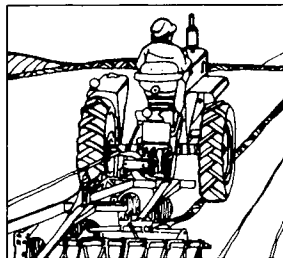
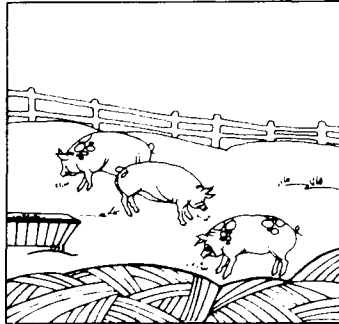


part 14

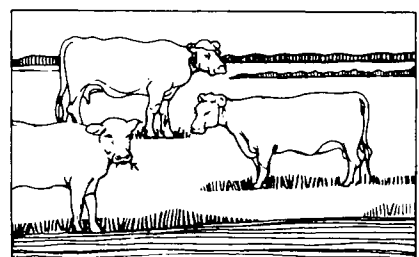
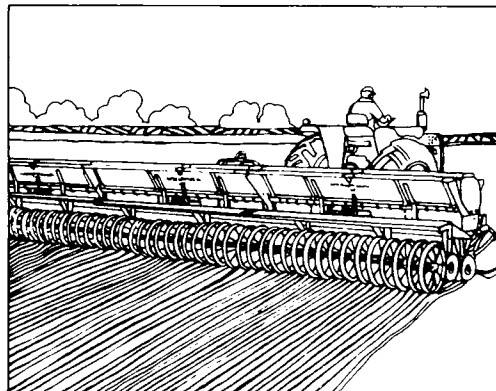
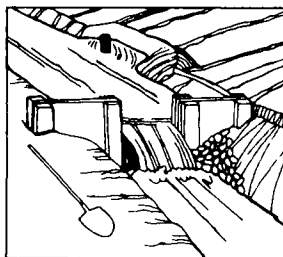
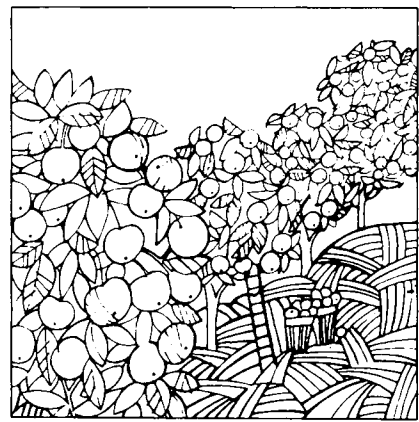
# PROCEDURAL HISTORY

Section A. 1969 Census of Agriculture  
and Census of Agricultural Services

VOLUME V  
SPECIAL REPORTS



## 1969 CENSUS OF AGRICULTURE



Issued June 1974



U. S. DEPARTMENT OF COMMERCE

Frederick B. Dent, Secretary

Sidney L. Jones, Assistant Secretary for Economic Affairs

Social and Economic Statistics Administration

Edward D. Failor, Administrator

BUREAU OF THE CENSUS

Vincent P. Barabba, Director



## BUREAU OF THE CENSUS

Vincent P. Barabba, Director  
Robert L. Hagan, Deputy Director  
James W. Turbitt, Associate Director  
for Economic Fields

### AGRICULTURE DIVISION

J. Thomas Breen, Chief

### DATA USER SERVICES OFFICE

Robert B. Voight, Chief

---

## REPORTS OF THE 1969 CENSUS OF AGRICULTURE

### Individual County Reports

Eight-page reports have been issued for each county and State.

### Volume I. Area Reports

A separate report has been published for each State, American Samoa, Guam, Puerto Rico, Trust Territory, and the Virgin Islands. The report consists of two sections. Section 1 contains State summary data, county summary of selected data, and miscellaneous items by counties; Section 2 contains the detailed county reports.

### Volume II. General Report

Statistics by subject are presented in separate chapters with totals for the United States, regions, geographic divisions, and States. The nine chapters are being issued as individual reports as follows:

- Chapter 1 General Information; Procedures for Collection, Processing, Classification*
- Chapter 2 Farms: Number, Use of Land, Size of Farm*
- Chapter 3 Farm Management, Farm Operators*
- Chapter 4 Equipment, Labor, Expenditures, Chemicals*
- Chapter 5 Livestock, Poultry, Livestock and Poultry Products*
- Chapter 6 Crops, Nursery and Greenhouse Products, Forest Products*
- Chapter 7 Value of Products, Economic Class, Contracts*
- Chapter 8 Type of Farm*
- Chapter 9 Irrigation and Drainage on Farms*

### Volume III. Agricultural Services

This new report contains data relating to agricultural services for the United States by State and county.

### Volume IV. Irrigation

Data will be included on drainage basins, land irrigated, crop production on irrigated land, water conveyed, users, and types of organizations.

