FEDERAL RESERVE BANK OF CHICAGO

AGRICULTURAL LETTER

ISSN 0002 - 1512

Number 1494 March 9, 1979

FARM TRACTOR AND EQUIPMENT SALES rebounded last year and further gains are expected in 1979. Estimates based on a recent survey of around 50 major manufacturers that are members of the Farm and Industrial Equipment Institute (FIEI) suggest dollar retail sales of farm equipment rose more than 15 percent last year. The increase reflected both higher prices and more unit sales of major types of equipment. For the current year, the median forecast of the member companies points to a rise of 7.5 percent in dollar sales. The FIEI noted, however, that a gain of 10 to 12 percent would be more consistent with the prospects for a further rise in unit sales and the continuing inflationary pressures.

Sales of farm tractors with 40 or more horsepower rose to nearly 140,000 units last year. That was almost 7 percent more than in 1977, and the highest unit sales since 1974 when 142,000 were sold. Unit sales of combines, at 31,500, were up 9 percent. Unit sales were up 13 percent for mower-conditioners, 17 percent for portable grinder-mixers, and 19 percent for manure spreaders. Sales of large balers (over 200 pound bales) were up substantially last year, but sales of small balers were down slightly. Sales of windrowers were off 5 percent and sales of forage harvestors were off 12 percent. In addition, unit sales of several types of tillage equipment—moldboard plows, disk harrows, field cultivators, and chisel plows—were down last year.

Last year's rise in tractor sales contributed to smaller inventories

	1978 sales		Year-end inventory		
	Thousand units	Percent change*	Thousand units	Percent change*	As percent of 1978 sales
Two-wheel drive (by horsepower rating)					
40-59	30.0	-2.7	14.4	-20.0	48.0
60-79	20.7	4.8	12.0	-16.9	58.1
80-99	14.7	22.6	6.1	-23.4	41.6
100-119	15.9	1.8	7.2	- 6.7	45.2
120-139	27.4	3.4	10.6	-12.1	38.7
140-159	13.4	8.6	4.9	-23.9	36.4
160 plus	8.8	41.7	3.8	-19.0	43.6
Total	130.9	6.2	59.0	-17.3	45.1
Four-wheel drive	8.7	13.8	4.7	-14.7	54.0
All tractors	139.6	6.7	63.7	-17.1	45.6

*From previous year.

SOURCE: Farm and Industrial Equipment Institute.

Tractor and combine sales scored large gains in Iowa and Wisconsin last year

	Tractors*		Combines	
	Units	Percent change**	Units	Percent change**
Illinois	8,587	0.3	3,600	4.3
Indiana	5,540	0.6	2,048	4.5
Iowa	9,679	8.8	3,665	25.9
Michigan	3,412	6.1	562	11.1
Wisconsin	5,633	10.0	575	16.4
Total	32,851	6.7	10,450	12.1
United States	139,607	6.7	31,494	9.3

*Units with 40 or more horsepower.

**From previous year.

SOURCE: Farm and Industrial Equipment Institute.

Sales of nearly all sizes of tractors were up. Gains were most apparent, however, in tractors with 80 to 99 horsepower and in the largest two-wheel drive tractors. Unit sales of two-wheel drive tractors with 160 horsepower or more jumped 42 percent last year, exceeding sales of two years ago by 72 percent. The increasing popularity of these relatively new size tractors has apparently cut into the sales of four-wheel drive tractors. Despite a gain of nearly 14 pecent last year, unit sales of four-wheel drive tractors were still down about 17 percent from the peak years in 1975 and 1976.

District states accounted for nearly a fourth of the farm tractors sold last year and a third of the combines. The increase in farm equipment sales was most apparent in Iowa and Wisconsin, reflecting last year's strength in livestock and dairy markets. Purchases in Iowa were also strengthened by the lack of drouth, which had suppressed sales the two previous years.

Inventories of most major items of farm equipment are down, reflecting last year's pickup in unit sales as well as the temporary plant shutdowns and layoffs a year ago when initial prospects for farm equipment sales for 1978 were not encouraging and inventories were considered burdensome. FIEI reports for year-end 1978 show tractor inventories were down 17 percent from the previous year, while combine inventories were down 5 percent. At 63,700 units, last year's ending inventory of farm tractors held by dealers and manufacturers was equivalent to about 46 percent of all tractors sold to farmers last year. That is down from the previous year's inventory-to-sales ratio of nearly 59 percent, but still higher than the levels of 22 to 41 percent that prevailed from 1973 to 1976.

