Grain Price OUTLOOK

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SOYBEANS: RECORD CONSUMPTION, ANOTHER LARGE CROP?

July 2000 *Darrel Good*

Summary

Consumption of U.S. soybeans is proceeding at a record pace, primarily due to large purchases by China. June 1 stocks were about 74 million bushels smaller than stocks on the same date last year. Stocks at the end of the current marketing year (September 1, 2000) will be smaller than stocks at the beginning of the year, but will be fully adequate in size.

U.S. producers planted (or intended to plant) a record 74.5 million acres of soybeans in 2000. That is 370,000 less than indicated in the March *Prospective Plantings* report, but 721,000 more than planted last year. Crop progress and conditions as of mid-July suggested the potential for at least trend yield for this year's crop. Production could exceed 2.9 billion bushels, leading to buildup in stocks during the 2000-01 marketing year.

Soybean prices rallied in April and early May on the basis of dry weather and crop concerns, but plummeted in June and early July as weather and crop prospects improved. The biggest concern was excess moisture in some areas. If August brings generally favorable weather, soybean prices are likely to average well below the Commodity Credit Corporation (CCC) loan rate for the third consecutive year.

Old Crop Consumption

The domestic crush of soybeans moved sharply higher in 1997-98 driven by a trend increase in meal and oil consumption and a sharp increase in meal and oil exports. Crush remained relatively large through the first half of the 1999-00 marketing year, but fell off during the third quarter of the year (Table 1). While domestic meal and oil consumption remain large, exports have fallen off. Large South American crops and an increase in soybean imports by China (at the expense of meal and oil) have contributed to the decline.

For the current year, the domestic crush is being driven by soybean meal demand. Oil is in surplus and oil prices are low due to large world vegetable oil supplies, particularly palm oil supplies. Domestic use of soybean meal during the first half of the 1999-00 marketing year was just below the record pace of a year ago, primarily due to large consumption in October and November 1999. Sharply higher soybean meal prices beginning in March 2000, along with the reduction in hog numbers, trimmed domestic meal use from the level of a year ago. Moderating meal prices and improved hog prices are likely to hold meal consumption at a high level during the remainder of the 2000 marketing year. Use for the year is expected to come in at about 30.5 million tons, 162,000 below use of a year ago (Table 2).

Census estimates of soybean meal exports from October 2000 through April 2000 totaled 4.9 million tons, compared to 4.64 million tons during the same period last year. The weekly U.S. *Export Sales* report showed commercial shipments of meal through July 6, 2000 about 2.8 percent less than on the same date last year. Total shipments plus outstanding sales were down by 2.4 percent. It appears that exports will come in a little under last year's 7.117 million tons. A projection of 7 million tons is used here.

If meal use reaches the 37.5 million tons currently projected, the domestic crush will need to total 1.567 billion bushels, assuming imports of 50,000 tons, a draw down in ending stocks of 80,000 tons and that the average yield of meal remains at the current average of 47.7 pounds per bushel. That figures implies that 77.1 percent of the crush occurred during the first three quarters of the marketing year. That is about equal to the seven year average of 77 percent (in a range of 76.2 to 77.9 percent).

If 1.567 billion bushels of soybeans are crushed this year, about 17.707 billion pounds of oil will be produced, assuming the average yield remains at the current average of 11.3 pounds per bushel. Through the first half of the 1999-00 marketing year, domestic oil consumption was running about 5 percent ahead of last year's pace. For the year, the USDA projects a 4 percent increase, to a total of 16.3 billion pounds. That is higher than the June projection and in line with our projection.

Census estimates of soybean oil exports totaled 985 million pounds from October 1999 through April 2000. That is nearly 44 percent less than exports during the same period last year. Commercial shipments through June 29, 2000, based on the USDA's weekly *U.S. Export Sales* report, were nearly 61 percent smaller than shipments of a year ago. Shipments plus outstanding sales were down 61 percent. Much of the decline was in shipments to China (down 79 percent). For the year, the USDA projects soybean oil exports at 1.25 billion pounds, 47 percent less than shipments of a year ago. That appears to be a reasonable projection. Use of oil for all purposes is projected at 17.55 billion pounds, leaving year ending stocks of 1.767 billion pounds (Table 4).

