

**CHAPTER III.—FARM FACILITIES,  
FARM EQUIPMENT**

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# CHAPTER III.—FARM FACILITIES, FARM EQUIPMENT

**Introduction.**—The statistics presented in this chapter deal with those home and farm facility and equipment items for which facts were gathered in the 1954 Census of Agriculture. Inquiry was made as to the presence of 8 items and for the number of units for 10 others. A few of the items for which information was obtained are used, for the most part, in the farm operator's home; a few are used both in the home and in the farm business; while others are used in conducting the farm business. The inquiry relating to the number of items specified that an item be counted if on the place at the time of enumeration, whether owned by the farm operator or by another person. The data afford a picture of the proportion of farms with a given item and, when coupled with available comparative data for prior Censuses, indicate the growth or decline in the number of farms having an item during the intervening periods.

In the 1954 Census of Agriculture, the data were collected for the following items. The location of all items was specified "on this place" in the questionnaire inquiry:

Item	How reported	
	No or Yes	Number
Telephone.....	X	
Piped running water.....	X	
Electricity.....	X	
Television set.....	X	
Home freezer.....	X	
Electric pig brooder.....	X	
Milking machine.....	X	
Power feed grinder.....	X	
Grain combines.....		X
Corn pickers.....		X
Pick-up balers.....		X
Field forage harvesters.....		X
Motortrucks.....		X
Wheel tractors.....		X
Garden tractors.....		X
Crawler tractors.....		X
Automobiles.....		X
Artificial ponds, reservoirs, and earth tanks.....		X

Certain items such as electricity, telephone, and automobiles, that are general indicators of the level of living of farm families, have been included in successive enumerations. An example of their use is in computing the farm-operator family level-of-living index.<sup>1</sup> Other repetitive items deal with the replacement of hand labor and horse and mule power and provide measures of the degree and rapidity of farm mechanization. Some items for which inquiry was made in 1954 have come into general use in recent years and, for these, there are few or no comparable figures available. The various items for which data have been gathered since 1920, together with an indication of the frequency of their collection, are shown in the following table. When data were collected for 1954, both the current and comparative figures are presented in this chapter. If an inquiry was not made in the 1954 enumeration, then the data may be found in the volumes for the Census in which the most recent inquiry was made.

## FARM FACILITY AND EQUIPMENT ITEMS FOR WHICH AN INQUIRY WAS INCLUDED IN THE CENSUS OF AGRICULTURE: 1920 TO 1954

[The data for various Census years may not be entirely comparable for reasons such as wording of the inquiry, instructions to enumerators, processing of data, etc. An X in the following table indicates the inquiry was included in the Census of the year specified.]

Item on Census Questionnaire	1954	1950	1945	1940	1935	1930	1925	1920
Telephone.....	X	X	X	X		X		X
Running water.....	X		X			X		X
Electric water pump.....		X						
Water piped into a bathroom.....						X		
Electric hot water heater.....		X						
Kitchen sink with drain.....			X					
Electricity.....	X	X	X	X		X		
Power line.....		X		X				
Amount of last monthly bill.....		X						
Home plant.....		X		X				
Gas or electric light.....								X
Electric distribution line.....			X	X				
Television set.....	X							
Radio.....	X		X				X	
Home freezer.....	X	X						
Mechanical refrigeration.....		X	X					
Electric washing machine.....			X					
Power-driven washing machine.....			X					
Electric motors for farm work.....			X			X		
Milking machine.....	X	X	X					
Electric chick brooder.....		X						
Electric pig brooder.....	X							
Power feed grinder.....	X							
Electric power feed grinder.....		X						
Stationary gasoline engines.....			X			X		
Grain combines.....	X	X	X			( <sup>1</sup> )		
Corn pickers.....	X	X						
Pick-up balers.....	X	X						
Field forage harvesters.....	X							
Automobiles.....	X	X	X	X		X		X
Year of newest model.....		X	X	X		X		X
Motortrucks.....	X	X	X	X		X		X
Year of newest model.....		X	X	X		X		X
Tractors.....			X	X		X	X	X
Year of newest model.....				X				
Wheel tractors other than garden or crawler.....	X	X	X					
Year of newest model.....		X	X					
Garden tractors.....	X	X	X					
Crawler tractors.....	X	X	X					
Year of newest model.....		X	X					
Artificial ponds, reservoirs, and earth tanks.....	X							
Upright silos.....		X						
Pit or trench silos.....		X						
Kind of road surface.....		X	X	X		X	X	
Distance to trading center.....		X					X	
Value of implements and machinery.....			X	X		X	X	X

