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and Statistics
Service

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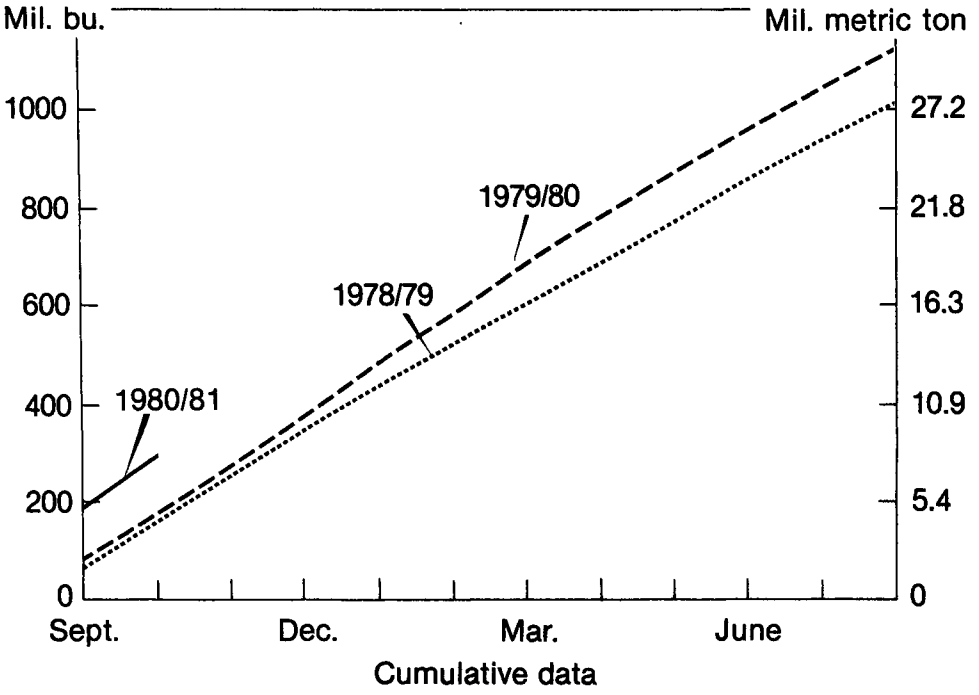
February 1981

Fats and Oils

OUTLOOK & SITUATION

Monthly U.S. Soybean Crushings



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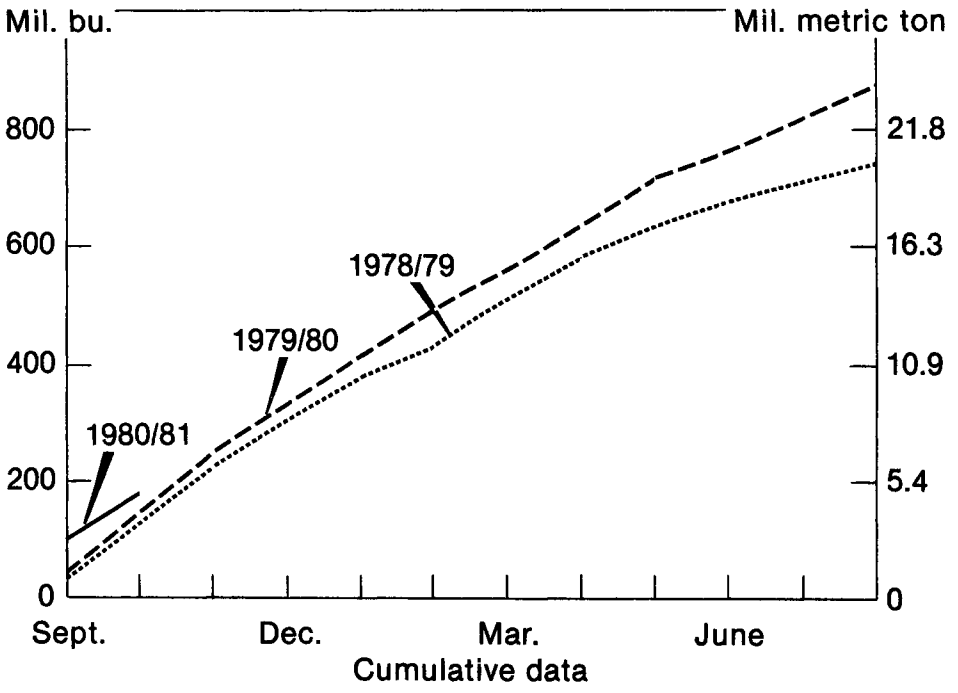
Monthly U.S. Soybean Exports



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CONTENTS

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The World Food and Agricultural
Outlook and Situation Board
and Summary released

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SUMMARY

The 1980/81 U.S. soybean season is highlighted by smaller supplies, reduced use, and higher prices. Reflecting the sharp drop in production, U.S. soybean supplies for 1980/81 are estimated at 2.18 billion bushels, 11 percent below a year earlier. At the same time, less favorable crushing margins and weaker export demand are expected to limit use to 1.97 billion bushels, 6 percent below last season. Carryout stocks of soybeans on September 1, 1981, may be reduced to 210 million bushels, down from last season's record 359 million. Because of the tigher supplies, soybean farm prices are expected to average around $7.90 a bushel, about a fourth above 1979/80.

Soybean supplies this season are forecast to be 14 percent higher in the major exporting countries of Brazil and Argentina. Soybean exports from these countries are forcast to rise 16 percent to 173 million bushels, while meal exports may be up 14 percent. Meanwhile, large stocks of vegetable oils are expected to encourage imports of meal rather than soybeans, especially in Europe. This factor, combined with increased exports from South America, is causing U.S. soybean exports to run sharply below the year-earlier pace. For 1980/81, U.S. exports are expected to be around 800 million bushels, 9 percent below 1979/80.

Relatively strong demand for soybean meal is expected to stimulate a U.S. crush of 1,075 million bushels, only a 4-percent decline from last year's record 1,123 million. However, a crush this size will also contribute to already high stocks of soybean oil, which could build to a record 1.5 billion pounds on October 1, 1981. Exports of soybean oil are expected to decline by 8 percent because of high vegetable oil stocks abroad. In addition, growth in domestic use is expected to increase by only 3 percent. Unlike soybean oil prices, which are not expected to show any appreciable increase over last year, soybean meal prices will be relatively strong and are expected to average around $235 a short ton.

Soaring interest rates and weakening demand prospects in early December contributed to sharp price declines for soybeans and soybean products. Although average prices received by farmers dropped from $8.18 in November to $7.56 in mid-January, prices remained more than $1 above last season's level during this period. Prices are expected to remain volatile throughout the remainder of the crop year and will be influenced by the size of the South American crop, and acreage and yield prospects for the U.S. crop to be planted this spring.

USDAs' planting intentions survey of 16 Southern states indicates that about 27.4 million acres of soybeans will be seeded in that area, up around 1 percent. Last year these states accounted for 24 percent of total U.S. soybean production. The current soybean/corn price ratio indicates some shifting of soybean acreage into corn this spring. However, the remaining soybean producing states where this is most likely to occur will not be surveyed until March. Overall, soybean acreage is expected to be down slightly from 1980, but a return to near normal yields would put production above last year's 1.8 billion bushels.

The smallest peanut crop in 11 years prompted President Carter to raise the import quota of 1.7 million pounds (shelled basis) by an additional 200 million. Domestic edible use of peanuts may decline by one-fifth to 1.6 billion pounds. Manufacturers of peanut butter, and other products have generally experienced shortages, and retail stores have rationed purchases as well as boosted prices 50 percent or more.

To provide an adequate supply of peanuts next season, the acreage allotment was increased from 1.6 million acres to 1.7 million. This was reflected in the planting intentions survey, which showed planned peanut acreage up 4 percent.

Total supplies of U.S. sunflower seed in 1980/81 are projected at 2.7 million metric tons, down from 3.6 million in 1979/80, reflecting reduced 1980 plantings and lower yields due to the drought. Carryin stocks on September 1, 1980, were a record 1.1 million metric tons due to record 1979 plantings and yields. However, this was not sufficient to offset the much lower 1980 crop of 1.8 million metric tons. Based on estimates for sunflower crush and exports, carryover stocks on September 1, 1981, are forecast around 365,000 metric tons.

Cottonseed production for 1980/81 is estimated at 4.4 million tons. With beginning stocks of over 1 million tons, total supplies for 1980/81 are estimated at 5.4 million tons. While cottonseed crush is expected to be virtually the same, exports are expected to nearly double this year due in part to an agreement between the United States and Mexico.

Soybeans: Acreage, production, price, and value by States and areas, crop years 1978-80

State and area	Acreage harvested			Yield per harvested acre			Production			Price per bushel received by farmers			Value of production		
	1978	1979	1980 1/	1978	1979	1980 1/	1978	1979	1980 1/	1978	1979	1980 1/	1978	1979	1980 1/
	1,000 acres			Bushels			Million bushels			Dollars			Million dollars		
Southeast															
North Carolina	1,680	1,950	1,930	24.0	23.5	18.5	40.3	45.8	35.7	6.57	6.45	8.40	265.0	295.6	300.0
South Carolina	1,470	1,660	1,600	22.0	24.0	14.0	32.3	39.8	22.4	6.87	6.51	8.55	222.2	259.4	191.5
Georgia	1,680	2,100	2,140	17.5	28.0	12.0	29.4	58.8	25.7	6.39	6.32	8.15	187.9	371.6	209.3
Alabama	1,850	2,150	2,100	21.0	25.0	15.0	38.9	53.8	31.5	6.43	6.15	8.00	249.8	330.6	252.0
Total	6,680	7,860	7,770	21.1	25.2	14.8	140.9	198.2	115.3	6.56	6.04	8.26	924.9	1,257.2	952.8
South Central															
Kentucky	1,360	1,660	1,600	30.0	32.5	23.0	40.8	54.0	36.8	6.82	6.42	8.50	278.3	346.4	312.8
Tennessee	2,420	2,620	2,550	23.5	27.0	19.0	56.9	70.7	48.5	6.73	6.35	8.35	382.7	449.2	404.6
Mississippi	3,800	4,100	3,850	21.5	29.0	16.0	81.7	118.9	61.6	6.63	6.37	8.50	541.7	757.4	523.6
Arkansas	4,700	5,150	4,350	24.5	28.0	16.0	115.2	144.2	69.6	6.72	6.44	8.75	773.8	928.6	609.0
Louisiana	3,040	3,350	3,350	25.0	28.0	21.0	76.0	93.8	70.4	6.54	6.42	8.35	497.0	602.2	587.4
Total	15,320	16,880	15,700	24.2	28.5	18.3	370.6	481.6	286.9	6.67	6.40	8.50	2,473.5	3,083.8	2,437.4
Eastern corn belt															
Ohio	3,870	4,080	3,760	33.0	35.5	36.0	127.7	144.8	135.4	6.79	6.33	8.40	867.2	916.8	1,137.0
Indiana	4,180	4,420	4,380	34.5	36.0	36.0	144.2	159.1	157.7	6.68	6.32	8.25	963.3	1,005.6	1,300.9
Illinois	9,240	9,720	9,250	33.5	39.0	33.5	309.5	379.1	309.9	6.75	6.46	8.60	2,089.4	2,448.9	2,664.9
Iowa	7,550	8,170	8,270	37.5	37.5	39.0	283.1	306.4	322.5	6.64	6.17	8.35	1,880.0	1,890.3	2,693.1
Missouri	5,440	5,830	5,530	28.5	31.5	25.0	155.0	183.6	138.3	6.69	6.22	8.40	1,037.2	1,142.3	1,161.3
Minnesota	4,060	5,080	4,760	36.0	32.0	32.0	146.2	162.6	152.3	6.52	6.00	8.30	953.0	975.4	1,264.3
Total	34,340	37,300	35,950	33.9	35.8	33.8	1,165.8	1,335.6	1,215.8	6.68	6.27	8.41	7,790.1	8,379.3	10,221.5
Western corn belt															
North Dakota	173	206	200	27.5	27.0	17.5	4.8	5.6	3.5	6.75	5.80	8.25	32.1	32.3	28.9
South Dakota	390	685	770	30.5	33.0	26.0	11.9	22.6	20.0	6.28	5.95	7.85	74.7	135.0	157.2
Nebraska	1,250	1,610	1,770	34.0	34.0	30.0	42.5	54.7	53.1	6.50	5.93	8.15	276.3	324.6	432.8
Kansas	1,490	1,560	1,450	18.0	26.5	16.5	26.8	41.3	23.9	6.64	5.97	8.50	178.1	246.8	203.4
Total	3,303	4,061	4,190	26.0	30.6	24.0	86.0	124.2	100.5	6.53	5.95	8.18	561.2	738.7	822.3
All other 2/	4,020	4,465	4,246	26.3	28.7	23.2	105.6	128.2	98.5	6.63	6.18	8.32	700.3	791.8	819.1
United States	63,663	70,566	67,856	29.4	32.1	26.8	1,868.6	2,267.9	1,817.0	6.66	6.28	8.39	12,450.0	14,250.0	15,253.0

