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Large supplies and low prices dominate the 1982/83 U.S. soybean outlook. Although both domestic use and exports are expected to rise this season, the increase will fall far short of the change in supplies. Stocks will build, and real soybean prices could fall to their lowest level in many years. Given prospects for weak economic growth in 1983 and further cutbacks in pork production, adjustments to bring soybean stocks and real prices to more normal levels will have to come initially from the production side. Soybean acreage will likely decrease in 1983, but supplies are expected to continue large relative to demand.

Supplies Are Record High

Based on conditions as of November 1, 1982, U.S. soybean production is forecast at 2.3 billion bushels, 15 percent above 1981. This output, combined with a carryin of 268 million bushels on September 1, gives a record-large supply of 2.57 billion for 1982/83. The previous largest supply was 2.44 billion bushels in 1979/80. (table 1.)

The big 1982 crop reflects increases in both area and in the average yield. Soybean planted acreage was 72.3 million, 70.9 million of which are expected to be harvested. In 1981, 67.8 million acres were planted, and 66.4 million were harvested. The average yield was a record 32.4 bushels per acre, up from 30.1 bushels in 1981.

The soybean-to-corn price ratio was slightly higher in 1982 compared with 1981 (figure 1). However, the main factor behind the increased soybean acreage in the Corn Belt may have been that corn farmers had to reduce acreage to qualify for the loan programs and the target price for that crop. In fact, soybean acreage increased in 1978, 1979, and 1982--years when acreage reduction programs were in effect for corn. Early data for 1982 indicate that many corn producers who participated in the 10-percent acreage reduction program planted less than 90 percent of their corn acreage base. In some cases, no doubt, the difference between 90 percent of the base and the actual corn acreage--about 2.5 million acres--was planted to soybeans.

In the South Central and Southeastern States, soybean acreage was nearly 1 million higher in 1982. As shown in figure 2, the soybean-to-cotton price ratio was also up from 1981. And, although the cotton target price of 71 cents a pound was high relative to expected soybean prices, farmers had to reduce their cotton acreage by 15 percent from an established

Table 1.-- U.S. soybeans and products (domestic measure) 1/

Commodity	1980/81	1981/82 Estimated	1982/83 Projections Oct. 22	1982/83 Projections Nov.	Probable variation 2/
SOYBEANS					
Area		Million acres			
Planted	70.0	68.0	72.3	72.3	
Harvested	67.9	66.4	70.9	70.9	
Yield per harv. unit	26.4	Bushels/acre 30.1	32.4	32.4	+0.8/-0.8
		Million bushels			
Beginning stocks	359	318	268	268	
Production	1,792	2,000	2,300	2,300	+60 /-60
Supply, total	2,151	2,318	2,568	2,568	+60 /-60
Crushings	1,020	1,030	1,090	1,090	+25/ -25
Exports	724	929	960	940	+25/ -25
Seed and feed	66	70	70	70	
RESIDUAL	23	21	18	18	
Use, total	1,833	2,050	2,138	2,118	+40/ -40
Ending stocks	318	268	430	450	+40/ -40
Avg. farm price ($/bu)	7.57	6.08	5.25-6.00	5.25-5.75	
SOYBEAN OIL:		Million pounds			
Beginning stocks	1,210	1,736	1,150	1,102	
Production	11,270	10,979	11,880	11,880	+250/-250
Supply, total	12,480	12,715	13,030	12,982	+250/-250
Domestic	9,115	9,536	9,750	9,802	+125/-125
Exports	1,629	2,077	2,150	2,075	+200/-200
Use, total	10,744	11,613	11,900	11,877	+150/-150
Ending stocks	1,736	1,102	1,130	1,105	+150/-150
Avg. price 3/	22.7	19.0	16.0-20.0	16.0-20.0	
SOYBEAN MEAL:		Thousand short tons			
Beginning stocks	226	163	245	175	
Production	25,312	24,650	26,000	26,000	+600/-600
Supply, total	24,538	24,813	26,245	26,175	+600/-600
Domestic	17,597	17,730	18,100	18,100	+350/-350
Exports	6,778	6,908	7,850	7,850	+300/-300
Use, total	24,375	24,638	25,950	25,950	+350/-350
Ending stocks	163	175	295	225	+50/ -50
Avg. price 4/	218.20	182.50	150-175	150-175	

