## CONTENTS

## introduction



## INTRODUCTION

The purpose of this Introduction is to present general information relating to the 1950 Census of Agriculture, to indicate procedures by which the statistics presented in the reports were collected, compiled, and published, and to discuss factors affecting the accuracy and the reliability of the data.
Legal basis for the 1950 Census of Agrioulture.-The Seventeenth Decennial Census was authorized by the Act of Congress approved June 18, 1929 (46 Stat. 21; 13 USC 201-218). This Act entitled, "An Act to provide for the fifteenth and subsequent decennial censuses and to provide for apportionment of Representatives in Congress," provided that a census of population, agriculture, irrigation, drainage, distribution, unemployment, and mines should be taken by the Director of the Oensus in the year 1930 and every 10 years thereafter.

Area.-The 1950 Census of Agriculture included the 48 States, the District of Columbia, Alaska, Hawaii, Puerto Rico, Guam, American Samoa, and the Virgin Islands of the United States. The statistics on agriculture for the territories and possessions are published separately in part 34 of Volume $I$ of the 1950 Census of Agriculture reports, and are not included in this volume.
History of the census of agriculture.-The first national census of agriculture was taken in connection with the Sixth Decennial Census of Population in 1840. Since 1840, a census of agriculture has always been taken in conjunction with each decennial census of population. Congress first provided for a mid-decennial census of agriculture in 1915, but because of World War I this Census was not taken. Congress again provided for a mid-decennial census of agriculture to be taken as of January 1, 1925. Other mid-decennial censuses were taken in 1935 and 1945. Thus, there has been a census of agriculture every fifth year since 1920.
Date of enumeration.-The date of the beginning of the enumeratlon of the 1950 Census of Agriculture was April 1, as established by the Act of Congress providing for the taking of the decennial census. In most areas of the United States, the actual enumeration was begun on April 1. The size of the enumeration district was planned so that the enumerator could complete an enumeration of a district within four weeks. The average date of enumeration and the percent distribution of agriculture questionnaires enumerated by periods are given in table 1.
The year and the date for the beginning of actual enumeration for the various censuses of agriculture were as follows:

| 1950-April 1 | 1925-January 1 | 1880-June 1 |
| :--- | :--- | :--- |
| 1045-_January 1 | 1920-January 1 | 1870-June 1 |
| 1040-April 1 | 1910-April 15 | 1860-June 1 |
| 1035-January 1 | 1900-June 1 | 1850-June 1 |
| 1030-April 1 | 1890-June 1 | 1840-June 1 |

Preparation of questionnaires used for the census of agriculture. -The Act of Congress providing for the Fifteenth Decennial Census of Agriculture authorized the Director of the Bureau of the Census to determine, with the approval of the Secretary of Commerce, the number, form, and subdivision of the inquiries for the census of agriculture. The questionnaire for the 1950 Census of Agriculture was prepared by the staff of the Bureau of the Census on the basis of the experience for prior censuses, on the basis of pretests made during the preparation and planning for the census, and on the basis of the advice of a special advisory committee for the 1950 Census of Agriculture appointed by the Director of the Bureau of the Census. The membership of this committee was as follows:
J. T. Sanders................ $\begin{aligned} & \text { Legislative Counsel } \\ & \text { National Grange }\end{aligned}$

| Murray R. Benedict_-.-. | Professor of Agricultural Economics <br> College of Agriculture |
| :--- | :--- |
| University of Callfornia |  |

John J. Riggle_-...-.-.-_- Director of Cooperative Services
National Council of Farmers' Cooperatives
John F. Timmons_-.-.-- Professor of Economics
Iowa State College, representing the American Farm Economic Association
L. M. Walker, Jr, (Re- Commissioner of Agriculture, State of placed by Parke C. Virgiria, representing the National Brinkley, May 14, 1951) Association of Commissioners, Secretaries, and Directors of Agriculture
Russell Smith_-.......... Legislative Representative
Farmers' Educational and Cooperative Union of America
The Special Advisory Committee for the 1950 Census of Agriculture assisted particularly in deciding the inquiries which should be included on the questionnaire for the 1950 Census. During the planning, State colleges, the Department of Agriculture, and other users of data from the census of agriculture were asked to submit suggested inquiries for the census. The number of inquiries recommended to the Bureat of the Census greatly exceeded the number that could be included. The Special Advisory Committee for the 1950 Census of Agriculture and the staff of the Bureau recommended the inclusion and exclusion of these inquiries in the census after giving consideration to possibilities of obtaining the information in some way other than through the Census of Agriculture; to the adequacy of the information that might be secured in the Census of Agriculture; to the availability of data from other sources; to the usefulness of the data, etc. This committee reviewed the plans and questionnaires for the 1950 Census of Agriculture as they were developed, and submitted recoumendations regarding these plans and questionnaires.
The over-all plans for the census of agriculture were reviewed by a Census Advisory Committee consisting of seven members appointed from the membership of the Amertcan Statistical Association by the board of directors of that organization. The membership of this committee was as follows:

| William F. Ogburn_----- | Department of Sociology The University of Ohicago Chicago, Tllinois |
| :---: | :---: |
| Donald R. G. Cowan | Professor of Marketing |
|  | School of Business Administration |
|  | University of Michigan |
|  | Ann Arbor, Michigan |
| Murray R. Benedict...... | Giannini Foundation |
|  | University of California |
|  | Berkeley, California |
| J. Frederic Dewhurst.-.. | Twentieth Century Fund |
|  | New York, New York |
| Frederick F. Stephan_._.. | Department of Economics and Social Institutions |
|  | Princeton University |
|  | Princeton, New Jersey |

## VOLUME II

## SUMMARY OF CONTENTS

Page
introduction ..... IX
Chapter-
I. - Farms and land in farms ..... 1
II.-Age, residence, years on farm, work off farm. ..... 67
III. - Farm facilities, roads, trading center, farm equipment. ..... 193
IV. - Farm labor and farm expenditures. ..... 235
V. -Farm taxes and cash rent ..... 301
VI. -Livestock and livestock products. ..... 347
VII. -Field crops and vegetables. ..... 489
VIII. -Fruits and nuts, horticultural specialties, forest products. ..... 669
IX. - Value of farm products. ..... 743
X. -Size of farm. ..... 767
XI.-Color, race, and tenure of farm operator ..... 905
XII. -Economic class of farm. ..... 1107
XIII. - Type of farm. ..... 1205
Appendix. ..... 1323

## INTRODUCTION

## Willard L. Thorp_-...-_- Assistant Secretary of State <br> Department of State Washington, D. C.

## Ralph J. Watkins <br> Director of Research <br> Dun and Bradstreet, Inc. New York, New York

Because of the special interest of the United States Department of Agriculture in the census of agriculture, the Director of the Bureau of the Census also sought the cooperation of that organization in developing plans, questionnaires, and procedures for the 1950 Census of Agriculture. A joint committee of the Bureau of the Census and the Bureau of Agricultural Economics of the United States Department of Agriculture was established in July 1947 for the purpose of coordinating and planning work to be performed by the two agencies. The membership of this committee was as follows:

Bureau of the Census:
A. Ross Bekler, Deputy Director

Ray Hurley, Chief, Division of Agriculture
W. B. Jenkins, Assistant Chief, Division of Agriculture

Bureau of Agricultural Economics:
W. F. Callander, Assistant Chief

Earl E. Houseman, Statistical Assistant, Office of the Ohief

Several subcommittees consisting of technical specialists in their respective fields, selected from personnel of the Bureau of the Census and from the various Bureaus of the United States Department of Agriculture, performed much of the detailed work and analysis of problems and recommended procedures for the handling of these problems in the 1950 Census.
The wording of the inquiries on the questionnaire, and the practicability of the procedures to be used in the census, were tested during a series of pretests. The first of these pretests was made in April 1948. This pretest included all the farms in two counties in Missouri and a sample of approximately 2,700 farms in 33 other counties scattered throughout the United States.
The second pretest was made in October 1948 and included all the farms in Carroll and Oldham Counties, Ky., Putnam County, Ill., and Union County, Ind. The third pretest was made in May 1949 and included all the farms in \#dgefield County, S. O., and Stephens County, Ga., and a sample of approximately 2,500 farms in approximately 63 other counties scattered throughout the United States. A final test of the training materials and instructions was conducted in October 1949 in Person and Wake Counties, N. O.

Table 1.-AVERAGE DATE OF ENUMERATION BY REGIONS, DIVISIONS, AND STATES: 1950 CENSUS OF AGRICULTURE

| Region, division, and State | Approximate average date of enumeration | Percent of farms enumerated during- |  |  |  |  | Region, division, and State | Approximate average date of enumeration | Percent of fams enumerated during- |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { April } 14 \\ \text { and } \\ \text { carlier } \end{gathered}$ | $\begin{array}{\|c} \text { Aprill } 15 \\ \text { to }_{28} \end{array}$ | $\begin{gathered} \text { April } 29 \\ \text { to } \\ \text { May } 12 \end{gathered}$ | $\begin{aligned} & \text { May } 13 \\ & \text { to } t_{0} \\ & \text { June } 2 \end{aligned}$ | $\begin{gathered} \text { June } 3 \\ \text { and } \\ \text { later } \end{gathered}$ |  |  | April 14 and earlier | $\left\lvert\, \begin{gathered} \text { Arcil. } 15 \\ \text { to } 28 \end{gathered}\right.$ | $\begin{gathered} \text { Apri1 } 29 \\ \text { to } \\ \text { May } 12 \end{gathered}$ | $\begin{aligned} & \text { May } 13 \\ & \text { to } \\ & \text { June } \end{aligned}$ | $\begin{aligned} & \text { June }{ }^{3} \text { and } \\ & \text { 1ater } \end{aligned}$ |
| U.s............. | Apr. 15-Apr. 28 | 57 | 29 | 9 | 4 | 1 | South Atlantic: |  |  |  |  |  |  |
| The North.... | Apr. 15-Apr. 28 | 62 | 25 | 8 | 4 | 1 | Del................ | Apr.15-Apr. 28 | 52 | 38 | 7 | 1 | 2 |
| The South.... | Apr. 15-Apr. 28 | 53 | 33 | 10 | 3 | 1 | Md. ............ | Apr. 15-Apr. 28 | 50 | 28 | 13 | 7 | 2 |
| The Mest..... | Apr. 15-Apr. 28 | 51 | 30 | 11 | 5 | 2 | D.c.............. | May 13-June 2 | ........ | 39 | . | ....... | 61 |
|  |  |  |  |  |  |  | Va............... | Apr. 15 -Apr. 28 | 52 | 32 | 11 | 4 | 1 |
| Deo. Division: <br> New England........ | Apr. 15-Apr. 28 | 60 | 22 | 10 | 6 | 2 | W.Va.............. | Apr. 15-fpr. 28 | 52 | 32 | 10 | 5 | 1 |
| Middle Atlantic.... | Afr. 15 -Apr. 28 | 60 | 26 | 10 | 3 | 1 | N.C. | Apr. 15-Apr, 28 | 46 | 38 | 12 | 4 | (1) |
| E.N.Central........ | Apr. 15-Apr. 28 | 64 | 24 | 8 | 3 | 1 | S.C. | Apr.15-Apr. 28 | 48 | 36 | 12 | 4 | (1) |
| W.N.Central........ | Apr. 15-Apr. 28 | 62 | 26 | 8 | 4 | 1 | Ga................ | Apr. 15-Apr. 28 | 53 | 36 | 9 | 2 | 1 |
| South Atlantic..... | Apr. 15-Apr. 28 | 49 | 35 | 11 | 4 | 1 | Fla,............. | Apr. 15-Apr. 28 | 43 | 30 | 15 | 7 | 5 |
| E.S.Central........ | Apr. 15-Apr. 28 | 53 | 34 | 10 | 3 | (1) |  |  |  |  |  |  |  |
| W.S.Central........ | Apr. 15-Apr. 28 | 58 | 29 | 9 | 3 | 1 |  |  |  |  |  |  |  |
| Mountain.......... | Apr. 15-Apr. 28 | 51 | 34 | 10 | 4 | 1 | East south Central: Ky............... |  |  |  |  |  |  |
| Pacific............ | Apr. 15-Apr. 28 | 52 | 26 | 12 | 6 | 3 | Ky................. | Apr. 15-Apr. 28 Apr. 15-Apr. 2B | 53 <br> 54 | 32 <br> 34 | 10 9 | 4 2 | (1) ${ }^{1}$ |
| Hew England: |  |  |  |  |  |  | Ala............... | Apr. 15-Apr. 28 | 53 | 33 | 11 | 3 | (1) |
| Maine.............. | Apr. 15-Apr. 28 | 64 | 20 | 11 | 5 | - 1 | Miss. | Apr. 15-Apr. 28 | 51 | 35 | 11 | 3 | ( ${ }^{1}$ |
| N.H. .............. | Apr. 15 - Apr. 28 | 60 | 22 | 10 | 5 | 3 |  |  |  |  |  |  |  |
| Vt................ | Apr. 15-Apr. 28 | 64 | 23 | 9 | 4 | 1 | West South Central: |  |  |  |  |  |  |
| Mass. | Apr. 15-Apr. 28 | 55 | 23 | 11 | 8 | , | Ark. .............. |  |  |  |  |  |  |
| R.I................ | Apr. 15-Apr. 28 | 51 | 19 | 11 | 14 | 5 |  | Apr. $15-\mathrm{Apr} .28$ | 59 | 30 | 7 | 3 | (1) |
| Conn.............. | Apr.15-Apr. 28 | 57 | 24 | 10 | 14 7 | 5 | La................ | Apr. 15 -Apr. 28 | 49 | 33 | 13 | 5 | 1 |
| Middte Atlantic: |  |  |  |  |  |  | Okla | Apr. 1-Apr. 14 | 65 | 26 | ${ }^{6}$ | 2 | 1 |
| N.Y................ | Apr. 15-Apr. 28 | 60 | 25 | 10 | 3 | 1 | Tex, .............. | Apr. 15-Apr. 28 | 57 | 28 | 10 | 4 | 2 |
| N.J............... | Apr. 15-Apr. 28 | 50 | 24 | 12 | 7 | 6 |  |  |  |  |  |  |  |
| Pa................. | Apr. 15-Apr. 28 | 60 | 27 | 9 | 3 | 1 | Mountain: |  |  |  |  |  |  |
| East Morth Central: |  |  |  |  |  |  | Mont, .............. | Apr.15-Apr. 28 | 56 | 23 | 11 | 8 | 1 |
| Ohio.............. | Apr. 15-Apr. 28 | 81 | 25 | 9 | 4 | 1 | Idaho.. | Apr. 15-Apr. 28 | 61 | 29 | 7 | 2 | (1) |
| Ind. ............... | Apr. 15 -Apr. 28 | 51 | 26 |  | 3 | 1 | Wyo.............. | Apr. 15-Apr. 28 | 54 | 26 | 10 | 8 | 2 |
| 111................ | Apr. 1-Apr. 14 | 66 | 23 | 8 | 3 | 1 | Colo | Apr. 15 - Apr. 28 | 42 | 48 | 7 | 2 | 1 |
| Mich............... | Apr, 15-tpr. 28 | 59 | 25 | 11 | 5 | 2 | N.Mex............. |  |  |  |  |  |  |
| Wis............... | Apr. 1-Apr. 14 | 71 | 22 | 5 | , | ( ${ }^{1}$ | N.Mex............. Arim............ | $\text { Apr. } 15 \text {-Apr. } 28$ $\text { Apr. } 15 \text {-Apr. } 28$ | 52 52 | 30 27 | 13 13 | 4 | 1 |
| West Morth Central: |  |  |  |  |  |  | Ariz.............. | Appr.15-Apr. 28 | 52 <br> 45 | 27 36 | 13 14 | 4 | 2 1 |
| minn............... | Apr. 15-Apr. 28 | 64 | 24 | 7 | 4 |  | Nev................ | Apr. 15-Apr. 28 | 50 | 36 3 | 14 13 | 4 | (1) ${ }^{1}$ |
| Iowa. | Apr. 1-Apr. 14 | 71 | 22 | 5 | 2 | ${ }^{1}{ }^{1}$ | Nev................ | Apr.15-Apr. 28 |  | 33 | 13 | 3 | (1) |
| Mo................. | Apr. 15-Apr. 28 | 62 | 27 | 8 | 3 | 1 |  |  |  |  |  |  |  |
| N. Dak. ............. | Apr. 15-Apr. 28 | 50 | 21 | 6 | 15 | 8 | Paclfic: |  |  |  |  |  |  |
| S.Dak.............. | Apr. 15-Apr. 28 | 52 | 28 | 10 | 8 | 2 | Wash.............. | Apr. 15-Apr. 28 | 57 | 27 | 12 | 4 | 1 |
| Nebr............... | Apr. 1-Apr. 14 | 61 | 30 |  | 2 | (1) | 0 res.............. | Apr. 15-Apr. 28 | 60 | 25 | 10 | 3 | 2 |
| Kans............... | Apr. 15-Apr. 28 | 55 | 29 | 12 | 4 | 1 | Calif. | Apr. 15-Apr. 28 | 46 | 26 | 13 | 9 | 5 |

Measures for insuring completeness of enumeration,-Plans for the 1950 Census of Agriculture included several provisions for insuring the completeness of the coverage of the census of agriculture.

First, the census of agriculture was taken in conjunction with the censuses of population and housing. The questionnaire used for the 1950 Census of Population contained two possible inquiries for every family enumerated. One of these questions was, "Is this house on a farm?" In case the answer to this inquiry was "No," the second inquiry, "Is this house on a place of three or more acres?", was asked. If the answer to either of these questions was "Yes," the census enumerator was instructed to obtain an Agriculture Questionnaire (Form A-1) from the person in charge of the place. This procedure was used in order to insure the enumeration of places not locally considered as farms, but with sufficient agricultural production to qualify as farms according to the Census criteria. The use of these questions resulted in the securing of a considerable number of questionnaires for places that were not counted as farms. (See "Effect of change in the definition of farm.")

Second, enumerators in rural areas were instructed to indicate on their maps the location of every dwelling place and farm. This procedure was intended to assist crew leaders and supervisors in determining that enumerators had visited all places in the enumeration districts assigned to them.

Third, prior to the census, lists of large farms were prepared from the records of the 1945 Census of Agriculture and from records obtained from members of the field staff of the Bureau of Agricultural Beonomics, U. S. Department of Agriculture. Copies of these lists of large farms were given to census supervisors who were required to check that each farm on the list had been enumerated. The questionnaires obtained for large farms were checked against the list of large farms during the processing in
the Washington office. A questionnaire or a satisfactory explanation as to why a questionnaire was not required was obtained for every large farm on the large farm list. (See "Large farms," "page XXXII.)

Fourth, in most of the counties in the South, a special supplementary questionnaire, the Landlord-Tenant Operations Questionnaire (Form A-3), aided in the enumeration of cropper and other tenant farms comprising parts of larger landholdings, plantations, etc. This questionnaire was required when two or more agriculture questionnaires were needed for a landholding. Enumerators were required to list the name of the landlord and also each cropper and other tenant and to give for each listing the information called for on the questionnaire. The procedure used for filling this questionnaire enabled the enumerator to check to determine that all parts of the landholding were enumerated completely and only once.

Questionnaires.-Three different questionnaires were used in connection with the 1950 Census of Agriculture. The Agriculture Questionnaire (Form A-1) was used for the enumeration of all farms. Forty-one separate questionnaires were used for the United States. Each of these questionnaires was used in a State or a group of States. A facsimile of the questionnaire and a composite questionnaire showing the variations in the questionnaire from State to State are given in the Appendix. The use of a separate questionnaire for each State or group of States was initiated in 1940 and was continued in the 1945 and 1950 Censuses of Agriculture. However, a much larger number of separate questionnaires was used in 1950 than in the previous two censuses. The accompanying maps show the States or groups of States for which separate questionnaires were used for the 1950, 1945, and 1940 Censuses of Agriculture. The use of State questionnaires for the 1950 Census of Agriculture reduced the number of questions in many States and eliminated the need for


41 SEPARATE QUESTIONNAIRES WERE USED, ONE FOR EACH STATE OR GROUP OF NEARBY STATES. STATES FOR WHICH THE SAME QUESTIONNAIRE WAS USED ARE INDICATED BY PATTERNS.


PLAN OF REGIONALIZATION OF FARM AND RANCH SCHEDULE

the farmer or the enumerator to read many questions that did not apply to his farm or area. State questionnaires also provided for the asking of separate questions regarding crops that were important only in the State. The questionnaires were of the interview type. Most of the questions were stated completely and exactly as the enumerator was expected to ask them. This was the first time that an interview type of questionnaire had been used for the census of agriculture. The questionnaire contained the essential instructions needed for filling it out. The inquiries were grouped so that a general question could be asked regarding the presence of a group of items on a farm and if none of these items occurred on the farm, then it was possible for the enumerator and the farmer to skip the detailed inquiries pertaining to that group.
The Special Agriculture Questionnaire (Borm A-2) was used in urban areas for the purpose of determining whether an Agrlculture Questionnaire (Form A-1) should be filled for the place. This questionnaire was designed for the purpose of minimizing the amount of instructions needed for enumerators working in urban areas. After the enumerator had completed the enumeration of urban districts and turned in his questionnaires, each Form A-2 was examined to determine whether or not the place covered by the questionnaire required the filling of an Agriculture Questionnaire (Form A-1). If a Form A-2 indicated that an Agriculture Questionnaire was required, a specially trained census enumerator was then sent to obtain the required information on an Agriculture Questionnaire (Form A-1).
In 977 counties in the South, a special questionnaire (Form A-3) was used for the enumeration of landlord-tenant operations. The enumerator was required to fll one of these questionnaires for any landholding requiring two or more agriculture questionnaires. This questionnaire was designed for the purpose of insuring a complete and accurate coverage of tenant and other farms in the South and also to provide information for special tabulations for multiple-unit operations in the Southern States. A more detailed description of this questionnaire and of statistics compiled through its use appears in part 2 of Volume $V$ of the reports of the 1950 Census of Agriculture.
The enumeration.-The enumeration was performed by farm operators and census enumerators. About 2 weeks prior to the census date of April 1, 1950, a copy of the agriculture questionnaire was distributed to $8,650,000$ box-holders in rural areas and to box-holders in other areas not having city-type mail delivery. These questionnaires were distributed in all States except North Carolina, South Carolina, Georgia, Alabama, Mississippi, Louisiana, and 65 of the 75 counties in Arkansas. The copy of the agriculture questionnaire was accompanied by a letter asking farm operators to examine the questionnaire and to answer as many of the questions as possible prior to the visit of the census enumerator. This advance distribution of questionnaires was designed to help both the farm operator and the enumerator, and to obtain more accurate information than in former censuses. Enumerators were required to visit each farm to pick up, complete, or fill the agriculture questionnaire, and to obtain the information required for the census of population and housing. This advance distribution of questionnaires enabled farm operators to become familiar with the kinds of information required for the census and also enabled them to check their records prior to the visit of the census enumerator and to compile any data needed for answering the inquirles on the questionnaire. When the questionnaire was filled out by the farm operator, the census enumerator was required to examine the questionnaire for the purpose of insuring that all necessary entries had been made. Records compiled for a sample of 40 areas distributed throughout the United States showed that approximately onesixth of the farm operators had completed the filling of their questionnaire and that 24 percent of the farm operators had partially filled their questionnaires by the time of the visit of the census enumerator.

