

Two tables are given below to assist in determining the general level of sampling reliability of estimated totals by size of farm for other items presented in this report. In table A, a list of the items is given, and the level of sampling reliability as shown in table B is indicated. By referring to table B, in the column for the level of sampling reliability designated in table A, percent limits according to the number of farms reporting may be obtained. As pointed out above, the percent limits indicated represent maximum figures intended to serve for all groups, and a majority of the estimates would be expected to show differences of less than one-half the stated limits. In using tables A and B, it should be noted that, in general, for States in which an item is reported relatively frequently the level of reliability in table B will tend to overestimate the sampling variation to a greater extent than when the item is reported relatively infrequently.

Table A.—INDICATED LEVEL OF SAMPLING RELIABILITY OF ESTIMATED STATE TOTALS BY CLASS OF WORK POWER AND SIZE OF FARM FOR SPECIFIED ITEMS

Class of work power	Level of sampling reliability (refer to corresponding numbered columns in table B) for specified item amounts			
	Cropland harvested	Tractors	Horses and colts	Mules and mule colts
All work-power classes.....	1	1	1	1
No tractor, horses, or mules.....	2	-	-	-
No tractor and only 1 horse or mule.....	1	-	(*)	(*)
No tractor and 2 or more horses and/or mules.....	1	-	1	1
Tractor and horses and/or mules.....	1	1	2	1
Tractor and no horses or mules.....	2	1	-	-

\*The estimated sampling reliability for these items is identical with the number of farms reporting the items.

Table B.—SAMPLING RELIABILITY OF ESTIMATED ITEM TOTALS FOR STATES BY CLASS OF WORK POWER AND SIZE OF FARM FOR SPECIFIED NUMBERS OF FARMS REPORTING BY LEVELS

[See table A for designation of level for any item]

If the estimated total number of farms reporting in the class of work power by size-of-farm group is—	Then the chances are about 95 in 100 that the estimated item total would differ from the results of a complete tabulation of the items for all farms by less than—	
	Level 1 Percent	Level 2 Percent
100.....	117.0	143.0
500.....	52.0	64.0
1,000.....	37.0	45.0
2,500.....	23.0	28.0
5,000.....	16.0	20.0
10,000.....	12.0	14.0
25,000.....	7.4	9.0
50,000.....	5.2	6.4
100,000.....	3.7	4.5
500,000.....	1.6	2.0

**Presentation of data.**—A State is the smallest geographic area for which the data given in this special report are available. Table C presents summary statistics for the United States on the numbers of farms in each work-power class by size of farm with the percentage distribution of each work-power class by size of farm and the percentage distribution of each size of farm by class of work power. Tables D, E, and F present similar summary statistics on the numbers of farms in each work-power class by value of products, by tenure of farm operator, and by type of farm, respectively. The data shown in these three tables, representing summary information taken from the series of special reports presenting farms and farm characteristics by these respective classifications, will be helpful in the appraisal and analysis of the data presented in this report. For corresponding information on a State level, reference should be made to these special reports.

Maps and charts showing some of the important characteristics and relationships for various work-power groups are presented on pages 6 to 9. Data by States are presented with the States arranged in groups, by geographic divisions, in order to facilitate comparisons among States in the same general area.

The discussion which follows relates primarily to the United States. Since the farms in the various States differ from those representative of the United States, the conclusions for the United States would not apply to an individual State. The characteristics of farms in each work-power class differ from State to State.

**Classification of farms by size.**—Farms were classified by size according to the total land area of each farm. In considering the data presented in this report, it should be kept in

mind that Census farms are essentially operational units—not ownership tracts. Each farm includes all the land owned and operated by an individual farm operator plus land rented by him from others. Land rented to others or managed by others is excluded. If a person has croppers or other tenants, the land assigned each cropper or tenant is a separate farm even though the landlord may handle the entire holding essentially as one farm in respect to supervision, equipment, rotation practices, purchase of supplies, or sale of products. In such a multiple-unit operation, the tenant's farm is often much smaller than single-unit farms having a similar number of acres of crops. The pasture land, woodland, wasteland, etc., which normally would be associated with the cropland is retained by the landlord. Thus the "home farm" of multiple-unit operations has a relatively smaller proportion of cropland than do single-unit farms of a like size in the same area. The work power is frequently included in the report for the "home farm."

In general, the farm averages for both inventory and production items increase with an increase in size of farm. However, grouping of farms solely on the basis of land area often brings together into a single-size group farms representing numerous types of agriculture and various sizes of operations. This is especially true when different geographical areas are brought together, such as in State, regional, or United States totals.

**Classification of farms by class of work power.**—Farms were classified on the basis of the horses, mules, and tractors reported. This classification does not present an entirely accurate picture of the work power used on these farms. The data on horses, mules, and tractors represent minimum numbers as occasionally enumerators failed to obtain the information for every farm. Thus, farms classified as reporting no tractors, horses, or mules include some farms which probably had one or more of these items. Also, for some farms all the work power is hired; for some a part of the work power is hired; and for others the work power may be furnished by the landlord. Farms hiring out or furnishing work power to others show more work power available than is needed for their operation, while those hiring all or part of the work power and those having it furnished show an insufficient amount of work power for their operations. The total horses and mules of all ages are included in the determination of work-power classes, yet on some farms horses are kept for uses other than work power. This is especially true in respect to country estates and stock ranches.

In this report the numbers only of tractors are shown. These tractors will vary in size from small garden tractors to large crawler types. Also, the work power in this report represents inventories as of January 1, 1945, while the figures for cropland harvested represent operations carried on during the preceding year.

The class of work power is associated with the type of farming, topography of the land, etc. Thus, differences between farms in one work-power class and those in another tend to reflect geographic variations. This is especially significant when totals are shown for broad geographic areas. Thus, for the United States, the differences between farms with horses and mules and no tractors and those having tractors are largely a comparison of farms in the South with those in the North and West. Nearly seven-tenths of the farms with horses or mules and no tractors are in the South, while more than seven-tenths of those with both tractors and horses or mules are in the North, as are over three-fifths of those with tractors and no horses or mules.

**Farms with no tractor, horses, or mules.**—More than one-fourth of all farms in the United States did not report either tractors or horses or mules. However, farms with no work power accounted for 6.3 percent of the total cropland harvested. About one-fifth of these farms without work power had no cropland harvested. Farms without work power accounted for two-thirds of all farms not reporting cropland harvested.

Three-fourths of the farms with no work power were under 50 acres with 29.0 percent under 10 acres. Nearly three-fifths of the farms with no work power were in the South. Many of these apparently were cropper farms on multiple units, the work power being kept on and reported for the "home farm." Over three-fourths of all farms under 10 acres did not report work power, over one-half of those 10 to 29 acres and 30.8 percent of those 30 to 49 acres did not report work power. This percentage decreases as the size of farm increases. Only 3.0 percent of those farms 1,000 acres and over have no work power reported and more than one-half of those have no cropland harvested.

It should be kept in mind that farms with no tractor, horses, or mules may include some farms with work power but for which a