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Cotton and Wool

Outlook and Situation Report

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Government Programs
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Cotton Farm Income...

CONTENTS

Page

4	Textiles and the Economy
5	Cotton Situation
5	Outlook for U.S. Mill Use
8	Outlook for U.S. Exports
9	World Cotton Situation
10	ELS Outlook and Situation
11	Manmade Fiber Review
12	Wool Situation
12	U.S. Situation
14	World Overview
14	Mohair Situation
	Special Articles
15	Participation in the 1985 Cotton Program
20	The Cotton Situation in China
26	Marketing U.S. Cotton

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SUMMARY

Forecast to rise 2 million bales, U.S. cotton stocks could reach 4.8 million by the end of this season, and could rise even further during 1985/86. Despite restrictive acreage reduction programs in 1984 and 1985, stocks are rising because of record yields in 1984, and because of declines in both mill use and exports.

A decline in mill use is normal following the rebuilding of inventories during an economic recovery. However, this season and next, sluggish economic growth and competition from imported textiles will push mill use lower than might be expected. Mill use for 1984/85 is forecast at 5.3 million bales, and might fall to about 5 million bales during 1985/86.

U.S. cotton exports are forecast at 6.1 million bales in 1984/85, 0.7 million less than last season. Production in foreign countries could exceed consumption by more than 3 million bales. Normally, foreign consumption is greater than production, and the United States is able to supply the difference. During 1984/85, foreign ending stocks are expected to rise by about 9 million bales, with China accounting for most of the buildup, as well as most of the rise in foreign production. This season, variable bale sizes, inadequate transportation, and uncertain quality will limit China's exports.

The use-to-supply ratio for U.S. cotton is estimated at 0.71 for 1984/85, down from 0.81 in 1983/84, and a further decline is possible during 1985/86. Declines in this ratio usually coincide with a lowering of average farm prices. Despite a decline in spot cotton prices since 1983/84, 1984 could be profitable for many cotton farmers. While some areas of poor harvest exist, net returns per planted acre for cotton-program participants could average more than \$100 on the 1984 crop, compared with an estimated \$174 in 1983 and \$27 in 1982.

Exports of extra-long staple cotton may rise from 36,000 bales in 1983/84 to a record 65,000 this season. The rise in exports is expected to offset the decline in mill use to 50,000 bales, and ending stocks may drop below 60,000 for the first time since 1980/81.

Factory shipments and production of manmade fibers declined 6 percent from the second to the third quarter of 1984. Further reflecting the market's weakness, manmade fiber plants operated at only 75 percent of capacity, on average, in the third quarter. Capacity utilization in the first and second quarters averaged 81 percent.

Mill use of wool totaled 32 million pounds in the third quarter--a 20-percent decline from than first two quarters. The woolen system, which produces cold-weather apparel and blankets, used 23 percent less wool than during the first and second quarters, while the worsted system used 16 percent less wool.

TEXTILES AND THE ECONOMY

The U.S. economy in the third quarter grew 1.9 percent, the smallest increase since the last quarter of 1981, when the annual rate of economic expansion was 0.5 percent. The major negative factors in this slower growth were the very small gain in personal consumption expenditures and a greater negative trade balance. Positive contributions came from greater investment, most of which resulted from an accumulation in nonfarm business inventories and increased Government purchases. Personal savings as a percent of personal income, 6.3 percent, was the highest in more than 2 years.

Personal consumption expenditures, 65 percent of gross national product (GNP), increased \$0.6 billion in the third quarter of 1984, the smallest quarterly gain in 3 years. Both durable and nondurable purchases declined. Consumers' expenditures for motor vehicles and clothing were down more than 7 and 12 percent, respectively.

Other economic data also reflect the softness of the economy. The index of industrial production for the third quarter increased at an annual rate of 6.5 percent, compared with annual rates of 8.5 and 11.5 percent for the previous 2 quarters, respectively. The capacity use rate of all manufacturing was 82.6 percent.

Nondurable retail sales have been rather sluggish since mid-1984. October sales were less than 0.4 percent below the monthly average for the third quarter, which in turn, was the same as the previous quarter. Second-quarter sales were 2.1 percent above first quarter. The index of leading indicators for the third quarter declined 2.2 percent, compared with rises of 2.1 and 1.0 percent for the first and second quarters, respectively. Slower economic growth in 1985 may be indicated by the increasingly smaller rates of change for this index in every quarter since first-quarter 1983.

Third-quarter textiles manufacturing output declined at an annual rate of 3.2 percent. Textile materials production has had a downward trend since fourth-quarter 1983. Output in first-quarter 1984 declined 7.3 percent, and had no change in the second quarter. Capacity utilization rates for the

industry have fallen every quarter (since the high point of 90.4 percent in third-quarter 1983) to a low of 83.7 percent in the third of quarter 1984. The previous low rate, 79.1 percent, was in the first quarter of 1983.

The average unemployment rate among both textile mill and apparel manufacturing workers for the 3 months August-October was higher than for the average rate for the preceding 6 months. The textile mill unemployment rate during August-October averaged 9.5 percent each month, compared with 7.8 percent for February-July. The comparable rates among apparel manufacturing employees were 12.1 and 10.6 percent, respectively.

Mill consumption of all fibers in the third quarter was 2.6 billion pounds, 7.5 percent below the second quarter, and 8.3 percent less than a year earlier. Cotton use was 0.6 billion pounds, down 9 percent from the second quarter. Noncellulosic fibers, at 1.8 billion pounds, declined 6.7 percent. Table 1 shows the rate of increase of apparel imports. Comparing January-September periods, the raw fiber equivalent of the cotton contained in imported apparel in 1984 was about 607 million pounds--55 percent greater than imports during January-September 1982. An almost equal quantity of manmade fibers entered in the form of apparel, 554 million pounds this year--a 48-percent increase over 1982. More than 60 million pounds of raw wool were imported as apparel--a 72-percent rise over 1982.

Table 1.--Raw fiber equivalent of apparel imports
January-September, 1979-1984

Year	Cotton		Manmade fibers		Wool	
	Thousand pounds	Percent incr.	Thousand pounds	Percent incr.	Thousand pounds	Percent incr.
1979	322,594	--	276,734	--	30,464	--
1980	367,757	14.0	291,971	5.5	32,743	-5.0
1981	385,701	4.9	331,507	13.5	31,090	9.5
1982	390,257	1.2	374,459	13.0	35,206	13.2
1983	481,626	23.4	441,219	17.8	44,394	26.1
1984	606,503	25.9	553,878	25.5	60,464	36.2

COTTON SITUATION

Outlook for U.S. Mill Use

Decline To Continue

U.S. mill use is forecast to decline to 5.3 million bales during 1984/85, and a further decline is possible during 1985/86. A decline in mill use is normal following the rebuilding of inventories during an economic recovery. However, during this season and next, sluggish economic growth and competition from imported textiles will push mill use lower than normally would be expected.

Mill use peaked at a seasonally adjusted annual rate of 6.4 million bales in January 1984, and has since trended lower (figure 1). The decline was roughly consistent with patterns of mill use during past economic cycles. From November 1983 to September 1984, the 5-month centered average of seasonally adjusted rates declined by about 12 percent, despite strong economic growth during the first and second quarters of 1984. A comparable period in the last business cycle was January–December 1976 (figure 2), when the 5-month centered average of seasonally adjusted rates fell 11 percent.

From January 1977 to August 1978, cotton mill use fell about 4 percent. The slower rate of decline reflected a leveling of business conditions once mill use fell to the

level of consumer purchases of cotton goods. Likewise, mill use during 1985 and 1986 will probably continue to decline, but at a slower rate than during 1984.

The U.S. economy grew 5.4 percent in 1976, 5.5 percent in 1977, and 5 percent in 1978—relatively steady rates of economic growth that limited the rate of decline in cotton mill use. In contrast, real GNP grew by 7.5 percent during 1983/84, but 3- to 4-percent growth is probable during 1984/85, and slower growth yet is possible during 1985/86.

From 1976 to 1978, cotton textile imports rose from 1.5 million raw fiber equivalent bales to 1.8 million, a change of 19 percent. But cotton textile exports from the United States also rose, so the cotton textile trade deficit increased only 150,000 bales. However, from 1983/84 to 1985/86, the cotton textile trade deficit might expand 400,000 to 500,000 bales, causing mill use to decline more than 4 percent.

One factor in cotton's favor this year, compared with the previous business cycle, is that its share of mill use on the cotton system has held at 60 to 61 percent since 1977/78. During 1976–78, cotton's share of mill use fell from about 66 percent to its present level. That alone caused a 350,000-bale decline in mill use during 1976/77.

If mill use at seasonally adjusted rates during October 1984–July 1985 falls at an annual rate of about 6 percent, mill use for the 1984/85 season will total 5.3 million bales. If the decline during 1985/86 remains near 6 percent, mill use would fall to about 5 million bales.

Retail Inventories Rising

The ratio of inventory to sales at apparel and accessory stores rose during the summer. This ratio mirrors, in reverse, trends in cotton mill use (figure 3).

During the November 1973–March 1975 recession, the inventory–sales ratio rose to 2.57 because retail sales dropped. With the drop in sales, retail inventories were larger than necessary, new orders for textile products declined, and mill use declined sharply. Toward the end of that recession,

Figure 1

Cotton Mill Use, Seasonally Adjusted Annual Rates

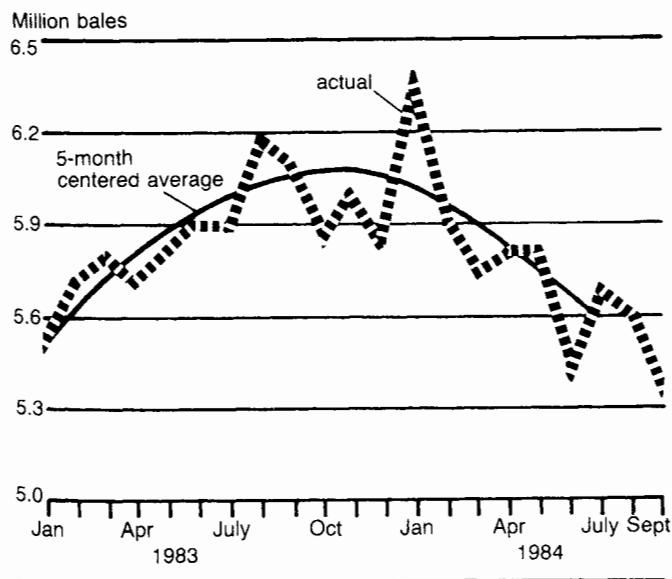


Figure 2

Trends in Cotton Mill Use¹

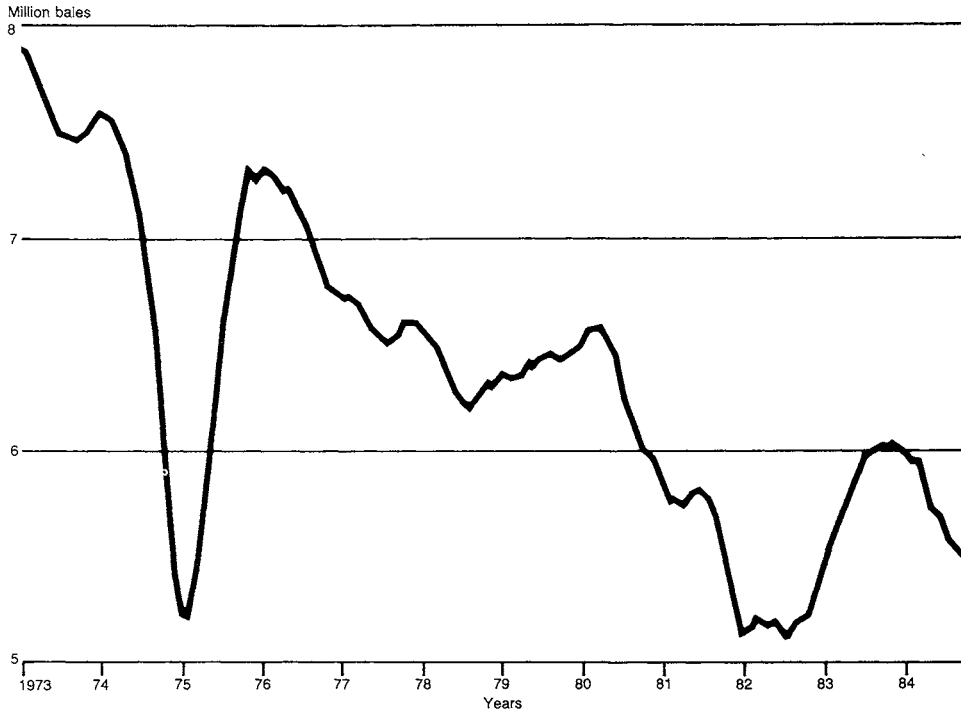
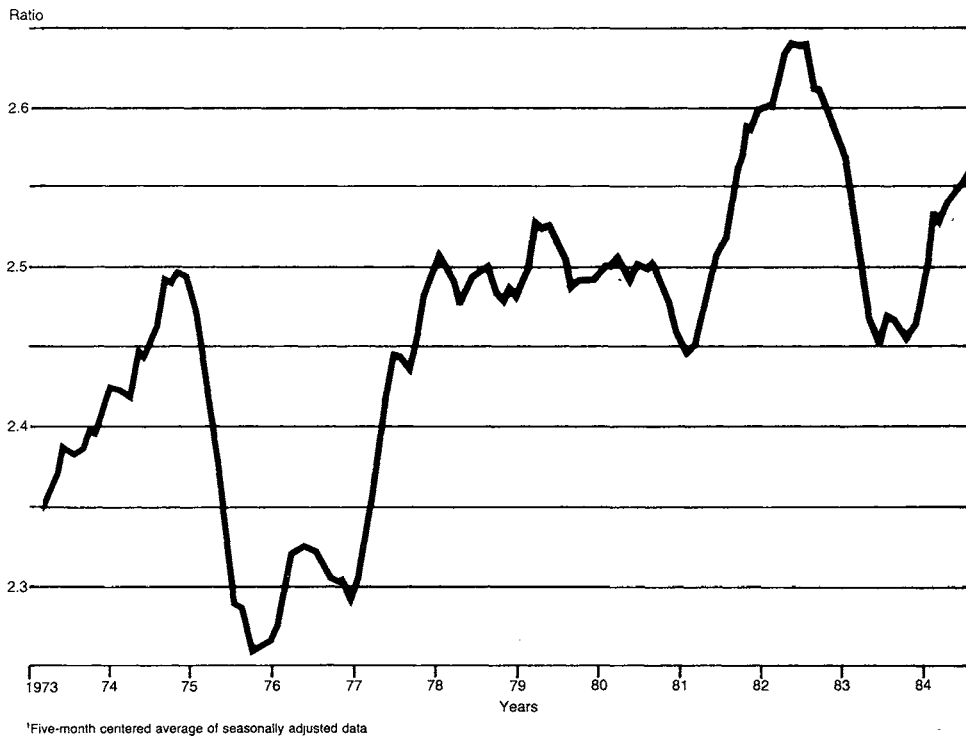


