enabled them to deliver the right message to producers in their States. From customizable press releases, to radio public service announcements, to a video news release, to newsletter articles and letters to the editor, the public relations strategy was designed to ensure NASS fields offices could easily and effectively deliver the census message to local media. As a result, in the print media alone, the public relations efforts generated 27 million media impressions.

Paid Media

Because there were certain constituencies that were difficult to reach through partnership or public relations, NASS also employed a paid media strategy that was narrowly targeted to reach previously under-represented populations. NASS purchased limited print and radio advertising in areas where there were high concentrations of minority farmers and where 2002 census response rates were low.

Internet

For the 2007 census, NASS created a dedicated website, www.agcensus.usda.gov. This became a repository for all types of census information, including basic background materials, previous years' census data, sample report forms, and news releases and other publicity materials. The website also enabled individuals to submit their contact information to ensure that they were on the mailing list to receive a census form. NASS also enhanced its online presence by purchasing banner ads and pay-per-click advertisements on key agricultural websites as well as major search engines.

REPORT FORM PROCESSING

Data Capture

All report forms returned to NPC were immediately checked in, using bar codes printed on the mailing label, and removed from follow up mailings. All forms with any data were scanned and an image was made of each page of a report form. Optical Mark Recognition (OMR) was used to capture categorical responses and to identify the other answer zones in which some type of mark was present.

Data entry operators keyed data from the scanned images using OMR results that highlighted the areas of the report forms with respondent entries. The keyer evaluated the contents and captured pertinent responses. Ten percent of the captured data were keyed a second time for quality control. If differences existed between the first keyed value and the second, an adjudicator handled resolution. The decision of the adjudicator was used to grade the performance of the keyers, who were required to maintain a certain accuracy level.

The images and the captured data were transferred to NASS's centralized network and became available to field offices and headquarters on a flow basis. The images were available for use in all stages of review. Images were computer generated for reports obtained from the telephone interviews and the Internet.

Editing Data

Captured data were processed through a format program. The program verified that record identifiers were valid and checked the basic integrity of the data fields. Rejected records were referred to analysts for correction. Accepted records were sent to a batch edit process. Each execution of the computer edit in batch mode consisted of records from only one State and flowed as the data were received from NPC.

All 2007 census records were passed through a complex computer edit. The edit determined whether a reporting operation met the minimum criteria to be counted as a qualifying farm (in-scope). Operations failing to meet the minimum criteria (out-of-scope) were referred to analysts for verification. The edit examined each in-scope record for reasonableness and completeness and determined whether to accept the recorded value for each data item or take corrective action. Actions included removing erroneously reported values, replacing an unreasonable value with one consistent with other reported data, or providing a value for an overlooked item. To the extent possible, the edit determined a replacement value. Strategies for determining replacement values are discussed in the next section.

The edit systematically checked reported data section-by-section with the overall objective of achieving an internally consistent and complete report. NASS subject-matter experts defined the criteria for acceptable data. Problems that could not be resolved within the edit were referred to an analyst for intervention. Analysts in the NASS field offices used additional information sources, examined the scanned image, and determined an appropriate action. Field office analysts used an interactive version of the edit program to submit corrected data and immediately re-edit the record to ensure a satisfactory solution.

Imputing for Missing Data

Missing data occurred whenever a respondent failed to report in a cell that should have a positive value or when the edit determined a value was not reasonable and should be changed. The edit performed a sequence of steps that determined the best value to impute for the missing item. If an item could not be calculated directly from other data reported on the current form, the edit checked for previously reported data. Acreage, production, and inventory items may have been reported on a recent NASS crop or livestock survey. Operator characteristics, such as race and gender, were brought forward from the previous census if the operator had not changed in five years. Administrative data from the Farm Service Agency was used for a few items, such as Conservation Reserve Program acreage. When these deterministic sources failed to produce a solution, the edit invoked an automated imputation system which searched for a reporting farm of similar type, size, and location to provide a value for the missing data item. If the imputation algorithm failed to provide a solution, the record was referred to an analyst for resolution.

The guiding principal for imputation was to find a close match to the farm with the missing item. The census imputation algorithm relied on pre-established donor pools, one for each State. A donor pool included a collection of completed reports that had successfully navigated the edit. Each pool was further divided into groups of similar type and size, referred to as profiles. When the edit determined the need to impute an item, it went to the appropriate profile and searched for the best fit. Best fit was determined by calculating "distance" between the incomplete report and each candidate donor using a set of match variables. Match variables were specific to each section of the report form and included the latitude and longitude of the principal county of operation. The distance was the sum of the squared differences between the reported values of the match variables. The donor with the smallest distance was considered the "nearest neighbor" and became the source for the imputation action. The value returned may have been a direct copy

of the donor's value. In many cases, a relationship between two related variables on the donor record was applied to a reported value on the incomplete record. Using crop production as an example, the donor's production was divided by its harvested acres (yield) and multiplied by the recipient's harvested acres to obtain imputed production.

The imputation process was imbedded in the edit. When the edit determined an item required imputation, the edit program launched the algorithm, waited for a value to be returned, validated that the returned value was satisfactory, and resumed editing. Since imputation was conducted independently for each occurrence, reports requiring multiple imputations drew from multiple donors.

Initial donor pools were established before the first batch edits were run. These donor pools were "seeded" with 2002 census data that were "mapped" to look like 2007 data and passed through the 2007 edit to ensure they were consistent using the 2007 data relationships. In addition, data from the 2005 Census Content Test were similarly mapped and edited. As 2007 data were successfully processed, new records systematically replaced the older records in the donor pool. The older records disappeared entirely from the donor pool after the first few batch edits.
The donor pool for each State was refreshed weekly during the first couple of months of editing. As the flow of new data slowed, the donor pools were refreshed biweekly. During the early stages of editing, records that needed to impute production for field crops or hay were set aside. When the donor pool no longer contained old data, these records were brought back and passed through the edit, ensuring 2007 yields were imputed.

In some cases, nearest-neighbor imputation was not possible. The requirement of a positive imputed value could have ruled out all available donors, resulting in an imputation failure. An imputation failure could have occurred if there were no donors in the same profile as the report being edited. Records with imputation failures were either held until more records were available in the donor pool or referred to an analyst.

Data Analysis

The complex edit ensured the full internal consistency of the record. Successfully completing the edit did not provide insight as to whether the report was reasonable compared to other reports in the county. Analysts were provided an additional set of tools, in the form of listings and graphs, to review record-level data across farms. These examinations revealed extreme outliers, large and small, or unique data distribution patterns that were possibly a result of reporting, recording, or handling errors. Potential problems were researched and, when necessary, corrections were made and the record interactively edited again.

WHOLE FARM NONRESPONSE ESTIMATION

Whole farm nonresponse adjustments were necessary because some farm operators did not respond to the census, despite numerous attempts to contact them. Statistical estimation procedures were used to account for these CML nonrespondents. The objectives of the nonresponse adjustments included estimating the number of in-scope records (farms) included in the total number of nonrespondents of a similar size and type by increasing the weights of reporting farms of that size and type. This procedure was intended to account for those farms that failed to return a report form. These procedures were applied in all States, except Alaska and Rhode Island where staff were required to submit data for every record on the CML due to the low level of farming operations in these States. Large or unique farms (Must records) for which a report was required (and thus given a nonresponse weight of one) were exempt from this weighting procedure. These farms received intensive follow-ups. Data were imputed for the record if all followup contacts failed (rather than using the nonresponse weighting procedure).

After census data collection was completed, all CML records in a State were put into mutually exclusive weighting groups based on a list of farm characteristics known at the time of mail-out and the census response status of the record. Data mining techniques systematically checked selected variables, identifying those groups with differences in response rates that were statistically significant. The algorithm would take one characteristic, divide all names into two groups, and check for statistical significance between the response rates of the two groups. If a significant difference was found, these groups became permanent and the next characteristic would be examined within those two groups. If the response rate between two groups was not statistically significant, the groups were rejoined and the next characteristic was tested. This stepwise process continued until all characteristics were checked and no further statistical significance could be found. Since the "path" taken by the algorithm was driven by an individual State's response pattern, the final breakout of weighting groups was customized for the State.

Within each weighting group, the percent of responding in-scope farms was computed. This rate was applied to the count of nonresponding farms to estimate the number of in-scope nonrespondents. The weights of the responding in-scope farms in each weighting group were scaled to account for nonresponding farms in that group.

This procedure was applied to all of the weighting groups except the one that consisted primarily of records who were included on the CML but had not responded to data collection efforts either during CML development activities or during the census data collection phase. The estimate of in-scope records (farms) within this group was not reliable. To get a more reliable estimate, NASS conducted a

nonresponse follow-up activity. After scheduled census data collection efforts were completed, a target sample of 5,000 records was selected from across all States. These 5,000 records were personally interviewed by NASS staff to determine if they were indeed in-scope records (farm) or out-of-scope records (nonfarm). Each record fell into one of these two categories. The percent of in-scope records was used to form the weight for this group.

When NASS summarizes the census of agriculture, it assigns the data from an individual report to the "principal" county. The principal county is the one county in which the majority of agricultural products are produced from a respondent. This is a question on the census report form and is therefore determined by the respondent. Because some large operations have significant production in multiple counties, some reports were broken up into multiple source counties, to more accurately allocate the data. Similarly, large farms operating in more than one State were treated as distinct, state-specific operations. A separate report form was completed for each county or State and a separate record was added.

The percent of the total that came from the whole farm nonresponse estimate is shown for selected census data items in Tables A and C. The estimates provided in Tables A and C do not reflect the effect of item nonresponse on individual census data items. The effect of this item nonresponse is discussed in the section on "Item Nonresponse" in "Nonmeasured Census Error."

COVERAGE ADJUSTMENT

Although much effort was expended making the CML as complete as possible, the census did not count all U.S. farms. NASS's goal was to produce agricultural census totals for publication that were fully adjusted for list undercoverage at the county level. NASS used its area frame with the CML in a dual-frame estimation procedure to measure the number of farms in the population and key characteristics of those farms. Area frame segments were enumerated using field enumerators (as described in the first section of this appendix) who personally visited the tract operators within a segment. Because field enumeration is significantly more expensive than other modes of data collection, NASS's area frame sample allocation is only designed to generate reliable estimates at the State, regional, and U.S. level. Therefore, in order to produce estimates that represented all farms at the county level, NASS used an allocation process known as "calibration" to distribute the dual-frame estimates across counties.

Once all CML and NML data were collected, NASS analysts went through an extensive process to generate adjusted estimates. The weights of the CML respondents had been previously adjusted to account for all of the CML nonrespondents, referred to as list plus nonresponse (CML+NR). Simultaneously, NASS summarized the NML tract records to generate state-level NML survey estimates. These two pieces were then combined in a dual-frame estimation procedure to form State estimates of totals that represented all farms. These estimates are annotated as [(CML+NR) +NML]. The state-level totals for these variables were summed to yield national totals.

The whole farm nonresponse and list undercoverage record weighting processes were initially applied at the State level to produce adjusted estimates of farm numbers and land in farms for 65 different categories of 8 characteristics of the farm operation or the farm operator -- value of agricultural sales (8); age (2); female; race (4); Hispanic origin of principal farm operator; total number of farms and land in farms (2); 4 sales categories for each of 10 major commodities (40); and 7 farm type groups. The national-level adjusted estimates were smoothed across States to get initial State farm operation coverage targets because state-level farm-count estimates based on this two-piece formula sometimes had unacceptably high state-level standard errors and apparent biases. This often occurs when estimating a rare item, such as female farm operators, using a general purpose survey.

The smoothing process examined the proportion of the total JAS estimate attributable to the NML, for each of the 65 variables in each State and the U.S. Since the CML was built using standard national methods, the NML percentages were expected to be uniform across States. The smoothed NML value for each of the 65 variables in a given State was calculated as the product of the state-level NML value and the weighted average of the ratios of the NML for a given variable in the State to the overall NML in the State and the NML for the given variable in the U.S. to the overall NML in the U.S. The weighting factor was chosen to minimize the mean square error under a random effects model with the control that the sum of the State smoothed NML values was equal to the total NML estimate for each of the 65 variables. This methodology effectively draws the state-level NML undercoverage proportions of the JAS toward the national estimate of undercoverage with the most extreme values adjusted the most. The smoothed NML values for each variable were added to the (CML + NR) totals to form calibration targets for each variable. Subject-matter experts in headquarters reviewed all targets.

However, these State estimates were general purpose in that they did not provide any control over expected levels of commodity production of the farm operation. As a result of this limitation, the procedures could have over adjusted or under adjusted for commodity production. To address this, a second set of variables were added to the calibration algorithm, known as commodity coverage targets. These targets were commodity totals from administrative sources or from NASS surveys of non-farm populations (e.g. USDA Farm Service Agency program data, Agricultural Marketing Service market orders, livestock slaughter data, cotton ginning data). The introduction of these commodity coverage targets strengthened the overall adjustment procedure by ensuring that major commodity totals remained within reasonable bounds of established benchmarks. Commodity coverage targets with acceptable ranges were established by subject-matter experts for each State with New England treated as a State.

The calibration algorithm addressed farm operation undercoverage and commodity coverage concurrently. The algorithm was controlled by the 65 State farm operation coverage targets and the State commodity coverage targets. In order to ensure that the calibration process converged with so many constraints, it was desirable to provide some tolerance ranges for each target. Although full calibration to a single point estimate would assure that the weighted total among census respondents equaled its target for each calibration variable in either set, it was not always possible to calibrate to such a large number of target values while ensuring that farm weights were within a reasonable range and not less than one. Because of this and because calibration targets are estimates themselves subject to uncertainty, NASS allowed some tolerance in the determination of the adjusted weights. Rather than forcing the total for each calibration variable computed using the adjusted weights to equal a specific amount, NASS allowed the estimated total to fall within a tolerance range. This tolerance strategy sometimes made it possible for the calibration algorithm to produce a set of satisfactory, adjusted weights that it would not have otherwise.

Ranges for the list farm operation coverage targets were determined differently from the commodity targets. The State target for number of farms had no tolerance range. The tolerance range for the 64 other State farm operation coverage targets was the estimated smoothed State total for the variable [(CML+NR)+NML] plus or minus one-half of one estimated standard error of NML estimate. This choice limited the cumulative deviation from the estimated total for a variable when State totals were summed to a U.S. level total. The commodity target tolerance ranges were determined by subject-matter experts, based on the amount of confidence in the source, and usually were less than plus or minus two percent of the target. Ranges were not necessarily symmetric around the target value.

Adjusted weights were obtained using truncated linear calibration which forced the final census record weights to fall in the interval [1,6]. Adjustments began with the nonresponse-adjusted weights and added a second stage weight to simultaneously satisfy all farm operation coverage and commodity coverage calibration targets. If a value within the tolerance range of any variable could not be achieved in a given State, the variable was removed as a target and the calibration algorithm was rerun. Additionally, the CML was assumed to be complete for very large and unique farms with their weight being controlled to 1 during the calibration adjustment process.

Weight computations in the nonresponse and final coverage calibration algorithms were performed to several decimals. Thus, the fully-adjusted weights were non-integer numbers. To insure that all subdomains for which NASS publishes summed to their grand total, fully-adjusted weights were integerized. This eliminated the need for rounding individual cell values and insured that marginal totals always added correctly to the grand total. As an example of how the integerization process worked, assume there were five census records in a county with final noninteger coverage weights of 2.2, for a total of 11. The integerization process randomly selected four of these records and rounded their final weight down to 2.0 and rounded the fifth record up to 3.0, for a total of 11.

The proportions of selected census data items that are due to coverage adjustments are displayed in Tables A and C. Some estimated coverage adjustments could be negative. The use of commodity targets in calibration indirectly exposed some duplication on the census list or over adjustment by the nonresponse algorithm resulting in negative coverage adjustments.

DISCLOSURE REVIEW

After tabulation and review of the aggregates, a comprehensive disclosure review was conducted. NASS is obligated to withhold, under Title 7, U.S. Code, any total that would reveal an individual's information or allow it to be closely estimated by the public. Cell suppression was used to protect the cells that were determined to be sensitive to a disclosure of information. Farm counts are not considered sensitive and are not subject to disclosure.

Based on agency standards, data cells were determined to be sensitive to a disclosure of information if they violated either of two criteria. First, the threshold rule was violated if the data cell contained less than three operations. For example, if only one farmer produced turkeys in a county, NASS could not publish the county total for turkey inventory without disclosing that individual's information. Second, a dominance rule was violated if the distribution of the data within the cell allowed a data user to estimate any respondent's data too closely. For example, if there are many farmers producing turkeys in a county and some of them were large enough to dominate the cell total, NASS could not publish the county total for turkey inventory without risking disclosing an individual respondent's data. In both of these situations, the data were suppressed and a "(D)" was placed in the cell in the census publication table. These data cells were referred to as primary suppressions.

Since most items were summed to marginal totals, primary suppressions within these summation relationships were protected by ensuring that there were additional suppressions within the linear relationship that provided adequate protection for the primary. A detailed computer routine selected additional data cells for suppression to ensure all primary suppressions were properly protected in all linear relationships in all tables. These data cells were referred to as complementary suppressions. These cells were not themselves sensitive to a disclosure but were suppressed to protect other primary suppressions. A "(D)" was also placed in the cell of the census publication table to indicate a complementary suppression.

Field office analysts reviewed all complementary suppressions to ensure no cells had been withheld that were vital to the data users.

In instances where complimentary suppressions were deemed critically important to a State or county, analysts requested an override and a different complement was chosen.

MEASURES OF CENSUS QUALITY

An important objective of the 2007 Census of Agriculture was to provide data with a high level of quality. However, every census or survey has the potential for error in its processes. These errors impact the quality of the data estimates. When feasible, measurements of those errors are provided with individual data items or used to make adjustments to the census or survey estimates. In conducting the 2007 Census of Agriculture, efforts were initiated to measure error associated with the adjustment for farm operations that were not respondents to the request to CML records, the coverage adjustment for farms not on the CML using the NML and calibration, and the integerization process. Other errors present in the census of agriculture include respondent or enumerator error, error in classification of farm operations, other types of processing errors, error associated with imputation for item nonresponse, and matching error associated with dual-frame estimation. These latter errors were not measured in the census of agriculture process. Information relating to these errors is provided in the sections that follow.

The 2007 Census of Agriculture process measured the error introduced by the nonresponse algorithm, the coverage algorithm, and integerization. The root mean squared error (RMSE) of an estimated data item from the census provides a measure of the error variation in the value of that estimated data item based on all possible outcomes of the census collection, including variants as to who was on the census list, who returned a census form, and which weights were chosen to be rounded up. The RMSE was used rather than the standard error because it could capture additional error arising from integerization and the potential for bias in the calibration targets. The RMSE is the square root of the sum of the weighted differences between the final recorded value and its expected value squared divided by the number of reports.

Table B presents the fully adjusted total with the root mean squared error for selected items. The relative root mean squared error is obtained by dividing the root mean squared error by the value of the estimate and then multiplying by 100. The table also includes the percent contribution to the mean squared error (the square of the root mean squared error) from nonresponse adjustment and from coverage adjustment.

NONMEASURED CENSUS ERROR

As noted in the previous section, sampling errors can be introduced from the nonresponse and coverage adjustment procedures. This error is measureable. However, nonsampling errors are imbedded in the census process which cannot be directly measured as part of the design of the census but must be contained to ensure an accurate count. Extensive efforts were made to compile a complete and accurate mail list for the census, to elicit response to the census, to design an understandable report form with clear instructions, to minimize processing errors through the use of quality control measures, to reduce matching error associated with the dual frame estimation process, and to minimize error associated with identification of a respondent as a farm operation (referred to as classification error). The weight adjustment and tabulation processes recognize the presence of nonsampling errors, however, it is assumed that these errors are small and that, in total, the net effect is zero. In other words, the positive errors cancel the negative errors.

Census Response Rate

The response rate is an indicator of the quality of a data collection. It is generally assumed that if a response rate is close to a full participation level of 100 percent, the potential for nonresponse bias is small. The response rate for the 2007 Census of Agriculture is 85.2 percent as compared with a response rate of 88.0 for the 2002 Census of Agriculture and 86.2 percent for the 1997 Census of Agriculture. There was no effort to measure nonresponse bias for the census. However, the census will be used to measure nonresponse bias in NASS surveys.

The response rate for the 2007 Census of Agriculture was calculated as the ratio of the total respondents after data collection was completed to the number of CML records after those that were undeliverable-as-addressed were removed. The total respondents consisted of three groups – those respondents not eligible for the nonresponse survey, those in the universe for the nonresponse survey but who responded prior to the selection of the nonresponse survey sample, and an estimate of the potential respondents in the nonresponse survey sample universe from the response rate to the nonresponse survey. Additional details of the nonresponse study are found in the section on "Whole Farm Nonresponse Estimation."

Respondent and Enumerator Error

Incorrect or incomplete responses to the census report form or to the questions posed by an enumerator can introduce error into the census data. Steps were taken in the design and execution of the census of agriculture to reduce errors from respondent reporting. Poor instructions and ambiguous definitions lead to misreporting. Respondents may not remember accurately, may give rounded numbers, or may record an item in the wrong cell. To reduce reporting and recording errors, the report form was tested prior to the census using

industry accepted cognitive testing procedures and detailed instructions for completing the report form were provided to each respondent. Questions were phrased as clearly as possible based on previous tests of the report form. Computer-assisted telephone interviewing software included immediate integrity checks of recorded responses so suspect data could be verified or corrected. In addition, each respondent's answers were checked for completeness and consistency by the complex edit and imputation system.

Processing Error

Processing of each census report form was another potential source of nonsampling error. All mail returns that included multiple reports, respondent remarks, or that were marked out of business and report forms with no reported data were sent to an analyst for verification and appropriate action. Integrity checks were performed by the imaging system and data transfer functions. Standard quality control procedures were in place that required that randomly selected batches of data keyed from image be re-entered by a different operator to verify the work and evaluate key entry operators. All systems and programs were thoroughly tested before going on-line and were monitored throughout the processing period.

Developing accurate processing methods is complicated by the complex structure of agriculture. Among the complexities are the many places to be included, the variety of arrangements under which farms are operated, the continuing changes in the relationship of operators to the farm operated, the expiration of leases and the initiation or renewal of leases, the problem of obtaining a complete list of agriculture operations, the difficulty of contacting and identifying some types of contractor/contractee relationships, the operator's absence from the farm during the data collection period, and the operator's opinion that part or all of the operation does not qualify and should not be included in the census. During data collection and processing of the census, all operations underwent a number of quality control checks to ensure results were as accurate as possible.

Item Nonresponse

All item nonresponse actions provide another opportunity to introduce nonsampling errors. Regardless of whether it was previously reported data, administrative data, the nearest neighbor algorithm, or manually imputed by an analyst, some risk exists that the imputed value does not equal the actual value. Previously reported and administrative data were used only when they related to the census reference period. A new nearest neighbor was randomly selected for each incident to eliminate the chance of a consistent bias.

Matching Error

The process of building and expanding the CML involves finding new list sources and checking for names not on the list. An automated processing system compared each new name to the existing CML names and "linked" like records for the purpose of preventing duplication. New names with strong links to a CML name were discarded and those with no links were added as potential farms. Names with weak links, possible matches, were reviewed by staff to determine whether the new name should be added. Despite this thorough review, some new names may have been erroneously added or deleted. Additions could contribute to duplication (overcoverage) where as deletions could contribute to undercoverage. As a result, some names received more than one report form, and some farm operators did not receive a report form. Respondents were instructed to complete one form and return all forms so the duplication could be removed.

Another chance for error came when comparing June Area Survey tract operator names to the CML. Area operators whose names were not found on the CML were part of the measure of list incompleteness, or NML. Mistakes in determining overlap status resulted in overcounts (including a tract whose operator was on the CML) or undercounts (excluding a tract whose operator was not on the CML). All tracts determined to not be on the list were triple checked to eliminate, or at least minimize, any error. NML tract operators were mailed a report form printed in a different color. In order to attempt to identify duplication, all respondents who received multiple report forms were instructed to complete the CML version and return all forms so duplication could be removed.

Classification Error

Classification error results when a response to the census is misclassified – either as a farm operation if it does not meet the definition or not as a farm operation when it meets the definition. The definition of a farm operation in the 2007 Census of Agriculture is an operation that has $1,000 in agricultural sales or the potential for $1,000 in agricultural sales. A Classification Error Study (CES) has historically been conducted after the census of agriculture. The objectives of a CES are to examine the procedures used to determine farm status (in-scope or out-of-scope) to see if they are producing accurate decisions, document the sources of errors resulting in overcounts and undercounts, and recommend strategies to eliminate them from future censuses. Classification error is a component of census coverage error in addition to coverage error resulted from list incompleteness or duplication. Historically, measures have indicated that the error is small. There has not been any attempt to incorporate this error measure in the coverage adjustment procedure for the 2007 Census of Agriculture.

Prior to 1997 a list based re-interview sample of census respondents was used to measure classification error in the census – specifically the number of farms incorrectly classified as non-farms (undercount) and the number of duplicate farms (overcount).

Additionally, an area frame survey was used separately to measure the largest component of census coverage error – incompleteness of the census list. Following the 1997 census, NASS conducted the CES for the 11 western States of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. The 1997 CES used information from the June Area Survey (JAS) enumeration in lieu of re-interviews; estimates were based on the JAS. The 1997 CES results indicated a net undercount of 27,971 farms (non-farms incorrectly classified as farms minus duplicate farms and farms incorrectly classified as non-farms) in the eleven States. While the standard error of this estimate is not available to determine statistical significance, even if statistically significant, it represents a relatively small portion of the overall undercount.

Following the 2002 census, the CES similarly used an area-based approach that was conducted in all States. The 2002 CES matched census records to JAS records to identify the differences in farm status of an operation. The JAS area frame-based survey data were assumed to be truth and the estimates of misclassification (records which were incorrectly classified as farms or non-farms and duplicates) were based on this assumption. The 2002 CES results indicated a net overcount of 51,345 farms at the US level, with a standard error of 6,456. In this case, substantial resources were expended to estimate something relatively small. Estimates of overcount and undercount were computed but were not used to adjust totals. Results of the 2002 CES were documented in an internal NASS research report titled "Results from the 2002 Classification Error Study" dated April 2007.

For the 2007 Census of Agriculture, a classification error research study (CES) was conducted in five States -- Arizona, Georgia, Minnesota, New York, and Washington. Estimates of net error were not generated, as the CES was quality research and limited to the five States. Review of the 2002 CES indicated the assumption that the JAS was the truth was inappropriate and re-interviews were reinstated. The 2007 CES used data from the 2007 JAS and the 2007 census to examine farms incorrectly classified as nonfarms, nonfarms incorrectly classified as farms, and to examine records with significant discrepancies in reporting of land between the JAS and census reports. The overall objectives of the 2007 CES were to identify legitimate changes in operations and determine the source of potential errors in the data.

Records in the 2007 JAS were matched to the 2007 census using probabilistic record linkage. From the set of matched records, three groups of interest were identified: 1) in-scope JAS records that were out-of-scope on the census, 2) census in-scope and JAS non-agricultural records, and 3) in-scope census and JAS records with acreage differences of more than 25 percent. Farms whose farm status was in disagreement were interviewed to determine which source was correct; a reason for the change of status on the census was recorded. For records with a discrepancy between the data reported on the 2007 JAS and the 2007 census forms, respondents were re-contacted and asked to verify their data and resolve the difference.

Results of the 2007 CES showed that true changes in size of operations between the JAS and census were rare. Most discrepancies in farm status were the result of errors in reporting with respondents indicating most often that the census data rather than the JAS data were correct, challenging the previous assumption that the JAS data was the truth. Results of the 2007 CES will be used as input for redesign efforts for the JAS operational procedures and the 2012 census report form and instructions.

DEVELOPMENT OF THE CENSUS REPORT FORMS

Prior to release of the results from the 2002 Census of Agriculture, NASS was preparing for the 2007 Census of Agriculture. The first team established was the 2007 Census Content Team. This team was tasked with content determination and report form development. They reviewed the 2002 report form content, solicited input from internal and external customers, developed criteria for determining acceptance and/or rejection of content for the 2007 Census of Agriculture report forms, tested the effectiveness of the report forms for various modes of data collection (mail, telephone, personal interview, and electronic data reporting), and made recommendations to NASS senior executives for final determination.

Throughout development NASS sought advice and input from the data user community. Integral partners included the Advisory Committee on Agriculture Statistics, State departments of agriculture and other State government officials, Federal agency officials, land grant universities, agricultural trade associations, media, and various Community Based Organizations.

NASS conducted the 2005 Census of Agriculture Content Test in early 2006. The test consisted of three phases: cognitive pretesting, national mail-out, and follow-up interviews. Results from the testing produced two final report form types -- a 24-page regionalized form with 7 versions (07-A0201 thru 07-A0207 regional forms and an 07-A0200 general version) and a 12-page national form version (07-A0100). The main difference between the form types is the format used to collect crop and livestock information. The regionalized report forms include crop sections designed to facilitate reporting crops most commonly grown within a report form region. Many items in these sections are either prelisted in the tables or listed below the tables. The national report form collected the same information as the regionalized forms, but it was formatted to fit on fewer pages. It includes an open table format to collect crop and livestock information. Respondents had to write in their crops and/or livestock information. A sample copy of the regionalized report form and instruction sheet is included in this appendix.

DATA CHANGES

Following are descriptions of the report form changes and their effect on the publication tables.

Crop Data Changes

Deleted items include:

- Other nursery and greenhouse category.
- Production and acres irrigated for potatoes.
- Production and acres irrigated for sweet potatoes.
- Production and acres irrigated for ginseng.

Added items include:

- Acres of individual vegetable crops harvested for fresh market.
- Acres harvested for fresh market and for processing for potatoes, sweetpotatoes, and ginseng.
- Acres irrigated for short rotation woody crops.
- Acres irrigated for cut Christmas trees.
- Acres on which berries were grown.
- Total acres grown and acres not harvested for individual berry crops.
- Sales of mushroom spawn.

Items listed separately on the 2007 report form that were reported in conjunction with similar crop items on the 2002 report form include:

- Horseradish was listed separately and is no longer included in Other vegetables.

- Total acres, acres harvested, and acres not harvested for boysenberries and currants were listed separately and no longer included in Other berries.

- Pluots were listed separately and are no longer included in Other noncitrus fruit.

- Chestnuts were listed separately and are no longer included in Other nuts.

- Pecans were divided into Pecans, improved and Pecans, native and seedling.

- Squash was divided into summer squash and winter squash.

- Cuttings, seedlings, liners, and plugs were listed as one item and are no longer included in Other nursery and greenhouse.

- Tobacco transplants were listed separately and are no longer included in Other nursery and greenhouse.

- Greenhouse vegetables were divided into greenhouse tomatoes and other greenhouse vegetables.

- Vegetable transplants were listed separately and are no longer included in Other nursery and greenhouse.

- Greenhouse fruits and berries were listed separately and are no longer included in Other nursery and greenhouse.
- Other floriculture and bedding plants were listed as an item and are no longer included in Other nursery and greenhouse.

Items combined with another item(s) on the 2007 report form that were reported individually on the 2002 report form include:

- Amaranth, foxtail millet seed, lotus root, mungbeans, redtop seed, salt hay, sweetclover seed, and sweet rice were included in other field crops.

- K-early citrus was included in Other citrus.

- Pimientos were included in Other vegetables.

- Mixed vegetables were included in Other vegetables.

Livestock and Poultry Data Changes

Deleted items include:

- Two hog and pig size groups within the 5,000 or more head category were deleted. In 2002 there were two additional sub-groups in the 5,000 or more category; 5,000 to 7,499 and 7,500 or more.

- Two broilers and other meat type chicken groups within the 500,000 or more category were deleted. In 2002 there were two sub-groups in the 500,000 or more category; 500,000 to 749,999 and 750,000 or more.

- Other fish.

Added items include:

- Horses and ponies owned by this operation.

- Alpaca inventory and number sold

Items listed individually in the 2007 report form that were reported in conjunction with similar livestock or poultry items on the 2002 report form include:

- Layers 20 weeks old and older for table and hatching eggs were divided into Table egg type layers, Hatching layers for meat-types, and hatching layers for table eggs.
- Turkeys were separated into Turkeys for slaughter and Turkey hens kept for breeding.

- Items combined with other item(s) on the 2007 report form that were reported individually on the 2002 report form include:

- Other fish were removed as a selection and the respondent must report in one of the fish categories listed.

Economic, Land Use, and Operator Characteristics Data Changes

Deleted items include:

- Acres of certified organically produced crops.
- Value of certified organically produced commodities sold.
- Whether the operator lives on an American Indian reservation.
- Computer use for the farm business.

Added items include:

- Acres used for organic production.
- Acres of organic crops harvested.
- Acres of organic pastureland.
- Total value of sales for crops produced and sold as organic.
- Total value of sales for livestock and poultry produced and sold as organic.
- Total value of sales for livestock and poultry products produced and sold as organic.
- Acres being converted to organic production.
- Sales of mushroom spawn.
- Whether the operator retired.
- Number of trucks, including pickups and the number manufactured in the last five years.
- Whether the operator is a hired manager for this operation.
- Household income of the principal operator.
- Practices relating to the operation: Whether the operation had high speed Internet access; Used 5,000 gallons of water any one day; Received irrigation water supplied by a U. S. Bureau of Reclamation project or facility; Generated energy or electricity on the farm; Used conservation farming methods; Practiced rotational or management intensive grazing; Rented grazing land on a per-head or animal unit per month (AUM) basis; Produced and sold value added crops, livestock, or products; Marketed products through a community supported agriculture (CSA) arrangement; Raised or sold veal calves; Raised or sold hair sheep or wool-hair crosses; or Had a barn that was built prior to 1960.
- Questions relating to use of American Indian Reservation land for production of crops and livestock, e.g. total acres used, acres of cropland harvested, and percent of operation's livestock on the reservation. In the 2002 census, these questions only appeared in the regional report form for 2002 census regions 8 and 10. Data are tabulated in the 2007 Census of Agriculture Specialty Products, Part 1, American Indian Reservations.