### Volume V. Special Reports

Reports may contain data obtained from supplemental surveys, such as type of farm, horticulture, and farm finance; in addition to information obtained in the census.

- Parts 1 to 9. Type-of-Farm Operations.*—One for each of nine major type-of-farm classifications.
- Part 10. Horticultural Specialties.*
- Part 11. Farm Finance.*
- Part 12. Ranking Agricultural Counties.*
- Part 13. Forms and Procedures.*
- Part 14. Procedural History.*
- Part 15. Graphic Summary.*
- Part 16. Evaluation of Coverage.*

### Volume VI. Drainage of Agricultural Lands

This report will include agricultural drainage statistics collected from individual farms and from publicly organized drainage projects.

**ACKNOWLEDGMENTS**—This report was prepared in the Data User Services Office by **William F. Micarelli** of the Census History Staff of that office, with the assistance of **Noreen Hoffmeier** of the Agriculture Division, under the direction of **Phyllis G. Carter**, Chief, Census History Staff. Review and assistance were provided by many persons in the Agriculture Division and by several in the Statistical Research Division and in other parts of the Bureau of the Census.

---

**PREFACE**—The essential purpose of Section A of this Procedural History is to present a comprehensive summary of the procedures used in conducting the 1969 Census of Agriculture in the 50 States, Puerto Rico, American Samoa, Guam, Virgin Islands, and the Trust Territory of the Pacific Islands, and the Census of Agricultural Services in the 50 States. These censuses were taken in 1970. This report covers the procedures from the early stages of planning and pretesting through the tabulation and publication of final reports.

Section B will contain similar information on the procedures of related censuses and surveys: The 1969 Census of Irrigation, taken in 1970; the Census of Drainage, one part of which was taken as part of the regular 1969 Census of Agriculture and the other as part of the 1972 Census of Governments; the Survey of Horticultural Specialties and the Survey of Agricultural Finance, both taken in 1971; and the Survey of Specialized Agriculture, conducted in 1972.

---

### SUGGESTED CITATION

U.S. Bureau of the Census, Census of Agriculture, 1969  
Volume V. Special Reports  
Part 14. Procedural History  
Section A. 1969 Census of Agriculture and Census of  
Agricultural Services

U.S. Government Printing Office, Washington, D.C. 1974

---

LIBRARY OF CONGRESS CARD NO. 72-601370  
For sale by the Superintendent of Documents, U.S. Government Printing  
Office, Washington, D.C. 20402, and U.S. Department of Commerce  
district offices. Price \$4.05

# CONTENTS

	<i>Page</i>
<b>CHAPTER 1. INTRODUCTION</b>	
Earlier Censuses of Agriculture . . . . .	1
Need for Agricultural Censuses . . . . .	1
Scope and Content . . . . .	1
Innovations . . . . .	3
Reference Date and Dates of Enumeration . . . . .	4
Definition of a Farm . . . . .	4
Legal Authority . . . . .	5
Expenditures . . . . .	5
Organization of the Census Bureau . . . . .	6
<b>CHAPTER 2. PLANNING OPERATIONS</b>	
Initial Considerations . . . . .	9
Advance Planning . . . . .	9
Determining the Data to be Collected . . . . .	11
Consultation on the Census Program . . . . .	11
Planning the Use of Administrative Records . . . . .	11
Screening Procedures Test, January to June 1967 . . . . .	12
Precanvass for the Pretest . . . . .	14
Pretest, January 1968 . . . . .	14
Tenant Search . . . . .	18
Census of Agriculture Pretest Evaluation (CAPE) . . . . .	18
Post Office Check . . . . .	22
Questionnaire Trial . . . . .	23
Landlord-Only Study . . . . .	24
Key Dates for Planning Operations . . . . .	25
<b>CHAPTER 3. PREPARATORY OPERATIONS</b>	
General . . . . .	26
Precanvass . . . . .	26
Construction of the Census Mailing List . . . . .	27
Final Preparation of Report Forms . . . . .	30
Mailing Labels and Packaging . . . . .	31
Publicity and Information Program . . . . .	32

<b>CHAPTER 4. DATA COLLECTION</b>	
Change in Method of Data Collection .....	35
Assistance to Farmers .....	35
Mailout and Mail Followup .....	35
Supplemental Mailings .....	36
Postmaster Returns .....	38
Correspondence .....	39
Telephone Followup of Nonrespondents .....	40
Field Followup .....	40
Florida Citrus Groves .....	44
Enumeration and Followup Problems .....	45
<b>CHAPTER 5. PROCESSING THE DATA</b>	
General Procedure .....	47
Precomputer Processing .....	47
Computer Processing .....	51
Tabulating the Data .....	56
<b>CHAPTER 6. EVALUATION AND RESEARCH PROGRAM</b>	
Questionnaire Variation Study (QVS) .....	58
Coverage Check .....	73
The Processing Sample .....	77
<b>CHAPTER 7. DISSEMINATION OF THE CENSUS RESULTS</b>	
Basic Decisions .....	80
Quantity of 1969 Statistics Published .....	80
Use of High-Speed Printer Output as Camera Copy .....	80
Grouping and Binding of Reports .....	81
Correction of Errors in Publications .....	81
Printing, Pricing, and Distribution .....	81
1969 Agriculture Census Printed Reports .....	82
Computer Tapes .....	83
Microfiche .....	84
Users' Conferences .....	84
<b>CHAPTER 8. 1969 PUERTO RICO CENSUS OF AGRICULTURE</b>	
General Information .....	85
Planning and Preparatory Operations .....	86
The Enumeration .....	91
Data Processing .....	93
Completeness of the Census .....	94
Comparability of Data .....	94
Publication Program .....	94