Figure 3

Inventory/Sales Ratios at Apparel and Accessory Stores¹



retail sales began to improve, retailers responded to increased sales by ordering new merchandise, and mill use recovered. The recovery in cotton mill use lasted until the beginning of 1976. By that time, the inventory-sales ratio stabilized around 2.30. Apparel retailers had rebuilt their inventories sufficiently to match the rise in sales, and mill use began to decline again.

During the 1981-82 recession, the inventory-sales ratio at apparel and accessory stores peaked at 2.72. That peak occurred near the trough in mill use. As retail sales rose during 1983, the inventory-sales ratio fell below 2.50. The increase in retail sales prompted new orders for textile merchandise, and mill use rose during 1983. Since December 1983, the inventory-sales ratio has risen above 2.50, suggesting that retailers will resist further inventory accumulation. Consequently, cotton mill use will probably continue its decline during 1984/85.

Textile Trade Deficit Even Wider

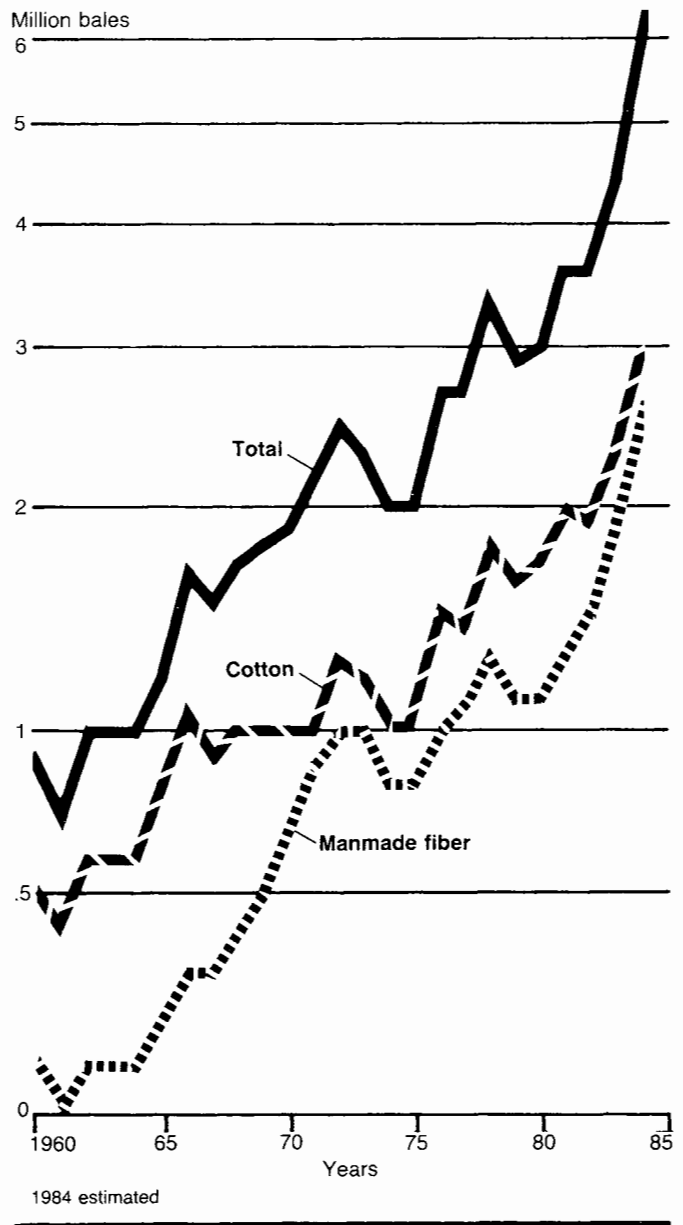
Cotton textile imports are expected to rise 30 percent to 3 million raw fiber equivalent bales in 1984, and an additional rise to 3.5 million bales is possible during 1985. However, with U.S. economic growth slowing, textile imports may decline several hundred thousand bales during 1986. Each bale change in cotton textile imports probably causes from half to three-fourths of a bale change in U.S. cotton mill use.

Total textile imports have nearly doubled in 2 years, rising from 3.5 million equivalent bales in 1982 to a projected 6.3 million during 1984 (figure 4). During 1982-84, cotton textile imports will rise 60 percent, while manmade fiber textile imports will rise about 80 percent.

During 1960-83, cotton textile imports rose at an annual rate of about 6 percent and the U.S. economy grew at an average rate of 3.2 percent. Each percentage point increase in real GNP above 3.2 percent was associated with an additional 4-percentage-point increase in cotton textile imports. During 1984, the U.S. economy is projected to grow about 7 percent, or about 4 points faster than

Figure 4

Textile Imports, Log Scale



the 1960-83 average. Consequently, cotton textile imports might have been expected to rise 22 percent in 1984; and the strength of the U.S. dollar probably explains most of the additional increase.

Cotton textile exports totaled 458,000 bales in 1983, but could decline to about 430,000 in 1984. Each bale change in textile exports has a full bale affect on U.S. mill use.

Outlook For U.S. Exports

Production in China Threatens U.S. Sales

U.S. exports are forecast to slip from 6.8 to 6.1 million bales during 1984/85 due to rising production in several foreign countries. An additional decline could occur in 1985/86.

This season, foreign production is forecast to exceed 67 million bales, while forecast consumption is put at 64 million—a difference of negative 3 million bales! However, foreign ending stocks could rise sufficiently to allow U.S. exports to top 6 million bales. Foreign ending stocks are currently forecast to rise 9 million bales, from 21.5 million to 30.4 million. Most of the stocks increase will occur in China.

Stocks in foreign countries outside China should rise during 1984/85 because they were drawn to record lows during 1982/83 and 1983/84 (table 2). Poor harvests in several exporting countries, like Pakistan and the Soviet Union, contributed to the reduction in stocks. Lower world cotton consumption and high interest rates also encouraged a reduction in carryover stocks in importing countries. While high interest rates continue to discourage large inventories, some rebuilding of stocks is likely. Mill use in foreign countries, except China, is forecast at 47.7

Table 2.—Non-Chinese foreign stocks and consumption

Crop year	Ending stocks	Consumption	Stocks cons.
	1,000 480-lb. bales		
1970	16,098	38,627	0.42
1971	17,949	39,525	0.45
1972	18,992	41,174	0.46
1973	19,548	42,762	0.46
1974	22,906	40,662	0.56
1975	17,426	43,060	0.40
1976	15,825	42,673	0.37
1977	18,230	42,228	0.43
1978	17,187	43,859	0.39
1979	17,179	45,355	0.38
1980	16,252	44,924	0.36
1981	16,954	44,612	0.38
1982	14,019	45,952	0.31
1983 1/	13,719	46,558	0.29
1984 2/	14,900	47,738	0.31

1/ Preliminary. 2/ Forecast.

million bales. Thus, an increase of 350,000 bales in these ending stocks is needed just to keep the stocks-to-use ratio at the 1983/84 level of 0.29.

Stocks in China are forecast to rise from 7.8 million bales to 15.5 million. China has problems similar to those in the United States during the mid-1960's. High procurement prices to China's farmers are encouraging production while discouraging consumption. China is hesitant to encourage cotton rather than textile exports. Further, China's consumers desire more manmade fiber products, just as U.S. consumers did in the 1960's. The results are very large cotton surpluses.

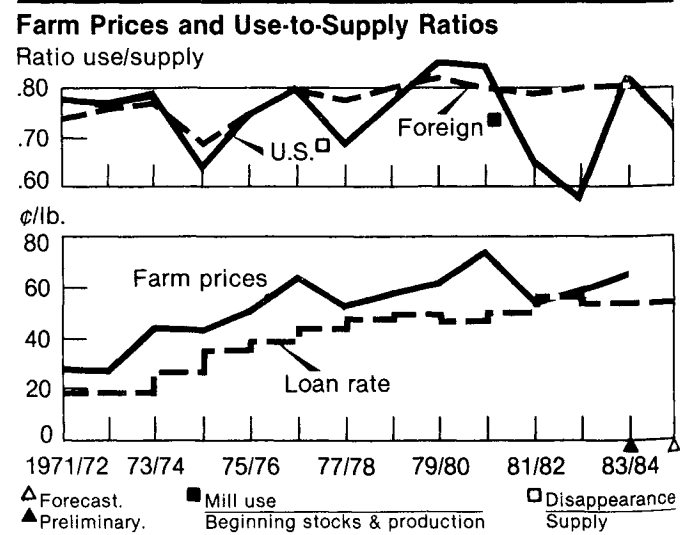
After 1965/66, the United States responded to ending stocks of 17 million bales by lowering the loan rate from 29 to 21 cents a pound. U.S. planted acreage fell from 14.2 million in 1965 to 10.3 million in 1966, and U.S. exports rose from 3 million bales to 4.8 million.

U.S. exports in 1985/86 may fall below 6 million bales. Production in foreign countries other than China could rise to about 42 million bales, while consumption could rise to about 48 million, for a difference of 6 million. However, while stocks in foreign countries could rise again during 1985/86, China's exports could rise by more than 50 percent.

Use-to-Supply Ratios Down

The use-to-supply ratio for U.S. cotton is estimated at 0.71 for 1984/85, down from 0.81

Figure 5



USDA

Table 3.—Average net returns per planted acre of upland cotton, including cotton program benefits

	1980/81	1981/82 1/	1982/83 1/	1983/84 1/, 2/	1984/85 3/
Income					
Lint yield (lbs/ planted acre)	366	524	505	467	576
Market price lint (\$/lb)	.744	.54	.591	.661	.65
Seed yield (lb/acre)	615	893	836	774	960
Market price seed (\$/lb)	.065	.043	.039	.083	.063
Market income (\$/acre)	312	321	331	373	435
Program yield (lb/acre)	553	545	581	579	601
Deficiency payment rate (\$/lb)	0	.0767	.1392	.1210	.16
Deficiency payment (\$/acre)	0	42	81	70	96
Disaster payments (\$/acre) 4/	10	--	--	--	--
PIK entitlement (\$/acre) 5/	--	--	--	153	--
Gross income (\$/acre)	322	363	412	596	531
Expenses (\$/planted acre)					
Cash costs	213	278	300	288	305
Labor	39	30	33	32	32
Capital replacement	46	38	42	44	48
CUA compliance 6/	--	--	10	58	20
Total expenses	298	346	385	422	405
Net return (\$/planted acre)	24	17	27	174	126

1/ Does not include disaster payments which were made only in specified areas. 2/ Does not include land diversion payment. Farmers participating in 30 percent PIK were not eligible. 3/ Based on potential yields as of November 1, 1984. Prices are chosen as examples only and are not forecasts. Preliminary estimate of the average farm price for cotton during October, 1984 is 65 cents. Expenses estimated based on data from 1980-83. 4/ Example: [(553 lbs/ac. x .75) - 366 lbs/ac.] x .1946 \$/lb. = \$9.54/ac. 5/ Example: [30 ac. x (579 lbs/ac. x .80)] x .55 \$/lb./50 ac. = \$153/ac. 6/ Estimated cost per planted acre of complying with conserving use requirements.

in 1983/84. (figure 5). A further decline is possible during 1985/86. Because of the large stocks buildup in China during 1984/85, the ratio of foreign use-to-supply could fall to its lowest since 1974/75. These factors would cause more cotton to be used as collateral for loans from the Commodity Credit Corporation.