1/ Preliminary.
2/ Delaware, Florida, Maryland, Michigan, New Jersey, New York, Oklahoma, Pennsylvania, Texas, Virginia, and Wisconsin.

Soybeans: U.S. supply and disposition 1975-81

Year beginning September	Supply			Disposition							
				Domestic disappearance							
	Production	Stocks September 1	Total supply	Crushings	Used for seed		Feed	Residual 2/	Total domestic use	Exports	Total disposition
					Total	Per acre planted 1/					
	Million bushels				Bushels		Million bushels				
1975	1,547.4	188.2	1,735.5	865.1	53.5	1.07	1.2	15.7	935.5	555.1	1,490.6
1976	1,287.6	244.9	1,532.5	790.2	61.0	1.10	1.0	13.3	865.5	564.1	1,429.6
1977	1,761.8	102.9	1,864.7	926.7	68.0	1.06	1.0	7.5	1,003.2	700.5	1,703.7
1978	1,870.2	161.0	2,031.2	1,018.0	75.0	1.06	1.0	11.0	1,105.0	753.0	1,858.0
1979 3/	2,267.6	174.4	2,442.0	1,123.0	67.0	1.07	1.0	17.0	1,208.0	875.0	2,083.0
1980 4/	1,817.1	359.0	2,176.0	1,075.0	69.0	1.02	1.0	21.0	1,166.0	800.0	1,966.0
1981 4/		210.0									
1982											

1/ In the following year.

2/ Mostly statistical discrepancies.

3/ Preliminary.

4/ Forecast.

1980/81 OILSEEDS AND PRODUCTS SITUATION AND OUTLOOK

Soybeans

U.S. soybean supplies for the 1980/81 marketing year total 2,176 million bushels, 11 percent below the record level in 1979/80. Total soybean use in 1980/81 is expected to decline 6 percent, as the market adjusts to the smaller supplies and higher prices. Both domestic crushings and exports are expected to decline from the record highs of last season. Stocks next September 1 will likely be drawn down to about 210 million bushels, a little more than one month's total requirement.

Soybean prices dropped unexpectedly in late November-early December ending 6 months of price increases. Demand prospects weakened and high interest rates made it expensive to hold inventories. Average prices received by farmers dropped from $8.18 in November to $7.56 by mid January but even with this sharp decline prices were still over $1.00 above last season's levels. An easing of the demand prospects coupled with expectations of continued relatively high interest costs will lead to lower soybean prices than previously anticipated. The current forecast of season average farm price is $7.90 per bushel. During the remainder of the crop year prices are expected to be volatile, and will be sensitive to the development and outcome of the Southern Hemisphere crop and to prospects for soybean production in the U.S. in 1981.

This season's higher prices are helping to offset a sharp increase in soybean production costs. Non-land costs per planted acre are estimated at $132, 15 percent above 1979/80. At the same time, average yield per planted acre declined 21 percent from 1979/80. As a result, per bushel costs of producing this season's crop are around $4.75, up from $3.28 in 1979/80. For the average renter, per bushel costs are estimated at $7.57, compared with $5.31 in 1979/80.

The costs of producing the 1981/82 crop could increase another 10 to 15 percent per planted acre. Per bushel costs will, of course, depend heavily on average yield.

A U.S. soybean crush of about 1,075 million bushels is forcast for 1980/81. If realized, this would be down 4 percent from last year's record crush and primarily reflects relatively strong demand for soybean meal. From September through December, the crushing industry operated a little over 80 percent capacity. Oil yield per bushel crushed is averaging around 10.9 pounds compared with 11 pounds for the same period in 1979/80. Meal yields are averaging around 47.8, the same as last year.

Last year U.S. soybean exports accounted for over 80 percent of total world soybean trade. This year, with U.S. soybean export availabilities reduced, exports are projected to decline 9 percent to 800 million bushels. The major markets for U.S. soybeans are the EC-9, Japan, Spain, Taiwan, and Mexico. Most of the drop in soybean exports this marketing year is attributed to a decline in demand from the EC-9. These countries primarily import U.S. soybeans to crush them for soybean meal. High vegetable oil stocks, utilization of crushing facilities for rapeseed and some shifting from imports of beans to meal will all contribute to a reduction of soybean exports to the EC-9.

USDA soybean inspections for export from September 1 through December 29 totaled 247 million bushels, about 23 percent below last year. The Census Bureau reported that 252 million bushels were exported in September through December.

Total U.S. soybean stocks as of January 1 were 1.53 billion bushels down 14 percent from the year earlier lev-

Soybeans: Monthly U.S. Crushing, 1979, and 1980 crop years

Month	1979	1980
	1,000 bushels	
September	76	82
October	96	98
November	101	98
December	104	94
January	107	-
February	100	-
March	102	-
April	92	-
May	94	-
June	83	-
July	85	-
August	83	-
Total	1,123	[2]1,075

[1]Preliminary [2]Estimate
-Not available
Source. Bureau of Census, M20J report.

Soybeans: Monthly U.S. Exports, 1979, and 1980 crop years

Month	1979	1980
	1,000 bushels	
September	14	42
October	89	60
November	118	75
December	78	75
January	86	-
February	73	-
March	69	-
April	82	-
May	74	-
June	59	-
July	49	-
August	57	-
Total	875	[2]200

[1]Preliminary. [2]Estimate.
-Not available
Source. Bureau of Census

el, reflecting reduced supplies. Farm stored soybeans comprised about 739 million bushels or 48 percent of the total. In addition, producers also owned or had some degree of pricing control over 370 million bushels or 47 percent of the total stored in off-farm positions.

Based on USDA's January 1 planting intentions survey of 16 Southern states, 27.4 million acres will be seeded in soybeans in those states this spring. Last year this area actually seeded 27.1 million acres and accounted for 24 percent of U.S. soybean production. The current soybean/corn price ratio indicates some shifting of soybean acreage into corn in the Midwest. However, these states will not be surveyed until March and much will depend on relative prices at planting time, weather and government program and policy developments. See special article in this issue, page 21.

Soybean Meal Demand Strong Domestically

U.S. soybean meal supplies for 1980/81 are estimated at about 25.9 million short tons compared with 27.4 million last season. Total domestic use is expected to be down only slightly because domestic demand for soybean meal is essentially the same as last year. An approximate 4 percent decline in hog production will be offset by a 3 percent increase in poultry and a 2 percent increase in fed cattle. Hogs consume around 37 percent of the soybean meal fed to livestock while all poultry operations consume about 43 percent. Cattle account for most of the rest. However, higher soybean meal prices will likely reduce the amount of soybean meal fed per animal unit.

Soybean meal exports are estimated to total 6.7 million short tons, compared with 7.9 million in 1979/80. Competition with Brazilian soybean meal will be more evident this year. In addition, sharply higher meal prices relative to some other feedstuffs will tend to dampen U.S. soymeal exports. Soybean meal prices (44-percent protein, Decatur) have averaged about $266 per ton so far this year, well above the level in 1979/80.

Soybean Oil Stocks Building

At 12.9 billion pounds, soybean oil supplies in 1980/81 are expected to be slightly above year ago levels. A 1.2 billion pound carryin accounts for the increase. A combination of increased supplies and relatively weak demand, particularly in the export market, is likely to result in a record carryover of almost 1.5 billion pounds.

Domestic use is expected to increase about 3 percent to about 9.3 million pounds. The domestic consumption of soybean oil has shown a strong uptrend for several years and relatively low prices this year should stimulate use.

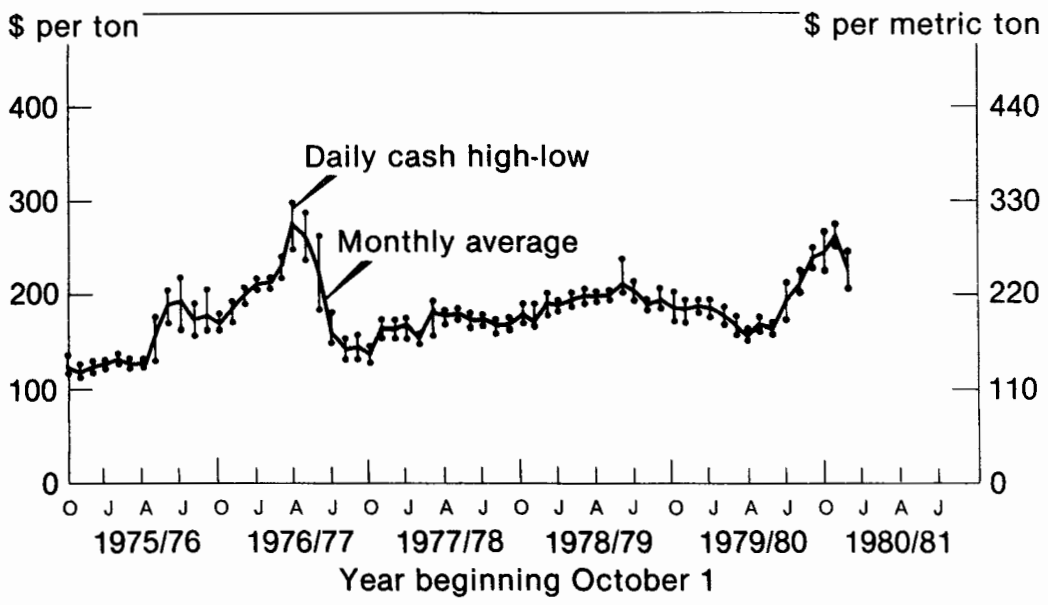
Exports of soybean oil are expected to drop substantially, from about 2.7 billion pounds to around 2.2 billion. The decline reflects less oil programmed for export under Title I P.L. 480 as well as an anticipated reduction in commercial sales since stock levels abroad are also higher.