**CHAPTER 9. OUTLYING AREAS**

General Information .....	95
Planning and Preparatory Operations .....	96
The Enumeration .....	97
Data Processing .....	99
Publication Program .....	99

**CHAPTER 10. 1969 CENSUS OF AGRICULTURAL SERVICES**

General Information .....	100
Planning and Development .....	100
The Enumeration .....	101
Data Processing .....	102
Publication Program .....	104

**APPENDIX**

A. Key Personnel, 1969 Census of Agriculture .....	A-1
B. Data Users Conferences .....	B-1
C. Outline of Principal Activities by Date .....	C-1
D. Publications in Selected Series .....	D-1
E. Dates Farm Operators Completed Report Forms .....	E-1
F. Farms Included by Special Rule .....	F-1
G. Facsimiles of Selected Forms .....	G-1



# Chapter 1. Introduction

## EARLIER CENSUSES OF AGRICULTURE

The 1969 Census of Agriculture was the 19th enumeration of U.S. agriculture. The first nationwide census of agriculture was taken in 1840 as part of the Sixth Decennial Census of Population. During the intervening 129 years, the census of agriculture developed from a part of the population census to a separate large-scale census.

From 1840 to 1920, an agriculture census was taken every 10 years, in connection with the decennial population census. The Congress of the United States in 1909 provided that a census of agriculture also be taken in the middle of each decade between the decennial censuses, beginning in 1915. However, the advent in Europe of World War I caused abnormal conditions in the United States which prevented taking a 1915 census; therefore, the first mid-decade agricultural census was taken in 1925. Agriculture censuses have been taken quinquennially since then, in the years ending in 5 and 0, for the calendar years ending in 4 and 9.

Censuses of irrigation and drainage augment the census of agriculture and are taken every 10 years for the years ending in 9. Censuses of irrigation have been conducted, as provided by law, every 10 years since 1910; censuses of drainage have been conducted every 10 years since 1920.

## NEED FOR AGRICULTURE CENSUSES

Agriculture in the United States during the last five decades has changed drastically with the increasing application of technology and science to agriculture production. Such changes as mechanization, health laws and sanitary practices, and developments in nutritive procedures for both crops and livestock have greatly increased the amount of capital required for farming. The reduction in the number of farms, the migration of rural population to urban areas, and the development of governmental programs have also brought about many changes in all parts of the country. The need for measures of the economic productivity and the changes in agriculture have never been greater.

The agriculture censuses are the primary source of consistent, coordinated data about agriculture at the county level, on a nationwide basis. The major purpose of an agriculture census is to provide data for areas as small as counties, for every county. A census is considered to be a general-purpose statistical device, not an in-depth survey. The census, however, can and does provide a framework for research projects. It cannot replace

current data that are collected more frequently, but it is a benchmark for current statistical series maintained by the U.S. Department of Agriculture and other organizations, against which current data can be measured.

Census data are essential not only for the farm operators in the United States but for other persons engaged in providing goods and services to farms, and for those involved in the transportation, marketing, processing, and distribution of food and other farm products. These data serve the needs of administrators and legislative bodies at all levels of government; of farmers and their organizations and publications; of businessmen concerned with agriculture; and of researchers in universities and elsewhere.

## SCOPE AND CONTENT

### 1969 Census Program

In order to meet the many and varied needs of users, the 1969 agriculture census program included the major elements shown in the table below:

Elements of agriculture census program	Reference year	Coverage	Smallest publication unit
Agriculture Census . . . . .	1969	100% (50% for farms with total sales less than \$2,500)	County
Census of Irrigation . . . . .	1969	100%	State and Water Resource Subregion
Census of Drainage			
A. Farm Drainage Data . . .	1969	100%	County
B. Drainage District Data . .	1972	100%	County
Census of Agricultural Services Survey of Horticulture	1969	100%	County
Specialties . . . . .	1970	100%	County <sup>1</sup>
Survey of Farm Finance . . . . .	1970	Sample	State
Survey of Farm Enterprise . . . . .	1971	Sample	County <sup>1</sup>

<sup>1</sup> For counties having a significant number of farms with the specified type of operation.