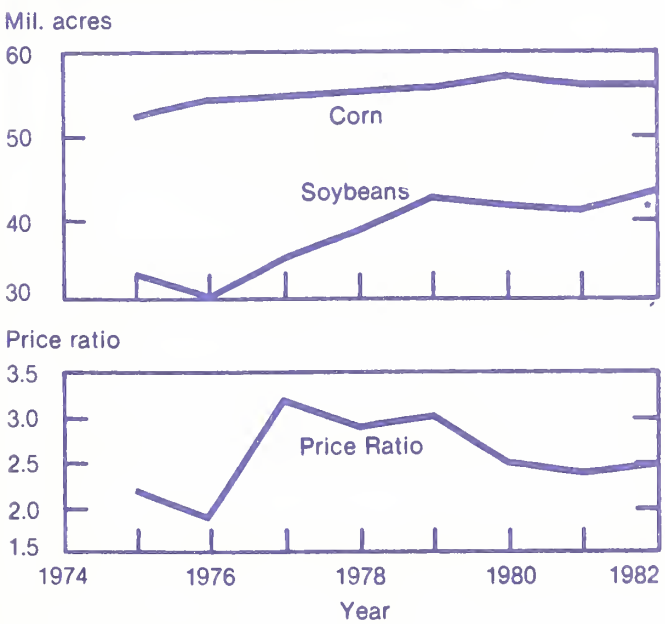
1/ Marketing year beginning September 1 for soybeans; October 1 for soybean oil and meal. 2/ The "probable variation" reflects the root mean square error and/or standard error of estimate from trend and judgment. Chances are about 2 out of 3 that the outcome will fall within the implied ranges. 3/ Simple average of crude soybean oil, Decatur, cents per pound. 4/ Simple average of 44 percent protein, Decatur, dollars per short ton.

base to qualify for target price protection. Participation in the cotton program was widespread throughout the South, and as for corn in the Midwest, many participants reduced acreage by more than that required by the program. This probably added some acreage to soybeans.

Over a third of the soybeans planted in the South were double-cropped with winter wheat. In 1982, double-cropped soybean acreage was around 8 million, up about 60 percent from 1981. There was extremely low participation in the 1982 wheat acreage reduction program in the areas with heavy double-cropping.

Widespread abandonment of cotton acreage in Texas caused a sharp increase in soybean area in that State. Soybean acreage for harvest as of June 1--prior to the severe hail and rainstorms that swept across the High Plains--was estimated at 740,000. As of September 1, the estimate increased to 1,020,000 acres.

Soybean and Corn Acreage in 9-State Corn Belt; Soybean/Corn Price Ratio, Previous Year



*Acreage reduction for corn.

Figure 1

Soybean Acreage in South Central and Southeast Related to Previous Year Soybean/Cotton Price Ratio