Census estimates of soybean exports totaled 773.5 million bushels during the first 8 months of the 1999-00 marketing year. That was nearly 22 percent larger than exports during the same period last year. Through July 13, the USDA's weekly report of export inspections showed cumulative exports at 18.5 percent larger than those of a year ago. Shipments to the largest customer, the European Union, are up nearly 15 percent. Shipments are up 4 percent for Taiwan, 10 percent for South Korea and about 7 percent for Mexico. The largest increase, however, has been in shipments to China. Those exports are 199 percent larger than a year ago. China has accounted for 17 percent of all U.S. soybean exports to date, compared to 9 percent last year.

As of July 6, 81 million bushels of U.S. soybeans had been sold but not yet exported. That was 17 percent larger than outstanding sales on the same date last year. Twenty-five percent of those sales were to China. The large purchases by China, and the rest of the world, have come in the face of three consecutive large crops in South America. Economic recovery and increased livestock production have increased meal demand and low soybean prices have encouraged consumption. U.S. soybean exports will likely reach a record 965 million bushels this year.

Seed and residual (unexplained) use of soybeans was at a very high level during the first three quarters of the 1999-00 marketing year, as it was the previous three years (Table 1). Use in that category totaled 208.9 million bushels during those three quarters of this year. For the year, the USDA projects use in that category at 170 million bushels. That projection implies a large negative residual use during the fourth quarter, similar to 1996, 1997, and 1998.

It now appears that soybean consumption for all purposes will total just about 2.7 billion bushels, leaving carryover stocks near 290 million bushels (Table 3). Low prices and

increased Chinese demand means that consumption will likely exceed the size of the 1999 crop, but supplies remain in surplus.

2000 Crop Prospects

The USDA's June *Acreage* report revealed intentions to plant 74.501 million acres of soybeans in 2000. That figure is 370,000 acres below March intentions, but 721,000 above actual plantings in 1999 (Table 5). The western corn belt increased acreage by 1.15 million acres, slightly less than the 1.45 million indicated in March. Eastern corn belt states will plant 24.1 million acres of soybeans, the same as in 1999. A decline of 545,000 acres is expected in the south ad southeast. That area will account for only 15.5 percent of the acreage this year, compared to the peak of 37.7 percent in 1976 (Table 6).

Harvested acreage of soybeans is projected at a record 73.474 million, almost one million more than harvested last year. The difference between planted and harvested, 1.063 million, is about average. Average yields will be a function of weather through early September. As of July 16, 66 percent of the U.S. crop was rated in good or excellent condition. The highest rated crops were in Illinois, Kentucky, North Carolina, Tennessee, and Wisconsin. The lowest crop ratings were in Louisiana, Mississippi, Nebraska, and Ohio. Dry weather was a problem in Nebraska while excessive moisture was a problem in Michigan and Ohio. Overall, the crop was not rated as highly as last year, when 67 percent of the crop was rated in good or excellent condition. However, crop condition ratings declined sharply from mid-July until harvest last year due to widespread dry weather. By mid-September 1999, only 45 percent of the crop was rated in good or excellent condition. The U.S. average yield estimate declined from 39.2 bushels in August 1999 to a final estimate of 36.5 bushels in January 2000. The crop lost production potential of nearly 250 million bushels due to a dry end of the growing season.

The 2000 crop is well ahead of normal progress and is also ahead of the rapid progress of a year ago. As of July 16, 58 percent of the crop was reported in the bloom stage, versus 48 percent last year and the 5 year average of 34 percent. Fifteen percent of the crop was setting pods, compared to the 5 year average of 6 percent.

The crop in many areas of the midwest was hampered by excess moisture in late June and early July. A little drier weather in those areas would be beneficial, but additional moisture will be needed as the crop finishes pod fill. The USDA will release the first objective yield estimate on August 11. For now, the USDA and many crop observers are expecting an average yield near the trend of 40 bushels per acre.

A crop near 2.94 billion bushels now appears likely, if the growing season finishes with favorable weather. That is about 100 million bushels larger than the projection in the April issue of this newsletter, reflecting a decline of about 300,00 acres in the projection of harvested acreage and a 1.5 bushel increase in the expectation for average yield. With beginning stocks of 292 million bushels and imports of 3 million bushels, soybean supplies for the 2000-01 marketing year are projected at a record 3.235 billion bushels (Table 3).