Approximately 4 million report forms were mailed out for the general enumeration in the United States. Of this figure, 2,900,000 regular forms (A1's) and 800,000 short forms (A2's) were mailed out for the initial enumeration. Supplemental mailings consisted of 242,000 A1's and 67,000 A2's.

The number of report forms mailed for the three additional censuses were as follows: (1) agricultural services (Form A40), 72,000; (2) irrigation (Form A60-single basin, Form A61-multibasin), 12,000; and (3) drainage (Form G30), 3,000. For the three supplemental surveys, (1) 72,000 forms (A9.1) were mailed to farm operators and 45,000 (A9.2) to farm landlords for the farm finance survey, (2) 13,000 forms (A19.1) were mailed out by the Bureau of the Census and 6,000 by the U.S. Department of Agriculture for the horticulture survey, and (3) nine report forms, each covering a specific agricultural enterprise, were used for the Survey of Specialized Agriculture—83,000 A10's (grain, soybeans, dry beans, dry peas), 16,000 A11's (tobacco), 11,000 A12's (cotton), 27,000 A13's (sugar, potatoes, and other specified crops), 16,000 A14's (vegetables), 35,000 A15's (fruits, nuts), 40,000 A16's (poultry), 62,000 A17's (dairy), and 106,000 A18's (livestock).

The data on the completed report forms were keyed directly to tape. Each data field consisted of 12 characters which permitted keying a 3-digit cell identification number and up to 9 digits for any given entry. This permitted sufficient spaces to record up to \$999,999,999 in sales of agriculture products, which was considerably more than any agriculture producer had had. A breakdown by program is shown in the table below.

Program	In-scope reports	Number of entries keyed
<b>1969 Census of Agriculture:</b>		
50 States .....	2,730,250	136,899,160
Census of Drainage .....	2,499	42,466
Census of Irrigation .....	7,940	256,500
Census of Agricultural Services .....	32,565	579,110
Survey of Agricultural Finance .....	76,797	2,242,920
Survey of Horticulture Specialities ..	12,960	631,400
Survey of Specialized Agriculture ...	*315,069	*11,342,484
Census of Puerto Rico .....	32,718	130,329

\*Estimated.

The general census included the 50 States, Puerto Rico, American Samoa, Guam, Virgin Islands, and the Trust Territory of the Pacific Islands. The other censuses and special surveys were designed to supplement data collected on the standard report form and covered only the 50 States.

The data obtained from the basic agriculture form used for the nationwide census included:

1. A count of farms by location, acreage, ownership, type of organization, economic class, and type of farm.
2. An inventory of agricultural land and the manner in which it was used during 1969.
3. The quantity of each crop produced and the value of sales.

4. An inventory of the kinds and numbers of poultry and livestock on farms on December 31, 1969, and a record of sales of livestock and poultry (and their products) for 1969.

5. An inventory of important farm machinery and equipment, such as autos, trucks, tractors, combines, and corn pickers, that were on farms on December 31, 1969.

6. The amount of land irrigated and land drained, and the methods utilized.

7. A record of important production expenditures made by farmers during 1969.

8. A record of farm-related income received in 1969, covering payments received for agricultural services, recreational services, and participation in government farm programs.

9. A record of farm operator characteristics such as age, race, tenure, and days of off-farm work.

The agricultural censuses in Puerto Rico and in the outlying areas differed from the census in the United States in both content and amount of detail. (See chapter 8, page 85, and chapter 9, page 95, respectively.)

#### 1969 Census of Irrigation

Data for the 1969 Census of Irrigation were collected in two phases. The general A1 agriculture report form included a section on irrigation to collect data from farm operators regarding acres of land irrigated and irrigation practices, including source and quantity of water used and methods used. Information was also obtained about the irrigation of individual crops, in the sections on crops. To supplement the data obtained from farm operators, the Bureau conducted a separate census of irrigation organizations to obtain information on water supply facilities and the amount and source of water furnished for irrigation purposes. (See section B.)

#### 1969 Census of Drainage

Information on drainage was also collected in two phases. Drainage data collected on the standard agriculture report forms were combined with data collected in the 1972 Census of Governments to provide decennial data on drainage for comparison with earlier censuses. (See section B.)

#### 1969 Census of Agricultural Services

In 1970, for the first time, the Census Bureau conducted a survey of agricultural services, covering Standard Industrial Classification Major Group 07 for the 50 States and the District of Columbia. Agricultural services provided to farms on a fee or contract basis include planting, spraying, and harvesting; sorting, grading, and packing; horticultural services; veterinary services; animal husbandry; and hunting, trapping, and game propagation. Only those establishments with 50 percent or more of their gross receipts represented by such agricultural services were included in the census. (See chapter 10, page 101.)