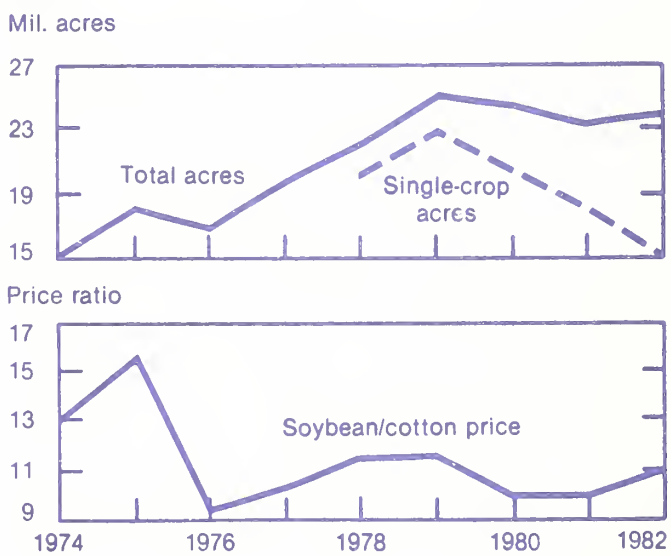


Figure 2

Low Prices Stimulate Use

U.S. soybean use in 1982/83 is forecast at 2.12 billion bushels, 3 percent above 1981/82. The increase will result from lower prices, rather than a shift in overall demand. Domestic processors are expected to crush 1.09 billion bushels of soybeans, 60 million above 1981/82. Exports are forecast at 940 million bushels, an 11-million increase from last season.

Compared with last season, the supply for 1982/83 is larger by 250 million bushels. However, the forecast increase in combined crush and exports is only 71 million bushels, or 28 percent of the increase in supply. Supplies rose in 6 of the previous 10 years, and in those instances, the change in use relative to the change in supply ranged from 58 percent in 1979/80 to 123 percent in 1981/82. So, the forecasts for 1982/83 indicate a significant departure from the soybean market's past behavior. This season's unique combination of low corn prices, reduced hog numbers, weak economic activity, and a strong U.S. dollar support the forecast of only a moderate increase in use.

More Soybeans To Be Crushed

Domestic processors are expected to crush 1,090 million bushels of soybeans in 1982/83, 60 million more than last season. This season's estimated crush represents 42 percent of the U.S. supply, down from 44 percent last season and 47 percent in 1980/81. The gross crushing margin--the value of the oil and meal less the season-average farm price--was 31 cents a bushel last season and is expected to be about a fifth higher in 1982/83. Margins have been relatively narrow since 1979/80, when the average gross margin was over 70 cents. Crushings in September narrowly topped the year-earlier level, but more recently, crushings reportedly were well ahead of last year.

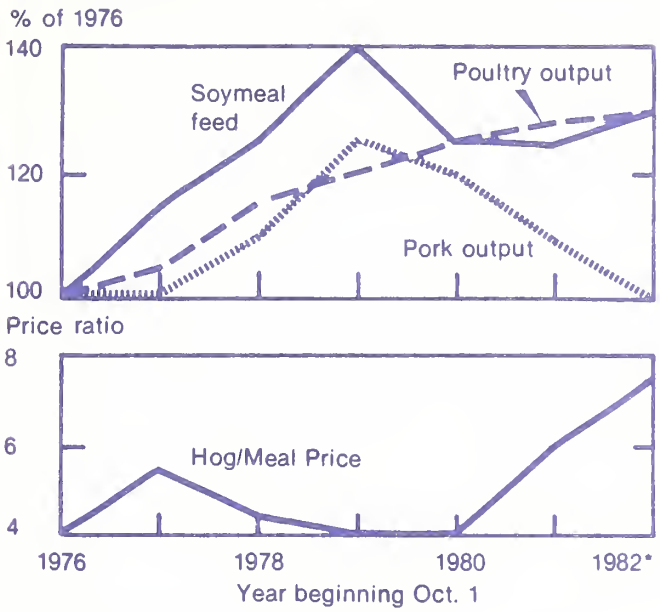
Meal Use to Rise 6 Percent

Total soybean meal use is forecast at 26 million short tons in 1982/83 (October-September), 6 percent above 1981/82. Domestic use, at 18.1 million tons, would be 2 percent above last season, while exports, at 7.85 million, would be 14 percent higher.

The increase in domestic use in based on higher livestock feeding rates this season. Some indicators of feeding rates--the livestock/meal price ratios--are expected to be substantially higher. The hog/meal price ratio, for example, averaged about 5.7 last season; in 1982/83, the ratio could jump to around 7.5 (figure 3). More meal could be fed to broilers this year, as poultry production is expected to expand by about 2 percent, and the broiler/meal price ratio is also increasing.