Census enumerators and their supervisors received specialized training prior to the actual beginning of the census. There was 1 local supervisor or crew leader for approximately every 14 enumerators. These crew leaders were given 16 hours of special training in regard to the census of agrictilture by means of film strips, recordings, tests, etc. In addition, they were employed for 7 to 12 days for the purpose of checking the boundaries of enumeration districts, recruiting enumerators, and getting acquainted with the area to be enumerated by enumerators under their supervision. Each crew leader provided 8 hours of instruction in regard to the census of agriculture for the enumerators whom he supervised. This special training was given by the use of fllm strips, the practice filling of agriculture questionnaires, the conduct of a trial interview, and some actual enumeration. Crew leaders were required to visit each of the enumerators to check a sample of the work that had been completed, and to give any additional instructions that appeared to be needed.

In general, census enumerators were assigned areas for which they could complete the enumeration within 4 weelss. The number of farms enumerated by an enumerator averaged approximately 100 . Census enumerators began their enumeration on April 1 and continued until the completion of the enumeration of thetr assigned areas. The enumerator gave the agriculture questionnaires for the area he had enumerated to his crew leader who checked them for completeness before recommending the payment of the enumerator for his work. In approximately 2,700 counties, enumerators were paid a fixed fee for each agriculture questionnaire flled plus 5 cents per mile for the use of their automobiles plus a wage of approximately $\$ 1$ per hour for the time spent in training sessions. In 307 counties, where farms were widely scattered or travel conditions were difficult, enumerators were paid at an hourly rate for enumeration work and training plus 5 cents per mile for the use of their automobiles.

Enumerators in urban areas were not given detailed instructions regarding the taking of the census of agriculture. They were given brief instructions regarding the fllling of the short questionnaire, Form A-2 (see Appendix for facsimile), in case they found a farm or a place containing 3 or more neres in their enumeration districts. Form A-2 questionnaires filled out by enumerators in urban areas were examined by crew leaders or in the District Supervisor's office, and enumerators who had received full instructions regarding the census of agriculture were sent to obtain Agriculture Questionnaires (A-1) for the A-2 questionnaires filled for a farm or for a place of 3 or mare acres with agricultural operations. In order to assist supervisors and crew leaders in checking the completeness of the enumeration of places which would qualify as farms in urban areas, a list of approximately 70,000 establishments engaged in the production of flowers, mushrooms, nursery products, etc., was furnished them. Approximately $200,000 \mathrm{~A}-2$ questionnaires were filled by census enumerators. Agriculture questionnaires representing farms (A-1) were obtained for approximately 60 percent of the A-2 questionnaires.

## OFFICE PROOESSING

In order to compile the statistics contained in the various reports for the 1950 Census of Agriculture from the questionnaires, it was necessary to perform a series of processing operations in the Washington office. These processing operations were handled as follows:

Receiving and packaging of questionnaires.-The agricuiture guestionnaires were received from the District offices arranged by counties and enumeration districts within counties. The questhonnaires in each county were then arranged by minor civil divisions within the county, counted, and placed in properly labeled cardboard portfolios containing approximately 400 questionnaires each. Questionnaires were kept in this arrangement
and the portfolios of questionnaires for a county formed a unit of work for all subsequent processing operations.
Editing and coding.-Each individual agriculture questionnaire was examined by editing clerks during the office processing. The questionnaires were checked to see that they represented Census farms, that the information was completely reported, and that the figures were legible and were reported in the required units. Codes for various items were entered for the purpose of facilitating the entry on punch cards of figures necessary for the making of cross-classifications of the data. Questionnaires that appeared not to renresent Census farms were selected by the editing clerk for reference to technical personnel for final review, and questionnaires that represented large farms were referred to the technical personnel for complete review. The editing clerk also made checks to see that the data were completely and accurately reported. For example, the acreages of the various crops were totaled and the total was compared with the acreage of cropiand haryested; the numbers of cattle for each age and sex gromp were added and the total compared with the total number of cattle. Reports of cents for questions for which the entry was to be in whole dollars were canceled. Likewise reports of fractions of acres for questions for which the entry was to be given in whole acres were corrected.

During the editing, codes were entered on the questionnaire for color of the operator, for tenure of the operator, for size of farm, for irrigation (only in 17 Western States and Arkansas, Louisiana, and Florida), and for economic class of farm and type of farm. The detailed codes for economic class of farm and for type of farm were entered only for a sample of approximately 20 percent of the questionnaires. The work of each editing and coding clerk was reviewed completely until the work was found to be of acceptable quality and thereafter only on a sample basis, unless the quality of the work did not meet the established quality standard.

Punching.-The information for the 1950 Census of Agriculture required a total of 13 punch cards. The column headings for the punch cards are shown in the accompanying chart, and the number of cards punched is given in table 2. The accuracy of the punching was verified by verifying machines. The work of each punching-machine operator was completely verified until the work was of acceptable quality and thereafter only on a sample basis, unless the sample indicated that the quality of the punching was not acceptable. The punching of approximately 20 percent of the cards for the 1950 Census of Agriculture was verified.

Table 2.-Number of Punch Cards Selectrd by Mechanical Edit for Further Veripication, by Card Type, for the United States: 1950 Census of Agriculture

| Card type |  |
| :---: | ---: | ---: | ---: | ---: |

Mechanical editing.-The punch cards were examined by means of electric statistical machines for the purpose of selecting cards that might be in error. Specifications for the selection of cards that might be in error varied from card to card. The specifications for selecting cards for further verification provided for the selection of cards with a large entry for a single item; cards on which the ratio of the punched amount for one item to the punched amount for another item appeared unreasonable, (for example, a crop production of more than 100 units per acre for crops such as corn, wheat, etc.), cards with amounts inconsistent with codes on the same card; cards with essential information missing; and all calds for large farms. The number of cards selected by mechanical editing for each type of card is given in table 2. The information on cards selected by mechanical edit was listed and these listings were checked by clerks working under the direction of technical personnel and cards were corrected when in error.
Tabulation.-The tabulation was performed by means of electric tabulators. The tabulations were divided into two series, one series for counties and the other for State economic areas. In most cases, the tabulations were made to obtain totals and counts for all items for each county. These tabulations were made by using punch cards for all farms in the county. The tabulations for counties usually provided totals for each minor civil division comprising the county. The tabulations for a few items and, in general, all cross-tabulations such as those by size of farm, type of farm, etc., were made only for State economic areas, Usually for these tabulations, only cards for a sample of approximately 20 percent of the farms were used.

Review of tabulations.-All tabulations were reviewed by technical personnel. This review included comparisons with data for prior censuses or with data from other sources; a checking of data for one item against those for another item (for example, the checking of acres against production for a crop); the comparisons of totals and averages for an area with those for nearby areas or minor civil divisions, etc.; the checking of the totais for one tabulation with the totals for other tabulations for the same item; etc. Part of this checking was performed by the technical staff of the Agriculture Division and part by the State Statisticians of the various States loaned to the Bureau of the Census by the Bureau of Agricultural Economics of the U. S. Department of Agriculture.

Processing of data for the sample for the 1950 Census,-The sample used for the 1950 Census of Agriculture consisted of all large farms and one-fifth of all remaining farms. Farms to be included in the sample were selected during the enumeration. The Census enumerator was given a procedure for selecting the farms to be included in the sample and he was instructed not to modify this procedure in any case. He was instructed to include in the sample and to obtain the additional information (answers to questions 306 through 332) for any farm if the questionnaire on which it was to be enumerated had a designated serial number. All agriculture questionnaires given to Census enumerators, as well as those distributed through the mail, carried a serial number. These serial numbers ranged from 1 through 5. The designated serial number of the questionnaire for which the sample information was to be obtained was determined by comparing the serial number of the agriculture questionnaire with the serial number assigned in Washington to the enumeration district.

Crew leaders were instructed to see that the additional information required for farms in the sample was obtained for all farms on the large farm list. During the processing operations in Washington any farm not already in the sample that met the criteria for a large farm was added to the sample and if the necessary information for items to be obtained only for farms in the sample had not been secured, the required data wers obtained by mail.

## INTRODUCTION

PUNCH CARDS USED FOR THE 1950 CENSUS OF AGRICULTURE
[The figures appearing in parentheses ( ) under the column heads on the punch card indicate the question number on the agriculture questionnaire from which the figures were taken for punching the card)

Land ownership and use



Irrigation

(A-West and Irrigation used only in 17 Western States, Arkansas, Florida, and Lauisiana)

## Crops


(F card used only in California)

Forest products


237460 ○-53-2

## Livestock and livestock products


(N card used only in Arizona, California, Missouri, New Mexico, Oregon, Texas, and Utah)

Mortyage debt, taxes, farm facilities and equipment, farm labor and expenditures

( $B, L$, and $M$ cards were used only for farms comprising the sample)

An adjustment in the sample was made for the purpose of (1) improving the reliability of the estimates from the sample by a process essentially equivalent to stratifying the farms in the sample by size and economic class of farm and (2) reducing biases introduced because Census enumerators did not follow perfectly the method outlined for selecting the farms in the sample.

In order to check that the sampling procedure had been followed during the office processing, questionnaires were separated into tlree groups-large farms, other farms in the sample, and farms not in the sample. For each county, the percent of the total number of nonlarge farms in the sample was computed, and this percent was compared with the expected range in the percentage of number of questionnaires in the sample. The expected range in the percentage of farms in the sample for counties of various size as measured by the number of farms is shown by the accompanying chart. When the number of farms in the sample did not fall within the expected range, adjustments were made by decreasing the number of farms in the sample by eliminating questionnaires selected at random from those in the sample or by increasing the number of farms by adding questionnaires selected at random from the group of nonlarge farms not in the sample. This preliminary adjustment was required for approximately 200 counties.

In general, enumerators had a tendency to include the larger and better farms in the sample. Analyses indicated that more reliable estimates would be obtained if the farms in the sample were in effect stratifled by size and by economic class before the estimates were prepared on the basis of the sample. This final adjustment was made at the economic area level rather than at the county level.

In order to adjust the sample for each economic area, counts were obtained of all farms and of sample farms by size and eco-
nomic class groups. The corresponding counts for the sample were then compared with the number to be expected for the sample (the total count for all farms divided by 5) and an adjustment was made so that the sample count equaled its expected value. Adjustments were made in the sample by eliminating farms when too many were included for a specified class in an economic area or by duplicating farms when too few were included. The farms eliminated or duplicated for a class were selected at random from counties over- or under-represented in the class. The gross adjustments involved were relatively small in most areas, averaging 3 percent eliminated and 2 percent duplicated for all areas in the United States. These adjustments are summarized in table 3 .

This adjnstment procedure achieved most of the reduction in the sampling errors of the estimates for State economic areas that could have been realized by a more complicated method of estimation by which separate totals would be tabulated by size and economic class groups, estimates prepared group by group on the basis of the actual sampling ratio in the group, and the group estimates combined to provide the estimates for the economic area. This adjustment procedure also tended to reduce the effects of possible biases introduced by failure of some enumerators to follow strictly the rules for selecting the sample farms.
Reliability of estimates based on the sample of farms.-The figures based on the tabulation of data for only a sample of farms are subject to sampling errors, When data based on only a sample of farms are shown in the same table with enumerated data for all farms, the data based on a sample are shown in italics or a note indicates that the data are estimates based on a sample of farms. Approximate measures of the sampling reliability of estimates are given in tables 5, 6, and 7 for farms reporting and for item totals.

These measures indicate the general level of sampling relia-

## ACCEPTANCE LIMITS FOR THE PERCENTAGE OF NON-LARGE FARMS IN SAMPLE AND NUMBER OF COUNTIES CLASSIFIED BY NUMBER OF FARMS, FOR THE UNITED STATES: CENSUS OF 1950



Tablr 3.-Adjusthents in Numbrr of Farms Prior to Tabulation or Data for the Sample, for the United States and Reglons: 1950 Census of Agriculture

| Item | United States | The North | The South | The <br> West |
| :---: | :---: | :---: | :---: | :---: |
| Total counties $\qquad$ numberCounties adjusted $\qquad$ numberpercent | 3,101 2,092 67.5 | 1,273 887 69.7 | 1,410 949 87.0 | 412 286 62.1 |
| Total farms, excluding largo farms. $\qquad$ number... | 5, 310, 834 | 2, 248, 848 | 2,624, 402 | 437, 584 |
| Expected number of farms in <br> sample ..........................number.- <br> Warms enumerated in sample number | $1,062,167$ $1,071,041$ | 449,770 455,729 | 524,880 528,647 | 87,517 86,685 |
| Farms enumersted in sampla number-- Difference between experted and | 1,071,041 | 455, 729 | 528,647 | 86, 665 |
| enumerated number of farms in sample. number.- | 8,874 0.8 | 5, 968 | 3,767 0.7 | -852 1.0 |
| Net adjustment in number of |  |  |  |  |
| farms in sample $\qquad$ number.- | -9,457 | -6, 156 | , -4,091 | 790 2,159 |
| Farms eltminated.-...... number | 31,873 | 15, 120 | , 14, 594 | 2, 159 |
| Farms added $\quad$ percent 1 . | 3.0 22,416 | 8, 3.484 | 10. 2.8 | 2.5 2,949 |
| Farms added.--------- | 22,416 2.1 | 8,064 2.0 | 10,503 2.0 | 2,949 3.4 |
| Gross adjustment in number of farms in sample...-...--number-- | 64,288 5.1 | 24,084 5.4 | 25,097 4.8 | 5,108 5.8 |
| Commercial farms, excluding <br> large farms...................number.- | 3, 635, 629 | 1,752, 015 | 1, 584, 862 | 298,752 |
| Expected number of farms <br> in sample...........-..........-number.- | 727, 120 | 360,403 | \$16,972 | 59, 751 |
|  | 743, 203 | 350, 887 | 323, 420 | 59, 886 |
| Difference between expected and enumerated number of farms in |  |  |  |  |
| sample-......................................... | 10,077 2.2 | 9,484 | 6,448 2.0 | 145 0.2 |
| Net adjustment in number <br> of farms in sample. $\qquad$ number. | -15,601 | -9, 232 | -6, 224 | -145 |
| Farms oliminated.-----number.-. | 26, 739 | 13,639 | 11,328 | 1, 772 |
| percent ${ }^{1}$-- | 3.7 | 3.9 | 3.6 | 3.0 |
| Farms added.-..........nimber..- | 11, 138 | 4,407 | 5, 104 | 1, 627 |
| percent ${ }^{\text {- }}$ - | 1.6 | 1.3 | 1.6 | 2.7 |
| Gross adjustment in number of farms in samplo............number.- | 37,877 5.2 | 18, 046 | 16, 432 | 3,899 $\mathbf{5 . 7}$ |
| Other larms, excluding large $\qquad$ | 1,675, 205 | 490,833 | 1, 039,540 | 138,832 |
| Expected number of farms in <br> sample number-- | 335, 041 | 99, 387 | 207,908 | 27,766 |
| Farms enumerated in sample_number-- | 327, 838 | 95, 842 | 205, 227 | 26,769 |
| Dlfference between expected and snumerated number of farms in sample. $\qquad$ number percent ${ }^{1}$ - | $-7,203$ 2.1 | $-3,525$ 3.5 | $-2,681$ 1.3 | -997 $\mathbf{3 . 6}$ |
| Net adjustment in number of |  |  |  |  |
| farms in sample -.-----.--- | 6, 144 | 3,076 | 2, 133 | 935 |
| Farms ellminated.------number-- | 5,134 | 1, 481 | 3, 266 | 387 |
| Farms added.- ${ }^{\text {percent }}{ }^{\text {l }}$-- | 1.5 11,278 | 4. 1.55 | 1.6 5,309 | 1.4 1,322 |
| Farms added.-.-...-----number.-- | 11, 3.4 | 4.657 4.6 | 6,369 2.6 | 1,322 4.8 |
| Gross adjustment in number of farms in sample.............number-- | 16,412 4.9 | 6,038 6.1 | 8,665 4.2 | 1,709 $\mathbf{6 . 2}$ |

1 Percent of expected number of farms.
bility of the estimates, but do not include adequate allowances for sources of error other than sampling variations, as for example, errors in original data furnished by farmers. Sources of error other than sampling may be relatively more important than sampling variation, especially for totals for States or larger areas.

In general, the measures of sampling reliability presented are conservative, in that they tend to overestimate the variations in the sample estimates, because, (1) maximum figures intended to serve for all geographic regions were used and (2) the predicted limits of error do not take into consideration that complete data were tabulated for all large farms. Consequently, there is a tendency to overestimate the variations in the sample, especially for groups for which the totals for large farms represent a high percentage of the item totals. Data for large farms for a number of items, are given in table 4. The data in this table indicate for each item the proportion of the region total represented by large farms.

The estimated sampling reliability for number of farms and farms reporting specified items is given in table 5 . Data in tables 6 and 7 are given to assist in determining the general level of sampling reliability of estimated totals. In table 7, a list of the items is given and the level of sampling reliability as shown in table 6 is indicated. By referring to table 6 in the column for the level of sampling reliability designated in table 7, the sampling error according to the number of farms reporting may be obtained. Tables 5 and 6 show percentage limits, such that the chances are about 2 in 3 that the difference between the estimates based on the sample and the figures that would have been obtained from a tabulation for all farms would be less than the limit specified. However, the chances are 99 in 100 that the difference would be less than two and one-half times the percentage limit given in the table.

The data in tables 5 and 6 indicate that when the number of farms reporting specified items is small, the item totals are subject to relatively large sampling errors. Nevertheless, the complete detail for every classification for each item is presented to insure maximum usefulness for obtaining estimates for any combinations of items that may be desired. Percentage figures and averages derived from the tables will generally have greater reliability than the estimated totals; also significant patterns of relationship may sometimes be observed even though the individual data are subject to relatively large sampling errors.

Sampling errors for farms reporting were computed by the random sampling formula, assuming a random distribution. However, the assumption of a random distribution is not fully correct because of the adjustments made in the sample. While the amount of the sampling error as given could be reduced by the use of a more complicated method of computation, the differences between the results from the method used and the more complicated method would not justify the computation of sampling errors by a more complicated method. Adjustment factors are given in the footnote of table 5 to provide more precise limits when the number of farms or farms reporting an item is greater than 50 percent of the total number of farms.

In order to compute the sampling errors for item totals, State economic areas having similar agricultural and statistical characteristics were grouped together. Twenty such broad groups were selected for the United States. Sample counties from each of the 20 groups were selected and estimates of sampling errors were computed for a large variety of items to provide a basis for estimates of the level of sampling errors. Estimates of sampling errors have been made separately for the North, the South, the West, and the United States totals, by weighting the sampling error by the corresponding item total for each State or geographic region.

All data shown in this report which are based on a sample of farms have been expanded to represent figures for all farms. These expanded figures were obtained by multiplying by five the totals tabulated from the sample for all except the large farms, and adding totals for large farms.