<sup>1</sup> Inquiry asked for number of "combines" on this farm. Data requested were for grain combines used for harvesting and threshing grains or seeds in one operation; however, many types or combinations of equipment were reported instead of the type desired and the results of this inquiry were considered not satisfactory for publication.

The capacity of farm workers to produce has been directly related to the development and use of new and improved items of farm equipment and facilities. The productive capacity of the agricultural worker changed very little between 1820 and 1850 during which time he produced farm products, on the

<sup>1</sup> Farm-operator family level-of-living indexes for counties of the United States: 1954, 1950, and 1945. Agricultural Marketing Service, U. S. D. A.

average, for fewer than 5 persons at home and abroad.<sup>1</sup> New inventions and resultant new equipment began to appear on the farm after 1850 and the farm worker was able to produce farm products for an increasing number of persons. By the turn of the twentieth century, he was producing for almost 7 persons. More than 8 persons were being provided food, etc., by a farm worker in 1920; by 1930, that number had increased to almost 10. The productive capacity of the farm worker increased moderately to 1940 when there were almost 11 persons supported, and with a rapid increase occurring during World War II, there were 15 persons at home and abroad supplied in 1945 by a farm worker. New equipment began to arrive on farms after World War II and a further phenomenal increase occurred between 1945 and 1955. Now, a farm worker produces enough for almost 20 persons at home and abroad. Over half of the increase in the productivity of farm workers came during the last 15 years of the 135-year period, when the number of persons per farm worker increased from 10.8 in 1940 to 19.7 in 1955. Improved technology, both on and off the farm, has enabled farmers to produce increasing quantities of farm products with a decreasing number of workers. As a result, our increasing population has continued to be well-fed and clothed, while at the same time agricultural workers have been released for nonfarm employment. Off-the-farm workers engaged in the manufacture of equipment and supplies for agriculture as well as performing services in connection with the marketing; processing, and distributing of food, fiber, and tobacco products have increased greatly in number as the number of agricultural workers has declined.

**Sources of data.**—The data presented in this chapter are from the 1954 Census of Agriculture, with comparative data from earlier Censuses and in a few cases from the 1950 and 1940 Censuses of Housing. The data for 1954 and 1950 and a portion of the data for 1945 for all the items included in this chapter represent estimates based upon the enumeration of data for a sample of farms of approximately 20 percent of all farms for 1954 and 1950 and one out of 18 farms in 1945. The tables carry a headnote to indicate which of the data are estimates based on reports for only a sample of farms. (For a description of the procedures used in the enumeration and in the processing of the statistics, a description of the sampling technique, and for a measure of the reliability of estimates, see the Introduction to this volume.)

**Presentation of the statistics.**—The statistics are presented for the continental United States, for three major regions, for nine geographic divisions, and for each of the 48 States. An outline map, showing the States comprising the geographic divisions and regions for which totals are shown, appears in the Introduction.

Comparable data from earlier Censuses provide a measure of the changes that have occurred from Census to Census. Most of the available comparative data are shown for the United States. Historical data for regions, divisions, and States are shown only for selected Census years. In presenting statistics for earlier Census years, headnotes, footnotes, or the wording of the stub or column headings indicate any significant differences in comparability which may have resulted from changes in the wording of the inquiries, in the instructions or definitions, or in the procedures followed in collecting and compiling the data. The text discussion for the various items gives further information in regard to the comparability of the data. The tabular presentation is supplemented by graphic presentation through the use of maps and charts.

**Other published data.**—Data on farm facilities and farm equipment for the 1954 Census of Agriculture, in addition to those published in this volume, are given in other reports as indicated in table on page 177.