Items listed individually on the 2007 report form that were reported in conjunction with similar items on the 2002 report form include:

- Value of sales for grains, oilseeds, dry beans, and dry peas were divided into sales of Corn for grain, seed, or silage; Wheat; Soybeans; Sorghum for grain, seed, or silage; Barley; Rice; and Other crops.
- Other farm-related income was divided into Crop and livestock insurance payments received and other farm-related income.
- Other Federal farm program payments were divided into Direct payments, Counter-cyclical payments, Other Federal agricultural program payments, and State and local government agricultural program payments.

DEFINITIONS AND EXPLANATIONS

The following definitions and explanations provide a detailed description of specific terms and phrases used in this publication. Items

in the publication tables which carry the note ‘‘See text’’ also are explained. Report form section number references refer to the regional version. Many of the definitions and explanations are the same as those used in earlier censuses.

Acres and quantity harvested. Crops were reported in whole acres, except for the following crops that were reported in tenths of acres: tobacco, nursery and greenhouse crops in the open, vegetables including potatoes and sweet potatoes, fruit and nut crops including land in orchards, and berries; in Hawaii, taro and ginger root. Totals for crops reported in tenths of acres were rounded to whole acres at the aggregate level during the tabulation process. Nursery and greenhouse crops grown under glass or other protection were reported in square feet and are published in square feet.

If two or more crops were harvested from the same land during the year (double cropping), the acres were counted for each crop. Therefore, the total acres of all crops harvested generally exceeded the acres of cropland harvested. An exception to this procedure was hay crops.

When more than one cutting of hay was taken from the same acres, the acres were counted only once for the harvesting method but the quantity harvested includes all cuttings. Acreage cut and tons harvested for both dry hay and haylage, silage, or greenchop was reported for each crop. For interplanted crops or ‘‘skip-row’’ crops, acres were reported according to the portion of the field occupied, whether by a crop or whether it was idle land. If a crop was interplanted in an orchard or vineyard and harvested, then the entire orchard or vineyard acreage was reported under the appropriate fruit crop and the interplanted estimated crop acreage was reported under the appropriate crop.

If a crop was planted but not harvested, the acres were not reported as harvested. These acres were reported in the ‘‘land’’ section on the report form under the appropriate cropland items – cropland on which all crops failed or were abandoned, cropland in cultivated summer fallow, cropland idle or used for cover crops or soil-improvement but not harvested and not pastured or grazed, or cropland used only for pasture or grazing. This does not include fruit and nut orchards, vineyards, berries, acres in production for cut Christmas trees, and acres in production for short rotation woody crops that were not harvested. Acreage in these commodities were included in cropland harvested whether the crop was harvested or not. Abandoned orchards were reported as cropland idle, not as harvested cropland, and the individual abandoned orchard crop acres were not reported.

Crops that were only hogged or grazed were reported as ‘‘cropland used only for pasture or grazing.’’ Crop residue left in fields after the 2007 harvest and later hogged or grazed was reported as cropland harvested and not as cropland used only for pasture or grazing.

Quantity harvested was not obtained for crops such as fruits and nuts, berries, vegetables and melons, and nursery and greenhouse crops.

Age of operator. See Farms by age and primary occupation of operator.

Agri-tourism and recreational services. See Total income from farm-related sources, gross before taxes and expenses.

Agricultural products sold directly to individuals for human consumption. See Value of agricultural products sold directly to individuals for human consumption.

All (multiple) operators. See Operator.

All haylage, grass silage, and greenchop (tons). See Haylage, grass silage, and greenchop, all.

All other production expenses. See Total farm production expenses.

Alpacas. This is a new item for 2007. In 2002 alpacas were reported as other livestock.

American Indian and Alaska Native farm operators, total. Data are reported in Chapter 1, tables 54 through 57 and Chapter 2, table 51. In Chapter 1, table 54 data include farm characteristics for principal operator reporting one race only, table 55 data include farm characteristics reported for a maximum of three operators reporting American Indian or Alaska Native alone or in combination with other races, table 56 data are reported for principal operator only, table 57 include data for a maximum of three operators for those operators that reported only one race.

In Chapter 2, table 51 data are reported for a maximum of three operators reported in the operator characteristics section. The individual operators were added to the census mail list for most reservations. Those reservations that did not include all the individual operators on the census mail list were identified and the data for the entire reservation, including the data for the operators that would have met the definition of a farm, were collected on one report form. The count of reservations and the number of operators that were reported on these reservations are included in Appendix B, table D.

Amount from State and local government agricultural program payments. See Total income from farm-related sources, gross

before taxes and expenses.

Amount from Conservation Reserve, Wetlands Reserve, Farmable Wetlands, and Conservation Reserve Enhancement Programs. See Land enrolled in the Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), or Conservation Reserve Enhancement Program (CREP).

Any poultry sold. The number of farms with any poultry sold includes all farms with sales of poultry, poultry hatched, or eggs.

Aquaculture. In the 2007 census the value of sales was tabulated for each specified species. In the 2002 census only total aquaculture value of sales was asked. Aquaculture is defined as the farming of fish, crustaceans, mollusks, and other aquaculture products. The aquaculture production reported in the census requires some form of intervention in the rearing process and requires inputs such as seeding, stocking, feeding, protection from predators, etc. It also requires ownership of the stock being cultivated and harvesting that is conducted in a controlled environment by the operation. The pounds sold, number sold, and value of sales include all sizes and eggs by species. The number and pounds sold and value of sales include aquaculture distributed for restoration, conservation, or recreational purposes, such as State and Federal hatcheries. Values based on sales of farm-raised fish were assigned to distributed fish.

Aquaculture value. See Aquaculture.

Artichokes (excluding Jerusalem). For 2007 the wording was changed to clarify that Jerusalem artichokes should be excluded. Data are comparable to 2002 artichoke data.

Asparagus, bearing age. For 2007, bearing age was added to the description for clarity. Data are comparable.

Bees. See Colonies of bees and honey collected.

Breeding livestock. See Total farm production expenses.

By economic class. See Economic class of farms.

Cattle on feed. Cattle on feed is defined as cattle and calves that were fed a ration of grain or other concentrates that will be shipped directly from the feedlot to the slaughter market and are expected to produce a carcass that will grade select or better. This category excludes cattle that were pastured only, background feeder cattle, and veal calves.

Cattle on feed sold. Data are for cattle on feed sold that weighed 500 pounds or more and were shipped directly from the feedlot to the slaughter market. This category excludes cattle that were pastured only, owned cattle that were shipped from feedlots operated by others, background feeder cattle, and veal calves.

Chemicals applied. For each type of chemical used, the acres treated were reported only once even if the acres were treated more than once. If multi-purpose chemicals were used, the acres treated for each purpose were reported. See Total farm production expenses; Chemicals.

Cherries. Cherries were reported as either sweet cherries or tart cherries. Combined crops or non-specified cherry acres were not options for the respondent. Total acres, bearing age acres, and nonbearing age acres were reported for each crop.

Chestnuts. This is a new item for 2007. In 2002 data were included in other nut trees. See Other nuts.

Christmas trees, cut. Data are for acres of Christmas trees - cut or to be cut - in production, acres irrigated, and number of trees cut. Sales data are included in the Cut Christmas trees and short rotation woody crops category. In 2002, acres irrigated were not collected.

Christmas trees, live. Data were reported as nursery stock and include Christmas trees sold live, generally balled and burlapped, from the operation.

Citrus enumeration. Reports for selected citrus caretakers in Arizona, Florida, and Texas were obtained by direct enumeration. A citrus caretaker is an organization or person caring for or managing citrus groves for others. This special enumeration has been conducted since 1969 because of the difficulty identifying and enumerating absentee grove owners who often do not know the information that is needed to adequately complete the report form.

Enumeration activities were completed after harvest to facilitate the accuracy of reported data. Grove owners were counted as

operators for farm count purposes. Citrus caretakers were perceived as performing an agricultural service for grove owners and were not considered agricultural operators if they provided only services to grove owners. Caretakers were counted as agricultural operators if they made day-to-day decisions for their own operation in addition to providing services for grove owners. Data provided by caretakers were prorated to owners based on acreage and were transcribed onto the respective owner's census report form.
Coffee. Data were collected only in Hawaii. In 2007, data for total acres, bearing age acres, and nonbearing age acres were collected.

Colonies of bees. Colonies of bees were tabulated in the county where the largest value of all agricultural products were raised or produced. Colonies are often moved from farm-to-farm over a wide geographic area. Package bees are not included as separate colonies. In 2007 colonies of bees were collected in their own section to clarify to respondents that only "owned" colonies were to be reported versus any colonies on the operation.

Commodities raised and delivered under production contracts. A production contract is an agreement between a producer or grower and a contractor (integrator) setting terms, conditions, and fees to be paid by the contractor to the operation for the production of crops, livestock, or poultry. The grower receives a payment or fee from the contractor, generally after delivery, which is less than the full market price of the commodity. A production contract involves the shifting of some risk and control from the grower to the contractor. Marketing contracts, futures contracts, forward contracts, or other contracts based strictly on price are not considered production contracts. Commodities sold to a co-op where some of the input items were purchased from the same co-op at a discount price were also excluded. Many operations produce commodities only under production contracts or only independently. Some operations may produce a commodity under production contract and also produce more of the same commodity that they sell independently. Both types of production are combined as one value in the tables for total inventories and total sales.

Custom fed cattle shipped directly for slaughter. In 2002, data were collected for custom fed cattle. Many respondents reported cattle that were not shipped directly to slaughter such as veal or background feeder cattle. For 2007, the report form text was improved to specify custom fed cattle shipped directly for slaughter. Cattle not shipped directly to slaughter were reported in the Other cattle, livestock, poultry, or aquaculture category. Data are not comparable for custom fed cattle shipped directly to slaughter or Other cattle, livestock, poultry, or aquaculture categories.

Other cattle, livestock, poultry, or aquaculture. The data for commodities raised and delivered under a production contract include cattle which were not custom fed and shipped directly to slaughter (backgrounding), livestock and poultry not listed separately, and aquaculture products. For 2007, the report text was improved to specify custom fed cattle shipped directly for slaughter. Cattle not shipped directly to slaughter are reported as Other cattle, livestock, poultry, or aquaculture. In 2002, some cattle not shipped directly to slaughter were reported as custom fed cattle. Data are not comparable with 2002 for Custom fed cattle shipped directly to slaughter or Other cattle, livestock, poultry, or aquaculture categories.

Vegetables, melons, and potatoes. This category is the number of farms that produced and delivered vegetables, melons, and potatoes grown under a production contract.

Other crops. Data are for the total number of farms that have production contracts for other crops. This category includes all crops except grains, oilseeds, vegetables, melons, and potatoes.

Commodity Credit Corporation loans. This category includes nonrecourse marketing loans for wheat, corn, sorghum, barley, oats, cotton, rice, soybeans, Austrian winter peas, honey, dry peas, lentils, small chickpeas, peanuts, sunflower seed, flaxseed, canola and other rapeseed, safflower, mustard seed, crambe and sesame seed, and mohair. These commodities differ from those included in the 2002 census due to changes created by the 2007 Farm Bill.

Crop and livestock insurance payments received. See Total income from farm-related sources, gross before taxes and expenses.

Crop units of measure. The regional report forms allowed the operator to report the quantity of field crops harvested in a unit of measure commonly used in the region. When the operator reported in units different than the unit of measure published, the quantity harvested was converted to the published unit of measure.

Crop year or season covered. Acres and quantity harvested are for the calendar year 2007 except for citrus crops and sugarcane for sugar; limes in region three States; avocados in Florida and California; olives in California and Arizona; and pineapples and coffee in Hawaii.

1. Avocados. The data for Florida relate to the quantity in the April 2007 through March 2008 harvest season; for California and Arizona, the November 2006 through November 2007 harvest season.
2. Citrus crops. The data for region three relate to the quantity harvested in the September 2006 through August 2007 harvest season, except limes in Florida that were harvested in the April 2007 through March 2008 harvest season. The data for California and Arizona relate to the 2006 through 2007 harvest season. The data for limes relate to the April 2007 through March 2008 harvest season.

3. Olives. The data for California and Arizona relate to the September 2006 through March 2007 harvest season.

4. Pineapples. The data for Hawaii relate to the quantity harvested in the year ending May 31, 2007.

5. Sugarcane for sugar. The data for Florida, Louisiana, and Texas relate to the cuttings from September 2007 through April 2008.

Cropland, harvested. See Harvested cropland.

Cropland, irrigated. See Irrigated land.

Cropland idle or used for cover crops or soil improvement, but not harvested and not pastured or grazed. Cropland idle includes any other acreage which could have been used for crops without any additional improvement and which was not reported as cropland harvested, cropland on which all crops failed, cropland in summer fallow, or cropland used for pasture or grazing. This category includes:

1. Land used for cover crops or soil improvement but not harvested or grazed.

2. Land in Federal or State conservation programs that was not hayed or grazed in 2007.

3. Land in Federal or State conservation programs that were planted to trees for future harvest timber, pulp, or Christmas trees.

4. Land occupied with growing crops for harvest in 2008 or later years but not harvested or summer fallowed in 2007 (except fruit or nuts in an orchard, grove, or vineyard being maintained for production). Examples are acreage planted in winter wheat, strawberries, etc., for harvest in 2008 and no crop was harvested from these acres in 2007.

5. Land in "skipped" rows between rows of crops or field strips.

Cropland, other. See Other cropland.

Cropland, total. See Total cropland.

Cropland used only for pasture or grazing. This category includes land used only for pasture or grazing that could have been used for crops without additional improvement. Also included were acres of crops hogged or grazed but not harvested prior to grazing. However, cropland that was pastured before or after crops were harvested in 2007 was included as harvested cropland rather than cropland for pasture or grazing.

Crustaceans. These are invertebrate animals with jointed legs and a hard shelled segmented body. Examples include crawfish, lobster, prawns, shrimp, and softshell crabs.

Custom fed cattle shipped directly for slaughter. See Commodities raised and delivered under production contract.

Customwork and custom hauling. See Total farm production expenses.

Customwork and other agricultural services. See Total income from farm-related sources, gross before taxes and expenses.

Cuttings, seedlings, liners, and plugs. This is a new item for 2007. In 2002 data were included in other nursery and floriculture. See Nursery, greenhouse, floriculture, and sod.

Cut Christmas trees. See Christmas trees, cut.

Data are based on sample of farms. For censuses from 1978 through 2002, selected data items were collected from only a sample of farms. These data were subject to sampling error. For the 2007 census there was no sampling.

Depreciation expenses claimed. The calculation of total farm production expenses does not include depreciation because it is a capital expense. Depreciation allows the expensing of capital purchases over multiple years. It is not included in the calculation of Net cash farm income of the operation and operator.

Ducks, geese, and other poultry species. Data are the number of farms that had inventory of ducks, emus, geese, ostriches, pheasants, pigeons or squab, quail, and other poultry sold. Other poultry are those poultry not having a specific code on the report form. Data are comparable.

Ducks, geese, and other poultry species sold. Data are the number of farms that sold ducks, emus, geese, ostriches, pheasants, pigeons or squab, quail, and other poultry sold. Other poultry are those poultry not having a specific code on the report form. Data are comparable.

Expenses. See Total farm production expenses.

Economic class of farms. Economic class data are the classification of farms by the sum of market value of agricultural products sold and federal farm program payments. See Total market value of agricultural products sold and government payments.

Farm or ranch operator. See Operator characteristics.

Farm typology. The Economic Research Service (ERS), an agency of the United States Department of Agriculture, has established typology of farms to group farms by similar characteristics. This census is the first to include data cross-tabulated by the eight farm typology categories. There are two major groupings of farms, small family farms with sales of less than $250,000, and other farms. The small family farm group is divided into 5 subcategories, described below:

1. Limited-resource farms have market value of agricultural products sold gross sales of less than $100,000, and total principal operator household income of less than $20,000.

2. Retirement farms have market value of agricultural products sold of less than $250,000, and a principal operator who reports being retired.

3. Residential/lifestyle farms have market value of agricultural products sold of less than $250,000, and a principal operator who reports his/her primary occupation as other than farming.

4. Farming occupation/lower-sales farms have market value of agricultural products sold of less than $100,000, and a principal operator who reports farming as his/her primary occupation.

5. Farming occupation/higher-sales farms have market value of agricultural products sold of between $100,000 and $249,999, and a principal operator who reports farming as his/her primary occupation.

Other farms are subdivided into three subcategories, described below:

1. Large family farms have market value of agricultural products sold between $250,000 and $499,999.

2. Very large family farms have market value of agricultural products sold of $500,000 or more.

3. Nonfamily farms are farms organized as nonfamily corporations, as well as farms operated by hired managers.

Farms by age and primary occupation of operator. Data on age and primary occupation were obtained from up to three operators per farm in 2007. When compared with 2002 results, the average age of farmers increased significantly. Older operators may be "retired" (with little if any sales) and still report farming as their primary occupation since they often have limited opportunity for off-farm jobs. See Primary occupation of the operator.

Farms by combined government payments and market value of agricultural products sold. This category represents the value of products sold plus government payments. Total value of products sold combines total sales not under production contract and total sales under production contract. Government payments consist of government payments received from the Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), or Conservation Reserve Enhancement Program (CREP) plus government payments received from Federal, State, and local programs other than the CRP, WRP, FWP, and CREP, and Commodity Credit Corporation loans. See Total market value of agricultural products sold and government payments.

Farms by economic class. See Economic class of farms and Total market value of agricultural products sold and government payments

Farms by North American Industry Classification System (NAICS). The NAICS classifies economic activities. It was jointly developed by Mexico, Canada, and the U.S. NAICS makes it possible to produce comparable industrial statistics for Mexico, Canada, and the U.S. For the 2007 census, all agricultural production establishments (farms, ranches, nurseries, greenhouses, etc.) were classified by type of activity or activities using the NAICS code. The 2007 census is the third census to use NAICS. Censuses prior to the 1997 census used the old Standard Industrial Classification (SIC) system to classify farms.

NAICS was developed to provide a consistent framework for the collection, analysis, and dissemination of industrial statistics used by government policy analysts, academia and researchers, the business community, and the public. It is the first industry classification system developed in accordance with a single principle of aggregation that production units using similar production processes should be grouped together. Though NAICS differs from other industry classification systems, statistics compiled on NAICS are comparable with statistics compiled according to the latest revision of the United Nations' International Standard Industrial Classification, Revision Three, (ISIC, Revision 3) for some sixty high level groupings. Following are explanations of the major classifications used in 2007.

Oilseed and grain farming (1111). Comprises establishments primarily engaged in (1) growing oilseed and/or grain crops and/or (2) producing oilseed and grain seeds. These crops have an annual life cycle and are typically grown in open fields. This category includes corn silage and grain silage. In the 2007 census, government-payment only farms were classified as "All other crop farming" (11199). In the 1997 census, government-payment only farms were coded as "All other grain farming (11119)."

Vegetable and melon farming (11121). Comprises establishments primarily engaged in one or more of the following: (1) growing vegetables and/or melon crops, (2) producing vegetable and melon seeds, and (3) growing vegetable and/or melon bedding plants.

Fruit and tree nut farming (1113). Comprises establishments primarily engaged in growing fruit and/or tree nut crops. These crops are generally not grown from seeds and have a perennial life cycle.

Greenhouse, nursery, and floriculture production (1114). Comprises establishments primarily engaged in growing crops of any kind under cover and/or growing nursery stock and flowers. ''Under cover'' is generally defined as greenhouses, cold frames, cloth houses, and lath houses. Crops grown are removed at various stages of maturity and have annual and perennial life cycles. The category includes short rotation woody crops and Christmas trees that have a growing and harvesting cycle of 10 years or less.

Other crop farming (1119). Comprises establishments primarily engaged in (1) growing crops such as tobacco, cotton, sugarcane, hay, sugarbeets, peanuts, agave, herbs and spices, and hay and grass seeds, or (2) growing a combination of the valid crops with no one crop or family of crops accounting for one-half of the establishment's agricultural production (value of crops for market). Crops not included in this category are oilseeds, grains, vegetables and melons, fruits, tree nuts, greenhouse, nursery and floriculture products.

All other crop farming (11199). Comprises estab-lishments primarily engaged in (1) growing crops (except oilseeds and/or grains; vegetables and/or melons; fruits and/or tree nuts; greenhouse, nursery, and/or floriculture products; tobacco; cotton; sugarcane; or hay) or (2) growing a combination of crops (except a combination of oilseed(s) and grain(s)); and a combination of fruit(s) and tree nut(s) with no one crop or family of crops accounting for one-half of the establishment's agricultural production.

Beef cattle ranching and farming (112111). Comprises establishments primarily engaged in raising cattle (including cattle for dairy herd replacements). Pastureland-only farms, those with only 100 or more acres of pastureland, were classified as "All other animal production farming (11299)."

Cattle feedlots (112112). Comprises establishments primarily engaged in feeding cattle for fattening.

Dairy cattle and milk production (112120). This industry comprises establishments primarily engaged in milking dairy cattle.

Poultry and egg production (1123). This industry group comprises establishments primarily engaged in breeding, hatching, and raising poultry for meat or egg production.

Sheep and goat farming (1124). This industry group comprises establishments primarily engaged in raising sheep, lambs, and goats, or feeding lambs for fattening.

Animal aquaculture (1125). Comprises estab-lishments primarily engaged in the farm raising of finfish, shellfish, or any other kind of animal aquaculture. These establishments use some form of intervention in the rearing process to enhance production, such as holding in captivity, regular stocking, feeding, and protecting from predators.
Other animal production (1129). Comprises establishments primarily engaged in raising animals and insects (except cattle, hogs and pigs, poultry, sheep and goats, and aquaculture) for sale or product production. These establishments are primarily engaged in one of the following: bees, horses and other equine, rabbits and other fur-bearing animals, etc, and producing products such as honey and other bee products. Establishments primarily engaged in raising a combination of animals with no one animal or family of animals accounting for one-half of the establishment's agricultural production are included in this industry group. Farms with only 100 acres or more of pastureland were classified as "All other animal production farming (11299)."

Farms by number of households sharing in net income of farm. Data were reported by the principal operator only. Households that received funds because they were only landlords, custom equipment operators, or provided other production services were not

included. Published data can exceed the number of operators listed under Operators, all.

Farms by size. All farms were classified into size groups according to the total land area in the farm. The land area of a farm is an operating unit concept and includes land owned and operated as well as land rented from others. Land rented to or assigned to a tenant was considered part of the tenant's farm and not part of the owner's.

Farms by tenure of operator. All farms were classified by tenure of operators. The classifications used were:

- Full owners operated only land they owned.
- Part owners operated land they owned and also land they rented from others.
- Tenants operated only land they rented from others or worked on shares for others.

Farms with hired managers are classified according to the land ownership characteristics reported. For example, a corporation owns all the land used on the farm and hires a manager to run the farm. The hired manager is considered the farm operator, and the farm is classified with a tenure type of "full owner" even though the hired manager owns none of the land he/she operates.

Farms by value of sales. See Market value of agricultural products sold.

Farms by type of organization. All farms were classified by type of organization in the 2007 census. The classifications used were:

1. Family or individual (sole proprietorship), excluding partnership and corporation.
2. Partnership, including family partnership – in selected tables, partnership was further subclassified into:
   a. Registered under State law.
   b. Not registered under State law.
3. Corporation, including family corporations - in selected tables, partnership was further subclassified into:
   a. Family held or other than family held.
   b. More than 10 stockholders.
4. Other, cooperative, estate or trust, institutional, etc.

Farms or farms reporting. The terms ''farms'' and ''farms reporting'' in the presentation of data are equivalent. Both represent the number of farms reporting the item. For example, if there are 3,710 farms in a State and 842 of them had 28,594 cattle and calves, the data for those farms reporting cattle and calves would appear as:

Cattle and calves farms 842
number . . . 28,594

Farms with sales and government payments of less than $1,000. This category includes farms with combined sales and government payments of less than $1,000 but having the potential for sales of $1,000 or more. In this category, government payments were included in calculating that potential. It provides information on all items for farms that normally would be expected to sell agricultural products of $1,000 or more but had sales and government payments of less than $1,000.

Farms with sales of less than $1,000. This category includes farms with sales of less than $1,000 but having the potential for sales of $1,000 or more. Some of these farms had no sales in the census year. It provides information on all report form items for farms that normally would be expected to sell agricultural products of $1,000 or more.

Fertilizer. See Total farm production expenses; Fertilizer, lime, and soil conditioners.

Floriculture crops. Data represent total of bedding/garden plants, cut flowers and cut florist greens, foliage plants, potted flowering plants, and other floriculture and bedding plants.

Field and grass seed crops, all. Data are for all the field and grass seed crops not published as field crops and include other field crops which did not have a specific code on the 2007 report form.

Forage - land used for all hay and all haylage, grass silage, and greenchop. Data shown represent the area harvested with each acre counted only once if dry hay, haylage, grass silage, or greenchop were cut from the same acreage or if there were multiple cuttings of dry hay, haylage, grass silage, or greenchop. Data exclude corn silage and sorghum silage. Quantity produced is the sum

of the quantity harvested of all hay including alfalfa, other tame, small grain, and wild hay and all haylage, grass silage and greenchop after converting the all haylage, grass silage, and greenchop quantity harvested to a dry equivalent basis (13-percent moisture). The green tons of all haylage, grass silage, and greenchop harvested were multiplied by a factor of 0.4943 to convert to a dry equivalent. This conversion factor is based on the assumption that one ton of dry hay is 0.87 ton of dry matter, one ton of haylage or grass silage is 0.45 ton dry matter, and one ton of greenchop is 0.25 ton dry matter. The all haylage, grass silage, and greenchop quantity harvested is assumed to be comprised of 90-percent haylage and grass silage and 10-percent greenchop. Therefore, the conversion factor used to adjust all haylage, grass silage, and greenchop quantity harvested to a dry equivalent basis =
[(0.45*0.9)+(0.25*0.1)]/0.87 = 0.4943.

Fruits and nuts. Total acres, bearing age acres, and nonbearing age acres were collected.

Ginseng. In 2007 ginseng acres are included in the vegetable acres. In 2002 ginseng harvested, irrigated harvested acres, and production were included in the acres for field crops. Total vegetable acres are not directly comparable.

Government payments. This category consists of direct payments as defined by the 2002 Farm Bill; payments from Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), and Conservation Reserve Enhancement Program (CREP); loan deficiency payments; disaster payments; other conservation programs; and all other federal farm programs under which payments were made directly to farm operators. Commodity Credit Corporation (CCC) proceeds, amount from State and local government agricultural program payments, and federal crop insurance payments were not tabulated in this category.

Grain and bean combines. In the 2007 and 2002 censuses, data were collected for self-propelled combines only.

Grain storage capacity. Data include the capacity of all storage structures on the operation normally used to store whole grains and oilseeds. These structures can be bins, silos, buildings, trailers, etc. The capacity or usage of any off-farm public or commercial storage facilities was excluded.

Grains, oilseeds, dry beans, and dry peas sales. Data are for the total market value of cash grains sold, including corn for grain, seed, or silage; wheat for grain; soybeans for beans; sorghum for grain, seed, or silage; barley for grain; rice; oats for grain; and other grains. Also included is the total market value of cash oilseeds sold, including sunflower seed (oil and non-oil), flaxseed, canola, rapeseed, safflower seed, mustard seed, dry beans, and dry peas.

Greenhouse fruits and berries. This is a new item for 2007. Data include strawberries, raspberries, etc. grown in greenhouses and high tunnels where the crops were always covered. In 2002, data were included in Other nursery and greenhouse crops. See Nursery, greenhouse, floriculture, and sod.

Greenhouse tomatoes. This is a new item for 2007. In 2002, data were included in greenhouse produced vegetables. See Total greenhouse vegetables and fresh cut herbs.

Gross cash rent or share payments. See Total income from farm-related sources, gross before taxes and expenses.

Harvested cropland. This category includes land from which crops were harvested and hay was cut, land used to grow short-rotation woody crops and land in orchards, citrus groves, Christmas trees, vineyards, nurseries, and greenhouses. Land from which two or more crops were harvested was counted only once. Land in tapped maple trees was included in woodland not pastured. The 2007 census definition for harvested cropland is the same as the 2002 definition.

Hay - all hay including alfalfa, other tame, small grain, and wild. Data shown represent the acreage and quantity harvested of all types of dry hay. The quantity harvested was reported in dry tons (dry weight at the time the hay was removed from the field for storage or feeding). If two or more cuttings of dry hay were made from the same field, the acreage was reported only once as acres harvested of the appropriate dry hay category, but the production from all cuttings was combined in the corresponding quantity harvested. Straw acreage and production is excluded.

If dry hay was cut from the same land that haylage, grass silage, or greenchop was cut, the acreage and production for the dry hay was reported in the appropriate category of dry hay and the acreage and production for haylage, grass silage, or greenchop was reported in the appropriate haylage, grass silage, or greenchop category. For example, if 20 acres of alfalfa were cut for hay and then the same land was used to produce alfalfa haylage, 20 acres and the quantity harvested of hay were reported as Alfalfa and alfalfa mixtures for dry hay and 20 acres and the quantity harvested of alfalfa haylage were reported as Haylage or greenchop from alfalfa or alfalfa mixtures.

Hay, other tame dry hay. Data shown represent acreage and dry tons of hay harvested from clover, fescue, lespedeza, timothy, Bermuda grass, Sudangrass, sorghum hay, and other types of legumes (excluding alfalfa) and tame grasses (excluding small grains).

Hay, wild dry. Data shown represent acreage and dry tons of hay harvested that was predominately wild or native grasses, even if it

had some fill-in seeding of other grasses.

Haylage, grass silage, and greenchop, all. Data shown represent the acreage and quantity harvested of all types (alfalfa and all other). The quantity harvested was reported in green tons. If two or more cuttings of haylage, grass silage, or greenchop were made from the same field, the acreage was reported as acres harvested in the appropriate haylage category only once, and the tonnage from all cuttings was combined in the corresponding quantity harvested. Straw acreage and production is excluded.

Hired farm labor. Data are for total hired farm workers, including paid family members, by number of days worked. Data exclude contract laborers.

Hogs and pigs by type of operation. In the 2007 census, hog and pig farms were classified by primary type of operation. Operation types were farrow to wean, farrow to feeder, farrow to finish, nursery, finish only, and other. Each description was accepted and the reported inventory and sales data were assigned to each reported type. In 2002 a respondent could select more than one operation type. Data are not comparable.

Hogs and pigs by type of producer. In the 2007 census, hog and pig farms were classified by one type of producer in 2007. Producer types were independent grower, contractor or integrator, and contract grower (contractee). Each description was accepted and the reported inventory and sales data were assigned to each reported type. In 2002 a respondent could select more than one producer type. Data are not comparable.

Honey collected. Data are for pounds of honey produced but not necessarily sold.
Horseradish. This is a new item for 2007. Data are for total acres harvested, acres harvested for fresh market, and acres harvested for processing. In 2002, horseradish was reported as other vegetables.

Income. Net cash farm income is published for the operation and operator. The difference between net cash income and net cash returns is that net cash returns does not include government payments and other farm-related income as income. See Net cash farm income of the operations and Net cash farm income of the operators.

Income from farm-related sources. See Total income from farm-related sources, gross before taxes and expenses.

Institutional, research, experimental, and American Indian Reservation farms. Data for these farms are combined into a single category. Research farms include farms operated by private companies as well as those operated by universities, colleges, and government organizations for the purpose of expanding agricultural knowledge.

Irrigated land. This category includes all land watered by any artificial or controlled means, such as sprinklers, flooding, furrows or ditches, sub-irrigation, and spreader dikes. Included are supplemental, partial, and preplant irrigation. Each acre was counted only once regardless of the number of times it was irrigated or harvested. Livestock lagoon waste water distributed by sprinkler or flood systems was also included.

Land area, approximate. The approximate land area represents the total land area as determined by records and calculations as of January 1, 2007. The 2007 area values differ from 2002 because of the improved accuracy of spatial data. The proportion of land area in farms may exceed 100-percent because some operations have land in two or more counties, but all acres are tabulated in the principal county of operation. The approximate land area data were supplied by the U.S. Department of Commerce, Bureau of the Census. See Land in two or more counties.

Land enrolled in crop insurance programs. The data are for all land enrolled in any Federal, private, or other crop insurance program. It includes acreage of pasture/rangeland enrolled in crop insurance programs in areas where it is provided. Data are comparable with 2002.

Land enrolled in the Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), or Conservation Reserve Enhancement Program (CREP). CRP is a program established by the USDA in 1985 that takes land prone to erosion out of production for 10 to 15 years and devotes it to conservation uses. In return, farmers receive an annual rental payment for carrying out approved conservation practices on the conservation acreage. The WRP, FWP, and CREP programs are included under the CRP program that offers landowners financial incentives for conservation practices.

For the 2007 census, operations with land enrolled in the CRP, WRP, FWP, or CREP were counted as farms, given they received $1,000 or more in government payments, even if they had no sales and otherwise lacked the potential to have $1,000 or more in sales. 2002 data may not include FWP or CREP acreage so data are not directly comparable.

