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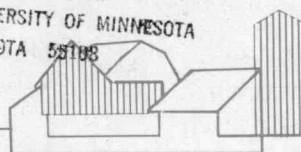
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### Crop production and usage estimates are revised

The firming in corn and soybean prices since early December was abruptly undermined on January 13 with the release of several updated U.S. Department of Agriculture reports. In a final summary of the 1988 crop harvest, the latest *Crop Production* report indicated that the drought damage to last year's corn and soybean crops was less than previously indicated. Moreover, the latest quarterly update in the *Grain Stocks* report suggested that domestic usage of grains during the early part of the 1988/89 marketing year was falling short of earlier projections. The implications of the above reports, coupled with revisions to foreign production and usage estimates, were reflected in the latest monthly update to the report on *World Agricultural Supply and Demand Estimates*. That report suggested that the drawdown in carryover stocks of corn and soybeans in the 1988/89 marketing year will be less than previously projected.

With the exception of wheat, production estimates for most major U.S. grains were revised upward in the latest report. Total U.S. grain production for 1988 is now pegged at 204 million metric tons. While up 3.8 percent from the previous projection, the latest estimate marks a decline of 26 percent from the 1987 harvest and represents the smallest U.S. grain harvest since the weather-related shortfall in 1974.

Corn accounted for most of the revision in the grain production estimate. USDA numbers now suggest that the U.S. corn harvest last year totaled 4.92 billion bushels. As evidence of the extensive drought damage, the latest estimate still marks a decline of 30 percent from the 1987 corn harvest. But in terms of the USDA's historical track record in corn estimate revisions, the latest estimate also marks an unusually large upward revision of nearly 5.5 percent from the last estimate it made in November. The revision stemmed from proportionately equal increases in the estimates of harvested acreage and per acre yields. The latest report shows that some 58.2 million acres of corn were harvested for grain last year with a national average yield of 84.6 bushels per acre. The corn yield estimate reflects a 29 percent decline from the record high of 1987 and is the lowest since the 81.1 bushel yield that occurred in the 1983 drought.

The final soybean production estimate for 1988 was also revised upward from the November estimate, but by a more modest 1.8 percent. At 1.54 billion bushels, the latest soybean production estimate reflects a 20 percent decline from the 1987 harvest and is the lowest for any year since 1976. Per acre soybean yields, now estimated at 26.8 bushels, account for all of the decline from 1987.

The most recent round of USDA crop reports also contained modest upward revisions in estimates of foreign grain production. In view of the weather-related problems that have hampered the development of crops in major Southern Hemisphere countries, the upward revision was somewhat of a surprise to analysts. Nevertheless, total foreign grain production for the 1988/89 crop year is now expected to reach 1,346 million metric tons, up 0.5 percent from the previous projection and up 1.4 percent from 1987/88. When added to the drought-reduced U.S. harvest, the latest estimates imply a worldwide grain harvest of 1,550 million metric tons for 1988/89, down 3.4 percent from the previous crop year and the lowest since 1983/84.

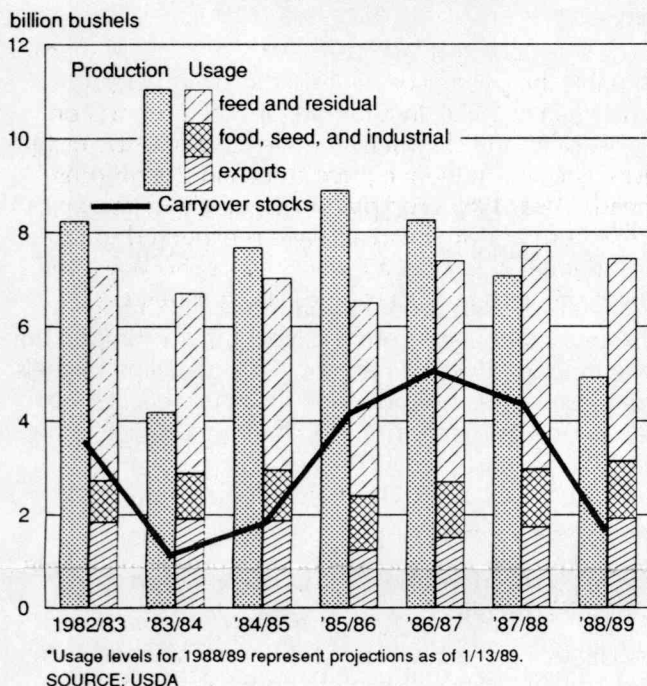
Foreign soybean production in the 1988/89 crop year is still heavily contingent on the outcome of the