Additional data and analysis of data on farm mechanization also will be found in Part 4, "Agriculture, 1954, A Graphic Summary," of Volume III—Special Reports for the 1954 Census of Agriculture.

Data for prior Censuses of Agriculture are available for some facility and equipment items not enumerated in the 1954 Census of Agriculture. The table—FARM FACILITY AND EQUIPMENT ITEMS FOR WHICH AN INQUIRY WAS INCLUDED IN THE CENSUS OF AGRICULTURE: 1920 to 1954—indicates the Censuses for which an inquiry was included on the Census Questionnaire.

For the data for the earlier Censuses for items not included in this chapter, see the reports for those Censuses. Data for housing facilities for rural-farm dwelling units were collected for the 1950 Census of Population and Housing and are published in series H-A or in Volume I of the Reports for the 1950 Census of Housing.

**History of Census inquiries on farm facility and farm equipment items.**—Information on farm facility and farm equipment items was first secured in the Census of Agriculture for 1920. Data were obtained for the six items shown in the table on page 177. Although the wording of the inquiry was different, data for these six items were also collected in the 1954 Census. For each Census since 1920, the number of items and the wording of the inquiry were designed to secure data for items for which there was significant interest. Inquiry was made for four items in 1925; eleven items in 1930; no items were included in 1935; nine items in 1940; nineteen items in 1945; twenty-three items in 1950; and eighteen items in 1954.

A measure of farm mechanization was secured in most Censuses from 1850 to 1945 through the inclusion of an inquiry for value of implements and machinery in the Census Questionnaire. These data are published in Volume II for the 1945 Census of Agriculture.

## DEFINITIONS AND EXPLANATIONS

The descriptive terms and explanations refer principally to the 1954 Census of Agriculture. In general, they are applicable to earlier Censuses. The definitions consist primarily of a résumé of the questionnaire wording, occasionally supplemented by the more essential parts of instructions and procedures for enumerating and processing the questionnaires. For the exact phrasing of the inquiries, reference should be made to the facsimile of the 1954 Agriculture Questionnaire shown in the Appendix to this volume. The inquiries regarding farm facilities and farm equipment were the same in all States.

Definitions having a general application, such as those for "farms reporting" and "operators reporting" and factors influencing the reliability of the data are discussed in the Introduction to this volume and will not be considered in this chapter, unless of particular significance in respect to the subject under consideration.

**A farm.**—For 1954, as for 1950, places of 3 or more acres were counted as farms if the annual value of agricultural products, 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 annual value of sales of agricultural products

<sup>1</sup> Farm production: Persons supported by production per farm worker, total farm employment, and total population, United States, by decades 1820-1950, annual 1950-1955. Agricultural Research Service, U. S. D. A.

OTHER PUBLISHED DATA FOR FARM FACILITIES, FARM EQUIPMENT: 1954 CENSUS OF AGRICULTURE

[All data for 1954 and 1950 and a part of the data for 1945 are based on reports for only a sample of farms. See text]