Land in berries. This is a new item for 2007. Data are for total land in berries. Respondents also reported harvested acres and not harvested acres by individual berry crops. In 2002, only harvested acreage was collected.

Land in farms. The acreage designated as ''land in farms'' consists primarily of agricultural land used for crops, pasture, or grazing. It also includes woodland and wasteland not actually under cultivation or used for pasture or grazing, provided it was part of the farm operator's total operation. Large acreages of woodland or wasteland held for nonagricultural purposes were deleted from individual reports during the edit process. Land in farms includes CRP, WRP, FWP, and CREP acres.

Land in farms is an operating unit concept and includes land owned and operated as well as land rented from others. Land used rent free was reported as land rented from others. All grazing land, except land used under government permits on a per-head basis, was included as ''land in farms'' provided it was part of a farm or ranch. Land under the exclusive use of a grazing association was reported by the grazing association and included as land in farms. All land in American Indian reservations used for growing crops, grazing livestock, or the potential of grazing livestock was included as land in farms. Land in reservations not reported by reservation, individual American Indians or non-Native Americans was reported in the name of the cooperative group that used the land. In many instances, an entire American Indian reservation was reported as one farm.

Land in orchards. This category includes land in bearing age and nonbearing age fruit trees, citrus or other groves, vineyards, and nut trees of all ages, including land on which all fruit crops failed. Respondents also reported bearing age acres and nonbearing age acres by individual fruit and nut crops. Respondents were instructed not to report abandoned plantings and plantings of fewer than 20 total fruit, citrus, or nut trees or grapevines.

Land in two or more counties. With few exceptions, the land in each farm was tabulated as being in the operator's principal county. The principal county was defined as the one where the largest value of agricultural products was raised or produced. It was usually the county containing all or the largest proportion of the land in the farm or viewed by the respondent as his/her principal county. Reports received showing land in more than one county were separated into two or more reports if the data would substantially distort county totals.

Land in vegetables. Data are for the total land used for vegetable and melon crops. The acres were reported only once, even though two or more harvests of a vegetable or more than one vegetable were harvested from the same acres. In 2007, ginseng, potatoes, and sweet potatoes are included in land used for vegetables. In 2002, these acres were included in field crops. Data are not directly comparable.

Land used for organic production. See Total acres used for organic production.

Land used for vegetables. See Land in vegetables.

Landlord's share of the total sales. Data represent the share of the operation's total sales that went to landlord(s).

Layers. This category includes table-egg type layers, hatching layers for meat-types, and hatching layers for table egg types. In 2002, this category was referred to as Layers 20 weeks and older. This is a wording change only; data are comparable.

Layers inventory. See Layers.

Layers sold. See Layers.

Less than $1,000. See Farms with sales and government payments of less than $1,000.

Livestock and poultry purchased or leased. See Total farm production expenses; *Livestock and poultry purchased or leased*.

Maple syrup. Data are for the number of taps set and syrup produced.

Market value of agricultural products sold. This category represents the gross market value before taxes and production expenses of all agricultural products sold or removed from the place in 2007 regardless of who received the payment. It is equivalent to total sales and it includes sales by the operators as well as the value of any shares received by partners, landlords, contractors, or others associated with the operation. It includes value of direct sales and the value of commodities placed in the Commodity Credit Corporation (CCC) loan program. Market value of agricultural products sold does not include payments received for participation in other federal farm programs. Also, it does not include income from farm-related sources such as customwork and other agricultural services, or income from nonfarm sources.

The value of crops sold in 2007 does not necessarily represent the sales from crops harvested in 2007. Data may include sales from crops produced in earlier years and may exclude some crops produced in 2007 but held in storage and not sold. For commodities such as sugarbeets and wool sold through a co-op that made payments in several installments, respondents were requested to report the total value received in 2007.

The value of agricultural products sold was requested of all operators. If the operators failed to report this information, estimates were made based on the amount of crops harvested, livestock or poultry inventory, or number sold. Caution should be used when comparing sales in the 2007 census with sales reported in earlier censuses. Sales figures are expressed in current dollars and have not been adjusted for inflation or deflation. See Farms with sales and government payments of less than $1,000.

Market value of agricultural products sold and government payments. See Total market value of agricultural products sold and government payments.

Migrant farm labor on farms with hired labor. Operators were asked whether any hired or contract workers were migrant workers. A migrant farm worker is a farm worker whose employment required travel that prevented the worker from returning to his/her permanent place of residence the same day.

Migrant farm labor on farms reporting only contract labor. Data are for those operations that did not have hired farm workers but reported that they did have migrant contract workers on their operation in 2007.

Misreported or miscoded crops. In a few cases, data may have been reported on the wrong line, in the wrong section, or the wrong crop code may have been assigned to a write-in crop code. A few of these errors may not have been identified and corrected during processing which resulted in rare cases of inaccurately tabulated data. Reports with significant acres of unusual crops for the area were examined to minimize the possibility that they were in error.

Mollusks. These are invertebrate animals with a soft body covering and shells of 1-18 parts or sections. Examples include abalones, clams, mussels, oysters, and snails. See Aquaculture for more information on production reported on the census.

More than one race reported. This category represents those operators who chose to report more than one race on the census form.

Mushroom spawn. This is a new item for 2007. Respondents reported only sales; growing area was not summarized.

Mushrooms. All mushroom crops were considered grown under glass or other protection and no mushroom data were published as area in the open. Those reporting mushrooms grown in the open area were converted to an equivalent area of square feet under protection.

NAICS. See Farms by North American Industry Classification System (NAICS).

Net cash farm income of the operations. This concept is derived by subtracting total farm expenses from total sales, government payments, and other farm-related income. Depreciation is not used in the calculation of net cash farm income. Net cash farm income of the operation includes the value of commodities produced under production contract by the contract growers.

For publication purposes, farms are divided into two categories:

1. Farms with net gains (includes those operations that broke even).

2. Farms with net losses.

Net cash farm income of the operators. This value is the operators' total revenue (fees for producing under a production contract, total sales not under a production contract, government payments, and farm-related income) minus total expenses paid by the operators. Net cash farm income of the operator includes the payments received for producing under a production contract and does not include value of commodities produced under production contract by the contract growers. Depreciation is not used in the calculation of net cash farm income.

For publication purposes, farms are divided into two categories:

1. Farms with net gains (includes those operations that broke even).

2. Farms with net losses.

Noncitrus fruit, all. This is a summation of all acres reported in the commodities defined as noncitrus such as apples, grapes, and plums.

Noncitrus fruit, other. See other noncitrus fruit.

Nursery, greenhouse, floriculture and sod. In the 2007 census, individual data were collected for area under glass or other

protection, area in the open, and sales of aquatic plants; bulbs, corms, rhizomes, and tubers; cuttings, seedlings, liners, and plugs; floriculture crops; flower seeds; greenhouse fruits and berries; total greenhouse vegetables and fresh cut herbs; mushrooms; mushroom spawn; nursery stock; other nursery crops; sod harvested; tobacco transplants; vegetable seeds; and vegetable transplants. Total sales data are the summation of all crops. In the 2002 census, mushroom spawn were not included so total sales data are not directly comparable. Also, in the 2002 census, individual crops sales data were not collected.

Nuts, all. Data include all nut trees. In 2002, the report form category Other fruit and nuts was used in some regions. Some nut trees were reported in this category. The data for all nut trees for 2002 cannot be summarized so data are not comparable.

Occupation. See Primary occupation of operator and/or Farms by age and primary occupation of operator.

Operator. The term operator designates a person who operates a farm, either doing the work or making day-to-day decisions about such things as planting, harvesting, feeding, and marketing. The operator may be the owner, a member of the owner's household, a hired manager, a tenant, a renter, or a sharecropper. If a person rents land to others or has land worked on shares by others, he/she is considered the operator only of the land which is retained for his/her own operation. The census collected information on the total number of operators, the total number of women operators, and demographic information for up to three operators per farm.

Operator characteristics. Operators (up to three operators per farm) were asked to report primary occupation, sex, age, race, place of residence, if retired, number of days worked off farm, year in which his/her operation of the farm began, hired manager, number of persons living in the operators' households, and Spanish, Hispanic, or Latino origin. Information on the total number of operators and total number of women operators was collected from each operation. In addition, the principal operator was asked to report the percentage of total household income that came from the farm operation.

Operators of Spanish, Hispanic, or Latino origin. See Spanish, Hispanic, or Latino origin.

Operators, number. Demographic and other information were collected for up to three operators per farm - the principal operator plus up to two additional operators. This may be fewer than the total operators on some farms. Demographic data for up to three operators reported are presented separately for women, by race categories, and for Spanish, Hispanic, or Latino origin.

Operators, total. The data represent the total reported number of operators for the operation.

Operators, total women. The data represent the total number of women operators reported for the operation.

Oranges, all. All oranges are a summation of Valencia oranges and Other oranges. Total acres, bearing acres, and nonbearing acres were collected by category.

Oranges, other. See Other oranges.

Organic agriculture. See Total acres used for organic production and Total organic product sales.

Ornamental fish. This category includes various fish raised for water gardens, aquariums, etc. Examples include angel fish, guppies, koi, ornamental goldfish, and tropical fish. In the 2007 census the value of sales was tabulated for each specified species. In the 2002 census only total aquaculture value of sales was asked.

Other animals and other animal products sold. This category includes the number of farms and value of all animals and animal products not having specific codes on the 2007 report form.

Other aquaculture products. In the 2007 census, examples include the production of alligators, frogs, leeches, eels, live rock, salamanders and turtles. Data are not comparable with the 2002 census since other fish were listed separately on the 2002 report form and in 2007 it is included in other aquaculture products.

Other cattle. In the 2007 census, data include heifers that have not calved, steers, calves, and bulls.

Other cattle, livestock, poultry, or aquaculture. See Commodities raised and delivered under production contract.

Other citrus. In the 2007 census, data relate to any citrus crop not having a specific code on the report form. For 2007 data includes K-early citrus which was published as its own category in 2002 therefore data are not comparable with 2002.

Other cropland. This includes all cropland other than harvested cropland or cropland used only for pasture or grazing.

Other crops and hay. For the 2007 census, data are for the total market value of all crops not categorized into one of the prelisted crop sales categories on the report form and hay sales. This category includes crops such as grass seed, hay and grass silage, haylage,

greenchop, hops, maple syrup, mint for oil, peanuts, sugarcane, sugarbeets, etc.

Other crops. Data relate to any field crops not having a specified code on the 2007 census report form. Amaranth, foxtail millet seed, lotus root, mungbeans, redtop seed, salt hay, and sweet rice were included in other field crops in the 2007 report form but were reported individually on the 2002 report form. The 2002 data, where compared, were not adjusted for these crop acreages.

Other-farm related income sources. See Total income from farm-related sources, gross before taxes and expenses.

Other field and grass seed crops. Data relate to any field or grass seed crop not having a specified code on the 2007 census report form. Sweet clover seed was included in other seed crops in the 2007 report form but were reported individually on the 2002 report form. The 2002 data, where compared, were not adjusted for this crop acreage.

Other floriculture and bedding crops. This is a new item for 2007. In 2002, data were reported in other nursery and greenhouse.

Other food fish. Data are for fish, other than catfish and trout, raised on farms for food. Examples include hybrid striped bass, moi, perch, salmon, sturgeon, and tilapia.

Other greenhouse vegetables and fresh cut herbs. This is a new item for 2007. In 2002, these data were included with greenhouse produced vegetables.

Other land. This category includes land in house lots, barn lots, ponds, roads, ditches, wasteland, etc. It includes those acres in the farm operation not classified as cropland, pastureland, or woodland. See Land in farms.

Other livestock. This category includes all livestock not having specific codes on the 2007 report form. See Other animals and other animal products sold.

Other livestock and poultry purchased or leased. See Total farm production expenses.

Other livestock products. Data for this category include the number of farms that sold livestock products that did not have a specific code on the 2007 report form.

Other noncitrus fruit. Data relate to any noncitrus fruit not having a specific code on the census report form.

Other nursery crops. This is a new item in 2007. It includes nursery crops not having specific codes on the report form. In 2002, data were reported in other nursery and greenhouse.

Other nuts. This category includes any nut crop not having a specific code on the report form. In 2007, data were collected for chestnuts separately while in 2002 chestnuts were included in Other nuts. Data are not comparable.
Other oranges. Data are for Oranges other than Valencia oranges, including Navel oranges.

Other poultry. Data are for other poultry not having a specific code on the report form. Data are comparable.

Other tame hay. See Hay, other tame dry hay.

Other vegetables. Data shown for other vegetables relate to any vegetable not having a specific code on the census form. In the 2007 census, data were collected separately for horseradish while in 2002 horseradish was included in other vegetables. Data are not directly comparable.

Patronage dividends. See Total income from farm-related sources, gross before taxes and expenses.

Payments received by the contractee for commodities produced under contract. These data show the number of farms and the dollar amount the contractees received from contractors for commodities produced under contract. This is not the market value of the commodities delivered, but the payment or fee the operators received for commodities delivered. For market value of the commodities delivered see Commodities raised and delivered under production contracts.

Peaches, all. Data for all peaches were collected as a category in all States except for California and Arizona. Peach data in California and Arizona were collected separately for clingstone and freestone peaches. The data were later combined with all peaches for publication. Data for clingstone and freestone are found in the California and Arizona publications only.

Pears, all. Data for all pears were collected as a category in all States except for California, Arizona, Idaho, Oregon, Alaska, and

Washington. These States collected data separately for Bartlett pears and Other pears which were later combined into the Pear, all category. Data for Bartlett and other pears are found only in the State publications where collected.

Pecans, all. All pecans is a summation of Pecans, improved and Pecans, native and seedling. Total acres, bearing acres, and nonbearing acres were collected by category in the 2007 census. In the 2002 census, total acres, bearing acres, and nonbearing acres were collected only as all pecans.

Pecans, improved. This is a new item for the 2007 census. Improved pecans are varieties that have been genetically altered through breeding and grafting techniques to produce more nuts, and nuts with a greater percentage of nut meat. See Pecans, all for further explanation.

Pecans, native and seedlings. This is a new item for the 2007 census. Native pecans are varieties that developed under natural conditions. Seedling pecans are produced from seed (the nut) and have not been budded or grafted. See Pecans, all for further explanation.

Peppers, Bell (excluding pimientos). The wording was improved to exclude pimientos which were reported as other vegetables.

Peppers, other than bell (including chile). The data includes all other peppers including chile. Pimientos were reported as other vegetables. In 2002 this category was referred to as Peppers, chile (all peppers, excluding bell). This is a wording change only; all data are comparable.

Permanent pasture and rangeland, other than cropland and woodland pastured. This land use category encompasses grazable land that does not qualify as woodland pasture or cropland pasture. It may be irrigated or dry land. In some areas, it can be a high quality pasture that could not be cropped without improvements. In other areas, it is barely able to be grazed and is only marginally better than wasteland. In 2002 this category was referred to as Pastureland and rangeland, other than cropland pastured. This is a wording change only; all data are comparable.

Plums. This was reported as an individual item only in California and Arizona. All other States reported plums in a combined plum and prune category.

Pluots. This is a new item for 2007. Pluots were reported as an individual item only in California, Arizona, Idaho, Oregon, Alaska, and Washington. In all other States pluots were reported in the Other non-citrus category.

Potatoes. In 2007 potato acres are included in the vegetable acres. Data are for total acres harvested, acres harvested for fresh market, and acres harvested for processing. Production was not collected. In 2002 potatoes acreage and production were included in the acres for field crops.

Poultry hatched. This category includes all poultry hatched on the operation during the year. The number of poultry hatched is under the Sold heading for both years.

Poultry, other. See Other poultry.

Primary occupation of operator. Data on age and primary occupation were obtained from up to three operators per farm. The primary occupation classifications used were:

1. *Farming or ranch work.* The operator spent 50-percent or more of his/her worktime during 2007 at farming or ranching.

2. *Other.* The operator spent less than 50-percent of his/her worktime during 2007 in farming or ranching operations.

Principal operator. The person primarily responsible for the on-site, day-to-day operation of the farm or ranch business. This person may be a hired manager or business manager. See Operators for further explanation.

Production contracts. See Commodities raised and delivered under production contracts.

Production expenses. See Total farm production expenses.

Prunes. This was reported as an individual item only in California and Arizona. All other States reported prunes in a combined plum and prune category.

Pullets for laying flock replacement. Data are for pullet inventory and the number sold or moved for laying flock replacement.

Race of operator. Data, except for Hawaii, were collected for American Indian (included Alaska Native), Asian, Black or African

American, Native Hawaiian and Other Pacific Islander, and White. Respondents were asked to mark one or more of the race categories. In Hawaii operator race data were collected for American Indian (included Alaska Native), Chinese, Filipino, Japanese, Korean, Other Asian, Black or African American, Native Hawaiian, other Pacific Islander, and White. The combination of Native Hawaiian and Other Pacific Islander is equivalent to the Native Hawaiian or Other Pacific Islander category on the other forms. The combination of the Chinese, Filipino, Japanese, Korean, and Other Asian categories is equivalent to the Asian category on the other forms. The Volume 1, Geographic Area Series, U.S. Summary publication only displays counts for the categories of Native Hawaiian and Other Pacific Islander and Asian. Data for the 11 Hawaii race categories are published in chapter 2 of the Hawaii publication of the Volume 1 series.

Raspberries, all. In 2007, raspberries were reported as All raspberries except in Alaska, Idaho, Oregon, and Washington where they were reported as black raspberries or red raspberries. In these States, black raspberries and red raspberries data were combined as Raspberries, all for comparability with other States. In 2002, raspberries were reported as all raspberries except in Idaho, Oregon, and Washington.

Raspberries, black. See Raspberries.

Raspberries, red. See Raspberries.

Rental of farmland. See Total income from farm-related sources, gross before taxes and expenses; Gross cash rent or share payments.

Sales, total. See Market value of agricultural products sold.

Sheep and lambs inventory. Data are for sheep and lambs of all ages owned regardless of location. In 2007 sheep and lambs were collected in their own section to clarify to respondents that only "owned" sheep and lambs were to be reported versus any sheep and lambs on the operation.

Short-rotation woody crops. Data are for short-rotation woody crops that grow from seed to a mature tree in 10 years or less. These are trees for use by the paper or pulp industry or as engineered wood. This does not include lumber. Acres in production were included in Cropland harvested in the "Land" section of the report form.

Size of farm. See Farms by size.

Sorghum for syrup (gallons). Data are for sorghum syrup produced. 2002 data were collected as pounds produced so the 2002 data were divided by 11.55 to convert the pounds to gallons.

Squash, all. All squash is a summation of summer squash and winter squash. Total acres, acres for fresh market, and acres for processing were collected by category in the 2007 census. In the 2002 census, total acres and acres for processing were collected as all squash.

Squash, summer. This is a new item for the 2007 census. See Squash, all.

Squash, winter. This is a new item for the 2007 census. See Squash, all.

Spanish, Hispanic, or Latino origin. Operators of Spanish, Hispanic, or Latino origin are found in all of the racial groups listed in the census and were tabulated according to the race reported, as well as on tables pertaining only to this group.

Sport or game fish. Data are for sport or game fish and it includes fish raised to restock public waters or for sale at fee fishing operations. Examples include bluegill, crappie, largemouth bass, smallmouth bass, sunfish, muskie, northern pike, walleye, and sunfish.

Sweet potatoes. In 2007 sweet potato acres are included in the vegetable acres. Data are for total acres harvested, acres harvested for fresh market, and acres harvested for processing. Production was not collected. In 2002 sweet potatoes acreage and production were included in the acres for field crops.

Tame hay. See Hay, other tame dry.

Tenure. See Farms by tenure of operator.

Tobacco transplants. This is a new item for 2007. Data are for tobacco transplants that were sold for transplant to farm fields. Transplants grown for transplanting to the same operation were not reported or removed during data review. In 2002, data were

reported as Other nursery and greenhouse.

Tomatoes in the open. Data are for tomatoes grown in the open. In 2007 the wording "in the open" was added to clarify between tomatoes grown in open fields versus tomatoes grown under cover. Data are comparable.

Total acres used for organic production. This is a new item in the 2007 census. Respondents were instructed to report organic production as defined by the National Organic Standards while in 2002 only acreage of certified organically produced crops was collected. Organic acreage is divided into organic crops and organic pasture. The count of farms producing organic crops may differ from that found in other sources because this item is self reported by respondents. No attempt was made to verify reports with certifying organic organizations. The acres reported for organic crops must be less than or equal to the acres reported as cropland harvested for each operation.

In 2002, data were collected for the number of acres used to raise certified organically produced crops. This was replaced in 2007 with acreage and value of sales of organically produced commodities. For certified production, only a "Yes" or "No" response question was asked in the "Organic Agriculture" section. The 2007 data do not compare with 2002 Land used to raise certified organically produced crops. See Total organic product sales.

Total cropland. This category includes cropland harvested, cropland used only for pasture or grazing, cropland on which all crops failed or were abandoned, cropland in cultivated summer fallow, and cropland idle or used for cover crops or soil improvement but not harvested and not pastured or grazed.

Total farm production expenses. Includes the production expenses provided by the operators, partners, landlords (excluding property taxes), and production contractors for the farm business in 2007. Tenant farmers reported expenses paid by landlords for the agricultural production on the operation, as well as their expenses. Farm or ranch operators who rented part of their land to others reported only the expenses for the land they actually used themselves and not expenses for land rented to others. The 2007 total farm production expenditure includes all farm-related expenses such as customwork, fuel costs, cost of cutting timber, services provided to hunters, cooperative membership fees, etc. However, if the income from these farm-related categories was not considered a part of the operation (i.e., if the income was regarded as derived from a separate business), then the associated expenses were not included. The contractor's portion of expenses was solely based on computer generated estimates for 2007.

This item excludes expenses relating to non-farm activities such as trading and speculation in the commodities market or livestock trading activities. Explanations of selected production expenses are listed below.

All other production expenses. This category includes all expenses not listed on the report form. Examples include animal health costs, storage and warehousing, marketing and ginning expenses, insurance, etc. Health expenses and payroll taxes were excluded.

Breeding livestock purchased or leased. These expenses include all breeding livestock and poultry purchased or leased during 2007 for production on the farm or ranch. The total includes amount spent for beef and dairy cows, heifers, bulls, sows, gilts, boars, rams, lambs, ewes, roosters, hens, layers, etc. Estimations of the value of livestock or poultry fed on a custom basis were to be made based on their value when they arrived on the farm or ranch. In 2002 data were only collected for purchased breeding livestock. Data are not directly comparable.

Cash rent paid in 2007 for land and buildings. These data include the cost of renting land and buildings that were part of the operation. Rent paid for the operator's dwelling or other non-farm property and the value of the shares of crops and livestock paid to landlords were excluded.

Chemicals. These 2007 expenses include insecticides, herbicides, fungicides, and other pesticides, including costs of custom application. Data exclude commercial fertilizer purchased.

Contract labor. These data include payments made to contractors, crew leaders, cooperatives, or any other organization hired to furnish a crew of laborers to do a job that may involve one or more agricultural operations. In some cases, a crew leader may furnish some equipment. Data exclude expenses made on a contractual basis for repair or maintenance or for capital improvements, such as construction of farm buildings, installation of fences or irrigation systems, and land leveling.

Customwork and custom hauling. These expenses include costs incurred for having customwork done on the place and for renting machines to perform agricultural operations. The cost of cotton ginning is excluded. The cost of labor involved in the customwork service is included in the customwork expense. Some examples of customwork are planting, spraying, harvesting, preparation of products for marketing, grinding and mixing feed, corn picking, grain drying, and silo filling. The cost of custom application of fertilizer and chemicals is included in expenditures for fertilizer and chemicals in 2007, just as it was in the 2002 census. The cost of hired labor for operating rented or hired machinery is included as a hired farm and ranch labor expense.

Feed purchased. These expenses include the cost of all feed for livestock and poultry including grain, hay, silage, mixed feeds, concentrates, etc. during 2007.

Fertilizer, lime, and soil conditioners. These 2007 expenses include fertilizer and lime including rock phosphate and gypsum, and the costs of custom application.

Gasolines, fuels, and oils. These expenses include the cost of all gasoline, diesel, natural gas, LP gas, motor oil, and grease products for the farm during 2007. Expenses exclude fuel for personal use of automobiles by the family and others, fuel used for cooking and heating the farmhouse, and any other use outside of farmwork on the operation.
Hired farm labor. These 2007 expenses include the total amount paid for farm or ranch labor including regular workers, part-time workers, and members of the operator's family if they received payments for labor. Expenses include social security taxes, State taxes, unemployment tax, payment for sick leave or vacation pay, workman's compensation, insurance premiums, and pension plans.

Interest paid on debts. These expenses include interest and finance charges paid in 2007 for debts secured by real estate and on debt not secured by real estate. Interest expenses excluded from this category are non-farm interest expenses and interest expenses originating from machinery and equipment used for a separate customwork business or for other operations. Interest expense for the operator's dwelling, where the amount is separate from interest on farm land and buildings on the operation, is excluded. Interest paid on debts was reported in one of two categories:

1. *Secured by real estate.* These data include all interest expenses paid in 2007 on debts secured by real estate for the farm.

2. *Not secured by real estate.* These data include all interest expenses paid in 2007 on debts secured by machinery, tractors, trucks, other equipment, livestock, poultry, breeding stock, money borrowed for use as working capital, and interest paid on CCC loans for the farm.

Livestock and poultry purchased or leased. These data include Breeding livestock purchased or leased and Other livestock and poultry purchased or leased.

Other livestock and poultry purchased or leased. These expenses include all non-breeding livestock and poultry purchased or leased during 2007 for production on the farm or ranch. The total includes amounts spent for cattle, calves, hogs, pigs, sheep, hatchery eggs, etc. In 2002 data were only collected for purchased livestock and poultry. Data are not directly comparable.

Property taxes paid. These data include property taxes paid by the operators for the farm share of land, machinery, buildings, and livestock, excluding taxes paid by this operator's landlords.
Rent and lease expenses for machinery, equipment, and farm share of vehicles. These data include the farm share cost of renting or leasing machinery, equipment, and vehicles during 2007. Rental and lease expenses of items used only for custom hire are excluded here.

Repairs, supplies, and maintenance. These expenses include all costs for the repair and upkeep of buildings, motor vehicles, fences, and farm equipment used for the farm business during 2007. Repairs to equipment used both for the farm business and for performing customwork are included.

Seeds, plants, vines, and trees. These expenses include the cost of all seeds, bulbs, plants, propagation materials, trees, seed treatments, seed cleaning costs, etc. purchased during 2007. Excluded were items purchased for immediate resale or the value of seed grown on this place.

Utilities. These data show the farm share cost of electricity, telephone charges, internet fees, and water purchased in 2007. Included in the water cost is water purchased for irrigation purposes, livestock watering, etc. Household utility costs were excluded from these items.

Total greenhouse vegetables and fresh cut herbs. This category includes greenhouse tomatoes and other greenhouse vegetables and fresh cut herbs. In 2002 this category was referred to as greenhouse vegetables. This is only a wording change; all data are comparable.

Total income from farm-related sources, gross before taxes and expenses. This includes gross income from farm-related sources received in 2007 before taxes and expenses from the sales of farm byproducts and other sales and services closely related to the principal functions of the farm business. The data exclude income from employment or business activities which were separate from the farm business. Categories that make up the farm-related income calculation changed between the 2002 and 2007 censuses. In the 2007 census, Crop and livestock insurance payments received and Amount from State and local government agricultural program payments are published separately. In the 2002 census, these categories were combined with Other farm-related income sources.

Agri-tourism and recreational services. This income includes income from recreational services such as hunting, fishing, farm or wine tours, hay rides, etc. In the 2002 census, this category was referred to as Recreational Services. This is a wording change only; all data are comparable.

Amount from State and local government agricultural program payments. This is a new item for 2007. This income includes State and local government agricultural program payments. Respondents were to exclude the State and local portion of CREP payments if they were reported in the amount received for participation in CREP in section 4, item 1a of the report form. In 2002 this income was included with Other farm-related income sources.

Crop and livestock insurance payments received. This is a new item for 2007. This income includes insurance payments from crop and livestock losses. In 2002 this income was combined with Other farm-related income sources.

Customwork and other agricultural services. This income includes gross receipts received by the farm operators for providing services for others such as planting, plowing, spraying, and harvesting. Income from customwork and other agricultural services is generally included in the agriculture census if it is closely related to the farming operation. However, it is excluded if it constituted a separate business or was conducted from another location.

Gross cash rent or share payments. This income includes gross cash or share payments received from renting out farmland, payments received from the lease or sale of allotments, and payments received for livestock pastured on a per-head, per month, or per pound basis. It excludes rental income from nonfarm property.

Other-farm related income sources. This is other income which is closely related to the agricultural operation. This income includes animal boarding, breeding fees (horse breeding or stud fees received were reported in the Value of Sales section in the Other animals and other animal products category), tobacco quota buyouts, State fuel tax refunds, farm generated energy, etc. In the 2007 census, crop and livestock insurance payments received and amount from State and local government agricultural program payments were published separately. In the 2002 census, these categories were combined with other farm-related income sources. Data are not comparable.

Patronage dividends and refunds from cooperatives. This income includes payments to a farmer or rancher for business done with a cooperative to which he/she usually belongs. The payment is usually for goods sold through the co-op.

Sales of forest products. This income includes gross receipts from sales of standing timber, pulpwood, firewood, etc. from the farm or ranch operation. It excludes income from nonfarm timber tracts, sawmill businesses, cut Christmas trees, maple products, and short-rotation woody crops.

Total operators. See Operators, total.

Total organic product sales. This is a new item for the 2007 census. The data represent the value of organically produced agricultural commodities sold from operations during 2007. It was the intention of the question to collect the value of those products that were produced as organic according to the National Organic Standards. These sales may come from either crop or livestock production and are divided into three categories:

1. Sales for crops, including nursery and greenhouse crops.

2. Sales for livestock and poultry.

3. Sales for livestock and poultry products. Sales data are not comparable.

Total sales. See Market value of agricultural products sold.

Total market value of agricultural products sold and government payments. This category represents the value of products sold plus government payments. Total value of products sold combines total sales not under production contract and total sales under production contract. Government payments consist of government payments received from the Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), or Conservation Reserve Enhancement Program (CREP) plus government payments received from Federal, State, and local programs other than the CRP, WRP, FWP, and CREP, and Commodity Credit Corporation loans.

Trucks, including pickups. This is a new item for 2007. The data were last published in the 1997 census.

Turkeys. In the 2007 census, turkey data are a combination of turkeys for meat production and turkey hens kept for breeding tabulated from two questions. The number of turkeys sold includes turkeys sold for slaughter or moved to other farms, which may

result in a turkey being sold more than once from different operations. In the 2002 census, turkey inventory and sales were tabulated in one question.

Type of organization. See Farms by type of organization.

Typology. See Farm typology.

Utilities. See Total farm production expense.

Value of agricultural products sold directly to individuals for human consumption. This item represents the value of agricultural products produced and sold directly to individuals for human consumption from roadside stands, farmers' markets, pick-your-own sites, etc. It excludes non-edible products such as nursery crops, cut flowers, and wool but includes livestock sales. Sales of agricultural products by vertically integrated operations through their own processing and marketing operations were excluded.

Value of commodities. Data show the number of farms and the market value of all commodities delivered under a production contract.

Value of landlord's share of total sales. Data include the value of agricultural sales received by the landlords.

Value of organically produced commodities. See Total organic product sales.

Value of sales. See Market value of agricultural products sold.

Vegetable transplants. This is a new item for 2007. Data are for vegetable transplants grown and sold from this operation for transplanting to fields on another operation. In 2002 vegetable transplants were reported as other nursery and greenhouse.

Vegetables harvested for fresh market. This is a new item for the 2007 census. Respondents reported the total vegetable acres harvested, harvested for processing, and harvested for fresh market.

Vegetables harvested for sale. The acres of vegetables harvested is the summation of the acres of individual vegetables harvested. All of the individual vegetable items may not be shown. When more than one vegetable crop was harvested from the same acreage, acres were counted for each crop. In 2007, ginseng, potatoes, and sweet potatoes are included in vegetables harvested. In 2002, these acres were included in field crops. The 2002 data, where compared, were not adjusted to include ginseng, potatoes, and sweet potatoes acreage.

Vegetables, melons, and potatoes. See Commodities raised and delivered under production contracts.

Vegetables, other. See Other vegetables.

Wheat for grain. Data were reported by type of wheat - Durum, winter, and spring other than Durum.

Woodland pastured. This category includes all woodland used for pasture or grazing during the census year. Woodland or forest land pastured under a per-head grazing permit was not counted as land in farms and, therefore, was not included in woodland pastured.

Woodland, total. This category includes natural or planted woodlots or timber tracts, cutover and deforested land with young growth which has or will have value for wood products and woodland pastured. Land covered by sagebrush or mesquite was reported as Permanent pastureland and rangeland or other land. Land planted for Christmas tree production and short rotation woody crops was reported in Cropland harvested, and land in tapped maple trees was reported as Woodland not pastured.

Write-in crops. To reduce the length of the report form, only the major crops for each region were prelisted on the regional report forms. For other crops, the respondent was asked to look at a list of crops in each section and write in the crop name and its code. For crops that had no individual code listed on the report form, the respondent was to write in the crop name and code of the appropriate ''all other'' category for that section. Write-in crops coded as ''all other'' were reviewed and assigned a specific code when possible. Crops not assigned a specific code were left in the appropriate ''all other'' category. The national report form was an open table design so most of the commodities were reported as write-in commodities.

