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# LETTER

**FARM EQUIPMENT SALES** are continuing at a very sluggish pace this year, failing to achieve the sharp upturn most analysts had expected. According to the Farm and Industrial Equipment Institute (FIEI), unit retail sales of most major farm equipment items continued to lag year-ago levels during the first three months of this year. The principal exceptions to this trend were sales of tractors and forage harvesters. In light of the disappointing first quarter sales figures, industry estimates of 1984 farm equipment sales have been scaled back somewhat from earlier expectations.

The first quarter weakness in farm equipment sales extended the period of depressed conditions in the industry that started in 1980. Unit sales of major farm equipment items last year were 50 percent or more below 1979 levels, the last strong sales year for farm equipment. The sharp downturn in sales is indicative of the financial stress among farmers in the 1980s and, in 1983, the government farm programs that substantially lowered crop acreage. These factors have contributed to a sharp decline in capital expenditures by farmers on machinery and equipment that, with the exception of farm tractors, apparently continued through the first quarter of this year.

The extent of the downturn in sales varies widely across different types of equipment. Unit sales of self-propelled combines and grinder-mixers in the first quarter registered the sharpest declines, down 35 and 41 percent, respectively, from year-ago levels. Forage harvester and corn head sales through the first three months of the year were down 23 and 31 percent, respectively. Sales of small balers showed a year-to-year drop of 7 percent through March, while sales of windrowers were 4 percent off the year ago pace.

In contrast to the continued slide in sales of most farm equipment items in the first three months of the year, sales of tractors—including units with less than 40 horsepower—and forage harvesters recorded gains of 5 and 6 percent, respectively, from the levels of a year ago. The rise in unit sales of tractors was paced by a strong upturn in the sales of large tractors. First quarter sales of

## First Quarter Unit Sales of Farm Equipment in the U.S.

	January-March			Percent Change	
	1979	1983	1984	1983-84	1979-84
Tractors, 40 plus HP					
Two-wheel drive					
40-99 HP	15,131	8,258	9,496	+15.0	-37.2
100-139 HP	11,533	3,598	2,278	-36.7	-80.2
140 HP or more	5,847	2,313	3,547	+53.4	-39.3
Four-wheel drive	2,036	974	1,197	+22.9	-41.2
Total	34,547	15,143	16,518	+ 9.1	-52.2
Self-propelled combines	3,248	3,106	2,010	-35.3	-38.1
Balers (bales under 200#)	2,368	1,231	1,149	- 6.7	-51.5
Forage harvesters	834	475	365	-23.2	-56.2
Mower conditioners	3,073	1,779	1,891	+ 6.3	-38.5
Windrowers	813	393	376	- 4.3	-53.8
Grinder-mixers	4,714	1,744	1,024	-41.3	-78.3
Corn heads	1,809	1,790	1,242	-30.6	-31.3

SOURCE: Farm and Industrial Equipment Institute.

two-wheel drive tractors with 140 horsepower or more jumped 53 percent from a year ago, while sales of four-wheel drive tractors with 200 horsepower or more were up 34 percent.

Farm equipment sales in the five states in the Seventh Federal Reserve District—a major market for much of this equipment—were somewhat weaker than for the overall United States. Tractor sales, including units with less than 40 horsepower, were down more than 13 percent from the year-ago level during the first quarter, while sales of self-propelled combines dropped 50 percent. District sales of corn heads and forage harvesters were off the year-ago pace by more than a third during the first quarter, while sales of small balers fell nearly a fifth. Sales of mower conditioners, up more than 16 percent in District states, were stronger than the national trend.