Consumption Prospects

Domestically, soybean meal consumption during the 2000-01 marketing year will be supported by increased broiler production (4 percent projected) and a modest expansion in hog production beginning in the second half of the marketing year. Low meal prices and profitable livestock production will also be supportive. A 2 percent expansion would put domestic meal use at 31.1 million tons. Exports will be influenced by the magnitude of competing supplies and growth in world demand. Demand growth is expected, (particularly in China) but South American production may also increase export competition. In addition, the 2000 Chinese soybean crop is expected to be nearly 11 percent larger than the 1999 crop (see discussion below). As a result, we see U.S.

meal exports holding near the 7 million ton level of this year.

Total meal consumption may be near 38.7 million tons next year. If the average meal yield is near 47.6 pounds, rather than the 47.7 pounds this year, the crush during the year ahead will need to be near 1.62 billion bushels.

A crush of 1.62 billion bushels would produce about 18.3 billion pounds of oil. Allowing for a 2 percent trend increase in domestic oil consumption and a healthy recovery in oil exports, total oil consumption may be about equal to production, leaving year ending stocks at a large level.

U.S. soybean exports will be heavily influenced by Chinese demand and the size of the 2001 South American crop. China is expected to continue to increase soybean meal consumption, but probably not at the high rate (14 percent) of increase experienced this year. In addition, China is expected to continue to increase production of soybeans at the expense of corn during the next several years. Chinese soybean imports are actually expected to decline from the lofty level (283 million bushels) of this year.

In its first look at 2001 South American soybean production prospects, the USDA projected a 4 percent increase in production over the record 2000 crop (Table 8). Planted acreage is expected to increase by about 1.6 percent, mostly in Argentina, and average yields are projected to increase by 2.5 percent, mostly in Brazil. If this crop materializes, recognizing that it has not yet been planted, competition for U.S. soybean exports will remain stiff. U.S. exports will have difficulty maintaining the 965 million bushels of the current year. We project shipments at 950 million bushels.

With seed, feed, and residual use of 175 million bushels next year, use for all purposes is projected at 2.745 billion bushels, leaving carryover stocks of 485 million bushels.

Price Prospects

The average monthly price of soybeans and soybean products for the 1999-00 marketing year have been as follows:

Month	Soybeans[a] $/bu	Meal[b] $/ton	Oil[c] ¢/lb
Sept. 99	$4.67	--	--
Oct.	4.52	$147.12	16.08
Nov.	4.48	145.93	15.63
Dec.	4.47	145.39	15.33
Jan. 00	4.73	154.96	15.53
Feb.	4.87	162.99	15.10
Mar.	4.97	167.00	16.22
April	5.12	169.00	17.52
May	5.25	181.57	16.74
June	4.92	170.18	15.65
Ave.	$4.80	$160.46	15.98

[a] Central Illinois farm price
[b] Bulk 44% protein, Decatur, Illinois
[c] Bulk, Decatur, Illinois

The cash crush margin has generally increased since February. The marketing year average price is expected to be near $159.00 for meal, 15.75 cents for oil, and $4.70 for soybeans. The highest daily cash price of soybeans in central Illinois during the 1999-00 marketing year was $5.415, on May 3, 2000. The lowest price of $4.35 was set on October 26, 1999. The range of $1.065 from high to low is small by historic standards. The range has been between $1.70 to $2.33 since 1992-93. The range has been smaller than $1.065 in only two years since 1973 – $.915 in 1991-92 and $.615 in 1985-86. Current prices are near the low end of the range for the year. New lows are expected if the 2000 growing season ends on a favorable note.

November 2000 soybean futures traded to a high of $5.945 on May 3, 2000 (contract high is $6.31) and declined to a life of contract low of $4.455 on July 17, 2000.

Further downside is possible if crop conditions and yield prospects improve. However, there is still some concern about the negative impact of wet weather and potential disease problems on yield prospects. Soybean demand is much stronger (thanks to Chinese imports) than

was the case a year ago when November 1999 futures declined to a low of $4.0525. Even with some deterioration in crop prospects, prices are not expected to recover above the loan rate. The marketing year average price is expected to be near $4.50, if the supply and consumption scenario outlined here actually materializes.