Where found	Geographic area for which available	Period	Presentation of data
Volume I.—Counties and State Economic Areas, Parts 1 to 33.	Counties and State.....	1954 and 1950	County Table 5.—County totals for facility and equipment items enumerated in the 1954 Census of Agriculture with comparative data from the 1950 Census of Agriculture.
	Economic areas and State.....	1954 and 1950	Economic Area Table 2.—Economic Class of Farm. Economic areas within a State and the State total for facility and equipment items enumerated in the 1954 Census of Agriculture for each economic class of commercial farms and for part-time, residential, and abnormal farms.
			Economic Area Table 5.—Type of Farm. Economic areas within a State and the State total for facility and equipment items enumerated in the 1954 Census of Agriculture for each type of commercial farm and for miscellaneous and unclassified farms.
			Economic Area Table 8.—Tenure of Operator. Economic areas within a State and the State total for facility and equipment items enumerated in the 1954 Census of Agriculture for each tenure of operator of commercial farms only and total for other farms.
State only.....	1954	State Table 4.—State totals for facility and equipment items enumerated in the 1954 Census of Agriculture for each tenure of operator of commercial farms only and totals for other farms.	
	1920 to 1954	State Table 6.—State totals for facility and equipment items enumerated in the 1954 Census of Agriculture with available comparative data from earlier Censuses to 1920.	
Volume II.—General Report, Chapter X.	States, Geographic divisions, Regions, and United States.	1954 and 1950	Tenure of Operator. Region, division, and State totals for facility and equipment items enumerated in the 1954 Census of Agriculture for each tenure of operator for commercial farms only and totals for other farms.
Volume II.—General Report, Chapter XI.	States, Regions, and United States.	1954 and 1950	Economic Class of Farm. Region and State totals for facility and equipment items enumerated in the 1954 Census of Agriculture for each economic class of commercial farms and for part-time, residential, and abnormal farms.
Volume II.—General Report, Chapter XII.	States, Regions, and United States.	1954 and 1950	Type of Farm. Region and State totals for facility and equipment items enumerated in the 1954 Census of Agriculture for each type of commercial farms and for miscellaneous and unclassified farms.
Volume III.—Special Report, Part 8.	Economic subregions and United States.	1954	Totals for 119 economic subregions for facility and equipment items enumerated in the 1954 Census of Agriculture. These provide analytical data indicating characteristics of farms classified by economic class of farm for selected types of farms for selected States.

amounted to \$150 or more. Places for which the value of agricultural products for 1954 was 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.

**Count of farms reporting specified facility and equipment items.**—The Agriculture Questionnaire provided for a “no” or “yes” response to indicate the presence of each of the following specified facility and equipment items on the place:

Section XII.—FACILITIES AND EQUIPMENT NOW ON THIS PLACE			
Include equipment and facilities that are temporarily out of order.			
[99] Do you have on this place—			
(a) Telephone? . . . . .	<input type="checkbox"/> No <input type="checkbox"/> Yes	(f) Electric pig brooder? . . . . .	<input type="checkbox"/> No <input type="checkbox"/> Yes
(b) Piped running water? . . . . .	<input type="checkbox"/> No <input type="checkbox"/> Yes	(g) Milking machine? . . . . .	<input type="checkbox"/> No <input type="checkbox"/> Yes
(c) Electricity? . . . . .	<input type="checkbox"/> No <input type="checkbox"/> Yes	(h) Power feed grinder (suitable for grinding and crushing grain)? . . . . .	<input type="checkbox"/> No <input type="checkbox"/> Yes
(d) Television set? . . . . .	<input type="checkbox"/> No <input type="checkbox"/> Yes		
(e) Home freezer (for quick freezing and storing foods. Do not include refrigerator)? . . . . .	<input type="checkbox"/> No <input type="checkbox"/> Yes		

Office  
Use  
Only

The inquiry was designed for a “no” answer to report the absence of a specified item and for a “yes” answer to report the presence of a specified item. For some farm reports, neither “no” nor “yes” were checked by the respondent. The omission of a response is not to be considered the same as a farm reporting “no.” For those farms “not reporting” for a specified item, the response for some should have been “yes” while the response for others should have been “no.” The percentage of the farms not reporting was small for most items, as shown by the figures given in Table 4. In some instances where there was no reply to the inquiry, the farm questionnaire was matched with that of another farm having similar characteristics and the missing entries were copied from the matched farm.

For the other facility and equipment items included on the 1954 Census Questionnaire, the respondent was asked to report the number of such items on the place. These were grain combines, corn pickers, pick-up balers, field forage harvesters, motortrucks, wheel tractors, garden tractors, crawler tractors, automobiles, and artificial ponds, reservoirs, and earth tanks.

The inquiry for facility and equipment items normally used in the farm home was asked to secure information for items located “on this place.” Facility and equipment items temporarily out of order were included, and all equipment on the place was included whether owned by the person in charge or by others. The inquiry did not restrict the response to location in the operator’s house and the inquiry was made even though the farm did not have buildings.