### 1988 corn and soybean production estimates

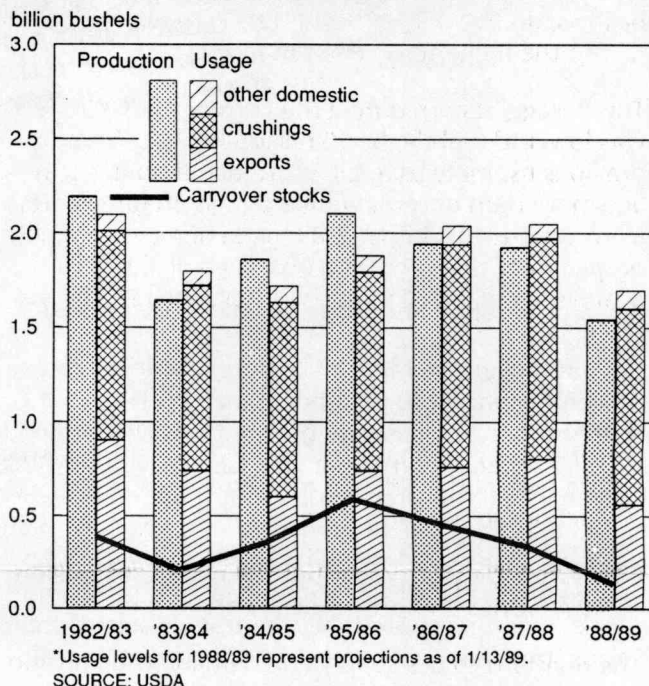
	Yield per acre		Production		
	1987	1988	1987	1988	Change
	(-- bushels --)		(million bushels)		(percent)
<b>Corn</b>					
Illinois	132	73	1,201	701	-42
Indiana	135	83	632	415	-34
Iowa	130	84	1,306	899	-31
Michigan	95	70	185	112	-40
Wisconsin	118	67	330	131	-60
District states	127.9	78.2	3,655	2,257	-38
United States	119.4	84.6	7,072	4,921	-30
<b>Soybeans</b>					
Illinois	38.0	27.0	331	235	-29
Indiana	40.0	27.5	174	116	-34
Iowa	43.5	31.0	344	248	-28
Michigan	35.0	28.0	38	34	-11
Wisconsin	38.0	23.0	12	9	-26
District states	40.2	28.5	899	641	-29
United States	33.7	26.8	1,923	1,539	-20

SOURCE: USDA

## U.S. corn production and use



## U.S. soybean production and use



drought-stressed crops now growing in the Southern Hemisphere. Recent reports indicate that conditions have improved in Brazil while soybeans in Argentina remain vulnerable. But overall, the latest USDA estimates suggest that foreign soybean production will rise to 53.1 million metric tons in 1988/89, unchanged from the previous projection but still up 5 percent from the year before and up 18 percent from two years ago. Combined with the reduced U.S. harvest, this implies a worldwide soybean harvest of 95.0 million metric tons, down 7.7 percent from the 1987/88 crop year and the smallest since 1984/85.

