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FRB CHICAGO



## AGRICULTURAL LETTER

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#### USDA reports alter corn and soybean price prospects

USDA reports released at the end of March contained some contrasting price implications for corn and soybeans. The *Grain Stocks* report indicated that domestic use of grains during the December-February period fell well short of expectations. The implication of a less-than-expected drawdown in carryover stocks for this year tended to weaken short-term price prospects. Conversely, the *Planting Intentions* report suggested that the rise in crop acreage this year will be smaller than most analysts are forecasting. This tended to strengthen longer term price prospects.

The March 1 corn stocks estimate, compared to earlier stocks estimates and adjusted for known exports, implied that domestic consumption of corn was down about 22 percent from the year-earlier pace during the December-February period and down 15 percent for the first half of the 1988/89 marketing year (September-August). The magnitude of the implied decline is somewhat questionable from two different perspectives. For one, domestic use of corn by processors is holding close to year-ago levels, as is the inventory of grain-consuming livestock, poultry, and dairy cows. Alternatively, some observers believe that indicated domestic consumption the past couple of years has been unexplainably high.

Eventually, some of the indicated shortfall in domestic consumption may be corrected by an upward revision in the estimate of last year's corn harvest. But for now, the first-half decline implies that domestic consumption of corn for the entire marketing year will be well below previous expectations. Reflecting this, the USDA lowered its projection of domestic corn consumption for all of 1988/89 to 5.26 billion bushels. The new estimate is 270 million bushels below the March projection, 12 percent below the record high of last year, and comparable to the 1985/86 level.

Contrasting the weakness in domestic consumption, corn exports have been surprisingly strong. Preliminary indications are that corn exports during the first half of the 1988/89 marketing year were up about a fourth from the year-earlier pace. All of the gain stems from increased shipments to the Soviet Union. A recent flurry in new sales to the Soviet Union promises continued strength in corn exports for the months ahead. Following the recent sales, the USDA raised its

corn export projection for all of 1988/89 to 2.1 billion bushels. The latest estimate is up 100 million bushels from the March projection, 21 percent above the year-earlier level, and the highest for any marketing year since 1980/81.

The latest USDA revisions in projected usage imply carryover stocks of corn this fall will total about 1.83 billion bushels. While sharply lower than the 4.26 billion bushels of carryover last fall, the latest projection is nevertheless some 170 million bushels above what had been projected.

Usage of soybeans during the first half of the 1988/89 marketing year (September to August) was off sharply, reflecting the drop in supplies following last year's drought. Soybean exports through February were off about 35 percent from the rapid year-earlier pace while domestic crushings (into meal and oil) were off 8 percent. Based on the March 1 stocks estimate, the modest amount of residual, domestic soybean usage (mostly seed and feed) through February was about 15 to 25 million bushels below expectations. The latter may lead eventually to a slight upward revision in the estimate of the 1988 soybean harvest. But for the time being, the USDA's April supply and demand projections for soybeans in 1988/89 are unchanged from those issued in March.

With world supplies now being augmented by a bumper harvest in South America, U.S. soybean exports will remain depressed for the next several months. Moreover, the lag in crushings may widen. As in March, the USDA projections for the entire 1988/89 soybean marketing year foreshadow exports of 550 million bushels and crushings of 1.05 billion bushels. These levels imply exports for the second half of the marketing year will be down nearly a fourth from the weakening year-earlier pace while crushings will be down 13 percent. Carryover stocks of soybeans prior to the 1989 harvest are expected to total 145 million bushels, less than half the year-earlier level.

The planting intentions survey indicated that farmers intend to seed 73.3 million acres to corn this year, up more than 8 percent from last year. Intended plantings for other feed grains point to a rise of 2 percent, to 34.7 million acres, paced by a large rise for sorghum. Soybean seedings are planned for 61.7

## District farmers intend to plant more corn and soybeans this year

	Co	Corn		Soybeans		
	Million acres	Percent change*	Million acres	Percent change*		
Illinois	10.9	10	9.1	3		
Indiana	5.6	9	4.4	3		
lowa	12.3	9	8.2	2		
Michigan	2.3	10	1.4	8		
Wisconsin	3.8	10	.4	2		
District states	35.0	9	23.5	3		
United States	73.3	8	61.7	5		

<sup>\*</sup>From actual plantings in 1988.

million acres, up nearly 5 percent. Intentions for spring wheat point to a rise of 17 percent from last year. The spring wheat intentions, coupled with the estimated 54.7 million acres of winter wheat seeded last fall, suggest that total wheat plantings for this year's crop will be up more than 13 percent to 74.3 million acres. The prospective rise in crop plantings stems mostly from a sharp cut in acreage set-aside requirements for grain farmers that participate in price support programs this year.