**Telephone.**—In 1954, the questionnaire inquiry, “Do you have on this place—Telephone?”, is comparable to the 1950 inquiry worded, “Is there a telephone on this place?” In 1945, the inquiry read, “Does farm dwelling have telephone?” In 1940, 1930, and 1920, the inquiry for telephones merely specified “on farm.” The more restricted definition in 1945 may have resulted in the omission of some farms from the count of those with telephones. This could have been true if (a) the telephone were in a second dwelling on the farm, or (b) if the telephone were in a nondwelling structure on the farm. There were approximately 238,000 farms in 1945 which had 2 or more occupied dwellings and for which no telephone was reported.

Of the farms with dwellings for which the enumerator reported presence or absence of a telephone, 33.6 percent were reported as having a telephone. The number of farms with a telephone in a nondwelling structure and no telephone in the farm dwelling was probably negligible. If the farms in 1945 which had 2 or more occupied dwellings for which no telephone was reported had a similar percent with telephones as those farms with dwellings for which the enumerator reported a telephone, the maximum number of farms in 1945 with telephones which were omitted from the 1945 Census because of the restricted definition could not have exceeded 80,000. The actual number omitted probably would be considerably less as most of these additional dwellings were occupied by hired farm workers who, it is believed, would be less likely to have telephones than the farm operators.

**Piped running water.**—In 1954, the inquiry was worded, “Do you have on this place—Piped running water?” The instructions were to report “yes” for water piped from a pressure system or by gravity flow from a natural or artificial source. If the water was from a hand pump, even though the pump was inside the dwelling unit, the instructions stated that the report should be “no.” In 1950, the inquiry was restricted to “Do you have—Electric water pump?” In 1945, 1930, and 1920, the inquiry on piped running water was less inclusive than the inquiry in 1954. In 1945, the inquiry referred to the “farm dwelling”; in 1930, to the “farmer’s dwelling”; and in 1920, to the “operator’s dwelling.” An inquiry on running water was not included in the 1940 Census of Agriculture; however, the data presented for 1940 relate to rural-farm dwelling units with running water as published for the 1940 Census of Housing.

**Electricity.**—In 1954, as in 1950, the inquiry on electricity, similar to that for telephone, specified “on this place.” In 1954, there was no inquiry regarding the source of electricity; however, in 1950, provision was made on the questionnaire for indicating whether the electricity was from a power line or from a home plant.

In 1945, 1940, and 1930, the inquiry on electricity was less inclusive than the inquiry in 1954 and 1950. In 1945 and 1940, the inquiry referred to electricity in the “farm dwelling”; and in 1930, to electricity in the “farmer’s dwelling house.” In these earlier years, some farms with electricity in buildings other than the farmer’s dwelling or with electricity used only for the purpose of pumping irrigation water, etc., may not have been counted as farms with electricity. In 1920, the inquiry was for “gas or electric light in operator’s house.”

**Television set.**—The 1954 Census of Agriculture was the first Agriculture Census to have an inquiry for a television set. The most nearly comparable data for 1950 were obtained in the 1950 Census of Housing for the number of rural-farm dwellings having television sets.

**Home freezer.**—A count of farms with home freezers was obtained for both the 1954 and 1950 Censuses.

**Electric pig brooders.**—No data for electric pig brooders were obtained for any Census of Agriculture prior to 1954. The 1954 Census instructions to enumerators were to include electric pig brooders heated by an electric heating element, by an infrared or heat bulb, or by ordinary electric bulbs. Home-made electric pig brooders were to be included.

**Milking machines.**—Milking machines were first enumerated in 1945 and have been included on the questionnaire for both the 1954 and the 1950 Censuses. The figures represent the number of farms with milking machines and do not represent the number of units.

**Power feed grinders.**—In 1954, the inquiry for power feed grinders specified “on this place.” No provision was made on

the questionnaire for indicating the type of power used to operate the feed grinder. In the 1950 Census, the inquiry for power feed grinders was limited to those operated by electricity.