## Survey of Horticulture Specialties

Special censuses of horticultural specialty production were taken as part of the agriculture censuses of 1890, 1930, 1950, and 1959. The 1970 survey was a cooperative effort between the Census Bureau and the Statistical Reporting Service (SRS) of the U.S. Department of Agriculture, which maintains a series on cut flower and mushroom growers in 23 States. The Survey of Horticultural Specialties covered producers of cut flowers, flowering and foliage plants, bedding plants or cultivated florist greens, cultivated mushrooms, and vegetable seeds or plants. Data on sod were collected for the first time. Establishments growing and selling less than \$2,000 in horticultural products were not included in the survey. Likewise, operators who sold but did not grow flowers or plants, or who primarily operated garden centers, etc., were not considered within the scope of the survey. (See section B.)

## 1970 Survey of Farm Finance

The sample survey of farm financial characteristics was primarily concerned with farm mortgage debt and other forms of credit and taxes. It also provided more recent data for some of the topics covered in the 1960 and 1965 Sample Surveys of Agriculture and the 1961 Survey of Farm Mortgage Debt and Farm Taxes. (See section B.)

## Survey of Farm Enterprise

Special type-of-farm enterprise surveys were conducted for the first time as supplements to the data collected in the agriculture census. The content of these surveys was tailored to each of the major types of farm enterprises, such as vegetable, cotton, cash-grain, dairy, poultry, and so forth, and included a number of inquiries which were too specialized to use on a single report form. This procedure of varying the questions by kind of enterprise was a variation of the technique used for a number of years in the economic censuses. (See section B.)

## Agriculture-Related Data From the 1970 Census of Population and Housing

Data on farm population characteristics were collected in the 1970 Census of Population and Housing. This decennial census was designed to be the primary source of data on characteristics of farm operators and their households, as well as on the characteristics of the rural population in general. An identification of households living on farms was made for a 20-percent sample of addresses in the population census, using the same farm definition that was used in the 1959, 1964, and 1969 agriculture censuses and in the 1960 population and housing census. For persons aged 14 years and over at the sample addresses, information was also obtained on (1) total income, (2) self-employment income from agriculture, and (3) principal occupation, income, and class of worker. In addition to these items, the population and housing censuses provided comprehensive data on important characteristics of rural residents, both farm and nonfarm, and their housing units.

Addition of new items to the population and housing census questionnaires allowed the Bureau to tabulate, for each county,

detailed population and housing data for persons living on farms, by economic class of farm, as well as for all persons with any self-employment income from agriculture. Previously, this kind of information was available only at the national and regional levels, because a complex and expensive process of matching questionnaires from the agriculture census with questionnaires from the population and housing census was needed to produce it.

## INNOVATIONS

The conduct of the 1969 Census of Agriculture differed in a number of important ways from the conduct of previous censuses of agriculture. The major change occurred in data-collection procedures, with the initiation of a mail-out/mail-back method. (Several economic censuses had been taken by mail and had proven the feasibility of this approach.) Farmers were asked to fill out and mail back their report forms, and enumerators were used only to follow up on the report forms that were not returned by mail. Previously, the Bureau had distributed the forms to rural households by mail, then had sent enumerators to visit every rural household or other address thought to be associated with a farm operator to determine if there were any agricultural operations; if there were, to check the report for completeness if it had been filled or to fill it if it had not been. In the new approach, the Bureau constructed a mailing list of potential farm operators, derived from many sources but basically from records of the 1964 census, the Internal Revenue Service (IRS), Social Security Administration (SSA), and Agricultural Stabilization and Conservation Service (ASCS). It was expected that the change in the method of enumeration would result in substantial savings. This particular change also had a strong bearing on privacy, since the Bureau sent the form to the farm operator by mail and had him return it by mail. Such a procedure eliminated the use of a farm operator's neighbor as the Bureau's temporarily employed enumerator.

Two versions of the report form were used. The standard questionnaire was sent to all farms with an expected value of sales of \$2,500 or more; a simplified shorter version of the form was sent to a 50-percent sample of the smaller farms. The content of the report form for the larger farms was similar to that of the 1964 form for all farms; the abbreviated version required less detail than that for larger farms. Tabulations and publications showed some data for all farms and the more detailed information only for the larger farms. In addition, detailed questions for specialized agriculture operations were included in the forms for the special surveys, which were conducted on a sample basis after the regular agriculture census had been taken.

Most of the questions used in the 1964 census were repeated in 1969. New items added to the standard census form included the following:

1. Type of organization—whether the farm was operated by an individual, a partnership, a corporation, or some other kind of organization.
2. Farm-related income—income received by farm operators from government payments for participation in farm pro-

grams and from customwork and agricultural services provided to others.

3. Estimated total value of farm machinery and equipment—used in combination with value of land, buildings, and livestock inventories to provide a measure of the farm's capital input.

4. Total operating expenses.

5. All other expenses—expenditures not listed separately, such as taxes, depreciation, rent, etc.

6. A count of horses and ponies on farms in December 31, 1969, which had been included in the 1959 census but had been omitted from the 1964 census.