Although inventories of most farm equipment are down from the levels of a year ago, inventories of most equipment items included in the FIEI report remain at levels near or well above the previous twelve months' sales. Inventories of tractors with 40 or more horsepower at the end of March were down 3 percent from a year ago, led by a large reduction in four-wheel drive trac-

tors. Nevertheless, March inventories of tractors with 40 or more horsepower equalled almost 94 percent of the sales made during the previous twelve months. Combine inventories, however, were 3 percent above the March 1983 level and represented 121 percent of sales in the preceding twelve month period. Similarly, grinder-mixer inventories were up 9 percent from a year ago and exceeded sales by 11 percent. Inventories of other farm equipment items registered year-to-year declines in March, but held well above the level of sales for the previous 12 months. As a result of the large inventories, an appreciable rise in equipment sales must be realized before manufacturers' production schedules pick up.

**For the rest of this year**, analysts are still projecting an upturn in farm equipment sales, but optimism concerning the extent of the upturn has waned somewhat from earlier estimates. A March survey of FIEI member firms indicated a consensus forecast for an 8 percent increase in the dollar volume of farm equipment sales this year, down from the 10 percent forecast reported in January. The survey projected sales of 78,000 farm tractors with 40 or more horsepower this year, slightly less than the earlier survey, but more than 9 percent above unit sales in 1983. Larger tractors, particularly four-wheel

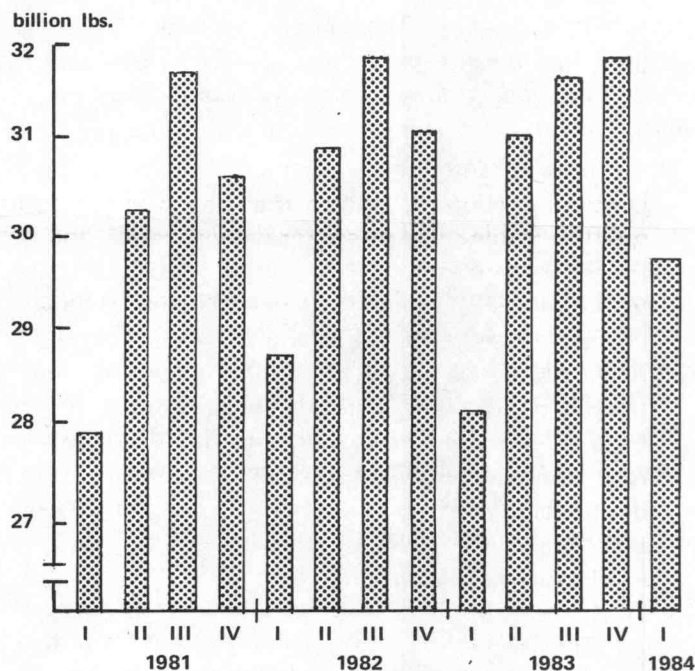
drive units are expected to lead the rise with an 18 percent year-to-year increase in 1984. The forecast for self-propelled combine sales, at 16,000 units, was trimmed considerably from the earlier forecast, but would still represent a 25 percent increase from last year's level. Corn head and windrower sales are expected to record similar increases. Forecasts for mower conditioner and grinder-mixer sales indicate increases of 4 and 7 percent, respectively, from year-ago levels. However, sales of small balers are projected to fall below the 1983 level by 4 percent, while unit sales of forage harvesters in 1984 are expected to remain virtually unchanged from the year-ago level.

Respondents to the FIEI survey noted several factors that contributed to their expectations of an increase in farm equipment sales this year: improvements in commodity prices and farm income, the availability of credit, and pent-up demand that has been building over the four-year decline in farm equipment sales. Another major factor cited was the optimistic forecast of planted acreage in 1984. The consensus of surveyed members was that corn and soybean acreage would approximate 1982 levels, although many other analysts are looking for a somewhat smaller rise in soybean acreage.

**MILK PRODUCTION** during the first quarter was virtually unchanged from the same period of a year ago. However, the extra milking day in February this year added about 3 percent to output per cow and total milk production for that month. After adjusting for the additional day, first quarter milk production was down about 1 percent from a year ago. Moreover, a year-to-year downtrend through the period becomes clearly evident. After holding at the year-ago level in January, milk output in February and March fell by 1 and 3 percent, respectively, from year-earlier levels, and April was off 2.5 percent. During the first quarter, milk prices received by farmers, adjusted for the 50 cent per hundredweight assessment, averaged 6 percent less than a year ago, which held cash receipts to dairy farmers during the three month period below last year's level. However, lower prices also spurred commercial disappearance and contributed to a sharp decline in government purchases of manufactured dairy products.