Prior to the release of the latest USDA reports, the upward momentum in corn prices had been largely propelled by strengthening export prospects, particularly for shipments to the Soviet Union. During the first three-months (September-November) of the 1988/89 corn marketing year, U.S. corn exports were up 21 percent from the improving pace of a year-earlier. Moreover, reports on corn export sales still awaiting shipment implied continued sizable gains for the next few months. But the optimism generated by export prospects faded with the release of the *Grain Stocks* report that suggested domestic usage of corn was falling short of expectations. The report indicated that U.S. corn stocks as of December 1 totalled 7.07 billion bushels. When the December 1 stock estimate is subtracted from the available market-year supply (production plus carryover stocks), now estimated at 9.18 billion bushels, it suggests that the apparent usage of corn in all forms for the September-November period was 3 percent less than in the same period a year earlier. Subtracting known exports from the apparent total usage implies that domestic use of corn in the

September-November period was down 9 percent from the record year-earlier pace and considerably less than most analysts had expected. The implications of the slower-than-expected pace in domestic usage of corn during the early part of the crop marketing year was compounded by another recent USDA report that suggested hog farmers are scaling back production plans for this winter and spring.

The December 1 estimate of soybean stocks, at 1.37 billion bushels, implied that usage of all soybeans during the three months ending with November was down 22 percent from an inordinately high level the year before. In comparison, other measures that track the bulk of soybean usage, exports and crushings, show a decline of 25 percent for those two uses combined. Individually, soybean exports were down a sharp 47 percent while crushings were off only 6 percent. Adjusting for the known volume of exports and crushings implies that the modest amount of soybeans used for other residual purposes during the September-November period was quite large by historical standards. This may reflect a drought-related quality problem with some of the soybeans harvested last fall. Alternatively, if subsequent *Grain Stocks* reports continue to imply an inordinately large amount of residual soybean usage, it may suggest that the 1988 soybean crop estimate may be lowered modestly.

The implications of the larger-than-expected corn and soybean production estimates and the lower-than-expected grain utilization rates for the September-November period were reflected in the revisions contained in the latest *Agricultural Supply and Demand Estimates*. For corn, that report shows total supplies



for the 1988/89 marketing year of some 9.18 billion bushels, up 250 million bushels from the last estimate due to the higher crop harvest.

Total usage of corn during the current marketing year was lowered slightly, by 40 million bushels, from the previous estimate as a cut in projected domestic usage more than offset an upward revision for exports. Corn exports for the 1988/89 marketing year are now projected to reach a seven-year high of 1.92 billion bushels, up 150 million bushels from the previous projection and up 11 percent from the 1987/88 marketing year. Conversely, domestic use of corn this year is now projected to decline to a three-year low of 5.52 billion bushels, down 190 million bushels from the previous projection and down 7 percent from the record high of the 1987/88 marketing year. These projections imply carryover stocks of corn this fall will decline to 1.74 billion bushels, down sharply from last fall's 4.26 billion carryover but still nearly 290 million bushels higher than the previous projection.

The revisions to the supply and demand estimates for soybeans in 1988/89 were comparatively modest. Total supplies were revised upward by 27 million bushels, to 1.84 billion bushels, in line with the higher production estimate. Despite the increase, soybean supplies for the 1988/89 marketing year are down 22 percent from last year and the lowest for any year since 1976/77. The estimate of total usage of soybeans was raised by 12 million bushels, with most of the increase added to the crushings estimate. Some 1.04 million bushels of soybeans are now expected to be crushed into oil and meal during the current marketing year, down 11 percent from last year. Soybean exports are projected to total 565 million bushels, down 30 percent. Combined with a modest amount used for seed and other residual purposes, these estimates imply carryover stocks of soybeans this fall will be pulled down to 140 million bushels from 302 million a year earlier, the lowest since 1977.