The outlook for this year supports prospects for further increases in farm equipment purchases by farmers. The early-year strength in farm commodity prices has enhanced prospects for net farm income in 1979 to surpass last year's high level, currently estimated at $28 billion. As last year, much of the strength will be in livestock and dairy markets. But the crop sector is also somewhat stronger than was expected a short while ago, reflecting orderly marketings by farmers, large export shipments, the large amount of grains shielded by the grain reserve program, and the second consecutive year of drouth-reduced soybean production in Brazil.

Prospects for large crop plantings have also improved the outlook for farm equipment purchases this year. Last fall, farmers boosted winter wheat seedings 8 percent. For this spring, modifications in the 1979 feed grain program may elicit less participation by farmers than last year. Barring last minute program changes and weather delays at planting time—this suggests larger plantings of such major crops as cotton, soybeans, and perhaps corn this spring.

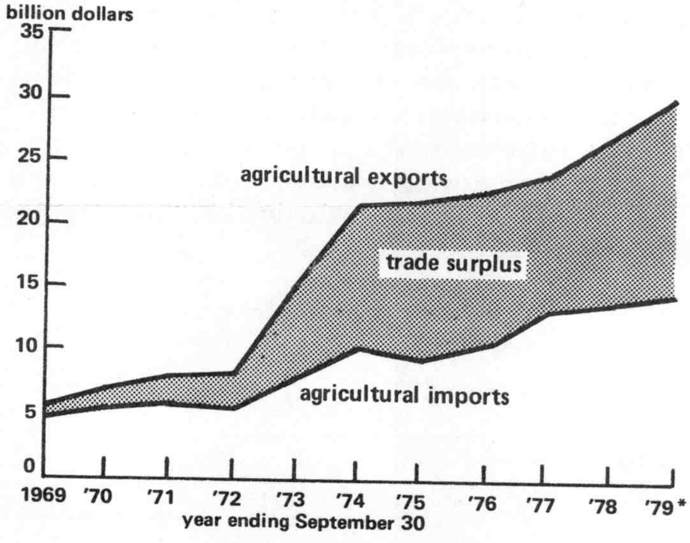
In line with these prospects, the concensus forecast of member companies of the FIEI points to a 1 percent rise in unit sales of all tractors in 1979. That includes those with less than 40 horsepower. But prospects for larger tractors are apparently somewhat stronger, reflecting the 2 percent rise in sales that was forecast for two-wheel drive tractors with at least 100 horsepower and the projected 10 percent rise in unit sales of four-wheel drive tractors. Although unit sales of combines are expected to decline 4 percent, sales of several types of tillage equipment are expected to be up around 5 percent.

For agricultural lenders, the combination of somewhat higher unit sales, continued inflationary pressures, and the ongoing shift to larger capacity equipment suggests farm loan demand to finance equipment purchases will remain high this year. According to the USDA, prices paid by farmers for tractors and other machinery has been about 10 percent above year-earlier levels in recent months.