Pricing Strategies

The soybean market provided only a brief opportunity this spring to price soybeans above the loan rate for harvest delivery. The average harvest bid in central Illinois is now about $1.25 under the loan rate. Future pricing decisions will be centered around the use of the marketing loan program. Harvest time strategies for those with farm storage capacity will be centered around:

1. Establishing the Loan Deficiency Payment (LDP) and forward pricing if there is a premium for January delivery.
2. Placing crop under loan and locking in the repayment rate for up to 60 days to capture a post-harvest price recovery.
3. Establishing the LDP and holding some of the crop unpriced in anticipation of a post-harvest price recovery.

The carry in the market may be large enough to accommodate these strategies with commercial storage in some areas. If not, establishing the LDP and selling the crop at harvest may be a reasonable strategy. Reownership with call options or futures might be considered if futures remain at depressed levels after harvest.

Those facing payment limitations for LDPs, will be able to use the certificate program to avoid the $75,000 cap.

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Table 1. Soybean Quarterly Balance Sheet

	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00
									million pounds									
September 1 stocks	254.5	344.6	175.7	316.1	536.4	436.4	302.5	182.0	239.1	329.0	278.4	292.3	209.1	334.8	183.5	131.8	199.8	348.5
Production	2,190.3	1,635.8	1,860.9	2,099.1	1,942.6	1,937.7	1,548.8	1,923.8	1,925.9	1,986.6	2,190.4	1,860.7	2,514.9	2,174.3	2,380.3	2,688.8	2,741.0	2,642.9
TOTAL	2,444.8	1,980.4	2,036.6	2,415.2	2,479.0	2,374.1	1,855.3	2,108.8	2,167.0	2,319.6	2,470.8	2,159.0	2,730.0	2,514.1	2,572.8	2,825.6	2,943.8	2,994.4
September-November																		
Crush	284.2	269.6	253.7	267.5	295.8	293.4	275.4	273.0	304.1	322.0	328.2	329.6	346.2	351.4	360.6	395.8	409.3	426.7
Export	245.9	190.6	153.4	166.5	216.5	260.8	138.3	168.5	120.1	167.1	235.9	176.0	230.9	233.6	289.7	365.3	268.5	297.8
Seed, residual	-36.2	48.5	14.8	21.5	10.1	64.6	74.8	56.6	58.8	51.5	70.7	79.8	50.9	95.7	97.4	66.9	78.5	87.4
TOTAL	493.9	508.7	421.9	455.4	522.4	618.8	488.5	498.1	483.0	540.6	634.8	585.4	628.0	681.7	747.7	826.2	758.8	811.5
December 1 stocks	1,950.9	1,471.7	1,614.7	1,959.8	1,956.6	1,755.3	1,366.8	1,610.7	1,684.0	1,779.0	1,836.0	1,573.6	2,102.0	1,833.4	1,825.1	1,999.4	2,186.0	2,182.9
Crush	314.9	262.5	276.4	281.9	320.1	317.3	286.3	304.3	301.4	323.1	335.2	327.2	371.8	359.0	400.7	443.1	408.6	408.1
Export	263.6	234.6	230.2	270.9	233.7	258.9	197.0	217.0	179.7	259.6	255.9	212.7	283.5	278.7	333.1	306.4	243.1	315.4
Seed, residual	26.6	18.8	47.0	35.7	63.8	33.0	-6.7	33.9	12.8	19.6	29.3	12.1	76.5	5.3	35.5	46.9	77.0	63.2
TOTAL	605.1	515.9	553.6	588.5	617.6	609.2	476.6	555.2	493.9	602.3	620.4	552.0	731.8	643.0	769.3	796.5	728.7	786.7
March 1 stocks	1,345.8	955.8	1,061.1	1,371.3	1,339.0	1,146.1	890.2	1,055.5	1,190.1	1,177.3	1,215.6	1,021.6	1,370.2	1,190.4	1,055.8	1,202.9	1,457.3	1,396.2
Crush	260.1	240.0	258.2	262.3	297.2	308.3	270.1	290.7	295.5	304.0	325.4	320.4	361.7	334.0	355.7	404.9	396.4	373.9
Export	216.2	204.2	153.4	226.4	159.3	185.0	135.5	153.2	146.9	148.2	186.7	120.6	216.6	188.5	165.9	120.0	161.9	189.0
Seed, residual	78.9	39.9	41.1	33.7	45.7	-2.5	20.1	15.7	24.2	29.4	20.1	25.3	0.0	44.9	34.3	84.4	50.4	58.3
TOTAL	555.2	484.1	452.7	522.4	502.2	490.8	425.7	459.6	466.6	481.6	532.2	466.3	578.3	567.4	555.9	609.2	608.7	621.2
June 1 stocks	790.6	471.7	608.4	848.9	836.8	655.3	464.5	595.9	723.5	695.7	683.4	555.3	791.9	622.8	499.9	593.7	848.6	775.0
Crush	248.8	210.6	242.1	241.1	265.5	255.5	225.8	278.4	285.9	304.6	290.0	298.4	325.5	324.9	318.7	353.2	375.4	
Export	179.5	113.6	61.1	76.3	147.4	97.6	56.2	84.2	110.4	109.0	91.0	79.7	107.0	150.5	93.0	78.7	127.5	
Seed, residual	17.7	-28.2	-10.9	-4.9	-12.5	0.3	0.5	-5.8	-1.8	3.1	10.1	-31.9	24.6	-35.2	-43.6	-37.9	-1.3	
TOTAL	446.0	296.0	292.3	312.5	400.4	352.8	282.5	356.8	394.5	416.7	391.1	346.2	457.1	439.6	368.1	393.9	501.6	
September 1 stocks	344.6	175.7	316.1	536.4	436.4	302.5	182.0	239.1	329.0	278.4	292.3	209.1	334.8	183.5	131.8	199.8	348.5	
Annual																		
Crush	1,108.0	982.7	1,030.4	1,052.8	1,178.7	1,174.5	1,057.6	1,146.4	1,186.9	1,253.7	1,278.8	1,275.6	1,405.2	1,369.4	1,435.7	1,595.1	1,589.7	
Export	905.2	743.0	598.1	740.1	756.9	801.7	527.0	622.9	557.1	683.9	769.5	589.0	838.0	851.2	881.7	870.4	801.0	
Seed, residual	87.0	79.0	92.0	85.9	107.0	95.4	88.7	100.4	94.0	103.6	130.2	85.3	152.0	110.4	123.6	160.3	204.6	
TOTAL	2,100.2	1,804.7	1,720.5	1,878.8	2,042.6	2,071.6	1,673.3	1,869.7	1,838.0	2,041.2	2,178.5	1,949.9	2,397.0	2,330.9	2,441.0	2,625.8	2,595.3	