Net Returns Up

Record yields, prices above the loan rate, and deficiency payments from the Government will make 1984 a profitable year for many cotton farmers (table 3). While some areas of poor harvest exist, net returns per planted acre for cotton-program participants could exceed \$100 on the 1984 crop, compared with an estimated \$174 in 1983 and \$27 in 1982.

Returns from cash sales of 1984-crop lint and seed will be about 35 percent higher than the 1980/81-1982/83 average. Government deficiency payments will reach about \$100 an acre in 1984. Therefore, national average gross income per planted acre could exceed \$500 for the second year. Production

expenses, not including land rents, are rising at a moderate pace compared with gains in income. Lower inflation and acreage reduction programs, which reduce the demand for inputs, probably account for the relatively moderate rise in production costs since 1981/82. The increase in plantings in 1984 enabled farmers to spread fixed costs over more acres, so production expenses per planted acre will probably decline from 1983.

World Cotton Situation

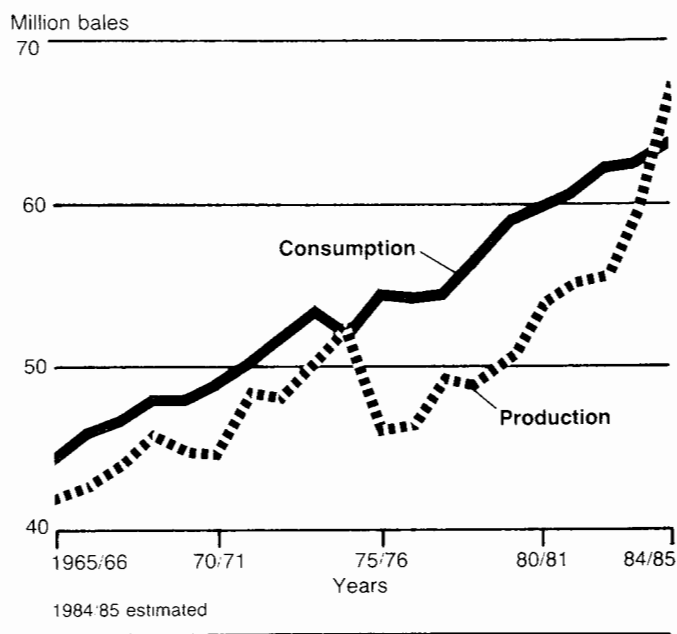
Production Exceeding 80 Million Bales

World production in 1984/85 is estimated at 80.7 million bales, consumption could reach 69.5 million, and stocks are expected to rise about 11 million bales to 35.2 million. This year's production estimate is 10 million bales above the record of 70.8 million set in 1981/82, and ending stocks will be the largest in history. Stocks reached 32.3 million bales at the end of 1974/75.

During 1965/66-1983/84, foreign production rose from 42.1 million bales to 59.5

Figure 6

Foreign Cotton Production and Consumption



million (figure 6). The average rate of growth during 1965/66–1974/75 was 1.2 million bales a year, but the average increase from 1975/76 to 1983/84 was 1.7 million a year. Most of the acceleration was caused by yield increases in China. Production in foreign countries excepting China grew about 400,000 bales a year during 1965/66–1983/84, and the projected 1984/85 production of 41.8 million is right on trend.

Foreign cotton production is expanding because world cotton consumption is rising and foreign governments wish to encourage local textile industries. Foreign production is also trending higher because cotton is a high-valued cash crop suitable for export. While production in many countries is insulated from world markets by internal pricing policies, production in some countries is responsive to price changes. Following 1974/75, when world stocks last exceeded 30 million bales, foreign cotton area fell 3.8 percent in 1975 and another 4.5 percent in 1976. Because of increased world production in 1984/85, the *Outlook "A"* index of prices in Northern Europe dropped from 88 cents a pound during October 1983 to 74 cents during October 1984. The prospects of increased exports from China may lead to reduced future production in other countries.

The 1984/85 forecast of production in China, 25.3 million bales, is significant not only because it represents about one-third of world production, but also because it indicates that production in China of more than 20 million bales a year is sustainable.

Foreign consumption rose faster than production during most of 1965/66–1983/84, and forecast foreign consumption in 1984/85 is only 700,000 bales above the 20-year trend. However, because of China's increases, foreign production will exceed foreign consumption in 1984/85. Consumption in foreign countries, except China, rose from 34.6 million bales in 1965/66 to 46.6 million last season. As with production, 1984/85 consumption estimated for those countries, 47.7 million bales, is on trend.

Rising consumption coupled with falling mill use may occur in many industrialized countries. For example, from 1982 to 1983, U.S. domestic cotton consumption (mill use plus the textile trade deficit on a raw fiber equivalent basis) rose from 6.5 million bales to 7.7 million. In calendar 1984, domestic consumption could reach 8.6 million bales, even though U.S. mill use for the year will likely fall to about 5.6 million.

ELS Outlook and Situation

Exports Doubling; Ending Stocks Down

Exports of extra-long staple cotton (ELS) are forecast to rise from 36,000 bales in 1983/84 to a record 65,000 this season. The rise in exports is expected to offset this year's larger production, and ending stocks may drop below 60,000 bales for the first time since 1980/81.

ELS exports are rising because supplies in Egypt and Peru are tight. Those countries normally produce 40 to 50 percent of the ELS crop worldwide, while the United States produces about 5 percent. Therefore, a small drop in foreign production can have a large impact on demand for ELS from the United States.

ELS mill use at seasonally adjusted annual rates declined from 84,500 bales in August 1983 to 50,180 bales in September 1984, a

decline of about 40 percent. ELS is used primarily in higher valued products. Therefore, slower U.S. economic growth might affect mill use for ELS more than for upland cotton. Mill use of ELS may decline about 25 percent, to 50,000 bales in 1984/85.

The 1985 ELS cotton program offers participating growers a target price of 103.14 cents a pound and a loan rate of 85.95 cents. The 1984-crop target price and loan rate were 99 cents and 82.5 cents a pound. To be eligible for program benefits, ELS producers must plant no more than 90 percent of their base acreage to ELS, the same as in 1984. The ELS base acreage is estimated at 67,000. Participation in the 1984 program accounted for 50 percent of the base.

Spot prices for ELS during October 1984 were 11 to 12 cents below prices a year earlier. Planted acreage in 1984 totaled 79,000, and planting in 1985 could decline. Usually, fewer than 1,000 acres planted to ELS are abandoned. During 1980/81-1984/85, yields averaged 688 pounds per harvested acre.

MANMADE FIBER REVIEW

Production and Shipments Down

The manmade fiber industry slowed during the third quarter in both production and factory shipments. Stocks continue relatively high. Manmade fiber production, at 2.3 billion pounds, was 6 percent below both the second and third quarters a year ago (table 32). Staple production, at 1.0 billion pounds, was 7 percent less than the second quarter, while filament output, at 1.2 billion pounds, was 5 percent below the second quarter.

Total shipments (domestic plus exports) of nonglass manmade fibers, 1.94 billion pounds, were 6 percent below second and third quarters a year ago. Noncellulosic fiber output was 1.80 billion pounds and cellulosic fibers were 0.14 billion. Domestic shipments of noncellulosic fibers were 1.77 billion pounds, 6 percent less than the second quarter. Filament fiber use, down 4.5 percent, did not decline as much as staple shipments, 8.3 percent. The carpet and apparel markets were relatively stronger for filament fibers than for staple fibers.

The export market, especially for noncellulosic staple fibers, has been growing in 1984 in contrast to the relatively flat demand in 1983. Overseas shipments of noncellulosic fibers, at 151 million pounds, were 11 percent more than second-quarter and 41 percent above third-quarter 1983. Two-thirds of these shipments were polyester and acrylic staple. Most of the polyester went to China and the acrylic went to Europe.

Manmade fiber production capacity in the third quarter was 3.0 billion pounds, slightly less than the second quarter and 1 percent more than a year earlier. Staple capacity was 1.37 billion pounds, slightly more than the previous quarter, while the filament capacity, at 1.64 billion pounds, was slightly less than the second quarter. Manmade fiber plants in the third quarter operated at an average of 75 percent of capacity, down from 81 percent in both the first and second quarters. Only three fiber types operated near the usual 85-percent minimum needed for a desirable return on investment: nylon filament-82 percent; olefin staple-83 percent; and acrylic staple-82 percent.

Consumption data for the second quarter are shown for these major manmade fiber markets in table 33. The largest market, woven products, used 570 million pounds, 3 percent less than the first quarter. More than 65 percent of this market is polyester fiber. Filament use declined about 10 percent, while the staple demand declined less than 1 percent.

The carpet market took 540 million pounds, more than 4 percent above the first quarter. Nylon fibers, constituting 73 percent of this market, increased 2 percent. Nylon filament, used to make the loop pile-type carpet installed in high traffic areas, increased more than 3 percent in the second quarter. Nylon staple, used to make the plush-type carpets, increased less than 1 percent. Preliminary data for the third quarter indicate that nylon filament in carpets declined about 3 percent, while nylon staple was off more than 8 percent.

The knit market took 333.3 million pounds of fiber in the second quarter, down almost 4 percent from the first quarter. Most of this decline, more than 9 percent, occurred in the filament uses, double knits, tricot lingerie, etc. In contrast, the staple knit market

(mostly active sportswear) increased more than 2 percent.

Prices of raw materials for noncellulosic fibers continued to be soft in the late summer and early fall. Low priced benzene (a precursor to xylene) has resulted in the spot price of xylene (a raw material for polyester fibers) staying between \$0.96 and \$1.02 from July through October (table 34). The price of propylene (a precursor of olefin and acrylic fibers) declined only 0.5 cent in late September and October. It has not been affected by the general decline in gasoline prices, which resulted in a 3-cent decline in refinery grade propylene. The price of cyclohexane (a raw material for nylon) declined about 10 cents because of the continued decline of the price of its precursor, benzene. Caprolactam (a raw material for nylon) prices are now quoted at about \$0.88 a pound. Industry sources expect this price to hold steady during the fourth quarter because of forecasted soft prices for its starting point, cyclohexane.

WOOL SITUATION

U.S. Situation

Mill Use and Imports Down

Raw wool mill consumption in the third quarter of 1984 was 31.8 million pounds, clean, 20 percent below the second quarter and more than 6 percent less than a year earlier (table 4). Apparel wool use was 29.7 million pounds, 19 percent less than the second quarter and 3 percent above a year earlier. This decline coincided with similar declines in mill consumption of cotton and manmade fibers.

Worsted system wool use, at 15.2 million pounds, was 16 percent below the second quarter, while the woolen system use, at 14.5 million, was down 23 percent. The third quarter is typically slower for woolen system mills because their output is closely related to cold-weather apparel and blankets.

Third-quarter production is usually timed for spring retail sales, which promote light-weight clothing containing little, if any, wool fibers. Worsted system mills producing fine suiting and military fabric tend to experience less seasonality.

Table 4.--U.S. mill consumption of raw wool, scoured basis

Year	Apparel wool	Carpet wool	Total
1,000 pounds			
1981	127,752	10,896	138,648
1982	105,857	9,825	115,682
1983	126,729	11,400	138,129
Jan.-Mar.			
1982	31,988	2,576	34,564
1983	30,214	2,849	33,063
1984 1/	36,765	2,579	39,344
Apr.-June			
1982	26,960	2,405	29,365
1983	32,636	2,999	35,635
1984 1/	36,709	2,955	39,664
July-Sept. 1/			
1982	22,415	2,728	25,143
1983	30,712	3,181	33,893
1984	29,714	2,042	31,756
Oct.-Dec.			
1982	24,494	2,116	26,610
1983 1/	33,167	2,371	35,538

1/ Preliminary.

Compiled from reports of the Bureau of the Census.

The woolen system in the first 9 months used an increasing ratio of 60's and finer fibers. The first-quarter share was 44 percent; the second, 56 percent; and the third, 62 percent. By comparison, the similar ratios for the worsted system were 61, 59, and 60 percent, respectively. Woolen system mills recently have been filling orders for better quality coating fabrics that contain fine wools. Raw wool used in carpets in the third quarter, at 2.0 million pounds, clean, was 31 percent below the previous quarter and 14 percent below a year earlier. It was the lowest quantity in 5 years. Large carpet inventories are believed to be the cause of this lower mill consumption of carpet wool.