Output per cow in the first quarter, after adjusting for the extra day in February, was down slightly from the same period a year ago. Moreover, the number of dairy cows, after holding at the year-ago level in January, declined in February and March and averaged 1 percent lower for the three month period. The decline in dairy

**Commercial use of milk in all products**



cow numbers during the first quarter reflects the culling of herds, especially among participants in the paid diversion program for milk producers.

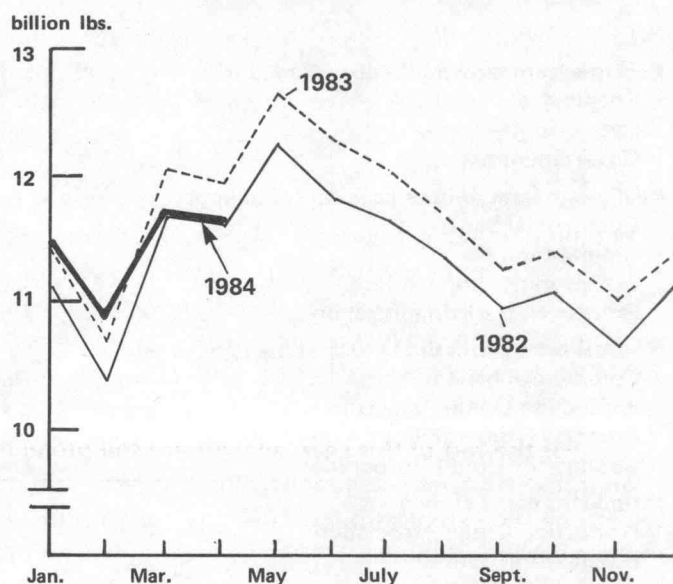
In District states, the downtrend in milk production was slightly more apparent. After adjusting for the extra day in February, milk output during the first quarter was 2 percent below year-ago levels in Illinois and Wisconsin, and down 3 percent in Iowa. However, in Indiana and Michigan—the District states with the lowest proportion of dairy farmers enrolled in the paid diversion program—first quarter milk production was stable to up 1 percent after the leap year adjustment.

Milk prices received by farmers trended seasonally lower during the first three months of the year and were below year-ago levels. Farmers received an average of \$13.40 per hundredweight for all milk sold to plants during the first quarter, down from \$13.73 during the same period a year ago. Effective prices in the first quarter were actually 50 cents lower, reflecting the continuation of the producer assessment first imposed in April 1983. The lower prices and relatively high feed costs have combined to exert downward pressure on milk production through the first quarter. The milk/feed price ratio, which measures the number of pounds of 16 percent protein feed ration equal in value to one pound of milk, held at 1.33 through the first three months of the year, down almost 15 percent from the same months a year ago. It would have been even lower if adjusted for the 50 cent per hundredweight deduction in effect to help defray the cost of the paid diversion program.

Commercial disappearance of milk in all forms, after holding steady in 1983, jumped nearly 6 percent above year-earlier levels in the first quarter. The sudden surge reflects both an unusually low level during the "give-away" programs a year ago, as well as an apparent continuation of the upturn that began in the fourth quarter. Stable retail prices for dairy products and continued strengthening of the economy have contributed to the upturn in commercial disappearance. American cheese sales registered the largest increase, up nearly a fifth from a year ago. Sales of other cheese varieties in the first quarter gained about 7 percent from last year's level. Sales of non-fat dry milk and canned milk together rose nominally, as a sharp jump in non-fat dry milk disappearance offset a large drop in canned milk sales. Butter sales in the first quarter lagged the year-earlier level by more than 1 percent.