Table 2. Soybean Meal Balance Sheet -- Years Beginning October 1

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00[c]
	thousand tons										
Beginning stocks	173	318	285	230	204	150	223	212	210	218	330
Production	27,719	28,325	29,831	30,364	30,514	33,270	32,527	34,210	38,176	37,792	37,370
TOTAL[a]	27,982	28,688	30,183	30,687	30,788	33,483	32,825	34,524	38,443	38,109	37,750
Domestic	22,291	22,934	23,007	24,251	25,283	26,542	26,611	27,320	28,895	30,662	30,500
Exports	5,319	5,469	6,946	6,232	5,356	6,717	6,002	6,994	9,330	7,117	7,000
TOTAL	27,610	28,403	29,953	30,483	30,639	33,260	32,613	34,314	38,225	37,779	37,500
Ending stocks	318	285	230	204	150	223	212	210	218	330	250
Price[b]	$173.94	$170.00	$176.00	$181.85	$180.00	$151.00	$225.00	$260.40	$175.00	$131.83	$159.00

[a] Includes imports

[b] Bulk, Decatur, Illinois 44%

[c] Projected

Table 3. Soybean Balance Sheet -- Years Beginning September 1

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00[a]	2000-01[a]
	million bushels											
Carryin	182	239	329	278	292	209	335	183	132	200	348	292
Production	1,924	1,926	1,987	2,190	1,870	2,515	2,174	2,380	2,689	2,741	2,643	2,940
TOTAL[b]	2,109	2,167	2,320	2,470	2,168	2,729	2,514	2,573	2,826	2,944	2,994	3,235
Crush	1,146	1,187	1,254	1,279	1,276	1,405	1,369	1,436	1,597	1,590	1,567	1,620
Export	623	557	684	770	589	838	851	882	870	801	965	950
Seed, feed, residual	101	94	103	129	94	151	111	123	159	205	170	175
TOTAL	1,870	1,838	2,041	2,178	1,954	2,394	2,331	2,441	2,626	2,596	2,702	2,745
Carryout	239	329	278	292	209	335	183	132	200	348	292	485
U.S. Average price	$5.70	$5.75	$5.58	$5.60	$6.40	$5.48	$6.77	$7.35	$6.47	$4.93	$4.70	$4.50