Data on farm facilities and equipment, farm labor, farm expenditures, and value of land and buildings were estimated for each county on the basis of the tabulation of the figures for only a sample of the farms in each county. The same sample of farms was used also for the tabulation of data for these items by State economic areas or for the State. In some cases, the totals compiled for these items from the tabulations made by counties will differ from the totals presented in tables compiled from tabulations made by State economic areas or for States since, as a matter of economy, adjustments were not made in the tabulations

Table 4.-FARMS, FARM CHARACTERISTICS, AND VALUE OF FARM PRODUCTS SOLD, FOR SPECIFIED LARGE FARMS, BY REGIONS: CENSUS OF 1950

| (For definitions and explanations, see text) | The United States |  | The North |  | The South |  | The West |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Percent <br> of total <br> for all <br> farms | Total | Percent <br> of total <br> farms | Total | Percent of total for all farms | Total | Percent for all farms |
| farms, acreage, and value |  |  |  |  |  |  |  |  |
| Farms $\ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~ n u m b e r . . ~$ Land in farms......................................................acres.. | 71,328 $382,992,594$ | 1.3 33.1 | 19,218 $50,056,337$ | 0.8 11.4 | 28,021 $118,830,537$ | 1.1 30.2 | $\begin{array}{r} 24,089 \\ 214,105,720 \end{array}$ | 5.2 66.0 |
| Value of land and buildings.....................................average per farm..dollars.. average per acre..dollars.. | $\begin{array}{r} 142,383 \\ 26.28 \end{array}$ | $\mathbf{x x x x x x x x}$ $\mathbf{x y x x x x x x}$ | 106,079 33.64 | $\mathrm{XXXXXX} X X$ XXXXXXXX | 146,014 30.40 | xxxuxaxx $\mathbf{x} \mathbf{x x} \mathbf{x x} \mathbf{x x x}$ | $\begin{array}{r} 168,789 \\ 21.29 \end{array}$ | ${ }_{x \times x x x x x x x}$ $\mathbf{x x x x x x x x x}$ |
| Land in farms according to use, 1949: <br> Cropland harvested. <br> farms reporting. . <br> acres.. | $\begin{array}{r} 61,696 \\ 39,427,906 \end{array}$ | 1.3 11.4 | $\begin{array}{r} 18,576 \\ 13,972,397 \end{array}$ | 0.9 6.7 | $\begin{array}{r} 22,631 \\ 10,861,489 \end{array}$ | 1.0 11.2 | $\begin{array}{r} 20,489 \\ 14,594,020 \end{array}$ | 5.4 36.6 |
| Cropland used only for pasture.,...............................farms reporting. . | 27,110 | 1.3 | 7,483 | 0.7 | 13,192 | 1.4 | 6,435 | 4.4 |
| acres. . | 11,470, 161 | 16.5 | 1,876,932 | 6.5 | 5,056,908 | 16.4 | 4,536,321 | 48.1 |
| Hoodland pastured.............................................farms reporting.. | 23,165 | 1.4 | 3,664 | 0.5 | 16,507 | 1.8 | 2, 2,994 | 4.1 |
| , | 47, 210, 883 | 35.0 | 1, 256,013 | 4.3 | 22,629,458 | 32.6 | 23, 325,412 | 64.8 |
| Other pasture (not cropland and not woodland)....................farms reporting.: | $\begin{array}{\|c} 39,793 \\ 247.031 .425 \end{array}$ | 1.9 59.4 | 11,702 25,799 | 1.11 | 12,700 $63,224,990$ | 1.5 59.5 | 158, 027, 132 | 9.5 75.7 |
| Irrigated land in farms........................................farms reporting.. | 13,788 | 4,5 | 1,000 | 5.5 | 2,572 | 6.6 | 10,216 <br> 39.688 | 4.1 |
| fabms by SIZe |  |  |  |  |  |  |  |  |
| Under 30 acres..........................................................number.. | 1,256 | 0.1 | 483 | 0.1 | 217 | (1) | 556 | 0.3 |
| 30-259 астев.,...............................................................number.. | 2,879 | 0.1 | 992 | 0.1 | 785 | (1) | 1,102 | 0.6 |
| 260-499 псres...............................................................number.. | 2, 892 | 0.6 | 1,037 | 0.4 | 941 | 0.6 | 1914 | 2.5 |
| 500-999 всгея, . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .number.. | 7,508 | 4.1 | 1,869 | 2.1 | 4,435 | 7.3 | 1,204 | 3.9.9 |
| 1,000 acrea and over. ...........................................................number. . | 56,793 | 46.8 | 14, 837 | 40.6 | 21,643 | 59.6 | 20,313 | 41.9 |
| farms by tenure of operator |  |  |  |  |  |  |  |  |
| Full owners...............................................................number.. | 22,250 | 0.7 | 4,924 | 0.4 | 12; 360 | 0.9 | 4,966 | 1.6 |
| Part owners................................................................... number.. | 33,720 | 4.1 | 10, 430 | 2.5 | 9,318 | 2.9 | 13, 972 | 16.5 |
| Managers........................................................... number.. | 7,418 7,940 | 31.5 0.5 | 1,581 2,283 | 18.7 0.5 | 3,872 2,471 | 38.8 0.3 | 1,965 3,186 | 38.4 5.4 |
| specified facilities and equipment |  |  |  |  |  |  |  |  |
| Grain combines.......................................................farms reporting.. | 32,937 | 5.0 | 11,662 | 2.5 | 10,200 | 8.1 | 11,075 | 17.1 |
| number.. | 50,176 | 7.0 | 17,705 | 3.6 | 15,712 | 11.2 | 16,759 | 22.3 |
| Corn pickers......................................................farms reporting.. | 7,609 | 1.7 | 5,099 | 1,2 1,4 | 2,131 2,547 | 9.5 11.0 | 379 454 | 11.4 |
| number.. | 9,215 | 2.0 | 6,214 | 1.4 | 2,547 | 11.0 | 454 |  |
| Pick-up hay balers.................................................farms reporting.. | 12,780 | 6.7 | 4,001 | 3.3 | 5,648 | 11.2 | 3,131 | 17.2 |
|  | 14,221 | 7.3 | 4,315 | 3.5 | 6, 294 | 12.1 | 3, 612 | 18.9 |
| Mbtortrucks. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . farms reporting. | 62,065 | 3.4 | 17,220 | 2.0 | 22, 692 | 3.2 | 22,153 | 8.6 |
| number.. | 157,386 | 7.1 2.3 2.6 | 41,716 17 | 4.1 | 53, 2123 |  | 62,407 | 17.2 |
|  | $\begin{array}{r} 58,604 \\ 201,774 \end{array}$ | 2.3 5.6 | 17,652 59,751 | 1,1 2.6 | 21, 2194 | 3.6 | 19,708 62,249 | 14.5 |
| farm labor, week preceding enumeration |  |  |  |  |  |  |  |  |
| Hired workers....................................................., farms reparting.. | 48, 183 | 6.9 | 12,220 | 3.9 | 19,609 | 6.7 | 16,354 | 17.4 |
| 为 | 391,288 | 25, 2 | 66,645 | 13.1 | 195,866 | 26.1 | 128,777 | 43.4 |
| Specified farm expenditures |  |  |  |  |  |  |  |  |
| Machine hira...................................................... farms reporting.. | 37,295 | 1.4 | 11, 525 | 0.8 | 13,668 | 1.3 | -12,102 | 5.2 |
| dollars.. | 79, 143,766 | 12.9 | 13, 723,235 | 4.6 | 34,733, 210 | 16.6 | 30,687, 321 | 29.9 |
| Hired labor.........................................................farms reporting., ${ }_{\text {dol }}^{\text {dars. . }}$ | $\begin{array}{r} 65,589 \\ 706,541,037 \end{array}$ | 2.5 29.2 | $\begin{array}{r} 17,987 \\ 158,051,098 \end{array}$ | 1.4 18.0 | $\begin{array}{r} 25,101 \\ 226,487,177 \end{array}$ | 26.2 26.7 | 322,002,762 | 8.6 46.6 |
| Feed for livestock and poultry.................................farms reporting.. | 54,213 | 1.4 | 15, 452 | 0.8 | 20,611 | 1.2 | 18, 150 | 5.7 |
| Feed for livestoch and poultry...................................arm dollars... | 385, 854, 841 | 12.8 | 126,595, 148 | 7.0 | 95,780, 616 | 13.5 | 163, 479,077 | 31,7 |
| Livestock and poultry purchased....................................farms reporting. $\cdot$. | $45,2,27$ | 1.5 | - $\begin{array}{r}13,861 \\ 238,805,718\end{array}$ | 0.9 17.0 | 144, 463,559 | 1.4 26.3 | 230, $\begin{array}{r}14,93,122 \\ \hline 18\end{array}$ | 5.4 53.4 |
|  | $613,802,399$ | 25.7 | 238, 805,718 | 17.0 | 144, 463, 559 | 26.3 | 230, 533, 122 | 53.4 |
| Seeds, bulbs, plants, and trees purchased............................farms reporting.. | 47,123 | 1.4 | 14,481 | 0.9 | 18,780 | 1.3 | 13, 862 | 5. 6 |
| Seeds, bulbs, planti, and trees purchased...........................arns dollars.. | 75,026,977 | 13.8 | 23, 312, 245 | 7.6 | 26,970,802 | 16.8 | 24, 743,930 | 32.5 |
| Gasoline and other petroleum fuel and oil........................... farms reporting.. ${ }_{\text {dollars.. }}$ | $\begin{array}{r} 66,548 \\ 138,622,335 \end{array}$ | 2.2 12.2 | $\begin{array}{r} 18,525 \\ 35,654: 994 \end{array}$ | 1.1 5.4 | 24,937 $50,585,923$ | 2.6 17.1 |  | 7.2 29.2 |
| cosk dollars.. | 138, 622, 335 | 12,2 | 35, 654,994 | 5.4 | 50,585,923 | 17.1 | 52, 381,418 | 29.2 |
| Tractor repairs.....................................................farms reporting. . | 55,853 | 2.8 | 17, 102 | 1.3 | 20, 180 | 3.9 | 18,571 | 9.1 |
| Tractor repairs............................................................. | 61,938,594 | 15.9 | 12,914, 212 | 6.1 | 24, 101, 087 | 22.1 | 24,923, 295 | 36.7 |
| Other farmmachinery repairs........................................farms reporting.. | $\begin{array}{r} 53,100 \\ 52,258,222 \end{array}$ | 2.3 13.5 | $\begin{array}{r} 16,813 \\ 14,584,744 \end{array}$ | 1.2 6.0 | $\begin{array}{r} 17,483 \\ 14,318,626 \end{array}$ | 2.4 18.6 | $\begin{array}{r} 18,804 \\ 23,354,852 \end{array}$ | 9.5 35.8 |
| FARMS By type of farm |  |  |  |  |  |  |  |  |
| Field-crop farms, other than vegetable and fruit-and-nut.....................number.. | 25, 196 | 1.7 | 7,500 | 2.1 | 8,286 | 0.8 | 9,410 | 13.0 |
| Vegetable farms,,.............................................................. number.. | 1,165 | 2.5 | 173 | 1.0 | 405 | 2.2 | 587 | 6.1 |
| Fruit-and-nut farms............................................................... number.. | 1,563 | 1.9 | 169 | 1.0 | ${ }^{714}$ | 3.8 | 680 | 1.5 |
| Dairy farms...............................................................number. . | 2,813 | 0.5 | 809 | 0.2 | 1,157 | 1.2 | 847 | 1.8 |
| Poultry farms. . . . . . . . . . . . . . . . . . ........................................number.. | 1,222 | 0.7 | 473 | 0.5 | 377 | 0.7 | 372 | 1.4 |
| Li vestock farms, other than dairy and poultry ................................... number.. | 29,817 4 4 | 3.7 | 8,084 879 | 1.5 0.3 0.3 | 11,036 2,407 | 5.3 1.4 0 |  | 15.2 2.4 |
| General farms.............................................................................................................. | 4,240 5,312 | 0.9 0.3 | 8,89 1,131 | 0.3 0.2 | 2,407 3,639 | 1.4 0.3 | 542 | 0.4 |

[^0]Table 4.-FARMS, FARM CHARACTERISTICS, AND VALUE OF FARM PRODUCTS SOLD, FOR SPECIFIED LARGE FARMS, BY REGIONS: CENSUS OF 1950-Continued

| (For definitions and explanations, see text) | The United States |  | The North |  | The South |  | The Hest |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | $\begin{gathered} \text { Percent } \\ \text { of toral } \\ \text { of tor all } \\ \text { farms } \end{gathered}$ | Total | $\left\lvert\, \begin{gathered} \text { Percent } \\ \text { of total } \\ \text { for all } \\ \text { farms } \end{gathered}\right.$ | Total | $\begin{array}{\|c\|c\|} \hline \text { Percent } \\ \text { of total } \\ \text { for oll1 } \\ \text { farms } \end{array}$ | Total | $\begin{gathered} \text { Percent } \\ \text { of total } \\ \text { for all } \\ \text { farms } \end{gathered}$ |
| FARMS BY ECONOMIC Class |  |  |  |  |  |  |  |  |
| Commercial farmb. ............................................................number.. | 68,399 | 1.8 | 18,808 | 1.1 | 25,812 | 1.6 | 23,779 | 7.4 |
| Class I (value of products sold, $\$ 55000$ or nore)...........................number. . | 34,129 | 33.1 | 9, 425 | 21.5 | 10,989 | 39.0 | 13, 15 | 43.9 |
| Class II (value of products sold, $510,000-524,999) \ldots . . . . . . . . . . . . . . . . . . . . . . .$. number. . | 19,095 | 5.0 | 6, 334 | 2.6 | 6, 256 | 8.0 | 6,505 | 11.1 |
|  | 15,175 | 0.5 | 3,049 | 0.2 | 8,567 | 0.6 | 3,559 | 1.5 |
| Other farms. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . number.. | 2,929 | 0.2 | 410 | 0.1 | 2,209 | 0.2 | 310 | 0.2 |
| VALUE OF Products sold, by source |  |  |  |  |  |  |  |  |
| All farm products sold....................................................dollars. . | 3,805,146,050 | 17.3 | 1,020,652,165 | 8.8 | 1,094,815,687 | 17.2 | 1,689,678,198 | 41.9 |
| Field orops, other than vegetables and fruits and nuts, sold..................dollars.. | 1, 260,540.331 | 15.7 | 259, 187, 142 | 8.4 | 414, 157,039 | 11.6 | 587, 196, 150 | 42.9 |
| Vegetables sold.............................................................dollars.. | 258,870,827 | 42.6 | 30,696, 718 | 16.9 | 58,745,240 | 36.6 | 169, 428, 869 | 63.8 |
| Fruits and nuts sold.................................................... dollars.. | 221, 205, 713 | 27.9 | 17,334,656 | 13.1 | 91,467,722 | 44.0 | 112, 403, 335 | 24.9 |
| Horticultural specialties sold................................................doliars.. | 178,062, 748 | 45.4 | 105,495,667 | 44.1 | 36, 437,968 | 47.9 | 36, 129, 113 | 47.1 |
| Dairy products sold........................................................dollars.. | 206,731, 354 | 6.7 | 44,670,060. | 2.1 | 62,443, 556 | 12.5 | 99, 617, 638 | 24.3 |
| Poultry and paultry products sold......................................... dollars.. | 156, 376, 942 | 8.6 | 61, 128, 769 | 5.5 | 47,909, 743 | 11.2 | 47,338, 430 | 16.7 |
| Livestock and livestock products, other than poultry and dairy, sold.........dollars. . | 1,499,080,452 | 20.8 | 500, 594, 215 | 10.6 | 363,080, 340 | 27.1 | 635, 405, 897 | 54.4 |
| Forese products sold......................................................, dollars.. | 24,277,683 | 18.0 | 1,544,938 | 4.3 | 20,573,979 | 24.5 | 2, 158, 766 | 14.8 |
| Cattle and dairy products |  |  |  |  |  |  |  |  |
|  | $\begin{array}{r} 57,305 \\ 13,985,767 \end{array}$ | 18.4 | $\begin{array}{r} 15,622 \\ 2,801,404 \end{array}$ | 0.8 7.1 | $\begin{array}{r} 23,415 \\ 5,586,341 \end{array}$ | 1.2 22.9 | $\begin{array}{r} 18,268 \\ 5,598,022 \end{array}$ | 6.1 43.0 |
|  | 55,411 | 1.4 | 14,940 | 0.8 | 22,833 | 1.2 | 17,638 | 6.2 |
|  | 6, 283,798 | 16.9 | 976,577 | 5.3 | 2,758, 422 |  | 2, 548,799 | 41.2 |
|  | 43,809 | 1.2 | 12,956 | 0.8 | 16,756 | 1.0 | 14,097 | 5.5 |
|  | 667, 385 | 3.1 | 170,786 | 1.3 | 252,754 | 4.2 | 243, 845 | 12.9 |
| Whole milk sold..................................................farms reporting. $\begin{array}{r}\text { prunds. } \\ \text { dollars.. }\end{array}$ | 6,849 | 0.6 | 2,430 | 0.3 | 2,704 | 1.1 | 1,715 | 1.9 |
|  | 3,670,560,223 | 5.4 | 783,464,662 | 1.6 | 971,873,135 | 10.4 | 1,915,222,426 | 20.4 |
|  | 201,359, 160 | 7.4 | 41,681,077 | 2.2 | 61,178, 583 | 13.3 | 98, 499, 530 | 25.4 |
|  | 8,614 | 1.0 | 4,945 | 0.8 |  |  | 2,788 | 4.6 |
|  | 7,325,869 | 1.3 | 4,437,128 | 0.9 | 1,420,908 | 2.3 | 1,467, 833 | 4.0 |
|  | 4,649,737 | 1.3 | 2, 807, 429 | 0.9 | 863,580 | 2.6 | 978, 728 | 4.4 |
| Butter, buttermilk, skim milk, and cheese sold..........................farms reporting.. dollars.. | $\begin{array}{r} 664 \\ 643,009 \end{array}$ | 0.6 6.2 | $\begin{array}{r}\text { 181, } 954 \\ \hline 1\end{array}$ | 0.5 5.6 | 512 322,075 | 4.5 4 | 139, $\begin{array}{r}56 \\ \hline 80\end{array}$ | 3.2 41.2 |
| Hogs |  |  |  |  |  |  |  |  |
| Hogs and pigs.....................................................farns reporting.. ${ }_{\text {number.. }}^{\substack{\text { n }}}$ | 30,942 | 1.0 | 9,777 | 0.8 | 14,439 | 0.9 | 6,726 | 5.6 |
|  | 2, 110,485 |  | 1,039,043 | 2.6 | 744,208 | 5.6 | 327,234 | 20.3 |
| Sowa and gilts for spring farrowing.............................farms reporting... | 20,038 | 1.2 | 7,170 | 0.7 | 9, 474 | 1.4 | 3,394 | 6.3 |
|  | 283,573 | 3.0 | 156,953 | 2.0 | 88, 857 | 5.4 | 37,763 | 16.8 |
| SHEEP AND WOOL |  |  |  |  |  |  |  |  |
| Sheep and lambs. $\qquad$ farms reporting. . number. . | 10,119 | 3.2 | 2,207 | 1.1 | 3,671 | 4.7 | 4,241 | 10.4 |
|  | 13, 530, 050 | 43.1 | 752.998 | 9.2 | 4,749,950 | 45.3 | 8,027,102 | 62.9 |
| Sheep and lambs born before Oet. $1,1949 \ldots . . . . . . . . . . . . . . . . . . . .$. farms reporting.. | 9,924 | 3.2 | 2,150 | 1.1 | 3,640 | 4.9 | 4,134 | 11.1 |
|  | 10,076,497 | 46.2 | 588,960 | 10.8 | 3,263,693 | 47.5 | 6, 223, 844 | 65.7 |
| Ewes. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . farms reporting.. $\begin{array}{r}\text { number.. }\end{array}$ | 9, 9.696 | 3.2 | 2,092 | 1.1 | 3,560 | 4.8 | 4,044 | 11.2 |
|  | 9, 280,515 | 46.8 | 465, 817 | 9.6 | 2, 831, 181 | 47.8 | 5,983,517 | 66.3 |
|  | - 9, 042 | 3.2 | 2,042 | 1.1 | 3,241 | 4.8 | 3,759 | 12.3 |
|  | 10,548,483 | 47.0 | 660,041 | 11.6 | 3,298,649 | 48.0 | 6,589,793 | 66.7 |
|  | 87, 396,859 | 48.9 | 4,987, 284 | 11.2 | 24, 345, 196 | 49.5 | 58, 064, 379 | 68.3 |
| POULTRy and poultry products |  |  |  |  |  |  |  |  |
| Clickens, 4 months old and over, on hand..........................f.farms reporting. . $\begin{gathered}\text { number.. }\end{gathered}$ | 42,828 | 1.0 | 11,895 | 0.7 | 16,760 | 0.8 | 14,173 | 4.8 |
|  | 7,273,669 | 2.1 | 3,305,040 | 1.6 | 1,583,429 | 1.7 | 2,385, 200 | 6.9 |
|  | 12,145 | 0.7 | -5,568 | 0.5 | 3,735 | 0.6 | 2,842 | 3.2 |
|  | 67,351,745 | 11.5 | 16,986, 348 | 7.0 | 42, 417, 487 | 14.6 | 7,947,910 | 14.2 |
|  | 64, 325,479 | 11.3 | 20, 266, 508 | 7.5 | 36, 279,959 | 15.0 | 7,779,012 | 13.8 |
| Chicken eggs sold. $\qquad$ farms reporting, dozens.. dollars.. | 20,579 | 0.9 | 8,083 | 0.6 | 6,522 | 0.7 | 5,974 | 4.4 |
|  | 64,980,784 | 2.7 | 34, 281, 260 | 1.9 | 8,967,105 | 2.6 | 21,732,419 | 7.4 |
|  | 32,605,970 | 3.2 | 17,175, 270 | 2.4 | 4,284,871 | 3.0 | 11, 145, 829 | 7.9 |
| animals sold alive |  |  |  |  |  |  |  |  |
| Cattle, hogs, sheep, horses, or males sold alive...................farms reporting. ${ }_{\text {doll }}$ diars. | 56,518 | 1.6 | 15,627 | 0.9 | 23,000 | 1.5 | 17, 891 | 7.2 |
|  | 1,445880, 474 | 20.5 | 495,507,136 | 10.6 0.9 | 345, 091, 20.343 | ${ }^{26.6}$ | 605, 281, 7 195 | ${ }_{7} 54.4$ |
| Cattle and/or calves sold mive.............................................ms reporting., | 51,991 | 1.7 | 14,838 | 0.9 | 20,848 | 1.8 | 16,305 | 7.5 |
| Cattle sold alive, excluding calves..............................farms reporting.. | 44,981 | 2.4 | 13,635 | 1.2 | 16,424 | 3.0 | 14,922 | 8.9 |
|  | 5,817,413 | 28.1 | 1,859,840. | 15.9 | 1, 439, 605 | 33.5 | 2,517,968 | 53.9 |
| Cal ves sold alive........................................farms $\begin{array}{r}\text { dollars.. } \\ \text { reporting. } \\ \text { umber. } \\ \text { dollars.. }\end{array}$ | 1,021,645,361 | 30.3 | 375, 865, 437 | 18.2 | 208, 204, 455 | 36.8 | 437,575, 469 | 58.6 |
|  | - 12,574 | 1.4 | 7,296 | 0.6 | 1 15,543 | 1.6 | -9,735 | 6.9 |
|  | 2, 180, 217 | 14.0 | 281,382 | 3.5 | 1, 134, 012 | 20.4 | 754, 823 | 36.6 |
|  | 163, 960, 236 | 17.8 | 22,595, 254 | 5.4 | 83, 613,898 | 23.1 | 57, 750,0.84 | 41.3 |
| Hogs and pigs sold alive....................................................... ${ }_{\text {arms }}^{\substack{\text { raporting.. } \\ \text { number.. }}}$ | 25,672 | 1.2 | 9,458 | 0.8 | 11,515 | 1.4 | 4,699 | 5.2 |
|  | 2,742, 136 | 4.2 | 1,606,291. | 3.1 | 708,907 | 6.3 | 426,938 | 19.5 |
|  | 106,204, 8,906 | 4.5 | 67,526, 862 | 3.3 1.2 | 21,715,266 | 7.6 | 16,962,102 | 22.9 |
| Sheep and lambs sold alive.......................................farms reporting., $\begin{array}{r}\text { number., } \\ \text { dollars.. }\end{array}$ | 8,906 $8,749,298$ | 3.3 43.7 | 1,451,981 | 1.2 21.5 | 3,089 <br> $1,958,363$ | $\begin{array}{r}4.8 \\ 41.8 \\ \hline\end{array}$ | 3,610 $5,338,954$ | 12.6 62.3 |
|  | 146,765,670 | 43,0 | 27,893, 830 | 22.3. | 26, 972,577 | 39.2 | 91,899,263 | 62.3 |
| Horses and mulea sold alive, $\qquad$ farms reporting. . number.. dollars.. |  | 2.5 | 1,838 | 1.4 | 2,404 | 2.4 | 2,327 | 9.8 |
|  | 56,468 | 9.1 | 14,028 | 4.2 | 15,685 | 8.0 | 26,755 | 30.1 |
|  | 8,441,717 | 21.1 | 1,624,753 | 9.6 | 5,722,086 | 30.5 | 1,094,878 | 25.5 |

See footnotes at end of table.