Items located in the publications are organized in broad categories. Chapter 1 tables are denoted by I. Chapter 2 tables are denoted by II. Appendix A tables are denoted by letters A–D.

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
A							
Acres (see Land in farms)							
Age of -							
All operators	**I**-58	-	-	**I**-59,60	**I**-49, 51, 53, 57, 61,63,65	-	**I**-62,64; **A, B**
Principal operator	**I**-58	-	-	**I**-59,60	**I**-1, 49,51,53, 54, 56,57,61, 63, 65; **II**-1,46	**I**-48	**I**-62,64; **A,B**
Second operator	-	-	-	-	**I**-49, 51,57	-	-
Third operator	-	-	-	-	**I**-49, 51,57	-	-
Agri-tourism and recreational services	**I**-58	-	-	**I** -7; **II**-6	-	-	-
Agricultural chemicals purchased	**I**-58	-	-	**I**-1,4,59,60; **II**-3	**I**-61,63,65	**I**-11,45	**I**-62,64
Agricultural products sold, market value	**I**-58	-	-	**I**-1-3,40,59, 60; **II**-1	**I**-52,54,55, 61, 63, 65	**I**-11,48	**I**-47,62,64
Alfalfa hay	**I**-58	**I**-32,33; **II**-27	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Alfalfa haylage	-	**I**-33; **II**-27	-	-	-	-	-
Alfalfa seed	-	**I**-33; **II**-27	-	-	-	-	-
American Indian or Alaska Native operators	**I**-58	-	-	**I**-59,60	**I**-51,53-57, 61,63,65; **II**-51	-	**I**-47,62,64; **A**, **B, D**
Almonds	**I**-58	**I**-35; **II**-32	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Alpacas	-	-	**I**-31; **II**-24	-	-	-	-
Angora goats	-	-	**I**-31; **II**-19	-	-	-	-
Apples	**I**-58	**I**-35; **II**-32	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Apricots	-	**I**-35; **II**-32	-	-	-	-	-
Aquaculture	**I**-58	-	**I**-31; **II**-23	**I**-2,40,59,60; **II**-2	**I**- 61,63,65	-	**I**-46,62,64
Aquatic plants	-	**I**-37; **II**-35	-	-	-	-	-
Artichokes	-	**I**-34; **II**-30	-	-	-	-	-
Asian operators	**I**-58	-	-	**I**-59,60	**I**-51,54-57, 61, 63, 65; **II**-52	-	**I**-47,62,64; **A, B**
Asparagus	-	**I**-34; **II**-30	-	-	-	-	-
Austrian winter peas	-	**I**-33; **II**-26	-	-	-	-	-
Average size of farm	**I**-1,58; **II**-1,8	-	-	**I**-40,59,60	**I**-61,63,65	-	**I**-63, 64
Avocados	-	**I**-35; **II**-32	-	-	-	-	-
B							
Bahia grass seed	-	**II**-27	-	-	-	-	-
Baitfish	-	-	**II**-23	-	-	-	-
Bananas	-	**I**-35; **II**-32	-	-	-	-	-
Barley for grain	**I**-58	**I**-1, 32,33; **II**- 1,25,26	-	**I**-2,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Barn built prior to 1960	-	-	-	-	-	**II** -44	-
Beans -							
Green limas	-	**I**-34; **II**-30	-	-	-	-	-
Dry edible	**I**-58	**I**-1,32,33; **II**-1,25,26	-	**I**-2,59,60	**1**-61,63,65	-	**I**-62,64; **II**-1
Dry limas	-	**II**-26	-	-	-	-	-
Snap	**I**-58	**I**-34; **II**-30	-	**I**-59,60	**1**-61,63,65	-	**I**-62,64
Bedding/Garden plants	-	**I**-37; **II**-35	-	-	-	-	-
Beef cows	**I**-58	-	**I**-1,12,16; **II**-1,11,16	**I**-59,60	**I**-61, 63, 65	**I**-11	**I**-47, 62, 64; **II**-45
Bees, colonies	-	-	**I**-31; **II**-21	-	-	-	**I**-46
Beets	-	**I**-34; **II**-30	-	-	-	-	-

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
Bell peppers	-	**I**-34; **II**-30	-	-	-	-	-
Bentgrass seed	-	**II**-27	-	-	-	-	-
Bermuda grass seed	-	**II**-27	-	-	-	-	-
Berries, land in	**I**-58	**I**-32,33,36; **II**-33,34	-	**I**-40,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Birdsfoot trefoil seed	-	**II**-27	-	-	-	-	-
Bison	-	-	**I**-31; **II**-24	-	-	-	-
Black or African American operators	**I**-58	-	-	**I**-59,60	**I**-51, 53, 54, 55,56,57,61,63, 65; **II**-53	-	**I**-47,62,64; **A, B**
Blackberries	-	**I**-36; **II**-34	-	-	-	-	-
Blueberries	-	**I**-36; **II**-34	-	-	-	-	-
Boysenberries	-	**I**-36; **II**-34	-	-	-	-	-
Breeding livestock purchased, expense	-	-	-	**I**-4,59; **II**-3		-	-
Broccoli	-	**I**-34; **II**-30	-	-	-	-	-
Broilers and other meat-type chickens	**I**-58	-	**I**-27 **II**-13	**I**-59,60	**I**-61,63,65	**I**-41; II-40	**I**-1,62,64; **II**-1
Bromegrass seed	-	**II**-27	-	-	-	-	-
Brussels sprouts	-	**I**-34; **II**-30	-	-	-	-	-
Buckwheat	-	**II**-26	-	-	-	-	-
Bulbs, corms, tubers, and rhizomes	-	**I**-37; **II**-35	-	-	-	-	-
Bureau of Reclamation, irrigation water	-	-	-	-	-	**II** -44	-
Burros (see Mules, burros, and donkeys)							
C							
Cabbage -							
Chinese	-	**I**-34; **II**-30	-	-	-	-	-
Head	-	**I**-34; **II**-30	-	-	-	-	-
Mustard	-	**I**-34; **II**-30	-	-	-	-	-
Canola	-	**I**-33; **II**-26	-	-	-	-	-
Cantaloupes	-	**I**-34; **II**-30	-	-	-	-	-
Carrots	-	**I**-34; **II**-30	-	-	-	-	-
Cash rent expense	**I**-58	-	-	**I**-4,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-62,64
Cash rent or share payments received	**I**-58	-	-	**I**-7,59,60; **II**-6	**I**-61,63,65	-	**I**-62,64
Catfish	-	-	**II**-23	-	-	-	-
Cattle and calves	**I**-58	-	**I**-1,11-18; **II**-1,11	**I**-2,13,15-18,40-41,59,60; **II**-2	**I**-58, 61, 63-65	**I**-11,41; **II**-44	**I**-62,64
Cattle and calves, herd size	-	-	**I**-12-18; **II**-11	**I**-13-18,59,60	-	-	-
Cattle feedlots	**I**-58	-	**I**-12-13, 16, 18; **II**-11,45	**I**-59, 60, 62	**I**-55, 61,63,65	-	**I**-62
Cauliflower	-	**I**-34; **II**-30	-	-	-	-	-
Celery	-	**I**-34; **II**-30	-	-	-	-	-
Certified organic products, sales value	**I**-58	-	-	**I**-59,60	**I**-61,63,65	**I**-48	**I**-62,64
Chemicals	-	-	-	**I**-40,59, 60; **II**-3	**I**-61,63,65	**I**-45	**I**-62,64
Cherries -							
Sweet	-	**I**-35; **II**-32	-	-	-	-	-
Tart	-	**I**-35; **II**-32	-	-	-	-	-
Chestnuts	-	**I**-35; **II**-32	-	-	-	-	-
Chicory	-	**I**-34; **II**-30	-	-	-	-	-
Chili peppers	-	**I**-34; **II**-30	-	-	-	-	-
Citrus fruit	**I**-58	**I**-35; **II**-32	-	**I**-59,60	**I**-61,63,65	-	**I**-46,62,64

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
Coffee	-	**I**-35; **II**-32	-	-	-	-	-
Collards	-	**I**-34; **II**-30	-	-	-	-	-
Colonies of bees	-	-	**I**-31; **II**-21	-	-	-	-
Combined market value of agricultural products sold and government payments	**I**-58	-	-	**I**-3,59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-62,64
Combines, grain and bean	**I**-58	-	-	**I**-44,59,60; **II**-41	**I**-61,63,65	-	**I**-62, 64
Commercial fertilizer	**I**-58	-	-	**I**-4,59,60; **II**-3	**I**-61,63,65	**I**-11,45; **II**-42	**I**-62, 64
Commodity certificates	-	-	-	**I**-6	-	-	-
Commodity Credit Corporation loans	**I**-58	-	-	**I**-6,59,60; **II**-5	**I**-50,52,54, 55,61, 63, 65	**I**-11	**I**-62
Community supported agriculture	-	-	-	-	-	**II** -44	-
Computer use	**I**-58	-	-	**I**-59,60	**I**-50,52,54, 55, 61,63,65; **II**-46	-	**I**-62
Conservation practices	**I**-8,58	-	-	**I**-59,60	**I**-61,63,65	**II** -44	**I**-62,64
Conservation Reserve Programs	**I**-8,58; **II**-8	-	-	**I**-6,59,60; **II**-5	**I**-50,52,54,55, 61, 63, 65	**I**-11	**I**-62,64
Contract labor expense	**I**-58	-	-	**I**-4,59,60; **II**-3,7	**I**-61,63,65	**I**-11	**I**-62,64
Corn	**I**-58	**I**-1,32,33; **II**-1,25-27, 30	-	**I**-2,59,60; **II**-2	**I**-61,63,65	-	**I**-46,62,64; **II**-1
Corporations	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63, 65; **II**-46	-	**I**-62,64; **A,B**
Cotton -							
Pima	-	**I**-1,32,33; **II**-1,26	-	-	-	-	-
Upland	-	**I**-1,32,33; **II**-1,26	-	-	-	-	-
Cotton and cottonseed	**I**-58	**I**-1,32,33; **II**-1,25-26	-	**I**-2,40,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Cotton pickers and strippers, self-propelled	**I**-58	-	-	**I**-44,59,60; **II**-41	**I**-61,63,65	-	**I**-46,62,64
Counter-cyclical payments	-	-	-	**I**-6	-	-	-
Coverage adjustment	-	-	-	-	-	-	**A , C**
Cow herd size	**I**-58	-	**I**-12,14-17; **II**-11	**I**-59,60	**I**-58,61,63-65	-	**I**-62,64
Cowpeas, dry	-	**II**-26	-	-	-	-	-
Cowpeas, green	-	**I**-34; **II**-30	-	-	-	-	-
Cows and heifers that calved	**I**-58	-	**I**-12,14-17	**I**-59,60	**I**-58,61,63-65	-	**I**-62,64
Crambe	-	**II**-28	-	-	-	-	-
Cranberries	-	**I**-36; **II**-34	-	-	-	-	-
Crimson clover seed	-	**II**-27	-	-	-	-	-
Crop insurance, conservation, and organic practices	**I**-58; **II**-8	-	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Crop insurance, land covered	**I**-8,58	-	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Cropland-							
For pasture or grazing only	**I**-8,58; **II**-8	-	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Harvested	**I**-8,9,58; **II**-8	**I**-1,39; **II**-1,25,39	-	**I**-40,59,60	**I**-61,63,65; **II**-47	**I**-10,11	**I**-46,62,64
Idle or used for soil improvement	**I**-8,58; **II**-8	-	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
On which crops failed	**I**-8,58; **II**-8	-	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
Summer fallow	**I**-8,58; **II**-8	-	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Crops, including nursery and greenhouse, value	-	**I**-2; **II**-2	-	**I**-1; **II**-1	**I**-55	**I**-11	**I**-47
Crustaceans	-	-	**II**-23	-	-	-	-
Cucumbers	-	**I**-34; **II**-30	-	-	-	-	-
Currants	-	**I**-36; **II**-34	-	-	-	-	-
Customwork and custom hauling, expense	**I**-58	-	-	**I**-4,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-62,64
Customwork and other agricultural services, income	**I**-58	-	-	**I**-7,59,60; **II**-6	**I**-61,63,65	-	**I**-62,64
Cut Christmas trees	-	**I**-38; **II**-36	-	-	-	-	-
Cut Christmas trees and short-rotation woody crops, sales value	**I**-58	-	-	**I**-2,40,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Cut flowers	-	**I**-37; **II**-35	-	-	-	-	-
Cuttings, seedlings, liners, and plugs	-	**I**-37; **II**-35	-	-	-	-	-
D							
Daikon	-	**I**-33,34; **II**-30	-	-	-	-	-
Dairy cows	-	-	**I**-11-12,17; **II**-11	-	-	**I**-11	-
Dairy products, sales value	**I**-58	-	**I**-17	**I**-2,40,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Dates	-	**I**-35; **II**-32	-	-	-	-	-
Days worked off farm	**I**-58	-	-	**I**-59,60	**I**-48, 49, 51, 53, 56,57,61, 63,65; **II**-46	-	**I**-62,64
Deer	-	-	**I**-31; **II**-24	-	-	-	-
Defoliation chemicals applied	**I**-58	-	-	**I**-59,60	**I**-61,63,65	**I**-45; **II**-42	**I**-62,64
Depreciation expense	**I**-58	-	-	**I**-4,59,60; **II**-3	**I**-61,63,65	-	**I**-62,64
Dill for oil	-	**II**-28	-	-	-	-	-
Direct payments	-	-	-	**I**-6; **II**-5	-	-	-
Direct sales to individuals	**I**-58	-	-	**I**-2,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Diseases, chemical control	**I**-58	-	-	**I**-59,60	**I**-61,63,65	**I**-45; **II**-42	**I**-62,64
Donkeys (see Mules, burros, and donkeys)							
Dry edible beans	**I**-58	**I**-1,32,33, **II**-1,25,26	-	**I**-2,59,60	**I**-61,63,65	-	**I**-62,64
Ducks	-	-	**I**-27; **II**-13,14	-	-	-	-
E							
Economic class of farms	**I**-58	-	-	**I**-3,59,60; **II**-2	**I**-50, 52, 54, 55, 61,63,65; **II**-47	-	**I**-62,64
Eggs, chicken	-	-	-	-	-	**I**-41**;** **II**-40	**I**-46
Eggplant	-	**I**-34; **II**-30	-	-	-	-	-
Elk	-	-	**I**-31; **II**-24	-	-	-	-
Emmer and spelt	-	**II**-26	-	-	-	-	-
Emus	-	-	**I**-27; **II**-14	-	-	-	-
Equipment and machinery	**I**-58	-	-	**I**-1,4,43,44, 59, 60; **II**-1,41	**I**-61,63,65	**I**-11	**I**-46, 47, 62,64
Escarole and endive	-	**I**-34; **II**-30	-	-	-	-	-
Estimated market value of land and buildings	**I**-58; **II**-8	-	-	**I**-1,40,42,59, 60; **II**-1	**I**-61,63,65	**I**-11	**I**-46, 47, 62, 64
Estimated market value of machinery and equipment	-	-	-	**I**-40	-	**I**-11	**I**-1,47,62,64; **II**-1
Ewes 1 year and older	**I**-58	-	**I**-28-30; **II**-16	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Expenses paid by landlords	**I**-58	-	-	**I**-4,59,60	**I**-61,63,65	-	**I**-62,64

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
Expenses, total farm production	**I**-58	-	-	**I**-1,4,40,59,60; **II**-1,3	**I**-61,63,65	**I**-11	**I**-47,62,64;
F							
Family held corporations	**I**-58	-	-	**I**-59,60	**I**-61,63,65; **II**-46	-	**I**-62,64; **A,B**
Family operations	**I**-58	-	-	**I**-59,60	**I**-50,52,54,55, 61,63,65; **II**-46	-	**I**-1,62,64; **A,B**
Farm characteristics	-	-	-	-	**I**-50-52,54,55	-	**I**-46; **A,B**
Farm production expenses	**I**-58	-	-	**I**-1, 4,40,59,60; **II**-1, 3	**I**-61,63,65	**I**-11	**I**-1,47,62,64; **II**-1
Farm size	**I**-58	-	-	**I**-59,60	**I**-50,54,55, 61, 63, 65	-	**I**-1,47, 62,64; **A**,**B**
Farmer (see Operators)							
Farmland, rent income received	**I**-58	-	-	**I**-7,59,60; **II**-6	**I**-61,63,65	-	**I**-62,64
Farms, number	**I**-8,9,58; **II**-8,9	**I**-32-39; **II**-25, 39	**I**-12-31; **II**-11-24	**I**-2-7, 40, 42-44, 59,60; **II**-2-7,41	**I**-49-56, 61, 63,65; **II**-46-56	**I**-10,11,41, 45,48; **II**-10, 40, 42-44	**I**-1, 46, 47, 62, 64; **II**-1; **A - D**
Feed purchased, expense	**I**-58	-	-	**I**-1, 4,40,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-1,62,64
Fertilizer and chemicals applied	**I**-58	**I**-45; **II**-42	-	**I**-59,60	**I**-61,63,65	**I**-11,45; **II**-42	**I**-62,64
Fertilizer, lime, and soil conditioners purchased, expense	**I**-58	**I**-45; **II**-42	-	**I**-1,4,40,59,60; **II**-3	**I**-61,63,65	**I**-11,45;	**I**-62,64
Fescue seed	-	**I**-33; **II**-27	-	-	-	-	-
Field and grass seed crops	**I**-58	**I**-33; **II**-26,27	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Figs	-	**I**-35; **II**-32	-	-	-	-	-
Filberts (hazelnuts)	-	**I**-35; **II**-32	-	-	-	-	-
Flaxseed	-	**I**-33; **II**-26	-	-	-	-	-
Floriculture crops	-	**I**-37; **II**-35	-	**I**-40,59; **II**-2	-	-	-
Flower seeds	-	**I**-37; **II**-35	-	-	-	-	-
Foliage plants	-	**I**-37; **II**-35	-	-	-	-	-
Forage, all, land used	**I**-58	**I**-1,32,33; **II**-1,25,27	-	**I**-59,60	**I**-61,63,65	-	**I**-1, 62,64
Forage harvesters, self-propelled	**I**-58	-	-	**I**-59,60; **II**-41	**I**-61,63,65	**I**-44	**I**-62,64
Forest products, sales values	**I**-58	-	-	**I**-7,59,60; **II**-6	**I**-61,63,65	-	**I**-62,64
Foxtail millet seed	-	**II**-27	-	-	-	-	-
Fruit and tree nuts	**I**-58	**I**-33,35; **II**-32	-	**I**-59,60; **II**-2	**I**-50,52,54,55, 61,63,65	-	**I**-46,62,64
Fruits, tree nuts, and berries, sales value	**I**-58	-	-	**I**-2,40,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Fuels purchased, expense	**I**-58	-	-	**I**-1,4,40,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-62,64
Full owners	**I**-58	-	-	**I**-59,60	**I**-50,52,54,55, 61,63,65; **II**-46	-	**I**-47,62,64; **A, B**
G							
Gains, net income	**I**-58	-	-	**I**-5,59,60; **II**-4	**I**-54,61,63,65	-	**I**-62,64
Game or sport fish	-	-	**II** -23	-	-	-	-
Garden plants sold	-	**I**-37	-	-	-	-	-
Garlic	-	**I**-34; **II**-30	-	-	-	-	-
Gasoline, fuels and oils purchased, expense	**I**-58	-	-	**I**-1,4,40,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-1,62,64
Geese	-	-	**I**-27; **II**-13,14	-	-	-	-
Generated energy	-	-	-	-	-	**II**-44	-
Ginger root	-	**II**-28	-	-	-	-	-

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
Ginseng	-	**I**-34; **II**-30	-	-	-	-	-
Goats	**I**-58	-	**I**-31; **II**-17-20	**I**-2,40,59,60; **II**-2	**I**-61,63,65	-	**I**-46,62,64
Government payments, all	**I**-58	-	-	**I**-3,6,40,59,60; **II**-1,5	**I**-50, 52, 54, 55, 61,63,65	**I**-11	**I**-17,62,64
Grain and bean combines	**I**-58	-	-	**I**-44,59,60	**I**-61,63,65	-	**I**-62,64
Grain storage capacity	-	-	-	-	-	-	**I**-39; **II**-39
Grains, oilseeds, dry beans, and dry peas	**I**-58	-	-	**I**-2,40,59,60; **II**-2	**I**-61,63,65	**I**-41, **II**-40	**I**-62,64
Grapefruit	-	**I**-35; **II**-32	-	-	-	-	-
Grapes	**I**-58	**I**-35; **II**-32	-	**I**-59,60	**I**-61,63,65	-	**I**-46,62,64
Grass silage	-	**I**-32,33; **II**-27	-	-	-	-	-
Greenchop	**I**-58	**I**-32,33; **II**-25,27	-	**I**-59,60	**I**-61,63,65	-	**I**-1,62,64; **II**-1
Greenhouse fruits and berries	-	**I**-37; **II**-35	-	-	-	-	-
Greenhouse vegetables	-	**I**-37; **II**-35	-	**I**-37; **II**-2	-	-	-
Greenhouse tomatoes	-	**I**-37; **II**-35	-	-	-	-	-
Guar	-	**II**-28	-	-	-	-	-
Guavas	-	**I**-35; **II**-32	-	-	-	-	-
H							
Harvested cropland	**I**-8,9,58; **II**-8,9,46	**I**-1,33-39; **II**-1, 25-39	-	**I**-40,59,60	**I**-61,63,65; **II**-46-47,49	**I**-10,11,48; **II**-10	**I**-46-47,62,64
Hawaiian (see Native Hawaiian and Other Pacific Islander)							
Hay	**I**-58	**I**-32,33; **II**-27	-	**I**-59,60	**I**-61,63,65	-	**I**-46,62,64
Hay balers	**I**-58	-	-	**I**-44,59,60	**I**-61,63,65	**I**-44	**I**-62,64
Haylage, grass silage, and greenchop hay	-	**I**-32,33; **II**-27	-	-	-	-	**I**-1
Hazelnuts (Filberts)	-	**I**-35; **II**-32	-	-	-	-	-
Head lettuce	-	**I**-34**; II**-30	-	-	-	-	-
Heifers	**I**-58	-	**I**-12,14-17	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Herbs	-	**I**-34,37; **II**-28,30,35	-	-	-	-	-
Hired farm labor	**I**-58	-	-	**I**-1,4,40,59,60; **II**-3,7	**I**-61,63,65	**I**-11	**I**-62,64
Hired managers	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54-55, 61, 63,65	-	**I**-62,64
Hispanic (see Spanish, Hispanic or Latino origin)							
Hogs and pigs	**I**-58	-	**I**-1,19-26; **II**-1,12	**I**-2,40,59,60; **II**-2	**I**-61,63,65	**I**-11,41; **II**-40	**I**-62, 64
Honey collected	-	-	**I**-31; **II**-21	-	-	-	-
Honeydew melons	-	**I**-34; **II**-30	-	-	-	-	-
Hops	-	**I**-33; **II**-28	-	-	-	-	-
Horseradish	-	**I**-34; **II**-30	-	-	-	-	-
Horses and ponies	**I**-58	-	**I**-31; **II**-15	**I**-59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Horses, ponies, mules, burros, and donkeys, sales value	**I**-58	-	-	**I**-2,40,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Household income, percent from farming	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-62,64
Households sharing in farm income	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54-55, 61, 63,65	-	**I**-62,64
I							
Income from farm-related sources	**I**-58	-	-	**I**-1,7,59,60; **II**-1,6	**I**-61,63,65	**I**-11	**I**-47,62,64
Insects, chemical control	**I**-58	-	-	**I**-59,60	**I**-61,63,65	**I**-45**;II**-42	**I**-62,64

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
Institutional farms	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-1,47,62,64
Insurance payments	**I**-8,58**;** **II**-8	-	-	**I**-7,59,60; **II**-6	**I**-61,63,65	-	**I**-62,64
Interest expenses	**I**-58	-	-	**I**-1,4,40,59,60; **II**-3	**I**-41, 58, 61, 63, 65	**I**-11	**I**-1,62,64; **II**-46
Internet access	**I**-58	-	-	**I**-59,60; **II**-2	**I**-50, 52, 54, 55, 61, 63,65	-	**I**-1,62,64; **II**-46
Irrigated land	**I**-9,58	**I**-33; **II**-25	-	**I**-59,60	**I**-61,63,65	**I**-10,11; **II**-10	**I**-47,62,64; **II**-1
J							
Jojoba	-	**II**-28	-	-	-	-	-
K							
Kale	-	**I**-34; **II**-30	-	-	-	-	-
Kentucky bluegrass seed	-	**II**-27	-	-	-	-	-
Kiwifruit	-	**I**-35; **II**-32	-	-	-	-	-
Kumquats	-	**I**-35; **II**-32	-	-	-	-	-
L							
Labor expense, hired	**I**-58	-	-	**I**-1,4,59,60; **II**-3,7	**I**-61,63,65	**I**-11	**I**-1,62,64
Ladino clover seed	-	**II**-27	-	-	-	-	-
Land and buildings, estimated market value	**I**-58; **II**-8	-	-	**I**-42,59,60	**I**-61,63,65	**I**-11	**I**-1, 46-47, 62, 64
Land in farms, acres	**I**-1, 8, 9, 58; **II**-8	-	-	**I**-40,59,60	**I**-50,52,54,55, 61, 63,65; **II**-46, 48, 49, 50,51,52,53,54, 55,56	**I**-11,48	**I**-46 47, 62, 64; **A-C**
Land owned	**I**-58	-	-	**I**-59,60	**I**-61,63,65; **II**-46	**I**-11	**I**-62,64
Land rented or leased to others	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-62,64; **II**-46
Land use	**I**-1,8,58	-	-	**I**-59,60	**I**-61,63,65	**I**-11	**I**-1, 46, 47, 62, 64
Land used for vegetables	**I**-58; **II**-29	**I**-33; **II**-29	-	**I**-59,60	**I**-61,63,65	-	**I**-1,62,64
Land used to raise certified organic crops	**I**-58	**I**-48; **II**-43	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Landlord's share of production expenses	**I**-58	-	-	**I**-4,59,60	**I**-61,63,65	-	**I**-62,64
Landlord's share of sales	**I**-58	-	-	**I**-2,59,60	**I**-61,63,65	-	**I**-62,64
Latino (see Spanish, Hispanic or Latino origin)							
Layers	**I**-58	-	**I**-27; **II**-13	**I**-59,60	**I**-61,63,65	-	**I**-1,62,64; **II**-1
Leaf lettuce	-	**I**-34; **II**-30	-	-	-	-	-
Lemons	-	**I**-35; **II**-32	-	-	-	-	-
Lentils	-	**I**-33; **II**-26	-	-	-	-	-
Lespedeza seed	-	**II**-27	-	-	-	-	-
Lettuce, all	-	**I**-34; **II**-30	-	-	-	-	-
Lima beans- Green	-	**I**-34; **II**-30	-	-	-	-	-
Dry	-	**II**-26	-	-	-	-	-
Limes	-	**I**-35; **II**-32	-	-	-	-	-
Livestock and poultry purchased, expense	**I**-58	-	-	**I**-1,4,11,40,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-1,62,64;
Livestock inventory	**I**-58	-	-	**I**-59,60	**I**-61,63,65	**I**-11	**I**-1, 62,64
Livestock, poultry, and their products, value	-	-		**I**-2; **II**-2	**I**-50,52,54-55	**I**-11	**I**-1,47; **II**-1

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
Llamas	-	-	**I**-31; **II**-24	-	-	-	-
Loan deficiency payments	-	-	-	**I**-6	-	-	-
Loganberries	-	**I**-36; **II**-34	-	-	-	-	-
Losses, net income	**I**-58	-	-	**I**-5,59,60; **II**-4	**I**-61,63,65	-	**I**-62,64
M							
Macadamia nuts	-	**I**-35; **II**-32	-	-	-	-	-
Machinery and equipment-							
Estimated market value	**I**-58	-	-	**I**-1,43,59,60; **II**-41	**I**-61,63,65	**I**-11	**I**-46, 47, 62,64; **II**-1
Rent and lease expense	**I**-58	-	-	**I**-59,60; **II**-3,5	**I**-61,63,65	**I**-11	**I**-1,62,64
Mangoes	-	**I**-35; **II**-32	-	-	-	-	-
Manure applied	**I**-58	-	-	**I**-59,60	**I**-61,63,65	**I**-45; **II**-42	**I**-62,64
Maple syrup	-	**I**-38; **II**-38	-	-	-	-	-
Market value of agricultural products	**I**-58	-	-	**I**-1-3,40,59,60; **II**-1,2	**I**-50,54,55,61, 63,65	**I**-11,41	**I**-1,47, 62,64; **II**-1; **A-C**
Meat and other goats	-	-	**I** -31; **II** -20	-	-	-	-
Melons	-	**I**-35; **II**-30	-	-	-	-	-
Migrant workers	**I**-58	-	-	**I**-59,60; **II**-2,5	**I**-61,63,65; **II**-7	-	**I**-62,64
Milk and dairy products, sales value	**I**-58	-	-	**I**-2,40,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Milk cows	**I**-58	-	**I**-1,11,12,17; **II**-1,11	**I**-59,60	**I**-61,63,65	-	**I**-1,62,64
Milk goats	-	-	**I**-31; **II**-18	-	-	-	-
Mink and their pelts	-	-	**I**-31; **II**-22	-	-	-	-
Mint for oil	-	**I**-33,34; **II**-28	-	-	-	-	-
Miscellaneous poultry	-	-	**I**-27; **II**-14	-	-	-	**I**-46
Mohair	-	-	**I**-31; **II**-19	-	-	-	-
Mollusks	-	-	**II**-23	-	-	-	-
More than one race, operators	**I**-58	-	-	**I**-59,60	**I**-53,54,56, 61, 63, 65; **II**-56	-	**I**-62,64; **A, B**
Mules, burros, and donkeys	-	-	**I**-31; **II**-24	-	-	-	-
Mushroom spawn	-	**I**-37; **II**-35	-	-	-	-	-
Mushrooms	-	**I**-34,37; **II**-30,35	-	-	-	-	-
Mustard greens	-	**I**-34; **II**-30	-	-	-	-	-
Mustard seed	-	**II**-26	-	-	-	-	-
N							
Native Hawaiian and Other Pacific Islander operators	**I**-58	-	-	**I**-59,60	**I**-53,54, 55, 56,57,61, 63, 65; **II**-54	-	**I**-62,64; **A,B**
Nectarines	-	**I**-35; **II**-32	-	-	-	-	-
Nematodes, chemical control	**I**-58	-	-	**I**-59,60	**I**-61,63,65	**II**-42	-
Net cash farm income of the operations and operators	**I**-58	-	-	**I**-5,59,60; **II**-4	**I**-61,63,65	-	**I**-62,64; **II**-1
Net gain	**I**-58	-	-	**I**-5,59,60; **II**-4,5	**I**-61,63,65	-	**I**-62,64; **B**
Net loss	**I**-58	-	-	**I**-5,59,60; **II**-4,5	**I**-61,63,65	-	**I**-62,64; **B**
Noncitrus fruit, all	-	**I**-35; **II**-32	-	-	-	-	**I**-46
Nonirrigated farms	-	-	-	-	-	**I**-11	-
Nonresponse adjustment	-	-	-	-	-	-	**A - C**

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
North American Industry Classification System (NAICS) -							
All other animal production (11299)	-	-	-	-	-	-	**I** -46
All other crop farming (11199)	-	-	-	-	-	-	**I** -46
Animal aquaculture (1125)	-	-	-	-	-	-	**I** -46
Animal aquaculture and other animal production (1125,1129)	**I**-58	-	-	**I**-59,60	**I**- 50, 52, 54, 55, 61, 63, 65	-	**I**-46, 47, 62, 64; **II** - 45
Animal production (112)	-	**I**-39	-	-	-	-	**I** -46
Apiculture (11291)	-	-	-	-	-	-	**I**-46
Apple orchards (111331)	-	-	-	-	-	-	**I**-46
Beef cattle ranching and farming including feedlots (11211)	-	-	-	-	-	-	**I**-46
Beef cattle ranching and farming (112111)	**I**-58	-	-	**I**-59,60	**I**- 50, 52, 54, 55, 61, 63, 65	-	**I**-46, 47, 62, 64; **II** - 45
Berry (except strawberry) farming (111334)	-	-	-	-	-	-	**I**-46
Broilers and other meat-type chicken production (11232)	-	-	-	-	-	-	**I**-46
Cattle feedlots (112112)	**I**-58	-	-	**I**-59,60	**I**- 50, 52, 54, 55, 61, 63, 65	-	**I**-46, 47, 62, 64; **II** - 45
Cattle ranching and farming (1121)	-	-	-	-	-	-	**I**-46
Chicken egg production (11231)	-	-	-	-	-	-	**I**-46
Citrus (except orange) groves (11132)	-	-	-	-	-	-	**I**-46
Corn farming (11115)	-	-	-	-	-	-	**I**-46
Cotton farming (11192)	**I**-58	-	-	**I**-59,60	**I**- 50, 52, 54, 55, 61, 63, 65	-	**I**-46, 47, 62, 64; **II** - 45
Crop farming, all other (11199)	**I**-58	-	-	**I**-59,60	**I**-50,52,54,55	**I**-61,63,65	**I**-46,62,64; **II**-45
Crop production (111)	-	**I**-39; **II**-39	-	-	-	-	**I**-46
Dairy cattle and milk production (11212)	**I**-58	-	-	**I**-59, 60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-46,62,64; **II**-45
Dry pea and bean farming (11113)	-	-	-	-	-	-	**I**-46
Floriculture production (111422)	-	-	-	-	-	-	**I**-46
Food crops grown under cover (11141)	-	-	-	-	-	-	**I**-46
Fruit and nut combination farming (111336)	-	-	-	-	-	-	**I**-46; **II**-45
Fruit and tree nut farming (1113)	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-46, 47, 62, 64; **II**-45
Fur-bearing animal and rabbit production (11293)	-	-	-	-	-	-	**I**-46
Goat farming (11242)	-	-	-	-	-	-	**I**-46
Grape vineyards (111332)	-	-	-	-	-	-	**I**-46
Greenhouse, nursery, and floriculture production (1114)	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-46, 47, 62, 64; **II**-45
Hay farming (11194)	-	-	-	-	-	-	**I**-46
Hog and pig farming (1122)	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-46, 47, 62, 64; **II**-45
Horse and other equine production (11292)	-	-	-	-	-	-	**I**-46
Noncitrus fruit and tree nut farming (11133)	-	-	-	-	-	-	**I**-46
Nursery and floriculture production (11142)	-	-	-	-	-	-	**I**-46
Nursery and tree production (111421)	-	-	-	-	-	-	**I**-46
Oilseed and grain farming (1111)	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-46, 47, 62, 64; **II**-45
Oilseed (except soybean) farming (11112)	-	-	-	-	-	-	**I**-46