Gary L. Benjamin
Agricultural Economist

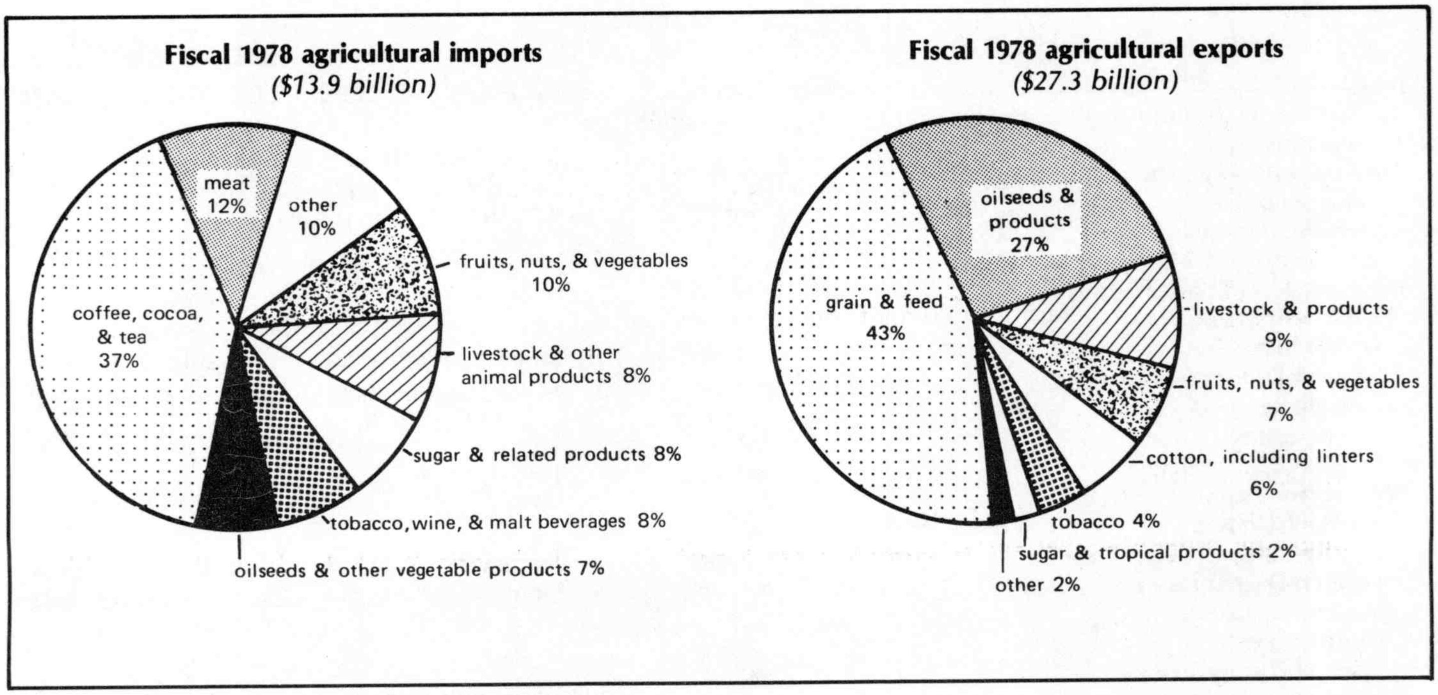
AGRICULTURAL EXPORTS could top $30 billion in fiscal 1979, according to a recently revised estimate by the USDA. Expectations last fall were for a 6 percent rise in this year's level of farm exports, resulting from somewhat higher average prices on a roughly equal export tonnage. The recent announcement suggests, however, that exports could exceed last year's level by $3 billion—or 11 percent—due primarily to higher prices for grains and soybeans. An increase over last year's record value of farm exports would mark the tenth consecutive year-to-year hike. Coupled with current projections for a nominal rise in agricultural imports, the increase in exports could yield a trade surplus of almost $16 billion, more than $2 billion above last year's record.

Record U.S. farm exports expected in fiscal 1979



*USDA projection.

Principle factors behind prospects for record-breaking exports of U.S. farm products this year—despite large crops of grains and oilseeds worldwide a year earlier—are continued economic expansion, rising incomes, and population growth in major world markets. With increases in income that have permitted improved diets, some countries have expanded meat production, with the result that demands for feedstuffs have been bolstered. Presumably, the decline in the value of the dollar has also boosted sales of some commodities to certain markets. A major unknown at this time is the effect that recent developments in Iran—with respect to the impact on crude oil supplies and prices—could have on foreign economies. Higher fuel bills could slow economic growth in some of the major markets for U.S. farm products and result in reduced export sales.



Soybeans may well be the only farm commodity registering substantial gains in export tonnage this year. The forecast for fiscal 1979 soybean exports was revised upward recently to 21.4 million metric tons (785 million bushels), 9 percent above the year-earlier level. In light of a downward revision last week in the estimate of this year's Brazilian production, the forecast for U.S. soybean exports will probably be raised again. Western Europe and Southeast and East Asia are expected to account for a large part of the increased export volume.

