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Crop production estimates

The U.S. Department of Agriculture recently released its first objective yield estimates for the forthcoming corn and soybean harvests. The report noted that this year's corn harvest would likely reach 7.85 billion bushels, up 4 percent from last year. The soybean harvest was pegged at 1.84 billion bushels, down nearly 5 percent. The estimates are largely based on observed sample-plot field conditions as of late July or early August and assumptions of normal weather through the harvest season. In past years, the August estimates have often come close to the post-harvest estimates. But late maturing crops and the increased odds of yield losses from an unpredictable early frost add more uncertainty to the pre-harvest estimates this year.

Based on the August estimates, the index of all crop production in 1990 is expected to reach a five-year high, up 5 percent from last year and more than a fifth above the drought-reduced harvest of 1988. Wheat, cotton and edible dry beans account for proportionately large shares of this year's overall gain. Wheat production is expected to reach an eight-year high of 2.71 billion bushels, up a third from last year. Cotton production is forecast to be up 22 percent, while dry bean production is expected to be up 38 percent.

The corn production estimate suggests that this year's harvest will be the fifth largest on record but still well short of the all-time high of nearly 8.9 billion bushels harvested in 1985. The estimate is based on expectations that farmers will harvest some 66.7 million acres of corn for grain at a national average yield of 117.7 bushels per acre. The yield estimate, if achieved, would be up slightly from 116.2 bushels last year but short of the 1987 record of 119.8 bushels per acre. The harvested acreage estimate would mark a 3 percent rise from last year. The corn production estimate, coupled with estimates for the other three feed grains (oats, barley, and sorghum) foreshadows a total feed grain harvest of 227.4 million metric tons, up 3 percent from last year. But due to smaller carryover stocks, the total supply of corn and all feed grains for the 1990/91 marketing year is likely to be moderately below the level for the year that just ended. Although usage of corn may decline slightly due to lower exports, the relatively tight supplies support prospects that corn prices in 1990/91 may average above the $2.38 a bushel mark set over the past year.

The projected soybean harvest would be the third lowest of the past decade (exceeding only the drought-reduced harvests of 1983 and 1988) and a sixth below the 1982 record high of 2.19 billion bushels. The estimate reflects expectations that farmers will harvest some 56.6 million acres of soybeans at a national average yield of 32.5 bushels per acre. The acreage estimate would be down nearly 5 percent from last year and the smallest area of U.S. soybean harvest since 1976. The per acre soybean yield estimate, if realized, would be comparable to last year's average and down from the 1985 peak of 34.1 bushels. With larger carryover stocks offsetting the cut in this year's expected harvest, total soybean supplies for the 1990/91 marketing year would about match those of the past year. But with prospects for increased usage, soybean prices next year are also expected to exceed the 1989/90 average of $5.70 a bushel.

The forthcoming corn and soybean harvest in the five states of the Seventh Federal Reserve District appear to be falling in line with nationwide trends. The five-

1990 corn and soybean production estimates

	Per-acre yields			Total production*	
	Peak year	1989	1990*	Million bushels	% change from 1989
	(------bushels------)				
Corn					
Illinois	135	123	128	1,331	0.7
Indiana	135	133	128	698	0.9
Iowa	135	118	128	1,574	8.9
Michigan	113	113	110	226	1.3
Wisconsin	118	111	111	322	3.6
District states	129.1	121.1	125.4	4,151	4.0
United States	119.8	116.2	117.7	7,850	4.3
Soybeans					
Illinois	42.5	40	36	328	−7.5
Indiana	41.5	37	36	153	−9.1
Iowa	43.5	39	38	300	−7.0
Michigan	36.0	36	37	42	8.5
Wisconsin	38.0	37	38	16	5.2
District states	40.2	38.8	36.8	839	−6.7
United States	34.1	32.4	32.5	1,836	−4.7

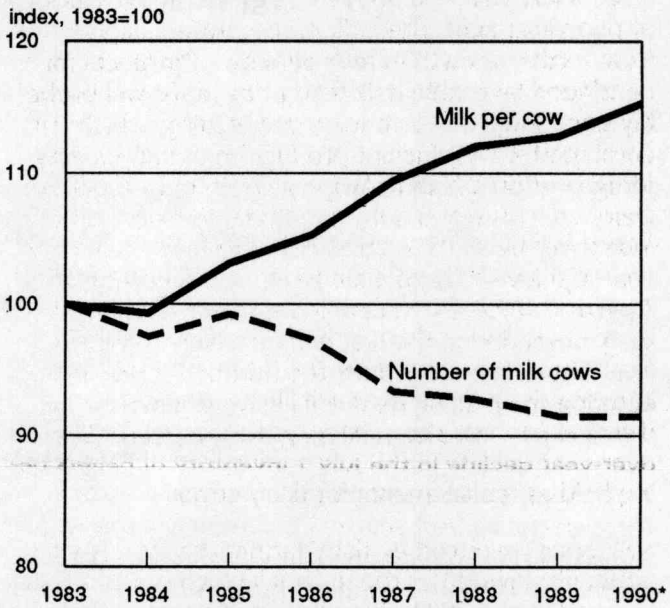
*Based on conditions as of August 1, 1990.
Source: USDA