**Number of facility and equipment items on farms.**—In 1954 the respondent was asked to report the number of specified items on the place as follows:

100. HOW MANY OF THE FOLLOWING ARE ON THIS PLACE— Include equipment, whether owned by you or by others, kept on this place.			
	Number		Number
(a) Grain combines (for harvesting and threshing grains or seeds in one operation)? . . . . .		(f) Wheel tractors other than garden? . . . . .	
(b) Corn pickers? . . . . .		(g) Garden tractors? . . . . .	
(c) Pick-up balers? . . . . .		(h) Crawler tractors (track-laying, caterpillar)? . . . . .	
(d) Field forage harvesters (for field chopping of silage and forage crops)? . . . . .		(i) Automobiles (belonging to you, to hired workers, or to others living on this place)? . . . . .	
(e) Motortrucks (include pick-ups)? . . . . .		(j) Artificial ponds, reservoirs, and earth tanks? . . . . .	

The enumerator was instructed to exclude stationary hay balers from the pick-up baler count. In reporting motortrucks and automobiles, "pickups" and "truck-trailer" combinations were to be reported as trucks. School buses were not to be included. Jeeps and station wagons, if used primarily as trucks, were to be included as motortrucks; or, if used primarily as passenger vehicles, were to be included as automobiles.

Separate counts were also made for wheel tractors (other than garden tractors), garden tractors, and crawler tractors. Wheel tractors were to include homemade tractors but were not to include implements with built-in power units, such as self-propelled combines, powered buck rakes, power units of a truck-trailer combination, etc. Garden tractors were not defined. The automobile count was to include automobiles owned by the farm operator, by hired workers, or by others living on the place.

No data for artificial ponds, reservoirs, and earth tanks were obtained in any Census of Agriculture prior to 1954.

**Farms by class of work power.**—Farms were classified on the basis of the presence of horses, mules, and tractors, as follows: (a) farms with no tractors, horses, or mules; (b) farms with no tractor but only 1 horse or mule; (c) farms with no tractor but 2 or more horses and/or mules; (d) farms with tractor and horses and/or mules; and (e) farms with tractor but no horses or mules.

All horses and mules, regardless of age or purpose for which kept, were considered in determining the work-power classes.

In 1954, tractors other than garden tractors were considered in determining work-power classes. In 1950 and in 1945, tractors of all kinds, including garden tractors, were considered in determining work-power classes.

Many farms do not need work power. Some of these farms represent rural homes with very limited agricultural production. Others are poultry farms, dairy farms, livestock ranches, greenhouses, etc., with little or no cropland. For some farms, all the work power may be furnished by the landlord. Work power was to be reported on the farm where located at the time of the enumeration regardless of ownership.

Some farms classified as having work power may have horses or mules kept only for nonfarm work, or for purposes other than for work power. Some farms may have tractors, work power, etc., only for the purpose of performing custom

work or furnishing work power to others. Some farms without work power may hire all or part of their work power from others.

**Changes for farms reporting farm facility and farm equipment items.**—The over-all number of farms declined 11.1 percent or almost 600,000 from 1950 to 1954. The decline occurred in every State except Florida and in all except 180 out of the 3,067 counties in the United States.

Nearly two-thirds of the decrease in the number of farms was in the number of Class V and Class VI commercial farms with product sales of less than \$2,500. Almost half of the decrease was in farms of less than 50 acres.

As farm mechanization of agricultural operations has increased, farms have decreased in number. Farm operators have found themselves able to handle more land. There has also been a growing combination of farms in order to utilize more fully and efficiently modern power and equipment.

Between 1950 and 1954, land in farms decreased only 0.03 percent as compared with the 11.1 percent decline in the over-all number of farms. The increase of 5.1 percent in farms of 500 to 999 acres, and 7.5 percent in farms of 1,000 acres and over, from 1950 to 1954, indicates a continuation of the growth in the number of large farms. During the last 30 years the number of farms of 500 acres or more has increased 55.5 percent. Farms of this size in 1954, comprised over 6.7 percent of the nation's farms.

There has been a significant increase in the relative importance of farms of less than 10 acres during the last 30 years. Farms of less than 10 acres comprised less than 6 percent of all farms in 1925, but in 1954 made up 10.1 percent of all farms. The significant increase in farms of less than 10 acres has resulted largely from the increasing number of part-time farms. Automobiles, better roads, and other facilities like electricity and telephones, in rural areas, have encouraged farmers and others to live in the country and commute to jobs in nearby towns.

