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# Federal Reserve Bank of Chicago - -

March 17, 1967

**TOTAL FARM MACHINERY** and equipment expenditures by United States farmers rose further in 1966. Farm tractor purchases (by far the major farm equipment expenditure) rose sharply from the previous year—up 14 percent. Purchases of self-propelled combines and corn heads for combines were also higher although purchases of some other types of harvesting equipment declined.

Moreover, much of the equipment purchased during 1966 was of larger capacity. For example, the proportion of tractors with horsepower of 80 or more rose from 24 percent in 1965 to 27 percent last year. Similarly, purchases of combines with harvesting heads of 16 feet or more rose from 34 percent of the total to nearly 40 percent, and the proportion of four-row and larger corn heads for combines rose from 15 percent to about 25 percent.

## Tractors Lead Sales of Farm Equipment

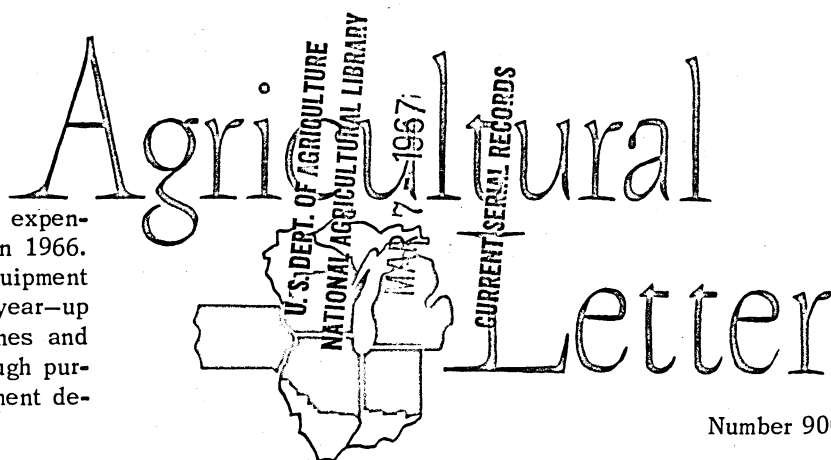
|                           | Change from 1965 |      |      |       |      |                       | United States |
|---------------------------|------------------|------|------|-------|------|-----------------------|---------------|
|                           | Ill.             | Ind. | Iowa | Mich. | Wis. | Five states (percent) |               |
| Farm tractors             | + 9              | +14  | +25  | + 8   | +29  | +16                   | +14           |
| Corn heads (for combines) | -11              | - 8  | +26  | - 7   | +30  | - 1                   | + 6           |
| Combines                  |                  |      |      |       |      |                       |               |
| Self-propelled            | -13              | - 6  | + 7  | + 2   | + 7  | - 5                   | + 5           |
| Pull-type                 | -53              | -34  | -33  | -25   | -18  | -32                   | -13           |
| Hay balers                | -15              | - 6  | - 4  | - 8   | + 7  | - 3                   | -11           |
| Corn pickers              | -29              | -18  | - 6  | -22   | + 7  | -15                   | -14           |

SOURCE: Farm and Industrial Equipment Institute.

Tractor purchases were also sharply higher in each of the Seventh District states. Iowa farmers purchased about 25 percent more tractors than a year earlier, and in Wisconsin purchases were up 29 percent. Purchases of harvesting equipment, however, declined in most areas of the District, especially in Indiana and Illinois where crop output was down from the preceding year. Corn production was down about 10 percent in both states and soybean production declined 9 and 11 percent, respectively.

Demand for farm machinery during recent years has been spurred by the continued attempt on the part of farmers to achieve a greater degree of mechanization. While a number of factors, such as timely planting and harvesting, have undoubtedly contributed to this trend, a major underlying factor has been the relatively sharp rise in farm wages and the inability to obtain qualified workers. Farmers have faced increased competition from nonfarm employers, especially during periods of economic boom such as that of the past five years. Legislation restricting the employment of foreign labor and establishing minimum wages in closely related industries, more recently in agriculture, has also tended to boost average wages of farm workers. Since the early Fifties the average wage rate paid by farmers has risen by more than four-fifths.

Replacement demand has also been an important factor boosting machinery expenditures. Machines pur-

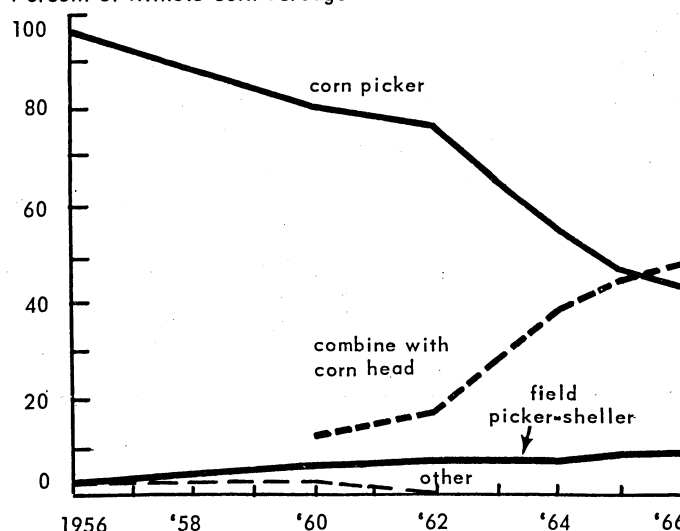


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chased in prior years are continually reaching retirement age. More important, however, is the fact that obsolescence has been accelerated by improvements on older types and developments of new types of machinery. This trend is evident to some degree in the rapid shift to equipment of larger capacity. More striking perhaps is the shift to new types of machines, such as in corn harvesting equipment. In the Thirties and Forties, the transition was from hand husking to mechanical picking. In recent years, the combine with corn head and the picker-sheller have been rapidly replacing the mechanical picker. Since about the mid-Fifties, field shelling equipment has increased rapidly and in 1966 was used to harvest nearly three-fifths of corn acreage in Illinois.

## Field Shelling Equipment Replaces Corn Picker

Percent of Illinois corn acreage



Many observers expect farm equipment purchases to rise further during 1967, reflecting the anticipated increase in crop acreage as well as the continued trend toward further mechanization. Winter wheat acreage is up by more than one-fourth and feed grains and soybean acreages are also expected to show sizable increases. The larger acreage and production, if it materializes, should affect summer purchases of harvesting equipment as well as the recent winter and spring purchases of machinery for soil preparation and planting. These expectations could be moderated, however, by continued unfavorable weather conditions, especially in the Southern Plains where moisture conditions are currently critical, or by continued decline in farm prices from the relatively high year-earlier levels.

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