The limiting factor in domestic meal use is the outlook for further cutbacks in pork production. The September Hogs and Pigs report showed that producers are continuing to reduce their inventories of hogs and pigs on a year-to-year basis. The overall inventory in the 10 States surveyed was 12 percent below a year earlier, and the breeding inventory was down 13 percent. Farrowing intentions were down 10 percent for September-November, and 4

Soybean Meal Feed Demand, United States



*Projected

Figure 3

Factors Affecting U.S. Soybean Exports

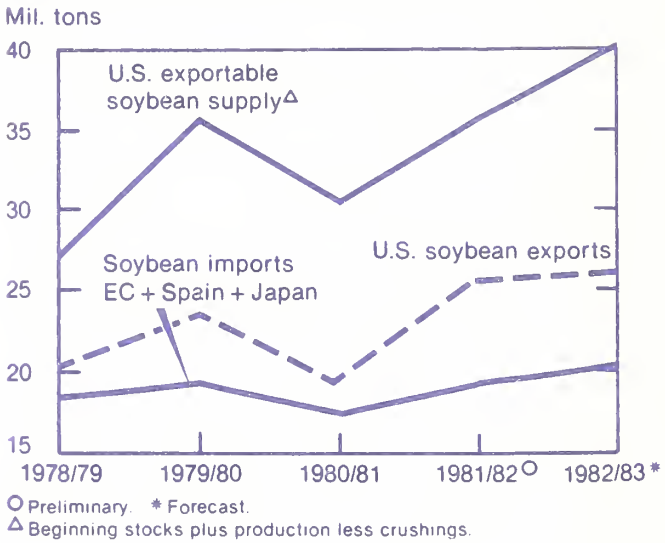


Figure 4

Soybean Carryover and Price

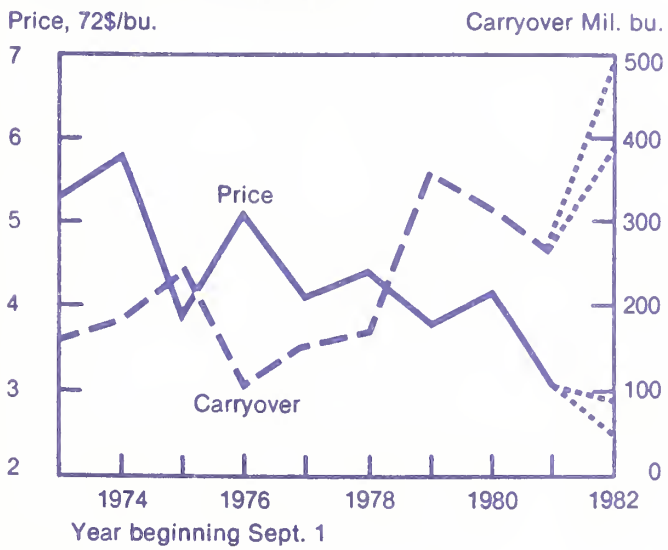


Figure 5

Distribution of Monthly High and Low Soybean Prices, Index of Quarterly Change: 1972/73-1981/82

