

CHAPTER III. Equipment and Facilities

Historical Background

Mechanization, which has progressed at an ever accelerating pace since the invention of the reaper in 1831, surged forward with the advent of the internal combustion engine. Through the use of power takeoffs, this power was transferred to an expanding variety of implements in the twenties and thirties. By the middle of this century, larger engines and tractors, three-point hitches, hydraulic hook-ups, and a proliferation of new and larger farm implements made it possible for one man to run the equivalent of a factory in a field.

From an all time high of 13.6 million persons involved in paid and unpaid farm work in 1910, farm employment decreased to 4.4 million persons by 1974. From 1910 to 1974, the U.S. population increased from 92 million to 208 million. Hence, population more than doubled between 1910 and 1974, while farm employment during that same period fell to one-third of the 1910 level. These statistics illustrate the change in our society from largely rural to largely

urban. The increased scientific training of our Nation's farm operators, aided by their use of more sophisticated farm machinery with increased per-unit capability, has made this transformation possible.

Availability of Data

Data enumerated in 1974 for farm equipment, in addition to those published in this chapter, are indicated in table 1.

Data Requested

Farm equipment for which 1974 data are available refer to specific items of equipment usually kept on the farm, regardless of ownership, if they were used for farm or ranch business in 1973 or 1974. Respondents were asked to identify the number of pieces of each equipment item manufactured in the last 5 years (1970-74). Respondents were provided no additional clarifications other than the instructions appearing in the census forms.

The estimated market value of machinery and equipment first collected for 1969 was again obtained for 1974. Prior to 1969, this data had not been available from the census since 1945. This estimated value was to include not only the value of the items specified on the report form but also the value of all other farm machinery such as plows, disks, harrows, pumps, motors, irrigation equipment, dairy equipment including milkers and bulk tanks, livestock feeders, grinders, etc., usually kept on the farm and used for the farm business.

In 1974, both the A1 report form, used for farms with sales of \$2,500 and over, and the A2 report form, used for farms with sales of under \$2,500, requested the same information about machinery and equipment. Facsimiles of the machinery and equipment sections used, section 27 of A1 and section 8 of A2, are shown on pages 2 and 3.

The machinery and equipment items which have been covered in the censuses of agriculture have varied from census to census. Various items of equipment have been added or deleted from the census forms based on the need to measure new trends in farm machinery.

Table 2 shows for each of the 1974 inquiries tabulated for all farms the availability of comparable census data from 1920 to 1969. Table 3 shows data available for farms with sales of \$2,500 and over from 1950 to 1974.

Comparability of Data

From 1969 to 1974, the number of farms decreased by about 416,000 or 15 percent. Approximately 91 percent of the total decrease was accounted for by farms

Table 1. Other Published Data for Farm Equipment: 1974

	Geographic area	Time period	Classification
VOLUME I			
State tables:			
6.....	State.....	1974, 1969, and 1964	All farms
9.....	State.....	1974.....	All farms and farms with sales of under \$2,500 by occupation and age
19.....	State.....	1974, 1969, and 1964	Farms with sales of \$2,500 and over
28.....	State.....	1974.....	By tenure and type of organization
29.....	State.....	1974.....	By age and principal occupation
30.....	State.....	1974.....	By size of farm
31.....	State.....	1974.....	By value of agricultural products sold
32.....	State.....	1974.....	By standard industrial classification of farms
33.....	State.....	1974.....	By standard industrial classification of farms by value of sales
County tables:			
6.....	County and State.....	1974 and 1969.....	All farms and farms with sales of \$2,500 and over
VOLUME II			
Parts 2, 3, 7, and 8.	State, Division, Region and United States.....	1974 and 1969.....	All farms or farms with sales of \$2,500 and over as designated.