The downtrend in output of milk and the increase in commercial disappearance of milk in all forms contributed to the first year-over-year decline in government purchases of dairy products for any quarter since 1979. Government net purchases of manufactured dairy products—the mechanism through which the support price

U.S. milk production, 1982-1984



SOURCE: USDA.

of milk is maintained during periods of excess production—totaled 4.3 billion pounds (milk-equivalent, fat-solids basis) in the first quarter of this year, down 23 percent from the unusually high level of a year ago. Moreover, government purchases as a percent of first quarter milk marketings dropped to 13 percent, still very high by historical standards but down considerably from 16.5 percent a year earlier. Despite the marked decline in net purchases, stocks of dairy products remain at burdensome levels. The milk equivalent of government stocks of manufactured dairy products stood at 18.7 billion pounds in March, up 12 percent from the year-ago level.

USDA forecasts indicate continued year-to-year declines over the next two quarters in government removals resulting from cuts in milk production and greater commercial use than a year ago. The latest projection places milk production at 68 billion pounds during the second and third quarters, down 5 percent from the same period last year. Commercial use, however, is expected to exceed the year-ago level by 1 percent during the six month period. Consequently, government net removals for the second and third calendar quarters are projected to total 4.8 billion pounds, down 46 percent from the same period a year earlier. Despite the substantial reductions, government removals still must be cut almost in half by the expiration of the paid diversion program in March 1985 to prevent further cuts in the milk support price.



# Selected Agricultural Economic Indicators

	Latest period	Value	Percent change from		
			Prior period	Year ago	Two years ago
<b>Receipts from farm marketings (\$ millions)</b>	February	9,426	-20.8	- 7	- 8
Crops*	February	3,675	-37.1	- 4	-24
Livestock	February	5,536	- 7.7	-10	+ 3
Government payments	February	215	+270.7	+45	+191
<b>Real estate farm debt outstanding (\$ billions)</b>					
Commercial banks	December 31	9.29	+ 2.5†	+11	+12
Federal Land Banks	March 31	48.0	+ 0.1	+ 1	+ 7
Life insurance companies	February 29	12.6	- 0.4	- 1	- 3
Farmers Home Administration	December 31	9.76	+ 1.5†	+ 4	+ 8
<b>Nonreal estate farm debt outstanding (\$ billions)</b>					
Commercial banks	December 31	39.0	- 0.2†	+ 8	+19
Production Credit Associations	March 31	18.3	- 0.2	- 6	-12
Farmers Home Administration	December 31	15.4	- 2.9†	- 1	+ 2
Commodity Credit Corporation	December 31	10.7	-12.0†	-30	+34
<b>Farm loans made (\$ millions)</b>					
Production Credit Associations	March	2,988	+15.5	-12	-19
Federal Land Banks	March	366	+36.0	-17	-54
Life insurance companies	February	82	+39.0	+14	+141
<b>Interest rates on farm loans (percent)</b>					
7th District agricultural banks					
Operating loans	1st Quarter	13.74	+ 0.4	- 2	-20
Real estate loans	1st Quarter	13.36	+ 0.2	- 4	-20
Commodity Credit Corporation	May	10.88	+ 4.8	+19	-23
<b>Agricultural exports (\$ millions)</b>	March	3,823	+13.8	+20	+ 3
Corn (mil. bu.)	March	176	+11.6	+ 4	- 7
Soybeans (mil. bu.)	March	79	- 1.1	- 7	0
Wheat (mil. bu.)	March	127	+ 9.1	- 8	-23
<b>Farm machinery sales<sup>P</sup> (units)</b>					
Tractors, over 40 HP	April	7,899	+21.9	+12	- 3
40 to 139 HP	April	5,658	+21.5	+ 7	- 9
140 HP or more	April	2,241	+22.8	+26	+16
Combines	April	457	+50.3	-15	-23

\*Includes net CCC loans.

†Prior period is three months earlier.

<sup>P</sup>Preliminary

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