The indicated increase in plantings for soybeans was moderately below expectations while that for corn was considerably short of expectations. Individual farmers can alter their planting intentions for many reasons. But collectively, past changes from intentions have been fairly modest. In 9 of the past 13 years, actual corn plantings exceeded the level indicated by the spring intentions survey. In those 9 years, actual plantings averaged only 1.7 percentage points above intended plantings. The largest deviation was 2.8 percentage points. A similar deviation this year would imply that actual corn plantings might reach 75.3 million acres, a level that only approximates the midpoint of what close observers had been projecting for this year.

Planted acreage is an important variable in determining the potential size of the crop harvest. But other factors that affect per acre yields can be just as important. Following last year's major drought, weather remains a big uncertainty. In general, the eastern Corn Belt has reasonable moisture to start the 1989 planting season, but conditions in the western Corn Belt and much of the Plains States are still very dry. The winter wheat crop in some major areas has suffered irreversible losses of an, as yet, undetermined magnitude. But for spring-planted crops, the pattern of rainfall during the planting and growing season will be far more critical than the weather patterns of the past year.

If corn plantings this year match intentions, some 65.9 million acres would likely be harvested for grain. Corn yields per harvested acre in recent years have ranged from a record high of 119.4 bushels (in 1987) to a low of 81.1 (in 1983). The yield last year was 84.6 bushels. Excluding the three drought years (1980, 1983, 1988) corn yields so far this decade have averaged 114 bushels per acre. If yields this year approximate that average, a corn harvest of some 7.5 billion bushels might be expected. Such a level of production would about match the average of total corn usage during the past three marketing years and slightly exceed the projected 7.4 billion bushels in usage for this year. While these comparisons are extremely tentative, the implications are that the intended plantings for 1989 do not threaten a major rebuilding in corn carryover stocks. In general, corn carryover stocks in the fall of 1990 may remain at about a "normal" level relative to usage.

The level of intended soybean plantings for this year foreshadows about 60.4 million in harvested acres. Soybean yields per harvested acre in recent years have ranged from the 1985 record of 34.1 bushels to the 1983 low of 26.2 bushels. Last year's yield was 26.8 bushels. Excluding the three years of major drought, soybean yields so far in the 1980s have averaged 31.8 bushels. If yields this year approximate that average, the 1989 soybean harvest would slightly exceed 1.9 billion bushels. Prior to retreating to a projected level of 1.7 billion bushels this year, total soybean usage in the preceding two marketing years averaged more than 2.0 billion bushels. With soybean production expanding in the Southern Hemisphere, it is debatable as to how much U.S. soybean usage will recover in 1989/90. But if only half to two-thirds of this year's drop in usage is recovered next year, the current soybean planting intentions would still foreshadow a relatively "tight" level of carryover stocks in 1990.

Gary L. Benjamin

### Hogs and pigs

The year-to-year gains in hog production appear to have ebbed in early 1989. According to recent USDA estimates of March inventories of hogs on U.S. farms, there was little change from a year ago in overall numbers. However, the breeding herd was down slightly while market animals registered a slight gain from a year earlier. The pig crop estimates and inventory numbers of market hogs suggest that hog slaughter and pork production will hold above year-earlier levels through the spring. However, year-to-year declines may be registered during the second half of this year and into the early months of 1990.

The March 1 inventory of market hogs on U.S. farms was up less than 1 percent from a year earlier. Year-to-year gains were reported in all weight categories except pigs under 60 pounds. The inventory of heavier weight hogs, those weighing over 180 pounds, was up about 1 percent. Hogs weighing between 60 and 180 pounds in March numbered about 2.2 percent more than a year earlier. Pigs weighing less than 60 pounds numbered 1.5 percent fewer than at the same time a year ago. The March 1 inventory of hogs for breeding was down 1.5 percent from a year ago, similar to the year-to-year decline registered three months earlier.

Changes in hog inventories varied considerable across District states, which account for just under half of the U.S. total. Although the hog and pig inventory in the District as a whole registered a 2.5 percent drop from a year earlier, declines ranged from about 2.5 percent in Indiana and Michigan to 11.5 percent in Wisconsin. In Iowa, by far the largest hog producing state, inventories were essentially unchanged from a year ago. Most of the drop across the District was accounted for by a 5.6 percent year-to-year decline in the breeding herd. The declines in breeding inventories ranged from 10 percent in Wisconsin to about 4 percent in Illinois. Declines in the other states' breeding inventories were near the District average.