Almost half of the farms had telephones and more than 9 out of 10 farms had electricity in 1954. The number of farms with telephones was 13 percent higher in 1954 than in 1950. Notwithstanding the increase from 1950 to 1954 in the number of farms with telephones, there were fewer farms with telephones in 1954 than in 1920. A considerable part of the decline in farms with telephones following 1920 resulted from the disappearance of farmer or cooperative owned telephone facilities in rural areas. However, the percentage of farms with telephones was 48.8 in 1954 as compared with 38.7 in 1920. The proportion of farms with telephones was higher in 1954 than in 1950 in every State.

A rapid increase occurred since 1950 in the number of farms with home freezers. In 1954, one out of three farms had a home freezer; in 1950, only one out of eight farms had such equipment. The highest proportion of farms with home freezers was in the West where 178,776 farms, or 42.3 percent of all farms, had home freezers. In the North, 41.1 percent of the farms had home freezers as compared with only 22.5 percent of the farms in the South.

By 1954, more than a third of all farms in the United States had television sets. The highest proportion of farms with television was in the North, where 46.8 percent of the farms had television. In the West, 37.8 percent of the farms had television sets and in the South, 25.2 percent reported television sets. As a group, the Middle Atlantic States had the highest proportion of farms with television sets—63.2 percent; and among individual States, New Jersey, with 82.6 percent, had the highest proportion of farms with television sets. Farms with television sets were concentrated in areas around television stations. In some areas, farms were too distant from

television stations to have satisfactory television reception. For the United States, less than 3 percent of rural-farm homes in 1950 had television sets. By 1954, 35.5 percent of all farms had television sets.

More than 4.4 million farms, or 93.0 percent of all farms, had electricity in 1954. In 1950, 4.2 million farms, or 78.3 percent of all farms, had electricity. Almost 4 million farms have obtained electricity since 1920, and 2.4 million farms have obtained electricity since 1940. More than 9 out of 10 farms in all except 9 States had electricity in 1954 and for each of these 9 States the percent increase since 1950 in farms having electricity was at a higher rate than the increase reported for farms in the United States as a whole.

The figures from the 1954 Census indicate the continued growth of farm mechanization from 1950 to 1954. Farms with milking machines increased 11.9 percent; farms with grain combines increased 39 percent; farms with corn pickers, 51 percent; and farms with pick-up balers increased 131 percent. Over 350,000 more farms had tractors in 1954 than in 1950, and the number of tractors on farms increased more than a million. The substitution of tractors for horses and mules continued at a rapid rate during the last 5 years. Almost 3.5 million horses and mules disappeared from farms between 1950 and 1954. Now more than 1.8 million farms are operated with tractors without horses or mules. With the increasing development and use of power equipment fitted to smaller farms, it is to be expected that more farms will be operated without horses and mules.

The number of farms with motortrucks increased almost 400,000 from 1950 to 1954 and the number of motortrucks on farms increased almost a half million during this five-year period. In 1954, over 46 percent of all farms had one or more motortrucks. Among the regions, the highest proportion of farms with motortrucks was in the West where 7 out of 10 farms had motortrucks. In the North, 5 out of 10 farms had motortrucks and in the South, fewer than 4 out of 10 farms had motortrucks.

#### NUMBER OF TRACTORS<sup>1</sup> PER 1,000 ACRES OF CROPLAND HARVESTED, BY REGIONS AND GEOGRAPHIC DIVISIONS: 1920, 1930, 1940, 1945, 1950, AND 1954

[Data for 1954 and 1950 are based on reports for only a sample of farms. See text]