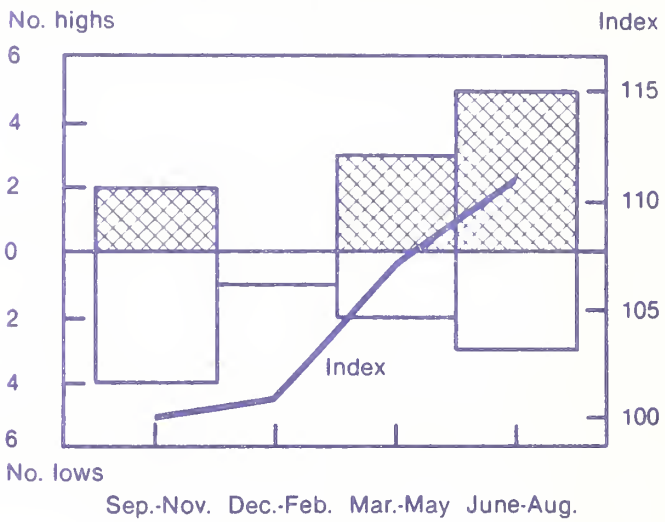


Figure 6

percent for December-February. These reductions suggest substantial declines in pork production during most of 1983. For the 1982/83 feeding year (October-September), pork production could decline around 9 percent, following a 7.5 percent drop last year. Note, however, that more soybean meal was fed in 1981/82 even with the drop in pork output.

The key market for U.S. exports of soybean meal is the European Community (EC), which took around 60 percent of our meal exports in 1981/82. Because of a slight increase in expected livestock output in 1983 and a lower soymeal/corn price ratio, EC meal consumption could increase substantially this season. The variable levy on EC corn imports makes the meal/corn price ratio there about one-half of the ratio in the United States.

U.S. soybean meal prices are expected to average between $150 and $175 a short ton this season, down from $183 last year and $218 in 1980/81. In October, meal prices averaged $157 a ton.

Soybean Oil Use Increasing

Continued strong demand for soybean oil is expected to result in a record domestic use of 9.8 billion pounds in 1982/83, 3 percent above last season. In 1981/82, the soybean oil used in baking and frying fats totaled 2.99 billion pounds, compared with 2.68 billion in 1980/81. Soybean oil's share of this end use, at 67 percent, was up 4 percentage points from 1980/81, and the total use of baking and frying fats was also higher. Low soybean oil prices relative to lard and edible tallow spurred the rise in its use (table 2).

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Table 2--Fats and oils used in edible products

Year beginning October 1	1979/80	1980/81	1981/82 1/
		Million lb.	
Soybean oil:			
Baking or frying fats	2,658	2,675	2,990
Margarine	1,648	1,666	1,729
Salad or cooking oil	4,153	4,226	4,368
Other edible	35	43	51
Total edible	8,493	8,610	9,138
Total fats and oils			
Baking or frying fats	4,202	4,224	4,482
Margarine	2,033	2,022	2,013
Salad or cooking oil	5,271	5,280	5,438
Other edible	338	381	381
Total edible	11,843	11,908	12,314

1/ Preliminary

Soybean oil will face less competition from lard and from cottonseed oil in 1982/83, but palm oil will be more competitive. Lard production will fall in line with the cutback in hog slaughter--around 9 percent. Cottonseed production is a fourth below 1981/82. In October, palm oil prices at U.S. ports averaged 18 cents a pound, down from 24 cents in early 1982.

Soybean oil exports are forecast to be little changed from last season's 2.08 billion pounds. So, with total use about matching production, ending stocks will remain around 1.1 billion pounds. For the season, soybean oil prices should average between 16 and 20 cents a pound, most likely being only slightly below last season's 19 cents. In October, the average price was 17.4 cents a pound.

Soybean Exports Could Be Record High

U.S. soybean exports are forecast at 940 million bushels for 1982/83, up from last season's record 929 million. As is true for meal, the EC is the key market for U.S. soybeans, taking about 45 percent of our 1981/82 exports. Even though the United States has a much larger exportable supply this season, the strong dollar and increased competition from sunflowerseed, rapeseed, and palm oil is moderating the increase in our soybean exports (figure 4).

The U.S. share of world soybean trade could be around 84 percent in 1982/83, slightly below last season because of an expected sharp expansion in Argentine exports. Soybean production in Argentina is forecast to be nearly 15 percent larger in 1982/83 and a 12 percent increase is expected in Brazil. Argentina could increase its soybean exports by a third, while Brazil is expected to once again be the world's leading soybean meal exporter.