Among major importing countries, China will no doubt show the largest proportionate increase in demand for U.S. farm products over the year-ago level. Current projections suggest agricultural exports to China could exceed $1 billion in this fiscal year, almost three times the year-earlier level. With increased exports to other Asian countries also expected, shipments to Asia (including Japan, the leading importer of U.S. farm products) could account for nearly three-fourths of the year's projected $3 billion hike in farm exports. The largest year-to-year decline currently forecast is a nearly $400 million drop in exports to the USSR, a decline of roughly a fifth.

The combination of higher average prices and larger shipments could push the value of soybean exports a fifth or more above last year's record $7.5 billion level. Higher grain prices are expected to overshadow the roughly unchanged export volume and boost the value of grain and feed shipments to slightly less than $13 billion, up 8 percent from the year earlier. Exports of livestock and products are expected to rise nearly a fifth. That increase is due almost entirely to higher prices.

So far this marketing year, the rate of export shipments of grains and soybeans has exceeded the relatively slow pace of a year ago by a comfortable margin. Through March 2, export inspections of soybeans totaled a record 440 million bushels, up a fourth from the previous year. Wheat inspections since October were up roughly a fifth and off only slightly from the record-setting pace of fiscal 1976. Even so, the volume of wheat exports in fiscal 1979 is forecast nearly 6 percent below last year's level. The decline is due largely to expectations for a record world wheat production this year. Export inspections of corn were up about a tenth from a year ago, but still trailed the paces of 1975/76 and 1976/77.

The value of agricultural imports in fiscal 1979 is forecast at a record $14.8 billion, up from $13.9 billion last year. Meat and meat products are expected to account for most of the increase, rising more than 40 percent above last year's $1.6 billion. The surge in the value of meat imports reflects higher prices as well as the increase in meat import quotas, which were in effect during the latter half of calendar year 1978. Meat imports in calendar year 1979 will be permitted to rise to 1.57 billion pounds. That is roughly 5 percent above the estimate for last year, but essentially no greater than the amount that would have been imported had the higher import quotas been in effect for the full year. The only category of farm imports expected to show a decline in value this fiscal year—coffee, cocoa, and tea—is projected to be down a tenth, even though the volume will probably be up slightly.

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Selected agricultural economic developments

Subject	Unit	Latest period	Value	Percent change from Prior period	Year ago
Farm finance					
Total deposits at agricultural banks†	1972-73=100	December	188	− 0.9	+ 8
Time deposits	1972-73=100	December	219	− 0.1	+ 9
Demand deposits	1972-73=100	December	135	− 3.0	+ 6
Total loans at agricultural banks†	1972-73=100	December	234	+ 0.6	+14
Production credit associations					
Loans outstanding					
United States	mil. dol.	January	14,884	− 0.1	+12
Seventh District states	mil. dol.	January	2,992	− 0.7	+15
Loans made					
United States	mil. dol.	January	2,697	+ 3.4	+31
Seventh District states	mil. dol.	January	537	+ 2.4	+32
Federal land banks					
Loans outstanding					
United States	mil. dol.	January	25,053	+ 1.4	+16
Seventh District states	mil. dol.	January	5,413	+ 1.8	+23
New money loaned					
United States	mil. dol.	January	602	+56.2	+47
Seventh District states	mil. dol.	January	127	+39.4	+50
Interest rates					
Feeder cattle loans††	percent	4th Quarter	9.77	+ 5.5	+11
Farm real estate loans††	percent	4th Quarter	9.90	+ 4.7	+10
Three-month Treasury bills	percent	2/22-2/28	9.45	+ 1.4	+47
Federal funds rate	percent	2/22-2/28	10.06	− 0.6	+48
Government bonds *(long-term)*	percent	2/26-3/2	9.12	+ 2.6	+11
Agricultural trade					
Agricultural exports	mil. dol.	January	2,432	−11.1	+25
Agricultural imports	mil. dol.	January	1,475	+ 8.5	+18
Farm machinery sales					
Farm tractors	units	December	10,856	+51.5	+20
Combines	units	December	1,785	+21.8	+10
Balers	units	December	431	+ 8.8	0

†Member banks in Seventh District having a large proportion of agricultural loans in towns of less than 15,000 population.

††Average of rates reported by District agricultural banks.

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