Corn and soybean prices retreated sharply in response to the recent reports. During the week prior to the revised estimates, corn and soybean prices in central Illinois averaged about \$2.70 and \$7.87 a bushel, respectively. The following week, corn prices averaged \$2.53 and soybean prices averaged \$7.45 a bushel. Price trends over the next few months are highly uncertain. Weather patterns here and abroad, while unpredictable, will continue to have a major influence. Forthcoming weather patterns will be particularly crucial to the size of the harvest of growing soybean and coarse grain crops in Southern Hemisphere countries that, so far, have had to contend with considerable heat and drought stress. Domestically, observers will be looking for evidence to indicate whether the

drought conditions of last year will be broken. While historical records suggest that it is unlikely U.S. crop yields will suffer from two consecutive years of major drought, the possibility still exists for weather problems again in 1989. In addition, updated reports on export sales and shipments, as well as domestic usage rates, will also influence price trends in the months ahead. Also, 1989 crop plantings will play a role. While corn and soybean acreage is expected to rise considerably this year, a recent report shows winter wheat seedings last fall rose less than expected.

Reflecting the numerous uncertainties about forthcoming trends, USDA analysts now believe that corn prices for the 1988/89 marketing year might average somewhere between \$2.30 and \$2.70 a bushel. While still well above the \$1.94 average of last year, the boundaries for the latest price range projection were lowered by a dime from the previous projection. During the first four months of the current marketing year, farm prices for corn averaged about \$2.56 a bushel. Factoring the past four-month average into the USDA's projected range for annual average corn prices for 1988/89 implies that corn prices for the remaining eight months of the marketing year may average as low as \$2.17 or as high as \$2.77 a bushel.

For soybeans, the USDA is now suggesting that average annual farm prices for 1988/89 might range from a low of \$7 a bushel to a high of \$8.25 a bushel. Through December, soybean prices averaged \$7.60 a bushel. In light of recent prices, the USDA's range in forecasted average soybean prices for 1988/89 implies that prices during the January-August period might average as low as \$6.70 a bushel or as high as \$8.58 a bushel. In short, the USDA price forecasts for both corn and soybeans acknowledge that prices could be quite volatile in the months ahead. But at the midpoint of the projected price ranges, the USDA is suggesting prices over the next few months may average close to the averages that occurred in recent months.

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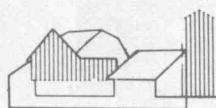
## Selected Agricultural Economic Indicators

			Percent change from		
	Latest period	Value	Prior period	Year ago	Two years ago
<b>Prices received by farmers (1977=100)</b>					
Crops (1977=100)	December	145	0.7	14	21
Corn (\$per bu.)	December	136	0.0	21	39
Oats (\$per bu.)	December	2.54	1.2	48	69
Soybeans (\$per bu.)	December	2.30	-5.0	31	60
Wheat (\$per bu.)	December	7.48	0.7	33	60
	December	3.89	0.3	44	56
<b>Livestock and products (1977=100)</b>					
Barrows and gilts (\$per cwt.)	December	154	2.0	9	9
Steers and heifers (\$per cwt.)	December	41.60	12.4	1	-20
Milk (\$per cwt.)	December	73.50	0.4	10	24
Eggs (¢per doz.)	December	13.50	0.7	6	1
	December	59.7	0.5	23	-8
<b>Prices paid by farmers (1977=100)</b>					
Production items	October	174	1.2†	5	10
Feed	October	162	1.3†	8	14
Feeder livestock	October	142	-3.4†	35	43
Fuels and energy	October	196	8.9†	3	23
	October	162	-2.4†	-4	8
<b>Producer Prices (1982=100)</b>					
Agricultural machinery and equipment	December	110	0.3	4	6
Fertilizer materials	December	113	0.3	3	3
Agricultural chemicals	December	105	2.2	16	30
	December	110	0.0	5	8
<b>Consumer prices (1982-84=100)</b>					
Food	December	121	0.2	4	9
	December	121	0.4	5	9
<b>Production or stocks</b>					
Corn stocks (mil. bu.)	December 1	7,071	N.A.	-28	-31
Soybean stocks (mil. bu.)	December 1	1,367	N.A.	-22	-30
Beef production (bil. lbs.)	November	1.88	-6.5	3	4
Pork production (bil. lbs.)	November	1.46	1.4	11	31
Milk production (bil. lbs.)††	November	9.79	-3.2	2	5

N.A. Not applicable

†Prior period is three months earlier.

††21 selected states.



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