Geographic division	1920	1930	1940	1945	1950	1954
United States.....	0.7	2.6	4.9	6.9	9.8	13.0
The North.....	0.8	3.1	6.1	7.8	10.2	12.6
The South.....	0.3	1.3	2.6	4.9	9.1	14.0
The West.....	1.3	3.0	5.3	6.8	9.9	12.5
New England.....	0.6	3.9	8.4	13.5	18.8	25.0
Middle Atlantic.....	0.8	5.7	9.4	14.2	19.7	24.6
East North Central.....	0.9	4.4	7.9	10.5	13.7	17.0
West North Central.....	0.8	2.3	4.7	5.7	7.5	9.4
South Atlantic.....	0.4	1.7	2.2	4.9	10.5	17.7
East South Central.....	0.2	1.0	1.6	3.6	9.2	15.7
West South Central.....	0.4	1.3	3.4	5.4	8.3	11.4
Mountain.....	1.1	2.1	4.1	5.2	7.7	10.4
Pacific.....	1.6	4.8	7.0	9.3	13.3	15.5

<sup>1</sup> 1954 and 1950 figures are for tractors other than garden.

The growth of farm mechanization is further indicated by the increase in number of tractors used per 1,000 acres of cropland harvested. In 1920 less than one tractor was available for each 1,000 acres of cropland harvested for the United States; by 1954 there were 13 tractors for each 1,000 acres of cropland harvested.

The greatest percentage increase between 1950 and 1954 in the number of tractors occurred in the South. In West Virginia, the percent increase in the number of tractors was 77.4 percent and in North Carolina the increase was 71.4 percent.

With the growth in mechanization and use of tractor power, there has been a decline in the number of horses and mules on farms. The number of horses and mules per 1,000 acres of cropland harvested has declined for the United States from 72 in 1920 to only 12 in 1954.

#### PERCENTAGE OF FARMS REPORTING TRACTORS (OTHER THAN GARDEN); REPORTING WORK ANIMALS BUT NO TRACTORS; AND REPORTING NO WORK POWER; BY ECONOMIC CLASS OF FARM: FOR THE UNITED STATES: 1954

Economic class	Percentage of farms having tractors (percent)	Percentage of farms having work animals but no tractors (percent)	Percentage of farms having no work power (percent)	Total (percent)
All farms.....	58.0	17.4	24.7	100.0
Commercial farms <sup>1</sup> .....	71.1	14.0	14.9	100.0
Other farms <sup>1</sup> .....	28.0	25.0	47.0	100.0
Commercial <sup>1</sup> :				
Class I (\$25,000 and over).....	91.0	2.2	6.8	100.0
Class II (\$10,000 to \$24,999).....	92.4	2.1	5.5	100.0
Class III (\$5,000 to \$9,999).....	89.3	4.0	6.7	100.0
Class IV (\$2,500 to \$4,999).....	76.0	10.7	13.2	100.0
Class V (\$1,200 to \$2,499).....	56.3	21.0	22.7	100.0
Class VI (\$250 to \$1,199).....	32.4	38.4	29.2	100.0
Other farms:				
Part-time <sup>1</sup> (\$250 to \$1,199).....	41.9	23.6	34.4	100.0
Residential <sup>1</sup> (Less than \$250).....	18.8	25.9	55.3	100.0
Abnormal <sup>1</sup> .....	73.9	7.8	18.3	100.0

<sup>1</sup> The classification of commercial farms and residential farms was made on the basis of the total value of farm products sold. Part-time farms include those with a value of farm products sold of \$250 to \$1,199 and for which the farm operator reported that he worked off the farm 100 days or more in 1954, or that the income received by him and members of his family from nonfarm sources exceeded the value of farm products sold. Abnormal farms comprise institutional and similar kinds of farms.

Even though the number of farms declined 11.1 percent between the 1950 and 1954 Censuses, the total number of farms reporting tractors, excluding garden tractors, increased from 2,433,168 in 1950 to 2,773,074 in 1954. Between 1950 and 1954 the number of farms reporting 3 or more tractors almost doubled; farms reporting 2 tractors increased 44.6 percent. There was a slight decrease (2.4 percent) in the number of farms with only one tractor. The use of more tractor units per farm is consistent with the increase in the average size of farm operation and particularly in the increase of those farms containing 500 acres or more. The number of garden tractors increased substantially (61 percent) during this period.