state corn harvest is expected to reach 4.15 billion bushels, up 4 percent from last year. Conversely, the five-state soybean harvest is pegged at about 840 million bushels, down almost 7 percent from last year. The average per acre corn yield for District states is likely be up nearly 4 percent, paced by a large recovery in Iowa. Conversely, the average per acre soybean yield for District states is expected to be down about 5 percent from last year as a 10 percent reduction in prospective yields in Illinois offsets expectations of record high yields in Michigan and Wisconsin.

Among other major crops grown in District states, the August estimates show varying trends from a year ago. The recently completed five-state wheat harvest was pegged at 198 million bushels, down 3 percent from last year due to sharp declines in per acre yields in Illinois and Indiana. Oat production, estimated at 114 million bushels, was down 21 percent in the five-state region. Hay production in District states is expected to rise 5 percent this year and reach 27 million tons.

Estimates for some of the District's speciality crops, which tend to be more regionalized rather than District-wide, point to sizable year-to-year swings in production. The August estimates point to a rise of about a sixth in the Michigan harvest of both dry edible beans and sugar beets. The combined production of summer potatoes in Illinois, Iowa, and – more predominately – in Michigan is projected to be up 13 percent. The five-state commercial apple production estimate, which is strongly influenced by Michigan, is expected to be down 17 percent from last year, while the peach production estimate for Illinois, Indiana, and Michigan is off 36 percent. Michigan's grape harvest is expected to rebound a third this year but its pear harvest may be down more than a third. An earlier (July) forecast had indicated that Michigan's sweet cherry harvest would be down 20 percent this year while the combined Michigan and Wisconsin tart cherry harvest would be down a tenth.

Recent trends in cow numbers and milk per cow



*Based on year-over-year changes in the second quarter.
SOURCE: USDA

Milk production heading towards new high

U.S. milk production, after turning lower last year, is recovering this year. Recent USDA reports note that milk production in the first half of this year was up 1.8 percent from the same period a year ago. For all of this year, the USDA currently projects milk production will reach 147.7 billion pounds, up about 2.5 percent from last year and nearly 2 percent above the previous high in 1988. Despite the turnaround in production, strong dairy product markets continue to support farm-level milk prices well above year-earlier levels. The combination of increased production and higher average prices portend the second consecutive year of strong gains in cash receipts for dairy farmers.

The first half rise in production largely reflects the high milk prices and the generally favorable returns to dairy farmers that have prevailed since mid-1989. Those conditions, in turn, have led to a levelling-off in the downtrend in dairy cow numbers and a resumption of the uptrend in milk per cow. Last year, monthly average dairy cow numbers declined 1.3 percent, culminating in an 8.5 percent decline from 1983. The rate of decline slowed considerably late last year and by the second quarter of this year dairy cow numbers were nominally above year-ago levels. Simultaneously, the prevailing uptrend in milk per cow (which had been interrupted by poor quality forage during the second half of last year) resumed in January. During the second quarter, milk per cow was up 2.2 percent from the same period a year ago.

Continuing the trend of the past several years, the most pronounced gains in first-half milk production were in western states. First-half milk production in Arizona, New Mexico, and Utah was up 10 percent or more while that for California was up 9 percent. Milk production in the five states of the Seventh Federal Reserve District during the first half of this year was up 1.3 percent from the same period a year ago, paced by a rise of 3 percent in Illinois. Dairy cow numbers in District states in recent months were unchanged from a year ago as a nominal rise in Wisconsin offset declines in Illinois and Indiana.