Soybean oil prices (crude, Decatur) are not expected to show any noticeable increase over last year's level. Prices during October-December averaged 24.8 cents or 2-1/2 cents below 1979/80 prices for the same period.

South American Soybean Production Expanding

The United States is the world's largest soybean producer. However, production has expanded significantly in South America over the past decade and their exports comprise a greater share of world trade in soybeans and soybeans products. Soybean production in Brazil, Argen-

U.S. Soybean Meal Prices, 44% Protein, Decatur



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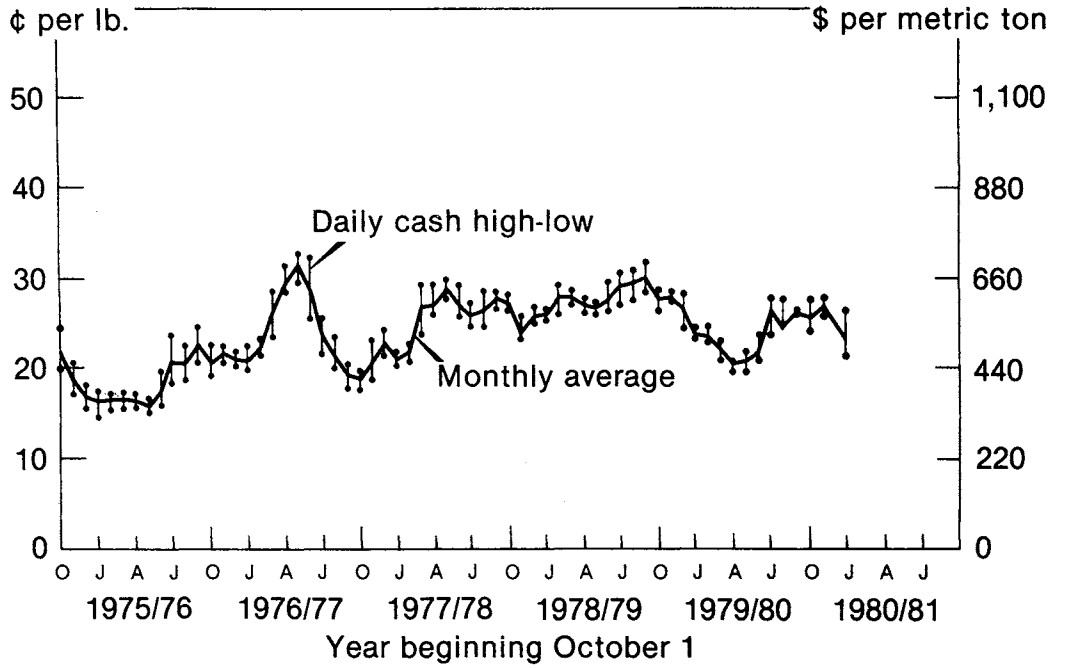
U.S. Soybean Oil Prices, Crude, Decatur



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tina, and Paraguay harvested in early 1981, is expected to total 728 million bushels (19.8 million metric tons), up 25 million bushels (.7 mmt) or about 3 percent above the record 1980 output. Ten years ago, South America's production totaled about 81.8 million bushels (2.2 mmt).

Brazilian soybean production in the spring of 1981 is currently projected at 558 million bushels (15.2 mmt), 7 million bushels (.2 mmt) above the 1980 record crop. The soybean area is estimated to have increased by roughly 370 thousand acres (150 thousand hectares). Some acreage declines in Rio Grande do Sul and Parana were offset by increases in the newly cultivated soybean regions, primarily Mato Grosso do Sul and Mato Grosso. Planting was nearly completed by December under favorable weather conditions and average yields are expected.

The near 5 million ton increase in the Brazilian soybean crop in 1980 led to a larger than normal supply of soybean products still available for export in September 1980, the beginning of the U.S. crop year. Brazilian export sales were slowed as well, by policies initiated by the government to regulate soybean meal and oil exports because of concerns with supplies for domestic use. Consequently, competition in world markets for soybeans and products was intensified in the October to December quarter of 1980. The intensity of this competition may lessen in coming months as year to year production gains in 1981 are expected to be smaller while domestic meal use is expanding, especially in commercial feeding for poultry. Brazilian soybean meal exports in the 1980/81 U.S. marketing year are expected to total 7.1 million metric tons (261 million bushels in soybean equivalents) up almost one-third since last year.

With export movement subject to fewer restrictions in 1981, exporters will be more flexible in their sales strategies in the summer of 1981. In January 1981 Brazil made it's first sale ever of soybean meal to the Soviet Union. Argentina is South America's second largest soybean producer. Argentina is likely to produce 143 million bushels (3.9 mmt) of soybeans in 1981, up about 15 million bushels (.4 million metric tons).

Argentina is expected to export nearly 120 million bushels (3.2 mmt) almost 80 percent of production. These soybean exports will comprise an increasing share of world soybean exports; 11 percent in contrast to 8 percent last year. Argentina became the major supplier of soybeans to the Soviet Union in 1980 and is expected to continue to be so in 1981.

Sunflower

Total supplies of U.S. sunflower seed in 1980/81 are projected at 2.9 million metric tons, down from 3.6 million in 1979/80, reflecting reduced 1980 plantings and lower yields due to the drought. Carryin stocks of sunflower seed on September 1 were a record 1.1 million metric tons due to record 1979 plantings and yields. This carryin was not sufficient to offset the much lower 1980 crop production of 1.8 million tons so available sunflower supplies are reduced in 1980/81. Based on these supplies and on 1980/81 crushing and export estimates, carryover stocks of sunflower seed on September 1, 1981 are estimated to total about 365,000 metric tons, 14 percent of 1980/81 use.

Soybeans: Stocks on farm, off farm and total in all positions, January 1, April 1, June 1, and Sept. 1, 1980

Year	January 1			April 1			June 1/			September 1		
	On farm	Off farm	Total	On farm	Off farm	Total	On farm	Off farm	Total	On farm	Off farm	Total
	Million bushels											
1975	485.1	505.2	990.3	332.1	323.3	655.4	166.1	191.2	357.3	78.2	109.9	188.1
1976	590.5	665.7	1,256.2	411.4	456.3	867.6	254.0	300.9	554.9	86.2	158.8	244.9
1977	473.1	559.0	1,032.2	227.7	390.2	617.9	92.4	243.3	335.7	32.7	70.7	102.9
1978	672.9	652.4	1,325.3	393.7	455.4	849.1	207.1	298.8	505.9	59.0	102.0	161.0
1979	700.0	692.5	1,392.1	412.6	467.6	880.2	241.3	284.9	526.2	61.5	112.6	174.1
1980	892.9	877.9	1,770.8	602.8	580.3	1,183.1	396.7	378.2	774.9	128.9	229.9	358.8
1981	738.8	788.8	1,527.7									

1/ 1975 ESS estimate. Derived from July 1 stocks by adding June crushings and exports.

Soybean oil: Supply, disappearance, oil equivalent of exports of soybeans, and price
1975-80

Year beginning October	Supply				Disappearance				Soybean (oil equivalent of exports)	Price per pound (tank cars)	
							Domestic disappearance				
	Production	Imports	Stocks October 1	Total	Exports	Shipments to U.S. terr.	Total	Per. cap.		Crude, Decatur	Refined, N.Y.
1975	9,630	---	561	10,190	976	58	7,906	37.2	6,179	18.3	23.5
1976	8,578	---	1,251	9,828	1,547	60	7,454	34.8	6,124	23.9	29.2
1977	10,288	---	771	11,059	2,057	80	8,193	37.9	7,769	24.6	29.6
1978	11,323	---	729	12,052	2,334	75	8,867	40.7	8,220	27.4	32.7
1979 1/	12,105	---	776	12,881	2,690	80	8,981	40.8	9,432	24.3	---
1980 2/	11,720	---	1,210	12,930	2,200	---	9,250	---	---	24.5	---
1981											

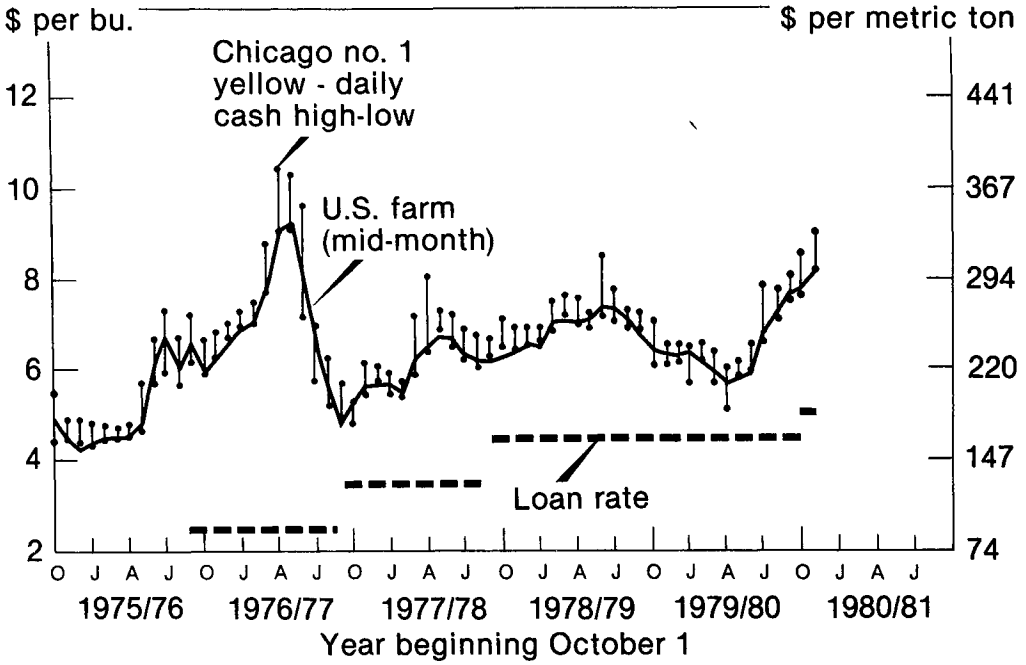
1/ Preliminary.
2/ Forecast.