Table 4,-FARMS, FARM CHARACTERISTICS, AND VALUE OF FARM PRODUCTS SOLD, FOR SPECIFIED LARGE FARMS, BY REGIONS: CENSUS OF 1950-Continued

| Item <br> (For definitions and explanations, see text) | The United States |  | The North |  | The South |  | The Fest |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Percent of total for all farms | Total | Percent of total for all farms | Total | Percent of total for all farns | Total | Percent of total for all farms |
| SPECIFIED CROPS HARVESTED |  |  |  |  |  |  |  |  |
| Corn for all purposes. farms reporting... $\square$ acres... <br> Harvested for grain farms reporting... | 24,729 | 0.7 | 9,605 | 0.6 | 13,231 | 0.7 | 1,893 | 4,0 |
|  | 2,850,603 | 3.4 | 1,511, 663 | 2.5 | 1,162,408 | 5.1 | 176,532 | 16.5 |
|  | 20,660 | 0.6 | 7,285 | 0.5 | 12,570 | 0.7 | 805 | 2.9 |
| acres. | 2,262,843 | 3.0 | 1,157,637 | 2.2 | 1,008,055 | 4.7 | 97,151 | 14.8 |
| Corn sold ${ }^{\text {a }}$ bushels,.. | 79,974,244 | 2.9 | 48, 082, 479 | 2.1 | 29,619,350 | 6.0 | 2,272,415 | 13.7 |
| Corn sold. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .bushels... | 22,500,770 | 2.6 | 16, 557, 197 | 2.1 | 4,693,132 | 7.0 | 1,250,441 | 15.5 |
|  | 25,186 | 2.2 | 11,156 | 1.4 | 4,223 | 1.7 | 9,807 | 8.1 |
| acres... | 15, 181, 200 | 21.3 | $5,610,020$ | 13.0 | 2,654,658 | 19.2 | 6,916,522 | 48.7 |
| bushels harvested... | 217,725,367 | 21.6 | 68,309,874 | 11.7 | 38, 169,100 | 20.6 | 111,246, 393 | 46.7 |
| bushels sold... | 199, 819,011 | 23.6 | 61,321,630 | 12.9 | 35,412,980 | 22.4 | 103, 084,401 | 48.7 |
| Oats threshed or combined ${ }^{2}$. .....................................farma reporting $\begin{array}{r}\text { acres }\end{array}$ | 17,203 | 1.2 | 8,810 | 0.8 | 5,263 | 3.2 | 3,130 | 5.3 |
|  | 1,366,413 | 3.9 | 728, 085 | 2.3 | 430,612 | 14.1 | 207,716 | 17.2 |
|  | 38, 857, 197 | 3.4 | 21,631,163 | 2.1 | 11, 196, 887 | 15.2 | $6,029,187$ | 14.3 |
|  | 12,489,043 | 5.2 | 6,262, 166 | 3.2 | 3,623,724 | 16.1 | 2,603,153 | 14.7 |
|  | 1,791 108,518 | 1.0 | (*) | (*) | $1,79 \mathrm{I}$ 108,518 | 1.0 5.1 | .............. | ... |
|  |  | 5.1 5.0 | (*) | (-) | 108, 190 | 5.0 | +............. | . |
|  | 85, 735, 822 | 5.0 | (*) | (*) | 85,735,822 | 5.0 | . .......... | ......... |
| Land from which hay was cut.............................. . . . . . . . . . farms reporting | $36,951$ | 1.4 | 13,506 | 0.9 | 11,103 | 1.2 | 12,342 | 5. 5 |
|  | $7,787,935$ | 11.9 | 3,633,449 | 8.3 | 1,123,875 | 9.5 | 3,030,611 | 30.4 |
| Irish potatoes harvested for home use or for sale..................farms reportingacres,bushels harvested.sold. dollars. | 9,744 | 0.6 | 3,644 | 0.6 | 4,034 | 0.4 | 2,066 | 3.8 |
|  | - 240,318 | 15.9 | 108,736 | 12.7 | 33,542 | 13.0 | 98,040 | 24.3 |
|  | $76,156,852$ | 20.8 | 30,971, 121 | 14.9 | 5,775,978 | 16.2 | 39, 409,753 | 32.2 |
|  | 88, 362,644 | 24.9 | 32,152,320 | 16.9 | 9,010,058 | 26.6 | 47, 200, 266 | 36.2 |
| Cocton harvested ${ }^{2}$. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . farms reporting, . ${ }_{\text {acres.. }}$ | -9,889 | 0.9 | 110 | 0.7 | 8,433 | 0.8 | 1,346 | 10.0 |
|  | 2, 930,546 | 11.0 | 36,611 | 6.2 | 2, 105,951 | 8.6 | 787,984 | 51.8 |
| bales harvasted... | 2,581,360 | 16.7 | 29,629 | 6.2 | 1,361,795 | 10.5 | 1, 189,936 | 58.8 |
| Lint cotton and cottonseed sold.............................................dollarg... | 372, 433, 387 | 17.0 | 3,986, 164 | 6.0 | 198,648, 365 | 10.8 | 169, 798, 858 | 58.4 |
| Tobacro harvested ${ }^{2}$. ......................................................farms reporting ${ }^{4}$.. | 1,507 | 0.3 | 123 | 0.4 | 1,384 | 0.3 | . $\quad . . . .$. | . . . . . . ${ }^{\text {a }}$ |
|  | 27, 862 | 1.8 | 11,605 | 10.1 | 16,257 | 1.1 | .,.,...... | . . . . . . . |
| pounds harvested... | 33, 615, 448 | 1.9 | 14,049,634 | 8.7 | 19,565, 814 | 1.2 | ............. | ......... |
| sold. .dollars... | 42,614,916 | 5.2 | 28, 486,033 | 36.0 | 14, 126, 883 | 1.9 | ........... | . ....... |
| Sugarcane haryested for sugar or sale to mills....................farms reparting... $\begin{array}{r}\text { neres... }\end{array}$ | ${ }_{173}{ }^{241}$ | 4.8 |  | . $\cdot \cdot$ | + 241 | 4.88 | +1........... | .......... |
|  | 173, 375 | 54.3 |  |  | 173, 375 | 54.3 |  | . . . . . . . |
|  | 3, 618,227 | 57.4 |  |  | 3,618, 222 | 57.4 |  |  |
|  | 23, 214, 743 | 58.2 |  |  | 23, 214, 743 | 58, 2 | . . . . . . . . . |  |
|  | $\begin{array}{r} 909 \\ 104,0.28 \end{array}$ | 3.3 15.7 | 9,5 11,003 | 0.9 5.1 | ............ |  | 814 93,025 | 4.9 21.0 |
|  | 1, 886,989 | 19.0 | 122, 112 | 5.1 |  |  | 1,764, 877 | 23.4 |
|  | 22,592,899 | 20.3 | 1,373,989 | 5.2 |  |  | 21, 218,910 | 25.0 |
| Land in bearing and nonbearing orchards, groves, vineyards, <br>  aсres... | 19,241 | 0.9 | 3,862 | 0.4 | 10,509 | 1.0 | 4,870 | 2.2 |
|  | 880,939 | 18.7 | 53,788 | 5.1 | 523, 482 | 28.5 | 303, 669 | 16.6 |

Nat available
${ }^{2} 0.05$ percent or less.
${ }^{2}$ Totals for States for which data were tabulated for large farms. The totals for States for which data were not tabulated for large farms represented the following proportions of the totals for all farms for the United States:

${ }^{3}$ Farms reporting are for the most commonly grown kind of wheat in each of the States where there were inquiries for 2 or more kinds of wheat, ${ }^{4}$ Includes only farms zeporting burley tobacco for Kentucky and Tennessee.

Table 5.-SAMPLING RELIABILITY OF ESTIMATED NUMBER OF FARMS AND FARMS REPORTING: CENSUS OF 1950

| If the estimated number of farms or farms reporting is - | Then the chances are about 2 in 3 that the estimated number would differ from the results of a complete tabulation by less than ${ }^{1}$ - |
| :---: | :---: |
|  | Percent |
| 25. | 40 |
| 50......................................... . | 28 |
| 100. | 20 |
| 250. | 13 |
| 500. | 8.9 |
| 1,000.. | 6.3 |
| 2,500.. | 4.0 |
| 5,000.......................................... | 2.8 |
| 10,000....................................... | 2.0 |
| 25,000 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1.3 |
| 50,000 or more., . . . . . . . . . . . . . . . . . . . . . . . . | Less than 1 percent |
| ${ }^{1}$ In the case of items for which the estimated number of farms or farms reporting constitutes more than 50 percent of all farms in the universe, more precise limits may be obtained by multiplying the percent difference given in the table by an approximate factor as follows: |  |
|  |  |
|  |  |
| Phen the number of farms or finms reporting constitute (percent)- | Multiply given |
|  | Limit by- |
| 50 | 0.75 |
| 75 | . 50 |
| 90 | . 30 |
| 95 | . 20 |

when the difference was not great enough to affect the usefulness of the data.

Sample for the 1045 Census.-The sample of farms used in 1945 was only about one-third as large as that used in 1950 and was selected by a different method. In 1945, each county was divided into cross-sectiong of small areas averaging 2.5 square miles in cize and containing about 5 farms each. A sample of 1 out of every 18 of these small areas or sample segments was selected and all farms having their headquarters within the selected areas were designated as sample farms, and were enumerated on questionnaires containing the supplementary questions in addition to the questions asked of nonsample farms. In 1945, as in 1950, the sampling plan provided for the inclusion of approximately 50,000 large farms regardless of their location.

Publication of data.-In general, data from the 1950 Census of Agriculture have been published in both preliminary and final form. Preliminary data for each county and State were released in the form of a four-page preliminary report as soon as possible after tabulation of data for each county and State. A facsimile of one of these reports is shown in the Appendix.

Final figures for the 1950 Census of Agriculture are published in Volumes $I$, II, and $V$ of the 1950 Census of Agriculture reports. Volume I contains, essentially, all the data tabulated for the 1950 Census of Agriculture for each county, State economic area, and State. This volume is published in 34 parts. Parts 1 through 33 contain reports for each State or group of nearby States, by counties and by State economic areas while part 34 contains data for Alaska, Hawaii, Puerto Rico, Guam, American Samoa, and the Virgin IsLands of the United States. The data given in part 34 are less detailed than those for the States, as the questionnaires used for these areas were briefer than those for the continental United States and were adapted to the agriculture of each territory or possession.

Volume II contains a summary of the data for the 1950 Census of Agriculture. It presents data for States, geographic divisions, regions, and for the United States, accompanied by analytical discussions regarding the data, and maps, graphs, etc., showing some of the significant facts indicated by the data.

Volume $V$ comprises several supplementary reports of the 1950 Census of Agriculture. Part 1 of Volume V, "Horticultural Speci-

Table 6.-SAMPLING RELIABILITY OF ESTIMATED ITEM TOTALS FOR STATES, GEOGRAPHIC DIVISIONS, REGIONS, AND THE UNITED STATES FOR SPECIFIED NUMBER OF FARMS REPORTING, BY LEVELS: CENSUS OF 1950

| If the estimated total number of farms reporting is- | Then the chances are about 2 in 3 that the estimated item total would differ from the results of a complete tabulation of the item for all farms by less than ${ }^{1}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Level } \\ 1 \end{gathered}$ | $\begin{gathered} \text { Level } \\ 2 \end{gathered}$ | $\begin{gathered} \text { Level } \\ 3 \end{gathered}$ | $\begin{gathered} \text { Level } \\ 4 \end{gathered}$ | $\begin{gathered} \text { Level } \\ 5 \end{gathered}$ | $\begin{gathered} \text { LeveI } \\ 6 \end{gathered}$ | $\begin{gathered} \text { Level } \\ 7 \end{gathered}$ |
|  | Percent | Percent | Percent | Percent | Percent | Percent | Percent |
|  | 44 | 49 | 57 | 63 | 75 | 85 | 98 |
| 50. | 31 | 35 | 40 | 45 | 53 | 60 | 70 |
| 100. | 22 | 25 | 29 | 32 | 38 | 43 | 49 |
| 250. | 14 | 16 | 18 | 20 | 24 | 27 | 31 |
| 500. | 10 | 11 | 13 | 14 | 17 | 19 | 22 |
| 1,000. | 7.0 | 8.0 | 9.0 | 10 | 12 | 14 | 16 |
| 2,500.. | 4.4 | 4.9 | 5.7 | 6.3 | 7.5 | 8.5 | 9.8 |
| 5,000. | 3.1 | 3.5 | 4.0 | 4.5 | 5.3 | 6.0 | 7.0 |
| 10,000. | 2.2 | 2.5 | 2.9 | 3.2 | 3.8 | 4.3 | 4.9 |
| 25, 000. | 1.4 | 1.6 | 1.8 | 2.0 | 2.4 | 2.7 | 3.1 |
| 50,000.. | 1.0 | 1.1 | 1.3 | 1.4 | 1.7 | 1.9 | 2.2 |
| 100, 000. | . 70 | . 80 | . 90 | 1.0 | 1.2 | 1.4 | 1.6 |
| 250,000... . . . . . . . . . . | . 44 | . 49 | . 57 | . 63 | .75 | . 85 | 98 |

${ }^{1}$ In the case of items where large farm reports constitute asignificant proportion of the item total more precise limits may be obtained by reducing the percent difference given in the table by the proportion of the item total reparted on large farms. See table 4 for large farm totals.
alties," contains data for a special census of nurseries, greenhouses, and other horticultural-specialty establishments. This special census was limited to farms or establishments reporting the sale of $\$ 1,000$ or more of any of the three following groups of horticultural-specialty products:
(1) Nursery products (trees, shrubs, vines, ornamentals, etc.).
(2) Plowers and flowering plants.
(3) Vegetables grown under glass, flower seeds, vegetable seeds, vegetable plants, bulbs, and mushrooms.

This special report presents statistics by States and counties regarding the number of establishments, sales, value of individual crops produced, employment, and value of land and buildings for :
(1) Cut flowers and flowering or foliage plants (including vegetables grown under glass and propagated mushrooms).
(2) Nurseries.
(3) Bulb farms.
(4) Flower-seed farms.

Part 2 of Volume V, "Multiple-unit Operations," contains data on the number and characteristics of multiple-unit operations, farms in multiple units, and farms not in multiple units for selected counties and State economic areas for 13 Southern States and 7 counties in southeastern Missouri. A multiple-unit operation is a landlord holding of two or more subunits (Census-defined farms), one of which may consist of land not assigned to croppers or other tenants (home farm), but the other subunit or subunits must represent land assigned to croppers.

Part 3 of Volume V, "Ranking Agricultural Counties," presents data regarding the rank of the leading counties in the United States for 56 items for the 1950 Census of Agriculture.

Part 4 of Volume V, "Land Utilization-A Graphic Summary," contains a summary prepared in cooperation with the Bureau of Agricultural Economics of the United States Department of Agriculture for the uses of land in the United States.

Part 5 of Volume V, "Farm Tenure-A Graphic Summary," provides a summary of farm tenure and changes in farm tenure as shown by the various censuses of agriculture. This special report has been prepared in cooperation with the Bureau of Agricultural Economics of the United States Department of Agriculture.

Table 7.-INDICATED LEVEL OF SAMPLING RELIABILITY OF ESTIMATED TOTALS OF SPECIFIED ITEMS FOR THE REGIONS AND THE UNITED STATES: 1950

For reliability of estimates by geographic divisions, use the level indicated for the region in which the geographic division is located. For reliability of estimates for States see State Table 30 in Volume I of the reports of the 1950 Census of Agriculture or use the level indicated for the region in which the State is located]

| (For definitions and explanations, see text) | ns |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | The United States |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Size groups |  |  |  |  | Tenure groups |  |  | Economic-class groups |  |  |  |  | Type-of-farm groups |  |  |  |  |  |  |  |  |
|  |  |  | $\begin{aligned} & \text { y } \\ & 0 \\ & \ddot{0} \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |  |  |  |  |  |  |  | E g g 0 | $\begin{aligned} & \text { B } \\ & \text { den } \\ & \text { 2 } \\ & \text { 2-1 } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & 5 \\ & \text { 5 } \\ & \text { 曷 } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |  |  |  |  |  | $\begin{aligned} & \text { E } \\ & \text { 年 } \end{aligned}$ | $\begin{aligned} & 5 \\ & \text { B } \\ & 0 \\ & 0 \end{aligned}$ |  |  |  |
| FARMS, AND FARM CHARACTERISTICS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Land owned or managed by farm operators............... acres. . | 2 | 3 | 2 | 1 | 1 | 1 | 3 | 3 | x | 3 | 2 | 3 | 3 | 4 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 |  |
| Land rented from others and/or to others by farm operators |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| farm operatars.........................................acres.. | 2 | 2 | 2 | 1 | 2 | 2 <br> 1 | 4 | 4 | 3 | 3 | 3 2 | 3 | 3 3 3 | 3 4 4 | 3 3 3 | 3 3 | 3 | 3 | 3 | 3 | 3 | 3 2 2 |  |
| Value of land and buildings per farm, per acre......dollars.. | 2 | 3 | 2 | 2 | 2 | 2 | 4 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 2 |  |
| Cropland; total, harvested, pastured, other............acres., | 2 | 1 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 2 |  |
| Woodland; total, pastured, not pastured................acres.. | 2 | 2 | 2 | 2 | 3 | 3 | 5 | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 4 | 4 | 4 | 3 | 4 | 3 | 4 | 3 |  |
| Total pasture, other pasture, other land....... . . . . . . acres.. | 2. | 2 | 2 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 4 | 4 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |  |
| Irrigated land in farms................................acres. | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |  |
| Land irrigated by aprinklers.......................acres. . | 2 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |  |
| Age of farm operator, year began operation of present farm, average........................................... years. . | 1. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1. | 1 |  |
| Average distance to trading center; average distance over dirt or unimproved roads....................miles.. SPECIFIED FACIIITIES ANG EQUIPMENT | 2 | x | x | $x$ | x | $x$ | $x$ | $x$ | * | x | x | $\mathbf{x}$ | $x$ | $x$ | x | * | x | $x$ | $x$ | $\mathbf{x}$ | $x$ | x |  |
| Average of last monthly electric bill................dollars., | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  |
| Grain combines, corn pickers, pick-up hay balers......number.. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  |
| Upright or pit or trench silos......................... number. . | 1. | $\mathbf{x}$ | $\times$ | $\times$ | $\times$ | $\times$ | $\times$ | $\mathbf{x}$ | $\times$ | x | ${ }^{\mathbf{x}}$ | x | $\mathbf{x}$ | $\mathbf{x}$ | x | $\mathbf{x}$ | $\times$ | x | $\times$ | $\times$ | $\times$ | $\times$ |  |
| Motortrucks. ....................... . . . . . . . . . . . . . . . . number. . | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  |
| Tractors; total, wheel, garden, crawler...............number., | 1 | 1 | 1 | 1 | 1. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  |
| Automabiles...............................................number., | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  |
| FARM I.ABOR |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Family and/or hired workers........................................... Hired workers or regular | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1. | 1 | 1 | 1 | 1 | 1 | 1 | I | 1 | 1 | 1 |  |
| workers................. . . . . . . . . . . . . . . . . . . . . . .persons. . | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  |
| Seasonal workers............................................... Paid on monthly, weekly, daily, hourly, | 1. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  |
| piecework, or no report as to basis of payment | 2 | $x$ | x | x | $x$ | x | $x$ | x |  | $x$ |  | x | * |  |  |  | $x$ | $\times$ | $\times$ | x | $\mathbf{x}$ | $\mathbf{x}$ |  |
|  | 1 | ${ }^{\mathbf{x}}$ | + | x x x | ${ }^{\mathbf{x}}$ | x | x | x | x | x | x | x | x | x | ${ }^{\mathbf{x}}$ | $\times$ | $\times$ | $\times$ | $\stackrel{\times}{ } \times$ | $\times$ | $\stackrel{x}{x}$ | x |  |
| Average wage per month, week, day, hour.......dollara.. | 1 | $\times$ | x | x | x | $\times$ | x | $\times$ | x | x | ${ }^{*}$ | $x$ | x | $x$ | $x$ | $\stackrel{ }{x}$ | $x$ | $x$ | ${ }^{*}$ | $x$ | $\times$ | $x$ |  |
| SPECIFIED FARM EXPENDTTURES |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Machine hire and/or hired labor............................ dollars.. Feed for livestock or poultry. <br> dollars. | 4 5 | 4 | 5 5 | 4 5 | 4 | 4 4 | 5 5 | 4 | 4 | 4 | 4 3 | 4 | 4 3 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 4 |  |
| Livestock and poultry purchased, . . . . . . . . . . . . . . . . . . . dollars. | 6 | 5 | 6 | 6 | 5 | 5 | 7 | 6 | 5 | 4 | 5 | 5 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 4 | 6 | 4 |  |
| Seeds, bulbs, plants, and trees purchased........... dollars.. | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |  |
| Gasoline and other petroleum fuel and oil............dollars.. | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 2 | 2 | 3 | 4 | 3. | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 |
| Farm machinery repairs...............................dollars.. | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 |  |
| VALUE OF PRODUCTS SOLD, BY SOURCE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All farm products sold, average sales per farm reporting. ...................................................... . dollars.. | 3 | 5 | 4 | 3 | 3 | 3 | 5 | 4 | 3 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |  |
| All crops sold. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . dollars.. | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 4 | 3 | 3 | 4 |  |
| Vegetables sold. . . . . . . . . . . . . . . . . . . . . . . . . . dollars. . | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Fruits and nuts sold. . . . . . . . . . . . . . . . . . . . . dollars.. | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 3 |
| All livestock and livestock products sold........ dallars., | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 3 |
| Dairy products sold............................ ${ }^{\text {dollars. . }}$ | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 |
| Poultry end poultry products sold.............dollars.. | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 5 | 5 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |  |
| Forest products sold, . . . . . . . . . . . . . . . . . . . . . . . . dollars, | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 4 | 4 | 4 | 4 | 4 |  |
| LIVESTOCK AND LIVESTOCK PRODUCTS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Horses and/or mules.......................................number. . | 1 | 1 | 1 | 1 | 1. | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 |  |
| Cattie and calves............................... . . . . . number. . | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |  |
| Cows, including heifers that have calved..........number.. | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 3 | 4 | 3 | 2 |
| Milk cows, . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . number,. | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 |  | 3 | 2 | 3 | 3 | 2 | 3 | 4 | 3 |  |
| Hogs and pigs................................ . . . . . . . number., | 3 | 4 | 4 | 4 | 3 | 3 | 4 | 3 | 4 | 4 | 4 | 4 | 3 | 2 | 3 | 3 | 3 | 4 | 3 | 3 | 4 | 3 |  |
| Chickens, 4 months old and aver, on hand..............number.. | 3 | 4 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 |
| Chickens sold. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . number. . | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 5 | 4 | 4 | 4 | 5 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 4 |  |
|  | 5 | 4 | 5 | 5 | 4 | 4 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |  |
| Cattie and calves sold................................. number. . | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 |  |
| Hags and pigs sold...................................... number. . | 3 | 4 | 4 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 4 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |  |
| SPECIFIED CROPS HARVESTFD |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Corn for all purposes....harvested for grain, bu, harvested.. | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  |
| Corn sold. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . bushels. . | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |  |
| Wheat threshed or combined.............acres, bushels harvested, bushels sold. . | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 |  |
| Oats threshed or combined.............acres, bushels harvested, bushels sold. . | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 3 | 2 |  |
| Cotton harvested...............acres, bales, value of sales.. | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  | 2 | 2 | 2 | 2 | 2 |  |
| Tobaceo harvested. . . . . . . . . . acres, pounds, value of sales.. | 2 | 2 | 2 | 2 | 2 | 2 | , | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  |
| Land in bearing and nonbearing fruit orchards, grove ${ }^{\text {, }}$ vineyards, and planted nut trees................acres.. | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |  |
| Irish potatoes harvested.....acres, bushels, value of sales.. | 4 |  | 4 | 4 | 4 | 4 | 5 | 3 | 3 | 4 | 3 | 3 | 3 | 2 | 4 | 4 | 5 | 4 | 4 | 4 | 4 | 4 |  |
| Land from which hay was cut............................acres.. | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | , | , | 2 | , | 3 | 3 | , |  |