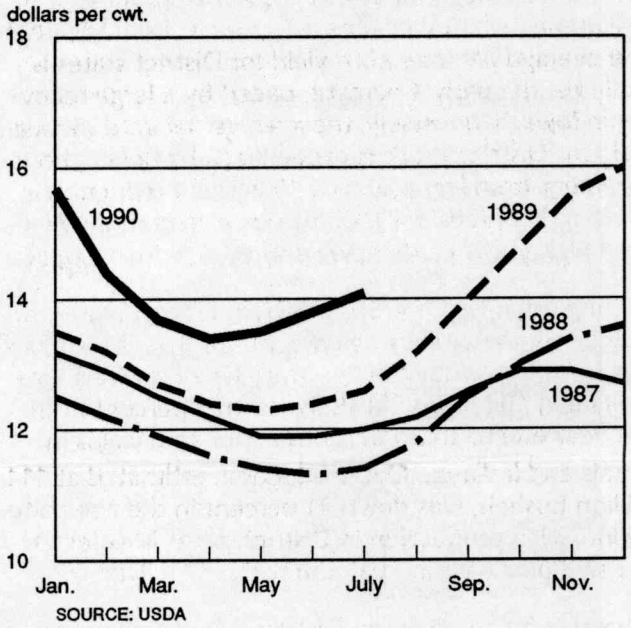
For the second half of this year, USDA analysts expect milk production to be up 3 percent from the lagging level of last year and about 1.5 percent above the level of two years ago. The bulk of the rise will likely result from further growth in milk per cow. Prospects for continued favorable milk feed price ratios will probably encourage more concentrate feeding, which – if combined with sufficient production of high-quality forage – should lead to larger gains in output per cow. Dairy cow numbers during the second half, despite incentives for herd expansion, are likely to hold near year-ago levels. Herd culling rates, as reflected in the 7 percent decline in federally-inspected slaughter of dairy cows during the first half, are likely to remain low. But at the same time, the number of new heifers entering the milking herd will likely be down during the next few months, reflecting the 4 percent year-over-year decline in the July 1 inventory of heifers being held as replacements for dairy cows.

Milk prices received by dairy farmers so far this year, although down from the unusually high seasonal peak reached in late 1989, have averaged a tenth above year-earlier levels. Monthly average milk prices during the first-half ranged from $15.70 a hundredweight in January to $13.40 in April and averaged nearly $14.10 for the six month period. In comparison, milk prices during the first-half of last year averaged $12.75 a hundredweight. The higher prices in the face of increased production reflects continued strength in dairy product markets. Strong cheese sales and efforts to rebuild stocks of manufactured dairy products, which had been depleted last year, have been major factors holding up milk prices.

The seasonal upturn in milk prices this year started in May, one or two months earlier than normal. But with continued gains in production, the second-half price rise will probably fall short of the extraordinary rise of last year. By the fourth quarter, milk prices will likely be below year-earlier levels. Based on the midpoints of the USDA's latest projections, milk prices are expected to average about $14.20 a hundredweight in the current quarter and about $14.60 in the fourth quarter. Such levels would translate into an annual average of around $14.25 for all of 1990, up 5 percent from last year and 16 percent above the monthly average for 1988.

The combination of increased production and higher prices implies 1990 will mark the second consecutive

Milk prices received by farmers remain well above year-ago levels



SOURCE: USDA

year of strong gains in receipts from milk marketings. Last year, higher prices boosted cash receipts from farmer marketings of milk to plants and dealers to $19.1 billion, up 10 percent from the year before and 3 percent above the previous high set in 1983. In the five states comprising the Seventh Federal Reserve District, cash receipts from milk marketings by dairy farmers rose 9 percent last year to nearly $5.1 billion. Nationwide, cash receipts from milk marketings may rise 7 percent this year to around $20.5 billion.

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Selected Agricultural Economic Indicators

	Latest period	Value	Percent change from Prior period	Year ago	Two years ago
Prices received by farmers *(1977=100)*	July	151	0.0	3	6
Crops *(1977=100)*	July	131	1.6	-4	-4
Corn *($ per bu.)*	July	2.61	-0.8	6	-4
Oats *($ per bu.)*	July	1.22	-9.0	-20	-57
Soybeans *($ per bu.)*	July	5.88	0.0	-14	-31
Wheat *($ per bu.)*	July	2.81	-8.8	-26	-20
Livestock and products *(1977=100)*	July	171	-1.2	9	16
Barrows and gilts *($ per cwt.)*	July	61.60	0.5	30	34
Steers and heifers *($ per cwt.)*	July	75.40	-2.7	5	12
Milk *($ per cwt.)*	July	14.10	2.2	12	24
Eggs *(¢ per doz.)*	July	55.6	-11.3	-14	-5
Prices paid by farmers *(1977=100)*	July	184	0.5†	3	7
Production items	July	170	0.6†	2	7
Feed	July	130	1.6†	-2	-10
Feeder livestock	July	214	0.5†	11	19
Fuels and energy	July	185	-1.1†	-1	9
Producer Prices *(1982=100)*	July	118	0.1	3	9
Agricultural machinery and equipment	July	120	0.0	2	7
Fertilizer materials	July	92	0.0	-5	-6
Agricultural chemicals	July	120	0.4	4	12
Consumer prices *(1982-84=100)*	July	130	0.4	5	10
Food	July	133	0.5	6	12
Production or stocks					
Corn stocks *(mil. bu.)*	June 1	2,839	N.A.	-17	-51
Soybean stocks *(mil. bu.)*	June 1	596	N.A.	28	-9
Beef production *(bil. lbs.)*	June	1.98	-1.4	-2	-2
Pork production *(bil. lbs.)*	June	1.14	-9.1	-10	-7
Milk production *(bil. lbs.)*††	July	10.7	0.1	5	2

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

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