Mill consumption of raw wool for 1984 is estimated at 145 million pounds, clean, 5 percent more than last year. A moderate mill consumption of 34.3 million pounds is forecast for the fourth quarter, reflecting expected lower activity in the textile industry (table 5).

Raw wool imports in the third quarter, at 22.0 million pounds, clean, were the smallest of the last four quarters, but were the largest for a third quarter in over a decade (table 6). Duty-free imports were 10 million pounds, and dutiable, 12 million. Only 7.5 million pounds

Table 5.--Wool supply and disappearance, clean content

Item	1982	1983	1984 1/
Million pounds			
Stocks, Jan. 1	44.6	46.0	42.0
Production	56.5	53.7	49.7
Imports	61.4	78.1	100.0
Diff. unacc.	0.6	3.3	0.0
Total supply	163.1	181.1	191.7
Mill use	115.7	138.1	145.0
Exports	1.4	1.0	0.7
Total use	117.1	139.1	145.7
Stocks, Dec. 31	46.0	42.0	46.0

1/ Estimated.

Compiled from reports of the Bureau of the Census.

Table 6.--U.S. imports of dutiable and duty-free raw wool for consumption, clean content

Year	Dutiable	Duty-free	Total
1,000 pounds			
1981	48,106	26,146	74,252
1982	39,988	21,433	61,421
1983	49,371	28,688	78,059
Jan.-Mar.			
1982	15,356	5,514	20,870
1983	10,549	5,639	16,188
1984	20,665	7,304	27,969
Apr.-June			
1982	10,798	6,620	17,418
1983	12,216	6,902	19,118
1984	16,761	8,126	24,887
July-Sept.			
1982	7,417	5,465	12,882
1983	10,818	6,614	17,432
1984	12,781	10,003	22,784
Oct.-Dec.			
1982	6,417	3,834	10,251
1983	15,788	9,533	25,321

Compiled from reports of the Bureau of the Census.

of wool finer than 58's were imported in the third quarter. It was the smallest quantity of imported fine wool since fourth-quarter 1982 and may foretell lower fourth-quarter mill consumption.

Third-quarter duty-free imports came principally from three countries: New Zealand (85 percent), the United Kingdom (5 percent), and Australia (4 percent). Four countries were the major source of the dutiable imports: Australia (64 percent), New Zealand (21 percent), South Africa (6 percent), and the United Kingdom (5 percent).

The raw wool content of imported textile products in the third quarter was 73.8 million pounds, 48 percent above a year earlier (table 39). Greater quantities of wool apparel continue to be imported. In the first 9 months of this year, the equivalent of 60.5 million pounds of raw wool were imported as woven and knit apparel. By comparison, 44.4 million pounds entered during the similar period in 1983, and the average for 1980/82 was 33.0 million.

U.S. raw wool exports in the third quarter were 165,800 pounds, 48 percent below a year earlier. These shipments went to four countries: the United Kingdom (41 percent), Canada (22 percent), France (18 percent), and Italy (18 percent). The raw wool content of exported textile products was 4.0 million pounds, down 69 percent from a year earlier (table 40).

Wool Prices Down Slightly

Domestic wool prices held rather steady from last spring through the summer. By October, little unsold clip remained and most of the mills had met their requirements. At the same time, imported wools continued to be attractive with the continued strength of the dollar.

A general decline of wool prices in October reflected a softening of mill demand. Grade 64's dropped from \$2.30 to \$2.21, 62's \$2.15 to \$2.05, 58's from \$1.90 to \$1.75, and

Table 7.--Average U.S. farm prices per pound for shorn wool, grease basis

Month	1981	1982	1983	1984 1/
Cents				
January	84.6	73.1	50.0	63.7
February	88.3	72.9	57.1	63.7
March	91.8	63.6	56.0	72.4
April	101.0	83.6	65.7	86.1
May	99.8	76.5	65.0	87.8
June	101.0	68.0	63.5	87.7
July	94.4	77.0	62.7	86.4
August	84.8	64.2	59.6	83.5
September	84.3	56.5	57.2	76.1
October	87.3	70.7	66.4	81.3
November	91.1	54.7	70.1	
December	84.2	55.5	64.1	
Weighted season average	94.5	68.4	61.3	

1/ Preliminary.

56's from \$1.75 to \$1.65. Reflecting the movement of currency exchange rates, the prices of imported raw wool declined about 12 percent through the summer from the peaks reached in early spring. Prices rose slightly in October due to a firming of world prices and a small strengthening of the major wool-exporting countries' currencies. Grade 64's went from \$2.69 to \$2.37 then rose to \$2.39; 62's from \$2.59 to \$2.28 then to \$2.32; and 58's from \$2.33 to \$2.02 then to \$2.06.

The average price received by U.S. farmers rose to 81.3 cents a pound, greasy, in October from 76.1 cents in September (table 7). From April through August, the price averaged 86.3 cents. The 1984 prices (April through October) for each month averaged 21 cents above a year earlier.

World Overview

Flock Size and Wool Supply Up

Definitive 1983/84 data now available show that the world sheep population at the beginning of that season was 1,082 million, up 0.5 percent from the previous year. This slow growth resulted from bad weather in major producing areas, little or no margin between selling prices and production costs, and sluggish wool demand. Flock size may rise in 1984/85 from expansion by the two leading producers: Australia, more than 5 percent; the USSR, 2 percent.

World wool production last season was 3.62 billion pounds, clean, 0.7 percent more than the previous year. This large output was not expected. It had been thought that bad weather and the small margin between selling prices and production costs would hold production down.

The second highest supply of wool at the beginning of 1984/85 resulted from a record carryin for 1983/84 of 450 million pounds, clean. Sluggish demand for raw wool during the year caused stocks to rise. World demand outside the centrally planned countries fell 1 percent. Among factors tending to limit wool usage were an increasing penetration of wool markets by noncellulosic fibers, an increase in the strength of the Australian dollar against the currencies of wool-buying countries, and continued high interest rates that minimized

inventory accumulation by wholesalers and factories.

At the end of 1983/84, the carryover was estimated at about 441 million pounds. World production of wool in 1984/85 has been forecast to be 3.69 billion pounds, 2 percent above last season. Thus, world wool availability is tentatively placed at about 4.13 billion pounds, clean, an alltime-high supply of raw wool.

The Australian wool market began this season in September rather slowly with their market indicator (a weighted average index of 13 wool categories) staying in the 490- to 493-cent range. The Australian Wool Corporation (AWC) purchased an average of one-third of the offerings, causing their stocks to rise about 8 percent. Most of the demand was for the finer grades. In October, the market indicator moved sharply up to 504 cents. The demand increased, resulting in AWC purchases of only 22 percent, increasing the stockpile 8 percent. Major support for this rise came from Chinese and Soviet buyers. A strengthening of the Australian dollar against competing wool-exporting countries tended to dampen Australian sales.

Quiet trading characterized the New Zealand market in September and October. The market indicator ranged between 494 and 500 cents, with local carpet manufacturers and Chinese and Eastern European buyers tending to support the market. The South African wool market experienced a successful season in the first 2 months. More than 92 percent of the cumulative offerings was sold, while stocks dropped 16 percent. In this same period, the market indicator rose from 667SA to 739SA cents, reflecting much of the depreciation of the rand against the dollar.

MOHAIR SITUATION

Adequate Rains Break Drought; Prices Up in Late Fall

The drought in Texas has been partially broken. About 75 percent of the goat-producing area has had adequate rain. However, good forage is expected to continue as long as the first heavy freeze holds off. An early freeze would make supplementary feeding necessary.

The demand for American mohair in the last half of the year has been strong. Prices in late October-early November were: adult \$3.75 to \$4.00 a pound; yearling, \$4.25 to \$4.50; and kid, \$5.00. Prices rose from the September low in response to the bullish character of the South African market and the absence of Turkish hair because of its high price. However, the continued strength of the dollar does tend to moderate American mohair prices.

Third-quarter mohair exports were 1.32 million pounds, clean, 67 percent below the second quarter, but 16 percent more than the average third quarter of overseas shipments for the past 5 years. These third-quarter exports went principally to four countries: the

United Kingdom (48 percent), Italy (23 percent), South Africa (12 percent), and Belgium-Luxembourg (7 percent).

Five sales have been held in South Africa this fall. In the first four sales, prices were sluggish, with adult hair averaging about 14 rand a kilogram. In each sale, however, all the offering was sold. Demand strengthened considerably with the fifth and sixth sales. In late October, adult hair was 16.6 rand and in early November rose to 18.70 rand. It is believed that this price rise resulted as much from small supplies as from a strong demand. The major mohair markets are handknitting yarns and men's apparel. A former major market, velour upholstery fabric, is no longer fashionable and production has been declining.

Outlook for Participation in the 1985 Upland Cotton Program

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Phil Sronce 1/

Abstract: This article compares estimated returns net of variable costs for participants in the 1985 upland cotton program and nonparticipants. This comparison indicates, based on data from participation in the 1982-84 programs, that farmers will enroll 75-80 percent of their base acreage in the 1985 program. Thus, planted acreage will likely total 9.5 to 11 million acres, compared with plantings of 11.1 million in 1984.

Keywords: Upland cotton program, participation rate, income, deficiency payments, diversion payments, variable expenses, payment limit, planted acreage, harvested acreage, yields.

The 1985 Upland Cotton Program

Secretary Block announced the major components of the 1985 upland cotton program on September 14. Several provisions are of major importance for determining the 1985 participation rate.

- o The 1985 target price will be 81 cents a pound, the same as in 1984, but the

average loan rate for strict low middling 1-1/16-inch cotton will rise from 55 to 57.3 cents a pound.

- o To be eligible for target price and loan rate protection, farmers may plant no more than 70 percent of their upland cotton base acreage, and must devote the reduced acres to conserving uses.
- o The 30-percent reduction is divided into 2 parts. On 10 percent of the farm's acreage base, a land diversion payment equal to 30 cents a pound times the farm's program yield will be made to farmers, regardless of whether the farmer

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actually plants cotton. No additional payment will be made on the remaining two-thirds of the conserving use acres.

- o The 1985 deficiency payment rate is estimated at 19.8 cents a pound. The actual deficiency payment rate will equal the difference between the 81-cent target price and the weighted average U.S. farm price for upland cotton in calendar 1985, or the loan rate, whichever is higher. Deficiency payments are computed by applying the payment rate to acres planted times the program yield. The total of deficiency and diversion payments is limited to \$50,000 per person under the combined wheat, feed grains, cotton, and rice programs.
- o Signup extends from October 15, 1984, to March 1, 1985. At signup, farmers may request half of their estimated 1985 deficiency and diversion payments in advance.
- o Each farmer's base acreage in 1985 will equal the average of the acres planted, and considered planted, to upland cotton in 1983 and 1984.
- o Each farmer's program yield will be calculated according to a formula designed to adjust for disaster-affected yields. From the most recent 5 years (1980-84), the four highest yields per harvested acre are averaged. From the most recent 3 years (1982-84), any yield lower than this 4-year average is adjusted up to that average. The three most recent yields, including any adjusted yields, are finally averaged for the farmer's program yield. However, regardless of the formula results, a farmer's 1985 program yield cannot be less than 80 percent of the 1984 program yield.

Attractiveness of the 1985 Program

The 1985 program is attractive for several reasons. The deficiency payment of nearly 20 cents a pound and the paid land diversion payment of 30 cents are high in relation to current farm prices. The program also enables producers to reduce variable production expenses, and insulates a portion of

farm income from weather and price risks. In addition, program yields in all regions are above average yields. Because the formula used to calculate program yields allows farmers to drop low-yield years, program yields averaged 14 percent above actual yields during 1982-84.

To estimate participation in the 1985 program, ratios of expected net returns for participants and nonparticipants in the Delta, Southwest, and Far West were calculated (table 8). Expected 1985 yields were based on actual yields per harvested acre in each region during the past 8 years. Because farmers tend to be optimistic, a 5-year average was calculated by dropping the two lowest and the one highest yields.

Since ending stocks may rise during 1985/86, an average farm price near the loan rate is assumed. Cottonseed prices are forecast to average \$120 a ton, or 6 cents a pound in 1985/86, based on expected conditions in soybean markets. On average, 1.655 pounds of cottonseed are produced with each pound of lint. Program yields for each region were estimated based on the relationship between actual yields and program yields during 1982-84. Estimates of variable costs per planted acre in 1985 are based on ERS estimates of costs of production by region during 1981/82-1983/84.

