

# Census of Agriculture 2023

**United States Department of Agriculture (USDA), National Agricultural Statistics Service (NASS)**

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## Identification

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### SURVEY ID NUMBER

GUM\_2023\_CA\_v01\_M\_v01\_A\_ESS

### TITLE

Census of Agriculture 2023

### ABBREVIATION OR ACRONYM

CA 2023

### COUNTRY

Name	Country code
Guam	GUM

### STUDY TYPE

Agricultural Census [ag/census]

### SERIES INFORMATION

The U.S. Bureau of the Census conducted the first Census of Agriculture (CA) in Guam in 1920, as part of the decennial Population and Housing Census of that year. From 1930 through 1960, censuses of agriculture continued to be carried out in conjunction with the decennial population and housing census program. Beginning in 1964, censuses in Guam were conducted as part of the quinquennial censuses of agriculture and have been conducted on a five-year cycle. The Census of Agriculture 2023 was the sixteenth agricultural census to be undertaken in Guam.

### ABSTRACT

The census of agriculture is the leading source of statistics about Guam's agricultural production and the only source of consistent, comparable data at the island level. Census statistics are used to measure agricultural production and to identify trends in an ever-changing agricultural sector. The census includes data on the structure of agricultural land, crops and livestock, farm characteristics, as well as production expenses, value of agricultural products, use of technology, and aquaculture.

### KIND OF DATA

Census/enumeration data [cen]

### UNIT OF ANALYSIS

Agricultural holdings

## Scope

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### NOTES

The census scope covered agricultural (crops and livestock) activities. Additionally, information on aquaculture activities carried out by the holdings was collected.

The questionnaire collected information on:

1. Land in agriculture and land use.
2. Root crops
3. Vegetables and melons
4. Fruits, nuts, nursery crops and hemp
5. Irrigation
6. Livestock
7. Poultry
8. Aquaculture
9. Production expenses
10. Equipment
11. Practices

### KEYWORDS

Keyword
Structure of Agriculture
Land use
Crops
Livestock and Poultry
Aquaculture
Agricultural Equipment

## Coverage

### GEOGRAPHIC COVERAGE

The Census of Agriculture 2023 covered the entire territory of Guam.

### UNIVERSE

The statistical unit for the Census of Agriculture 2023 was the farm, defined as any agricultural production unit (called “place” according to the country’s terminology) from which USD 1000 or more of agricultural products were produced and sold, or normally would have been sold, during the calendar year 2023 (1 January to 31 December 2023). The farm definition is the same that was used for the Census of Agriculture 2018 in Guam and for the other censuses of agriculture conducted in the rest of the U.S. According to the census definition, a farm is essentially an operating unit, not an ownership tract. Therefore, all land operated or managed by one person or partnership represents one farm. In the case of tenants, the land assigned to each tenant is considered a separate farm, even though the landlord may consider the entire landholding to be one unit rather than several separate units.

## Producers and sponsors

### PRIMARY INVESTIGATORS

Name
United States Department of Agriculture (USDA), National Agricultural Statistics Service (NASS)

### PRODUCERS

Name	Affiliation	Role
College of Natural and Applied Science	University of Guam	Recruitment and training of local officers and field staff; supervision of local administrative matters
Guam Department of Agriculture		Technical assistance

## Sampling

### SAMPLING PROCEDURE

For the Census of Agriculture 2023, the National Agricultural Statistics Service compiled a complete as possible list of agricultural production units that met the farm definition. This list included agricultural production units that met the farm definition on the Census of Agriculture 2018 and potential agricultural production units provided by the Cooperative Extension and Outreach Service of the University of Guam, and the Guam Department of Agriculture and a variety of other agriculture-related lists. The list of potential agricultural production units was matched to the 2018 census records using record linkage programs to remove duplicates.

The census was a complete enumeration of all farms from the frame which met the cut-off threshold. Namely, it included all holdings that produced and sold agricultural products worth USD 1000 or more, or that would have normally sold this amount during the 2023 calendar year.

## Data collection

### DATES OF DATA COLLECTION

Start	End
2024-01	2024-10

### DATA COLLECTION MODE

Face-to-face [f2f]

### DATA COLLECTION NOTES

Data for the Census of Agriculture 2023 was collected via face-to-face interviews through pen and paper personal interviews (PAPI). The census operation employed 40 staff.

