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# AGRICULTURAL LETTER

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## Corn and soybean production to rise

Recent USDA reports indicate that corn and soybean production will register a sharp rebound from the flood-reduced harvest of last year. Furthermore, production is expected to exceed utilization for both crops during the 1994/95 marketing year and lead to a substantial increase in ending stocks. In contrast, wheat production is expected to fall short of utilization. However, ending wheat stocks are forecast to post a modest gain as imports stay at a relatively high level.

USDA analysts currently expect the 1994 corn harvest to be the second largest on record. At 9.26 billion bushels, the anticipated corn production is nearly 50 percent larger than last year. The number of acres to be harvested is up significantly from a year ago and is at the third highest level in ten years. Furthermore, field surveys indicate yields are up sharply as well. The national corn yield is expected to reach 129.0 bushels per acre, compared to the 100.7 bushels per acre recorded last year. The current yield projection also compares favorably with the previous high of 131.4 bushels per acre achieved two years ago.

The USDA report further indicates that soybean production is projected to reach a record level this fall. At approximately 2.32 billion bushels, the soybean harvest is expected to be over one quarter larger than a year ago and slightly greater than the previous high recorded in 1979. The improved production stems from gains in the number of acres harvested as well as larger yields. The number of harvested acres is projected to rise nearly 8 percent to reach the highest level since 1985. Moreover, the current yield forecast of 38.2 bushels per acre—if achieved—would surpass the previous high of 37.6 bushels reached two years ago. In comparison, soybean yields over the past ten years averaged about 33 bushels per acre.

The favorable production forecasts for corn and soybeans are supported by recent USDA reports on crop condition and progress. In mid September, 84 percent of the corn crop was rated as being in either good or excellent condition, while three quarters of the soybean crop received a similar evaluation. In comparison, only about half the corn and soybeans received such assessments a year ago. In addition, the proportion of the corn and soybean crop that has reached maturity is

running slightly ahead of normal, suggesting the crops are less susceptible to damage from an early frost. Recent history also suggests a tendency for yield estimates to be raised as the harvest progresses. Over the past ten years, the USDA's final yield estimate for corn exceeded the September forecast on six occasions and the same was true for soybeans seven times. Nevertheless, the tentative nature of the current yield estimates should be noted. The final estimates of corn yields made by the USDA in each of the past two years differed by over 10 bushels per acre from the September forecast, though this was attributed to unusual weather patterns that were not in evidence this year.

The potential year-over-year gains in corn and soybean production are also reflected in the USDA projections for the five states that comprise the Seventh Federal Reserve District. In particular, the corn and soybean harvests in Iowa and Wisconsin—the two states that suffered relatively greater damage from last year's flood—are expected to post solid recoveries this fall. USDA analysts predict Iowa corn production will double, while Wisconsin farmers register a 70-percent increase from a year ago. Overall, the combined corn production in Illinois, Indiana, Iowa, Michigan, and Wisconsin is projected to increase by 43 percent from

#### Corn and soybean production estimates

	Yield		Production			
	1993	1994*	1992	1993	1994*	
	(bu. per acre)		(million bushels)			
Corn						
Illinois	130	138	1,646	1,300	1,594	
Indiana	132	132	878	713	812	
lowa	80	145	1,904	880	1,798	
Michigan	110	106	241	236	228	
Wisconsin	92	122	307	216	366	
District states	108.3	136.1	4,976	3,345	4,798	
United States	100.7	129.0	9,482	6,344	9,257	
Soybeans						
Illinois	43	43	405	374	404	
Indiana	44	43	194	213	201	
lowa	30	46	357	246	407	
Michigan	38	35	48	55	54	
Wisconsin	35	40	22	20	33	
District states	38.2	43.5	1,026	908	1,099	
United States	32.0	38.2	2,188	1,809	2,316	

<sup>\*</sup>USDA projection as of September 12. Source: U.S. Department of Agriculture.