[a] Projected

[b] Includes Imports

Table 4. Soybean Oil Balance Sheet -- Years Beginning October 1

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00[c]
	million pounds										
Beginning stocks	1,715	1,305	1,786	2,239	1,555	1,103	1,137	2,015	1,520	1,382	1,520
Production	13,003	13,406	14,346	13,778	13,951	15,613	15,240	15,752	18,143	18,081	17,707
TOTAL[a]	14,740	14,728	16,132	16,027	15,574	16,733	16,472	17,821	19,723	19,546	19,317
Domestic	12,082	12,163	12,246	13,053	12,941	12,916	13,465	14,263	15,262	15,655	16,300
Exports	1,353	779	1,647	1,419	1,529	2,680	992	2,037	3,079	2,372	1,250
TOTAL	13,435	12,942	13,893	14,472	14,471	15,596	14,457	16,300	18,341	28,027	17,550
Ending stocks	1,305	1,786	2,239	1,555	1,103	1,137	2,015	1,520	1,382	1,520	1,767
Average Price[b]	22.3¢	21.0¢	19.1¢	21.4¢	27.1¢	27.6¢	24.75¢	22.5¢	25.8¢	19.9¢	15.75¢

[a] Includes imports

[b] Bulk, Decatur, Illinois 44%

[c] Projected

Table 5. Soybean Planting Intentions, Actual Plantings, and Acres Harvested

Year	January Intentions	Mar./April Intentions	June/July Intentions	Actual	Harvested Acreage
			million acres		
1975	57.5	56.6	54.6	54.6	53.8
1976	50.9	49.3	49.0	50.3	49.4
1977	53.1	55.7	59.0	59.0	57.6
1978	63.9	63.7	64.0	64.7	63.3
1979	66.3	68.8	71.6	71.4	70.3
1980	71.6	71.3	70.3	69.9	67.8
1981	----	69.8	68.5	67.5	66.2
1982	69.5[a]	---	72.2	70.9	69.4
1983	68.8[a]	65.8[b]	63.3	63.8	62.5
1984	65.2[a]	---	68.0	67.8	66.1
1985	64.4[a]	---	63.3	63.1	61.6
1986	---	62.0	61.8	60.4	58.3
1987	---	56.9	58.7	58.180	57.172
1988	---	58.0	58.5	58.840	57.373
1989	---	61.7	61.3	60.820	59.282
1990		59.42	58.05	57.795	56.283
1991	58.5	57.12	59.78	59.180	58.169
1992		57.42	59.03	59.180	58.233
1993		59.30	61.58	60.085	57.307
1994		61.12	61.78	61.620	60.809
1995		61.45	63.105	62.495	61.544
1996		62.478	63.895	64.195	63.349
1997		68.800	70.850	70.005	69.110
1998		72.000	72.720	72.025	70.441
1999		73.105	74.205	73.780	72.476
2000		74.871	74.501		(73.474)