## Table 7.-INDICATED LEVEL OF SAMPLING RELIABILITY OF ESTIMATED TOTALS OF SPECIFIED ITEMS FOR THE REGIONS AND THE UNITED STATES: 1950 -Continued

[For reliability of estimates by geographic divisions, use the level indicated for the region in which the geographic division is located. For reliability of estimates for States, see State Table 30 in Yolume I of the reports of the 1950 Census of Agriculture or use the level indicated for the region in which the State is located]

| (For definitions and explanations, see text) | ns |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  | The N | lorth |  |  |  |  |  |  |  |  |  |
|  | Size groups |  |  |  |  |  | Tenure groups |  |  | Econamic-class groups |  |  |  |  | Type-of-farm groups |  |  |  |  |  |  |  |  |
|  |  | $\begin{gathered} \text { y } \\ 0 \\ 0 \\ 0 \\ 0 \\ 4 \\ \vdots \\ 5 \\ \hline \end{gathered}$ |  |  |  |  |  | $\left\|\begin{array}{c} 4 \\ 山 \\ 0 \\ 0 \\ 0 \\ u_{0} \\ \text { an } \end{array}\right\|$ |  |  |  |  |  |  | $\begin{array}{\|l} \stackrel{0}{0} \\ \stackrel{0}{u} \\ \ddot{u} \\ 0 \\ \stackrel{0}{0} \\ \hline \end{array}$ |  |  |  | 育 |  |  |  |  |
| FARMS, AND FARM CHARACTERISTICS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Land owned or managed by farm operators.,.............acres. . | 1 | 5 | 2 | 1 | 1 | 1 | 2 | 2 | $x$ | 2 | 2 | 2 | 2 | 4 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 2 |  |
| Land rented from athers and/or to others by farm operators. | 1 |  |  | 1 | 1 | 2 | 3 | 3 |  |  |  | 2 | 3 | 3 | 2 |  | 2 | 2 | 2 | 2 | 2 | 2 |  |
| Land in farms; average size of farm. ..................acres.. | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 3 | 3 | 2 | ${ }_{2}^{2}$ | 2 | 2 | 3 | ${ }_{2}^{2}$ | ${ }_{2}^{2}$ |  |
| Value of land and buildings per farin, per acre......dollars, | , | 3 |  | 2 | 2 | 2 |  | 2 | 2 | 2 | 1 | 2 | 2 |  | 3 | 3 | 2 |  | 3 | 2 | ${ }_{2}^{2}$ | 2 |  |
| Crapland; total, harvested, pastured, other............arres. | 1 | , | 2 | 1 |  | 1 | 3 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 2 |  |
| Woodland; total, pastured, not pastured.................acres.. | 2 | 2 | 2 |  | 3 | 3 | 4 | 3 | 3 | 3 | 1 | 3 | 2 | 2 | 3 |  | 3 | 3 | 3 | 3 | 3 | 2 |  |
| Total pasture, other pasture, other land................acres., | 2 | ${ }^{2}$ | 2 | 2 | 2 | 3 | 4 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |  |  | 2 | 3 | 3 |  |
|  | 2 | 2 | , | 2 | 2 | 2 | , | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  |  |
| Land irrigated by sprinklers........................acres,. | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Age of farm operator, year began operation of present farm, average.................................................... | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1. | 1 | 1 | 1 |  |
| Average distance to trading center; average distance over dirt or unimproved roads......................iles.. | 2 | $\times$ | x | $\times$ | x | x | * | x | x |  |  | * | * | * | x | * | * | $\times$ | $\times$ | x | $\times$ | $\times$ |  |
| Spectfied facilities and equipment |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Average of last monthly electric bill..............dollars.. | 2 | 1. | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 |  |
| Grain combines, corn pickers, pick-up hay balers.....number.. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  | 1 | 1 | 1 | 1 | , | 1 | 1 | 1 | 1 | 1 | 1 |  |
| Upright or pit or trench silos......................number.. | 1 | ${ }^{*}$ | ${ }^{*}$ | ${ }^{*}$ | ${ }^{\mathbf{x}}$ | ${ }^{\text {x }}$ | $\times$ | ${ }^{*}$ | - | ${ }^{1}$ | ${ }^{*}$ | ${ }^{*}$ | $\times$ | $x$ | $\stackrel{ }{ }$ | $x$ | $x$ | $x$ | $\times$ | * | x | x |  |
| Motortrucks........................................number.. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  |  |  | 1 | 1 |  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  |
| Tractorsi total, wheel, garden, crawler...............number.. Automobiles.......................................... | 1 | 1 | 1 | 1 | 1 | 1 | 1 | , | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  |
| FARM LABOR |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Family and/or hired workers........................persons.. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  |
| workers......................................persons.. | 1 | 1 | 1 | 1 | 1 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Seasonal workers.............................persons.. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  |
| Paid an monthly, weekly, daily, hourly, |  |  |  |  |  |  |  |  | 1 |  |  |  |  |  |  |  |  | 1 |  |  |  |  |  |
| ppayment..................................persons.. | 2 | x | * | $x$ | x | $x$ |  | $x$ |  | $x$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Average hours worked per month, week, day....... hours.. | 1 | ${ }^{\times}$ | $\stackrel{ }{x}$ | $\stackrel{ }{x}$ | $\stackrel{+}{*}$ | $\times$ | $x$ | $x$ | ${ }^{\mathbf{x}}$ | x | x | * | $\times$ | $x$ | ${ }^{x}$ | ${ }^{\mathbf{x}}$ | $x$ | ${ }^{x}$ | ${ }^{\times}$ | ${ }^{\mathbf{x}} \mathrm{x}$ | $x$ | ${ }^{x}$ |  |
| Average wage per month, week, day, hour.......dollars.. | 2 | x | ${ }^{x}$ | $\times$ | ${ }^{8}$ | $\times$ | x | $x$ | $\times$ | $\pm$ | ${ }^{*}$ | $\pm$ | $\times$ | $x$ | $x$ | ${ }^{\mathbf{x}}$ | ${ }^{\text {x }}$ | x | ${ }^{\mathbf{x}}$ | ${ }^{x}$ | ${ }^{\mathbf{x}}$ | $x$ |  |
| Specified farm exfenditures |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mechine hire and/or hired labor....................dollars.. | 4 | 5 | 5 | 4 | 4 | 3 | 6 | 4 | 4 | 3 | , | 4 | 4 | 4 | 4 | 4 | 5 | 4 |  | 5 | 5 | 4 |  |
| Feed for livestock or poultry.........................dollars.. | 4 | 5 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 3 |  | 3 | 3 |  | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 3 |  |
| Livestock and poultry purchased.................... dollars.. | 6 3 | 5 | 6 3 | ${ }^{6}$ | 5 3 | 5 3 3 | ${ }^{6}$ | 5 | 6 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |  | 4 |  |  |  |
| Seeds, bulbs, plants, and creas purchased...........dolars.. | 3 3 3 |  | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | , | 3 | 3 | 3 |  |
| Faxm machinery repairs..............................dollars.. | 3 | 3 | 3 | 3 | 2 | 2 | 3 | ${ }_{3}$ | 3 | 2 | 3 | 3 | 3 3 | 4 | 3 | 4 | 3 | 3 3 | 3 | 3 3 3 | 4 | 3 |  |
| value of products sold, by source |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All farm products sold, average sales per farn |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| reporting, ................................... dollars.. | 2 | 6. | 4 | 2 | 2 | 2 | 4 | 3 | 3 | d | 1 | 1 | 1 | 1 | 3 | 3 | 3 |  |  | 3 | 3 | 3 |  |
| All crops sold.................................... dollars.. | 3 | 3 | 4 | 4 | 3 | 3 |  | 3 | 3 |  | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 4 | 4 | 4 | 4 |  |
| Vegetableg sold............................. dallars.. | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 |  | 4 |  |  | 4 |  |  |  |
| Fruits and nuts sold........................dollars., |  | 4 | 5 | 5 | 5 | 5 | 5 | 5 |  |  |  | 4 | 4 | 4 |  |  | 4 | 5 | 5 | 4 | 4 | 4 |  |
| All livestock and livestock products sold........ dollars., | 3 | ${ }^{\text {a }}$ | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | , |  |
| Dairy products sold..........................dollars.. | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |  |  | 2 | 2 |  |  |  | 3 | 3 | 3 |  |  | 2 |  |
| Poultry and poultry products sold............, dollars.. | 4 | 4 | 4 |  |  | 4 | 5 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 |  |
| Forest products sold..............................dollars.. | 3 | 3 | 4 | , | 3 | , | 4 | , |  | 3 | 4 | , | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| LIVEStock and livestock products |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Horses and/or mules. . . . . . . . . . . . . . . . . . . . . . . . . . number. | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 |  |  | 1 | 1 | 1 |  |  | 1 |  |  |  |  |  |  |
| Cattle and calves.................................. number.. | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | , | 3 | 3 | , | 2 | 3 | 3 | 3 |  |
| Cows, including heifers that have calved..........number., Milk cows............................... number. | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 3 |  |  | 2 | 2 | 2 | 2 |  |  |  |  |  |  | 3 |  |
|  | 2 | 2 | 2 | 2 | 2 |  | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |  | 3 | , | 3 |  |
|  | 3 | 3 | 4 | 3 | 3 <br> 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |  | 3 | 3 | 3 | 3 | 3 |
| Chickens, sold. ..................................... number.. | 3 | 4 | ${ }_{3}^{3}$ |  |  | 3 5 5 | 4 | 3 4 4 | 3 | 3 | 3 | 3 | 3 | 3 3 | 3 | 3 | 3 |  |  | 3 | 3 | 3 | 3 |
|  | 4 | 5 | 4 | 4 | ${ }_{3}^{4}$ | $\begin{array}{r}5 \\ 3 \\ \hline\end{array}$ | 5 <br> 4 | 4 | 3 4 4 | 4 | 4 | ${ }_{3}^{4}$ | 3 | 3 |  |  | 4 |  |  |  |  | 3 |  |
| Cattle and calves sold. ........................... number.. | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | + | 4 |  | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 |  |
| Hogs and pigs sold................................. number.. | 3 |  | , | 3 | 3 | 3 | 4 | 3 | 3 | 2 | 3 |  | 3 | 2 | 3 | 3 | 3 | 3 | , | 3 | 3 | 3 |  |
| spectaied crops harvested |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Corn for all purposes....harvested for grain, bu, harvested.. | 2 |  |  |  |  | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  | 2 |  |
| Corn sold.........................................bushels.. | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |  |  | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |  |
| Wheat threshed or combined,............acres, bushels harvested, bushels sold. . |  | 2 |  | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cats threshed or | 2 | 2 | 2 |  | 2 | 2 | 3 | 2 | 2 | 2 |  | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 |  |
| combined...........acres, bushels harvested, bushels sold.. | 2 | 2 | 2 | 2 | 3 | 3 |  | 2 | 2 | 2 |  | 2 | 3 | 3 | 2 |  | 2 | 3 | 2 | 2 | 3 | 2 |  |
| Cotton harvested..............acres, bales, value of sales.. | 3 | 2 | 3 |  | 3 | 3 | 4 | 3 | 3 | 2 |  | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 2 |  |
| Tobacco harvested.............acres, pounds, value of sales.. Land in bearing and nonbearing fruit orchards, | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  |
| groves, vineyards, and planted nut trees............acres.. | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 |  |
| Irish potatoes harvested....acres, bushels, value of sales.. | 2 | 4 | 4 | 4 | 4 | 4 | 5 | 3 | 3 | 4 | 3 |  |  | 2 | 4 | 4 | 5 | 4 | 4 | 4 | 4 | 4 |  |
| Land from which hay was cut. .......................ascres | 2 | 2 | 2 | 2 | 2 | $\underline{3}$ | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 |  |


| Item | Level of sampling reliability for specx fied items by number of chickens on hand |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Under 25 chickens | $\begin{gathered} 25-49 \\ \text { chickens } \end{gathered}$ | $\begin{gathered} 50-99 \\ \text { chickens } \end{gathered}$ | $100-199$ chickens | $200-399$ chickens | $400-799$ chickens | 800-1,599 chickens | $\begin{gathered} 1,600-3,199 \\ \text { chickens } \end{gathered}$ | $\begin{gathered} 3,200 \text { chickens } \\ \text { or more. } \end{gathered}$ |
| Chickens on hand.....number. . Chickens sold. ........... number. Eggs sold. .................... dozens. | 3 5 4 | 1 5 4 | 1 5 4 | 1 <br> 4 <br> 3 | 1 3 3 | 1 3 2 | 1 3 2 | 1 2 2 2 | 1 2 2 |  |


|  |  | Leval | ampling re | ty for | ied items | mber of mil |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Item | Total | $\underset{\text { lows }}{1 \text { or } 2}$ | $3 \text { or } 4$ cows | $\begin{aligned} & 5-9 \\ & \text { cows } \end{aligned}$ | $\begin{aligned} & 10-19 \\ & \text { cows } \end{aligned}$ | $\begin{gathered} 20-29 \\ \text { cows } \end{gathered}$ | $\begin{gathered} 30-49 \\ \text { cows } \end{gathered}$ | 50 cows |
|  |  <br> 2 <br> 3 <br> 3 <br> 3 <br> 3 <br> 3 | 1 <br> 3 <br> 3 <br> 3 <br> 2 <br> 2 | 1 <br> 3 <br> 3 <br> 3 <br> 2 <br> 2 | 1 2 2 2 2 2 2 | 1 2 2 2 2 2 2 | 1 2 2 2 2 2 2 | 1 2 2 2 2 2 2 |  |

Table 7.-INDICATED LEVEL OF SAMPLING RELIABILITY OF ESTIMATED TOTALS OF SPECIFIED ITEMS FOR THE REGIONS AND THE UNITED STATES: 1950-Continued
 see State Table 30 in Volume I of the reports of the 1950 Census of Agriculture or use the level indicated for the region in which the State is located]


## Table 7.-INDICATED LEVEL OF SAMPLING RELIABILITY OF ESTIMATED TOTALS OF SPECIFIED ITEMS FOR THE REGIONS AND THE UNITED STATES: 1950-Continued

LFor reliability of estimates by geographic divisions use the level indicated for the region in which the geographic division is located. For reliability of estimates for States, see State Table 30 in Volume I of the reports of the 1950 Census of Agriculture or use the level indicated for the region in which the State is Jocated


Part 6 of Volume V, "Agriculture, 1950—A Graphic Summary," presents geographically the significant facts about agriculture shown by the 1950 Census and a summary of important agricultural changes since 1900 .

Part 7 of Volume V, "Irrigation, 1950-A Graphic Summary," provides a graphic summary of the important facts regarding irrigation shown by the 1950 Census of Agriculture and Irrigation.

Part 8 of Volume V, "Farm-Mortgage Debt," contains data on farm mortgage indebtedness and interest rates for States and for the United States. This report has been prepared in cooperation with the Bureau of Agricultural Economics of the United States Department of Agriculture.

Part 9 of Volume V, "Economic Class and Type of EarmA Graphic Summary," presents the significant facts shown by the 1950 Census of Agriculture regarding farms classified by type and economic class of farm.

Part 10 of Volume V, "Farms and Farm Characteristics by Economic Subregions," presents a summary for selected items for the 1950 Census of Agriculture for 119 subregions.

## DEHPINITIONS

Definitions are presented only for those items for which the table descriptions are considered inadequate. The descriptive terms refer principally to the 1950 Census of Agriculture, although, in general, they are also applicable to earlier censuses. The definitions consist primarily of a résume of the questionnaire wording, occasionally supplemented by the more essential parts of instructions given to the enumerators. For the exact phrasing of the inquiries and of the instructions included on the questionnaire, reference should be made to the facsimile of the 1950 Agriculture Questionnaire shown in the Appendix.

A farm.-For the 1950 Census of Agriculture, places of 3 or more acres were counted as farms if the value of agricultural products in 1949, exclusive of home gardens, amounted to $\$ 150$ or more. The agricultural products could have been either for home use or for sale. Places of less than 3 acres were counted as farms only if the value of sales of agricultural products in 1949 amounted to $\$ 150$ or more. Places operated in 1949 for which the value of agricultural products in 1949 was less than these minima because of crop failure or other unusual situation, and places operated in 1950 for the first time were sounted as farms if normally they could be expected to produce these minimum quantities of farm products.

All the land under the control of one person or partnership was included as one farm. Control may have been through ownership, or through lease, rental, or cropping arrangement.

The Census enumerator was not given the definition of a farm. He was instructed to obtain an agricuiture questionnaire for every place that the operator considered a farm, for every place of 3 or more acres, whether or not it was considered a farm, and for certain specialized operations regardiess of the size of the place. The specialized operations include greenhouses and nurseries, places having 100 or more poultry, or on which 300 or more dozen eggs were produced in 1949, and places with 3 or more hives of bees. Thus, agriculture questionnaires were filled for more places than those that qualifled as farms.

The determination as to which reports were to be included in the tabulations as representing farms was made during the processing of the questionnaires in Washington. This procedure was followed in order that uniform criteria could be applied.

For the 1945 and earlier censuses of agriculture, the definition of a farm was somewhat more inclusive. Census enumerators were provided with the deflnition of a farm and were instructed
to fll reports only for those places which met the criteria. From 1925 to 1945, farms for Census purposes included places of 3 or more acres on which there were agricultural operations, and places of less than 3 acres with agricultural products for home use or for sale with a value of $\$ 250$ or more. For places of 3 or more acres, no minimum quantity of agricultural production was required for purposes of enumeration; for places of under 3 acres all the agricultural products valued at $\$ 250$ or more may have been for home use and not for sale. The only reports excluded from the tabulations were those taken in error and a few with very limited agricultural production such as only a small home garden, a few fruit trees, a very small flock of chickens, or the like. In 1945, reports for 3 acres or more with limited agricultural operations were retained if there were 3 or more acres of cropland and pasture, or if the value of products in 1944 amounted to $\$ 150$ or more when there was less than 3 acres of cropland and pasture.

The definition of a farm in the 1920 Census was similar to that used from 1925 to 1940 but was somewhat more inclusive. In that year, farms of less than 3 acres with products valued at less than $\$ 250$ were to be included, provided they required the continuous services of at least one person.

The change in the definition affected the comparability of the number of farms for 1950 and prior censuses. See "Bffect of change in the definition of a farm."

Farm operators.-A "farm operator" is a person who operates a farm, either performing the labor himself or directly supervising it. He may be an owner, a hired manager, or a tenant, renter, or share cropper. If he rents land to others or has land cropped for him by others, he is listed as the operator of only that land which he retains. In the case of a partnership, one member was included as the operator. The number of farm operators is considered the same as the number of farms.

Farms reporting or operators reporting.-Figures for farms reporting or operators reporting, based on a tabulation of all farms, represent the number of farms, or farm operators, for which the specified item was reported. For example, if there were 100,222 farms in a State and only 146,500 had chickens on hand over 4 months old, the number of farms reporting chickens would be 146,500. The difference in the total number of farms, and the number of farms reporting an item, represents the number of farms not having that item, provided the inquiry was answered completely for all farms.

For some of the items, such as the age of operator, for which reports should have been obtained for all farms, figures are given for the number not reporting. These farms, or operators, not reporting indicate the extent of the incompleteness of the reports for the item.

Figures for farms reporting or operators reporting, based on a tabulation for only a sample of farms, represent the total estimated from the sample, not the actual number of farms reporting or operators reporting. In a few cases, the estimated total may exceed the actual number of farms or farm operators in the county or State.

Land owned, rented, and managed,-The land to be included in each farm was determined by asking the number of acres owned, the acres rented from or worked on shares for others, and the acres rented to or worked on shares by others. The acres in the farm were obtained by adding the acres owned and acres rented from or worked on shares by others, and subtracting the acres rented to or worked on shares by others. In case of a managed farm, the person in charge was asked the total acreage managed for his employer. From this total managed acreage was subtracted any of the acreage which was rented to or cropped by others. For 1950, the figures for land owned, land rented from others, and land managed by farm operators include land rented to others by farm operators,

In earlier censuses, the enumerator was instructed to include all land rented from others and to exclude all land rented to others. He recorded only that portion of the acreage owned and the acreage rented from others which was retained by the farm operator. Thus, the land included in each farm was essentially the same as that included in the 1950 Census.