With these assumptions and estimates, a cotton-program participant in the Delta planting 70 acres, might expect a gross income of about \$42,100. If the same farmer chose not to participate in the program and decided to plant 100 acres, his expected gross income might be about the same, even though he would receive no deficiency or diversion payments. However, the variable expenses of a participating farmer planting 70 acres might be about \$7,950 less than the expenses of a farmer planting 100 acres, even when the costs of complying with conserving use requirements on idled acreage are met. Consequently, a Delta farmer participating in the 1985 cotton program might expect returns net of variable costs about 64 percent higher than those of a nonparticipant with equal acreage (the participant/nonparticipant ratio for an average farmer in the Delta might be 1.64).

The participant/nonparticipant ratios are estimated at 1.78 in the Southwest and 1.55 in

Table 8.--Estimated 1985 upland cotton returns net of variable costs

	Delta 1/		Southwest		Far west	
	Parti- cipant	Nonparti- cipant	Parti- cipant	Nonparti- cipant	Parti- cipant	Nonparti- cipant
Income per 100 acres						
Planted acres	70	100	70	100	70	100
Lint yield 2/	600	590	360	355	1,050	1,030
Market price lint (\$/lb) 3/	0.61	0.61	0.53	0.53	0.66	0.66
Seed yield (lbs/acre) 4/	993	976	596	588	1,738	1,705
Market price seed (\$/lb.)	.060	.060	.060	.060	.060	.060
Market income (\$)	29,791	41,846	15,859	22,343	55,810	78,210
Program yield (lbs/acre)	730		400		1,100	
Deficiency payment rate (\$/lb)	.198		.198		.198	
Deficiency payment (\$) 5/	10,118		5,544		15,246	
Land diversion payment (\$) 6/	2,190		1,200		3,300	
Gross income (\$)	42,099	41,846	22,603	22,343	74,356	78,210
Expenses						
Variable (\$/planted ac) 7/	290	290	166	166	560	560
Conservation costs (\$/acre)	25		25		25	
Variable expenses (\$)	21,050	29,000	12,370	16,600	39,950	56,000
Net return (\$)	21,049	12,846	10,233	5,743	34,406	22,210
Participant/nonparticipant ratio	1.64		1.78		1.55	

1/ During 1982-84, cotton program participation rates in the Southeast and the Delta were nearly identical. 2/ Pounds per planted acre. Equal to the average during 1977-84, after dropping the two lowest and 1 highest yields. 3/ Not forecasts. Used only as examples. 4/ Assumes 1.655 pounds of seed per pound of lint. 5/ 70 acres x program yield x deficiency payment rate. 6/ 10 acres x program yield x \$0.30. 7/ Based on ERS cost of production studies. Includes variable cash costs plus 56 percent of interest expenses plus 60 percent of labor expenses.

the Far West. Producers in the Delta and the Southeast had similar cotton program participation rates during 1982-84, so a separate ratio is not shown for the Southeast.

Participation is less advantageous to Far West producers because they have higher yields and larger farms, so they hit the \$50,000 payment limit on fewer acres. Also, Far West farmers usually produce higher quality cotton, which sells for more than the average price in other regions. Therefore, fixed payment rates based on average quality cotton benefit Far West producers less than other producers.

Comparison with the Past

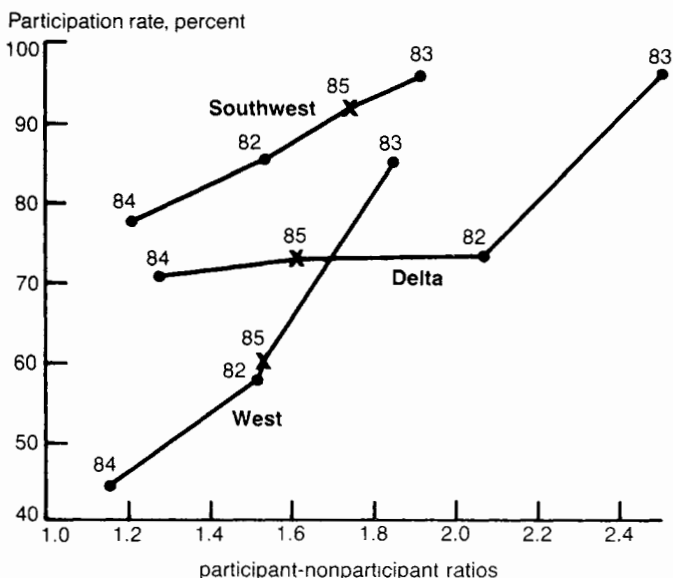
The United States operated, for the first time since 1972/73, acreage reduction programs for cotton during 1982/83 - 1984/85. During those years, program participation increased in each region as the participant/nonparticipant ratio increased (figure 7).

The 1982 program required farmers to idle 15 percent of their base acreage in return for a target price of 71 cents a pound and a

loan rate of 57.08 cents. Participation averaged 78 percent, meaning that 78 percent of the base acreage of 15.3 million was enrolled in the program. The newness of the

Figure 7

Cotton Program Participation Curves



¹Participation rates in the Southeast and the Delta were nearly identical during 1982-84.

program may have reduced participation in some areas, especially in the Delta.

The expected deficiency payment rate on the 1982 crop was 14 cents a pound. Because 1981/82 ending stocks reached 6.6 million bales, prices were expected to stay near the loan rate during 1982/83. The participant/nonparticipant ratios for 1982 are estimated at 2.07 for the Delta, 1.50 for the Southwest, and 1.51 for the Far West. Hence, the 1982 program was attractive to most producers.

The 1983 program included a 20-percent acreage reduction requirement, a 5-percent cash land diversion, and the PIK program. Participation in the 1983 acreage reduction program was 93 percent of the 15.4-million-acre base. Several reasons for this include: (1) PIK entitlements were paid regardless of whether or not a crop was produced; (2) the \$50,000 payment limitation did not apply to PIK entitlements; (3) the PIK program had a benefit equal to a diversion payment rate of about 40-50 cents a pound; and (4) the 1983 target price rose to 76 cents while the loan rate fell to 55 cents. Thus, the maximum deficiency payment rate increased from 13.92 cents a pound to 21 cents. The participant/nonparticipant ratios in 1983 rose to 2.50 for the Delta, 1.92 for the Southwest and 1.85 in the Far West.

The 1984 program required a 25-percent acreage reduction, but provided no paid land diversion or PIK program. The increase in the acreage reduction requirement offset the rise in the target price to 81 cents a pound, and higher 1983 market prices raised expected returns for nonparticipating farms. The estimated ratios for 1984 were 1.27 in the Delta, 1.22 in the Southwest, and 1.15 in the West. As a result, participation fell to 71 percent of the 15.6-million-acre base.

Based on estimated ratios of participants and nonparticipants, 1985-program participation could average 70-75 percent in the Delta and the Southeast, 90-95 percent in the Southwest, and 60-65 percent in the Farwest. The national average, implied by the regional rates, is 80-85 percent.

However, the effects of the \$50,000 payment limit are not explicitly accounted for on the portions of the participation curves

Table 9.---Base acres needed to hit payment limit

	1982	1983	1984	1985
Diversion payment rate (\$/lb)	--	25.00	--	30.00
Deficiency payment rate (\$/lb)	13.92	12.10	16.00	19.80
Average program yield (\$/lb)	581	579	601	630
Acreage needed	727	836	693	471

formed by the 1983 experience. Since the high rates of Far Western participation in the 1983 program was largely caused by the receipt of PIK entitlements not subject to the payment limit, the participation rate for 1985 will probably be between 50 and 60 percent, below the rate indicated in figure 7. This is especially true because the diversion payments and the high expected deficiency payment rate in 1985 will cause farmers to hit the payment limit sooner than in the past (table 9).

Another factor limiting participation in the Southwest is the inactive base, that is, cotton base acreage that is no longer planted to cotton. (see "Review of the Upland Cotton Acreage Base," *Cotton and Wool Outlook and Situation Report*, September 1984.) The base acreage in the Southwest totals 8.1 million acres, but fewer than 7 million acres, or 86 percent of the base, were devoted to cotton in 1982 and 1984. Consequently, participation in the Southwest will probably range between 80 and 85 percent, and the national participation rate may range from 75 to 80 percent in 1985.

Sources of Estimation Error

The participant/nonparticipant ratio is sensitive to changes in expected cotton prices and expected yields. If farmers expect cotton prices to average 70 rather than 60 cents a pound, as assumed here, participation might fall to about 65 percent. Based on record yields in 1984 in many parts of the Cotton Belt, farmers might expect yields higher than those used in this example. If yields of 560 pounds are assumed for both participants and nonparticipants, participation of about 70 percent of the base acreage would be indicated.

The participant/nonparticipant ratio does not account for alternative crop prices. The implicit assumption is that those with a cotton base find it attractive to participate in the cotton program. Relative crop prices could affect cotton plantings by nonparticipants.

The availability of advance diversion and deficiency payments will make the 1985 program more attractive than it would otherwise be. However, the indicated participation rate is already so high that the effect of the advance payments is probably negligible.

While different assumptions can lead to different participant/nonparticipant ratios in 1985, comparison with previous years to draw inferences about participation rates requires a consistent set of assumptions to calculate the ratios for all years. This was done when preparing table 8 and figure 7. Therefore, while there can be no guarantees, this estimation technique yields logical results. Similar reasoning led to an estimate that the 1984-program participation rate would be about 70 percent. The actual 1984 participation rate turned out to be 71 percent.

Implications for Planted Acreage and Production

If about 12 million acres are enrolled in 1985, permitted plantings would equal 8-9 million acres (table 10). In the past 3 years, those enrolled have planted about 90 percent of their permitted acreage. Weather occasionally prevents planting of some acreage, and an inability to acquire financing, or a desire to increase acreage of an alternative crop may also limit cotton acreage. Some farmers may enroll in the 1985 program for the land diversion payment, even though they do not plan to plant cotton. Thus, acreage planted by participants could total 7-8 million in 1985, about the same as in 1984.

The base acreage of nonparticipants, assuming 75- to 80-percent participation, would be about 3.5 to 4.0 million. Nonparticipants planted 68 percent of their base acreage in 1982 and an estimated 78 percent in 1984. Plantings outside the 1983 program equaled 91 percent of the nonparticipant base acreage. The nonparticipant base was 1 million acres in 1983, and cotton prices were rising that spring because of announcement of the PIK program.

Table 10.--Upland cotton planting history

	1982/83	1983/84	1984/85
	1,000 acres		
Base acreage	15,308	15,429	15,587
Participation rate	78%	93%	71%
Participating base	11,909	14,400	11,139
Permitted planting	10,123	7,600	8,354
Participant planting	8,955	6,950	7,500
Participant planting percentage	89%	91%	90%
Nonparticipant base	3,399	1,029	4,448
Nonparticipant planting	2,319	933	3,472
Nonparticipant planting percentage	68%	91%	78%
Total planted	11,274	7,883	10,972
Harvested acreage	9,663	7,305	10,316
Abandonment	14%	7%	6%
Yield	589	504	613
Production	11,864	7,676	13,160

Table 11.--1985 Upland cotton production possibilities

Planted acreage	Yield per harvested acre				
	Pounds				
	504	530	560	585	613
	Production				
	Million bales				
9.5	9.4	9.9	10.4	10.9	11.4
10.3	10.2	10.7	11.3	11.8	12.4
11.0	10.9	11.4	12.1	12.6	13.2

Soybean and sorghum prices are currently forecast to decline from 1984/85 to 1985/86. Wheat prices are expected to remain low. Consequently, cotton planting by nonparticipants could account for about three-fourths of their base acreage, or 2.5-3.0 million acres. Thus, planting by participants and nonparticipants in 1985 could sum to 9.5-11.0 million acres. Planted acreage in 1984 was about 11.1 million.

Production in 1985 also depends on cotton yields, which are highly variable (table 11). A yield of 504 pounds, like that of 1983 when drought affected much of the cotton belt,

could result in production of between 9.4 and 10.9 million bales. However, a second year of yields above 600 pounds per acre could result in production of 11.4 to 13.2 million bales.

China's Cotton Prospects

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Abstract: China has become a major cotton exporter, and competes with the U.S. particularly in Asian markets. Although it is not expected to be a permanent large exporter of cotton, exports will remain high for many years because current stocks are so high. This article examines the causes of rising cotton exports and the likely future directions of cotton supply and use in China.

Keywords: China, cotton, area, yield, production, stocks, exports, imports, consumption.

Wide-ranging reforms in China's countryside since 1978 have had a dramatic impact on cotton production. The effects of the 154-percent increase in cotton production in 6 years have been felt by U.S. farmers, because China has moved from being the world's largest cotton importer in 1979/80 to exporting an estimated 1.2 million bales in 1984/85.

Despite increased exports, the increase in cotton production pushed cotton stocks nearly equal to 1 year's consumption. Cotton exports will continue for some years because of these high stocks. The stock problem is not likely to be relieved quickly because short-run consumption will grow slowly, while annual production likely will remain at 20 million bales or more.