[a] February 1

[b] May 1

Table 6. Planted Acres of Soybeans by Region

	Western Corn Belt[a]		Eastern Corn Belt[b]		Mid-South[c]		Southeast[d]		East Coast[e]		United States	
Region	000 acres	%	000 acres	%	000 acres	%	000 acres	%	000 acres	%	000 acres	%
1976	16,145	32.1	14,530	28.9	13,630	27.1	4,799	9.6	1,122	2.3	50,226	100.0
1979	23,370	32.7	19,620	27.5	18,470	25.9	8,360	11.7	1,591	2.2	71,411	100.0
1986	24,875	41.2	18,300	30.3	10,995	18.2	4,680	7.8	1,535	2.5	60,385	100.0
1987	24,120	41.5	18,580	31.9	10,330	17.8	3,675	6.3	1,475	2.5	58,180	100.0
1988	24,310	41.3	18,680	31.7	10,460	17.8	3,810	6.5	1,580	2.7	58,840	100.0
1989	24,790	40.8	19,020	31.3	10,750	17.7	4,460	7.3	1,800	2.9	60,820	100.0
1990	23,750	41.1	18,490	32.0	10,270	17.2	3,650	6.3	1,635	2.8	57,795	100.0
1991	26,035	44.0	19,420	32.8	8,990	15.2	3,005	5.1	1,730	2.9	59,180	100.0
1992	25,400	42.9	20,000	33.8	8,980	15.2	2,915	5.2	1,715	2.9	59,180	100.0
1993	25,300	42.1	20,410	34.0	9,690	16.1	2,915	4.9	1,770	2.9	60,085	100.0
1994	27,220	44.1	20,510	33.3	9,220	15.0	2,875	4.7	1,795	2.9	61,620	100.0
1995	28,210	45.1	21,130	33.8	9,130	14.7	2,290	3.6	1,735	2.8	62,495	100.0
1996	28,250	44.0	22,370	34.8	9,390	14.6	2,565	4.0	1,620	2.5	64,195	100.0
1997	32,450	46.4	22,610	32.3	10,390	14.8	2,777	4.0	1,778	2.5	70,005	100.0
1998	33,700	46.8	23,650	32.8	10,180	14.1	2,690	3.8	1,805	2.5	72,025	100.0
1999	35,800	48.5	24,100	32.7	9,750	13.2	2,360	3.2	1,770	2.4	73,780	100.0
2000	36,950	49.6	24,100	32.4	9,310	12.5	2,255	3.0	1,886	2.5	74,501	100.0

[a] Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota

[b] Illinois, Indiana, Michigan, Ohio, Wisconsin

[c] Arkansas, Kentucky, Louisiana, Mississippi, Oklahoma, Tennessee, Texas

[d] Alabama, Florida, Georgia, North Carolina, South Carolina

e Delaware, Maryland, New Jersey, New York, Pennsylvania, Virginia

Table 7. United States Soybean Yield Estimates

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	million bushels																				
August 1	30.3	27.4	30.2	32.3	29.7	30.5	31.5	32.9	34.7	26.0	32.3	32.5	31.8	35.8	33.8	37.6	36.4	36.3	39.5	39.5	39.2
September 1	30.9	27.0	31.2	32.6	24.9	30.3	33.2	33.1	34.0	25.9	32.0	32.4	31.0	35.9	34.0	38.2	37.0	35.8	39.3	40.6	37.9
October 1	31.5	26.0	31.5	32.4	24.7	29.5	33.9	33.3	34.2	26.4	32.6	32.3	33.0	36.3	33.7	40.5	35.5	37.0	39.0	38.7	37.0
November 1	31.8	26.5	31.0	32.4	25.0	28.5	34.2	33.8	34.1	26.6	32.8	33.7	33.5	37.3	32.7	41.5	35.4	37.9	39.2	38.6	36.7
January 1	32.2	26.8	30.4	32.2	25.7	28.2	34.1	33.8	33.7	26.8	32.4	34.0	34.3	37.6	32.0	41.9	34.9	37.6	39.0	38.9	36.5
FINAL	32.1	26.5	30.1	31.5	26.2	28.1	34.1	33.3	33.9	27.0	32.3	34.1	34.2	37.6	32.6	41.4	35.3	37.6	38.9	38.9	

Table 8. Soybean Production by Country

Year	United States	Brazil[a]	Argentina[a]	Paraguay[a]	China	Other	World	All Foreign
				million bushels				
1970	1,127	76	2	3	254	165	1,627	500
1971	1,176	135	3	4	290	126	1,734	558
1972	1,283	184	10	4	320	66	1,867	584
1973	1,547	289	18	7	367	64	2,292	745
1974	1,215	363	18	8	349	54	2,007	792
1975	1,547	413	26	10	367	46	2,409	862
1976	1,288	460	51	14	242	128	2,183	895
1977	1,762	350	99	12	266	154	2,643	881
1978	1,870	557	136	20	278	167	2,847	977
1979	2,261	376	132	21	274	191	3,255	994
1980	1,798	558	129	22	292	176	2,975	1,177
1981	1,989	471	152	22	342	186	3,162	1,173
1982	2,190	542	154	19	332	200	3,437	1,247
1983	1,636	571	257	20	359	213	3,056	1,420
1984	1,861	672	248	35	356	248	3,421	1,561
1985	2,099	518	268	22	386	272	3,565	1,466
1986	1,943	636	257	35	427	303	3,601	1,658
1987	1,938	662	356	40	457	359	3,812	1,874
1988	1,549	852	235	60	428	387	3,506	1,957
1989	1,924	747	395	58	376	445	3,945	2,020
1990	1,926	579	423	48	404	446	3,826	1,900
1991	1,987	709	410	48	357	435	3,946	1,959
1992	2,188	827	417	64	378	434	4,308	2,120
1993	1,871	908	456	66	563	454	4,318	2,447
1994	2,517	952	459	81	588	460	5,057	2,540
1995	2,177	887	457	88	496	487	4,591	2,415
1996	2,380	1,003	412	102	486	474	4,857	2,477
1997	2,689	1,194	717	110	551	545	5,806	3,117
1998	2,741	1,150	731	110	557	568	5,857	3,116
1999	2,643	1,154	761	107	525	538	5,728	3,085
2000	2,940	1,205	790	110	581	566	6,192	3,252