Land owned.-Land owned includes all land which the operator or his wife, or both, hold under title, purchase contract, homestead law, or as one of the heirs, or as a trustee of an undivided estate.
Land rented from others.-Land rented from others includes land worked on shares for others, and land used rent free, as well as all land rented or leased under other arrangements. Grazing land used under government permit was not included.

Land rented to others.-Many farm operators rent land to others. For the most part, this land rented to others represents agricultural lands but it also includes tracts rented for residential or other purposes. When land is leased, rented, or cropped on shares, the tenant or cropper is considered the farm operator even though his landiord may exercise supervision over his operations. The landlord is considered as operating only that portion of the land not assigned to tenants or croppers.

Land area.-The approximate land area reported for 1950 for States and counties is, in general, the same as that reported for the 1945 and 1940 Censuses. Changes since 1940 represent changes in boundary, actual changes in land area due to the construction of reservoirs, etc. The figures for 1940 represent a complete re-measurement of the United States and therefore may be at variance with the figures shown for earlier censuses.

Land in farms.-The acreage designated "land in farms" includes considerable areas of land not actually under cultivation and some land not used for pasture or grazing. All woodland and wasteland owned by farm operators, or included in tracts rented from others, is included as land in farms unless such land was held for other than agricultural purposes, or unless the acreage of such land held by a farm operator was unusually large. If the total acreage of land owned, rented, or managed by a farm operator was 1,000 or more ( 5,000 or more in the Western States) and less than 10 percent of the total was used for crops, or for pasture or grazing, or was rented to others, any woodland not grazed and any wasteland, in excess of the acreage used for agricultural purposes, were excluded from the farm area.

Except for open range and grazing lands used under government permit, all grazing land was to be included as land in farms. Land used rent free was to be included with land rented from others. Grazing lands operated by grazing associations were to be returned in the name of the manager in charge. All land in Indian reservations used for growing crops, or grazing livestock, was to be included. Land in Indian reservations not reported by individual Indians or not rented to non-Indians was to be reported in the name of the cooperative group using the land. Thus, in some instances the entire reservation was reported as one farm.

## OLASSIFICATION OF FARMS

Farms by size.-Farms were classified by size according to the total land area of each farm. The same classification was used. for all States.

In analyzing size-of-farm statistics, consideration should be given to the definition of a farm for Census purposes. Census farms are essentially operating units-not ownership tracts. If a landlord has croppers or other tenants, the land assigned each cropper or tenant is a separate farm even though the landlord may operate the entire holding essentially as one farm in respect to supervision, equipment, rotation practices, purchase of supplies, or sale of products.

Farms by tenure of operator,-In the 1950 Census, farm operators are classified according to the tenure under which they hold their land on the basis of the replies to the inquiries on total land owned, total land rented from others, and total land managed for others. In 1945 and earlier, full owners, part owners, and tenants were classified on the basis of the land retained. Under this earlier classification, a part owner who sublets to others all the land he rents from others would have been classed a full owner; a part owner who rents to others all the land he owns would have been classed a tenant.

Full owners own land but do not rent land from others.
Part owners own land and rent land from others.
Managers operate farms for others and are paid a wage or salary for their services. Persons acting merely as caretakers or hired as laborers are not classified as managers. If a farm operator managed land for others and also operated land on his own account, the land operated on his own account was considered as one farm and the land managed for others as a second farm. In the 1950 Census, if a farm operator managed land for two or more employers all the land managed was considered one farm.

Tenants rent from others or work on shares for others all the land they operate. In 1950, tenants are further classified on the basis of their rental arrangement as follows:

Cash tenants pay cash as rent, such as $\$ 10$ an acre or $\$ 1,000$ for the use of the farm.

Share-cash tenants pay a part of the rent in cash and a part as a share of the crops or of the livestock or livestock products.

Share tenants pay a share of either the crops or livestock or livestock products, or a share of both.

Crop-share tenants pay only a share of the crops.
Livestock-share tenants pay a share of the livestock or livestock products. They may or may not also pay a share of the crops.

Croppers are crop-share tenants whose landlords furnish all the work power. The landlords either furnish all the work animals or furnish tractor power in lieu of work animals. Croppers usually work under the close supervision of the landowners or their agents and the land assigned them is often merely a part of a larger enterprise operated as a single unit.

The information on work power furnished was tabulated only for the Southern States and seven counties in southeastern Missouri. Therefore, data for croppers are shown only for the Southern States and seven counties in southeastern Missouri.

Other tenants,-Other tenants include those who pay a fixed quantity of any product; those who pay taxes, keep up the land and buildings, or keep the landlord in exchange for the use of the land; those who have the use of the land rent free; and others who could not be included in one of the other specified subclasses.

Unspecifled tenants.-Unspecified tenants include those tenants whose rental agreement was not reported.

For earlier censuses, the definition for each subclass of tenants is nominally similar to the corresponding subclass, or subclasses, for 1950. However, in 1945 the enumerator was asked to determine the subclass of tenants, while in 1950, 1940, and earlier censuses the classification was made during the processing of the questionnaires in Washington on the basis of the answer to the inquiries on the questionnaires. The procedure for 1945 may have affected the comparability of the data, particularly those for cash tenants and share-cash tenants.

Farms by color or race of operator.-Farm operators are classified by color as "white" and "nonwhite." Nonwhite includes Negroes, Indians, Chinese, Japanese, and all other nonwhite races.

Farms by economic class.-A classification of farms by economic class was made for the purpose of segregating groups of farms that are somewhat alike in their characteristics. This classification was made in order to present an accurate description of the farms in each class and in order to provide basic data for an analysis of the organization of United States agriculture. Only the farms in the sample (one-flfth of the farms plus all large farms) were classified by economic class. The totals given in the tables represent estimates for all farms based on tabulations of the data for the farms included in the sample.

The classification of farms by economic class was made on the basis of three factors, namely, total value of all farm products sold, number of days the farm operator worked off the farm, and the relationship of the income received from nonfarm sources by the operator and members of his family to the value of all farm products sold. Institutions, experimental farms, grazing ussociations, and other community projects were classiffed as abnormal, regardless of any of the above-mentioned factors.
In making the classification of farms by economic class, farms have been grouped into two major groups, namely, commercial farms and other farms. In general, all farms with a value of sales of farm products amounting to $\$ 1,200$ or more were classiffed as commercial. Farms with a value of sales of $\$ 250$ to $\$ 1,109$ were classified as commercial only if the farm operator worked off the farm less than 100 days and the income of the farm operator and members of his family received from nonfarm sources was less than the total value of all farm products sold. Farms with a value of sales of all farm products of less than $\$ 250$, as well as county, State, private institutional, and experimental farms, were classified as "Other."
Commercial farms have been divided into six groups on the basis of the total value of farm products sold, as follows:

*Provided the farm operator worked off the farm less than 100 dars, and provided the income the farm operator and members of his family recetved from nonfarm sources was less than the value of all farm products sold.

Other farms have been grouped into three classes as follows:
Part-time farms.-Farms with a value of sales of farm products of $\$ 250$ to $\$ 1,199$ were classified as part time provided the farm operator reported (a) 100 or more days of work off the farm in 1949, or (b) the nonfarm income received by him and members of his family was greater than the value of farm products sold.

Residential farms.-Residential farms include all farms except abuormal farms with a total value of sales of farm products of less than $\$ 250$. Some of these represent farms on which the operator worked off the farm more than 100 days in 1949 . Some represent farms on which the income from nonfarm sources was greater than the value of sales of agricultural products. Others represent subsistence and marginal farms of various kinds. Some farms are included here which, under normal conditions, would have qualified as commercial farms.
Abnormal farms.-Insofar as it was possible to identify them, abnormal farms include public and private institutional farms, community enterprises, experiment station farms, grazing associations, etc.

Farms by type.-The classification of farms by type was made on the basis of the relationship of the value of sales from a particular source or sources to the total value of all farm products sold from the farm. In some cases, the type of farm was determined on the basis of the sale of an individual farm product, such as cotton, or on the basis of closely related products, such as dairy products. In other cases, the type was determined on the basis of sales of a broader group of products such as corn, sorghum, all small grains, field peas, field beans, cowpeas, and soybeans. Residential and abnormal farms were not classified by type. In order to be classified as a particular type, sales or anticipated sales of a product or a group of products had to represent 50 percent or more of the total value of products of the farm.

Only the farms in the sample were classified by type.
The types of farms for which data are shown, together with the product or group of products that had to represent 50 percent or
more of the total sales in order for the farm to be so classiffed, are as follows:

| Type of farm. | Product or group of produots amounting to 50 percent or more of the value of all farm products sold. |
| :---: | :---: |
| Cotto | Cotton. |
| Cash | Corn, sorghum, small grains, field peas, field beans, cowpeas, and soybeans. |
| Other field | Peanuts, Irish potatoes, sweetpotatoes, tobacco, sugarcane, sugar beets for sugar, and other miscellaneous crops. |
| Vegetable | Vegetables. |
| Fruit-and-nut | Berries and other small fruits, and tree fruits and nuts. |
| Dairy -------- | Milk and other dairy products. |
|  | The criterion of 50 percent of the total sales was modified in the case of dairy farms. |
|  | A farm for which the value of sales of |
|  | dairy products represented less than 50 |
|  | percent of the total vaiue of farm prod- |
|  | ucts sold was classifled as a dairy farm if: |

(a) Milk and other dairy products accounted for 30 percent or more of the total value of products, and
(b) Milk cows represented 50 percent or more of all cows, and
(c) Sales of dairy prodncts, together with the sales of cattle and calves, amounted to 50 percent or more of the total sales.
Poultry_-............. Chickens, eggs, turkeys, and other poultry products.
Livestock farms other Cattle, calves, hogs, sheep, goats, wool, than dairy and poultry. mohair, goat milk, and products from animals slaughtered on the farm, provided the farm did not alreacly classify as a dairy farm.
General................. Farms were classified as general when the value of products from one source or group of sources did not represent as much as 50 percent of the total of the value of all farm products sold. Separate figures are given for three types of general farms:
(a) Primarily crop.
(b) Primarily livestock.
(c) Crop and livestock.

Primarily crop farms are those for which the sale of one of the following crops or groups of crops-vegetables, fruits and nuts, cotton, cash grains, or other field crops-did not amount to 50 percent or more of the value of all farm products sold, but for which the value of sales for all these groups of crops represented 70 percent or more of the value of all farm products sold.
Primarily livestock farms are those which could not be classified as dairy farms, poultry farms, or livestock farms other than dairy and poultry, but on which the sale of livestock and poultry and livestock and paultry products amounted to 70 percent or more of the value of all farm products sold.
General crop and livestoch farms are those which could not be classified as either crop farms or livestock farms, but on which the sale of all crops amounted to at least 30 percent but less than 70 percent of the value of all farm products sold.
Miscellaneous_-..... This group of farms includes those which had 50 percent or more of the total value of products accounted for by sale of horticultural products; or sale of horses ; or sale of fur animals; or sale of forest products; or sale of bees, wax, and honey.

Farms by class of work power.-Farms have been grouped by class of work power on the basis of whether horses, mules, or tractors were reported, This classification does not present an entirely accurate picture of the work power used on all farms. For some farms, all the work power may be furnished by the landlord and for some farms all the work power may be hired. Thus, farms hiring all of the work power from others and those having it furnished may be shown as having no work power.
Large farms.-Large farms account for approximately onefourth of the total production of farm products. Because of their importance, special efforts were made to insure the complete entumeration of all large farms. Prior to 1950, a list of all large farms was prepared from the records of the 1945 Census of Agriculture. Through a cooperative arrangement with the Bureau of Agricultural Economics, this list was checked and revised on the basis of available records in the various States by the State Statisticians as special agents of the Bureau of the Census. A list of these large farms was provided to District Supervisor's and crew leaders and they were required to check to see that all such large farms were enumerated. A total of 62,781 large farms were on the lists sent to District Supervisors prior to the beginning of the enumeration. During the office processing, the list of large farms was checked against agriculture questionnaires enumerated and agriculture questionnaires or satisfactory explanations as to why an agriculture questionnaire was not required were obtained for all large farms that had not been enumerated.

The following criteria were used for determining whether a farm was to be classified as a large farm:

Crileria
Land in farms........-
Western States ${ }^{1}$
5,000 acres or more.
Other States
1,000 acres or
more.
Total cropland (cropland
harvested + cropland
pastured + cropland not
harvested or pastured).-
Cattle of all ages ........-
Sheep of all ages $\qquad$
1,000 acres ormore. 750 acres or more.
500 or more_-...-- 200 or more. 4,000 or more_---- 500 or more.
Value of farm products
sold or to be sold._-.--
$\$ 70,000$ or more.-- $\$ 70,000$ or more
${ }^{1}$ Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, and Wyoming.

In Alabama, Georgia, Mississippi, South Carolina, and Louisiana, and in specified counties in Kentucky, Maryland, Missouri, North Carolina, Tennessee, Virginia, Florida, Arkansas, and Texas, the criteria applied to the totals for the entire landlordtenant operation, plantation, or other type of large farm holding. If the landlord-tenant operation qualified as a large farm, the home farm portion of the landlord-tenant operation was considered a large farm even though the home farm operating unit did not itself meet the criteria for a large farm.

The enumeration of large farms was checked in most cases by crew leaders, in accordance with the enumerator's instructions, as the additional information that was required to be obtained for only a sample of farms was also required to be obtained for all large farms that were not in the sample. All questionnaires for large farms were reviewed by members of the technical staff during the office processing. Information regarding the importance of large farms and their use in connection with the sample for the 1950 Census of Agriculture is given in table 4.

Effect of change in the definition of a farm on data for the 1950 Census.-The procedure of determining whether a place was to be counted as a farm and the definition of a farm were different for the 1950 Census from those for prior censuses. Prior to 1950, census enumerators were given a definition of a farm and were instructed to enumerate all places which would qualify as
farms. Generally, for censuses prior to 1950 , census enumerators were instructed to enumerate as farms any place of less than 3 acres on which the value of products produced in the year preceding the census amounted to $\$ 250$ or more and also any places of 3 or more acres on which there were farm products produced during the year preceding the census, Census enumerators experienced considerable difficulty in applying this definition of a farm. For places less than 3 acres, it was necessary for the census enumerator to determine the value of farm products produced. Most of the farm products produced on such places were not sold but were consumed by the family of the operator. The securing of reports for such products involved difficulties not only in regard to the determination of the amount produced but also in regard to the price to be used in determining value. The price that would be received if such products were sold, would differ from the prices that would be paid if the products were purchased. For places of over 3 acres, it was necessary for the enumerator to determine if there had been any agricultural products produced during the preceding year before he filled an agriculture questionnaire. Quite often, census enumerators used the test of whether the place was locally considered a farm to determine if there was agricultural production on the place. There are a considerable number of places, not locally considered as farms, on which there is sufficient production of farm products to qualify such places as Census farms. The use of the test of whether such a place is locally considered a farm, did not always provide a satisfactory basis for determining that a place was to be enumerated and counted as a farm.

Because of the difficulties experienced by census enumerators in prior censuses in determining which places to enumerate as farms, it was decided to enumerate, for the 1950 Census of Agriculture, all places that might qualify as farms and then to use, during the office processing, uniform criteria for determining which places represented farms. Accordingly, census enumerators were instructed to enumerate all places locally called farms and also all places of 3 or more acres whether or not it was considered a farm and for certain specialized operations.

The procedure used for the 1950 Census resulted in the obtaining of reports for more than one million places that were not counted as farms. (See table 8.) These places contained over $48,000,000$ acres of land and their area was equivalent to 4.2 percent of all land included in farms and 2.5 percent of the total land area in the United States. There were no agricultural operations on 785,000 of these places. The agricultural production on the 247,000 places with agricultural operations was not sufficient for these places to be counted as farms.

If the same criteria for determining if a place enumerated was a farm had been used during the office processing for the 1950 Census as for prior censuses, most of the 247,000 places would have been counted as farms. Most of these places repressent country residences on which there is very little agricultural production.
It appears that the enumeration of places that might qualify as Census farms for the 1950 Census of Agriculture resulted in a more complete enumeration of farms. On the other hand, the use of a more restrictive definition of a farm, in 1950, resulted in the elimination of 247,000 places, most of which would have been counted as farms if the same criteria had been used in 1950 as during prior censuses.
The decrease in the number of farms from $5,859,169$ in 1945 to $5,382,162$ in 1950 resulted partly from a change in the definition of a farm. It is estimated that 150,000 to 170,000 of the decrease of 477,007 was the result of the change in the farm definition. Data in table 9 give the number of places with agricultural operations excluded from the count of farms in 1950 for three groups of counties. Of the 247,088 places with agricultural operations that were excluded from the count of farms,

42,458, or 17.2 percent, were in counties in which the number of farms increased from 1945 to 1950 ; 56,926 , or 23.0 percent, were in counties in which the number of places excluded from the census equaled or exceeded the decrease in the number of farms; and 147,654 , or 59.8 percent, were in counties in which the number of places excluded was less than the decrease in the number of farms.

The decrease in the number of farms because of the change in the farm definition affected mrimarily the number of farms, and the number of farms reporting farm equipment and farm facilities. The effect of the change in the farm defnition on land in farms, cropland harvested, the number of livestock, the froduction of livestock products, and the acreage and production of crops, was very small, as most of the places excluded from the $19 \% 0$ Census were country residences and part-time farms with small acreages, few livestock, and very small production of farm products.
Completeness of coverage of the census.-Estimates of the completeness of the corerage of the 1950 Census of Agriculture are available from two sources; (1) a re-enumeration made for a sample of approximately 6,000 farms, and (2) independently derived statistics such as those for cotton ginnings and sugarcane processing.
The re-enumeration of farms was made for a carefully designed sumple comprising approximately 1,000 segments scattered among 220 counties or groups of counties. The objectives of this reenumeration were (1) to identify and measure the errors in the Census counting of farms, and (2) to measure the reporting errors for farms enumerated in the census. A report will be issued
later further analyzing the errors in the Census count of farms and the reporting errors for farms included in the census.

On the basis of the re-enumeration, it is estimated that there was a net under-enumeration of 274,000 farms for the 1950 Census of Agriculture. This under-enumeration is the net difference between the estimate of farms not included in the census tabulations and of farms erroneously enumerated. Farms were counted ats not being included in the census tabulations if (1) no record of them could be found in the Census of Agriculture, (2) they were not enumerated in the correct county, (3) they were not enumerated in the name of the farm operator or a member of his family, or (4) they were excluded from the census tabulations because they appeared not to represent census farms (i. e., did not meet the criteria for a farm). In general, farms were counted as being erroneonsly enumerated if (1) they were included more than once in the census tabulation, (2) the information obtained during the re-enumeration indicated that they did not meet the Consus criteria for a farm, or (3) they were not enumerated in the name of the farm operator or a member of his family.

Figures for the net under-enumeration for farms and for selected items are shown in table 10. For the United States, the net under-enumeration was equivalent to 5.1 percent of the farms, 2.0 percent of all land in farms, and 2.1 percent of cropland harrested shown by the 1950 Census.