Background

Cotton production has grown rapidly because of the adoption of the responsibility system and the introduction of economic incentives. Cotton is now produced by individual farmers under State contracts that tie farm income to production. This has

resulted in increased input use and better field management. The State increased procurement prices in 1979 and 1980 1/ encouraged crop specialization, and extended use of new, higher yielding cotton varieties. Under these conditions, cotton production more than doubled, rising from 9.95 million bales in 1978 to an estimated 25.3 million in 1984. Yields jumped 90 percent as the higher yielding varieties were promoted and area rose 34 percent (table 12).

For years, textile demand had been artificially low. Beginning in 1978, rising incomes led to very rapid growth in textile purchases (table 13). Textile production expanded sharply (table 14), raising mill requirements, but cotton production remained near 10 million bales through 1980, resulting in record cotton imports of 4.1 million bales in 1979/80.

1/ See *China Outlook and Situation Report* RS-84-8, ERS, USDA, June 1984, p. 10 for a more detailed explanation of procurement prices.

Table 12.--Cotton supply and use, China 1978-84

Year 1/	Area	Yield	Production	Beginning stocks	Imports	Consumption	Exports	Ending stocks
	1,000 hectares	Kg./ha.			Thousand bales 2/			
1978	4,867	445	9,950	2,500	2,125	13,100	15	1,460
1979	4,512	487	10,100	1,460	4,100	14,100	12	1,543
1980	4,920	549	12,400	1,548	3,550	15,100	6	2,393
1981	5,185	571	13,600	2,392	2,100	16,200	0	1,892
1982	5,828	616	16,500	1,892	1,100	16,400	75	3,017
1983	6,077	763	21,300	3,017	250	16,000	750	7,817
1984	6,500	847	25,300	7,817	100	16,500	1,200	15,517

1/ U.S. August/July marketing year.

2/ 480-pound bales.

Table 13.--Retail sales of clothing, China 1978-83 1/

Year	Total clothing	Cloth			Cotton wadding
		Pure-cotton cloth	Cotton blends and pure-chemical fiber cloth		
			Total	Blends	
Value		Million yuan 2/			
1978	27,850	--	--	--	--
1979	33,920	--	--	--	--
1980	41,370	11,360	9,980	--	571
1981	46,300	11,381	11,080	7,779	621
1982	46,590	10,653	11,066	7,899	591
1983	49,150	--	--	--	--
Quantity		Million meters			
1978	7,690	6,370	1,320	--	--
1979	8,680	6,680	2,000	--	--
1980	9,840	7,190	2,650	--	280
1981	10,250	7,100	3,150	2,300	305
1982	10,080	6,700	3,380	2,540	291
1983	10,540	6,100	4,440	3,240	1,200

-- Indicates not available.

1/ Calendar years.

2/ Two yuan are approximately equal to \$1.

Table 14.--Textile industry production, China 1978-83 1/

Year	Chemical fibers			Yarn			Cloth			
	Total	Synth.	Viscose	Total	Pure-cotton	Cotton blends & pure-chemical fiber 2/	Total	Pure-cotton	Pure-chemical fiber	Other 2/
			1,000 tons			Million meters				
1978	284.6	169.4	115.2	2,382	--	--	11,030	--	--	--
1979	326.3	213.6	112.7	2,635	--	--	12,150	--	--	--
1980	450.3	314.1	136.2	2,926	2,133	793	13,470	8,710	--	--
1981	527.3	384.7	142.6	3,170	2,203	967	14,270	8,510	--	--
1982	517.0	375.3	2/ 141.7	3,354	2,518	836	15,350	10,130	4,799	421
1983	540.7	402.0	2/ 138.7	3,270	--	--	14,880	--	5,360	--

-- Indicates not available.

1/ Calendar years.

2/ Derived.

However, during 1981-83, production rose from 12.4 million bales to 21.3 million, while growth of textile purchases slowed. Changing preferences and prices also pushed up demand for manmade textiles and the industry responded by generally raising chemical fiber production. Imports of chemical fibers, which were high during 1978-81, dropped back as growing domestic production of manmade fabrics satisfied demand (table 15).

Consequently, mill consumption of raw cotton fell. While production of pure-cotton yarn and cloth rose through 1982, monthly industrial statistics available through October 1984 suggest it has fallen since then. These statistics show declines in 1983 in the production of total yarn and cloth. This drop continued at least through October 1984. For the same period, production of chemical fibers and chemical-fiber cloth continued to increase substantially.

Rapid growth of yarn and textile exports have cushioned the slowdown in cotton consumption (table 15). But cotton textile exports as a share of cotton mill use is small, about 2 percent of cotton yarn and 10 to 15 percent of cotton cloth is exported. Additional amounts of cotton are used in clothing produced for export, but all export uses of cotton together probably account for only 10 to 15 percent of the total mill consumption of cotton. Any growth in international demand for China's textiles will not have a large impact on raw cotton consumption.

Growing demand for and production of manmade textiles, shifting consumer preferences, and major changes in the relative price of cotton and manmade fabrics are key factors in the slowdown of demand growth for cotton textiles. Between 1979 and 1981, four large new chemical-fiber production facilities came on line, substantially increasing chemical-fiber production. Despite the Government limiting chemical fiber production in 1982, a problem of surplus manmade fabric stocks developed in 1982/83. To relieve this surplus, a January 1983 change in prices caused man-made fabrics to be less expensive relative to cotton textiles. Accordingly, consumers increased their purchases of manmade fabrics, and thereby reduced demand for cotton textiles. And consumer preferences began to shift to synthetic and blended textiles as the availability and quality of these fabrics improved.

The slowdown in demand for cotton textiles contributed to the emergence of surplus cotton textile stocks beginning in mid-1983. In December 1983, cotton rationing was lifted, perhaps in the hope that any remaining demand would be satisfied by purchase of the excess cotton textiles. But much of the excess textile demand that existed in 1978 had already been filled. Since 1981, retail sales of pure-cotton textiles have declined and sales of all textiles have shown only modest growth. The elimination of cotton rationing appears to have merely reflected that rationing was no longer needed, and thus failed to raise the rate of growth of cotton consumption.

Table 15.--Chemical fiber imports; yarn and textile exports, China 1978-83 1/

Year	Imports		Exports			
	Polyamide fiber	Polyester fiber	Cotton yarn	Cloth		
				Cotton	Cotton-polyester	Man-made
	1,000 tons		1,000 tons	Million meters		
1978	12.5	179.7	23.369	1,096	133.44	102.30
1979	14.5	125.8	24.250	1,109	222.42	122.68
1980	27.1	251.0	30.663	1,086	284.52	124.97
1981	12.8	341.1	33.661	1,174	425.18	138.32
1982	3.5	169.1	41.611	1,124	491.02	125.56
1983	--	--	--	1,325	--	--

-- Indicates not available.

1/ Calendar years.

Reducing Cotton Stocks

With the growth rate for demand less than for supply since about 1982, cotton stocks increased rapidly, imports plummeted, and cotton exports rose. To deal with rapidly growing stocks, two preliminary steps were taken in 1984. Procurement policies were revised to place a ceiling on incentive price increases so that incomes of cotton farmers would stabilize at about the 1983 level. The Government also partially lifted its monopsony cotton procurement policy, allowing a small portion of cotton, that of the lowest grade, grade 7, and ungraded cotton to be sold on the free market. These were relatively minor changes, and so far have had little impact on output or marketing, although in the longer run, the price ceiling has the potential to help reduce production incentives.

But stocks failed to drop despite some success in increasing exports. Cotton imports were reduced from the record 4.1 million bales in 1979/80 to only an estimated 100,000 this year. Exports rose from almost nothing to an estimated 1.2 million bales. Hong Kong, Japan, and other Asian nations became important markets. China's cotton already represents 40 percent of total Hong Kong cotton imports (table 16).

Many problems still hinder export development, mainly China's export infrastructure and timely delivery. Little is known about actual export capacity, but congestion exists at available storage,

Table 16.--Cotton exports by destination, China 1982/83 and 1983/84 1/

Destination	1982/83	1983/84
	1,000 bales	
Bangladesh	0.0	31.7
Hong Kong	67.5	422.6
Indonesia	5.0	37.7
Japan	4.8	92.7
South Korea	0.0	13.9
Thailand	1.3	74.4
Soviet Union & E. Europe	0.0	2/ 64.0
Western Europe	0.1	3/ 2.8
TOTAL	78.7	740.0

1/ U.S. August/July cotton marketing years.

2/ Estimated.

3/ Partial year only.

transportation, and port facilities. The number of bureaus that must approve exports is also an obstruction.

Another problem is that China's bale sizes are not standardized and are generally smaller than world sizes. This makes it difficult for foreign mills with automated bale handling equipment to use China's cotton, because costs rise. China just began importing machinery that will compress standard sized bales.

Finally, some potential importers have complained about the quality of China's available cotton. However, China has offered all grades of cotton for export.

Future Directions

High stocks cannot be solved by adjusting exports and making small adjustments in procurements alone. What is needed is a policy to cut cotton production, at least temporarily, until growth of consumption catches up. The greater emphasis over the next 5 years is likely to shift to reducing production.

Growth of cotton consumption is likely to remain sluggish as consumers continue to demand more manmade textiles, causing synthetics and blends to account for an increasingly larger portion of any growth in textile production. Because demand for manmade textiles remains high and consumers indicate a rising preference, and because prices still favor manmade textiles over cotton, it will be easier to reduce cotton supplies than to raise demand.

China's State Council just announced a new policy to limit 1985 State cotton procurement to 4.25 million tons (19.5 million bales), about 19 percent less than the 24.3 million bales which will probably be procured from the 1984 crop. Any cotton produced above this amount now will have to be sold by the farmer on the free market at fluctuating prices. The policy will restrict cotton area and reduce production to the extent that cotton farmers anticipate free market prices falling below State prices.

Cotton production is likely to drop to about 20 million bales next year. During the next 5 years, area will probably be reduced

substantially, but yields may slow growthly. More emphasis will be placed on cotton quality.

Yields will rise slowly for two reasons. Production incentives introduced since 1978 have already had their largest effect, so any yield growth that occurs should be at a much slower rate. Also, during 1985/86, emphasis in the northern cotton provinces, particularly, will be on more extensive use of new, improved quality cotton varieties instead of high-yielding varieties. The yield potential of these new, improved quality varieties is not yet known. But shifting emphasis to quality may mean less on yield growth. Yields in some areas could even drop. But yields in southern producing provinces are likely to continue to rise.

The new policy limiting 1985 procurements will also emphasize improving quality. Grading standards will be revised and procurement prices adjusted to better reward cotton quality.

Exports to Continue

At best, stocks will decline only slowly. It will require many years to reduce stocks to the normal 20 to 25 percent of annual consumption because stocks are currently so high. Consequently, exports must remain high for the foreseeable future. Exports are likely to be as high as the world market can absorb, possibly 2 or more million bales annually. Presently, China is trying to set up sales offices in several major markets.

Continued cotton exports will mean more competition with U.S. cotton, especially in Asian markets. China is likely to account for a larger portion of the major Asian markets. But it is not clear how competitive it will be in the Soviet and East European markets, particularly if the USSR recovers its export position.

China's future as a competitor with U.S. cotton, particularly in the West European market, will depend upon how well it deals with its critical export problems, none of which are quickly and easily solvable. Despite current improvements, exports probably will continue to be somewhat constrained by untimely deliveries, congested transportation and storage capacities, slow approval, questionable quality, and nonstandard bale sizes.

Although cotton exports will continue for many years, China is not likely to be a permanent cotton exporter. In the long run, its goals will probably continue much as they are now: (1) to supply domestic industrial growth primarily with domestic production; (2) to limit reliance on raw material imports, importing cotton mainly for blending or for its special quality; and (3) to export textiles instead of cotton because textiles earn more foreign exchange.

Cotton Marketing in China

The Government now procures virtually all cotton grown in China both within and in excess of the contracted amount. Between 1978 and 1983, actual cotton procurement averaged 97 percent of production. Farmers were allowed to retain only 0.5 to 1 kilogram a person for personal use. Actual rural cotton consumption averaged 0.388 kilograms a person (table 17).

After it is dried along the roadsides or on village threshing grounds, the cotton is either ginned and delivered to the local State procurement station or delivered to the procurement station and then moved to a gin. The latter method is increasingly preferred. As it is delivered to the procurement station, the cotton is counted as procured, sampled, graded, and the farmer's account settled.

These local stations store the ginned cotton temporarily, usually in piles by grade in a central courtyard, until delivery to an

Table 17.—Cotton procurements and rural cotton use, China 1978-83 1/

Year	Procured 2/	Procurements as a % of prod.	Per capita rural cotton use
	1,000 tons	Percent	Kilograms
1978	2,043	94.3	.395
1979	2,159	97.8	.445
1980	2,681	99.0	.380
1981	2,910	98.0	.330
1982	3,475	96.6	.385
1983	3/ 4,450	3/ 96.0	.395

1/ Calendar years.

2/ Procurements in China's September/August marketing year. Calendar year procurement figures are also available.