7. Separate items on expenditures for (a) contract labor and (b) machine hire. (These two items were combined in 1964.)

8. Number of hired workers working less than 150 days in 1969.

Questions used in 1964 but omitted in 1969 were—

1. Items on selected characteristics of the farm operator, his family, and the facilities in his home, which were included in the 1964 census because there was not a simultaneous population and housing census. (However, questions on basic characteristics of the *operator*—age, race, residence, days of off-farm work, and year the operator began to operate the place—were retained for 1969.)

2. Items on production of commodities such as eggs, milk, and wool, for which adequate data were available from other sources.

3. Items for which the 1964 experience showed either that there was a limited demand for the data or that respondents had difficulty reporting them. This category included some of the detail on forest products, farm ponds, and sales of individual crops.

The new procedures reduced the reporting burden on respondents because (1) farmers were able to fill the questionnaire after the end of the reference year (calendar year 1969), thus enabling them to use records kept for accounting and tax purposes, and eliminating the need for estimating future action, as they had had to do in previous censuses, (2) the reports could be filled at a time preferred by farmers, within reasonable limits, (3) about 700,000 respondents were required to complete only the shorter form, and (4) less than one-fifth of all farm operators were involved in the samples for the special surveys, designed to secure data directly pertinent to the type of agricultural operations they were conducting.

One of the major advantages of the new system was that the cost of the data collection and processing for the agriculture census proper was substantially reduced through the changes in scope and collection procedures, thus making available resources for work on the improvement of coverage and quality of

reporting and for the new inquiries on specialized types of farming and on agricultural services.

Another major advantage in developing the new procedures was that, once the basic mailing list for the 1969 census was constructed, it would be possible to update it periodically. This has important implications not only for census purposes but also for current agricultural statistics programs of the U.S. Department of Agriculture.

## REFERENCE DATE AND DATES OF ENUMERATION

Through 1950, agriculture censuses, conducted along with the decennial censuses of population and housing, were enumerated in the spring with reference to production in the preceding years. The enumeration for the mid-decade censuses of 1925, 1935, and 1945 was begun in January of those years. However, for the agriculture censuses of 1954, 1959, and 1964, enumeration occurred in the fall of the year with reference to production in the same year. The particular dates of enumeration were varied in different parts of the country in an effort to obtain data after the harvesting was over but before winter weather set in.

The mail-out/mail-back census for 1969 made it possible to undertake data collection immediately following the year of reference and eliminated the problem of having enumerators traveling through winter snows. The report forms were mailed out late in December 1969, and farm operators were requested to fill out and mail back their reports for the census as soon as possible, but no later than February 15, 1970. With such a procedure, the reference year for census purposes was unchanged. The series on inventories were affected, however, since inquiries on inventories of livestock and poultry and of machinery and equipment were to be answered as of December 31, 1969, making the data comparable to U.S. Department of Agriculture estimates. In all previous censuses, the inventory items were reported for the day on which a given farm was enumerated.

## DEFINITION OF A FARM

The census definition of a farm has been changed several times since 1850. In all censuses, however, the essential features of the farm definition have been that the land should be under the control of one person or management (partnership, corporation, etc.) and should be used for or connected with agricultural operations. The requirement that the tracts of land be operated under one management has resulted in counting as separate farms places operated by tenants, managers, part owners, and full owners. The requirement that all tracts operated by one person be considered one farm has resulted in counting as one farm places comprising owned and rented land and places of noncontiguous tracts of land.

Agricultural operations are considered to include the growing of crops, the raising of livestock and poultry (and their products), and the production of other agricultural products; e.g., honey, and greenhouse and nursery products. Such operations may vary in size from a small truck garden to the operation of diversified enterprises including thousands of acres of cropland harvested,

extensive orchards, large livestock feedlots, and sizable dairy and poultry operations.

From the very beginning of the agriculture census, it has been necessary to specify some minimum limits for the counting of tracts of land as farms. The criteria for minimum size of agricultural operations to be counted as farms have included measures of land area, land use, agricultural resources, or agricultural output or sales. For censuses prior to 1959, the various criteria for a farm differed for places of less than 3 acres and for places of 3 acres or more. Places of *3 acres or more* were counted as farms if the *annual value* of agricultural products, whether for home use or for sale, but exclusive of home-garden products, amounted to \$150 or more. Places of *less than 3 acres* were counted as farms only if the *annual sales* of agricultural products amounted to \$150 or more.

Since 1959, the different criteria for a farm have applied to places of less than 10 acres and to places of 10 acres or more. Places of 10 acres or more were counted as farms if the estimated sales of agricultural products for the year amounted to at least \$50. Places of less than 10 acres were counted as farms if the estimated sales of agricultural products for the year amounted to at least \$250. Other criteria were used to retain those farms whose estimated sales were less than the minimum, but whose potential production normally would have met the minimum requirements.