Soybean meal: Supply, disappearance, meal equivalent of exports of soybeans, and price
1975-80

Year beginning October	Supply					Disappearance				Price per ton, bulk, Decatur	
	Production			Stocks October 1 1/	Total	Exports	Shipments to U.S. terr.	Domestic	Soybeans (meal equivalent of exports)		
	Total	For Animal feed	For Edible protein products							44 percent protein	49 or 50 percent protein
	1,000 tons									Dollars	
1975	20,754	20,395	359	358	21,112	5,145	61	15,552	13,316	147.77	157.68
1976	18,488	18,101	388	355	18,843	4,559	55	14,001	13,200	199.80	218.73
1977	22,371	21,961	410	228	22,599	6,080	67	16,209	16,895	164.20	179.45
1978	24,354	23,986	368	243	24,597	6,610	75	17,645	17,681	190.10	206.30
1979 2/	27,105	26,808	297	267	27,372	7,908	85	18,915	21,118	181.90	---
1980 3/	25,694	---	---	226	25,920	6,700	---	18,900	---	235.00	---
1981											

1/ Stocks at processor plants.
2/ Preliminary.
3/ Forecast.

U.S. Soybean Prices



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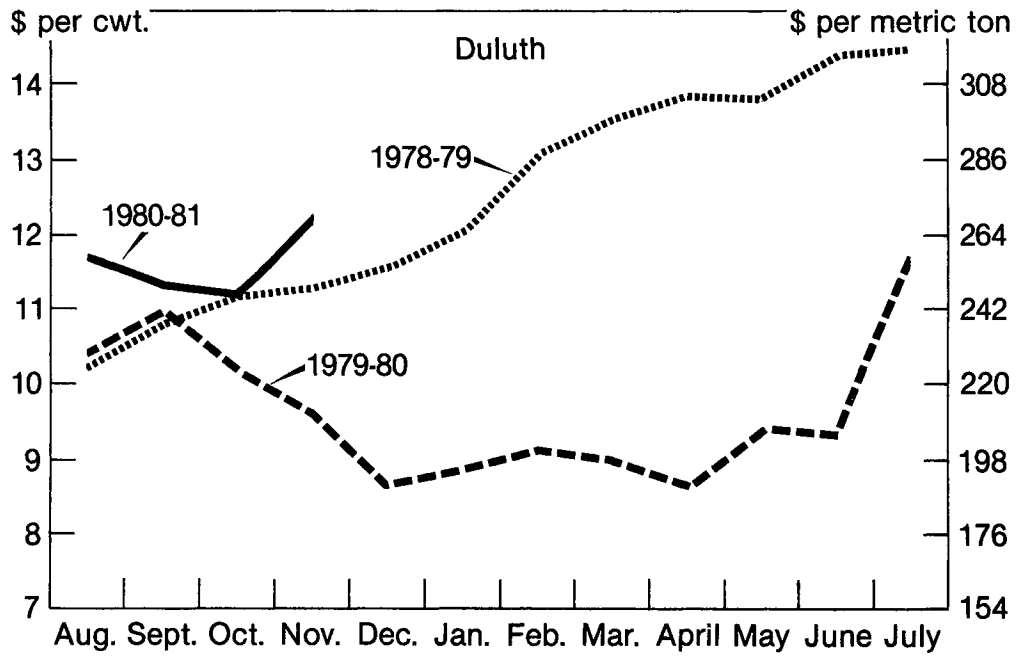
U.S. Sunflowers Cash Price

(No. 1 Oil Type)



USDA

Neg. ESCS 224-81 (2)

Soybean area, yield, and production: World and selected countries and regions 1/

Region/country	Area			Yield			Production			
	1978/79	1979/80	1980/81 proj.	1978/79	1979/80	1980/81 proj.	1978/79	1979/80	1980/81 proj. Dec.	1980/81 proj. Jan.
	----Million hectares----			Metric tons per hectare			-----Million metric tons-------			
United States	25.76	28.56	27.46	1.97	2.16	1.80	50.86	61.72	48.30	49.45
Canada	.28	.28	.28	1.81	2.37	2.52	.52	.67	.71	.71
Eastern Europe	.36	.46	.52	1.26	1.40	1.08	.46	.64	.59	.56
USSR	.82	.84	.88	.78	.56	.62	.64	.47	.54	.54
Centrally Planned Asia										
PRC 2/	7.10	7.20	7.30	1.07	1.04	1.03	7.60	7.50	7.90	7.50
South Asia										
India	.28	.40	.55	.80	.75	.82	.22	.30	.45	.45
Latin America & Caribbean										
Argentina	1.60	1.78	1.86	2.31	1.97	2.10	3.70	3.50	3.90	3.90
Brazil	8.26	8.76	8.92	1.24	1.72	1.70	10.24	15.04	15.20	15.20
Paraguay	.36	.44	.52	1.23	1.38	1.35	.45	.60	.70	.70
Total above	44.82	48.71	48.29	1.67	1.86	1.64	74.68	90.44	78.29	79.00
Other countries & regions	2.16	2.32	2.15	1.18	1.26	1.19	2.54	2.92	2.55	2.56
World	46.98	51.03	50.44	1.64	1.83	1.62	77.22	93.36	80.84	81.56
World less United States	21.21	22.47	22.98	1.24	1.41	1.40	26.36	31.64	32.54	32.12
Major foreign exporters 3/	10.22	10.98	11.30	1.41	1.74	1.75	14.39	19.14	19.80	19.80

1/ Totals and averages based on unrounded data. 1979/80 is estimated and preliminary. 1980/81 is projected based on surveys, trends and analysts' judgement.

2/ Historical data on area, yield, and production have been revised since last published, and revised data have been incorporated in world totals. December projections have been adjusted from WCP-12-80 to reflect revised historical base levels.

3/ Includes Argentina, Brazil, and Paraguay.

Sunflower seed exports in 1980/81 are projected to be slightly below last season's record high of 1.8 million metric tons. The European Community is the largest market for U.S. sunflower seed with the Netherlands, West Germany and Italy leading the way. Exports to EC-9 are expected to drop due to a record rapeseed crop and already large stocks of vegetable oils in those countries. Other large importers are Mexico and Portugal. Prices received by farmers for the 1980 sunflower seed crop probably will be 20 to 25 percent higher than the $200 per metric ton received in 1979/80.

Exports of sunflower oil surged in 1980 when they were five times larger than a year earlier. The major markets are Venezuela, Algeria and Egypt. Strong world demand is expected to continue because of smaller peanut oil supplies and short sunflower seed crops in major countries.

Crush Capacity Expanding

Sunflower seed production has increased sharply in recent years, spurred by the development of high oil content seed, hybrid varieties, and increased yields. The sunflower crushing industry is also expanding rapidly. A large new sunflower crushing plant in North Dakota came on stream last fall with a daily capacity of about 1,200 metric tons. This is the first plant in the U.S. designed specifically to crush sunflower seed. The seed is being partially dehulled, and the hulls are burned to produce steam to operate the plant. Ground was also broken last fall for another sunflower seed crushing plant in North Dakota. This plant is scheduled to be in operation in 1982.

The annual sunflower seed crushing capacity in the northern producing areas is estimated at 1.3 million metric tons in 1980/81, about one-third more than last season. With the season's crush projected at around 0.6 million metric tons, the industry will be operating at about 45 percent of its potential sunflower crushing capacity. Several of these mills also crush flaxseed in addition to sunflower seed which increases plant utilization.

USDA Withdraws Proposed Price Support Program for Sunflowers

After careful consideration of comments received, market prices, proposed levels of support, and other factors, Government policymakers determined that no price support program for the 1980 crop of sunflower seed is necessary. As a result, the proposed rule to have a support program as published in the Federal Register on September 15, 1980 is withdrawn.

1981 Sunflower Acreage

Acreage planted to sunflowers in spring of 1981 will depend upon two factors at planting time; 1) Whether there is sufficient moisture in the topsoil for spring wheat seeding and 2) The price of sunflower relative to wheat at that time. Present indications are that sunflower acreage may be little changed from 1980.

Cottonseed

As of January 1, cottonseed production for 1980/81 was estimated at 4.4 million tons, 1.4 million below 1979/80. Although harvested cotton acreage increased slightly over 1979, dry weather caused a sharp reduction in seed yields. Seed yields per harvested acre averaged just over a third of a ton in 1980, compared with 0.45 ton in 1979.

Beginning stocks of cottonseed on August 1, 1980 were 1 million tons, nearly double the year-earlier level. So, total supplies for 1980/81 are an estimated 5.4 million tons, about 0.9 million below last season.

Cottonseed crushings for 1980/81 are estimated at 4.25 million tons, virtually unchanged from 1979/80. A crush of this magnitude should produce nearly 1.4 billion pounds of oil and 2 million tons of meal. Total domestic use of cottonseed is expected to be 4.8 million tons this season, down 7 percent from 1979/80.

U.S. exports of cottonseed are up sharply this season and are expected to reach 0.2 million tons. This level of exports would exceed the combined total of the previous 4 marketing years. In part, this season's export estimate reflects an agreement between the U.S. and Mexico providing for Mexican purchases of, 100 to 180 thousand tons of U.S. cottonseed in calendar 1981. The agreement was signed on December 3, 1980.

The above estimates of cottonseed supplies and use in 1980/81 suggest ending stocks on August 1, 1981 of around 0.4 million tons, less than half the beginning level, and the smallest in 4 years.

Reflecting this season's tighter supply, farm prices for cottonseed are expected to average around $130 a ton, up from $122 in 1979/80. During Nov.-Dec. 1980, farm prices averaged $133 a ton, well above the December 1979 average of $115. However, because of this season's abnormally low yield, the farm value of cottonseed, estimated at $590 million, is down 16 percent from 1979/80.

Cottonseed oil supplies for 1980/81 are expected to total nearly 1.5 billion pounds, slightly below last season. Estimated disappearance, about evenly split between domestic use and exports, is nearly 1.4 billion pounds and is unchanged from 1979/80.

During Oct.-Dec. 1980, wholesale oil prices (crude, Mississippi Valley) averaged slightly over 26 cents a pound, compared with 28.3 cents a year earlier. For the season, oil prices should average around 26 cents a pound, up from 25-1/2 cents in 1979/80.

Cottonseed meal supplies for 1980/81 are an estimated 2 million tons, 4 percent below last season. Domestic use, reflecting fairly strong cattle feed demand, is estimated at 1.8 million tons, and exports could total 150,000 tons. Meal prices (41-percent protein, Memphis) averaged $233 per ton last Oct.-Dec., up from $187 a year earlier. For the season, meal prices are expected to average around $225 a ton, sharply higher than 1979/80's $164 a ton.