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
Orange groves (11131)	-	-	-	-	-	-	**I**-46
Other animal production (1129)	-	-	-	-	-	-	**I**-45; **II**-45
Other crop farming (1119)	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-46, 47, 62, 64; **II**-45
Other grain farming (11119)	-	-	-	-	-	-	**I**-46
Other noncitrus fruit farming (111339)	-	-	-	-	-	-	**I**-46
Other poultry production (11239)	-	-	-	-	-	-	**I**-46
Other vegetable (except potato) and melon farming (11219)	-	-	-	-	-	-	**I**-46
Potato farming (111211)	-	-	-	-	-	-	**I**-46
Poultry and egg production (1123)	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-46, 47, 62, 64; **II**-45
Poultry hatcheries (11234)	-	-	-	-	-	-	**I**-46
Rice farming (11116)	-	-	-	-	-	-	**I**-46
Sheep and goat farming (1124)	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-46, 47, 62, 64; **II**-45
Sheep farming (11241)	-	-	-	-	-	-	**I**-46
Soybean farming (11111)	-	-	-	-	-	-	**I**-46
Strawberry farming (111333)	-	-	-	-	-	-	**I**-46
Sugar cane farming, hay farming and all other crop farming (11193, 11194, 11195)	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-47, 62, 64; **II**-45
Sugarcane farming (11193)	**I**-58	-	-	**I**-59,60	**I**-61,63,65	-	**I**-46,62,64
Tobacco farming (11191)	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-46, 47, 62, 64; **II**-45
Tree nut farming (111335)	-	-	-	-	-	-	**I**-46
Turkey production (11233)	-	-	-	-	-	-	**I**-46
Vegetable and melon farming (11121)	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-46, 47, 62, 64; **II**-45
Wheat farming (11114)	-	-	-	-	-	-	**I**-46
Number of farms	**I**-1, 8, 9, 58; **II**-8,9	**II** -32, 36-37	**I**-12-31; **II**-11-24	**I**-40,44,59; **II**-2,41	**I**-50,52-55, 61, 63,65; **II**-46	**I**-10,11,41; **II**-10, 40	**I**-1,46-47, 62, 64; **II**-1,2; **A-C**
Number of households sharing farm income	**I**-58	-	-	**I**-59	**I**-50, 52,54-55, 61, 63, 65	-	**I**-62,64
Number of operators	**I**-58	-	-	**I**-59,60	**I**-49-57, 61, 63,65; **II**-46-56	-	**I**-62,64
Number of persons living in operator's household	**I**-58	-	-	**I**-59,60	**I**-49,51,53, 54, 56-57, 61, 63, 65	-	**I**-62,64
Nursery crops	-	**I**-37; **II**-35	-	**II**– 2	-	-	-
Nursery, greenhouse, floriculture and sod, sales value	**I**-58	-	-	**I**-2,40,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Nursery stock	-	**I**-37; **II**-35	-	-	-	-	-
Nuts, all	-	**I**-35; **II**-32	-	-	-	-	-
O							
Occupation of operator	**I**-58	-	-	**I**-59,60	**I**-1,49, 51, 53, 56,57,61,63,65 **II**-1,46	**I**-48	**I**-62,64; **A,B**
Off-farm work by operator	**I**-58	-	-	**I**-59	**I**-61, 63, 65; **II**-46	-	**I**-1,62,64; **II**-1
Okra	-	**I**-34; **II**-30	-	-	-	-	-
Olives	-	**I**-35; **II**-32	-	-	-	-	-
Onions	-	**I**-34; **II**-30	-	-	-	-	-

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
Operator characteristics	**I**-58	-	-	**I**-59,60	**I**-49, 51, 53, 56,57,61,63,65 **II**-46	**I**-48	**I**-62,64; **A**
Operators -							
Age	**I**-58	-	-	**I**-59,60	**I**-1,49, 51, 53, 56-57, 61, 63, 65; **II**-46	**I**-48	**I**-62,64; **A,B**
All	-	-	-	-	**I**-49,52,54; **II**-46	-	**A, B**
American Indian or Alaska Native operators	**I**-58	-	-	**I**-59,60	**I**-51,53-57, 61,63,65; **II**-51	-	**I**-47,62,64; **A**, **B, D**
Asian	**I**-58	-	-	**I**-59,60	**I**-51,54-57, 61, 63, 65; **II**-52	-	**I**-47,62,64; **A, B**
Black or African American	**I**-58	-	-	**I**-59,60	**I**-51, 53-56, 61,63,65; **II**-53	-	**I**-47,62,64; **A, B**
Living on an American Indian reservation	**I**-58	-	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64; **D**
Native Hawaiian or Other Pacific Islander	**I**-58	-	-	**I**-59,60	**I**-51,53-57, 61, 63, 65; **II**-54	-	**I**-62,64; **A,B**
On farm	**I**-58	-	-	**I**-59,60	**I**-61, 63, 65; **II**-46	-	**I**-62,64
Primary occupation	**I**-58	-	-	**I**-59,60	**I**-1,49, 51, 53, 56,57,61,63,65 **II**-1,46	**I**-48	**I**-62,64; **A,B**
Principal Operator	**I**-58	-	-	**I**-59,60	**I**-49-54, 56, 61, 63, 65; **II**-46,47, 49-57	**I**-48	**I**-62,64; **A,B**
Race	**I**-58	-	-	**I**-59,60	**I**-51, 53-57, 61, 63, 65; **II** -56	-	**I**-62,64
Spanish, Hispanic, or Latino	**I**-58	-	-	**I**-59,60	**I**-51,52-54 61, 63, 65; **II**-50	-	**I**-62,64; **A,B**
White	**I**-58	-	-	**I**-59,60	**I**-51,53-57, 61,63,65; **II**-55	-	**I**-62,64; **A, B**
Women	**I**-58	-	-	**I**-59,60	**I**-50-52, 54, 55, 61,63,65; **II**-46	-	**I**-62,64
Oranges	-	**I**-35; **II**-32	-	-	-	-	-
Orchardgrass seed	-	**II**-27	-	-	-	-	-
Orchards, land in	**I**-58; **II**-31	**I**-1,32,33; **II**-1,25	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Organic agriculture	**I**-58	-	-	**I**-59,60	**I**-61,63,65	**I**-48; **II**-43	**I**-62,64
Ornamental fish	-	-	**II**-23	-	-	-	-
Ostriches	-	-	**I**-27; **II**-14	-	-	-	-
Other livestock and other animal products	**I**-58	-	**I**-12-17, 19, 21.22, 25-27,31; **II**-24	**I**-2,40,59,60; **II**-2	**I**-61,63,65	**I**-41	**I**-1,62,64
Other aquaculture products	-	-	**II**-23	-	-	-	-
Other berries	-	I-36; II-34	-	-	-	-	-
Other citrus	-	**I**-35; **II**-32	-	-	-	-	-
Other crops and hay	**I**-58	**I**-32-37; **II**-26-28, 30, 32, 34, 35	-	**I**-2,40,59,60; **II**-2	**I**-61,63,65	**I**-41	**I**-62,64
Other farm characteristics	-	-	-	-	**I**-50,52,54,55	-	-
Other farm production expenses	**I**-58	-	-	**I**-4,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-62,64
Other farm-related income	**I**-58	-	-	**I**-7,59,60; **II**-6	**I**-61,63,65	**I**-11	**I**-62,64
Other federal farm program payments	-	-	-	**I**-6; **II**-5	**I**-50,52,54,55	-	-
Other food fish	-	-	**II**- 23	-	-	-	-
Other livestock	-	-	**I**-31; **II**-24	-	-	-	-

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
Other livestock and poultry purchased	**I**-58	-	-	**I**-4,59,60; **II**-3	**I**-61,63,65	-	**I**-62,64
Other poultry	-	-	**I**-27; **II**-13-14	-	-	-	-
Other types of organizations	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65	-	**I**-1,62,64
Other vegetables	-	**I**-35; **II**-32	-	-	-	-	-
Owned land in farms	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65; **II**-46	**I**-11	**I**-62,64
P							
Pacific Islander (see Native Hawaiian and Other Pacific Islander)							
Papayas	-	**I**-35; **II**-32	-	-	-	-	-
Parsley	-	**I**-34; **II**-30	-	-	-	-	-
Part owners	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65; **II**-46,49	-	**I**-47,62,64; **A,B**
Partnerships	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65; **II**-46	-	**I**-1,62,64; **A,B**
Passion fruit	-	**I**-35; **II**-32	-	-	-	-	-
Pastureland	**I**-8,58; **II**-8	-	-	**I**-40,59,60	**I**-61,63,65	**I**-10,11,48; **II**-10,42,43	**I**-47,62,64
Patronage dividends and refunds from cooperatives	**I**-58	-	-	**I**-7,59,60; **II**-6	**I**-61,63,65	-	**I**-62,64
Payroll	-	-	-	**II** -7	-	-	-
Peaches	**I**-58	**I**-35; **II**-32	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Peanuts	**I**-58	**I**-1,32,33; **II**-1,25,26	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Pears	-	**I**-35; **II**-32	-	-	-	-	-
Peas - Chinese	-	**I**-34; **II**-30	-	-	-	-	-
Dry edible	**I**-58	**I**-33; **II**-26	-	-	-	-	-
Dry southern (cowpeas)	-	**II**-26	-	-	-	-	-
Green (excluding southern)	**I**-58	**I**-34; **II**-30	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Green southern (cowpeas)	-	**I**-34; **II**-30	-	-	-	-	-
Pecans	**I**-58	**I**-35; **II**-32	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Peppers	-	**I**-34; **II**-30	-	-	-	-	-
Percent of income from farming	**I**-58	-	-	**I**-59,60	**I**-52, 54, 55, 61, 63,65	-	**I**-62,64
Permanent pasture and rangeland	**I**-8,58; **II**-8	-	-	**I**-59,60	**I**-61,63,65	-	**I**-47,62,64
Persimmons	-	**I**-35; **II**-32	-	-	-	-	-
Pesticides, acres applied	**I**-58	-	-	**I**-59,60	-	**II**-42	**I**-62,64
Pheasants	-	-	**I**-27; **II**-14	-	-	-	-
Pigeons or squab	-	-	**I**-27; **II**-14	-	-	-	-
Pima cotton	-	**I**-32,33; **II**-1,26	-	-	-	-	-
Pineapples	-	**I**-1,33; **II**-1,25,28	-	-	-	-	-
Pistachios	-	**I**-35; **II**-32	-	-	-	-	-
Place of residence	**I**-58	-	-	**I**-59,60	**I**-49, 51, 53, 56,57,61,63,65 **II**-46	**I**-48	**I**-62,64
Plums and Prunes	-	**I**-35; **II**-32	-	-	-	-	-
Pluots	-	**I**-35; **II**-32	-	-	-	-	-

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
Pomegranates	-	**I**-35; **II**-32	-	-	-	-	-
Popcorn	-	**I**-33; **II**-26	-	-	-	-	-
Potatoes	**I**-58	**I**-1,34; **II**-1,30	-	**I**-2,40,59,60; **II**-2	**I**-61,63,65	**I**-41; **II**-40	**I**-62,64
Potted flowering plants	-	**I**-37; **II**-35	-	-	-	-	-
Poultry	**I**-58	-	**I**-27; **II**-13,14	**I**-2,40,59,60; **II**-2	**I**-61,63,65; **II**-46,50	**I**-41	**I**-62,64
Poultry hatched	-	-	**II**-14	-	-	-	-
Primary occupation (see Operator, primary occupation)							
Principal operator (see Operator)							
Production contracts	-	-	-	-	-	**I**-41; **II**-40	-
Property taxes paid, expense	**I**-58	-	-	**I**-4,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-62,64
Proso millet	-	**I**-33; **II**-26	-	-	-	-	-
Prunes	-	**I**-35; **II**-32	-	-	-	-	-
Pullets for laying flock replacement	**I**-58	-	**I**-27; **II**-13	**I**-59,60	**I**-61,63,65	**I**-41; **II**-40	**I**-62,64
Pumpkins	-	**I**-34; **II**-30	-	-	-	-	-
Q							
Quail	-	-	**I**-27; **II**-14	-	-	-	-
R							
Rabbits and their pelts	-	-	**I**-31; **II**-24	-	-	-	-
Race of operator	**I**-58	-	-	**I**-59,60	**I**-51,53,54-57,61,63,65; **II**-51-56	-	**I**-62,64; **A,B**
Radishes	-	**I**-34; **II**-30	-	-	-	-	-
Rapeseed	-	**II**-26	-	-	-	-	-
Raspberries	-	**I**-36; **II**-34	-	-	-	-	-
Recreational services income	**I**-58	-	-	**I**-7,59,60; **II**-6	**I**-61,63,65	-	**I**-62,64
Red clover seed	-	**II**-27	-	-	-	-	-
Redtop seed	-	**II**-27	-	-	-	-	-
Reliability estimates	-	-	-	-	-	-	**B**
Rent and lease expenses for machinery, equipment, and farm share of vehicles	**I**-58	-	-	**I**-4,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-62,64
Rent or share payments income	**I**-58	-	-	**I**-7,59,60; **II**-6	**I**-61,63,65	-	**I**-62,64
Rented or leased land	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61, 63,65; **II**-46	**I**-11	**I**-62,64
Rhubarb	-	**I**-34; **II**-30	-	-	-	-	-
Rice	**I**-58	**I**-1,32,33; **II**-1,25,26	-	**I**-2,59,60; **II**-2	**I**-61,63,65	-	**I**-46,62,64
Romaine lettuce	-	**I**-34; **II**-30	-	-	-	-	-
Rotational or management intensive grazing	-	-	-	-	**II**-44	-	-
Rye for grain	-	**I**-33; **II**-26	-	-	-	-	-
Ryegrass seed	-	**I**-33; **II**-27	-	-	-	-	-
S							
Safflower	-	**I**-33; **II**-26	-	-	-	-	-
Seed harvested	**I**-58	**I**-33,37; **II**-25-27,35	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Seedlings	-	**I**-37; **II**-35	-	-	-	-	-

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
Seeds, plants, vines, and trees, expense	**I**-58	-	-	**I**-4,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-62,64
Sesame	-	**II**-28	-	-	-	-	-
Sex of operator	**I**-58	-	-	**I**-59,60	**I**-49, 53, 56, 57, 61,63,65; **II**-46	**I**-48	**I**-62,64; **A, B**
Share payments (see Rent)							
Sheep and lambs	**I**-58	-	**I**-28-30; **II**-1,16	**I**-2,40,59,60; **II**-2	**I**-50, 52, 54, 61, 63, 65	**I**-11; **II**-44	**I**-62,64; **II**-1,46,47
Sheep, goats, and their products, sales value	**I**-58	-	-	**I**-2,40,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Short rotation woody crops	**I**-58	**I**-38; **II**-37	-	**I**-2,7,40,59; **II**-2,6	**I**-61,63,65	-	**I**-62,64
Silage	**I**-58	**I**-1,32,33; **II**-1,25,27	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Small grain hay	-	**I**-32,33; **II**-27	-	-	-	-	-
Sod	-	**I**-37; **II**-35	-	**I**-2,40	-	-	-
Soil conditioners	**I**-58	-	-	**I**-1,4,40,59,60; **II**-2	**I**-61,63,65	**I**-11,45; **II**-42	**I**-62,64
Sorghum	**I**-58	**I**-1,32-33; **II**-1, 25, 26, 27, 28	-	**I**-2,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Soybeans	**I**-58	**I**-1,32,33; **II**-1,25,26	-	**I**-2,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Spanish, Hispanic or Latino origin, operators	**I**-58	-	-	**I**-59,60	**I**-51,52-53,55, 61, 63, 65; **II**-50	-	**I**-62,64; **A,B**
Spearmint for oil	-	**II**-28,34	-	-	-	-	-
Specified fruits and nuts, acres	-	**I**-35; **II**-32	-	-	-	-	-
Spinach	-	**I**-34; **II**-30	-	-	-	-	-
Sport or game fish	-	-	**II**-23	-	-	-	-
Spring wheat, other	-	**I**-1,32-33; **II**-1,26	-	-	-	-	-
Squab (see Pigeons)	-	-	**I**-27; **II**-14	-	-	-	-
Squash	-	**I**-34; **II**-30	-	-	-	-	-
State and local government program payments	**I**-58	-	-	**I**-7,59,60; **II**-6	**I**-61,63,65	-	**I**-62,64
Stockholders in farm corporation	**I**-58	-	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Strawberries	-	**I**-36; **II**-34	-	-	-	-	-
Sudangrass seed	-	**II**-27	-	-	-	-	-
Sugarbeets	**I**-58	**I**-1,32,33; **II**-1,25,26	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Sugarcane	**I**-58	**I**-1,32,33; **II**-1,25,26	-	**I**-59,60	**I**-50, 52, 54, 61, 63, 65	-	**I**-46, 47, 62, 64; **II**-1
Summer squash	-	**I**-34; **II**-30	-	-	-	-	-
Sunflower seed	**I**-58	**I**-1,33; **II**-1,25,26	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Supplies, repairs and maintenance, expense	**I**-58	-	-	**I**-4,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-62,64
Sweet corn	**I**-58	**I**-34; **II**-28,30	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Sweet potatoes	**I**-58	**I**-1,34; **II**-30	-	**I**-2,40,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64; **II**-1
Sweetclover seed	-	**II**-1,27	-	-	-	-	-
T							
Tame hay, other	**I**-58	**I**-32,33; **II**-27	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Tangelos	-	**I**-35; **II**-32	-	-	-	-	-
Tangerines	-	**I**-35; **II**-32	-	-	-	-	-

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
Taps, maple syrup	-	**I**-38; **II**-38	-	-	-	-	-
Taro	-	**II**-28	-	-	-	-	-
Taxes, property	**I**-58	-	-	**I**-4,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-62,64
Temples	-	**I**-35; **II**-32	-	-	-	-	-
Tenants	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65; **II**-46,49	-	**I**-47,62,64; **A,B**
Tenure of operator	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65; **II**-46,49	-	**I**-47,62,64; **A,B**
Timothy seed	-	**II**-27	-	-	-	-	-
Tobacco	**I**-58	**I**-1,32,33; **II**-1,25,26	-	**I**-2,40,59,60; **II**-2	**I**-61,63,65	-	**I**-46, 47, 62, 64; **II**-1,45
Tobacco transplants	-	**I**-37; **II**-35	-	-	-	-	-
Tomatoes	**I**-58	**I**-34; **II**-30	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Tomatoes, greenhouse	-	**I**-37; **II**-35	-	-	-	-	-
Total cropland	**I**-1,8,58; **II**-1,8	-	-	**I**-40,59,60	**I**-61,63,65	**I**-11	**I**-47,62,64
Total farm production expenses	**I**-58	-	-	**I**-4,40,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-1,47,62,64; **II**-1
Total sales	**I**-58	-	-	**I**-2,59,60; **II**-2	**I**-61,63,65	-	**I**-62,64
Total woodland	**I**-8,58; **II**-8	-	-	**I**-59,60	**I**-61,63,65	-	**I**-47,62,64
Tractors	**I**-58	-	-	**I**-44,59,60; **II**-41	**I**-61,63,65	-	**I**-62,64
Triticale	-	**II**-26	-	-	-	-	-
Trout	-	-	**II**-23	-	-	-	-
Trucks	**I**-58	-	-	**I**-44,59,60; **II**-41	**I**-61,63,65	-	**I**-44,62,64
Tubers	-	**I**-37	-	-	-	-	-
Turkeys	**I**-58	-	**I**-27; **II**-13	**I**-59,60	**I**-61,63,65	**I**-41; **II**-40	**I**-62,64
Turnip greens	-	**I**-34; **II**-30	-	-	-	-	-
Turnips	-	**I**-34; **II**-30	-	-	-	-	-
Type of organization	**I**-58	-	-	**I**-59,60	**I**-50, 52, 54, 55, 61,63,65; **II**-46	-	**I**-1,62,64;**A,B**
Typology of farm	**I**-58	-	-	**I**-59,60	**I**-61,63,65; **II**-46	-	**I**-62,64
U							
Upland cotton	-	**I**-1,32,33; **II**-1,26	-	-	-	-	-
Utilities, expense	**I**-58	-	-	**I**-4,40,59,60; **II**-3	**I**-61,63,65	**I**-11	**I**-62,64
V							
Valencia oranges	-	**I**-35; **II**-32	-	-	-	-	-
Value Added Commodities	-	-	-	-	-	**II** -44	-
Value of -							
Agricultural products sold	-	-	-	**I**-3; **II**-2	-	**I**-11	**I**-1; **II**-2
Commodities under production contract	-	-	-	-	-	**I**-41	-
Land and buildings	**I**-58; **II**-8	-	-	**I**-40,42,59,60	**I**-61,63,65	**I**-11	**I**-1, 46, 47, 62, 64; **II**-1
Landlord's share of total sales	**I**-58	-	-	**I**-2,40,59,60	**I**-61,63,65	-	**I**-62,64
Machinery and equipment	**I**-58	-	-	**I**-40,43,59,60; **II**-41	**I**-61,63,65	**I**-11	**I**-1, 46, 47, 62, 64; **II**-1
Organic product sales	**I**-58	-	-	**I**-40,59,60	**I**-61,63,65	**I**-48; **II**-43	**I**-62,64

Item	Land	Crops	Livestock	Economics	Demo-graphics	Practices	Misc.
Sales	**I**-58	**I**-37; **II**-35	**I**-13-18,20-22,31; **II**-23	**I**-1-3,40,59,60; **II**-1-2	**I**-50, 52, 54, 55, 61,63,65; **II**-47	**I**-11,41,48; **II**-43	**I**-1,46, 47, 62, 64; **A-C**
Veal calves	-	-	-	-	-	**II**-44	-
Vegetable seeds	-	**I**-37; **II**-35	-	-	-	-	-
Vegetable transplants	-	**I**-37; **II**-35	-	-	-	-	-
Vegetables	**I**-58	**I**-1,32-34,37; **II**-1,25, 29, 30, 35	-	**I**-2,40,59,60; **II**-2	**I**-61,63,65	**I**-41; **II**-40	**I**-62,64
Vetch seed	-	**II**-27	-	-	-	-	-
W							
Walnuts, English	**I**-58	**I**-35; **II**-32	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Watercress	-	**I**-34; **II**-30	-	-	-	-	-
Watermelons	-	**I**-34; **II**-30	-	-	-	-	-
Weeds, grass, or brush, chemical control	**I**-58	-	-	**I**-59,60	**I**-61,63,65	**I**-45; **II**-42	**I**-62,64
Wetlands Reserve Program	**I**-8,58; **II**-8	-	-	**I**-6,59,60; **II**-5	**I**-50, 52, 54, 55, 61,63,65	**I**-11	**I**-62,64
Wheat -							
All	**I**-58	**I**-1,32,33; **II**-25,26	-	**I**-2,59,60; **II**-2	**I**-61,63,65	-	**I**-1,46,62,64; **II**-1
Durum	-	**I**-1,32,33,34; **II**-1,26	-	-	-	-	-
Other spring	-	**I**-1,32,33,34; **II**-1,26	-	-	-	-	-
Winter	-	**I**-1,32,33,34; **II**-1,26	-	-	-	-	-
Wheatgrass seed	-	**II**-27	-	-	-	-	-
White clover seed	-	**II**-27	-	-	-	-	-
White operators	**I**-58	-	-	**I**-59,60	**I**-51,53-57, 61,63,65; **II**-55	-	**I**-62,64; **A, B**
Wild hay	-	**I**-32-33; **II**-27	-	-	-	-	-
Wild rice	-	**II**-26	-	-	-	-	-
Winter squash	-	**I**-34; **II**-30	-	-	-	-	-
Women operators	**I**-58	-	-	-	**I**-49, 50, 51, 54, 57,61, 63, 65; **II**-46-49	**I**-48	**I**-62,64
Woodland crops	**I**-58	**I**-38; **II**-36-38	-	**I**-59,60	**I**-61,63,65	-	**I**-62,64
Woodland, total	**I**-8,58; **II**-8	-	-	**I**-59,60	**I**-61,63,65	-	**I**-47,62,64
Wool production	-	-	**I**-28,29,30; **II**-16	-	-	-	-
Y							
Years on present farm	**I**-58	-	-	**I**-59,60	**I**-49, 51, 53, 56, 57, 61, 63,65; **II**-46	**I**-48	**I**-62,64

Acknowledgments

This report was prepared under the direction of the U.S. Department of Agriculture (USDA), National Agricultural Statistics Service (NASS). Many people contributed to the success of the 2007 Census of Agriculture and deserve recognition for their efforts.

NASS pays special tribute to the farm and ranch operators who furnished the information requested. Their cooperation and support helped make the 2007 Census of Agriculture the most successful count in history.

NASS acknowledges and appreciates the advice and support from the Puerto Rico Commonwealth's Department of Agriculture, **Gabriel Figueroa,** Secretary, **Ana M. Cruz**, Director Office of Statistics; the College of Agricultural Science; and the USDA Cooperative State Research, Education, and Extension Service at the University of Puerto Rico, **Dr. John Fernández Van Cleve**, Dean and Director, **Dr. Gladys González,** Associate Dean for Faculty, **Ariel Ramírez**, Associate Dean for Extension, **Dr. Jorge Gonzalez,** Director of Agricultural Economy and Rural Sociology Department, **Luis Mejía,** Assistant Dean**, Lucas Avilés,** Director of Budget Office, and **Rafael F. Olmeda,** Program Leader in Agriculture, Marketing and Natural Resources. They made significant contributions to the content determination, data collection, and promotional phases of this census.

Members of the Inter-Agency Working Group, under the leadership of the Puerto Rico Planning Board, made significant recommendations that helped establish data content. NASS appreciates the group's strong and consistent support for census programs.

NASS acknowledges the services provided by the U.S. Department of Commerce, National Processing Center in Jeffersonville, Indiana.

Numerous farm organizations and media outlets were also instrumental in building awareness of the census and encouraging farmers and ranchers to participate.

Detailed census of agriculture information is available online at www.agcensus.usda.gov. Information about NASS and its programs is available at www.nass.usda.gov. You can also call (800) 727-9540 or email nass@nass.usda.gov.

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Reconocimiento

Este informe sobre el censo agrícola fue preparado bajo la dirección del Servicio Nacional de Estadísticas Agrícolas del Departamento de Agricultura Federal. Muchas personas contribuyeron al éxito del Censo de Agricultura de 2007 y merecen reconocimiento por su contribución.

NASS rinde tributo a los miles de agricultores en Puerto Rico quienes proveyeron la información requerida. Mediante su cooperación y apoyo contribuyeron a que el Censo Agrícola de 2007 fuera el mejor conteo en la historia de los censos.

NASS reconoce y aprecia la ayuda y apoyo de: el Departamento de Agricultura del Estado Libre Asociado de Puerto Rico, **Gabriel Figueroa**, Secretario, **Ana M. Cruz**, Directora Oficina de Estadísticas, el Colegio de Ciencias Agrícolas y el Servicio de Extensión Agrícola de la Universidad de Puerto Rico, **Dr. John Fernández Van Cleve**, Decano y Director, **Dra. Gladys González,** Decana Asociada de Facultad, **Ariel Ramírez**, Decano Asociado de Extensión, **Dr. Jorge González**, Director del Departamento de Economía Agrícola y Sociología Rural, **Luis Mejía**, Decano Auxiliar, **Lucas Avilés,** Director Oficina de Presupuesto y **Rafael F. Olmeda,** Líder del Programa de Agricultura, Mercadeo y Recursos Naturales**,** contribuyeron significativamente al contenido del formulario, la recopilación de los datos y a la fase publicitaria del censo.

Al comité Inter-Agencial, bajo la dirección de la Junta de Planificación, quien proveyó información valiosa para determinar el contenido del formulario censal. NASS agradece el valioso y consistente apoyo del grupo para con el programa del censo.

Al Negociado del Censo en el Departamento de Comercio de los EE.UU. y su Centro de Procesamiento en Jeffersonville, IN, quien proveyó servicios valiosos.

Varias organizaciones agrícolas y de la prensa en general dieron publicidad al censo y exhortaron la cooperación y apoyo de los agricultores.

Si usted desea obtener más información sobre las estadísticas disponibles a través de NASS, búsquenos en la Internet en www.agcensus.usda.gov o envíenos correo electrónico a www.nass.usda.gov o llámenos al 1-800-727-9540.

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HISTORY

For more than 150 years, the U.S. Department of Commerce, Bureau of the Census, conducted the census of agriculture. However, the 1997 Appropriations Act transferred the responsibility from the Bureau of the Census to the U.S. Department of Agriculture (USDA), National Agricultural Statistics Service (NASS).

The census of agriculture is taken to obtain agricultural statistics for each county, State (including territories and protectorates), and the Nation. The first U.S. agricultural census data were collected in 1840 as a part of the sixth decennial census. From then to 1920, an agricultural census was taken as a part of each decennial census. Since 1920, a separate national agricultural census has been taken every 5 years.

In Puerto Rico, the 2007 Census of Agriculture was taken in accordance with a Cooperative Agreement signed by NASS, the Puerto Rico Department of Agriculture, and the University of Puerto Rico Extension Service. It is the Island's 16th census of agriculture, with the first being taken in 1910. From then to 1950, a census of agriculture was taken every 10 years in conjunction with the decennial censuses. In 1935, a special census of Puerto Rico was taken by the Puerto Rican Reconstruction Administration. In 1957, an amendment was made to the law to include Puerto Rico in the quinquennial national census of agriculture. The first census under this amendment was taken in 1959, separately from the 1960 decennial census. From 1959 to 1974, a census of agriculture was taken for the years ending in 4 and 9. In 1976, Congress authorized the census of agriculture to be taken for 1978 and 1982 to adjust the data reference year so that it coincided with other economic censuses. This adjustment in timing established the agriculture census on a 5-year data collection cycle for the years ending in 2 and 7.

Data for previous censuses in Puerto Rico had been collected on a fiscal year basis, rather than on a calendar year basis. The 1997 Census of Agriculture was the last one taken using this approach. Data were collected for a 12 - month period beginning in July 1, 1997 and ending June 30, 1998. Because of that, the reference year on the publication was changed to 1998, to more accurately reflect the collection period. This was a change from the past practice of using the years 2 and 7 in the publication title.

To avoid this type of complication, and at the request of the local government agencies and other data users, the 2002 Census of Agriculture for Puerto Rico was the first taken on a calendar year basis, bringing the Puerto Rico census on line with the United States. The 2007 census follows the same path as the 2002.

CENSUS USES

The census of agriculture is the leading source of statistics about Puerto Rico's agricultural production and the only source of consistent, comparable data at the municipio level. Census statistics are used by Congress to develop and change farm programs, study historical trends, assess current conditions, and plan for the future. Many local programs use census data as a benchmark for designing and evaluating surveys. Government agencies, such as the Puerto Rico Department of Agriculture, use census data to estimate losses and damages caused by natural disasters such as plagues, hurricanes, flooding, and severe droughts. Private industry uses census statistics to develop more effective production and distribution systems for the agricultural community.

AUTHORITY AND AREA COVERED

The census of agriculture is required by law under the "Census of Agriculture Act of 1997," Public Law 105-113 (Title 7, United States Code, Section 2204g). The law directs the U.S. Secretary of Agriculture to conduct a census of agriculture in 1997 and in every fifth year thereafter, covering the prior year. The census of agriculture includes each State, Puerto Rico, Guam, the U.S. Virgin Islands, American Samoa and the Commonwealth of Northern Mariana Islands.

The census data for Puerto Rico were collected in accordance with a Memorandum of Agreement approved by the Administrator of NASS and by the President of the Puerto Rico Planning Board. The census was conducted with the cooperation and assistance of the Puerto Rico Department of Agriculture, the University of Puerto Rico, and the Cooperative State Research, Education, and Extension Service.

FARM DEFINITION

The statistics collected in the census relate to places with agricultural operations qualifying as farms according to the census definition. In Puerto Rico, this included all places from which $500 or more of agricultural products were produced and sold, or normally would have been sold, during the 12-month period between January 1, 2007 and December 31, 2007.

COMPARABILITY OF DATA

Most data are comparable between the 2007 census and the 2002 census. Users of the 2007 Census of Agriculture for Puerto Rico should note that the farm definition determined by NASS may differ from other organizations that provide agricultural statistics. For this reason, data provided in this report may not be directly comparable to data provided by the Puerto Rico Department of Agriculture or other sources. In general, data for censuses prior to 1998 are not fully comparable because of changes in data collection methodology.