3/ Data from a July 1984 interview with Ministry of Agriculture officials may not be final.

intermediate procurement station is arranged. Intermediate stations are the primary cotton storage facilities. They are usually located along major transportation routes, river or rail, and have better storage buildings. These stations may store cotton for a long period, until the mill needs it. Cotton is delivered to the mill when it is ready for use. Mills generally keep only a 2- to 3-month supply. It is not clear if, for example, lower grade cotton used as padding in products mostly produced by local enterprises, is included in the statistics available on rural consumption of cotton or should be accounted for in mill cotton consumption.

Textile Industry in China

Little information is available on textile industry capacity and efficiency. The industry has about 18.7 million spindles and 600,000 to 700,000 looms, most considered to be out of date (table 18). The reported industry loss rate is less than 10 percent; U.S. officials in Beijing have been told loss rates are as low as 7 percent. If correct, China's industry would be much more efficient than the U.S. industry. Most of the available industry indicators have fallen since 1980, including yarn output per 1,000 spindles, use of spinning and looming equipment, and cotton yarn output per worker (table 19).

In 1983, the Government eliminated subsidies for industry cotton purchases. This not only raised industrial costs per unit of cotton, but also dramatically increased total mill costs. Costs rose because individual mills lack control over their own purchases and were forced to continue to take the same amount of State-supplied cotton. Costs rose further as farmers increasingly produced cotton of higher grades with correspondingly higher prices. In addition, the industry has begun to complain that cotton varieties supplied to individual factories are often inappropriate for the textiles produced--high-quality cotton is supplied for low-quality textiles, or vice versa.

In an effort to address these concerns, substantial textile industry improvements are scheduled for 1985 and 1986. In the next 2 years, the State will invest \$500 million to improve textile industry equipment. Contracting for increased textile technology

Table 18.--Textile industry, China 1979-83 1/

Year	Cotton spindles	Looms	Mills		
			Total	Cotton	Chem. fiber
	Million		Thousand		
1979	16.6	510	--	--	--
1980	(17.4)	(570)	--	--	--
1981	(17.9)	(637)	17.1	5.1	0.2
1982	(18.4)	(666)	18.1	5.4	0.2
1983	2/ (18.7)	2/ (717)	--	--	--

-- Indicates not available.

() Indicates derived from official actual annual increases.

1/ Calendar years.

2/ A recent news article gives the figures as 20 million spindles and 600,000 looms.

Table 19.--Utilization of textile equipment & labor productivity, China 1980-83 1/

Item	Units	1980	1981	1982	1983
Yarn output/ 1,000 spind.	kg/hr	24.79	23.87	24.69	24.13
Ring-spinning eqmpt. use	%	102.35	100.96	97.84	--
Looming eqmpt. use	%	99.54	99.87	98.98	--
Cotton yarn output/wrkr.	bales	.185	.186	.182	.177

-- Indicates not available.

1/ Calendar years.

imports has already begun. Increased operational efficiency in the textile industry is also being widely promoted.

In addition, it appears the cotton portion of the textile industry will be allowed to introduce the recently announced new industrial planning system for 1985. This will mean individual enterprises will have greater freedom to plan production, find markets, set wages and prices, and will be responsible for profits and losses. But synthetic fiber (noncellulosic), as well as cotton production, will still be regulated by the State plan. Thus, it is unclear how helpful the new planning system can be for the industry as a whole.

Utilization and Ownership of U.S. Cotton Storage Capacity

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Abstract: Information on U.S. cotton storage capacity, and monthly warehouse utilization rates in each cotton region is presented for the 1979-83 seasons. Despite declines in available capacity in many areas, under utilization of facilities remains a problem, except in the West where utilization rates reach 80 to 95 percent for some months during the season. About 35 percent of all cotton warehouses, and over 51 percent of U.S. total storage capacity, is owned by chain warehouses.

Keywords: Cotton, storage, warehouse, utilization.

The cotton warehousing system is vital to the efficient marketing of U.S. cotton. Large amounts of storage space are needed, especially during peak seasonal periods, to insure an orderly flow of cotton to domestic mills and foreign customers. In addition to storage and physical protection of bales, cotton warehouses provide such critical services as weighing and sampling, compression, issuing negotiable warehouse receipts, and arranging shipments of bales at the time and place ordered.

The demand for these services and how economically they can be performed are dependent on many variables, which are generally beyond the control of the warehousing industry. The movement away from high cotton loan rates after 1965 greatly reduced Government stocks in public warehouses, and the abandonment of mandatory acreage allotments after 1970 allowed production to shift. As a result, cotton production and the demand for warehousing services migrated away from the Southeast and South Central regions, into the southwest and western areas of the Cotton Belt.

Since 1970/71, declining storage volumes, and structural changes within the cotton industry, have resulted in a nearly 50-percent reduction in the total number of storage facilities, and about a 17-percent decrease in U.S. storage capacity. Many small, inefficient warehouses have closed, or have converted space for storage of general merchandise, while others have remained in business through mergers and consolidations. Nevertheless, considerable overcapacity still exists in many

areas, and continues to be of concern to the cotton warehousing industry.

Utilization of Facilities

The annual volume of cotton produced and the regional distribution of production are basic to the efficient operation of cotton storage facilities. During the past 2 decades, however, production has ranged from a high of over 15.5 million running bales to a low of 7.4 million, and the average annual change in volume from one season to the next has been

Table 20.—U.S. cotton storage capacity,
by region 1/

Year beginning August 1	Region 2/				U.S.
	South- east	South Central	South- west	West	
Million running bales					
1970	4.3	8.5	5.1	2.3	20.2
1979	2.7	6.4	5.6	2.4	17.1
1980	2.3	6.1	5.8	2.9	17.1
1981	2.3	5.9	5.9	2.9	17.0
1982	2.3	5.7	6.0	2.9	16.9
1982	2.3	5.5	6.1	3.0	16.9
1984	2.3	5.4	6.1	3.0	16.8

1/ Storage capacity of CCC approved warehouses.
2/ Regional grouping of states include:
Southeast—Alabama, Georgia, North Carolina, and South Carolina; South Central—Arkansas, Louisiana, Mississippi, Missouri, and Tennessee;
Southwest—Oklahoma and Texas; West—Arizona, California, and New Mexico.

Source: Agricultural Stabilization and Conservation Service.

around 3.1 million bales. These wide swings in the available volumes of cotton for storage have made it difficult for warehouses to set their annual warehousing fees, and to effectively plan their operational policies.

After dropping rapidly during the 1970's, U.S. cotton storage capacity appears to be leveling off, and currently totals around 16.8 million bales (table 20). But the regional distribution of storage space has continued to adjust from prolonged overcapacity in some areas, and increased demand for storage in other areas, in response to shifting production.

In the Southeast, warehouse capacity has remained at about 2.3 million bales since 1980. While this appears to be excessive in terms of annual production volumes, many warehouses are older, fully depreciated facilities, that can operate at a lower capacity utilization rate than would normally be expected. In addition, because of their proximity to textile mills, Southeast warehouses serve as important assembly points for an orderly flow of cotton to mill locations.

Storage capacity has continued to decline in the South Central region, but a large degree of overcapacity remains. The current capacity of South Central warehouses is 5.4 million bales—more than double the annual volume of production in the region. The installation of universal density compresses in many South Central gins has encouraged shipments of cotton direct from gins to mills or ports, further reducing the need for storage in the region.

Since 1970, storage capacity has grown by about 1 million bales in the Southwest, and 0.7 million in the West. These two regions produce approximately 65 percent of the U.S. crop and have about 54 percent of the total available storage capacity. The generally larger storage volumes have had a positive impact on warehouse utilization. However, wide swings in year-to-year production require that sufficient storage space be maintained for peak periods. For example, over the past three seasons, cotton production in the Southwest has ranged from 2.5 million to 6.1 million bales, and from 2.8 million to 5.3 million bales in the West.

The combined effects of regional changes in cotton warehouse capacity and production

levels on the monthly utilization of storage space are shown in figures 8 through 11. These data estimate the monthly cotton volumes in storage relative to the total available storage space during the 1979-83 crop years. Monthly capacity utilization rates reflect seasonal patterns of use in each region, and the maximum demand for storage as indicated by the peak month during the season.

For each region, stocks build up rapidly during harvest, and usually peak during November-December in the Southeast and South Central and during January in the Southwest and West, coinciding with the later harvest dates.

The extent of warehouse overcapacity is especially evident in the Southeast and South Central, where monthly utilization rates over the past 5 years have not exceeded 40 percent of the available space, except following the near-record 1981 cotton crop and resulting huge carryover stocks. This large crop also significantly improved monthly utilization rates in the other regions. But with the payment-in-kind (PIK) and acreage reduction programs returning cotton stocks to more normal levels, capacity utilization rates dropped to earlier patterns.

In all areas, except the Southeast, warehouse stocks fall at a fairly uniform pace after reaching the peak storage month. During this period, new-crop cotton is being shipped to mill areas and ports, with very little additional cotton taken into storage.

Warehouses in the Southeast, however, experience a more continuous flow of cotton through the facility during the season. Many Southeast warehouses serve as concentration points for cotton moving to nearby mills which was shipped from warehouses in other regions, as shown by the relatively flat utilization rate lasting 3 to 5 months following the month of peak storage.

Cotton storage capacity in the West is utilized at a rate far exceeding that of other regions, and approaches conditions of actual shortage of space during certain periods. Capacity utilization ranges from only 5 to 10 percent of the available space at the beginning of each season, to as much as 90 to 95 during the January peak in the 1981 and 1982 seasons. Because of the strong peak demand

for storage space in the West, warehouses must make every effort to provide rapid turnaround of bales through the use of the latest methods and technological innovations.

Ownership of Capacity

Cotton warehouses traditionally operate as either independent facilities in a single location, or as chain warehouse firms owning two or more storage facilities in separate locations. While individual warehouse capacity may vary from 1,000 to over 400,000 bales irrespective of type of ownership, chain warehouse companies usually operate facilities of larger average size than the independent companies.

The ownership of cotton storage capacity by chain warehouses is important to the structure and operation of the cotton warehousing system. Considerable investment is required to build and operate a cotton warehouse. Chain warehouses help maintain stability within the industry by being able to exercise economies of scale by spreading certain costs over more than one facility. This includes central control of such things as recordkeeping, equipment purchases, insurance coverage, and inventory management. In addition, because of their scale of operation, they are often able to take advantage of the latest advances in cost saving technologies.

The extent of chain warehouse operations in each cotton-producing State is indicated in table 21. These data show the total number and capacity of cotton warehouses in each State, and the proportion of each owned by chain warehouse companies during the 1984 season.

Beltwide, chain warehouses account for approximately 35 percent of the 404 cotton warehouses, but they account for over 51 percent of the total U.S. capacity of 16.8 million bales. While not shown in detail, a total of 29 individual companies operate chain warehouses, with an average storage capacity of about 305,000 bales each.

The dominance of chain warehouses is greatest in the West, where chains operate nearly 70 percent of the total storage capacity and over half of all the facilities. In the South Central and Southwest regions, chain

Table 21.--U.S. cotton warehouses: Total number and storage capacity, and proportion operated as chain warehouses, 1984 season

Region State	All warehouses		Proportion operated as chain warehouses	
	total number	Total capacity	Number	Capacity
	Number	1,000 run- ning bales	Percent	
South- east:				
Alabama	43	849	2.3	9.1
Georgia	62	523	3.2	2.1
N. Car.	30	446	30.0	17.4
S. Car.	36	452	2.8	1.8
Region	171	2,270	7.6	7.7
South Central:				
Arkansas	26	1,288	52.0	66.6
Louisiana	20	978	30.0	37.4
Miss.	40	2,027	45.0	44.8
Missouri	7	311	42.9	54.2
Tennessee	9	769	66.7	89.1
Region	102	5,373	45.1	55.5
South- west:				
Oklahoma	6	517	33.3	10.2
Texas	95	5,623	68.4	59.6
Region	101	6,140	66.3	55.6
West:				
Arizona	6	294	83.3	89.8
California	19	2,466	47.4	68.2
New Mexico	5	227	40.0	50.5
Region	30	2,987	53.3	69.0
United States	404	16,770	35.1	51.5

Source: Estimated from Agricultural Stabilization and Conservation Service data.

warehouses account for approximately 55 percent of the regional storage capacity. In contrast to other areas, the Southwest cotton warehousing industry contains a number of large, independent storage facilities, which account for a significant proportion of the total storage capacity in the region.

Southeast warehouses are primarily small independent facilities, with less than 8 percent of the total warehouse numbers and storage capacity controlled by chain warehouse companies.

Outlook

Further declines in cotton warehouse numbers and storage capacity can be expected, especially in the Southeast and

South Central regions. Volumes of cotton available for storage in each region will continue to be affected by Government commodity programs, changes in production levels, domestic and foreign consumption patterns, and structural changes within the industry itself.