U.S. sunflowerseed, oil, and meal: Estimated supply, disappearance, and price, 1976-80

Item	1976-77	1977-78	1978-79	1979-80	1980-81
			Sunflowerseed		
Area (1,000 hectares)					
Planted	464	1,008	1,210	2,367	1,708
Harvested	425	959	1,192	2,305	1,597
Yield (Metric ton/hectare)	1.17	1.40	1.53	1.51	1.14
Supply (Thousand metric tons)					
Beginning stocks, Sept. 1	---	23	77	130	1,073
Production	499	1,330	1,823	3,484	1,816
Imports	2	3	7	10	11
Total supply	501	1,356	1,907	3,584	2,900
Disappearance					
Crush	35	219	292	547	650
Non-oil usage	103	113	150	137	125
Planting seed	3	5	9	7	10
Exports	337	942	1,366	1,820	1,750
Total use	478	1,279	1,817	2,537	2,535
Ending stocks, Aug. 31	23	77	90	1,073	365
Season average price (Dol./MT)	243	224	237	195	240
			Sunflower oil		
Supply					
Beginning stocks, Oct. 1	8	---	3	7	49
Production	14	86	115	224	260
Total supply	22	86	118	231	309
Disappearance					
Domestic use	7	49	70	96	125
Exports	15	34	41	86	130
Total use	22	83	111	182	255
Ending stocks, Sept. 30	---	3	7	49	54
Average price (Dol./MT)	243	---	728	560	
			Sunflower meal		
Supply					
Beginning stocks, Oct. 1	NA	NA	4	4	4
Production	NA	NA	180	359	390
Total supply	NA	NA	184	363	394
Disappearance					
Domestic use	NA	NA	180	359	390
Exports	NA	NA	---	---	---
Total use	NA	NA	180	359	390
Ending stocks, Sept. 30	NA	NA	4	4	4
Average price (Dol./MT) 1/	NA	NA	136	100	125

NOTE: Estimates are based on limited data from the Crop Reporting Board, Bureau of the Census, and special appraisals. 1/ 28 percent protein.

Cottonseed: Acreage, production and price, by States and areas, crop years 1978-80

State and area	Cotton acreage harvested			Cottonseed yield per acre harvested			Cottonseed production			Price per ton received by farmers season average		
	1978	1979	1980	1978	1979	1980 1/	1978	1979	1980 1/	1978	1979	1980
	1,000 acres			Pounds			1,000 tons			Dollars		
California	1,455	1,635	1,490	1,133	1,633	1,706	824	1,335	1,271	120.00	125.00	141.00
Arizona	572	618	651	1,573	1,715	1,714	450	530	558	102.00	110.00	113.00
New Mexico	123	141	126	715	624	683	44	44	43	125.00	115.00	123.00
Nevada	1	1	1	2,000	2,000	2,000	1	1	1	110.00	110.00	128.00
Total West	2,151	2,395	2,268	1,226	1,595	1,652	1,319	1,910	1,873	114.25	115.00	126.25
Texas	6,228	6,831	6,721	476	663	385	1,483	2,264	1,294	112.00	116.00	119.00
Oklahoma	585	580	500	489	721	340	143	209	85	119.00	114.00	126.00
Total S.W.	6,813	7,411	7,221	477	667	382	1,626	2,473	1,379	115.50	115.00	122.50
Missouri	182	137	240	824	905	592	75	62	71	96.00	129.00	124.00
Arkansas	760	530	635	634	811	520	241	215	165	116.00	133.00	129.00
Tennessee	230	230	270	817	617	593	94	71	80	111.00	131.00	128.00
Mississippi	1,180	1,050	1,130	885	1,053	770	522	553	435	123.00	133.00	132.00
Louisiana	510	465	560	706	1,118	614	180	260	172	110.00	133.00	128.00
Illinois	---	---	---	---	---	---	---	---	---	---	---	---
Kentucky	---	---	---	---	---	---	0	0	0	---	---	---
Total Valley	2,862	2,412	2,835	777	963	651	1,112	1,161	923	111.20	131.80	128.20
Virginia	2/	2/	2/	---	---	---	2/	2/	2/	100.00	128.00	130.00
North Carolina	42	45	64	762	667	563	16	15	18	115.00	124.00	116.00
South Carolina	98	109	120	878	771	467	43	42	28	111.00	118.00	120.00
Georgia	115	150	160	748	720	400	43	54	32	105.00	105.00	125.00
Florida	4	3	6	100	133	100	2	2	3	125.00	120.00	125.00
Alabama	315	305	314	692	800	662	109	122	104	103.00	116.00	118.00
Total S.E.	574	612	664	742	768	557	213	235	185	109.83	118.50	122.33
Other States	---	---	---	---	---	---	---	---	---	---	---	---
Total U.S.	12,400	12,830	12,988	689	901	671	4,270	5,779	4,360	114.00	121.00	127.00

1/ Based on average seed lint ratio. 2/ Less than 500 tons.

Cottonseed, oil and meal: Supply-disposition, 1975-79, and estimated 1980 1/

Item	1975-76	1976-77	1977-78	1978-79	1979-80	Estimated 1980-81
Cottonseed						
Beg. stocks, Aug. 1 (1,000 T)	554	203	283	817	520	1,055
Production	3,218	4,122	5,521	4,269	5,778	4,360
Total supply	3,772	4,325	5,804	5,086	6,298	5,415
Crush	2,952	3,499	4,313	4,127	4,233	4,250
Other	556	517	633	423	916	540
Total domestic disappearance	3,508	4,016	4,946	4,550	5,149	4,790
Exports	61	26	41	16	94	200
Total disposition	3,569	4,042	4,987	4,566	5,243	4,990
Ending stocks, July 31	203	283	817	520	1,055	425
Season av. price ($/T)	97.00	103.00	70.30	114.00	121.00	130.00
Farm value of prod. (Mil. $)	312.3	425.4	388.0	485.6	697.6	567.0
Cottonseed oil (Mil. lb.)						
Beg. stocks, Oct. 1	136	105	86	85	86	122
Production	918	1,198	1,453	1,282	1,423	1,363
Total supply	1,054	1,303	1,539	1,367	1,509	1,485
Domestic disappearance	449	526	696	620	660	675
Exports	500	691	758	661	727	710
Total disposition	949	1,217	1,454	1,281	1,387	1,385
Ending stocks, Sept. 30	105	86	85	86	122	100
Cottonseed meal (1,000 T)						
Beg. stocks, Oct. 1	61	20	59	69	51	53
Production	1,238	1,643	2,083	1,885	2,049	1,955
Imports	11	3	4	9	7	7
Total supply	1,310	1,666	2,146	1,963	2,107	2,015
Domestic disappearance	1,266	1,556	1,962	1,762	1,879	1,825
Exports	24	51	115	150	175	150
Total disposition	1,290	1,607	2,077	1,912	2,054	1,975
Ending stocks, Sept. 30	20	59	69	51	53	40
Season av. price						
Cottonseed oil (¢/lb.)	23.50	24.80	25.40	31.60	25.40	26.00
Cottonseed meal ($/T)	145.00	173.65	139.68	164.80	164.10	210.00

1/ Cottonseed is on an August 1 crop year and cottonseed oil and meal are on an October 1 marketing year.

Peanuts

Short Crop Curtailing Use

U.S. peanut supplies for the 1980/81 marketing year total 3.0 billion pounds, about one-third below last season and the smallest in 11 years. Due to the dry weather the 1980 crop was off 42 percent in volume from 1979. To alleviate the short supply President Carter raised the import quota an additional 200 million pounds (shelled basis) from 1.7 million. Uncommitted supplies in foreign producing countries are limited so the quota is not expected to be fully used.

All major use categories are expected to be lower than last season. Despite the lower quality crop this season, the domestic crushing of peanuts may be down 30 percent from last season. Exports are likely to be drawn down by a similar amount. U.S. peanut exports were the second highest on record last season but the short crop will limit this season's movement.

Domestic edible use of peanuts may decline by one-fifth to 1.6 billion pounds. Manufacturers of peanut butter, and other products have generally experienced shortages and retail stores have rationed purchases and have boosted prices by 50 percent or more.

Prices received by farmers for 1980 crop peanuts averaged 23.5 cents per pound, about 1 cent above the support level and 3 cents above the previous season. Late season prices were sharply higher, but most growers had already sold their crop. So, they were not able to realize the sharply higher prices. As a result, the value of the peanut crop at the farm level fell by 34 percent from 1979/80.

This season's sharp drop in the average peanut yield boosted per pound non-land production costs to an estimated 31 cents, up from 16 cents in 1979/80. Costs per planted acre increased to $460, 10 percent above 1979/80. Although per acre costs are expected to increase another 15 to 20 percent in 1981, a return to average yields would lower per pound costs.

1981 Crop Peanut Allotment Up 8 Percent

The national acreage allotment was increased to 1,739,000 acres while the poundage quota was decreased by the maximum 5 percent to 1,440,000 short tons. The increase in the acreage allotment was needed to provide an adequate supply for the domestic and export markets. The increase in the allotment was reflected in planning intentions with expected peanut acreage to be up 4 percent. On balance, the carryover of 1980-crop undermarketings should increase the effective poundage quota in 1981 about 5 percent above 1980. It will also help individual farmers have enough acreage to produce their poundage eligible for quota loan.

Loan rates for the 1981-crop quota and additional peanuts will be announced no later than February 15. For 1980, quota peanuts were supported at $455 per ton and additional peanuts at $250 per ton.

Flaxseed

The 1980/81 flaxseed supply totals 15.1 million bushels, down from 16.5 last season. Around 11 percent of the total supply will be imported this year.

Crushings during 80/81 probably will total about 11.7 million bushels, leaving very little or no seed available for export. A crush this size will produce 236 million pounds of linseed oil and about 220,000 short tons of linseed meal.

Prices received by farmers have risen steadily this marketing year, from $5.88 per bushel last June to $7.56 in mid January. Linseed oil prices (raw, Minneapolis) have risen slightly from last year's levels, from 32 cents in January 1980 to about 33 cents in January 1981. Linseed meal prices (34-percent protein, Minneapolis) have been running above last season's level and have risen from $132.00 per ton in June 1980 to $177.00 in December.

1980/81 ANIMAL FATS SITUATION AND OUTLOOK

Lard

Lard production in 1980/81 is estimated at 1.2 billion pounds, compared with 1.3 billion pounds during the last marketing year. The decrease is due mainly to a smaller hog slaughter. Due to relatively high corn prices, output of lard per hog is expected to be down.

Domestic disappearance of lard is likely to drop below 1.0 billion pounds in 1980/81, down from 1.1 billion pounds last marketing year. Direct use of lard is expected to stay at about the same level while lard use in shortening and margarine manufacture will decline slightly. Exports and shipments of lard are expected to stay at about the same level as recent years, 150 million pounds. United Kingdom and South America continue as major export markets for U.S. lard.

Lard prices (loose, tanks, Chicago) have declined this season from 24 cents per pound in mid-October to 20.0 cents per pound in late-January. Lard prices will probably average above last season's 20 cents per pound and should pick up as the season progresses due to lower hog slaughter and a strengthening of prices of other edible fats and oils.

Tallow

Production of tallow (edible and inedible) for the 1980/81 marketing year is projected to decline slightly from last year due to reduced livestock slaughter.