The definition of a farm for the 1969 Census of Agriculture was identical to that used in the 1959 and 1964 censuses. It was based primarily on a combination of "acres in place" and quantity of agricultural resources on the place or quantity of agricultural products produced. The word "place" was defined to include all land under the control or supervision of one person or partnership at the time of enumeration and on which agricultural operations were conducted at any time during the reference year 1969. Control may have been exercised through ownership, management, or through a lease, rental, or cropping arrangement.

Specifically, a place was counted as a farm if it contained 10 acres or more and had an estimated value of \$50 or more for total value of products sold (TVP) based on the values reported for sales of various groupings of crops or other products sold. If the place had less than 10 acres, it was counted as a farm if it had an estimated TVP of \$250 or more. If sales were not reported or were obviously incorrect, average prices were applied to estimated proportions of the crops harvested and the livestock produced.

In addition, allowance was made through computer edit specifications to count as farms certain places whose estimated TVP did not meet the minimum required, because their inventories of livestock or their acreage and production of specific crops indicated that they would normally have had enough sales to be classified as farms. (See appendix F, Table 1, "Farms Included in Census Count That Did Not Meet Farm Definition, by Reason for Including.")

#### LEGAL AUTHORITY

The Bureau of the Census was scheduled by law to conduct the 19th nationwide census of agriculture covering 1969. The

Congress of the United States provides the legal authority for the Bureau to conduct agriculture censuses covering the years ending in 4 and 9, under Title 13, United States Code. Moreover, Title 13 authorizes the Bureau of the Census to cover census topics by sampling (except for determining population for apportionment purposes), and authorizes the Director of the Census Bureau, acting for the Secretary of Commerce, to include the Virgin Islands, Guam, and the Commonwealth of Puerto Rico, as well as other areas under the jurisdiction or control of the United States, in the censuses and to stipulate the manner in which the censuses in these areas are to be taken. Section 191 provides that the census data for these areas may be collected by the Governor or highest ranking Federal official in accordance with plans prescribed or approved by the Director of the Bureau of the Census acting for the Secretary of Commerce.

Title 13 is the legal basis not only for the census of agriculture but also for the censuses of irrigation and drainage.

Section 5 of Title 13 includes the provision that "The Secretary shall prepare schedules, and shall determine the inquiries, and the number, form, and subdivisions thereof, for the statistics, surveys, and censuses provided for in this title."

The law requires the respondent to supply any information requested; at the same time it protects the confidentiality of the information. Title 13, subchapter I, section 9(a) prohibits the use of information furnished by respondents for any purpose other than statistical, the publication of any data which would identify any particular establishment or individual, and the examination of the reports by anyone except the sworn officers and employees of the Department of Commerce or the Bureau of the Census.

#### EXPENDITURES

Work on a census, including preparatory work, extends over a period of several years. The total cost of the 1969 Census of Agriculture was \$26,074,000. Fiscal year expenditures for the 1969 Census of Agriculture are shown below:

Fiscal year	Expenditures
1967 . . . . .	\$ 102,000
1968 . . . . .	897,000
1969 . . . . .	2,398,000
1970 . . . . .	5,498,000
1971 . . . . .	6,276,000
1972 . . . . .	6,663,000
1973 . . . . .	4,240,000
Total . . . . .	26,074,000

Elimination of the expensive direct canvass, i.e., face-to-face interviewing, provided possibilities for doing some things the Bureau was not previously able to do. For example, the number and extent of supplemental surveys depended upon savings resulting from using the mail-out/mail-back enumeration procedure.

Late budget adjustments were made which required some changes in the census, including (1) using a sample for small farms and (2) deferring the start of full-scale processing from fiscal year 1970 to fiscal year 1971. By sampling, the number of small farms processed was reduced to a total of about 500,000 farms. It was anticipated that the data derived from a sample of this size would be reliable at the county level. Although some saving was achieved, problems, occurring largely because of duplication and incomplete identification of the smaller operations in the mailing lists, introduced additional costs, thus reducing the actual savings attained. The delay of almost 6 months in processing was a deferment only.

### ORGANIZATION OF THE CENSUS BUREAU

During most of the period of work on the 1969 Census of Agriculture, the Bureau of the Census was organized under a Director; a Deputy Director; and five Associate Directors responsible for demographic fields, economic fields, research and development, data-processing systems, and administration. Three Assistant Directors were responsible for statistical information, program development, and international statistical programs. In addition to the Director's staff, the Bureau consisted of four types of functional divisions:

1. Subject-matter divisions, which assumed direct responsibility for censuses and other projects in their respective disciplines (agriculture, economic, population, etc.).
2. Data-processing divisions, responsible for clerical, mechanical, and electronic processing systems and operations.
3. Administrative services divisions, responsible for census field operations; personnel management; budget and fiscal programs; procurement and property management; printing, publication, and library services; and management analysis.
4. Statistical service divisions which performed services for all Bureau programs in such areas as mathematical, statistical, and economic analysis; statistical methodology; research and development; and mapping and graphic presentation.