#### **\*\*QUALITY ASSURANCE\*\***

Various measures were taken to control non-sampling errors, such as compiling a complete and accurate list of farmers for the census, designing an understandable report form with clear instructions, training enumerators on how to ask the questions and record the answers on the report form, and minimizing processing errors through the use of quality control measures.

An independent quality control process occurred after the initial keying where ten percent of the captured data is keyed a second time. 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 or receive additional training. All captured data, whether keyed or transferred from other data collection instruments, was systematically checked for errors that were either resolved within the edit or through intervention of an analyst.

To reduce reporting and recording errors, detailed instructions for completing the report form were provided to each enumerator, and questions were phrased as clearly as possible. In addition, each respondent's answers were checked for completeness and consistency by the complex edit and imputation system.

In the Census of Agriculture 2023, efforts were initiated to measure the error associated with adjustments for farm operations that were on the list of farm producers but did not respond to the census report form. The error measurement was derived from the standard error of estimates at island level, where appropriate, and was expressed as a coefficient of variation at the island level. Every estimate has a corresponding coefficient of variation published with it and they are also displayed in the Quick Stats database.

## questionnaires

### QUESTIONNAIRES

One questionnaire was used for the Census of Agriculture 2023. The questionnaire covered 13 out of the 23 essential items recommended in the WCA 2020.

## data\_processing

### DATA EDITING

Captured data were processed through a computer formatting 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 report forms were available to analysts of the National Agricultural Statistics Service for computer editing and analysis. Data from each report were subjected to a detailed item-by-item computer edit. The edit determined whether a reporting operation met the minimum criteria to be counted as a qualifying farm (in-scope). Each in-scope record was reviewed for reasonableness and completeness, and the edit determined whether to accept recorded values for each data item or take corrective action. Corrective actions included removing erroneously reported values and replacing an unreasonable value with one consistent with other reported data.

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 were reviewed. Criteria included, but were not limited to, geographic levels, farm types, and sales levels. When necessary, inconsistencies were resolved. After tabulation and review of the aggregates, a comprehensive disclosure review was conducted using cell suppression to protect cells sensitive to information disclosure.

#### \*\*DATA PROCESSING NOTES\*\*

The Census Bureau's National Processing Centre captured data from the questionnaires through optical scanning. Staff of the National Agricultural Statistics Service on site at the National Processing Centre provided technical guidance and monitored processing activities. All report forms returned to the National Processing Centre were immediately checked-in, using bar codes printed on the mailing label. All keyed forms were then scanned and loaded into the Feith file cabinet. Scanned questionnaires were available for analytical review of the data as well as for archive purposes. The keying staff evaluated the contents and captured pertinent responses.

## Access policy

#### CONTACTS

Name	Affiliation	Email	URL
College of Natural and Applied Science	University of Guam		<a href="#">Link</a>
National Agricultural Statistics Service (NASS)	United States Department of Agriculture (USDA)	nass@nass.usda.gov	<a href="#">Link</a>

#### ACCESS CONDITIONS

Access and use information is set by National Agricultural Statistics Service, Department of Agriculture: <https://catalog.data.gov/dataset/quick-stats-agricultural-database>.

## Metadata production

#### DDI DOCUMENT ID

DDI\_GUM\_2023\_CA\_v01\_M\_v01\_A\_ESS\_FAO

#### PRODUCERS

Name	Abbreviation	Affiliation	Role
College of Natural and Applied Science		University of Guam	Metadata producer
National Agricultural Statistics Service	NASS	United States Department of Agriculture (USDA)	Metadata producer
Statistics Division	ESS	Food and Agriculture Organization of the United Nations	Metadata adapted for FAM
Development Data Group	DECDG	World Bank Group	Metadata adapted for World Bank Microdata Library

#### DDI DOCUMENT VERSION

Identical to a metadata (GUM\_2023\_CA\_v01\_M\_v01\_A\_ESS) published on FAO microdata repository (<https://microdata.fao.org/index.php/catalog>). Some of the metadata fields have been edited.

**data\_dictionary**

<b>Data file</b>	<b>Cases</b>	<b>variables</b>
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## **study\_resources**