Domestic tallow and grease use in 1980/81 will total near 4 billion pounds, little change from last year. The

Peanuts (farmers' stock basis): Supply, disappearance, and price, 1970-81

Year beginning August 1	Supply				Disappearance					Price per pound	
	Production	Imports	Beginning stocks August 1	Total supply	Exports and shipments	Crushed for oil	Seed, feed, farm loss and shrinkage	Civilian food use		Received by farmers	Support
								Total	Per. cap.		
	Million pounds								Pounds	Cents	
1970	2,979	2	353	3,334	290	799	209	1,580	7.8	12.8	12.75
1971	3,005	2	453	3,460	552	814	79	1,623	7.9	13.6	13.42
1972	3,275	2	392	3,669	521	850	175	1,694	8.2	14.5	14.25
1973	3,474	1	429	3,904	709	683	119	1,840	8.8	16.2	16.42
1974	3,668	1	553	4,222	740	590	-54	1,800	8.5	17.9	18.30
1975	3,847	1	1,146	4,993	434	1,447	193	1,859	8.7	19.6	19.70
1976	3,739	1	1,060	4,800	783	1,108	513	1,789	8.4	20.0	20.70
1977	3,715	1	608	4,324	1,025	487	392	1,838	8.5	21.0	21.50
1978	3,952	1	581	4,534	1,141	527	315	1,959	9.2	21.1	3/ 21.00
1979 1/	3,968	1	586	4,555	1,000	571	293	1,998	9.3	20.7	3/ 21.00
1980 2/	2,296	2	628	3,034	575	340	296	1,600	---	23.7	3/ 22.75

1/ Preliminary.
2/ Forecast.
3/ Loan rate for quota peanuts. Loan rate for additional peanuts 12.5 cents for 1978 crop peanuts, 15.0 cents for 1979 crop peanuts, and 12.5 cents for 1980 crop.

Flaxseed: Supply, disposition, and price, 1970-81

Year beginning June	Supply				Disposition					Season average farm price
	Production	Imports	Estimated stocks June 1	Total supply	Exports	Seed	Crushing	Residual	Total disposition	
	1,000 bushels									Dollar/bushel
1970	29,416	1	23,040	52,457	3,220	1,262	18,155	922	23,559	2.40
1971	18,198	74	28,898	47,170	910	933	21,022	1,102	23,967	2.38
1972	13,883	3	23,203	37,089	9,881	1,398	19,932	393	31,604	3.10
1973	16,408	399	5,485	22,292	630	1,360	17,203	-953	18,240	7.56
1974	14,083	130	4,052	18,265	372	1,231	13,386	245	15,234	9.66
1975	15,553	148	3,031	18,732	953	1,054	11,791	44	13,842	6.57
1976	7,580	2,168	4,890	14,638	196	1,043	10,677	-239	11,677	7.08
1977	14,280	859	2,961	18,100	1,001	557	11,615	-388	12,785	4.54
1978	8,614	1,557	5,315	15,486	91	724	13,009	-924	12,900	5.74
1979	12,014	1,916	2,586	16,516	174	650	12,425	-1,998	11,251	5.96
1980 1/	8,123	1,717	5,265	15,110	70	840	11,700	---	12,610	7.25
1981 2/			2,500							

1/ Preliminary.

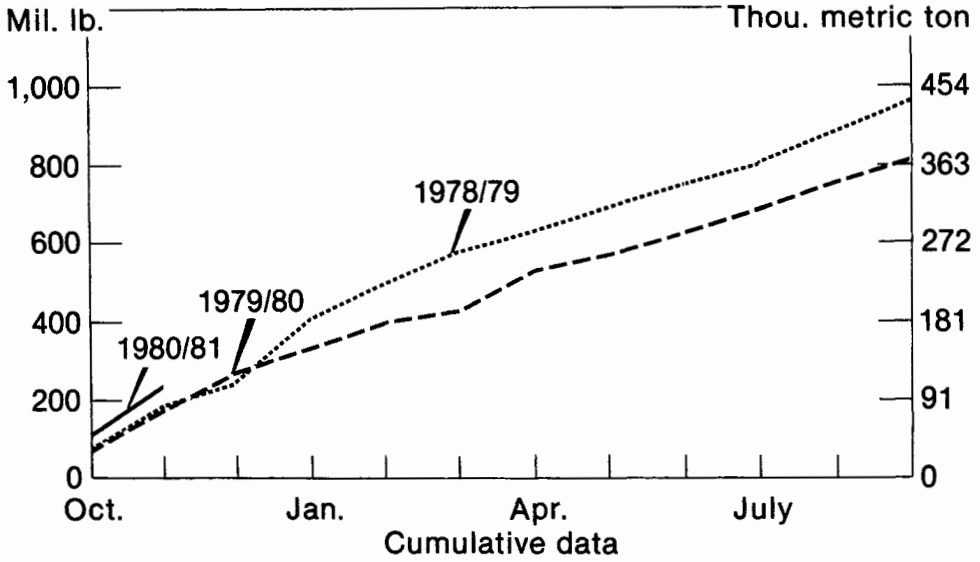
2/ Forecast based on October 1, indications.

major inedible tallow and grease markets are animal feed, fatty acids, and soap. Edible tallow is mostly used in shortening manufacture. Indications are that exports of inedible tallow and grease in 1980/81 may be close to last year's level. The largest export markets for U.S. inedible tallow and grease are Egypt, Japan, and Korea.

Tallow prices (bleachable, fancy, Chicago) are expected to average above the 20 cents in 1979/80 even though the late-January price was 18 cents per pound. One of the major uses of tallow is in the production of fatty acids which are used in soap, detergents, comestics, candles, waxes and many chemical intermediates. The slow down in industrial activity in 1979/80 reduced demand for fatty acids. With the upswing in the economy in 1980/81 and the increase in industrial activity, tallow prices should rise. Higher petrochemical feed stock prices also strengthen the demand for tallow and grease.

Edible tallow production in the U.S. is slowly continuing an upward climb. Edible tallow price closely follows lard price since they are both animal fats used in manufacturing shortening and margarine. Edible tallow price declined from 23 cents per pound in October to about 21 cents in early January, but prices may strengthen later in the season.

U.S. Coconut Oil Imports



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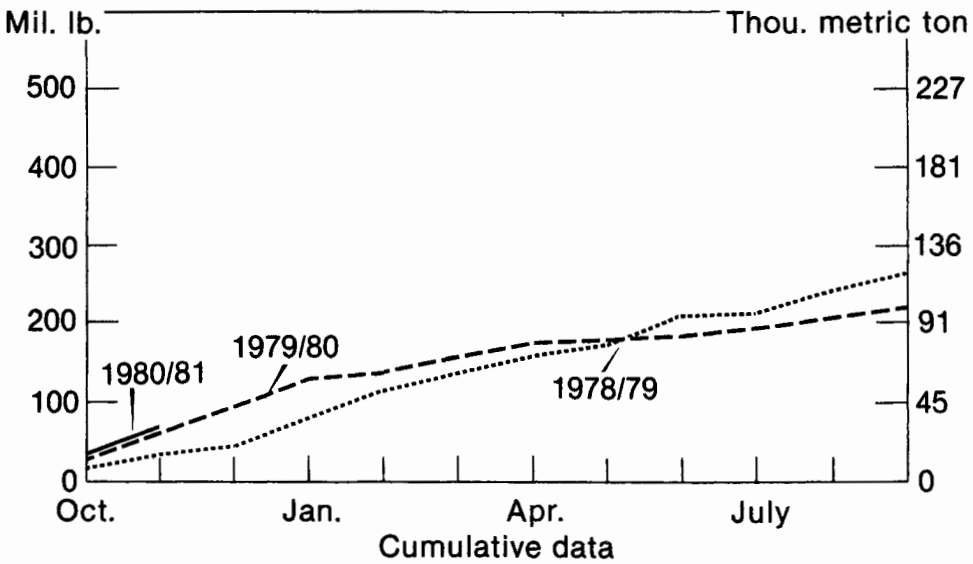
U.S. Palm Oil Imports



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Neg. ESS 2695-81 (2)