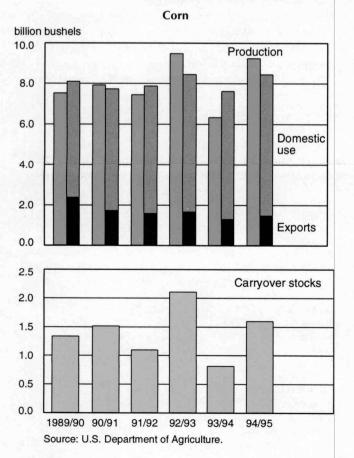
last fall. Furthermore, the USDA projections call for District soybean production to be up by a fifth. If achieved, this production level would represent a new high for District states. Farmers in lowa and Wisconsin are expected to increase soybean production by nearly two-thirds as compared to a year ago. The USDA's projections also indicate Seventh District states will account for over half of domestic corn production and approximately 47 percent of the soybeans produced.

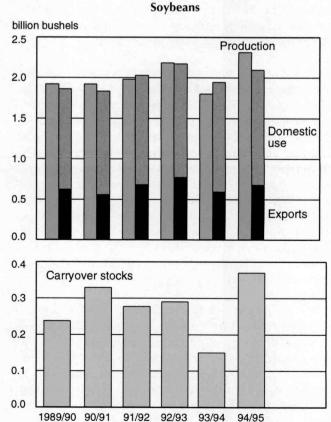
The USDA report further indicated that this year's wheat harvest fell for the second consecutive year as a decline in winter wheat production offset the gains in spring wheat. At 2.36 billion bushels, the wheat harvest was almost 2 percent below last year and 4 percent less than the production level of two years earlier. In general, the current decline was attributed to modest reductions in both the average vield and the number of acres harvested. The average yield slipped about a half percent from a year earlier to 38.1 bushels per acre while harvested acres were off by a percent. Looking at the different wheat classes, winter wheat production dropped 6 percent as a result of a reduction in the number of acres harvested. In contrast, the production of durum wheat and other spring wheat rose 42 percent and 5 percent, respectively. The sharp gains in the

production of durum wheat—used primarily in the manufacture of pasta—stemmed mostly from a rebound in the number of harvested acres in North Dakota. But despite the year-over-year gain, the durum wheat harvest still lagged the 1989-92 average.

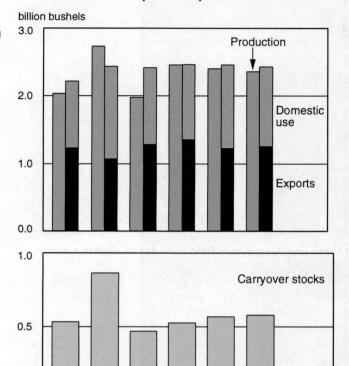
In addition to updates on crop production, the USDA released projections for usage over the upcoming year. Total utilization of wheat is expected to register a slight decline during the 1994/95 marketing year that began in June. Domestic use will likely fall about 5 percent as a drop in feeding more than offsets modest gains in food and seed use. The amount of wheat fed to livestock is expected to drop by over one quarter from the past year as corn supplies recover. In contrast, food and seed use are each forecast to rise about 2 percent. Wheat exports are also expected to rise nearly 2 percent from the prior year but the projected level is still well below the level of two years earlier. In sum, total disappearance of wheat is forecast to drop between 1 and 2 percent to 2.43 billion bushels. This level of usage would exceed production by over 70 million bushels. Nonetheless, carryover stocks are envisioned to rise a modest 2 percent to 581 million bushels. The increase in stocks is supported by an import level of wheat forecast at 80 million bushels. Though second

### Rebound in production expected to boost carryover stocks of corn and soybeans





#### Wheat stocks expected to post minor increase



only to the import level of 109 million bushels registered last year, the current projection represents less than 3 percent of total supplies.

92/93

93/94

94/95

91/92

Source: U.S. Department of Agriculture.

0.0

1989/90 90/91

Current stocks of corn are at relatively low levels compared to recent years. The low initial stocks will ease the impact of the anticipated production increase. However, the USDA projections indicate that stocks will register substantial gains during the 1994/95 marketing year beginning in September. USDA estimates show September 1 corn stocks at 824 million bushels. This is nearly two-thirds lower than 12 months earlier and the smallest level since 1976. In terms of utilization, both domestic use and corn exports are forecast to register gains over the upcoming year. The use of corn for feed declined by a tenth in the past year due to the short crop and higher prices. However, the large harvest, lower prices, and expanding meat production may push feeding levels back to the record pace of two years earlier. Furthermore, the use of corn for food, seed, and industrial (FSI) purposes is expected to expand 8 percent this year. Much of this gain is attributed to increased ethanol production for fuel use. The Environmental Protection Agency (EPA) has required that a portion of the oxygenates used in reformulated gasoline come from renewable sources such as ethanol. A USDA study suggested this could increase the yearly demand for corn by 200 million bushels.