The data given in tables 10 and 11 indicate that a large part of the net ertor was for small farms with very limited production of farm products. 'The net under-enumeration of land in farms and cropland harvested wats less than one-half the net under-enumeration for the number of farms. The figures in

Table 8 -NUMBER AND AREA OF PLACES ENUMERATED AND NOT COUNTED AS FARMS, BY DIVISIONS AND STATES: CENSUS OF 1950

| Division or State | Number of places not counted as farms |  |  | Area of places not counted as farms |  |  | Division or State | Number of places not counted as farms |  |  | Area of places not counted as farms ${ }^{1}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | $\begin{aligned} & \text { With } \\ & \text { agricul- } \\ & \text { tural } \\ & \text { opera- } \\ & \text { tions } \end{aligned}$ | With no agricultural operations | Total | Percent of land 12 farms | Percent of tatal land area |  | Total | Hith agricul- tural opera- tions | With no agricultural operstions | Tocal | Percenc of land farms | Percent of total 1 and area |
| United States.. | 1,032,475 | 247.038 | 785,437 | 48,116,273 | 4.2 | 2.5 | West North Central-Con. | $\begin{aligned} & 1,973 \\ & 3,593 \\ & 8,826 \end{aligned}$ | $\begin{array}{r} 508 \\ 1,648 \\ 3,380 \end{array}$ | $\begin{aligned} & 1,465 \\ & 1,495 \\ & 5,446 \end{aligned}$ | $\begin{array}{r} 97,497 \\ 192,285 \\ 515,445 \end{array}$ | 0.20.41.1 | 0.20.41.0 |
| The North. | 544.732 | 111,053 | 433, 679 | 20,698,826 | 4.7 | 3.5 | South Dakota |  |  |  |  |  |  |
| The South. | 376, 329 | 101,729 | 274, 600 | 18,292,152 | 4.7 | 3.3 | Kansas., |  |  |  |  |  |  |
| The West. | 111,414 | 34,256 | 77, 158 | 9,125,295 | 2.8 | 1.2 | South Atlantic: |  |  |  |  | 1.1 |  |
| Geographic Divisions: |  | 12,345 | 87,224127,772 | 3,896, 110 |  | 9.610.7 | Delnwate.. | 2,33914,467 | 37732, 597 | 1,56611,870 | 109,584 <br> 396,351 | 12.99.876.9 | B.76.36.5 |
| New Engl and........ | 99,569 |  |  |  |  |  | Maryland. .............. District of Columbia.. |  |  |  |  |  |  |
| Middle Atlantic.... East North Central. | 154,680 210,397 | 26,908 51,339 |  | 6,856,623 6,677,320 | 21.5 6.0 | 10.7 4.3 | District of Columbia... | 36,793 | 9,048 | 27, 74.5 | 1, 127, 76.4 | 76.9 7 7 | 4.4 |
| West North Central. | 80,086 | 20, 461 | 59,625 | 3,268,773 | 1.1 | 4.3 | West Virginia, | 25, 007 | 7,403 | 17,604 | 956, 220 | 11.6 | 6.2 |
| South Atlantic., | 179,530 | 43, 224 | 136, 306 | 8,179,536 | 8.0 | 4,8 | North Carolina | 33, 075 | 7,003 | 26,072 | ${ }^{805,263}$ | 4.6 | 2.8 |
| East South Central.. | 96,090 | 30, 559 | 65, 538 | 3,661,833 | 4.6 | 3.7 | South Caralin | 14, 982 | 3,600 7,612 | 11, 382 | 658, 252 $1,907.812$ 2 | 5. 7.4 | 3.4 |
| West Souch Central... | 100,709 | 27,953 | 72,756 | 6,450,783 | 3.1 | 2.3 1.0 | Clorgia. | 23,857 | 5,177 | 18,680 | 2,137,317 | 1.2 .9 | 6.2 |
| Mountaitı, <br> Pacific. | 27,572 $83,84 ?$ | 8,414 25,842 | 19,158 58.000 | $5,332,387$ $3,792,908$ | 2.1 5.1 | 1.0 1.9 | Florida........] |  |  |  |  |  |  |
|  | 83, 84 ? | 25, 8,2 | 36,000 |  |  |  | East South Central: $\begin{aligned} & \text { Kencucky }\end{aligned}$ | $\begin{aligned} & 29,808 \\ & 20,926 \end{aligned}$ | 11,024 | $\begin{aligned} & 18,784 \\ & 20,412 \end{aligned}$ | $\begin{gathered} 1,348 ; 954 \\ 767,542 \end{gathered}$ | 6.9 | 5.3 |
| New England: |  |  |  |  |  |  | Tennessee.............. |  | 8,514 |  |  | 4.1 | 2.9 |
| Maine.... | 19,336 | 2,199 | 17,137 | 984,645 | 23.5 |  | Alabama. | 15,873 | 6,4,950 | 10,923 | 697.778 | 4.1 | ${ }_{2.3}^{2.6}$ |
| New Hampshire. | 13, 44.3 | 1,596 | 11,847 | 661, 504 | 38.6 | 11.5 | Mississippi. |  |  |  |  | 3.4 |  |
| Vermont. | 7,354 | 858 | 6,496 | 383,729 | 10.9 | 6.521.2 | West South Central: |  | 7,2244,628 | 14,479 | 861.367 4.6- 2.5 |  |  |
| Massachusetts. | 35, 203 | 4, 858 | 30,345 | 1,067,449 | 64.3 |  | Arkansas. | 21,703 |  |  |  |  |  |  |  |  |  |
| Rhode Island. | 4,757 | 51,3 | 4,244 | 238,412 | 124.8 | 35.2 | Louisiona | 18,868 |  | 14,240 | 746,363 | 6,7 | 2.6 |
| Connecticut... | 19,476 | 2,321 | 17,155 | 560,371 | 44.0 | 17.9 | Oklahonia | 18, 444 | 6,580 | 11,864 | 1,003, 858 | 2.8 | 2.32.3 |
| Middle Atlantic: |  |  |  |  |  |  | Mountain: <br> Montana. | 41,694 | 9,521 | 32,173 | 3,839,195 | 2.6 |  |
| New York.... | 66,765 | 10,496 | 56,269 | 3,754,667 | 23.4 | 12.2 |  | 3, 341 | 824 | 2,517 | 580,345 | 1.0 | 0.6 |
| New Jersey. | 16,978 | 3,582 | 13,396 | 450,013 | 26.1 | 9.3 |  |  |  |  |  |  |  |
| Pennsylvania.... | 70,937 | 12,830 | 58,107 | 2,651,943 | 18.8 | 9.2 | Itaho.. | 3,409 | 820 | 2,5891,016 | 306198 171,075 | 0,5 | 0.60.3 |
| East North Central: | 61.875 | 17,026 | 44,849 | 1,573,258 | 7.5 | 6.0 | Myoming. Colorado. | 1,380 | 364 |  | $\begin{array}{r} 2,043,877 \\ 754,742 \end{array}$ |  |  |
| Indıana..... | \%1, 836 | 9,421 | 23,843 | -832,093 | 4.2 | 3.6 | New klexico | 7,502 4,854 | 2,155 | 5,132 2,699 |  | 5.4 1.6 | 3.1 <br> l. <br> 10 |
| Illinais... | \% 3 , 421 | 6,071 | 17,350 | 555,163 | 1.8 | 1.6 | Arizona | 4,308 | 945 | 3,363 | 420,145 | 1.1 |  |
| Michigan... | 65, 535 | 12,260 | 53, 275 | 2,451,703 | 14.3 | 6,7 | 1 l tah. | 2, 211 | 725 | 1,286 | 203,455 | 1.912.1 | $\underline{0.4}$ |
| Wisconsin. | 26,302 | 6,561 | 19,741 | 1,255,103 | . 4 |  |  | 767 | 211 | 556 | 852, 550 |  |  |
| West Morth Central: |  |  |  |  |  |  |  | $\begin{aligned} & 29,504 \\ & 17,571 \\ & 36,767 \end{aligned}$ | $\begin{array}{r} \text { 8,544 } \\ 5,468 \\ 11,830 \end{array}$ | $\begin{aligned} & 20,960 \\ & 12,103 \\ & 24,937 \end{aligned}$ | $\begin{array}{r} 798,724 \\ 602,377 \\ 2,391,807 \end{array}$ | $\begin{aligned} & 4.5 \\ & 3.0 \\ & 6.5 \end{aligned}$ |  |
| Minnesota, .......... <br> Lowa............. | 23,516 8,268 | 4,792 2,457 | 18,724 5,811 | $\begin{aligned} & 873,773 \\ & 184,451 \end{aligned}$ | 2.7 0.5 | 1.7 0.5 | Washington. <br> Oregon. |  |  |  |  |  | 1.91.02.4 |
| Missouri.... | 32,287 | 7,089 | 25, 198 | 1,256,254 | 3.6 | 2.8 | Ca |  |  |  |  |  |  |
| North Dakota. | 1,623 | 587 | 1,436 | 149,068 | 0.4 | 0.3 |  |  |  |  |  |  |  |

Table 9.-CHANGE IN NUMBER OF FARMS, 1940 TO 1950, AND NUMBER OF PLACES WITH AGRICULTURAL OPERATIONS EXCLUDED FROM THE COUNT OF FARMS FOR 1950: BY DIVISIONS AND STATES

| Hegion, division, and State | Number of farms |  |  | Increase or decrease in number of farms |  |  | Places with agricultural operations excluded from the count of farms for 1950 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1950 | 1945 | 1940 | 1945-50 | 1940-50 | 1940-45 | Total number of <br> places | In counties showing increase in number of farms, 1945-50 |  |  |  |  |
|  |  |  |  |  |  |  |  | Number of <br> counties | $\begin{aligned} & \text { Number } \\ & \text { of } \\ & \text { places } \end{aligned}$ | Number of farms |  |  |
|  |  |  |  |  |  |  |  |  |  | 1950 | 1945 | 1940 |
| United States. | 5,382,162 | 5,859,169 | 6,096,799 | -477,007 | -714,637 | -237,630 | 247,038 | 667 | 42,458 | 1,239,523 | 1,158,205 | 1,244,325 |
| The North. | 2,268,066 | 2, 483, 578 | 2,579,959 | -215,512 | -311,893 | -96,381 | 111,053 | 176 | 8,228 | 262,783 | 251,273 | 288,146 |
| The South. | 2,652,423 | 2,881,135 | 3,007, 170 | -228,712 | -354,747 | -126,035 | 101,729 | 379 | 25,467 | 824,136 | 765,154 | 003,795 |
| The Mest. | 461,673 | 494,456 | 509,670 | -32,783 | -47,997 | -15,214 | 34,256 | 112 | 8,763 | 152,604 | 141,778 | 152,384 |
| Geographic Divisions: |  |  |  |  |  |  |  |  |  |  |  |  |
| New England. | 103,225 | 150,311 | 135,190 | -47,086 | -31,965 | 15,121 | 12,345 | ..... |  | .......... | ..... |  |
| Middle Atlantic.. | 296,702 | 347, 477 | 348,100 | -50,775 | -51,398 | -623 | 26,908 | 15 | 1,976 | 14,352 | 12,999 | 12,262 |
| East North Central. | 885, 404 | 953,797 | 1,006,095 | -68,393 | -120,691 | -52,298 | 51,339 | 43 | 3,454 | 78,940 | 76,713 | 97,985 |
| West North Central.. | 982,735 | 1,031,993 | 1,090,574 | -49,258 | -107,839 | -58,581 | 20,461 | 118 | 2,798 | 169,491 | 161,561 | 177,099 |
| South Atlentic. | 958, 998 | 1,043,475 | 1,019,451 | $-84,477$ | -60,453 | 24, 024 | 43,224 | 146 | 10,195 | 317,877 | 295.462 | 295,725 |
| East South Central... | 913,002 | 959, 829 | 1,023,349 | -46,827 | -110,347 | -63, 520 | 30,552 | 139 | 9,670 | 363,855 | 338,497 | 376,714 |
| West South Central. | 780, 423 | 877, 831 | 964,370 | -97,408 | -183,947 | -86, 539 | 27, 953 | 94 | 5,602 | 142,404 | 131,195 | 131,356 |
| Mountain. | 194,858 | 212,527 | 233, 497 | -17,669 | -38,639 | -20,970 | 8,414 | 72 | 2,041 | 58,951 | 55,219 | 63,660 |
| Pacific. | 266,815 | 281,929 | 276,173 | -15,114 | -9,358 | 5,756 | 25,842 | 40 | 6,722 | 93,653 | 86,559 | 88,724 |
| New England: |  |  |  |  |  |  |  |  |  |  |  |  |
| Maine.... | 30,358 | 42,184 | 38,980 | -11,826 | -8,622 | 3,204 | 2,199 |  | ...... | ......... | ....... | .......... |
| New Hampshire | 13,391 | 18,785 | 16,554 | -5,395 | -3,163 | 2,232 | 1,595 | ... |  |  | ... |  |
| Vermont. | 19,043 | 26, 490 | 23,582 | -7,447 | -4,539 | 2,908 | 858 |  |  |  |  | ........... |
| Massachusetts | 22,220 | 37,007 | 31,897 | $-14,787$ | -9,677 | 5,110 | 4,858 |  |  | ....... | ......... | .......... |
| Phode Island. | 2,598 | 3,603 | 3,014 | -1,005 | -416 | 589 | 513 |  |  |  |  |  |
| Comnecticut. | 15,615 | 22,241 | 21,163 | -6,626 | -5,548 | 1,078 | 2,321 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| New York. | 124,977 | 149,490 | 153,238 | $-24,513$ | -26,261 | -3,748 | 10,496 | 4 | 684 | 2,773 | 2,597 | 494 |
| New Jersey.. | 24, 838 | 26,225 | 25,835 | -1,388 | -997 | 391 | 3,582 | 8 | 1,055 | 8,440 | 7,321 | 8,026 |
| Pemnsylvania. | 146,887 | 171,761 | 169,027 | $-24,874$ | -22,140 | 2,734 | 12,830 | 3 | 237 | 3,139 | 3,081 | 3,742 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ohio... | 199,359 | 220,575 | 233,783 | -21,216 | -34,424 | -13,208 | 17,026 | 3 | 134 | 6,252 | 6,090 | 6,813 |
| Indiana. | 166,627 | 175,970 | 184,549 | -9,343 | -17,922 | -8,579 | 9,421 | 19 | 1,472 | 30,471 | 29,487 | 32,448 |
| Illinois. | 195, 268 | 204,239 | 213,439 | -8,971 | -18,171 | -9,200 | 6,071 | 15 | 830 | 27,508 | 26,871 | 42,552 |
| Michigan. | 155, 589 | 175,268 | 187,589 | -19,679 | -32,000 | -12,321 | 12,260 | 3 | 293 | 4,970 | 4,819 | 5,849 |
| Wisconsin. | 168, 561 | 177,745 | 186,735 | -9,184 | $-18,174$ | -8,990 | 6,561 | 3 | 725 | 9,739 | 9,446 | 10,323 |
| West North Central: |  |  |  |  |  |  |  |  |  |  |  |  |
| Minnesota. | 179,101 | 188,952 | 197,351 | -9,851 | -18,250 | -8,399 | 4,792 | 18 | 331 | 33,318 | 32,754 | 32,516 |
| Iowa.. | 203,159 | 208,934 | 213,318 | -5,775 | -10,159 | -4,384 | 2,457 | 17 | 274 | 33,810 | 33,341 | 34,398 |
| Missouri. | 230,045 | 242,934 | 256,100 | -12,889 | -26,055 | -13,166 | 7,089 | 20 | 1,249 | 39,751 | 38,751 | 43,629 |
| North Dakota | 65,401 | 69,520 | 73,962 | -4,119 | -8, 561 | -4,442 | 587 | 6 | 63 | 6,028 | 5,941 | 6,413 |
| South Daketa | 66,452 | 68,705 | 72,454 | -2,253 | -6,002 | -3,749 | 508 | 22 | 181 | 25,124 | 24,610 | 26,090 |
| Nebraska. | 107,183 | 111,756 | 121,062 | -4,573 | -13,879 | -9,306 | 1,648 | 16 | 301 | 17,384 | 13,177 | 18,901 |
| Kansas... | 131,394 | 141, 192 | 156,327 | -9,798 | $-24,933$ | -15,135 | 3,380 | 19 | 399 | 14,076 | 12,987 | 15;952 |
| South Atlantic: |  |  |  |  |  |  |  |  |  |  |  |  |
| Delaware. | 7,448 | 9,296 | 8,994 | -1,848 | -1,546 | 302 | 773 |  |  |  |  | ........... |
| Maryland. | 36,107 | 41,275 | 42,110 | -5,168 | -6,003 | - 835 | 2,597 | 3 | 387 | 4,757 | 4,453 | 4,441 |
| District of Columbia. | 28 | 40 | 65 | -12 | -37 | -25 | 11 |  |  | , | , | , |
| Virginia. | 150,997 | 173, 051 | 174,885 | -22,054 | -23,888 | -1,834 | 9, 048 | 15 | 1,012 | 23, 365 | 22, 056 | 22,853 |
| West Virginia. | 81,434 | 97,600 | 99,282 | -16,166 | -17,848 | -1,682 | 7,403 | 6 | 612 | 9,292 | 9,142 | 9,855 |
| Norch Cerolina | 288, 508 | 287, 412 | 278,276 | 1,096 | 10,232 | 9,136 | 7,003 | 45 | 3,595 | 155,742 | 145,812 | 145,217 |
| Souch Carolina. | 139,364 | 147,745 | 137, 558 | -8,381 | 1,806 | 10,187 | 3,600 | 15 | 698 | 56,426 | 52,226 | 48,377 |
| Georgia. | 198,191 | 225,897 | 216,033 | -27,706 | -17,842 | 9,864 | 7,612 | 35 | 1,703 | 42,746 | 39,952 | 41, 818 |
| Florida.. | 56,921 | 61,159 | 62,248 | -4,238 | -5,327 | -1,089 | 5,177 | 27 | 2,188 | 24,549 | 21,821 | 23,100 |
| East South Gentral: |  |  |  |  |  |  |  |  |  |  |  |  |
| Kentucky. | 218,476 | 238,501 | 252,894 | -20,025 | -34,418 | -14,393 | 11,024 | 34 | 2,428 | 73,323 | 67,018 | 78,379 |
| Tennessee. | 231,631 | 234, 431 | 247,617 | -2,800 | -15,986 | -13,186 | 8,514 | 52 | 3,267 | 122,018 | 114,517 | 126,567 |
| Alabama.. | 211, 512 | 223,369 | 231,746 | -11,857 | $-20,234$ | -8,377 | 6,064 | 20. | 1,804 | 76,037 | 69,911 | 75.136 |
| Mibsissippi.. | 251,383 | 263,528 | 291,092 | -12,145 | -39,709 | -27,564 | 4,950 | 33 | 2,171 | 92,477 | 87,051 | 96,632 |
| West south Central: |  |  |  |  |  |  |  |  |  |  |  |  |
| Arkansas.............. | 182, 429 | 198,769 | 216,674 | -16,340 | -34,245 | -17,905 | 7,224 | 20 | 1,786 | 46,971 | 44,488 | 53,496 |
| Louisiana. | 124,181 | 129, 295 | 150,007 | -5,114 | -25,826 | -20,712 | 4,628 | 23 | 2,361 | 49,389 | 45,031 | 52,155 |
| Oklahome. | 142,246 | 164,790 | 179,687 | $-22,544$ | -37,441 | -14,897 | 6,580 | 6 | 384 | 8,361 | 8,001 | 9,635 |
| Texas. | 331, 567 | 384,977 | 418,002 | -53,410 | -86,435 | -33,025 | 9,521 | 45 | 1,071 | 37,683 | 33,675 | 16,070 |
| Hountain: |  |  |  |  |  |  |  |  |  |  |  |  |
| Montana.. | 35,085 | 37,747 | 41,823 | -2,662 | -6,738 | -4,076 | 824 | 9 | 190 | 5,799 | 5,604 | 6,298 |
| Idaho.. | 40,284 | 41,498 | 43,663 | -1,214 | -3,379 | - 2,165 | 820 | 17 | 265 | 19,213 | 17,863 | 18,523 |
| Hyoming. | 12,614 | 13,076 | 15,018 | -462 | -2,404 | -1,942 | 364 | 5 | 69 | 3,483 | 3,283 | 3,676 |
| Colorado. | 45,578 | 47,618 | 51,436 | -2,040 | -5,858 | -3,818 | 2,370 | 17 | 704 | 16,053 | 15,243 | 16, 556 |
| New Hexico. | 23,599 | 29,695 | 34,105 | -6,096 | -10,506 | -4,410 | 2,155 | 4 | 221 | 3,336 | 2,949 | 3,934 |
| Arizona | 10,412 | 13,142 | 18,468 | -2,730 | -8,056 | -5,326 | 945 | 3 | 421 | 2,251 | 1,839 | 5,361 |
| Utah.. | 24,176 | 26,322 | 25,411 | -2,146 | -1,235 | 911 | 725 | 12 | 134 | 7,934 | 7,600 | 8,493 |
| Nevada. | 3,110 | 3,429 | 3,573 | -319 | -463 | -144 | 211 | 5 | 37 | 882 | 838 | 819 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Washington., | 69,820 | 79,887 | 81,686 | - 10,067 | -11,866 | -1,799 | 8,544 | 8 | 1,370 | 13,449 | 12,825 | 14,1.32 |
| Oregan... | 59,827 | 63,125 | 61,829 | -3,298 | -2,002 | 1,296 | 5,468 | 8 | 1,222 | 17,095 | 16,237 | 16,556 |
| California | 137,168 | 138,917 | 132,658 | -1,749 | 4,510 | 6,259 | 11,830 | 24 | 4,130 | 63,109 | 57,497 | 58,036 |

Table 9.-CHANGE IN NUMBER OF FARMS, 1940 TO 1950, AND NUMBER OF PLACES WITH AGRICULTURAL OPERATIONS EXCLUDED FROM THE COUNT OF FARMS FOR 1950; BY DIVISIONS AND STATES - Continued