[a] Harvested in the spring of the following year.

Table 1. United States Soybean Production Estimates

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	million bushels																				
August 1	2,130	1,880	2,017	2,293	1,843	2,035	1,959	1,979	2,000	1,474	1,905	1,836	1,869	2,079	1,902	2,282	2,246	2,300	2,744	2,727	2,870
September 1	2,174	1,831	2,089	2,314	1,535	2,028	2,063	1,980	1,957	1,472	1,889	1,835	1,817	2,085	1,909	2,316	2,285	2,270	2,746	2,909	2,778
October 1	2,213	1,757	2,107	2,300	1,517	1,972	2,108	1,992	1,968	1,501	1,926	1,823	1,934	2,108	1,891	2,458	2,190	2,346	2,722	2,769	2,696
November 1	2,236	1,775	2,077	2,300	1,535	1,902	2,129	2,009	1,960	1,512	1,937	1,904	1,962	2,167	1,834	2,523	2,183	2,403	2,736	2,763	2,673
January 1	2,268	1,817	2,030	2,277	1,595	1,861	2,099	2,007	1,905	1,539	1,927	1,922	1,986	2,197	1,809	2,558	2,152	2,382	2,727	2,757	2,643
FINAL	2,261	1,798	1,989	2,190	1,636	1,861	2,099	1,943	1,938	1,549	1,924	1,926	1,987	2,190	1,870	2,515	2,174	2,380	2,689	2,741	

Table 6. World Oilseed and Soybean Production

	Major Oilseeds			Soybeans		
Year	United States	Ex-United Stated	Total	United States	Ex-United States	Total
			million metric tons			
1977-78	56.5	93.7	150.2	47.95	23.98	71.93
1978-79	58.6	92.0	150.6	50.86	26.62	77.48
1979-80	72.4	98.1	170.5	61.72	31.79	93.51
1980-81	55.8	99.8	155.6	48.77	32.20	80.97
1981-82	64.0	105.5	169.5	54.13	31.93	86.06
1982-83	68.2	110.1	178.3	59.61	33.96	93.57
1983-84	50.4	115.1	165.5	44.52	38.64	84.16
1984-85	59.2	131.7	191.1	50.64	42.50	93.14
1985-86	65.4	130.8	196.2	57.13	39.92	97.05
1986-87	59.4	135.0	194.4	52.87	45.21	98.08
1987-88	60.6	150.0	210.6	52.75	51.06	103.81
1988-89	50.3	153.9	204.2	42.15	53.49	95.64
1989-90	59.3	153.1	212.4	52.35	55.02	107.37
1990-91	60.6	155.1	215.7	52.42	51.57	103.99
1991-92	64.3	160.0	224.3	54.07	53.31	107.38
1992-93	68.4	158.9	227.4	59.61	57.69	117.30
1993-94	59.5	168.4	227.9	50.92	66.58	117.50
1994-95	79.7	181.2	260.9	68.49	69.14	137.63
1995-96	69.1	190.6	259.7	59.24	65.72	124.96
1996-97	74.8	187.0	261.8	64.78	67.40	132.18
1997-98	83.1	203.9	287.0	73.18	84.90	158.07
1998-99	84.4	208.4	292.8	74.60	84.35	158.95
1999-00	82.1	213.7	295.8	71.93	81.58	153.51

[1]WASDE March 10, 2000 and earlier.