Food fats and oils: Supply, disappearance, and per capita disappearance, 1971-80

Item	Year beginning October									
	1971	1972	1973	1974	1975	1976	1977	1978	1979 1/	1980 2/
Stocks, October 1										
Butter	222	178	94	106	40	68	203	267	218	305
Lard	77	44	28	48	23	34	32	35	44	44
Tallow, edible	63	36	19	32	24	59	33	42	49	46
Coconut oil	108	111	114	122	107	127	137	145	101	152
Corn oil	58	70	57	68	52	41	46	73	70	66
Cottonseed oil	94	114	114	110	136	105	79	85	86	122
Soybean oil	773	785	516	794	561	1,251	767	729	776	1,210
Palm oil	36	93	60	88	127	138	131	74	74	42
Palm kernel oil	26	24	20	26	20	27	46	18	23	43
Peanut oil	24	18	18	22	44	199	171	33	47	22
Safflower oil	29	39	31	8	25	44	25	21	41	31
Sunflower oil	---	---	---	---	---	20	---	7	15	109
Sub-total	1,510	1,513	1,071	1,422	1,158	2,112	1,670	1,529	1,544	2,192
Finished products 3/	236	254	206	247	213	271	254	306	323	330
Total food fats and oils	1,746	1,767	1,277	1,669	1,371	2,383	1,924	1,835	1,867	2,522
Imports										
Butter	2	2	56	2	2	2	1	1	1	1
Olive oil	67	58	49	46	63	56	62	53	55	55
Coconut oil	634	687	563	673	1,248	1,115	980	967	810	850
Corn oil	---	4/	1	2	1	10	3	4/	---	---
Cottonseed oil	---	4/	4/	---	4/	---	---	---	---	---
Palm oil	440	363	349	757	933	661	361	277	206	200
Palm kernel oil	90	102	126	160	158	157	123	143	179	185
Peanut oil	4/	4/	1	4/	2	4/	4/	4/	7	---
Sesame oil	2	2	3	2	3	3	3	3	4	3
Sunflower oil	---	---	---	1	2	---	---	---	---	---
Total	1,235	1,214	1,147	1,643	2,413	2,006	1,533	1,444	1,262	1,294
Production										
Butter	1,121	956	927	995	946	1,078	1,040	965	1,104	1,100
Lard	1,646	1,285	1,324	1,094	982	1,056	999	1,075	1,223	1,175
Tallow, edible	523	481	556	557	527	532	795	926	1,009	1,025
Oleo oil & stearine 5/	5	8	9	11	7	8	5	5	5	5
Coconut oil	336	310	93	---	---	---	---	---	---	---
Corn oil	499	523	528	465	644	669	738	736	791	875
Cottonseed oil	1,308	1,564	1,552	1,335	920	1,198	1,453	1,282	1,423	1,365
Soybean oil	7,892	7,501	8,995	7,375	9,630	8,578	10,288	11,323	12,105	11,720
Peanut oil	265	273	195	236	494	312	145	164	188	150
Safflower oil (estimate)	140	150	100	115	100	75	95	125	100	100
Sunflower oil	---	---	---	92	110	37	195	254	493	575
Sub-total	13,735	13,051	14,278	12,275	14,360	13,542	15,753	16,854	18,441	18,090
Oilseeds (oil equivalent of exports)	4,556	5,299	6,221	4,887	6,445	6,453	8,503	9,405	11,311	10,330
Total supply	21,272	21,332	22,923	20,474	24,589	24,383	27,713	29,538	29,752	28,420
Exports and Shipments										
Butter	124	18	8	4	3	4	2	1	1	10
Lard	220	132	180	147	185	249	179	139	95	150
Tallow, edible	5	20	43	17	22	23	18	50	60	65
Oleo oil & stearine	5	8	9	11	7	8	5	5	5	5
Coconut oil	20	19	17	14	53	31	33	10	9	10
Corn oil	49	44	68	84	98	93	116	125	141	160
Cottonseed oil	453	584	565	686	500	691	758	661	727	710
Palm oil	32	40	24	27	39	57	52	11	7	7
Peanut oil	71	111	42	40	104	74	99	30	20	10
Processed food oils 6/	70	67	91	77	101	88	75	75	75	75
Safflower oil (estimate)	40	40	25	25	25	15	25	25	25	25
Soybean oil	1,440	1,086	1,461	1,090	1,034	1,608	2,141	2,409	2,699	2,200
Sunflower oil	---	---	---	9	10	31	75	80	189	265
Sub-total	2,529	2,171	2,533	2,231	2,181	2,972	3,578	3,621	4,157	3,996
Oilseed (oil equivalent)										
Cottonseed	1	3	17	2	26	4	15	2	16	30
Soybeans	4,429	5,191	6,100	4,643	6,083	6,126	7,700	8,283	9,650	8,720
Peanuts (for crushing abroad)	71	56	68	54	---	1	---	---	---	---
Safflower	55	49	36	38	26	22	28	37	40	35
Sunflower seed	---	---	---	150	310	300	760	1,083	1,605	1,545
Sub-total	4,556	5,299	6,221	4,887	6,445	6,453	8,503	9,405	11,311	10,330
Total exports	7,085	7,470	8,754	7,118	8,626	9,425	12,081	13,026	15,462	14,761
Domestic disappearance										
Butter	1,043	1,024	964	1,059	917	941	982	1,013	1,024	1,050
Lard	1,480	1,185	1,150	989	803	814	822	935	1,129	950
Tallow, edible	546	479	500	548	470	534	723	869	900	910
Coconut oil	612	664	539	675	1,175	1,075	939	945	884	850
Corn oil	439	492	450	399	559	581	574	613	647	715
Cottonseed oil	834	980	991	622	451	532	683	620	660	710
Soybean oil	6,439	6,685	7,255	6,518	7,906	7,454	8,182	8,867	8,981	1,250
Olive oil	67	58	49	46	63	56	62	53	55	55
Palm oil	351	356	294	692	883	611	367	277	226	300
Palm kernel oil	92	107	120	165	151	138	168	138	159	185
Peanut oil	200	162	150	175	237	265	179	120	193	150
Safflower oil (estimate)	90	118	98	75	75	70	74	80	85	75
Sesame oil	2	2	3	2	3	3	3	3	3	3
Sunflower oil	---	---	---	83	80	26	120	166	210	275
Processed food oils 6/	-70	-67	-91	-77	-101	-88	-75	-109	-75	-75
Total	12,124	12,244	12,474	11,970	13,672	13,013	13,803	14,589	15,081	15,403
Total (calculated net) 7/	12,105	12,292	12,433	12,003	13,614	13,030				
Total use for food 8/	11,312	11,501	11,597	11,340	12,172	11,711	12,264	12,600	12,885	
Per capita disappearance	Pounds									
Butter (fat content)	4.0	3.9	3.7	4.0	3.4	3.5	3.6	3.7		
Margarine (fat content)	8.9	9.0	9.0	8.8	9.6	9.3	9.0	9.3		
Lard (direct use)	3.7	3.5	3.2	3.0	2.8	2.3	2.3	2.5		
Baking and frying fats	17.3	17.3	17.3	16.6	18.3	17.2	17.9	18.9		
Salad and cooking oils	16.7	17.4	18.5	17.8	19.5	19.0	20.5	21.3		
Other edible uses	2.7	2.7	2.1	2.0	2.1	1.9	2.1	1.9		
Total (fat content)	53.3	53.8	53.9	52.2	55.8	53.3	55.4	57.6	57.0	

1/ Preliminary. 2/Forecast. 3/ Shortening, margarine (fat content), and salad and cooking oils. 4/ Less than 500,000 pounds. 5/ Represents exports only; production data are not available. 6/ Includes exports of processed food oils not classified by kind, shortening and other secondary fats. 7/ Adjusted to reflect changes in stocks of finished products. 8/ Excludes food fats and oils used for non-food purposes.

-Prices: Wholesale, Farm, and Index numbers of Wholesale Prices, by months, 1980

Item 3	1980				
	Aug.	Sept.	Oct.	Nov.	Dec.
Wholesale prices, cents per pound, for Fats and Oils					
Butter, Creamery, Grade A, (92-and 93-score) Bulk, New York	152.9	150.4	153.6	153.6	
Castor Oil, No. 1, Brazilian, Tanks, Imported, New York	49.7	48.0	46.5	45.3	46.0
Coconut Oil, Crude, Tank Cars, Pacific Coast 1/	29.9	29.1	27.9	29.4	27.8
Corn Oil, Crude, Tank Cars, F.O.B., Decatur	29.8	28.0	28.0	27.5	28.0
Cottonseed Oil, Crude, Tank Cars, F.O.B., Valley	29.0	27.5	27.2	27.8	27.0
Grease, A White, Tank Cars, Delivered, Chicago	17.6	18.8	18.8	18.5	18.5
Lard, Loose, Tank Cars, Chicago	22.5	23.0	21.6	23.3	23.3
Linseed Oil, Raw, Tank Cars, Minneapolis	28.6	29.0	29.2	29.0	29.8
Margarine, Yellow, Quarters, F.O.B., Chicago	40.0	40.3	39.3	40.3	40.2
Menhaden Oil, Crude, Tanks, F.O.B., Baltimore	18.0	18.0	16.5	18.0	18.0
Oiticica Oil, Tanks, New York	48.0	48.0	53.8	59.0	59.0
Olive Oil, Imported, Edible, Drums, New York	86.3	87.5	86.5	87.5	87.5
Palm Kernel Oil, CIF, Bulk, U.S. Ports	42.0	42.0	42.0	42.0	42.0
Palm Oil, CIF, Bulk, U.S. Ports	26.5	25.5	22.3	27.1	26.9
Peanut Oil, Crude, Tank Cars, F.O.B., Southeast Mills	33.2	36.0	35.8	48.7	49.1
Rapeseed Oil, Refined, Denatured, Tanks, New York	46.0	46.0	46.0	46.0	46.0
Safflower Oil, Tanks, New York	46.0	46.0	46.0	46.0	46.0
Sesame Oil, Refined, Drums, New York	126.0	126.0	126.0	126.0	126.0
Shortening, All Vegetable, Hydrogenated, 440-Pound Drums, New York	44.5	44.3	41.8	43.3	42.3
Soybean Oil, Crude, Tank Cars, F.O.B., Decatur	25.9	26.1	25.1	26.7	22.6
Tall Oil, Distilled Tanks, Works	26.0	26.0	24.0	24.0	24.0
Tallow, Edible, Loose, Chicago	24.5	23.0	23.0	23.0	23.3
Tallow, Inedible, Bleachable Fancy, Delivered, Chicago	19.0	19.4	17.5	20.4	19.0
Tung Oil, Imported, Drums, F.O.B. New York	43.7	46.6	56.5	65.5	67.2
Prices received by U.S. farmers					
Oilseeds					
Cottonseed, United States Average (short ton)					
Flaxseed, United States Average (bushel)	7.70	7.65	7.82	8.23	8.04
Peanuts, United States Average (Farmers" Stock)(100 lb.)	21.0	20.7	22.0	27.1	37.1
Soybeans, No. 1, Yellow, Chicago (bushel)	7.36	7.87	8.06	8.72	7.73
Soybeans, United States Average (bushel)	7.18	7.59	7.68	8.18	7.88
Sunflower Seed, United States Average (cwt.)					
Oilmeals (Bulk--Short Tons)					
Cottonseed Meal, 41 Percent Protein, Memphis	198.40	224.50	215.60	230.00	224.00
Fish Meal, 65 Percent Protein, Bulk, Los Angeles	392.50	435.00	460.00	—	--
Linseed Meal, 34 Percent Protein, Minneapolis	168.75	175.00	181.25	195.00	177.0
Peanut Meal, 50 Percent Protein, F.O.B. Southeastern Mills	201.25	256.00	275.00	290.30	—
Soybean Meal, 44 Percent Protein, Decatur	207.40	235.00	243.38	260.78	222.79
Soybean Meal, 49-50 Percent Protein, Decatur	222.10	251.70	262.60	277.10	239.10
Sunflower Meal, 26 Percent Protein					
Index Numbers of Wholesale Prices, Fats and Oils, 1967=100					
All Fats and Oils	246	247	275	283	287
All Fats and Oils, Except Butter	268	271	306	322	321
Group by Origin:					
Animal Fats	210	211	243	255	257
Vegetable Oils, Domestic	156	159	155	158	152
Vegetable Oils, Foreign	258	251	240	244	228
Group by Use:					
Butter	219	217	221	222	222
Lard	288	295	277	298	298
Lard, Refined	309	271	259	271	278
Food Fats Other Than Butter	171	174	204	217	214
Food Fats Other Than Butter and Lard	175	176	171	174	165
All Edible Fats and Oils	170	172	198	208	206
Soap Fats	316	313	311	318	326
Drying Oils	188	187	185	183	192
Other Industrial	--	--	--	--	--
All Industrial	295	292	290	295	303
Crude	209	219	211	216	205
Edible Vegetable Oils, Grouped by					
Degree of Processing:					
End Products	191	188	181	214	217
Refined	241	240	236	238	237
Margarine	235	235	231	231	231
Shortening, 3-pound Tin	264	264	264	264	270
Shortening, 440-pound Drum	214	213	201	208	204

Sources: Compiled from Chemical Market Reporter, Wall Street Journal, Feedstuffs, Reports of the Crop Reporting Board, Agricultural Marketing Service, and Bureau of Labor Statistics.

1981 REGIONAL SOYBEAN ACREAGE RESPONSE

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ABSTRACT: Six regional soybean acreage response equations are presented. For this summer these equations forecast slightly over 69 million acres of soybeans. In order to adjust this forecast as conditions change, impact multipliers and the assumptions underlying the forecast are presented.

KEYWORDS: Soybeans, soybean acreage, acreage response, expected net returns, regional soybean acreage, impact multipliers.

This article presents results of a study of soybean acreage response in six regions of the United States. The purpose was to produce a forecast prior to planting time (January/April), of acreage planted in soybeans for the upcoming crop year. Individual equations were estimated for six soybean producing regions: Eastern Corn Belt, Western Corn Belt, South Central, Southeast, Atlantic Coast, and Other States. [1] Included as explanatory variables in the models were net returns per acre for both soybeans and competing crops and lagged soybean acreage.