The market hog inventory in District states was down about 2 percent from the March 1988 level. Declines were registered in all of the District states except lowa, where the market hog inventory was up almost 1 percent from the previous year's level. Indiana and Michigan hog producers reported 2 percent year-to-year declines in market inventories, while Illinois producers reported a 6.6 percent drop. Market hog inventories in Wisconsin were down almost 12 percent from the year-earlier level.

Hog slaughter during the first quarter of this year was up about 2 percent from the same period a year ago. The inventory of market hogs weighing between 60 and 179 pounds, along with the size of last fall's pig crop provide an indication of hog slaughter during the second quarter. These measures suggest that the year-over-year rise in hog slaughter during the spring months may narrow to about 1 percent. The March 1 inventory of pigs weighing less than 60 pounds, which came primarily from the winter pig crop, provide an early indication of third quarter hog slaughter. The March 1 inventory of lighter weight market hogs on

U.S. farms was down 1.5 percent from the previous year compared to a 1.2 percent year-to-year drop in this winter's pig crop. These measures point toward a slight year-to-year decline in hog slaughter during the summer months.

Producers intentions regarding sow farrowings during the spring and summer months foreshadow continuing declines in hog slaughter for this fall and winter. During the March to May period, U.S. producers intend to reduce the number of sows farrowing by almost 3.5 percent. If these intentions are carried through and the number of pigs per litter holds near year-earlier levels, hog slaughter during the final three months of 1989 will likely show a similar decline. Farrowing intentions for the June to August period provide a very preliminary indication of the summer pig crop and first quarter 1990 slaughter supplies. Producers intentions reported in March point to a 4.4 percent decline in farrowings from a year earlier and a similar drop in hog slaughter during the first three months of 1990.

After rebounding sharply in December, hog prices at the seven major markets drifted lower throughout the first three months of 1989 and remain well below year-earlier levels. Barrow and gilt prices in recent weeks averaged about \$38 per hundredweight, down from \$42.75 a year ago. Hog prices will likely strengthen in a seasonal pattern later this spring and will continue to be buoyed by strong cattle prices. Current USDA estimates imply that second quarter hog prices may average somewhere between \$44 and \$48 per hundredweight, near the year-earlier average of \$46.

Peter J. Heffernan

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#### Selected Agricultural Economic Indicators

			Percent change from		
	Latest period	Value	Prior period	Year ago	Two years
Prices received by farmers (1977=100)	March	149	0.7	15	22
Crops (1977=100)	March	137	-0.7	23	37
Corn (\$per bu.)	March	2.61	1.2	40	78
Oats (\$per bu.)	March	2.30	-6.5	29	59
Soybeans (\$per bu.)	March	7.57	2.2	25	60
Wheat (\$per bu.)	March	4.16	3.2	52	62
Livestock and products (1977=100)	Marcy	160	1.3	8	13
Barrows and gilts (\$per cwt.)	March	40.30	-1.7	-6	-16
Steers and heifers (\$per cwt.)	March	75.80	0.5	5	21
Milk (\$per cwt.)	March	12.80	-2.3	8	2
Eggs (¢per doz.)	March	80.1	29.0	58	47
Prices paid by farmers (1977=100)	January	175	1.2†	6	11
Production items	January	163	0.6†	7	15
Feed	January	141	0.01	26	42
Feeder livestock	January	202	3.1†	5	23
Fuels and energy	January	166	0.61	1	8
Producer Prices (1982=100)	February	112	0.6	5	7
Agricultural machinery and equipment	February	116	1.9	4	6
Fertilizer materials	February	109	1.1	12	29
Agricultural chemicals	February	114	1.7	7	12
Consumer prices (1982-84=100)	February	122	0.4	5	9
Food	February	123	0.6	6	9
Production or stocks					
Corn stocks (mil. bu.)	March 1	5,205	N.A.	-32	-37
Soybean stocks (mil. bu.)	March 1	890	N.A.	-22	-37
Beef production (bil. lbs.)	February	1.74	-8.0	-5	-54
Pork production (bil. lbs.)	February	1.20	-8.1	2	2
Milk production (bil. lbs.)††	February	9.83	-6.1	0	6

N.A. Not applicable †Prior period is three months earlier. ††21 selected states.



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