All dollar values are expressed in current dollars, i.e., 2007 data are expressed in 2007 dollars and 2002 data in 2002 dollars. The dollar values have not been adjusted for changes in price levels between census years. For other data changes between censuses, refer to the section on Major Data Changes in Appendix A.

TABULAR PRESENTATION

The three major groups of tables presented in this report are:

Puerto Rico-Tables 1 through 21 present data for major items for all farms. Most data in these tables are accompanied by historical data from the 2002 census.

Municipios-Tables 22 through 76 present more detailed data for major items for all farms by municipios, listed alphabetically, with totals for Puerto Rico.

Summary-Tables 77 through 82 shows more detailed information broken out by different farm and operator characteristics. Data in these tables are classified by tenure of operator, type of organization, primary occupation and age of operator, size of farm, market value of agricultural products sold, and type of farm.

SPECIAL TABULATIONS

Custom-designed tabulations can be developed to individual user specifications on a programming cost reimbursable basis. Inquiries about special tabulations should be directed to NASS Data Lab, Marketing and Information Services Office, NASS/USDA, Washington, DC 20250; by telephone on 1-800-727-9540; or by e-mail at nass@nass.usda.gov.

REFERENCE PERIODS

2007 inventories of livestock, poultry, and machinery, equipment, building, and facilities, and the number of agregados or sharecroppers families are the number on hand as of December 31, 2007. Similar data for 2002 are as of December 31, 2002. 2007 crop production, crop and livestock sales, expenses, farm related income, hired workers, irrigation, land and land use, and tenure data are for the calendar year. Similar data for 2002 are for the 12-month period ending December 31, 2002.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used throughout the tables:

-	Represents zero.
(D)	Withheld to avoid disclosing data for individual farms.
(NA)	Not available.
(X)	Not applicable.
(Z)	Less than half of the unit shown.
cwt	Hundredweight.
sq ft	Square feet.

HISTORIA

Por más de 150 años, el Negociado del Censo, bajo el Departamento de Comercio de los Estados Unidos, llevó a cabo el censo de agricultura. Sin embargo, el Acta de Apropiación de 1997 transfirió esta responsabilidad del Negociado del Censo al Servicio Nacional de Estadísticas Agrícolas (NASS por sus siglas en Inglés) en el Departamento de Agricultura Federal (USDA).

El censo de agricultura se lleva a cabo para obtener estadísticas agrícolas para cada municipalidad, cada Estado (incluyendo los territorios y protectorados) y la Nación. Información para el primer censo agrícola fue recopilada en el año 1840 como parte del sexto censo decenal. De 1840 al 1920, el censo agrícola formó parte del censo decenal. A partir de 1920, y a intervalos de 5 años, se ha estado llevando a cabo un censo agrícola nacional por separado.

En Puerto Rico, el Censo de Agricultura de 2007 se llevó a cabo mediante un acuerdo cooperativo entre el NASS, el Departamento de Agricultura del Estado Libre Asociado y el Servicio de Extensión Agrícola. Es el 16$^{to.}$ censo agrícola de Puerto Rico y el segundo llevado a cabo al unísono con el censo de la Nación. El primer censo de agricultura en Puerto Rico se tomó en el 1910. Desde entonces y hasta el 1950, el censo agrícola se tomó cada 10 años como parte del censo decenal. En el 1935, la Administración de Reconstrucción de Puerto Rico llevó a cabo un censo especial. En el 1957, se enmendó la ley para incluir a Puerto Rico en el censo agrícola quinquenal de la Nación. El primer censo bajo esta enmienda se llevó a cabo en el 1959, separado del censo decenal de 1960. Desde el 1959 hasta el 1974, se condujo un censo de agricultura para años que terminaban en 4 y en 9. En el 1976, el Congreso autorizó para que se tomara un censo de agricultura en el 1978 y en el 1982 para ajustar los datos del informe anual para que coincidieran con los censos económicos. Este ajuste del tiempo, puso al censo de agricultura en un ciclo de 5 años, recopilándose la información en años que terminan en 2 y en 7.

En Puerto Rico, la información para los censos anteriores se recopiló a base de año fiscal y no de un año calendario. El censo agrícola de 1997 fue el último censo tomado en año fiscal y presenta datos para la producción agrícola para el período de 12 meses entre el 1ro de julio de 1997 y el 30 de junio de 1998. Por esta razón el año de referencia en la publicación fue cambiado a 1998 para reflejar de forma más precisa el período de recopilación de la información. Este cambio nos sacó de la práctica de usar los años 2 y 7 en el título de la publicación.

Para evitar este tipo de complicación, y a pedido de las agencias del gobierno de Puerto Rico, el Censo Agrícola Federal de 2002, se tomó en año calendario, poniendo así el censo de Puerto Rico en línea con el de los Estados Unidos. El censo del 2007 siguió el mismo patrón que el censo de 2002.

USOS DEL CENSO

El censo de agricultura es la principal fuente estadística sobre la producción agrícola de Puerto Rico y la única fuente de información cotejable y consistente a nivel de municipio. El Congreso usa las estadísticas del censo para desarrollar programas agrícolas, analizar corrientes históricas, estudiar las condiciones actuales y planificar hacia el futuro. En Puerto Rico, entidades gubernamentales, tales como el Departamento de Agricultura, usan los datos del censo para estimar las pérdidas ocasionadas a la agricultura por desastres naturales tales como huracanes, inundaciones, sequías, plagas y epidemias. La industria privada usa las estadísticas del censo para fijar un sistema de producción y distribución más eficiente para la comunidad agrícola.

AUTORIDAD Y COBERTURA

El censo de agricultura es un requisito de ley establecido bajo el "Acta Sobre el Censo de Agricultura de1997," Ley Pública 105-113 (Título 7, Código de los Estados Unidos, Sección 2204g). Esta ley otorgó poderes al Secretario de Agricultura de los EE. UU. para llevar a cabo un censo agrícola en el 1997 y cada cinco años a partir de entonces, cubriendo el año anterior. El Censo Agrícola incluye cada estado de la Nación, Puerto Rico, Guam, las Islas Vírgenes de los EE. UU., American Samoa y las Islas Marianas del Norte.

La información del censo de Puerto Rico se recopiló mediante un acuerdo aprobado por el Administrador de NASS y por el Presidente de la Junta de Planificación de Puerto Rico. El mismo se llevó a cabo con la cooperación del Departamento de Agricultura local y del Servicio de Extensión Agrícola de la Universidad de Puerto Rico.

DEFINICIÓN DE FINCA

Las estadísticas recopiladas en el censo se refieren a lugares con actividades agrícolas que cualifican como fincas de acuerdo a la definición del censo. En Puerto Rico se incluyen todos los lugares en donde se produjeron y se vendieron $500 o más en productos agrícolas, o que normalmente se hubiesen vendido, durante el período de 12 meses, entre el 1ro de enero de 2007 y el 31 de diciembre de 2007.

COMPARABILIDAD DE DATOS

La mayoría de la información recopilada en el censo del 2007 es comparable con la información recopilada en el censo de 2002. Usuarios de la información sobre el Censo Agrícola deben tomar en cuenta que la definición de finca determinada por NASS, podría ser diferente de la de otras organizaciones que proveen estadísticas agrícolas. Por esta razón, la información presentada en esta publicación podría diferir de información proveniente del Departamento de Agricultura de Puerto Rico o de otras fuentes. En general, la información censal recopilada no puede ser directamente comparada con los censos anteriores al censo del 1998 debido a los cambios en la metodología para recopilar los datos.

Todo valor de dólar está expresado en el valor corriente, es decir, la información para el 2007 se expresa en el valor del dólar al año 2007 y la información para el 2002 se expresa en el valor del dólar al año 2002. El valor del dólar no ha sido ajustado al cambio en el nivel de precios ocurrido en el período ocurrido entre los dos censos. Para cambios en los datos entre un censo y el otro refiérase a la sección sobre "Cambios Mayores" en el Apéndice A.

PRESENTACIÓN DE TABLAS

Los tres grupos principales de tablas que se presentan en este informe son:

Puerto Rico-Las tablas 1 a la 21 proveen estadísticas sobre la información recopilada para todas las fincas. La mayor parte de la información presentada en estas tablas está acompañada por datos históricos sobre el censo de 2002.

Municipios- Las tablas 22 a la 76 proveen estadísticas detalladas sobre la información recopilada para todas las fincas en Puerto Rico y sus municipios, en orden alfabético.

Sumario- Las tablas 77 a la 82 muestran información más detallada sobre las fincas o las características del agricultor. La información en estas tablas está clasificada por tenencia del agricultor, tipo de organización, ocupación principal y edad del agricultor, tamaño de la finca, valor en el mercado de los productos agrícolas vendidos y el tipo de finca.

TABULACIONES ESPECIALES

Tabulaciones diseñadas a petición del usuario pueden ser preparadas a través de nuestro programa de costos reembolsables. Preguntas respecto a las tabulaciones especiales deben dirigirse a: NASS Data Lab, Marketing and Information Services Office, NASS-USDA, Washington, DC 20250. Llamando al 1-800-727-9540; o a través del correo electrónico dirigiéndose a nass@nass.usda.gov.

FECHA DE REFERENCIA

Los inventarios sobre animales, aves, maquinaria, equipo, edificios, facilidades y el número de familias de agregados o aparceros, reflejan las cantidades existentes al 31 de diciembre de 2007. Información sobre las cosechas, las ventas de cultivos y de animales, y sobre ingreso, gastos de producción, empleados, riego, total de cuerdas y tenencia son del año calendario comenzando el 1ro de enero y finalizando el 31 de diciembre de 2007. Datos similares para el 2002 son para el periodo de 12- meses finalizando el 31 de diciembre de 2002.

ABREVIATURAS Y SÍMBOLOS

Las siguientes abreviaturas y símbolos se utilizan a través de todas las tablas:

-	Representa cero.
(D)	Datos omitidos para evitar presentar información sobre fincas individuales.
(NA)	Información no disponible.
(X)	No es pertinente.
(Z)	Menos de la mitad de la unidad.
cwt	Quintal.
sq ft	Pies cuadrados.

DATA COLLECTION

Method of Enumeration

The 2007 Census of Agriculture for Puerto Rico was conducted using a multiple frame approach, consisting of a list frame and an area frame. The list frame was comprised of a list of all known farm operations. This list was compiled prior to the census, using the list of active farms from the 2002 Census of Agriculture, lists of farmers from the Puerto Rico Department of Agriculture, plus names and addresses of farm operations identified through a screening of the area frame. Duplicate records, where one operation was included on more than one list, were identified and removed and a final list was developed with the goal of having every active farm operation included. Every address on this list, except for some special records which were enumerated person to person, was mailed a census report form. Those that did not respond to this first report form received a second report form through the mail. Enumerators from the Department of Agriculture and the Extension Service conducted a Field Follow Up to visit and enumerate operations that did not respond by mail.

Training Program

Selected staff members from the Department of Agriculture and the Extension Service received special training for the census in accordance with instructions prepared by NASS. The training included a detailed discussion of the enumerator's instructions manual and the report form.

Report Form

Prior to each agriculture census, the content of all census report forms is reviewed to eliminate inquiries no longer needed and to identify new items necessary to meet user needs, so that published data better describes the agricultural situation in the Nation. Data requests are solicited from farm organizations, land-grant colleges and universities, State and Federal agencies, State 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 Puerto Rico was prepared by NASS, in cooperation with the Planning Board and the Inter-Agency Working Group that include members of the Puerto Rico Department of Agriculture, the College of Agricultural Sciences at the University of Puerto Rico, Mayaguez Campus (RUM), the Extension Service, and other data users. While similar to the report form used in 2002, changes were made to reflect changes in Puerto Rico's agriculture, to make the report form similar in scope with the US report form and to make it easier to complete.

MAJOR DATA CHANGES

Based on feedback from data users, the following changes were made to the 2007 report form:

Added	Amount of water used to irrigation section.
Added	New section on conservation programs and crop insurance.
Added	Pajon grass, total cuerdas irrigated and quantity harvested to grass section.
Added	Total protected square feet and total cuerdas irrigated, and coffee trees to nursery and greenhouse section.
Dropped	Vegetable, flowering seed, and tree seedling from nursery and greenhouse section
Added	Total cuerdas harvested and irrigated to vegetable or melon section.
Edited	Section on hydroponic crops, made separated from last census.
Dropped	Peppers from hydroponic crops.
Added	Total cuerdas irrigated chironjas, and quenepas as separate item to fruit section.
Added	Total cuerdas harvested and irrigated and ginger root as separate item to root crops section.
Added	Total new section for other crops harvested.
Dropped	Gross value of sales by weight class in the cattle and calves section.

Added Guineas as separate item to poultry section.

Edited Section on hogs and pigs. Added breeding hogs and pigs item.

Dropped Gross value of sales by age group in the hogs and pigs section.

Added Ornamental fish to the aquaculture section.

Dropped Gross value of sales by individual aquaculture type.

Dropped Gross value of sales by individual species in the other animals and livestock products section.

Added New section for Federal and Commonwealth agricultural program payments.

Added Cost of water used for irrigation and cost of professional services to the production expenses section.

Added New section on organic agriculture.
Added New section on agricultural practices.

Added Multiple operator and new demographics questions on race and ethnicity to section 30.

Dropped Whole section on sugar cane as a major crop.

Corrections: For 2007 several items and phrases were corrected to better serve the data users.

Crayfish – in the Aquaculture Section, was renamed as Prawns.

Horticultural specialties – are known as Nursery, Greenhouse, Floriculture, Sod and Seed Grown for Sale in 2007.

Hydroponic sheds – on Machinery, Equipment and Building Section will include Greenhouses for 2007, e.g. Greenhouses/Hydroponic sheds.

Peppers – were erroneously called "peppers, hot" on 2002 tabulations.

DATA PROCESSING

Farmers were instructed to complete and return the form to the National Processing Center (NPC) in Jeffersonville, IN for processing. Returned report forms were automatically checked in by scanning devices that identified each case by the bar code in the address label of the form. The report forms were then scanned and photocopied to preserve the forms and to create images used for data keying. Report forms returned to the NASS office in San Juan were logged in and sent to NPC for further processing.

Once keyed, the data from each report form were sent to NASS headquarters in Washington, DC via electronic media, for computer editing. Data from each report were subjected to a detailed item-by-item 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.

Prior to publication, tabulated totals were reviewed by statisticians to identify inconsistencies and potential coverage problems. Comparisons were made with previous census data, as well as other available data. Tallies of all selected data items for various sets of criteria which included, but were not limited to, geographic levels, farm types, and sales levels were reviewed. When necessary, data inconsistencies were resolved.

DEFINITIONS AND EXPLANATIONS

The following definitions and explanations relate to items that are not fully described in the tables. For exact wording of the questions on the 2007 report form, see Appendix C.

Agricultural chemicals used. Data include the usage and costs of agricultural chemicals used on the farm during the census year; the cost of application was excluded. Application costs were included with expenses for machine hire and custom work.

Crops. The names of the principal crops were preprinted on the report form and space was provided to write in other crops. Data were collected for each crop harvested from the farm during the period from January 1, 2007, to December 31, 2007, regardless of who did the harvesting.

Data collected included:

Grains, legumes, root and tuber crops – Cuerdas, quantity harvested, and value of sales.
Coffee, pineapples, plantains, bananas, and fruit trees and plants – Number of trees or plants of bearing and nonbearing age, cuerdas in trees or plants, quantity harvested, and value of sales.

Vegetables and melons and hydroponic crops harvested for sale – Cuerdas or area harvested for sale, quantity harvested, and value of sales.

Nursery and greenhouse crops – Area used and value of sales.

Hay and forage crops – Cuerdas and quantity harvested, cuerdas irrigated, and total sales.

Farms. Data for farms are the number of farms (or operators) reporting a specified item. For example, if a municipio contained 1,200 farms, but only 300 farms had cattle and calves on hand as of December 31, 2007, the number of farms for the item cattle and calves would be 300. This definition is consistent with the term farms used since 1959. Where applicable, figures are given for the number of farms for which the respondent did not report items that apply to all farms, e.g., place of residence of the operator.

Hired workers, agregados, and sharecroppers. This refers to the number of hired workers employed on the farm during the census year and to the number of agregado and sharecropper families living on the farm December 31, 2007. Data were also obtained on labor costs. Employees of labor contractors and contract labor were excluded.

An agregado is a member of a family who lives on a farm not operated by a family member. An agregado may or may not be an employee of the farm operator and may or may not produce agricultural products. An agregado may own, rent, or use rent free the house in which he/she lives. The land operated by, livestock belonging to, and the products marketed by an agregado family were to be included with those of the farm operator in charge of the place.

A sharecropper (aparcero) is a person who works land under a definite arrangement with a farm operator, receiving a part of the crops, livestock, or livestock products in return for his/her labor and other contributions. Since it is possible for the same person to work as a sharecropper on more than one farm, census figures may overstate the number. Likewise, a person might live as an agregado on one farm and work as a sharecropper on another and, therefore, be counted as both. Land, crops, and livestock involved in such share arrangements were included with those of the farm operator in charge of the place.

Hydroponic crops. Data were collected for area planted and pounds harvested**.**

Land area. The approximate land area of Puerto Rico is 2.3 million cuerdas. A cuerda is equivalent to 0.9712 of an acre or 0.3930 of a hectare. A centesimo is one-hundredth of a cuerda.

Land in farms. The area designated as land in farms consists primarily of agricultural land used for crops, pasture, and grazing. It also includes woodland and wasteland not harvested or used for pasture or grazing, provided it was part of the farm operator's total operation. Woodland or wasteland held for nonagricultural purposes was excluded. Land in farms is an operating unit concept and includes land owned and operated as well as land rented from others. Land used rent free was to be reported as land rented from others.

Land owned (full and part owners). This includes all land that the operator and spouse owned, or both held under title, purchase contract or mortgage, or as heir or trustee of an undivided estate at the time of the enumeration.

Land rented from others (tenants). This includes all land that the operator rented or leased from others or used rent free.

Land rented to others. This includes all land rented or leased to others for cash or a share of the crops or livestock, and land rented from others and then subleased to others.
Land in two or more municipios. An individual farm was counted in only one municipio even if the land was located in two or more municipios. The land in each farm was tabulated as being in the operator's principal municipio. The principal municipio was defined as the one where the largest value of the agricultural products was raised or produced. It was usually, but not always, where the operator reported all or the largest part of the total land.

Land irrigated. This is land that had water applied by artificial means for agricultural purposes. It includes both harvested cropland and pastureland. Separate figures were obtained for areas irrigated by water from public and private systems. Some land was irrigated from public systems or facilities operated by the Government, as well as from one or more private systems. Such land was

reported under both private and public systems.

Data were also obtained on the principal type of irrigation employed: gravity, drip, sprinkle, or other type. Data were also obtained on the major sources of water used for irrigation, such as: wells or cisterns, rivers or streams, lakes or private ponds, canals, and other sources.

Land use. The land was classified according to the way it was used during the period between January 1, 2007 and December 31, 2007. This classification includes four major groups:

Cropland – This group includes cultivated cropland, cropland used for pasture or grazing, cropland used for cover crops, cropland where all crops failed, and cropland at rest. Land used for intercropping or successive cropping was recorded only once.

Pastureland and rangeland – This group includes natural pastures and pastures overgrown with brush.

Woodland, forest, and underbrush – This group includes land which cannot be used for cultivation or pasture.

All other land – This group includes land in lakes, buildings, roads, fences, wasteland, trails, ponds, etc.

Livestock and poultry. Data were obtained for the number of livestock and poultry on the farms as of December 31, 2007, regardless of ownership. Included were other livestock and poultry kept on the place for others or grown under a contract. Sales of livestock, poultry, and their products relate to the period from January 1, 2007 to December 31, 2007.

Machinery, equipment, and buildings. Data were collected on the number of various types of machinery, equipment, and buildings on the farm as of December 31, 2007. Machinery and equipment were reported only if they were in working order at the time of enumeration. In addition to the number of different items on the place, data were collected on the estimated market value of all machinery and equipment kept on the place.

Market value of agricultural products sold. This is the gross market value before taxes and production expenses of all agricultural products sold or removed from the place in 2007, regardless of who received the payment. It includes receipts by the operator and the value of any shares received by partners, landlords, agregados, sharecroppers, contractors, and others associated with the place.

The total value of agricultural products sold is the sum of all crops sold from the place, including horticultural specialties, lawn grass, and livestock, poultry, and their products. It does not include income from farm-related sources such as custom farm work done for others, government farm programs, recreational services, other related sources, or income from nonfarm sources.

Off-farm work by operators. Information was obtained on the number of days the operator or senior partner worked at least four hours per day off of the farm during 2007. Off-farm work included work at nonfarm jobs, businesses, or on someone else's farm. Exchange work was excluded.

Operator. The term operator designates a person who operates a farm, either doing the work or making day-to-day decisions about such things as planting, harvesting, feeding, and marketing. This person may be the owner, a member of the owner's household, a hired manager, or a tenant, but the person cannot be an agregado or a sharecropper. If the person rents land to others, the person is considered an operator only if the land is retained for personal use. For partnerships, only one partner is counted as the operator. If it is not clear which partner is in charge, then the senior or oldest active partner is considered the operator. For census purposes, the number of principal farm operators is the same as the number of farms.

Other agricultural products sold. This is the gross market value before taxes and production expenses of all sales from wood, hay, forage, silage, molasses, livestock, and any other agricultural products sold or removed from the place in 2007, regardless of who received the payment.

Production expenses. Data on farm production expenses were obtained for:

1. Purchase of livestock and poultry
2. Feed for livestock and poultry
3. Medicines and drugs for livestock
4. Veterinarian services for livestock
5. Professional services
6. Seeds, bulbs, plants, and trees
7. Commercial fertilizers

8. Gasoline and other fuel and oil products for farm business
9. Wages and salaries paid to employees or hired farm workers
10. Contract labor
11. Machine hire and custom work
12. Agricultural chemicals purchased
13. Machinery, including repair and mainten-ance expenses
14. Buildings, including repair and maintenance expenses
15. Water use including water use for irrigation
16. All other production expenses

Expenses were reported for the year 2007. The information includes all expenses incurred by the farm operators, landlords, sharecroppers, agregados, contractors, buyers, and others in connection with crops, livestock, or livestock products produced on the place. Wages and salaries paid to employees or hired farm workers were included. Excluded were wages and salaries paid to domestic help or contract labor, and expenses relating to the family home and automobile.

FARMS CLASSIFIED BY SPECIFIED CHARACTERISTICS

Farms by tenure of operator. The classifications of tenure are:

Full owners – operate only the land they own or land operated by sharecroppers and agregados.

Part owners – operate land they own and also land they rent from others.

Tenants – operate only the land they rent from others.

Farms by type of organization. Farms were classified on the basis of the operator's description of their organizational status. The major classifications are:

Individual or family farm

Partnership

Corporation

Other, such as estate or cooperative

Farms by primary occupation and age of principal operator. Primary occupation and age of the principal operator, as of the last birthday, were obtained for all farms. The principal operators were classified as to whether the primary occupation was agricultural or nonagricultural. Each of these occupation classifications was further classified into one of the following age groups:

Under 25 years
25 to 34 years
35 to 44 years
45 to 54 years
55 to 64 years
65 years and over

Farms by size. All farms were classified by size according to the total land area of each farm. The size groups are:

Less than 10 cuerdas
10 to 19 cuerdas
20 to 49 cuerdas
50 to 99 cuerdas
100 to 174 cuerdas
175 to 259 cuerdas
260 cuerdas or more

Farms by market value of agricultural products sold. All farms were classified by value of agricultural products sold, including those operated by institutions or government agencies. Income from farm-related sources such as custom farm work done for others, recreational services, land rent, and payments from government farm programs were excluded.

The 12 sales size categories are based on market value of agricultural products sold. They include:

$60,000 or more
$50,000 to $59,999
$40,000 to $49,999
$30,000 to $39,999
$25,000 to $29,999
$20,000 to $24,999
$10,000 to $19,999
$7,500 to $9,999
$5,000 to $7,499
$2,500 to $4,999
$1,000 to $2,499
Less than $1000

Farms by type. The type of farm represents a description of the major source of income from the sale of agricultural products. The farm had to have sales of a specific product or a group of products amounting in value of sales of 50 percent or more of the total value of all products sold during the census reference period to be classified as a particular type of farm. The types of farms, together with the products on which the classification are based, are:

Type of farm	Agricultural Products
Coffee	Coffee
Vegetables or melons	Vegetable and melons
Grains	Pigeon peas, dry beans, green beans, corn, and other grains.
Root crops or tubers	Dasheens, cassava, root celery, sweet potatoes, yams, taniers, and other root crops and tubers
Fruits and coconuts	All tree fruits, coconuts
Greenhouses and nursery crops	Lawn grass and ornamental plants
General farms, primary crops	Operations deriving 50 percent or more of their total value of sales of agricultural products from crops, including horticultural, but less than 50 percent from products of any of the groups listed above.
Livestock, except dairy, poultry and animal specialties	Livestock and livestock products (includes cattle, hogs, sheep, and goats)
Dairy	Cow's milk and other dairy products
Poultry and eggs	Poultry and poultry products
Animal specialties	Horses, rabbits, bees and animal aquiculture
General farms, livestock	Farms deriving 50 percent or more of their total value of sales of agricultural products from livestock and their products, but less than 50 percent from products of any of the groups listed above.

Other classifications. Farms were also classified by other operator characteristics such as residence, main source of income, years operating present farm, education, days worked off farm, and percent of income received from farming.

ENUMERATION PERIODS

The enumeration period for items in the 2007 census was January 1, 2007 to December 31, 2007. Whenever 2002 is used in a table, title, or box head, it refers to the census period January 1, 2002 to December 31, 2007, or as of December 31, 2002.

Data for the following items relate to the period from January 1, 2007, to December 31, 2007, or the period of January 1, 2002 to December 31, 2002, when applicable.

1. Agricultural chemicals purchased and used

2. Agricultural products harvested and products sold
3. Cultivated and/or improved pastures
4. Farm-related income
5. Hired farm workers
6. Irrigation
7. Land in farms
8. Land use
9. Livestock, poultry, aquaculture and their products sold or moved
10. Selected farm production expenses
11. Tenure
12. Federal and local agricultural program payments
13. Cuerdas covered under crop insurance policies

Data for the following items were measured December 31, 2007, or December 31, 2002, as applicable:

1. Inventory of livestock, poultry, and hogs on farms
2. Machinery, equipment, buildings, and facilities on farms
3. Number of agregado and sharecropper families on farms
4. Operator characteristics
5. Cuerdas in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, and Conservation Reserve Enhancement Programs

LEVANTANDO EL CENSO

Método de la Enumeración

El Censo Agrícola de 2007 en Puerto Rico se llevó a cabo usando una metodología de marco múltiple, que incluyó un listado de nombres y direcciones postales de agricultores y un marco muestral de área. La lista incluyo todos los agricultores conocidos. La lista se preparó antes del censo, usando el listado de nombres y direcciones producto de las fincas en existencia al final del censo de 2002, y listas de agricultores provistas por el Departamento de Agricultura de Puerto Rico. A esta se le añadieron los nombres y direcciones de agricultores identificados durante un sondeo del marco muestral de área. Se eliminaron aquellos récords duplicados, donde una finca fue incluida en más de una lista. Luego se creó una lista final que incluyó a cada una de las fincas en existencia. A toda dirección en la lista, con la excepción de ciertos récords identificados para enumeración personal, se le envió un formulario censal. Aquellos que no devolvieron dicho formulario, se les envió por segunda vez. Los enumeradores del Departamento de Agricultura y los agentes del Servicio de Extensión Agrícola, visitaron las fincas que no devolvieron el formulario a través del correo.

Programa de Entrenamiento

Personal del Departamento de Agricultura y del Servicio de Extensión Agrícola recibieron entrenamiento especial para el censo de acuerdo con instrucciones preparadas por NASS. El entrenamiento incluyó una discusión detallada del Manual de Instrucciones para el Enumerador y del formulario censal.

Formulario Censal

Antes de cada censo agrícola, se revisa el contenido del formulario para eliminar aquellas preguntas innecesarias, identificar nuevas partidas que satisfagan las necesidades de los usuarios e incluir preguntas que describan mejor la situación agrícola de la nación. Se pidió a las organizaciones agrícolas, colegios y universidades, agencias federales y estatales, departamentos de agricultura de los estados, negocios agrícolas y demás usuarios que presentaran sus necesidades de datos. A cada usuario se le solicitó que identificara sus necesidades particulares y que justificara su petición.

El formulario para el Censo de Agricultura de 2007 para Puerto Rico, fue preparado por NASS en cooperación con el Comité Inter-Agencial integrado por miembros de la Junta de Planificación, el Departamento de Agricultura del ELA, el Colegio de Ciencias Agrícolas de la Universidad de Puerto Rico en el (RUM) el Servicio de Extensión Agrícola y por otras entidades agrícolas. Aunque similar al formulario usado en 2002, algunos cambios fueron necesarios para reflejar los cambios en la agricultura puertorriqueña, mantener comparabilidad con el formulario usado en los EE.UU. y para facilitar la forma de completarlo.

CAMBIOS MAYORES

En base a información provista por los usuarios, se hicieron los siguientes cambios al formulario del 2007:

Se añadió	Cantidad de agua utilizada en la sección de riego.
Se añadió	Nueva sección sobre programas de conservación y seguros.
Se añadió	Pajón, total de cuerdas irrigadas y cantidad cosechada a la sección de pastos.
Se añadió	Total de pies cuadrados y/o cuerdas irrigadas, así como arbolitos de café a la sección de ornamentales.
Se eliminó	Semillas de flores, semillas de hortalizas y arbolitos para semilla de la sección de ornamentales.
Se añadió	Total de cuerdas cosechadas e irrigadas a la sección de hortalizas y melones.
Se revisó	La sección de cultivos hidropónicos, creando una nueva.
Se eliminó	Pimientos como cultivo hidropónico.
Se añadió	Total de cuerdas irrigadas, chironjas y quenepas a la sección de frutas.
Se añadió	Total de cuerdas irrigadas y jengibre a la sección de raíces y tubérculos.
Se añadió	Nueva sección sobre otros cultivos cosechados.
Se eliminó	Valor de ventas por libras, en la sección de ganado.

Se añadió Guineas en la sección sobre aves.

Se revisó Sección sobre cerdos y cerditos. Se añadió cerdos y cerditos para crianza.

Se eliminó Valor de ventas por edad, en la sección de cerdos y cerditos.

Se añadió Peces ornamentales a la sección de acuicultura.

Se eliminó Valor de ventas por tipo de peces.

Se eliminó Valor de ventas por tipo de especie en la sección sobre otros animales y sus productos.

Se añadió Nueva sección sobre pagos por programas agrícolas Federales y locales.

Se añadió Costos de uso de agua para riego y costos por servicios profesionales a la sección de gastos de producción.

Se añadió Sección sobre agricultura orgánica.
Se añadió Sección sobre prácticas agrícolas.

Se añadió Operadores múltiples y nuevas preguntas sobre raza y etnicidad en la sección 30, Características del agricultor.

Se eliminó Sección sobre caña de azúcar.

Correcciones: Para mejorar la presentación a los usuarios, varias partidas fueron revisadas en el 2007.

Langostino – no conlleva corrección a versión de español.

Especialidades Hortícolas – Se les denominará como ornamentales.

Umbráculos – en la sección de Maquinaria, Equipo y Edificios incluirá invernaderos para propósitos de la tabulación. Invernaderos/umbráculos.

Pimientos – eliminar 'hot'erróneamente llamados "peppers, hot" en las tabulaciones de 2002.

PROCESAMIENTO DE DATOS

Se les pidió a los agricultores que devolvieran los formularios completados al Centro de Procesamiento Nacional (NPC por sus siglas en inglés) en Jeffersonville, IN. Las formas recibidas a través del correo fueron cotejadas automáticamente por un aparato de lectura óptica, el cual identificaba cada formulario por el código de barras que se encontraba en la etiqueta con el nombre y la dirección. Los formularios fueron revisados y fotocopiados para preservar la información y crear imágenes usadas para capturar los datos. Los formularios entregados a la oficina del NASS en San Juan, fueron cotejados y enviados a Jeffersonville para ser procesados.

Una vez entrada la información de cada formulario, ésta fue enviada a las Oficinas Centrales del NASS en Washington, DC a través de correo electrónico y las imágenes de los formularios estaban disponibles a todos los analistas para ayudar en el análisis y producción de los datos. La información en cada formulario fue sometida a una redacción rigurosa, partida por partida, a través de computadoras. La redacción hizo un cotejo completo para que hubiese consistencia y razonabilidad, corrigió datos erróneos o inconsistentes, suplió los datos que faltaban basándose en información para fincas similares, y asignó códigos de clasificación necesarios para la tabulación de los datos. Todo cambio substancial en los datos generado por la redacción fue revisado y verificado por los analistas.

Antes de ser publicada, la información tabulada fue revisada por los estadísticos para identificar inconsistencias y posibles problemas de cobertura. Se comparó la información con la del censo anterior y otras fuentes disponibles. Se revisaron tablas de cotejo actualizadas para todas las partidas seleccionadas usando varios criterios que incluyeron, pero que no estaban limitados a, niveles geográficos, tipos de finca, y niveles de venta. Cuando era necesario, las inconsistencias en los datos fueron corregidas.

DEFINICIONES Y EXPLICACIONES

Las explicaciones y definiciones siguientes se relacionan a partidas que no están descritas completamente en las tablas. Para las

palabras exactas de las preguntas en el formulario de 2007, ver el apéndice C.