Record Soybean Carryover Depresses Prices

Soybean prices in 1982/83 are already feeling the weight of a prospective record carryover--450 million bushels. Farm prices fell to $5.03 a bushel in mid-October, compared with $6.06 a year earlier. The season-average price for 1982/83 is forecast at $5.25 to $5.75 a bushel, down from $6.08 in 1981/82 and $7.57 in 1980/81.

In real terms (1972 dollars), the forecast price range for 1982/83 is about $2.50 to $2.75 a bushel. The 1982/83 loan rate of $5.02 a bushel--$2.43 in 1972 dollars--will offer some support. The relationship between the soybean carryover and real prices is shown in figure 5. Real prices have trended downward since 1976/77.

Figure 6 shows that, most often, the monthly low soybean price occurs in the first quarter of the marketing year, and the monthly high in the last quarter. In the 1974, 1980, and 1981 crop years, the pattern was reversed. The "short-crop" theory held for 1974 and 1980; weak demand ruled in 1981/82.

Figure 6 also shows that the average price usually increases about 10 to 12 percent from the first to the last quarter of the marketing year. Today, this rate of change hardly covers the interest costs of storing soybeans. Whether this general pattern holds in 1982/83 depends on several factors, including farmer's use of the soybean loan program, any changes in hog producer's intentions, and crop production prospects in 1983.

Extended Outlook

The forecast soybean stocks-to-use ratio for 1982/83 is 21 percent, well above the "normal" 10 to 14 percent. The ratio is likely to be reduced, but not significantly, in 1983/84. Given trend yields and modest economic growth, total use could expand 2 to 3 percent next season. This increase is largely predicated on the forecast recovery in pork production and, consequently, stronger soybean meal demand. Furthermore, soybean production will likely decline from the 1982 level. The trend yield for 1983--a debatable item--is almost certainly below the record 32.4 bushels of 1982, and acreage could also be lower.

Weather conditions, price expectations at planting time, and farmers' response to the grain and cotton programs will be instrumental in determining 1983 soybean acreage. Assuming weather conditions next spring do not favor planting soybeans, soybean acreage could drop to around 70 million. Lower soybean prices, compared with 1981, stronger incentives to participate in the feed grain acreage reduction program, and continued high participation in the cotton program support the forecast of a decline in soybean acreage. There is little doubt that substantially more acreage in major soybean growing areas will be devoted to conserving uses in 1983. Moreover, a strong case can be made that soybeans will be less competitive with corn and cotton grown under the 1983 programs.

Although the acreage reduction requirements are greater for both corn and cotton, higher target prices and the diversion payment, particularly for corn, will require cash soybean prices of around $6.30 a bushel next spring for soybeans to be as competitive as they were in 1982. Such a price rise from current levels is unlikely. So, the incentive for participating farmers to plant less corn and cotton than the maximum permitted under the farm programs is much weaker than last year when combined underplantings were 2.5 to 3 million acres (including some weather-related soybean plantings in Texas). Presumably, most of the underplanted acreage went to soybeans in 1982.

In the final analysis, a reduction in acreage of 2 million or so will not be nearly enough, by itself, to cause a significant gain in the real price of soybeans. With a 2 million acre cut in area and yields near trend--around 30.5 bushels--the projected supply for 1983/84, including a forecast carryin of 450 million bushels, would hardly be changed from this season's record 2.57 billion bushels. The importance of the yield assumption is well illustrated by the fact that a 1 bushel change in yield has the same effect on production as a 2.3 million acre change in harvested area.

Outlook for Other Oilseeds: Highlights

The supply and use projections for sunflowerseed, cottonseed, and peanuts are given in tables 3-5.

U.S. sunflowerseed crushings--about 374,000 metric tons during 1981/82--fell dramatically from the previous year's record 780,000 tons. U.S. sunflower crushing capacity will expand to over 2 million tons this fall when two new, large plants in North Dakota become operational. So, U.S. sunflowerseed crushings are expected to be much larger in 1982/83, and they may reach 800,000 tons.