Forecast For 1981

Based on the model and assumptions presented below, the forecast for 1981 soybean planted acreage is 69.3 million acres. Regionally, this includes 1.2 million acres in the Atlantic Coast, 8.5 million in the Southeast, 17.3 million in the South Central, 18.0 million in the Eastern Corn Belt, 22.1 million in the Western Corn Belt, and 2.2 million in the Other States. This forecast has acreage from last year declining by about 100,000 acres in the Atlantic Coast, by 1 million in the Western Corn Belt, and by 1/2 million in the Eastern Corn Belt. Acreage is forecast to increase by about 50,000 acres in the Southeast, by 780,000 in the South Central, and by 30,000 in the Other States. The January *Prospective Planting* survey of 16 states indicates that farmers intend to plant 25.2 million acres in the Southeast and South Central regions. In comparison, the model forecasts 25.8 million acres for these two regions.

The assumptions for the 1981 forecast were as follows: for the price of soybeans $7.90 per bu., corn $3.40 per bu., cotton $.80 per lb., [2] rice $11.80 per cwt., and oats $2.00 per bu.; for expected soybean yields in the Atlantic Coast 27.7 bu. per acre, the Southeast 22 bu. per acre, the South Central 24.9 bu. per acre, the Eastern Corn Belt 37.0 bu. per acre, and the Western Corn Belt 33.9 bu. per acre; for expected corn yields 106 bu. per acre, oats 56 bu. per acre, South Central rice 43 cwt. per acre, South Central cotton 466 lb. per acre, and Southeast cotton 435 lb. per acre; for variable cost for soybeans $69.90 per acre, corn $125.15 per acre, cotton $210.30 per acre, rice $287.66 per acre, and oats $35.80 per acre.

Variables and Equations

Expected net returns per acre for soybeans and competing crops represented expected profitability of each crop. This allows for the evaluation of the impact upon soybean acreage of any factor which influences prices, expected yields, and/or variable cost for both soybeans and competing crops (e.g. bad weather in the Southern Hemisphere, new higher yielding varieties, or higher than expected energy costs). In recognitation of rigidites such as fixed machinery complements which normally restrict year to year adjustments lagged acreage was included as an explanatory variable.

The expected net returns variable was created by multiplying the current crop year farm price times expected yields for the upcoming crop year and subtracting the variable cost of producing each crop;

$$ENRij_t = (PF_{t-1} * EYLDij_t - VCi_t)/INDEX_t$$

[1] Western Corn Belt includes Missouri, Iowa, Minnesota, Nebraska, Kansas, South Dakota, and North Dakota; Eastern Corn Belt includes Illinois, Indiana, Ohio, and Michigan; South Central includes Arkansas, Louisiana, Mississippi, Tennessee, and Kentucky; Southeast includes Alabama, Georgia, North Carolina, and South Carolina; Atlantic Coast includes Virginia, Maryland, and Delaware; Other States includes Florida, New Jersey, New York, Oklahoma, Pennsylvania, Texas, and Wisconsin.

[2] Not a forecast of average 1980/81 price; based on current December 1981 futures price.

The variables used in this study are defined as follows:

ENR = expected net returns in 1972 dollars. PF = crop year average farm price in current dollars. EYLD = expected yield based on 1955-1980 trend. VC = variable cost in current dollars, includes expenditures for seed, chemicals, fuel, and labor. INDEX = GNP price deflator 1972 = 1.00. i = commodity i, soy = soybeans, cor = corn, cot = cotton, oat = oats, and ric = rice. j = region j, AC = Atlantic Coast, SE = Southeast, SC = South Central, EC = Eastern Corn Belt, WC = Western Corn Belt, and OS = Other States. t = crop year; 1955, 1956, ---1981.

The estimation period for the model covered the 1954/55 to 1979/80 crop years. The R^2 values indicate that the equations explained between 90 and 99 percent of the regional variation in soybean acreage over the historic period, Table 1. Since the equations were estimated using data only through the 1979/80 crop year, one test of the validity of the model would be to compare the model's forecast of acreage planted in 1980 to the actual acreage planted. Summing the regional forecasts for 1980 resulted in a national forecast of 71.5 million acres. Actual plantings were 70.1 million acres. The model overestimated plantings by 1.4 million acres or slightly less than two percent.

Multipliers

Impact multipliers, which indicate the change (in 1,000-acre units) in soybean planted acreage in response to a one-unit change in price, expected yield, or variable cost were calculated for 1981 [3] from the equations in Table 1 and are presented in Table 2. A discussion of their use follows.

Prices

The assumptions relating to farm prices will be subject to change during the January/April period. One can determine the impact of changing prices upon soybean acreage by multiplying the change in price by the appropriate multiplier in Table 2. For example, suppose estimates for expected soybean prices for the 1980/81 crop year fall $.50 from $7.90 to $7.40, the model's forecast for soybean acreage would decline by 2.23 million acres ($.50 * 4464.7 = 2.23 million acres) nationally to 67.0 million acres. Regionally this breaks down to a decline of 34,000 acres in the Atlantic Coast, 270,000 in the Southeast, 276,000 in the South Central, 560,000 in the Eastern Corn Belt, 995,000 in the Western Corn Belt and 100,000 in the Other States.

[3] Due to the nonlinear nature of the expected net returns variables, the multipliers will change each year as farm prices, expected yields, and the GNP implicit price deflator change.

The impact of increasing corn and oat prices can also examined. If estimates for corn prices increase by $.30 to $3.70, oats increase by $.15 to $2.15, and soybeans remain at $7.90, soybean acreage will decline 2.6 million acres to 66.6 million acres. This includes declines of 29,000 acres in the Atlantic Coast, 306,000 in the Southeast, 884,000 in the Eastern Corn Belt, 1.3 million in the Western Corn Belt, and 104,000 in the Other States while there would be no change in the South Central. The impact upon soybean acreage of changes in other prices can be determined in a similar fashion.

Expected Yields

It is anticipated that January/April expected yields will not vary greatly from trend since there are no major technological breakthroughs in the offing nor any drastic acreage shifts. If, however, January/April expectations for soybean yields in the Eastern and Western Corn Belt increase by one bu. per acre above the current trend for these regions, soybean acreage would increase 238,000 acres in the Eastern Corn Belt and 464,000 in the Western Corn Belt for a national increase of 702,000 acres. Similarly, if January/April expectations for corn yields increase by 10 bu. per acre above the current trend, soybean acreage would decrease by 2.2 million acres nationally.

Variable Cost

It is also possible to evaluate the effects of an anticipated change in variable costs. For example, if energy costs suddenly increase, causing per acre variable cost for soybeans to rise by $1.50 per acre, corn by $2.85, oats by $1.25, cotton by $4.07, and rice by $9.42, there would be a net increase in soybean acreage of 104,000 acres nationally. This 104,000 acre increase can be broken down into: a 219,000 acre decrease due to soybean variable costs increasing which is more than offset by the increases in variable costs of the other crops, the increase in corn variable cost increases soybean acreage by 173,000 acres, oats by 100,000, cotton by 22,000, and rice by 28,000.

Summary

This article presents regional soybean acreage response equations designed to provide information helpful in making a January/April forecast of soybean acreage for the upcoming crop year. Impact multipliers for the 1981/82 crop year are also presented. A forecast for 1981 soybean acreage along with the assumptions underlying the forecast are presented. As conditions change during February, March, and April the forecast can be adjusted using the multipliers. In this way it is possible to adjust the forecast as the planting season is approached. It is important to keep in mind that econometric analysis of this type is not intended to replace other types of analysis, but rather is intended to augment them.

Table 1—Regional soybean acreage response equations

Dependent variable	Explanatory variables and coefficients*	R2
SOYAPAC	= 69.245 + 0.766 SOYAPAC1 + 4.767 ENRSOYAC - 1.883 ENRCOR (1.00) (6.32) (3.65) (2.57)	.90
SOYAPSE	= -832.777 + 1.101 SOYAPSE1 + 47.735 ENRSOYSE - 3.645 ENRCOTSE - 19.100 ENRCOR (2.00) (15.10) (4.13) (1.04) (3.77)	.97
SOYAPSC	= 514.612 + 0.935 SOYAPSC1 + 44.031 ENRSOYSC - 6.128 ENRCOTSC - 7.517 ENRRICSC (0.74) (19.04) (4.06) (1.19) (3.73)	.99
SOYAPEC	= -602.779 + 0.972 SOYAPEC1 + 60.202 ENRSOYEC - 55.560 ENRCOR (1.10) (13.90) (5.28) (6.37)	.97
SOYAPWC	= 2657.006 + 0.717 SOYAPWC1 + 110.556 ENRSOYWC - 36.180 ENRCOR - 141.654 ENROAT (2.49) (7.64) (5.89) (2.22) (3.29)	.96
SOYAPOS	= -433.642 + 1.081 SOYAPOS1 + 18.002 ENRSOYOS - 6.383 ENRCOR (3.53) (15.62) (4.40) (3.63)	.95

*Numbers in parentheses are t" ratios

SOYAPj	= planted soybean acreage for region j , 1,000 acres
SOYAPj1	= lagged soybean acreage
ENRij	= expected net returns for commodity i in region j, constant 1972 dollars
i	= commodity, soy=soybeans , cor=corn, oat=oats, cot=cotton, ric=rice
j	= region, AC=Atlantic Coast, SE=Southeast, SC=South Central, EC=Eastern Corn Belt, WC=Western Corn Belt, OS=Other States

Table 2--Impact multipliers: Change in planted soybean acreage to a one unit increase in selected variables

Variable	Soybean			Corn			Cotton			Oats			Rice		
Region	Expected[1] price +$1/bu	Expected[2] yield +1bu/acre	Variable[3] cost +$1/acre	Expected price +$1/bu	Expected yield +1bu/acre	Variable cost +$1/acre	Expected price +$1/lb	Expected yield +1lb/acre	Variable cost +$1/acre	Expected price +$1/bu	Expected yield +1bu/acre	Variable cost +$1/acre	Expected price +$1/cwt	Expected yield +1cwt/acre	Variable cost +$1/acre
							1,000 Acres								
Atlantic Coast	67 6	19 3	-2.44	-97 0	-2 6	0 92									
Southeast	542.0	194 6	-24 6	-1018 7	-34 6	9 6	-681 8	-1 3	1 6						
Delta	551.2	175 2	-22 1				-1733 8	-3 1	3 7				-128 5	-35 3	3 0
Eastern Corn Belt	1114.4	238 0	-30 1	-2945 9	-100 0	27 8									
Western Corn Belt	1989.5	463.6	-58 7	-2017 3	-68.5	19 0				-4491 9	-159 9	80 3			
Other States	200 0	72 0	-9 1	-347 2	-11 8	3 3									
United States	4464.7	1162 7	-146 1	-6426.1	-217.5	60 6	-2415 6	-4 4	5 3	-4491 9	-159 9	80 3	-128 5	-35 3	3 0

[1]Expected Price Current Crop Year
[2]Expected Yield. Trend Yield
[3]Variable Cost Includes seed, chemicals, fuel, and labor

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