Productos químicos agrícolas. Los datos incluyen el uso y los costos de productos químicos agrícolas usados en la finca durante el año del censo; el costo de la aplicación se excluyó. Este fue incluido en los gastos por alquiler de maquinaria y por trabajo por contrato.

Cosechas. Los nombres de las cosechas principales fueron impresos en el cuestionario censal con anterioridad y se proveyó espacio para añadir otras cosechas. Se recopilaron datos para cada producto cosechado en el lugar durante el período del 1ro de enero al 31 de diciembre de 2007, sin importar quien los cosechó.

Se recopiló información sobre:

Granos, legumbres, raíces y tubérculos – Cuerdas, cantidad cosechada para la venta y valor de ventas.
Café, piña, plátanos, guineos, árboles frutales y plantas – Número de árboles con edad para producir fruto y árboles que no tenían edad para producir fruto, la cantidad cosechada y el valor de las ventas.

Vegetales y melones, cultivos hidropónicos cosechados para la venta – Cuerdas, cantidad cosechada y valor de las ventas.

Ornamentales – El área que se usó y el valor de las ventas.

Pastos – Cuerdas y cantidades cosechadas, cuerdas bajo riego y total de ventas.

Fincas. La información para "fincas" es el número de fincas (o agricultores) que reportan una partida específica. Por ejemplo, si un municipio contiene 1,200 fincas pero sólo 300 fincas tenían ganado vacuno y terneros el 31 de diciembre de 2007, el número de "fincas" para la partida "ganado vacuno y terneros" sería 300. Esta definición es consistente con el término "fincas" usado desde el 1959. Donde es pertinente, las cifras se proveen para el número de fincas para las cuales el operador no contestó partidas que aplican a todas las fincas, por ejemplo, el lugar de residencia del agricultor.

Trabajadores contratados, agregados y aparceros. Esta partida se refiere al número de trabajadores remunerados empleados en la finca durante el año del censo y al número de familias de agregados y aparceros que vivían en el lugar al 31 de diciembre de 2007. Además, se obtuvieron datos sobre costo del trabajo. Se excluyó a empleados de contratistas de trabajo y mano de obra contratada.

Un agregado es un miembro de una familia que vive en una finca que no es manejada por ningún miembro de la familia. Un agregado puede o no ser un empleado del operador de la finca y puede o no producir producto agrícola alguno. Un agregado puede poseer, alquilar, o utilizar gratuitamente la casa en donde él o ella viven. El terreno manejado, los animales pertenecientes a, y los productos vendidos por el agregado fueron incluidos junto con los del operador de la finca que estaba encargado del lugar.

Un aparcero es una persona que trabaja el terreno bajo un acuerdo definido con el operador de la finca, recibiendo parte de la cosecha, animales, o sus productos derivados, como pago por su mano de obra y otras aportaciones. Puede ser posible que la misma persona trabaje como agregado en más de una finca y las cifras del censo pueden ser sobreestimadas. Del mismo modo, una persona puede vivir como un agregado en una finca y trabajar como un aparcero en otra, por lo tanto, se puede contar como ambos. Terreno, cosecha, y animales de finca envueltos en tal convenio se incluyeron con los del operador de la finca encargado del lugar.

Siembras hidropónicas. Se recopiló información sobre área sembrada y cantidad cosechada.

Área de terrenos. El área total aproximada de la isla de Puerto Rico es de 2.3 millones de cuerdas. Una cuerda equivale a 0.9712 de un acre o 0.3930 de una hectárea. Un centésimo es un cienavo de una cuerda.

Terrenos en fincas. El área designada como "Terreno en fincas" consiste primordialmente de terrenos agrícolas utilizados para siembras, pasto, o pastoreo. Además, incluye montes o terrenos pantanosos que en la actualidad no se están cultivando o usando para pasto o pastoreo, pero que eran parte integral de la finca. Montes y terrenos pantanosos que se mantenían para otros propósitos que no fueran agrícolas, se excluyeron. El terreno en fincas es un concepto de unidad operacional e incluye terrenos que pertenecen y son operados por sus dueños, y tierras arrendadas de otras personas. El terreno que se usaba sin pago de renta alguna se tenía que reportar como tierra arrendada de otras personas.

Terrenos propios (dueños totales o parciales). Esta partida incluye toda la tierra que el agricultor o su esposa poseían, o que tenían bajo título, contrato de compra o hipoteca, o como herederos o fideicomisarios de una propiedad que no estaba dividida en el momento de la enumeración.

Tierra arrendada de otros (inquilinos). Esta partida incluye toda tierra que el agricultor alquilaba o arrendaba de otros o que usaba sin pagar alquiler.

Tierra arrendada a otros. Esta partida incluye toda tierra que el agricultor alquilaba o arrendaba a otros por dinero o por parte de la cosecha o de los animales y tierra rentada de otros y subarrendada.

Tierra en dos o más municipios. Una finca individual se contó en un solo municipio aunque el terreno esta localizado en dos o más municipios. El terreno en cada finca se tabuló como si estuviese en el municipio principal del agricultor. El municipio principal se definió donde el valor mayor de los productos agrícolas fueron cosechados o producidos. Usualmente, pero no siempre, esto era el municipio donde el agricultor reportaba toda o la mayor parte del terreno.

Terrenos con riego. Esto incluye terrenos con riego por medios artificiales para propósitos agrícolas. Incluye terrenos bajo cultivo y terrenos de pastoreo. Se obtuvieron cifras separadas de áreas regadas con aguas de sistemas privados y públicos. Algunos terrenos utilizaron facilidades operadas por un sistema público o por uno o más sistemas privados. Ese tipo de terreno se reportó bajo ambos, el sistema privado y el sistema público.

También se obtuvieron datos sobre el principal tipo de irrigación utilizado: gravedad, goteo, aérea o subterránea. Además, se obtuvieron datos sobre las fuentes principales de abastecimiento del agua que se usaba para riego, tales como pozos y cisternas, ríos y riachuelos, lagos y charcas, represas construidas, y otras fuentes.

Utilización del terreno. El terreno se clasificó de acuerdo a como se utilizó durante el período del 1ro de enero al 31 de diciembre de 2007. Esta clasificación incluye cuatro grupos principales:

Terrenos cultivados - Esto incluye terrenos en donde se cosecharon frutos, terrenos usados para pastar o apacentar, terreno usado para siembras de forraje, terreno en donde los frutos no se dieron y terreno inactivo. Terreno que se utilizó para sembrar intercalado o sembrar consecutivamente fue documentado una sola vez.

Terreno en pastos – Esto incluye pasto natural, y pasto cubierto de hierbas o matorrales.

Bosques, montes y malezas – Incluye terreno que no puede ser cultivado.

Todo otro terreno – Esto incluye terreno ocupado por lagos, edificios, carreteras, cercas, terreno pantanoso, veredas, charcas, etc.

Animales de finca y aves de corral. Se obtuvieron datos sobre el número de animales y aves de corral en las fincas hasta el 31 de diciembre de 2007, sin considerar quien era el dueño. Además, se incluyeron animales y aves de corral que otros mantenían en el lugar o para crianza bajo contrato. Las ventas de animales y aves de corral y sus productos derivados se refieren al período de 12 meses transcurrido entre el 1ro de enero al 31 de diciembre de 2007.

Maquinaria, equipo y edificios. Se recopilaron datos sobre el número de varios tipos de maquinaria, equipo y edificios en el lugar al 31 de diciembre de 2007, sólo si estaban en condiciones operables en el momento de la enumeración. Además del número de las distintas piezas en el lugar, se recopiló información sobre el estimado del valor en el mercado de toda maquinaria y equipo que usualmente se mantenía en el lugar.

Ingreso bruto por productos agrícolas vendidos. Representa el valor bruto en el mercado de todos los productos agrícolas vendidos o trasladados del lugar entre el 1ro de enero al 31 de diciembre de 2007, sin considerar quien recibió el pago. Incluía recibos del agricultor y el valor de cualquier porción que recibieron los socios, propietarios, agregados, aparceros, contratistas y otras personas asociadas con el lugar.

El valor total de los productos agrícolas vendidos es la suma de todas las cosechas del lugar vendidas, incluyendo las plantas ornamentales; grama para césped; animales de finca y aves de corral y sus productos. No incluye ingreso de fuentes relacionadas a la finca tales como faenas o prácticas agrícolas para otros, programas agrícolas gubernamentales, servicios recreativos, y otras fuentes relacionadas o ingresos de fuentes que no sean de la finca.

Trabajo del agricultor fuera de la finca. Se obtuvo información del número de días en que el agricultor o el socio mayoritario trabajaron por lo menos cuatro horas al día fuera de la finca durante el período del 1ro de enero al 31 de diciembre de 2007. Trabajo fuera de la finca incluye lugares no relacionados con la finca, negocios, o en la finca de otra persona. Intercambio de trabajo se excluyó.

Operador. El término "operador" (agricultor) se refiere a la persona que opera una finca, ya sea haciendo el trabajo o supervisando el mismo. Esta persona puede ser dueño, miembro de la familia del dueño, administrador contratado, o un inquilino, pero la persona no puede ser un agregado o un aparcero. Si la persona le renta terreno a otros, ésta persona se considera agricultor solamente de la tierra que mantiene para su uso personal. En el caso de una sociedad, se considera a un socio como agricultor. Si no esta claro cual de los socios es el agricultor, se considera como agricultor al socio de mayor edad. El número de agricultores es el mismo que el número de fincas.

Otros productos agrícolas vendidos. Este es el valor bruto en el mercado antes de impuestos y gastos de producción de todas las ventas de la madera, heno, forraje, ensilaje, melaza y cualquier otro producto agrícola vendido o trasladado del lugar entre el 1ro de enero al 31 de diciembre de 2007, sin considerar quien recibió el pago.

Gastos de producción. Datos sobre los gastos de producción de las fincas se obtuvieron para:

1. Compra de ganado, aves de corral y peces.
2. Alimentos para los animales y aves de corral
3. Medicinas y drogas para los animales
4. Servicios de veterinaria
5. Servicios profesionales
6. Semillas, bulbos, plántulas y arbolitos
7. Abonos comerciales
8. Gasolina, aceite y otros combustibles para uso de la finca
9. Jornales y salarios pagados a empleados de finca
10. Trabajo por contrato
11. Alquiler de maquinaria y de mano de obra
12. Productos químicos agrícolas
13. Maquinaria incluyendo gastos de reparación y mantenimiento.
14. Edificios incluyendo gastos, de reparación y mantenimiento.
15. Uso de agua incluyendo agua usada para riego
16. Todo otro gasto de operación

Se reportaron los gastos incurridos desde el 1ro de enero al 31 de diciembre de 2007. La información incluía todos los gastos contraídos por los operadores de fincas, propietarios, aparceros, agregados, contratistas, compradores y otros conectados con las cosechas; animales de finca y productos derivados de los animales de finca que se producían en el lugar. Se incluyeron los jornales y salarios que se le pagaban a los empleados o trabajadores de finca contratados. Se excluyeron los jornales y salarios pagados por ayuda doméstica o mano de obra contratada y gastos relacionados con la casa y el automóvil.

FINCAS CLASIFICADAS SEGÚN CARACTERÍSTICAS ESPECÍFICAS

Fincas por tenencia del operador. Las clasifica-ciones de tenencia son:

Dueños operando solamente el terreno del cual eran propietarios o terreno operado por aparceros y agregados.

Propietarios parciales operando el terreno que les pertenecía y también el terreno que alquilaban de otras personas.

Inquilinos que operan sólo el terreno que alquilan de otros.

Fincas de acuerdo al tipo de organización. Las fincas se clasificaron según la descripción del estado de organización que proveyó el agricultor. Las clasificaciones mayores son:

Fincas individuales o de familia

Sociedad

Corporación

Otros, tales como hacienda o cooperativa

Fincas según la ocupación principal y edad del operador. La ocupación principal y la edad del operador, se obtuvo para todas las fincas. Los operadores se clasificaron en cuanto a si la ocupación principal era agrícola o no agrícola. Cada una de estas clasificaciones sobre el empleo fue nuevamente clasificada bajo cada uno de los siguientes grupos de edades:

Menor de 25 años
25 a 34 años
35 a 44 años
45 a 54 años
55 a 64 años
65 años o más

Fincas por tamaño. Todas las fincas fueron clasificadas por tamaño de acuerdo al área total de cada finca. Los grupos por tamaño son:

Menos de 10 cuerdas
10 a 19 cuerdas
20 a 49 cuerdas
50 a 99 cuerdas

100 a 174 cuerdas
175 a 259 cuerdas
260 cuerdas o más

Fincas por valor en el mercado de los productos agrícolas vendidos. Todas las fincas fueron clasificadas de acuerdo al valor en el mercado de los productos agrícolas vendidos, incluyendo aquellas operadas por instituciones o agencias de gobierno. Ingresos provenientes de fuentes relacionadas con las fincas tales como trabajo hecho según pedido, servicios recreativos, terrenos alquilados y pagos de programas agrícolas del gobierno se excluyeron de la base para esta clasificación.

Los 12 grupos clasificados están basados en el valor de los productos agrícolas vendidos en el mercado. Los grupos, por valor de venta son:

$60,000 o más en ventas
$50,000 a $59,999 en ventas
$40,000 a $49,999 en ventas
$30,000 a $39,999 en ventas
$25,000 a $29,999 en ventas
$20,000 a $24,999 en ventas
$10,000 a $19,999 en ventas
$7,500 a $9,999 en ventas
$5,000 a $7,499 en ventas
$2,500 a $4,999 en ventas
$1,000 a $2,499 en ventas
Menos de $1,000 en ventas

Fincas por tipo. El tipo de finca representa una descripción de la fuente principal de ingreso de la venta de productos agrícolas. La finca tenía que haber tenido ventas de un producto específico o de un grupo de productos por un monto en el valor de 50 por ciento o más del valor total de todos los productos vendidos durante el período de referencia del censo para ser clasificada como un tipo particular de finca. Los tipos de fincas, según el tipo de clasificación mencionado son:

Tipo de finca	Productos agrícolas
Café	Café.
Vegetales y melones	Vegetales y melones
Granos	Gandules, habichuelas secas y verdes, maíz, y otros granos.
Raíces y tubérculos	Malanga, yuca, apio, batatas, ñames, yautías, y otros tubérculos.
Frutas y cocos	Todos los árboles frutales y palmas de cocos.
Ornamentales	Césped y plantas ornamentales
Finca en general, cultivos	Fincas que obtuvieron el 50 por ciento o más del valor total de sus ventas agrícolas de cosechas, incluyendo ornamentales, pero menos del 50 por ciento derivados de productos incluidos en cualquiera de los grupos arriba mencionados.
Animales, excepto vaquerías, aves de corral y especialidades	Animales y productos derivados(ganado, cerdos, ovejas y cabras)
Vaquerías	Vacas lecheras y otros productos derivados de la leche.
Aves y huevos	Aves de corral y productos derivados.
Especialidades animales	Caballos, conejos, abejas, y acuicultura animal.
Finca en general, animales	Fincas que obtuvieron el 50 por ciento o más del valor total de sus ventas agrícolas de animales y productos derivados, pero menos del 50 por ciento fue de productos incluidos en cualquiera de los grupos arriba mencionados.

Otras clasificaciones. Las fincas se clasificaron, además, usando otras características del agricultor, tales como la residencia, fuente principal de ingreso, años que lleva operando la finca actual, educación, días que trabajó fuera de la finca y el por ciento de ingreso que recibió de la agricultura.

PERÍODO DE ENUMERACIÓN

El período de enumeración para las partidas en el censo del 2007 comprendió del 1ro de enero al 31 de diciembre de 2007. Cada vez que el 2002 se usa en una tabla, con título o en un encasillado, se refiere al período del censo del 1ro de enero de 2002 al 31 de diciembre de 2002.

Los datos de las siguientes partidas se refieren al período de 12 meses entre el 1ro de enero al 31 de diciembre de 2007, o al período del 1ro de enero de 2002 al 31 de diciembre de 2002, cuando sea pertinente.

1. Productos químicos agrícolas comprados y utilizados.
2. Productos agrícolas cosechados y productos agrícolas vendidos.
3. Pasto cultivado y/o mejorado.
4. Ingresos relacionados con la finca.
5. Trabajadores de finca contratados.
6. Riego.
7. Terreno en fincas.
8. Uso de terreno.
9. Animales de finca, aves de corral, acui-cultura y sus productos derivados vendidos.
10. Gastos de producción seleccionados.
11. Tenencia
12. Pagos por participar de programas agrícolas federales o locales.
13. Cuerdas cultivadas cubiertas bajo una póliza de seguros.

Los datos de las partidas siguientes corresponden al 31 de diciembre de 2007, o al 31 de diciembre de 2002, cuando sea pertinente:

1. Inventario de animales, aves, y de credos en las fincas.
2. Maquinaria, equipo, edificios y facilidades en las fincas.
3. Número de familias de agregados y aparceros en las fincas.
4. Características del agricultor.
5. Cuerdas participando en programas de "Conservation Reserve, Wetlands Reserve, Farmable Wetlands, and Conservation Reserve Enhancement"

INTRODUCTION

The 2007 Puerto Rico Census of Agriculture was primarily conducted by mail, with report forms sent to farm operators on the census mail list (CML). This mail list was supplemented by an area sample which accounted for farms not included in the mail list (NML). A single version of the report form, in Spanish, was used for the CML and NML contingents of the Census. Combining data from the CML and the area sample NML should provide complete coverage for the Puerto Rico Census of Agriculture.

CENSUS MAIL LIST COVERAGE AND WHOLE FARM NONRESPONSE

The initial CML consisted of 19,089 names and addresses stratified by size and type of farm. Nonresponse weighting was applied to account for farm operators who did not respond. For each municipio containing agricultural operations, nonresponse weights were computed by response homogeneity group (RHG); the RHGs were six size categories for historical total values of production reported for the 2007 farm records in that municipio. Each nonresponse weight was calculated as the total number of all agricultural operations listed on the CML for that RHG and municipio, divided by the total number of responding farms within that RHG and municipio. For each RHG found in a municipio, this weight, integerized, was applied to the data items of each responding operation of the RHG. This estimation procedure assumes that the distribution of farms in an RHG is the same for census nonrespondents as for census respondents. Records that were found to be undeliverable as addressed ("UAA") by the U.S. Postal Service and which failed to respond to any follow-up attempts, were excluded from the nonresponse calculations. Note that NML records were not subject to nonresponse weighting because they were subjected to complete nonresponse follow-up, eliminating the possibility of nonresponse for them.

Any CML operation designated as a "must" farm (the sixth RHG, based on very high value of production) was required to complete its census form; if a response could not be obtained directly from a "must" operation after multiple attempts to contact it, secondary or historical sources were used to provide the data. "Must" operations are considered unique; kept outside the normal nonresponse weighting process because they are too unusual to represent nonrespondents, they can only be self-representing; accordingly, all carry a nonresponse weight of one.

For the five non-"must," non-self-representing RHGs, nonresponse follow-up was monitored to keep nonresponse weights from exceeding 2.0; if an RHG's nonresponse weight exceeded this upper limit, a collapsing algorithm was applied to combine neighboring RHGs within a municipio, and recomputed the weights for the combined groups. For published tabulations of complete count items, the noninteger nonresponse weight was rounded to an integer weight of 1, 2, or 3, for each record, with seven records in low response municipios carrying a weight of 3. A random rounding algorithm based on cumulated fractional parts of the noninteger nonresponse weight values was used to produce an unbiased result at island level.

COVERAGE ADJUSTMENT

Due to the dynamic nature of mail lists, some farm operators may not be included in the CML. To account for this undercoverage, an area frame consisting of the entire island of Puerto Rico was sampled. For sampling, NASS stratified the Puerto Rico area frame on the basis of agricultural intensity, with strata consisting of: 1) land area with dense agriculture; 2) land area with sparse agriculture and few houses; 3) land area with sparse agriculture and many houses; 4) cities with no apparent agricultural activity; and 5) ostensibly nonagricultural land such as parks and military reservations. Primary Sampling Units (PSUs) were created based on specific size requirements and permanent boundaries. An additional sampling enhancement involved the grouping of municipios with similar agriculture into nine clusters. Within each stratum and cluster, a random sample of PSUs was selected and then further subdivided into target sampling units called segments. Of approximately

7,500 segments available for sampling, 300 were selected into sample. Aerial photography and maps for the 300 segments were provided to support field data collection. All NML farms discovered within the 300 sampled segments were included in the area sample.

PRE-CENSUS AREA SCREENING

Prior to the actual census data collection, enumerators using aerial photos and municipio maps identified all farm operators within each assigned area segment. Enumerators recorded the farm operator's name, address, and cuerdas operated within the segment. Farm operators from the selected segments were then checked against the Census Mail List. If no match was found, a census report form was sent to the NML operator, with enumerators making follow-up visits to collect the data. For those farm operators discovered in an area segment but included in the Census Mail List, only the CML report was used, to avoid duplication. During the pre-screening process, 453 NML farm operators were found in the 300 sampled area segments, but only 334 of these original NML records were determined to be actual farm operators.

NML DISTRIBUTION AT THE MUNICIPIO LEVEL

Although the area sample size that determined the NML component ensured acceptable precision at the island level, the sample was not designed for reliable estimation of municipio-level data. To redistribute the island-level NML component in a more reasonable manner, a statistical calibration model was developed using information from similar CML and NML records. The 2007 model, based on a prototype used for the 1997 Puerto Rico Census, but extended to include small, marginal farms which may be omitted from the Census list sources, applies the area sample design "cluster" definition cited above, as well as the census categorical variable, farm type. For each municipio and farm type, the expanded estimate of total farms of that farm type was calculated for CML farms and combined with the count of unweighted NML farms of that farm type within the municipio. An analogous total, combining the CML estimate of total farms and the unweighted NML count for that farm type, was also computed at cluster level for the municipio's cluster: the municipio's share of each NML farm found in its cluster was calculated as the ratio of the municipio-level total farms of that type, described above, to the analogous total farms of that type at cluster level. The municipio-level expansion weight for an NML farm in a cluster was developed as the product of its conventional area frame weight and the municipio's share of the farms in that farm type. Within an original NML record's cluster, a replicate record was created to carry the fractionalized weight and the data allocated to any other municipio in the cluster with a share in NML farms of that farm type. The integerization algorithm applied to the municipio-level NML weight was designed to prevent the sum of the redistributed municipio level farm count to deviate by more than 2 from the island level NML farm count.

ESTIMATION

After weighting adjustment of the CML farm records, for nonresponse, and of the NML farm records, for sample expansion and municipio allocation, the CML and NML components were combined to provide a single estimate. Since the CML and NML contingents are mutually exclusive, our combined estimate should reflect complete and unduplicated coverage, provided that there is no significant nonresponse bias, and other nonsampling error is not operative.

EDITING DATA AND IMPUTING FOR ITEM NONRESPONSE

For the 2007 Puerto Rico Census of Agriculture, all reported data were keyed and then edited by computer. The edits were used to determine whether the reports met the criterion for satisfying the census farm definition: at least 500 dollars of reported sales. The complex edit and imputation system provided the basis for deciding to accept, impute, delete, or alter the reported value for each data record item.

Whenever possible, edit imputations, deletions, and revisions were based on component data, for a sum, or else

on other related data provided in the respondent's report form. For certain missing items, such as operator characteristics, a record's 2002 census data were used when available. Values for other data items, either missing or reported and rejected by the edit, were calculated based on reported quantities and known fixed price parameters. When these and similar methods were not available and values had to be supplied, the imputation process used other local information available on the particular item in question. For example, a farm operation that reported cuerdas of pigeon peas harvested but failed to report quantity harvested was assigned a quantity based on an average pound per cuerda of pigeon peas harvested. This average came from the Puerto Rico Department of Agriculture and previous census data.

After the initial computer edit, all keyed reports not meeting the census farm definition were reviewed to ensure that the data had been keyed correctly. Edit referrals were generated for about 60% of the reports whose operations were validated as farms; these cases were also reviewed for keying accuracy and to ensure that computer edit actions were correct. If the results of the computer edit were not acceptable, corrections were made and the record reedited.

CENSUS SURVEY ERROR

Because the NML component of the census data is an estimate, and surveys in general are prone to human error, the possibility of both sampling and nonsampling errors is always present. Sampling errors occur when only a portion of a population is selected. For samples with known probabilities of selection, the precision for a sample can be determined and confidence intervals calculated. In addition, the precision for list nonresponse can be determined and confidence intervals calculated as well. Nonsampling errors are associated with mistakes in reporting or keying the data as well as imputing for nonresponse.

CENSUS SAMPLING ERROR

The 2007 Puerto Rico Census of Agriculture, like the two Censuses preceding it, used an area frame to estimate the NML component from a sample: thus there is sampling error associated with this estimator. The 300 segments sampled represented only a small proportion of the approximately 7,500 segments potentially available. If a different 300 had been selected, the results would have been different. The error resulting from the difference between the sample actually selected, and the universe it was designed to represent, is called sampling error. If the sample of 300 is selected with known probabilities, then the sampling errors can be estimated from just one sample. The sampling error of an estimate is generally expressed in terms of the variance of the estimate, or its square root, the standard error, a measure of precision allowing the user to gauge the accuracy of the estimate. These measures are based on the average sum of the squared differences between each value of the reported data item and the mean value for that item.

Assuming that for each municipio, nonresponding CML farms in a given CML nonresponse stratum resemble the responding farms in that stratum, we can also apply the results of sampling theory to quantify the variability generated by nonresponse in the portion of any estimate coming from the CML contingent. For that estimate, we compute CML-based nonresponse variance for a stratified sample, assuming that when there is nonresponse within a nonresponse stratum, the respondents represent a random sample of all eligible farms, responding or nonresponding, within that stratum, and that, within municipio and stratum, response is independent of the response occurring within any other municipio and stratum combination. In our Census, nonresponse can occur only for the non-self-representing CML cases. Under the assumptions of random and independent nonresponse, we sum the individual CML variances for an estimate, from each combination of municipio and stratum, to obtain the total nonresponse variance of that estimate at Island level. For each estimate, the CML-based nonresponse variance is added to the sampling variance for that estimate from the NML contingent, to obtain the total variance of the estimate for the 2007 Puerto Rico Census of Agriculture.

The figures presented in Table B-1 are estimates of the percent relative standard error of selected quantities for Puerto Rico. The percent relative standard error is equal to the standard error of the estimate divided by the estimate itself, multiplied by 100. The estimates of relative standard error displayed in table B-1 were derived to reflect the total sampling error, which comes from Area Sampling, and also, under our assumptions, from the nonresponse process operating on CML records.

The particular sample selected for this census is one of many different samples, which could have been chosen. Had many different samples been taken - that is, had sampling been performed repeatedly under the same general conditions with the same sample design - many different estimates of each of the quantities being estimated would have been obtained. It is in this scenario that the following general rules about the standard error apply.

1. In repeated sampling, approximately 90% of all estimates obtained from the different samples would fall within 1.65 standard errors of the actual value which would have been obtained had a complete canvass or enumeration been performed, with no error present in the estimates.

2. In repeated sampling, approximately 95% of all estimates obtained from the different samples would fall within 1.96 standard errors of the actual value which would have been obtained had a complete canvass or enumeration been performed, with no error present in estimates.

Use of these rules can be illustrated with the following example from Table B-1. Our estimate of total Island-level production expenditures for the purchase of gasoline and other fuel and oil products was $17,568,756; the relative standard error obtained for this estimate was 3.5% (or .035). The standard error of the estimate is then .035 * $17,568,756, or $614,906.46 (rounded to three decimal places). We may construct an interval that ranges from 1.65 standard errors below the estimate to 1.65 standard errors above the estimate: from $16,554,160, the interval's lower limit, or ($17,568,756 - 1.65 * $614,906.46), to its upper limit of $18,583,352, computed as ($17,568,756 + 1.65 * $614,906.46), rounding to the nearest unit.

This interval is called a 90% confidence interval. The importance of this interval is given in the following statement: in repeated sampling, under the same general conditions, 90% of all such intervals constructed using the estimate and the relative standard error obtained for each sample selected would contain the actual value of agricultural chemicals purchased.

Similarly, a 95% confidence interval may be constructed: from a lower limit of $16,363,539, or ($17,568,756 - 1.96 * $614,906.46) to an upper limit of $ 18,773,973, computed as
($17,568,756 + 1.96 *$614,906.46), with rounding to the nearest unit.

The estimates of relative standard error displayed in table B-1 are for Island-level estimated totals and farm counts and are a measure only of the sampling error of the estimates; they do not account for error in the estimates due to other sources of error, called nonsampling error. The following sections discuss different types of nonsampling errors that may be present in the estimates.

CENSUS NONSAMPLING ERROR

Many other types of error are not caused by sampling and are not so easily quantified: *nonsampling error* may be introduced into the census through incorrect responses by reporters, or through mistakes made by programmers or data entry staffers, as in inappropriate adjustment of missing data. Nonsampling error due to mail list incompleteness and duplication or misclassification of records on the mail list is called coverage error, discussed in greater detail below. The purpose of the area frame is to eliminate nonsampling error associated

with CML incompleteness, coverage error, but not nonresponse.

RESPONDENT AND ENUMERATOR ERROR

Incorrect or incomplete responses to the census report form or to the questions posed by an enumerator can introduce error into the census data. To reduce reporting error, detailed instructions for completing the report form were provided to each respondent. Questions were phrased as clearly as possible, based on previous tests of the report form. In addition, each respondent's answers were checked for completeness and consistency by the complex edit program.

ITEM NONRESPONSE

Nonresponse to particular questions on the census report form, which we would logically or statistically expect to be present, may result in a type of nonsampling error. When information reported for another farm with ostensibly similar characteristics is used to impute for item nonresponse, the final estimates may be biased, if the unobserved characteristics of the nonrespondents differ systematically from those reported by respondents at either the record level (for an individual farm operation) or collectively, if respondent records are averaged or totaled.

PROCESSING ERROR

All phases of processing a census report form may introduce nonsampling error into the estimates. The processing of census report forms includes clerical screening for farm activity, computerized check-in of report forms and follow-up of nonrespondents, keying and transmittal of completed report forms, computerized editing of inconsistent and missing data, review and correction of individual records referred from the computer edit, review and correction of tabulated data, and electronic data processing. These operations undergo a number of quality control checks to ensure as accurate an application as possible, yet some errors may ultimately escape detection.

COVERAGE ERROR

Farms incorrectly excluded or included in the census result in coverage errors. Possible coverage errors include the following:

Overcount due to farms duplicated or enumerated more than once.

Undercount due to farms misclassified as nonfarms.

Overcount due to nonfarms misclassified as farms.

These coverage errors were minimized with computerized duplication identification programs and careful enumeration of all land area within a sampled area segment. In addition, field enumerators were required to follow up CML cases identified as major agricultural operations, if they did not respond by mail. If all follow-up attempts failed, either the NASS survey database, the census historic database, or other more current sources were used to impute data for the record.

BIAS AND PRECISION OF THE ESTIMATES

The nonsampling errors discussed above can be sources of bias leading to underestimates or overestimates,

based on the actual processed data. Since the formulas used to calculate estimates of relative standard error do not account for the nonsampling error sources, the figures published in the following tables may also be somewhat biased. It is important to note that the largest portion of the variability in the estimates probably comes from sampling error; it is the relative standard error of the estimates due to this source of error that is reported in the following table.

INTRODUCCIÓN

El Censo de Agricultura de 2007 en Puerto Rico se llevó a cabo en su mayoría a través del correo. Los formularios fueron enviados a los agricultores, usando el listado de correo del censo (CML, por sus siglas en inglés). Este listado fue complementado con una muestra de área que identificó a los agricultores que no se encontraban en la lista (NML, por sus siglas en inglés). Se utilizó un solo formulario, en español para ambos contingentes del censo (CML y NML). Combinando la información de la lista (CML) y de la muestra (NML) debemos obtener una cobertura completa para el Censo de Agricultura de Puerto Rico.

COBERTURA DE LA LISTA CENSAL Y LA NO RESPUESTA

La lista inicial (CML) consistió de 19,089 nombres y direcciones estratificados por tamaño y tipo de finca. Se aplicó la ponderación de no respuesta para incluir aquellos agricultores que no respondieron al censo. Para cada municipio donde hubo fincas, la ponderación fue calculada para respuestas agrupadas de forma homogénea (response homogeneity groups, or RHG). Los RHGs contenían seis categorías de valores de producción según informados en el 2007 en los récords de las fincas del municipio. Cada ponderación fue calculada como el total de todas las fincas listadas en CML, para todo RHG y su municipio, dividido por el número total de fincas que respondieron, dentro del RHG y el municipio. Por cada RHG encontrado en un municipio, esta ponderación, totalizada, fue aplicada a las partidas de cada finca dentro del RHG. Este procedimiento de estimación asume que la distribución de fincas en un RHG es la misma para la respuesta y la no respuesta. Récords que fueron devueltos por mala dirección postal ("UAA") y que no respondieron a ningún procedimiento de seguimiento, fueron excluidos de las calculaciones de la no respuesta. Note que los récords de NML no fueron sometidos a la ponderación debido a que estos fueron sometidos al proceso de seguimiento eliminando así la posibilidad de no respuesta.

A toda finca incluida en CML y designada como "obligatoria" (el sexto RHG, basado en valores altísimos de producción) se le requirió completar el informe censal. Si no se pudo obtener la información directamente de una finca "obligatoria" después de tratar de contactarla varias veces, entonces usamos información de fuente administrativa, histórica o secundaria para completar el formulario para este tipo de finca. Las operaciones "obligatorias" se consideran únicas y se mantienen fuera de toda ponderación porque son poco usuales en representar los que no responden, solo pueden ser consideradas auto-representados o sea llevan una ponderación igual a uno (1).