Exports of sunflower oil are expected to total 180,000 tons in 1982/83, a 75-percent increase over 1981/82. The U.S. cotton crop is down sharply from last year, which will help sunflower oil find markets in a number of foreign countries that are major users of cottonseed oil. The largest export market for U.S. sunflower oil in 1981/82 was the Soviet Union, which took over 40 percent of the exports.

The average farm price for sunflowerseed in 1981/82 was $10.90 per cwt, down 20 cents from the previous year. The average price received this October, at $8.82, was about $1.50 lower than a year earlier. The lower price is due partly to the significant increase in sunflower production this year, but more importantly to the worldwide glut in oilseed supplies. The average farm price for 1982/83 is forecast at about $9.50 per cwt.

Despite the lower production and the drawdown of excess stocks, cottonseed prices during 1982/83 will likely average even lower than last season's depressed levels. Last season, the combination of a 15.6-million-bale cotton harvest and a 2-billion-bushel soybean crop lowered the season-average farm price for cottonseed to about $87.50 a ton, down from $129 in 1980/81.

This season's record soybean supplies will keep cottonseed oil and meal prices under pressure. Low prices for cotton lint and feed will also reduce returns from the remaining cottonseed products--linters and hulls--which account for about a third of the weight of cottonseed but only about a fifth of product value. The low product prices will cause reduced bids for cottonseed. For 1982/83, cottonseed prices could average about $75 a ton.

The Commodity Credit Corporation loan rate for 1982-crop quota peanuts is $550 a ton, compared with $455 in 1981. The loan rate for 1982-crop "additional" peanuts is $200 a ton, down $50 from the 1981 rate. Farm prices for all grades of peanuts during October 1982 averaged 26 cents a pound, compared with 26.6 cents a year ago. Supplies of peanuts available for export will exceed demand, leading to lower farm prices this year.

Table 3--Sunflower seed: Supply, disappearance, and price, U.S.

Year Sept. 1	Supply: Beginning stocks	Supply: Production	Supply: Imports	Supply: Total	Disappearance: Crush	Disappearance: Non-oil usage +seed	Disappearance: Exports	Disappearance: Total	Ending stocks	Price: Average received by farmers
	1,000 metric tons									Dol./mt.
1980	980	1,748	28	2,756	789	167	1,505	2,452	304	245
1981	304	2,096	32	2,433	374	178	1,555	2,107	325	240
1982 1/	325	2,547	15	2,887	800	187	1,500	2,497	390	210
1983 1/	390									

1/ Forecast.

Table 4--Cottonseed: Supply, disappearance, and price, U.S.

Year Aug. 1	Supply: Beginning stocks	Supply: Production	Supply: Total	Disappearance: Crush	Disappearance: Exports	Disappearance: Other	Disappearance: Total	Ending stocks	Price: Average received by farmers
	1,000 short tons								Dol./ton
1980	1,058	4,471	5,529	4,076	133	922	5,131	398	129.00
1981	398	6,397	6,795	4,575	41	1,398	6,014	781	87.50
1982 1/	781	4,748	5,529	4,100	50	979	5,129	400	75.00
1983 1/	400								

1/ Forecast.

Table 5--Peanuts (farmers' stock basis): Supply, disappearance, and price, U.S.1/

Year Aug. 1	Supply: Beginning stocks	Supply: Production	Supply: Imports	Supply: Total	Disappearance: Crush	Disappearance: Exports	Disappearance: Food	Disappearance: Seed/feed loss, and shrinkage	Disappearance: Total	Price: Avg. rec. by farmers	Price: Support Quota	Price: Support Additional
	Million pounds									Cents/lb.		
1980	628	2,301	401	3,330	446	503	1,647	321	2,917	25.1	22.75	12.5
1981	413	3,988	2	4,403	574	576	1,933	564	3,647	26.8	22.75	12.5
1982 2/	756	3,432	2	4,190	473	735	2,025	257	3,490	25.6	27.50	10.0
1983 3/	700											

1/ Disappearance forecast for latest year. 2/ Preliminary. 3/ Forecast.