Some uncertainty exists, though, because the EPA action now faces a legal challenge in the courts. Nevertheless, domestic use is expected to exceed 7 billion bushels for the first time in 1994/95. Furthermore, exports are expected to increase by 13 percent in the upcoming year after falling to an eight-year low this past year. Consequently, corn utilization is projected to rise a tenth to nearly 8.5 billion bushels in the coming year. If realized, this would match the previous high set two years earlier. And since the envisioned usage falls short of this year's potential harvest, carryover stocks could rise to 1.6 billion bushels. This would be nearly double the initial level, but not excessive by historical standards.

Soybean stocks are also expected to be rebuilt in the coming year. As of September 1, soybean stocks were about half the level of a year ago and the lowest in 17 years. Total utilization is expected to post a solid gain of 7 percent on the basis of increased processing and exports. The number of bushels processed into soybean meal and soyoil is projected to post a moderate gain of 4 percent in the upcoming marketing year to reach 1.31 billion bushels. This level, if realized, would eclipse the previous high set two years earlier. Exports are anticipated to increase by over a tenth in response to the banner harvest and lower prices. But despite these gains in utilization, anticipated ending stocks are projected to more than double.

The larger ending stocks of U.S. corn and soybeans are expected to offset foreign declines and push world stocks higher over the coming year. USDA estimates indicate world corn stocks will rise 17 percent, while soybean stocks are projected to rise nearly a third. In contrast to these gains, world stocks of wheat are expected to post a sharp decline in the coming year. Wheat production in Canada is estimated to be down 15 percent from a year earlier while dry weather is expected to push the Australian harvest down nearly 40 percent. However, these two nations are expected to use their carryover stocks to help maintain export levels.

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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 (index, 1977=100)	August	135	1.5	-6	-3
Crops (index, 1977=100)	August	120	1.7	-4	3
Corn (\$ per bu.)	August	2.12	-7.0	-6	-1
Hay (\$ per ton)	August	83.10	0.7	7	20
Soybeans (\$ per bu.)	August	5.49	-7.3	-16	2
Wheat (\$ per bu.)	August	3.23	6.6	9	7
Livestock and products (index, 1977=100)	August	148	0.7	-8	-8
Barrows and gilts (\$ per cwt.)	August	43.40	0.5	-10	-4
Steers and heifers (\$ per cwt.)	August	66.30	2.0	-12	-11
Milk (\$ per cwt.)	August	12.30	0.0	-1	-9
Eggs (¢ per doz.)	August	59.9	4.7	-2	12
Consumer prices (index, 1982-84=100)	August	149	0.4	3	6
Food	August	145	0.4	3	5
Production or stocks	Marie Live				
Corn stocks (mil. bu.)	June 1	2,358	N.A.	-36	-14
Soybean stocks (mil. bu.)	June 1	555	N.A.	-19	-20
Wheat stocks (mil. bu.)	June 1	571	N.A.	8	21
Beef production (bil. lb.)	July	2.03	-6.0	2	1
Pork production (bil. lb.)	July	1.29	-8.3	-1	-6
Milk production* (bil. lb.)	August	10.8	-1.8	2	1
Receipts from farm marketings (mil. dol.)	May	12,766	-5.7	-6	2
Crops**	May	4,739	-6.0	0	7
Livestock	May	7,292	1.9	-7	0
Government payments	May	735	-45.0	-24	1
Agricultural exports (mil. dol.)	June	3,298	-7.2	5	2
Corn (mil. bu.)	June	87	19.7	-22	-41
Soybeans (mil. bu.)	June	27	-2.8	-32	-2
Wheat (mil. bu.)	June	77	-11.5	-15	-2
Farm machinery sales (units)					
Tractors, over 40 HP	August	4,377	2.0	29	32
40 to 100 HP	August	3,182	-1.1	26	28
100 HP or more	August	1,195	11.5	38	47
Combines	August	628	-22.1	1	6

N.A. Not applicable

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<sup>\*21</sup> selected states.

<sup>\*\*</sup>Includes net CCC loans.