|  | Region, division, and State | Places with agricultural operations excluded from the count of farms for 1950-Continued |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | In counties where number of places excluded equals or exceeds decrease in number of farms, 1945-50 |  |  |  |  | In counties where number of places excluded is less than decrease in number of farma, 1945-50 |  |  |  |  |
|  |  | $\begin{gathered} \text { Number } \\ \text { of } \\ \text { counties } \end{gathered}$ | Number af places | Number of farms |  |  | $\begin{gathered} \text { Number } \\ \text { of } \\ \text { counties } \end{gathered}$ | $\begin{gathered} \text { Number } \\ \text { of } \\ \text { places } \end{gathered}$ | Number of farms |  |  |
|  |  |  |  | 1950 | 1945 | 1940 |  |  | 1950 | 1945 | 1940 |
| 1 | United States. | 378 | 56,926 | 718,161 | 749,412 | 803,194 | 2,026 | 147,654 | 3,424,478 | 3,951,552 | 4,049,280 |
| 2 | The North. | 202 | 30,340 | 408,820 | 425,967 | 442,027 | 894 | 72,485 | 1,596,463 | 1,806,338 | 1,049,786 |
| 3 | The South. | 109 | 13,917 | 197, 907 | 205,254 | 244,819 | 900 | 62,345 | 1,630,380 | 1,910,727 | 1,958,556 |
| The West Geographic Dlvisions: |  | 67 | 12,669 | 111,434 | 118,191 | 116,348 | 232 | 12,824 | 197,635 | 234,487 | 240,938 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 5 | New England................................ | 1 | 856 | 1,249 | 1,531 | 1,229 | 66 | 11,489 | 101,976 | 148, 780 | 133,961 |
| 6 | Middle Atlantic............................ | 24 | 5,209 | 43,363 | 46,610 | 47,597 | 110 | 19,723 | 238,987 | 287, 868 | 288, 241 |
| 7 | East North Central........................ | 106 | 19,481 | 227,733 | 238,144 | 245, 290 | 287 | 28, 404 | 578, 731 | 638,940 | 662, 820 |
| 8 | West North Central........................ | 71 | 4,794 | 136,475 | 139,682 | 147,911 | 431 | 12,869 | 676, 769 | 730,750 | 764,764 |
| 9 | South Atlantic............................ | 50 | 6,377 | 77,681 | 81, 110 | 84, 079 | 358 | 26,652 | 563, 440 | 666,903 | 639,647 |
| 10 | East South Central........................ | 34 | 4,597 | 74,194 | 76, 686 | 81,983 | 191 | 16,285 | 474, 953 | 544,646 | 564,652 |
| 11 | West South Central,....................... | 25 | 2,943 | 46,032 | 47,458 | 78,757 | 351 | 19,408 | 591,987 | 699,178 | 754, 257 |
| 12 | Mountain. . . . . . . . . . . . . . . . . . . . . . . . . . . | 29 | 1,382 | 23,367 | 24,238 | 27,954 | 177 | 4,991 | 112,540 | 133, 070 | 141, 883 |
| 13 | Pacific..................................... | 38 | 11,287 | 88,067 | 93,953 | 88,394 | 55 | 7,833 | 85,095 | 101,417 | 99,055 |
|  | Hew England: |  |  |  |  |  |  |  |  |  |  |
| 14 | Maine.................................... | . | ..... | ........... | ............ | ........... | 16 | 2,199 | 30,358 | 42,184 | 38,980 |
| 15 | New Hampahire............................. |  |  | ...... |  |  | 10 | 1,596 | 13,391 | 18,786 | 16,554 |
| 16 | Vermont.................................. |  | .......... |  | ........... | ........... | 14 | 858 | 19,043 | 26,490 | 23,582 |
| 17 | Massachusetts............................. | 1 | 856 | 1,249 | 1,531 | 1,229 | 13 | 4,002 | 20,971 | 35,476 | 30,668 |
| 18 | Rhode Island... |  |  |  |  |  | 5 | 513 | 2,598 | 3,603 | 3,014 |
| 19 | Connecticut... |  |  |  |  |  | 8 | 2, 321 | 15,615 | 22,241 | 21, 163 |
|  | Hiddle Atlantic: |  |  |  |  |  |  |  |  |  |  |
| 20 | New York. . . . . . . . . . . . . . . . . . . . . . . . . . | 8 | 1,434 | 11,346 | 12,146 | 12,558 | 49 | 8,378 | 110, 858 | 134,747 | 140, 186 |
| 21 | New Jersey. .............................. | 7 | 1,761 | 9,103 | 10,219 | 9,455 | 6 | 766 | 7, 295 | 8,686 | 8,354 |
| 22 | Pennsylvania, ............................ | 9 | 2,014 | 22,914 | 24,245 | 25,584 | 55 | 10,579 | 120,834 | 144, 435 | 139.701 |
|  | East Morth Central: |  |  |  |  |  |  |  |  |  |  |
| 23 | Ohio........................................ | 27 | 8,043 | 61,961 | 66, 813 | 73,648 | 58 | 8, 849 | 131,146 | 147.672 | 153, 322 |
| 24 | Indiana...................................... | 29 | 3,812 | 55,352 | 56,898 | 60,397 | 44 | 4,137 | 80,804 | 89,585 | 91,704 |
| 25 | Illinois. | 18 | 2,282 | 38,933 | 40,078 | 28;938 | 69 | 2,959 | 128,827 | 137,290 | 141,949 |
| 26 | Michigan.................................. | 19 | 3,700 | 40,624 | 42,602 | 48,090 | 61 | 8,267 | 109,995 | 127,847 | 133,650 |
| 27 | Wisconsin.............................. | 13 | 1,644 | 30,863 | 31,753 | 34, 21.7 | 55 | 4,192 | 127,959 | 136,546 | 142, 1.95 |
|  | West Morth Central: |  |  |  |  |  |  |  |  |  |  |
| 28 | Minnesota. ................................. | 14 | 944 | 28,473 | 29,020 | 30,981 | 55 | 3,517 | 117,310 | 127,178 | 133, 8.54 |
| 29 | Iowa........................................ | 13 | 636 | 28,250 | 28,563 | 29,502 | 69 | 1,547 | 141,099 | 147,030 | 149,418 |
| 30 | Missouri. | 24 | 2,385 | 49,301 | 50,983 | 55, 011 | 71 | 3,455 | 140, 993 | 153, 200 | 157, 450 |
| 31 | North Dakota. ............................. | 3 | 39 | 2,701 | 2,705 | 2,940 | 44 | 485 | 56,672 | 60,874 | 64, 609 |
| 32 | South Dakota................................ |  |  | , | , | $\cdots$ | 45 | 327 | 41,324 | 44,095 | 46,364 |
| 33 | Nebraska. | 8 | 269 | 13,247 | 13, 640 | 14,741 | 69 | 1,678 | 76,552 | 84,939 | 87,420 |
| 34 | Каляав,................................... | 9 | 521 | 14,503 | 14,771 | 14,736 | 77 | 2,460 | 102,815 | 113,434 | 125, 639 |
|  | South Atlantic: |  |  |  |  |  |  |  |  |  |  |
| 5 | Delaware.................................. | , | ... | ...... | ...... | ...... | 3 | 773 | 7,448 | 9,296 | 8,994 |
| 36 | Maryland... | 4 | 441 | 3,685 | 4,060 | 4,440 | 17 | 1,769 | 27, 665 | 32,762 | 33, 229 |
| 37 | Distriet of Columbia. | . | ...... | ......... | ....... | ........... | $\cdots$ | 11 | 28 | 40 | 65 |
| 38 | Virginia... | 11 | 1, 538 | 11,158 | 12, 105 | 12,796 | 74 | 6,498 | 116, 474 | 138,890 | 139.236 |
| 39 | West Virginia.............................. | , | 894 | 8,802 | 9,152 | 10,277 | 45 | 5,897 | 63,340 | 79,306 | 79.150 |
| 40 | North Carolina............................. | , | 963 | 22,019 | 22,455 | 22,643 | 46 | 2,445 | 109, 747 | 119, 145 | 110,416 |
| 41 | South Carolina............................ | 2 | 421 | 7,861 | 8,124 | 7,836 | 29 | 2,481 | 75,077 | 87,395 | 81, 345 |
| 42 | Georgia..................................... | 12 | 1,383 | 17,653 | 18,350 | 18,838 | 112 | 4,526 | 137,792 | 167,595 | 155,313 |
| 43 | Florida.................................. | 8 | 737 | 6,503 | 6,864 | 7,249 | 32 | 2,252 | 25, 869 | 32,474 | 31,899 |
|  | East South Central: |  |  |  |  |  |  |  |  |  |  |
| 44 | Kentucky...................................... | 14 | 1,242 | 27,243 | 27.795 | 30,601 | 72 | 7,354 | 117,910 | 143,689 | 143,914 |
| 45 | Tennessec.................................. | 10 | 1,879 | 20,265 | 21,100. | 21,900 | 33 | 3,368 | 89,347 | 98, 814 | 99.150 |
| 46 | Alabama..................................... | 6 | 964 | 17,937 | 18,720 | 19,564 | 41 | 3,296 | 117, 538 | 134,738 | 137,046 |
| 47 | Mississippi............................... | 4 | 512 | 8,748 | 9,071 | 9,918 | 45 | 2,267. | 150, 158 | 167,406 | 184, 542 |
|  | West South Central: |  |  |  |  |  |  |  |  |  |  |
| 48 | Arkansas..................................... | 10 | 1,429 | 19,241 | 19,918 | 22,239 | 45 | 4,009 | 116, 217 | 134, 363 | 140, 939 |
| 49 | Louisinna.................................. | 4 | 253 | 6,021 | 6,211 | 6,163 | 37 | 2,014 | 68,771 | 78,053 | 91,689 |
| 50 | Oklahoma.,................................. | 3 | 540 | 7,712 | 7,831 | 9,696 | 68 | 5,656 | 126, 173 | 148,958 | 160,356 |
| 51 | Texas..................................... | 8 | 721 | 13,058 | 13,498 | 40,659 | 201 | 7,729 | 280,826 | 337,804 | 361, 273 |
|  | Mountain: |  |  |  |  |  |  |  |  |  |  |
| 52. | Montena.................................... | 5 | 189 | 3,116 | 3,288 | 3,612 | 42 | 445 | 26, 170 | 28,855 | 31,913 |
| 53. | Idaho..................................... | 1 | 78 | 2,503 | 2,545 | 2,689 | 26 | 477 | 18,568 | 21,090 | 22,451 |
| 54 | Wyoming, . . . . . . . . . . . . . . . . . . . . . . . . . . . | 6 | 169 | 3,757 | 3,835 | 4,482 | 13 | 126 | 5,374 | 5,958 | 6,850 |
| 55 | Colorado.................................... | 7 | 550 | 7,586 | 7,914 | 8,237 | 39 | 1,116 | 21,939 | 24,451 | 26,643 |
| 56 | New Mexico, . . . . . . . . . . . . . . . . . . . . . . . . . | 2 | 1.57 | 2,336 | 2,421 | 2,802 | 25 | 1,777 | 17,927 | 24, 325 | 27, 369 |
| 57 | Arizona.,................................... | 1 | 37 | 423 | 430 | 2,448 | 10 | 487 | 7,738 | 10,873 | 10,659 |
| 58 | Utah...................................... | 5 | 197 | 3,501 | 3,659 | 3,551 | 12 | 394 | 12,741 | 15,063 | 13, 367 |
| 59 | Nevada.................................... | 2 | 5 | 145 | 146 | 133 | 10 | 169 | 2,083 | 2,445 | 2,621 |
|  | Paclfic: |  |  |  |  |  |  |  |  |  |  |
| 60 | Washington................................. | 8 | 2,616 | 12,445 | 13,872 | 13,727 | 23 | 4,558 | 43,926 | 53, 190 | 53, 827 |
| 61 | Oregon..................................... | 11 | 2,683 | 22,937 | 24,248 | 23,515 | 17 | 1,563 | 19,795 | 22,640 | 21,758 |
| 62 | California.................................. | 19 | 5,988 | 52,685 | 55,833 | 51,152 | 15 | 1,712 | 21,374 | 25,587 | 23,470 |

table 11 indicate that one-fourth of the net under-enumeration was for farms of less than 10 acres; over a third for farms of 10 to 49 acres; a sixth for farms 100 to 220 acres; and less than one-twentieth for farms of 220 acres and over.

Less than one-fifth of the net under-enumeration was for commercial farms. More than one-third of the farms counted as not included in the census were enumerated for the census but were not included in the census tabulations because the information obtained by the census enumerator indicated that the agricultural operations were not sufficient to meet the Census criteria for a farm.
The re-enumeration was subject to errors of enumeration and office processing. However, the enumerators for the reenumeration were carefully selected and given much more intensive training and supervision than the census enumerators. During the office processing, information for each farm identified during the re-enumeration was carefully compared with the information for the same farm enumerated in the census.

The re-enumeration was made for a probability sample and estimates of sampling reliability can be made. These estimates of sampling reliability for the net enumeration are given in tables 10 and 11. These estimates are to be interpreted as follows:
The chances are about 2 out of 3 that the estimates of net under-enumeration given in table 10 would differ from those obtained by a complete re-enumeration of all farms by amounts less than the absolute sampling errors indicated in the table. The chances are about 19 out of 20 that the estimates are within twice the absolute sampling errors of the figures which would rosult from a re-enumeration of all farms.

Data compiled independently of the census provide partial measures of the completeness of the coverage of the census. Data regarding cotton ginnings and sugar beet and sugarcane processing have been obtained independently from processors of these farm products. The entire production of cotton, sugar beets for sugar, and sugarcane for sugar are processed, hence the data on the total amount of these products processed provide accurate measures of the total production. Data obtained from operators of cotton gins showed the 1949 production of cotton to be $15,908,591$ running bales. This was 489,143 running bales or 3.2 percent greater than the amount reported for the census. The reports obtained from operators of sugar beet factories by the Bureau of Agricultural Economics of the United States Department of Agriculture showed that the total production of sugar beets in 1949 was $10,148,000$ tons. This compares with $9,944,016$ tons reported for the census. The production of sugarcane for sugar in the United States, according to reports obtained from sugar mills by the United States Department of Agriculture was $6,110,000$ tons. The production of sugarcane for sugar according to the census was $6,301,196$ tons, or 3.1 percent more than reported by operators of sugar mills.

A comparison of data obtained in the 1950 Censuses of Agriculture and Irrigation also provides a partial measure of the completeness of coverage of the census in 20 States. Reports for the 1950 Census of Irligation were obtained from enterprises supplying irrigation water to farms in the 17 Western States and Arkansas, Florida, and Louisiana. According to the 1950 Census of Irrigation, the total area irrigated in the 17 Western States and Arkansas, Florida, and Louisiana in 1949 was $26,233,215$ acres. The area of land irrigated in these 20 States according to the 1950 Census of Agriculture was $25,634,869$ acres, or 2.3 percent less than shown by the 1950 Census of Irrigation.

Data are not now available to indicate the accuracy of census totals for many characteristics. Totals for many characteristics are affected not only by the incompleteness of coverage, but also by various kinds of reporting errors. Adequate check data from independent sources are not available to provide a measure of the effect of these reporting errors upon census totals.
Arailability of data for geographic areas.-Four different geographic areas-minor civil divisions, counties, State economic
areas, and States-were used as geographic units for the tabulation of data for the 1950 Census of Agriculture.
Minor civil divisions are primary subdivisions of counties and include townships, towns, precincts, election districts, magisterial districts, school districts, civil districts, beats, etc. Oounties are the smallest areas for which data for the 1950 Census of Agriculture are published. There were 3,101 counties, including independent cities, in the United States at the date of the census.
State economic areas represent groupings of counties within a State. A map showing the State economic areas in each State appears in Volume 1 of the reports of the 1950 Census of Agriculture. The counties comprising a state economic area have similar agricultural, demographic, climatic, physiographic, and cultural characteristics. Basically, State economic areas have been established for the purpose of presenting statistics not only for the 1950 Census of Agriculture but also for the Censuses of Population and Housing. In order to establish areas for all 3 of these censuses, the 48 states have been subdivided into 501 State economic areas. (A description of State economic areas and a map showing the State economic areas for all States appears in the Special Report of the 1950 Census entitled, "State Economic Areas: A Description of the Procedure Used in Making a Functional Grouping of the Counties in the United States.") For the purpose of presenting agricultural statistics, most metropolitan areas have been combined with adjacent economic areas when the number of farms and agricultural production of the metropolitan area are of small importance. On the other hand, in a lew cases, because of significant differences in the characteristics of the agriculture within the State economic areas, some state economic areas have been subdivided in order to present statistics for the 1950 Census of Agriculture. Outside the metropolitan areas, the State economic areas in general are the same as State typeot-furming areas. For the United States, detailed statistics are shown for 362 state economic areas.

Generally, totals and the number of farms reporting for all items on the agriculture questionnaire, except items covered by questions 230 to 238 and questions 306 through 332, were tabulated by minor civil divisions. Data for questions 306 through 332 were enumerated for a sample of approximately 20 percent of the farms. A sample of this size would not provide figures of sufficient reliability for most uses by minor civil divisions. None of the data tabulated by minor civil divisions have been published by the Bureau of the Census. Statistical tables containing data by minor civil divisions can be obtained by paying the cost of preparing the statistical tables and checking the data.
Iotals and the number of farms reporting are available, and published in most cases, by counties for all items, except farm taxes, farm mortgage indebtedness, and cash rent, included in the 1950 Census of Agriculture. These data are given in Volume I of the reports for the 1950 Census of Agriculture. In some cases, the figures, particularly for crops of minor importance, are not published by counties. However, totals for such items are published in the various State tables in Volume I. Data for farm taxes and cash rent are available only for States and are given in State Tables 17 and 18 of Volume I. Data on farm mortgage indebtedness are available only by States and appear in part 8 of Volume V .

The data published by State economic areas consist primarily of those relating to some special counts or tabulations for farms or farm operators and to cross tabulations. The special counts and tabulations include farm operators classifled by age and by year they began operation of their present farm; farms reporting woodland pastured and woodland not pastured classified by acreage; farm workers classified by basis of payment and perquisites furnished; farms reporting farm workers classified by number of workers; farms reporting horses and/or mules,
sows and gilts for spring farrowing, and farm slaughter, by number of animals; farms reporting and number of chickens 4 months old and over, farms reporting and number of chickens sold, and farms reporting and dozens of eggs sold, by size of flock; farms reporting and number of cows milked yesterday, farms reporting and value of dairy products sold, farms reporting, amount, and value of whole milk sold, farms reporting pounds of butterfat, and value of cream' sold, by size of herd; farms reporting the principal crops classified by acreage harvested; farms reporting grain crops sold and hay sold classified by quantity sold ; farms reporting, acres, and bushels harvested for Irish potatoes by acreage

Table 10.-Estimates of the Net Under-Enumeration for Farms and Selected Items por Regions and the United States: 1950 Census of Agriculture

| Region and Item | Census total | Estimated net under-onumeration |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { Num- } \\ & \text { ber } \\ & \text { (thou- } \\ & \text { sands) } \end{aligned}$ | Percent census total | Absolute sampling error of estimate |  |
|  |  |  |  | Amount (thousands) | Percent |
| Onited States |  |  |  |  |  |
| Land in farms.....................acres.... | $\begin{array}{r} 8,382,162 \\ 1,169,780,020 \end{array}$ | 22,903 ${ }^{274}$ | 6. ${ }_{2} .1$ | $\begin{array}{r}36 \\ 6,353 \\ \hline\end{array}$ | ${ }_{0}^{0.7}$ |
| Cropland harvested.-..------acres--- | 1, $345,528,410$ | 7,376 | 2.1 | 2,051 | 0.6 |
| Corn harvested............---acres.- | 83, 351, 016 | 1,073 | 1.3 | 141 | 0.2 |
| bushols.. | 2, 278, 190, 131 | 28, 340 | 1.2 | 10,85日 | 0.4 |
| Wheat harvested.-.-.-.-----acres.- | 71, 161, 061 | 1,150 | 1.6 | 1,300 | 1.8 |
| Cotton harvested...........-aberes-- | 26.590, 263 | 2, 101 | 7.9 | 912 | 3.4 |
| Chicken eggs sold. .-...-.-dozens..- |  | 57,232 | 4.3 2.4 | 13,027 | 1.9 0.5 |
| Farms The North number | 2, 268, 068 | 101 | 4.5 | 25 | 1.1 |
|  | 441, 225, 732 | 4,754 | 1.1 | 2,724 | 0.0 |
| Cropland harvested............neres... | 208, 403, 139 | 2,083 | 1.0 | 1, 538 | 0.7 |
| Corn harvested...-..-.-.------ucres.- | 59, 610,588 | 254 | 0.4 | 201 | 0.3 |
| bushels. | 2,270, 572, 674 | 7, 929 | 0.3 | 9,884 | 0.4 |
| Wheat harvested............ageres.. | 43, 133,010 | 942 | 2.2 | 1,013 | 2.3 |
| Chicken eggs sold .-..-....-dozens.- | 1,767, 742, 459 | 33,435 | $1 . \theta$ | 12, 563 | 0.7 |
| The South |  |  |  |  |  |
| Farms.-.-----------number-- | 2, 652, 423 | 143 | 8.4 | 34 | 1.3 |
| Land in farms-----..........acres-- | 394, 237, 203 | 10,699 | 2.7 | 2,669 | 0.7 |
| Cropland harvested..-........acres..- | 97, 078, 641 | 4, 677 | 4.8 | 1,303 | 1.3 |
| Corn harvested......-.-.---- acres.- | 22, 674,275 | 771 | 3.4 | 197 | 0.8 |
| bushels.- | 491, 044,722 | 19,547 | 4.0 | 4, 441 | 0.8 |
| Wheat harvested.-.........--acres.- | 13, 823, 823 | 190 | 1.4 | 162 | 1.2 |
|  | 340,388, 973 | 12,903 | 3.7 | 2, 943 | 0.8 |
| The West |  |  |  |  |  |
| Land in farms .--------.-. ${ }^{\text {number }}$ - | ${ }^{461,673}$ | 30 | 6.5 | 11 | ${ }_{1}^{2.4}$ |
| Cropland harvested ---......-.acreses.-- | $324,326,385$ $30,961,630$ | 7,469 | 2.3 1.6 | 8, 378 | 1.88 |
| Corn harvested..------------acres--- | 1,060, 151 | 48 | 4.5 | 27 | 2.5 |
| bushols..- | 16, 572,735 | 864 | 8.2 | 698 | 4.2 |
| Wheat harvested............acres.- | 14, 204, 128 | 18 | 0.1 | 45 | 0.3 |
|  | 295, 685,381 | 10,894 | 3.7 | 1,868 | 0.6 |

harvested; farms reporting apples and peaches classified by number of trees not of bearing age, trees of bearing age, and quantity harvested.

Nearly all of the data regarding the number and characteristics of farms classified by size of farm, color and tenure of farm operator, type of farm and economic class of farm were tabulated and published by State economic areas. The data available, and in nearly all cases, published, for the four classifleations of farms by State economic areas, are indicated by table 12. The data tabulated for these classifications of farms represent estimates based upon a sample of farms. Data are published by counties in Volume I for the number of farms, and for all land in farms for farms classified by size of farm and by tenure of operator (color and tenure of operator in the Southern States). Figures for the number of farms by color of operator, the number of farms by type of farm, and by economic class of farm, and for farms reporting and acreage of cropland harvested by tenure of operator appear in Volume I. Unpublished data are available for counties for the number of farms reporting and the acreage of land in farms classified by size of farm and by tenure of operator (color and tenure of operator for the Southern States).

Totals for all data tabulated for the 1950 Census of Agriculture are ayailable and are published in nearly all cases for the 48 States and the District of Coltumbia. These totals are usually given in Volume I of the reports of the 1950 Census of Agriculture. These totals also appear in most cases in the analytical tables presented in this volume.

Table 11.-Estimated Net Under-Enumeration of Farms in the 1950 Census of Agriculture, by Size of Farm, for the United States

| Size of farm | Census total | Estimated net under-enumeration of farms |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \text { Percent } \\ & \text { of } \\ & \text { census } \\ & \text { total } \end{aligned}$ | Percent of net under-enllation | Absolute sampling error of estimate |  |
|  |  |  |  |  | $\begin{aligned} & \text { Num- } \\ & \text { ber } \\ & \text { (thou- } \\ & \text { sands) } \end{aligned}$ | Percent |
| Total. | 5, 382, 162 | 274 | 5.1 | 100.0 | 36 | 0.7 |
| Under 10 acres. | 484, 914 | 80 | 10. 5 | 29.2 | 22 | 4.6 |
| 10-49 acres... | 1, 477,850 | 101 | 6.9 | 36.9 | 19 | 1.3 |
| 50-09 ncres. | 1, 047,801 | 42 | 4.0 | 16.3 | 17 | 1.6 |
| 100-219 acres. | 1, 377, 571 | 42 | 3.0 | 15.3 | 15 | 1.1 |
| 200 acres and over | 094, 026 | 0 | 0.9 | 3.3 | 4 | 0.4 |

Table 12-LIST OF ITEMS FOR WHICH DATA ARE PUBLISHED BY SIZE OF FARM, COLOR AND TENURE OF OPERATOR, TYPE OF FARM, AND ECONOMIC CLASS OF FARM, FOR THE 1950 CENSUS OF AGRICULTURE


Table 12.-LIST OF ITEMS FOR WHICH DATA ARE PUBLISHED BY SIZE OF FARM, COLOR AND TENURE OF OPERATOR. TYPE OF FARM, AND ECONOMIC CLASS OF FARM, FOR THE 1950 CENSUS OF AGRICULTURE-Continued



[^0]:    See footnotes at end of table.

