

TABLE 4.—SUMMARY OF SAMPLE ADJUSTMENT BY SIZE OF FARM FOR THE UNITED STATES: 1954 CENSUS OF AGRICULTURE

Size of farm	Number of farms	Adjustment in number of farms		Total adjustment	
		Farms duplicated	Farms eliminated	Farms duplicated plus farms eliminated	Net adjustment (number of farms)
Total.....	4,782,416	37,181	29,938	67,119	+7,243
Under 10 acres.....	484,291	7,676	977	8,653	+6,699
10-29 acres.....	713,335	7,468	1,903	9,371	+5,565
30-49 acres.....	499,496	5,048	1,886	6,934	+3,162
50-69 acres.....	346,323	3,204	1,768	4,972	+1,436
70-99 acres.....	517,740	3,661	2,919	6,580	+742
100-139 acres.....	491,458	3,076	3,205	6,281	-129
140-179 acres.....	461,651	2,562	3,253	5,815	-691
180-259 acres.....	463,698	1,974	4,220	6,194	-2,246
260-499 acres.....	482,246	1,886	5,109	6,995	-3,223
500-999 acres.....	191,697	626	4,698	5,324	-4,072
1,000 acres or more.....	130,481				

to sampling errors. When data based on a sample of farms are shown in the same table with data for all farms, the data based on a sample are shown in italics or headnotes on the table indicate that the data represent estimates based on data for a sample of farms. Approximate measures of the sampling reliability of estimates are given in Tables 5 and 6 for farms reporting and for totals for selected items. These measures indicate the general level of sampling reliability of the estimates, but do not include allowances for sources of error other than sampling variation such as, for example, errors in original data furnished by farmers.

In order to compute the sampling errors for item totals, a random selection of 5 percent of the nonspecified sample farms was made. The data for these farms were used to compute estimated sampling errors for a large variety of items, thus providing a basis of estimates of the level of sampling errors. Estimates of sampling errors have been made separately for the North, the South, the West, and for the United States, by weighting the sampling error by the corresponding item total for each State or geographic region.

In general, the measures of sampling reliability presented are conservative in that they tend to overestimate the variations in sample estimates, because (1) the predicted limits of error do not always take fully into consideration that complete data were tabulated for all specified farms, and (2) that the figures were selected so as to apply to all States in the region. Consequently, the sampling errors tend to overestimate the variations in the sample, especially for groups with large numbers of farms or for groups for which the totals for specified farms represent a high proportion of the totals for the item.

Data in Tables 5 and 6 are given to indicate the general level of sampling reliability of estimated totals. In Table 6 a list of the items is given and the level of sampling reliability as shown in Table 5 is indicated. By referring to Table 5 in the column for the level of sampling reliability designated in Table 6, the sampling error according to the number of farms reporting may be obtained. For farms reporting, the indicated level of sampling is level 1. Table 5 shows percentage limits such that the chances are about 68 in 100 that the difference between the estimates based on the sample and the figure that would have been obtained from a tabulation for all farms would be approximately within the limit specified. However, the chances are 99 in 100 that the difference between the estimate and the tabulation for all farms would be less than two and one-half times the percentage given in the table.

The data in Table 5 indicate that when the number of farms reporting a specified item is small, the item totals are subject to relatively large sampling errors. Nevertheless, the considerable detail for every classification for each item is presented to insure maximum usefulness for appraising estimates for any combination 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 relationships may sometimes be observed even though the individual data are subject to relatively large sampling errors.

DEFINITIONS AND EXPLANATIONS

Definitions are presented only for those items for which the table descriptions are considered inadequate. The descriptive terms refer principally to the 1954 Census of Agriculture, although, with very few exceptions they are equally applicable to the 1950 Census, and, in general, to earlier Censuses as well. The definitions consist primarily of a résumé of the questionnaire wording, occasionally supplemented by the more essential parts of instructions given to the enumerators. Definitions and explanations which are of primary interest in respect to the data presented in a given chapter are included in the text accompanying that chapter. For the exact phrasing of the inquiries and of the instructions included on the questionnaire, reference should be made to the facsimile of the 1954 Agriculture Questionnaire shown in the Appendix to this volume.

Date of enumeration.—The enumeration of the 1954 Census of Agriculture was made largely during October and November 1954. The 1954 Census beginning dates were varied by areas or States, ranging from October 4 to November 8. In general, the varied starting dates were based upon the following considerations: (1) selecting dates late enough for the enumeration to follow the harvesting of the bulk of important crops, (2) setting the dates early enough to avoid undesirable weather and travel conditions during the enumeration, and (3) arranging for the enumeration to be substantially completed prior to customary dates when farm operators move from one farm to another. The average date of enumeration for the 1954 Census for each State is given in Table 1.

Information for inventory items is based on the situation as of the actual day of enumeration. Data on acreage and quantity of crops harvested are for the crop year 1954. Data on sales of crops relate to crops harvested in the year 1954 regardless of when sold; data on sales of livestock products relate to the production and sales during the calendar year 1954. Since the period to be included had not yet ended for some items at the time of enumeration, special emphasis was placed upon including accurate estimates for such items for the remainder of the period. For example, the question relating to dairy products stated, "Be sure to include dairy products which you will sell before January 1, 1955."

A farm.—For the 1954 and the 1950 Censuses of Agriculture, places of 3 or more acres were counted as farms if the annual value of agricultural products, exclusive of home-garden products, 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 annual value of sales of agricultural products amounted to \$150 or more. Places for which the value of agricultural products for the Census year were less than these minima because of crop failure or other unusual conditions, and places operated at the time of the Census for the first time were counted as farms if normally they could be expected to produce these minimum quantities of agricultural 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.

For the 1954 Census, enumerators were instructed to obtain agriculture questionnaires for all places that the operator considered a farm and for all places having during 1954 (1) any hogs, cattle, sheep, or goats; (2) any crops such as corn, oats, hay, or tobacco; (3) 20 or more chickens, turkeys, and geese; (4) 20 or more fruit trees, grapevines, and planted nut trees; or (5) any