While there is a permanent staff to provide supporting services, individual censuses are staffed and funded as temporary projects. Subject-matter divisions prepare technical specifications and arrange for necessary services from the regular organizational units of the Census Bureau which furnish cost estimates and time schedules. Subject-matter specialists maintain full technical direction, approve estimates and time schedules, evaluate progress and quality, and review and approve the final census reports for publication.

The 1969 Census of Agriculture was conducted by the Agriculture Division of the Census Bureau. It was under the general direction of the Associate Director for Demographic Fields until the August 1971 Census Bureau reorganization when it was shifted to come under the Associate Director for Economic Fields. (See page 7 for further changes made in the Census Bureau after August 1971.) Other divisions and offices of the Bureau worked in close cooperation to complete the various aspects of the program. The functions of these divisions are described below:

### Functions of the Divisions of the Bureau of the Census Involved in the 1969 Census of Agriculture

<u>Division</u>	<u>Principal functions in 1969 Agriculture Census during the peak period of work</u>
Agriculture	Primarily concerned with the subject content of the census and special surveys. Major functions included consultation with data users, trade associations, and respondents on report-form content; designing and testing report forms; participation in planning data-collection and data-processing methods; preparation of instructions to respondents and specifications for processing returns; resolving data-collection problems; planning the publications and writing analytical and explanatory text; and professional review of the tables before publication.
Administrative and Publications Services	Secured space, supplies, and equipment; arranged for communications, transportation, and related requirements; provided for printing of forms and publications; supplied art, editorial, and copy-preparation services for publications.
Budget and Finance	Responsible for accounting, payroll, financial planning and control; coordinated budget estimates and their justification; furnished general staff guidance and assistance in areas of finance, budgeting, and accounting.
Field	Directed those segments of the agriculture census and supplemental surveys that were conducted by personal enumeration through the Bureau's field offices.
Jeffersonville Census Operations	Performed storage and processing operations, mailout of report forms, receipt of completed report forms, clerical data processing, and encoding. In addition to regular personnel employed at Jeffersonville, Agriculture Division had several staff members in Jeffersonville on a rotation basis throughout the data-processing operation to advise on subject-matter problems.
Management and Organization	Established production standards and furnished general management guidance and assistance to other Census Bureau divisions.
Personnel	Formulated personnel policies; recruited personnel; provided guidance to other Census Bureau divisions in applying personnel regulations; classified jobs; reviewed changes in assignment; directed employee services.

**Functions of the Divisions of the Bureau of the Census Involved in the 1969 Census of Agriculture—Continued**

<u>Division</u>	<u>Principal functions in 1969 Agriculture Census during the peak period of work</u>
Processing	Coordinated and directed the Bureau's electronic digital computer and mechanical tabulating operations; provided clerical support activities in the processing of statistical data; implemented the application of new developments and techniques in data processing.
Public Information Office	Directed the information and publicity programs for the censuses.
Statistical Information Division	Advised on legislation for the censuses and on legal aspects of the operation. Provided documentation of the censuses which for the 1969 Agricultural Census is summarized in this procedural history.
Statistical Research	Provided assistance and recommendations for sampling, program evaluation, and research.
Systems	Developed the mail address register and prepared labels. Provided specifications for clerical and encoding operations at Jeffersonville and specifications for the automated data processing system and coding the computer programming. Wrote, tested, reviewed, and revised the computer programs.

Figure 1 on page 8 indicates the overall structure of the Bureau of the Census during the middle of the work on the 1969 Census of Agriculture.

In August 1971, the Bureau of the Census initiated certain organizational changes in the hope of making its operations more effective, primarily by giving the subject division chiefs more control of and responsibility for the various phases of their projects. For example, the Processing Division was abolished and its clerical support responsibilities were allocated to the respective subject divisions; computer operations were transferred to the newly established Computer Services Division and the staff on new developments and techniques became part of the newly established Computer Systems Development Division. Systems Division was abolished and most of its responsibilities were allocated to the various subject divisions; and methods, procedures, and quality control staffs were also reassigned to the subject-matter divisions—in the case of the 1969 agriculture census, the Agriculture Division.

In January 1972, the Department of Commerce underwent an organizational change. One of the changes made was the establishment of the Social and Economic Statistics Administration (SESA) which took over the direct supervision of the Bureau of the Census and the Bureau of Economic Analysis (BEA), and which transferred the following administrative divisions of the Bureau of the Census to the Central SESA organization to provide services to both the Bureau and BEA: (1) Administrative and Publications Services Division, which at the same time was split into two divisions, one for Administrative Services and the other for Publications Services; (2) Budget and Finance Division; (3) Management and Organization Division; (4) Personnel Division; and (5) Publications Services Division. Other changes included the abolition of the Statistical Information Division and the transfer of its functions to the Data User Services Office, and the change of name of the Jeffersonville Census Operations Division to Data Preparation Division.