Para los otros cinco no "obligatoria", no auto-representados del RHG, la ponderación aplicada fue monitoreada someramente para asegurarnos que no excediera un valor mayor de 2.0; si una ponderación de RHG excedía el límite superior, se le aplicó un algoritmo para combinar RHG en la vecindad dentro del municipio, y se computó la ponderación para el grupo combinado. Para propósitos de la tabulación, en cada record, la ponderación de no respuesta para fracciones de finca se redondeó a una ponderación de 1,2 ó 3, con siete récords en municipios de baja respuesta, llevando una ponderación de 3. Para garantizar un resultado sin sesgo, a nivel de Isla, utilizamos un algoritmo de redondeo aleatorio para calcular los remanentes acumulativos.

AJUSTE DE COBERTURA

Se presume que una lista de nombres y direcciones nunca está completa. Por lo tanto; y para ampliar la cobertura, se utilizó un marco muestral de área representativo de toda la Isla de Puerto Rico. El marco muestral se estratificó por el NASS de acuerdo con la actividad agrícola. Las estratas se clasificaron como: 1) áreas con mucha agricultura, 2) agricultura dispersa y pocas viviendas, 3) agricultura dispersa y muchas viviendas, 4) ciudades con cero agricultura y 5) áreas con cero agricultura tales como parques e instalaciones militares. Las unidades muéstrales primarias, se crearon utilizando criterios de tamaño y límites permanentes. Además, se crearon nueve grupos de municipios con características agrícolas similares. Dentro de cada estrata y cada grupo,

se seleccionó una muestra aleatoria de unidades primarias que luego se subdividió en unidades de muestrio de enfoque llamadas segmentos. Se seleccionaron 300 de alrededor de 7,500 segmentos disponibles para muestra. A los enumeradores se les proveyó una serie de fotografías aéreas y mapas de los 300 segmentos para el trabajo de campo. Toda operación NML que se encontró dentro de los 300 segmentos y que no estaba en la lista fue designada como operación de la muestra.

SELECCION DE LA MUESTRA PRE-CENSO

Antes de la toma del censo, los enumeradores usando fotografías aéreas y mapas de los municipios, identificaron todas aquellas fincas que estaban dentro de cada segmento. Anotaron el nombre del agricultor, la dirección postal, y el total de cuerdas dentro del segmento. Los nombres de los agricultores dentro del segmento especificado fueron cotejados contra la lista postal del censo. Si el nombre no se encontraba, este operador NML se designó como para recibir un formulario y un enumerador le visitó para obtener la información. Para evitar duplicación, aquellos agricultores encontrados en el segmento, pero que estaban en la lista, solo el reporte CML fue utilizado. Durante esta selección de la muestra se encontraron un total de 453 fincas potenciales (NML) de los 300 segmentos del área de muestreo, pero solo 334 de estos récords originales NML resultaron ser operaciones agrícolas.

DISTRIBUCION DE LA MUESTRA (NML) AL NIVEL DE MUNICIPIO

Aunque el tamaño de la muestra que determinó el componente de NML asegura una precisión aceptable a nivel de Isla, la muestra no está designada para hacer estimados adecuados a nivel de municipio. Para redistribuir el componente de NML a nivel de Isla de manera más razonable, se desarrollo un modelo de calibración usando información de récords similares en la lista y en la muestra récords CML y NML. El modelo de 2007, esta basado en el modelo usado en el censo de Puerto Rico de 1997, pero se expandió para incluir fincas pequeñas que fueran excluidas de las fuentes del listado; aplica la definición del diseño de grupos mencionados anteriormente, así como la variable censal categórica, tipo de finca. Para cada municipio y cada tipo de finca, el estimado total de fincas expandidas por tipo de finca, se calculó para fincas CML en la lista y se combinó con el total no ponderado de fincas NML en la muestra para ese tipo de finca dentro del municipio. Un total análogo, combinando el estimado CML del total de fincas y el conteo no ponderado NML para ese tipo de finca, fue también calculado a nivel de grupo para los municipios agrupados-la parte del municipio en cada finca de muestra NML, encontrado dentro de cada grupo, fue calculada como la razón del total de fincas a nivel de municipio de ese tipo de finca, al total análogo de ese tipo de finca a nivel de grupo. La ponderación a nivel de municipio, para una finca de la muestra dentro de un grupo, se crea como el producto de toda ponderación convencional y la participación del municipio en ese tipo de finca. Dentro de los récords originales NML en los grupos de la muestra, se replicó un record para que llevara la ponderación fragmentada y la información recreada a cualquier otro municipio dentro del grupo con participación en ese tipo de finca en la muestra. Este algoritmo de números enteros aplicado a la muestra a nivel de municipio, se designó para prevenir que la suma de las fincas redistribuidas a nivel de municipio rebasara el nivel de 2 previamente establecido para la muestra en el conteo de fincas NML a nivel de isla.

ESTIMACION

Después del ajuste ponderado de los récords de finca CML, por no respuesta, y de los récords de finca NML, por expansión de la muestra y distribución de municipio, ambos componentes (CML y NML) fueron combinados para proveer un solo estimado. Como ambos componentes CML y NML son mutuamente exclusivos, nuestro estimado total debe reflejar una cobertura completa e irreproducible, siempre y cuando no exista sesgo de no respuesta y los errores de muestreo y otros sesgos sean mínimos.

CORRIGIENDO LA INFORMACION Y ATRIBUYENDO POR LA NO RESPUESTA

Para el Censo de Agricultura de Puerto Rico del 2007, la información recopilada se entró en las computadoras y

se sometió a una revisión detallada. La revisión se usó para determinar si la información recopilada llenaba los requisitos necesarios para la definición censal de finca: como mínimo 500 dólares de ventas reportadas. El sistema de revisión e imputación proveyó la base para decidir si aceptar, atribuir, eliminar o alterar la información recopilada para cada partida del formulario.

Siempre que fue posible, los cambios e imputaciones se realizaron a base de componentes de información reportada por el agricultor en el formulario censal. Para ciertas partidas, como en el caso de características del agricultor, se usó información del censo del 2002 si estaba disponible. Los valores para las partidas en blanco o inaceptables, fueron calculados basándose en información previamente recopilada o en parámetros ya establecidos. Cuando estos medios no estaban disponibles, los valores fueron asignados usando información local disponible para la partida específica. Por ejemplo, si una finca reportó cuerdas de gandules cosechadas, pero no informó la cantidad cosechada, se le asignó una cantidad basándose en el rendimiento promedio (lbs.) por cuerda de gandules cosechada según parámetros existentes en el Departamento de Agricultura y en el censo anterior.

Luego de la revisión inicial, los informes que no llenaban los requisitos de finca definida por el censo fueron nuevamente cotejados, para asegurarnos de que la información fue entrada correctamente. Se refirieron alrededor de 60% de los informes clasificados como fincas; estos casos también fueron revisados para cerciorarnos de que la entrada de datos y la redacción fuesen correctas. Si los resultados corregidos en la computadora no eran aceptables, se hicieron cambios y los récords se enviaron nuevamente para revisión.

ERROR DE LA ENCUESTA

Dado que el componente NML de los datos de censo es un estimado, y las encuestas están usualmente expuestas a errores humanos, la posibilidad de errores de muestreo siempre existe. Los errores de muestreo ocurren cuando solo se selecciona una porción de la población total. En muestras con una probabilidad conocida de selección, la precisión de la muestra puede determinarse y los intervalos de confiabilidad pueden calcularse. Adicionalmente, la precisión a la no respuesta puede determinarse y los intervalos de confiabilidad pueden calcularse también. Los errores ajenos al muestreo se asocian con errores cometidos al anotar o entrar los datos y con imputaciones a la no respuesta.

ERROR DE MUESTREO

El Censo Agrícola de Puerto Rico del 2007, al igual que los dos censos anteriores, usó un marco muestral de área para estimar el componente de NML, por lo tanto existe error de muestreo asociado con este estimador. En Puerto Rico, los 300 segmentos seleccionados representan solamente una pequeña porción de los casi 7,500 segmentos disponibles. Si se hubiesen seleccionado otros 300 segmentos diferentes, el resultado hubiese sido diferente al obtenido. A la magnitud de estas diferencias se le llama error de muestreo. Si la muestra de 300 segmentos es seleccionada con una probabilidad conocida, entonces el error de muestreo podría estimarse con una sola muestra. El error de muestreo en un estimador es generalmente expresado en términos de la varianza del estimado o su raíz cuadrada, el error estándar, que es una medida que provee al usuario una mejor comprensión de la medida de la precisión del estimador. Estas medidas se basan en la suma promedio de los cuadrados de las diferencias entre cada valor de las partidas reportadas y el valor promedio para esa partida.

Asumiendo que para cada municipio, las fincas CML en la lista que no respondieron y que estaban dentro de una misma estrata CML, tenían características similares a las fincas que completaron el formulario, también podemos aplicarles los resultados de teoría de muestreo para demostrar la varianza generada por la no respuesta en la parte del estimado proveniente del contingente de CML. Para este estimado, calculamos la varianza para una muestra estratificada basándonos en el CML, asumiendo que cuando existe la no respuesta dentro de una estrata de no respuesta, el entrelistado representa una muestra aleatoria de todas las fincas elegibles, respuesta o no respuesta, dentro de la estrata, y esta respuesta, dentro del municipio y la estrata, es independiente de la respuesta que ocurre dentro de la combinación de cualquier otro municipio y la estrata. En este Censo, la no

respuesta solo puede darse para los casos de CML que no son representativos de por si. Bajo esta premise, de no respuesta independiente y aleatoria, sumamos la varianza individual de CML para un estimado, de cada combinación de municipio y estrata, para obtener el total de varianza de no respuesta del estimado a nivel de Isla. Para cada estimado, se sumo la varianza de no respuesta basada en la lista, a la varianza de muestra para este estimado en el contingente de la muestra NML, para obtener la varianza total del estimado para el Censo de Agricultura de 2007 en Puerto Rico.

Las cifras presentadas en la Tabla B-1 son estimados del por ciento relativo de error estándar para ciertas cantidades en Puerto Rico. El por ciento relativo de error estándar es igual al error estándar del estimador, dividido por el estimado y multiplicado por 100. Los estimados del error estándar relativo presentados en la tabla B-1 fueron derivados para reflejar el error de muestreo, que resulta del muestreo por área, y también, bajo lo asumido, del proceso de no respuesta que opera en los récords CML.

La muestra de segmentos seleccionada para este Censo de Agricultura es una de varias muestras que pudieron haberse usado. Si se hubiesen usado varias muestras diferentes- esto es, si el muestreo se hubiese ejecutado repetidamente bajo las mismas condiciones con el mismo diseño de muestra - pudieron haberse obtenido muchos estimados diferentes de cada una de las cantidades estimadas. Es bajo estas condiciones que aplicamos las siguientes reglas generales sobre el error estándar.

1. En el muestreo repetitivo, aproximadamente un 90% de todos los estimados obtenidos de las diferentes muestras caerán dentro de un error estándar de 1.65 del valor actual obtenible mediante una enumeración completa, sin error alguno en los estimados.

2. En el muestreo repetitivo, aproximadamente un 95 % de todos los estimados obtenidos de las diferentes muestras caerán dentro de un error estándar de 1.96 del valor actual obtenible mediante una enumeración completa, sin error alguno en los estimados.

El uso de estas reglas puede verse en la Tabla B-1. Asumiendo que el estimado total de gastos por compra de gasolina, aceite y otros combustibles para uso de las fincas en Puerto Rico es $17,568,756; asumiendo también que el error estándar relativo de este estimado es 3.5 por ciento (.035). El error estándar del estimado es entonces (.035 X $17,568,756), o $614,906.46 Podríamos construir un intervalo que se extendiera desde un error estándar de 1.65 bajo el estimado hasta 1.65 sobre el estimado: $16,554,160 ($17,568,756 - 1.65 X $614,904.46) hasta $18,583,352 ($17,568,756 + 1.65 X $614,906.46) redondeados a la unidad más cercana.

A este intervalo se le llama intervalo de confianza de 90 por ciento. La importancia de este intervalo se explica en la siguiente aseveración: en muestreo repetitivo, bajo las mismas condiciones, un 90 por ciento de todos los intervalos construidos usando los estimados y el error estándar relativo obtenido por cada muestra seleccionada contendrá el valor actual de los productos químicos agrícolas comprados.

De la misma forma, puede construirse un intervalo de confianza de 95 por ciento: $16,353,539 ($17,568,756 - 1.96 X $614,906.46) a $18,773,973 ($17,568,756 + 1.96) X $614,906.46) redondeados a la unidad más cercana .

Los estimados del error estándar relativo presentados en la tabla B-1 son solo para totales estimados a nivel de Isla y totales de fincas y son una medida del error de muestreo en el estimado; no toman en cuenta por errores en el estimado debido a otras fuentes, llamados errores no debidos a la muestra. Las secciones siguientes discuten otros tipos de errores no de muestreo y que podrían estar presentes en el estimado.

ERRORES DE CENSO AJENOS AL MUESTREO

El otro tipo de error en un censo ocurre como resultado de obtener respuestas incorrectas, de errores cometidos por las personas entrando los datos o de ajustes inapropiados cuando las partidas están en blanco. A estos se les conoce como errores ajenos al muestreo. También pueden surgir de la insuficiencia y duplicación de la lista, así como de clasificación errónea de los récords, y se les conoce como errores de cobertura, se discute con mayor detalle más adelante. Más aún, el marco muestral de área se usó para eliminar errores ajenos al muestreo asociados con la insuficiencia de la lista (CML) errores de cobertura, pero no por la no respuesta.

ERROR DEL ENUMERADOR O DEL ENTREVISTADO

Respuestas incorrectas o incompletas en el formulario censal o las preguntas formuladas por el enumerador podrían introducir error en la información censal. Para reducir este error, se dieron instrucciones detalladas de como completar el formulario a cada uno de los agricultores. Las preguntas fueron fraseadas lo más claramente posible basándonos en evaluaciones anteriores del formulario. Además, cada respuesta fue cotejada para verificar su integridad y consistencia.

PARTIDAS EN BLANCO

Partidas en blanco en ciertas preguntas del cuestionario, para las cuales se esperaba una respuesta, pueden causar errores ajenos al muestreo. Cuando imputamos los datos para la partida en blanco usando información recopilada para otra finca con características similares, el estimado final puede estar sesgado. Esto resulta porque las características omitidas por los casos que no han sido reportados, pueden ser diferentes de las características reportadas por los operadores, lo mismo al nivel de elemento (operación de finca individual) o en el promedio o total.

ERROR DE PROCESAMIENTO

Todas las fases del procesamiento para cada formulario del censo son fuentes para la introducción de errores ajenos al muestreo. El procesamiento de las formas censales incluye una revisión clerical de las actividades agrícolas, el registro computadorizado del recibo de los formularios y el seguimiento de los casos que no han respondido, la entrada y transmisión electrónica de los datos en archivos computadorizados; la depuración computadorizada de la información inconsistente u omitida, el repaso y corrección de casos con errores rechazados por el proceso de depuración de datos, un análisis y corrección de los datos tabulados; y el procesamiento electrónico de los datos. Estas operaciones conllevan un número de cotejo de control de calidad para asegurar que la aplicación sea lo más precisa posible. Sin embargo, varios de estos errores pueden escaparse sin ser detectados.

ERROR DE COBERTURA

Fincas incorrectamente excluidas o incluidas en el censo resultan como error de la cobertura. Los siguientes son posibles errores de cobertura:

Cifras exageradas debido a duplicidad o enumeración de fincas por más de una vez.

Cifras subestimadas debido a fincas erróneamente clasificadas como no fincas.

Cifras exageradas debido a no fincas erróneamente clasificadas como fincas.

Estos errores de cobertura se minimizaron a través de una revisión ejecutada por las computadoras para identificar y eliminar récords duplicados y una enumeración somera de todo terreno agrícola dentro de cada segmento en la muestra. Además, los enumeradores visitaron agricultores de CML identificados como de una gran producción agrícola y que no respondieron a través del correo. Si después del seguimiento no hubo respuesta, se utilizó o la encuesta del NASS o la fuente de datos del censo anterior o otras fuentes mas recientes

para llenar los datos del record.

SESGO Y PRECISION DE LOS ESTIMADOS

Los errores ajenos al muestreo discutidos anteriormente, pueden ser fuentes de sesgo que podrían causar que los datos publicados contengan estimados por debajo o sobre lo normal. Como las fórmulas usadas para calcular estimados del error estándar relativo no son responsables por los errores ajenos al muestreo, las cifras publicadas podrían estar un tanto sesgadas. Es importante tomar en cuenta que la porción mayor de variabilidad en los estimados proviene de errores de muestreo. Las tablas siguientes contienen el error estándar relativo de los estimados procedente de estas fuentes.

A				
Age of operator	4-6	34	77-82	Edad del operador
Agregados	7	35	77-82	Agregados
Agricultural chemicals purchased (see Expenses)				Productos químicos (ver Gastos)
Agricultural Practices	19			Prácticas agrícolas
Agricultural products sold.	12,14-18	36	77-82	Productos agrícolas vendidos
Aquaculture products	17	36	77-82	Productos de la acuicultura
Automobiles (see Machinery and equipment)				Automóviles (ver Maquinaria y equipo)
Average size of farm (see Farms, average size)				Tamaño promedio de finca (ver Fincas, tamaño promedio)
Avocados	15	65	77-82	Aguacates
B				
Bananas	12,15	36,47	77-82	Guineos
Beans:				Habichuelas:
Dry	15	49	77-82	Secas
Green	15	50	77-82	Verdes
Beehives	14	40	77-82	Colmenas
Broilers	14	36,43	77-82	Pollos parrilleros
Buildings and facilities:				Edificios y facilidades:
Buildings used to house livestock	8	32	77-82	Ranchos para el ganado y las aves
Storage for crops	8	32	77-82	Almacén de cosechas
Greenhouses	8	32	77-82	Umbráculos
Machinery	8	32	77-82	Maquinaria
Houses for agregados and other workers	8	32	77-82	Casas para agregados y otros trabajadores
C				
Cabbage	15	-	77-82	Repollo
Cantaloupe	15	-	77-82	Cantaloups
Cassava	15	54	77-82	Yuca
Cattle and calves, number	14	40	77-82	Ganado vacuno y terneros, número
Cattle and calves sold	12, 14	36, 41	77-82	Ganado vacuno y terneros, vendidos
Chemicals for control of-				Productos químicos para controlar-
Insects on crops and pastures	9	39	77-82	Insectos en los cultivos y en el pasto
Diseases in crops and orchards	9	39	77-82	Plagas en los cultivos y las huertas
Weeds or grass in crops	9	39	77-82	Malezas en los cultivos
Nematodes on crops	9	39	77-82	Nemátodos en los cultivos
Chickens for egg production:				Gallinas ponedoras:
Pullets for replacement	14	42	77-82	Pollonas para reemplazo
Layers	14	42	77-82	Adultas
Chironjas	15	64	77-82	Chironjas
Citron .	15	68	77-82	Cidra
Coconuts	15	61	77-82	Cocos
Coffee	13,15	44	77-82	Café
Coffee dryers, depulpers, and washers (see Machinery and equipment)				Secadoras de café, despulpadoras y lavadoras (ver Maquinaria y equipo)
Commercial fertilizers (see Expenses)				Abonos (ver Gastos)
Contract labor (see Expenses)				Mano de obra contratada (ver Gastos)
Coolers, milk (see Machinery and equipment)				Tanques enfriar leche (ver Maquinaria y equipo)
Corn	15	51	77-82	Maíz
Corporations (see Farms classified by type of organization)				Corporaciones (ver Fincas clasificadas según el tipo de organización)
Crops, harvested and sold	12, 15, 16	36	77-82	Productos agrícolas, cosechados y vendidos
Cucumbers	15	-	77-82	Pepinillos
Cultivated cropland	2, 3, 15	24,27	77-82	Terreno cultivado
Custom work and machine hire (see Expenses)				Trabajo por encargo y alquiler de maquinaria (ver Gastos)
D				
Dairy products sold, value	12, 14	36,41	77-82	Valor de productos lacteos vendidos
Dasheens	15	53	77-82	Malangas
Diseases in crops and orchards (see Chemicals)				Plagas en los cultivos (ver Productos químicos)
Dryers, coffee (see Buildings and facilities)				Secadoras de café (ver Edificios y facilidades)
Ducks (see Other poultry)				Patos (ver Otras aves)

E				
Eggplant	15	-	77-82	Berenjenas
Eggs, chicken	14	43	77-82	Huevos, de gallina
Equipment and machinery, value	8	33	77-82	Equipo y maquinaria, valor
Estates (see Farms classified by type of organization)				Haciendas (ver Fincas clasificadas según el tipo de orginazación)
Expenses:				Gastos:
Agricultural chemicals purchased	11	38	77-82	Productos químicos agrícolas comprados
Commercial fertilizers	11	38	77-82	Abonos
Contract labor	11	38	77-82	Mano de obra contratada
Feed for livestock, poultry, and fish	11	38	77-82	Alimentos para el ganado, aves y peces
Gasoline and other fuel and oil products	11	38	77-82	Gasolina, aceite y otros combustibles
Livestock, poultry, and fish purchased	11	38	77-82	Ganado, aves y peces comprados
Machine hire and custom work	11	38	77-82	Alquiler de maquinaria y trabajo por encargo
Medicines and drugs for livestock and poultry	11	38	77-82	Medicinas y drogas para el ganado y las aves
Professional services				Servicios profesionales
Seeds, bulbs, plants, and trees	11	38	77-82	Semillas, bulbos, plantas y árboles
Veterinarian services	11	38	77-82	Servicios de veterinaria
Wages and salaries	11	38	77-82	Jomales y salarios
All other expenses	11	38	77-82	Todo otro gasto
F				
Family or individual farms	1	29	77-82	Fincas de familia o individuales
Farm operators (see Operator)				Operadores de finca (ver Operador)
Farm-related income:				Ingreso relacionado con la finca:
Custom farmwork	13	37	77-82	Trabajo por encargo
Agriturism and recreational services	13	37	77-82	Agroturismo y servicios recreativos
Renting out farm land	13	37	77-82	Alquiler del terreno
Participation in government programs	13	37	77-82	Participar en programas del gobierno
Sales of farms by-product	13	37	77-82	Ventas de subproductos de finca
Other sources of farm related income	13			Otras fuentes relacionadas con la finca
Farms, average size	1	-	77-82	Fincas, tamaño promedio
Farms classified by –				Fincas clasificadas por –
Age of operator	4	34	77-82	Edad del operador
Land use	2	22	77-82	Uso del terreno
Size of farm	1	23,24	77-82	Tamaño de la finca
Tenure of operator	1, 3	26-28	77-82	Tenencia del operador
Type of farm	-	-		Tipo de finca
Type of organization	1	29	77-82	Tipo de orginazación
Value of agricultural products sold	12, 14-16	30,36,41,43	77-82	Valor de los productos agrícolas vendidos
Value of machinery and equipment	8	33	77-82	Valor de la maquinaria y equipo
Farms, number	1-3	22-33	77-82	Número de fincas
Feed purchased (see Expenses)				Compra de alimentos (ver Gastos)
Fertilizer for cropland	9	39	77-82	Abono para terreno cultivable
Fertilizer for pastureland	9	39	77-82	Abono para terreno en pastos
Fish (see Aquaculture products)				Peces (ver Acuicultura)
Fruits and coconuts sold, value	12	36	77-82	Frutas y cocos vendidos, valor
Fruits and coconuts	12	60-73	77-82	Frutas y cocos
Fungicides (see Chemicals)				Fungicidas (ver Productos químicos)
G				
Gasoline and other fuel and oil products purchased (see Expenses)				Compra de gasolina, combustibles y productos de petróleo (ver Gastos)
Geese (see Other poultry)				Gansos (ver Otras aves)
Gender	4,6	34	77-82	Sexo
Gilts and sows (see Hogs and pigs)				Cerdas y cerditas (ver Cerdos y cerditos)
Ginger roots		59	77-82	Jenjibre
Goats and sheep	14	40, 41	77-82	Cabros y ovejas
Government agency or corporate farms (see Farms classified by type of organization)				Agencias de gobierno o fincas colectivas (ver Fincas clasificadas según el tipo de orginazación)

Government farm program payments	13,21	37	77-82	Pagos del programa agrícola del gobierno
Grain or field crops	12, 15	48-52	77-82	Siembras de granos
Grapefruit	15	62	77-82	Toronjas
Guinea Hens	14	42	77-82	Guineas
Grasses:				Pasto:
Guinea	15	76	77-82	Guinea
Merker	15	76	77-82	Merker
Pangola	15	76	77-82	Pangola
Paragrass	15	76	77-82	Malojillo
Star	15	76	77-82	Estrella
Pajon grass	15	76	77-82	Pajón
Other grass	15	76	77-82	Otros pastos
Greenhouses (see Buildings and facilities)				Umbráculos
H				
Heifers (see Cattle and calves)				Novillas (ver Ganado y terneros)
Herbicides (see Chemicals)				Yerbicidas (ver Productos químicos)
Herbs or spice plants	15	74	77-82	Yerbas y plantas aromáticas
Hired farm workers	7	35	77-82	Trabajadores de finca contratados
Hogs and pigs, number	14	40,41	77-82	Cerdos y cerditos, número
Hogs and pigs sold	12, 14	41	77-82	Cerdos y cerditos vendidos
Honey, gallons sold	14	41	77-82	Miel, galones vendidos
Honeydew melons	15	-	77-82	Melones honeydew
Horses	14	40	77-82	Caballos
Houses for agregados and other workers (see Buildings and facilities)				Casas para agregados y otros trabajadores (ver edificios y facilidades)
Hydroponic crops	18	-	-	Siembras hidropónicas
I				
Income, from farm-related sources	4, 5	37	77-82	Ingreso de fuentes relacionadas con la finca
Income, source of	4	37	77-82	Ingreso, fuente de
Individual or family farms (see Farms classified by type of organization)				Fincas individuales o de familia (ver Fincas clasificadas según tipo de orginazación)
Irrigated farmland, source of	10	31	77-82	Fuente de riego para el terreno
J				
Jeeps (see Machinery and equipment)				Jeeps (ver Maquinaria y equipo)
L				
Labor, hired	7, 11	35	77-82	Mano de obra, contratada
Land in farms	1-3	22-23	77-82	Terreno en fincas
Lawn grass (see Horticultural specialities)				Césped (ver Ornamentales)
Lemons and limes	15	72	77-82	Limones y limas
Lettuce	15	-	77-82	Lechuga
Lime	9	39	77-82	Cal
Livestock and poultry				Ganado y aves
Feed purchased	11	38	77-82	Compra de alimentos
Number on place	14	40	77-82	Cantidad en la finca
Number sold	14	41	77-82	Cantidad vendida
Purchased, expense	11	38	77-82	Compra de animales
Livestock, poultry, and their products sold, value	12, 14	36, 41,43	77-82	Valor de ganado, aves, peces y productos derivados
M				
Machinery and equipment:				Maquinaria y equipo:
Automobiles, jeeps, pickups, and motortrucks	8	32	77-82	Automóviles, jeeps, camionetas, y camiones
Coffee depulpers	8	32	77-82	Despulpadoras de café
Crawler tractors	8	32	77-82	Tractores de oruga
Emergency electric generators	8	32	77-82	Plantas auxiliares de energía eléctrica
Mechanical coffee dryers	8	32	77-82	Secadoras mecánicas de café
Mechanical coffee washers	8	32	77-82	Lavadoras mecánicas de café
Milk coolers	8	32	77-82	Tanques para enfriar leche

Milk machines	8	32	77-82	Ordeñadoras mecánicas
Solar or air coffee dryers	8	32	77-82	Secadoras de café solares o al aire libre
Wheel tractors	8	32	77-82	Tractores de rueda de goma
Machinery and equipment, value	8	32	77-82	Maquinaria y equipo, valor
Machine hire and customwork (see Expenses)				Maquinaria de alquiler y trabajo por encargo
Mangoes	15	66	77-82	Mangos
Medicines and drugs (see Expenses)				Medicinas y drogas (ver Gastos)
Milk	14	41	77-82	Leche
N				
Nematicides (see Chemicals)				Nematicidas (ver Productos Químicos)
O				
Occupation of operator	4	34	77-82	Ocupación del operador
Off-farm work, number of days	4	34	77-82	Trabajo fuera de la finca, número de días
Operator characteristics	4	34	77-82	Características del operador
Operator:				Operador:
Age	4-6	34	77-82	Edad
Education	4-6	34	77-82	Educación
Gender	4-6	34	77-82	Sexo
Principal occupation	4-6	34	77-82	Ocupación principal
Off-farm work, number of days	4-6	34	77-82	Trabajo fuera de la finca, número de días
Percent of income from farming	4,5	34	77-82	Por ciento de ingreso de la agricultura
Place of residence	4-6	34	77-82	Lugar de residencia
Source of income	4,5	34	77-82	Fuente de ingreso
Years operating farm	4-6	34	77-82	Años operando la finca
Oranges	15	63	77-82	Chinas
Organic Agriculture	19			Agricultura orgánica
Organic fertilizers	9	39	77-82	Fertilizantes orgánicos
Ornamental Fish	17		77-82	Peces ornamentales
Ornamental plants and lawn grass	16	75	77-82	Plantas ornamentales y césped
Other fruits	15	73	77-82	Otras frutas
Other land	2	-	77-82	Otras tierras
Other poultry	14	42, 43	77-82	Otras aves
Owners, full and part	1, 3	26-27	77-82	Dueños, total y parcial
P				
Palm trees	16	75		Palmitas
Papayas	15	69	77-82	Papayas
Partnership	1	29	77-82	Asociación
Passion fruit	15	70	77-82	Parchas
Pasture, cropland used	2	24, 27	77-82	Terreno cultivable usado para pastos
Peppers	15	74	77-82	Pimientos
Pesticides (see Chemicals)				Pesticidas (ver Productos químicos)
Pigeon peas	15	48	77-82	Gandures
Pigeons (see Other poultry)				Palomas (ver Otras aves)
Pineapples	12, 15	36,45	77-82	Piñas
Plantains	12, 15	36, 46	77-82	Plátanos
Poinsettias	16	75	77-82	Pascuas
Ponds (see Aquaculture products)				Charcas (ver Acuacultura)
Poultry:				Aves de corral:
Eggs sold, dozens	14	43	77-82	Docenas de huevos vendidas
Number on place	14	42	77-82	Cantidad en el lugar
Number sold	14	43	77-82	Cantidad vendida
Purchased (see Livestock, poultry, and fish)				Comprado (ver Ganado, aves y peces)
Poultry, livestock, and their products sold, value	12, 14	36,41,43	77-82	Venta de aves, animales y productos derivados, Valor
Prawns (see Aquaculture products)				Langostinos (ver Acuicultura)
Production expenses (see Expenses)				Gastos de producción (ver Gastos)
Pullets	14	42	77-82	Pollonas
Pumpkins	15		77-82	Calabazas

Q				
Quenepas	15	71	77-82	Quenepas
R				
Rabbits	14	40, 41	77-82	Conejos
Race	6	34	77-82	Raza
Residence of operator	4-6	34	77-82	Residencia del operador
Rooster	14	42, 43	77-82	Gallos
Root celery	15	55	77-82	Apio
Root crops	12, 15	36, 53-59	77-82	Tubérculos
S				
Sale of agricultural products	12, 14-16	36, 41-43	77-82	Venta de productos agrícolas
Seeds purchased (see Expenses)				Semillas compradas (ver Gastos)
Sharecroppers	7	35	77-82	Aparceros
Sheep and goats	14	40	77-82	Ovejas y cabros
Sheep and goats sold, value	12		77-82	Ovejas, y cabros vendidos, valor
Shrimp (see Aquaculture products)				Camarones (ver Acuacultura)
Size of farm	1	22-23	77-82	Tamaño de la finca
Soursop	15	67	77-82	Guanábanas
String beans	15	-	77-82	Habichuelas tiernas
Sweet corn	15	-	77-82	Maíz tierno
Sweet potatoes	15	56	77-82	Batatas
T				
Taniers	15	58	77-82	Yautías
Tenants	1, 3	26-27	77-82	Inquilinos
Tenure of operator	1, 3	26-27	77-82	Tenencia del operador
Tilapia (see Aquaculture products)	17			Tilapia (ver Acuacultura)
Tomatoes	15	74	77-82	Tomates
Tractors (see Machinery and equipment)				Tractores (ver Maquinaria y equipo)
Tree seedlings (See coffee trees)	16	75	77-82	Arbolitos de cafe
Turkeys (see Other poultry)				Pavos (ver Otras aves)
Type of irrigation	10	31	77-82	Tipo de riego
V				
Value of agricultural products sold (also see individual products)	12, 14, 16	36	77-82	Valor de los productos agrícolas vendidos (también ver productos individuales)
Vegetables and melons, harvested and sold	12, 15	36, 74	77-82	Hortalizas y melones, cosechados y vendidos
W				
Wages and salaries paid to hired farm workers (see Expenses)				Jornales y salarios pagados a trabajadores de finca
Water used for irrigation, by source	10	31	77-82	Agua para riego, según la fuente
Watermelons	15	74	77-82	Sandías
Woodland	2	22	77-82	Montes o bosques
Y				
Yams	15	57	77-82	Ñames
Years operating present farm, number	4-6	32	77-82	Número de años operando la finca actual