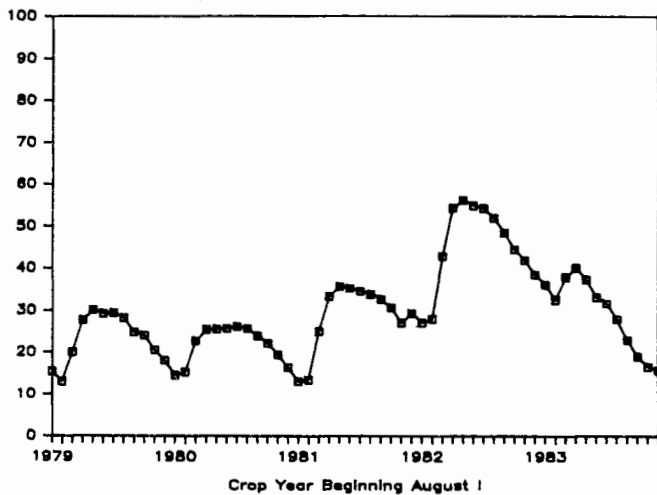
Rates of capacity utilization could improve with increased stability in cotton

production and further efforts to adjust warehouse capacity to actual storage needs in each area. Also the influence of chain warehouse operations on industry storage capacity may grow as many small, less efficient facilities go out of business, or seek to remain through additional consolidations and mergers.

Cotton Warehouse Capacity Utilization

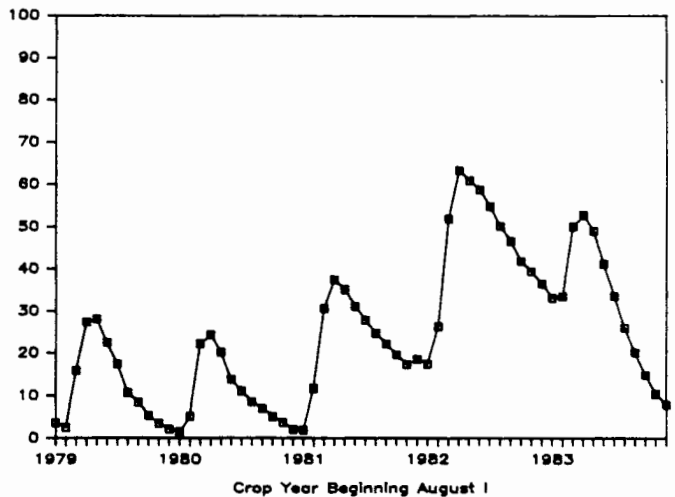
Southeast

Percent of Available Capacity



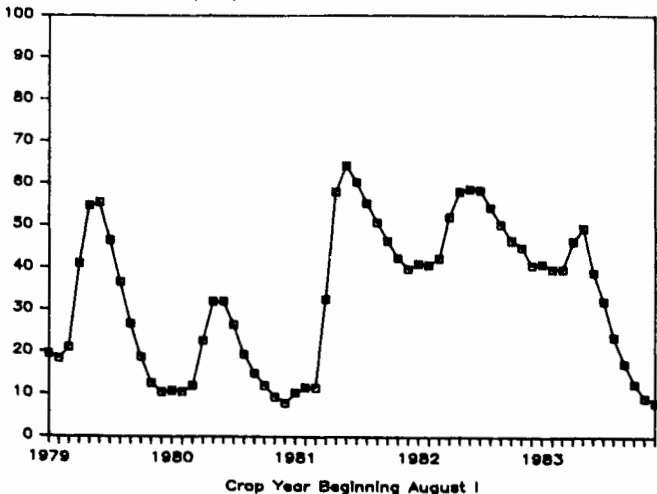
South Central

Percent of Available Capacity



Southwest

Percent of Available Capacity



West

Percent of Available Capacity

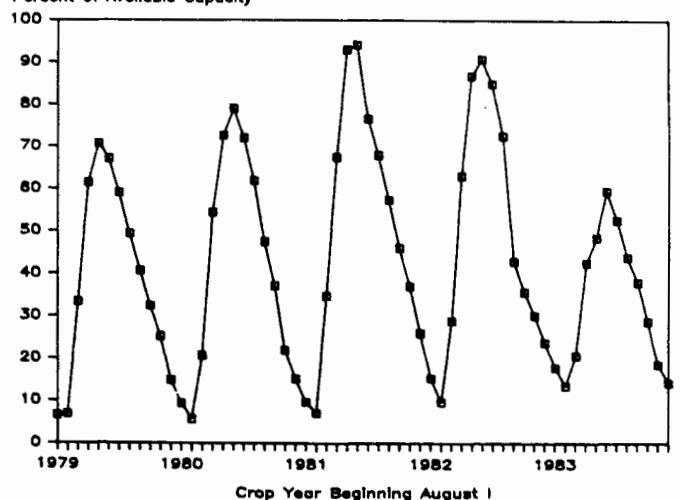


Table 22.—U.S. cotton supply and use 1960/61 - 84/85

Crop year	Area		Yield	Beginning stocks	Supply		Total	Mill use	Disappearance exports	Total	Unaccounted	Ending stocks	Farm price 1/
	Planted	Harvested			Production	Imports							
	1,000 acres		lbs/ac.				1,000	480-lb. bales					
1960	16,080	15,309	446	7,501	14,237	129	21,867	8,353	6,857	15,210	399	7,056	31.3
1961	16,588	15,634	438	7,056	14,283	153	21,492	9,017	5,056	14,073	280	7,699	34.2
1962	16,293	15,569	457	7,699	14,827	137	22,663	8,484	3,429	11,913	386	11,136	33.1
1963	14,843	14,212	517	11,136	15,294	135	26,565	8,696	5,775	14,471	257	12,351	33.4
1964	14,836	14,055	517	12,351	15,145	118	27,614	9,261	4,195	13,456	91	14,249	30.9
1965	14,152	13,613	527	14,249	14,938	118	29,305	9,596	3,035	12,631	354	17,028	29.2
1966	10,349	9,553	480	17,028	9,557	105	26,690	9,574	4,832	14,406	60	12,344	21.5
1967	9,450	7,997	447	12,344	7,443	149	19,936	9,077	4,361	13,438	86	6,584	26.5
1968	10,912	10,159	516	6,584	10,926	68	17,578	8,332	2,825	11,157	123	6,544	22.9
1969	11,882	11,051	434	6,544	9,990	52	16,586	8,114	2,878	10,992	249	5,843	21.8
1970	11,945	11,155	438	5,843	10,192	37	16,072	8,204	3,897	12,101	232	4,203	22.8
1971	12,355	11,471	438	4,203	10,477	72	14,752	8,259	3,385	11,644	150	3,258	28.1
1972	14,001	12,984	507	3,258	13,704	34	16,996	7,769	5,311	13,080	305	4,221	27.2
1973	12,480	11,970	520	4,221	12,974	48	17,243	7,472	6,123	13,595	160	3,808	44.4
1974	13,679	12,547	441	3,808	11,540	34	15,382	5,860	3,926	9,786	112	5,708	42.7
1975	9,478	8,796	453	5,708	8,302	92	14,102	7,250	3,311	10,561	140	3,681	51.1
1976	11,636	10,914	465	3,681	10,581	38	14,300	6,674	4,784	11,458	86	2,928	63.8
1977	13,680	13,275	520	2,928	14,389	5	17,322	6,483	5,484	11,967	-8	5,347	52.1
1978	13,375	12,400	420	5,347	10,856	4	16,207	6,352	6,180	12,532	283	3,958	58.1
1979	13,978	12,831	547	3,958	14,629	5	18,592	6,506	9,229	15,735	143	3,000	62.3
1980	14,534	13,215	404	3,000	11,122	27	14,149	5,891	5,926	11,817	336	2,668	74.4
1981	14,330	13,841	542	2,668	15,646	26	18,340	5,264	6,567	11,831	123	6,632	54.0
1982	11,345	9,734	590	6,632	11,963	20	18,615	5,513	5,207	10,720	42	7,937	59.1
1983	7,946	7,368	513	7,937	7,777	12	15,720	5,926	6,786	12,712	-231	2,777	2/ 66.1
1984 3/	11,051	10,394	613	2,777	13,271	14	16,062	5,300	6,065	11,365	59	4,756	

1/ Weighted average upland price. 2/ Average through April 1, 1984. 3/ Estimated.

Table 23.—Cotton: Supply and disappearance, by type, United States

Year beginning August 1	Supply			Disappearance			Difference unaccounted 4/	Ending stocks July 31	
	Beginning stocks August 1 1/	Production 2/	Imports	Mill consumption 3/	Exports	Total			
1,000 480-pound net weight bales 5/									
All kinds									
1982	6,632	11,963	20	18,615	5,513	5,207	10,720	42	7,937
1983	7,937	8/ 7,771	12	15,720	5,926	6,786	12,712	-231	2,777
1984	2,777	13,271	14	16,062	5,300	6,065	11,365	59	4,756
Upland									
1982	6,567	11,864	12	18,443	5,457	5,194	10,651	52	7,844
1983	7,844	8/ 7,676	8	15,528	5,859	6,750	12,609	-208	2,711
1984	2,711	13,160	10	15,881	5,250	6,000	11,250	69	4,700
Extra-long staple 6/									
1982	65	99	8	172	56	13	69	-10	93
1983	93	8/ 95	4	192	67	36	103	-23	66
1984	66	111	4	181	50	65	115	-10	56

1/Compiled from Bureau of the Census data and adjusted to an August 1 480-pound net weight basis. Excludes preseason ginnings. 2/Includes preseason ginnings. 3/Adjusted to August 1-July 31 marketing year. 4/Difference between ending stocks based on Census data and preceding season's supply less disappearance. For upland cotton, this difference primarily reflects an increase of an estimated 1 percent in average bale weights due to moisture absorption once cotton is ginned and begins to flow through marketing channels. Additional moisture is absorbed by cotton moving in export channels. For ELS cotton, this difference reflects, in part, reporting discrepancies for stocks, mill consumption, and exports. 5/Factors used to convert running bales to equivalent 480-pound net weight bales for carryover and consumption of domestic cotton are based on the relationship between 480 pounds and the gin weight of a running bale, raised by 1 percent (moisture factor). 6/Includes American-Pima, Sea Island, and foreign grown ELS cotton. 7/Preliminary and estimated. 8/ Crop Reporting Board report of May, 1984. 9/ Forecast.

Table 24.--Cotton: Supply and disappearance of all kinds; by months, United States 1/

Date	Supply						Disappearance				
	Beginning stocks 2/			Ginnings 3/	Imports	Total	Mill consumption 4/	Exports	Total	Ending stocks 5/	
	At mills	In public storage 6/	Other 7/								Total
1,000 480-pound net weight bales											
1983/84											
August	792	6,978	167	7,937	326	2	8,265	552	403	955	7,310
September	750	6,493	67	7,310	473	1	7,784	520	339	859	6,925
October	661	6,077	187	6,925	2,664	1	9,590	510	274	784	8,806
November	581	7,513	712	8,806	2,750	1	11,557	509	462	971	10,586
December	583	9,114	889	10,586	1,248	0	11,834	436	663	1,099	10,735
January	640	9,197	898	10,735	273	1	11,009	540	640	1,236	9,773
February	674	7,840	1,259	9,773	37	1	9,811	492	759	1,251	8,560
March	742	6,625	1,193	8,560	0	0	8,560	506	947	1,453	7,107
April	772	5,211	1,124	7,107	0	0	7,107	478	763	1,241	5,866
May	799	4,125	942	5,866	0	1	5,867	528	644	1,172	4,695
June	798	3,089	808	4,695	0	2	4,697	443	449	892	3,805
July	856	2,304	645	3,805	0	3	3,808	414	388	802	3,006
Season	792	6,978	167	7,937	7,771	13	15,721	9/ 5,928	6,787	12,715	3,006
1984/85											
August	830	1,839	337	3,006	659	2	3,667	494	479	973	2,694
September 8/	747	1,550	397	2,694	1,220	1	3,915	411	280	691	3,224
October 8/	673	1,444	1,107	3,224	4,540						

1/Compiled from Bureau of the Census data and adjusted to a 480-pound net weight basis. 2/August stocks adjusted to an August 1 basis, excluding preseason ginnings. 3/August data include preseason ginnings. 4/Adjusted to a calendar month. 5/Supply less disappearance. End of season stocks adjusted by Bureau of the Census data. Differences primarily reflect varying bale weights. 6/Adjusted to 480-pound bales by use of monthly conversion factors for mill stocks. 7/Primarily cotton on farms and in transit. Estimated by subtracting public storage and mill stocks from total stocks. 8/Preliminary and estimated. 9/ Adjusted total.

Table 25.--Cotton: Supply and use; U.S., major importers, major exporters, and world

Year beginning August 1	United States	World less United States				World 3/
		Major importers 1/	Major exporters 2/	Other	Total	
Million 480-pound bales						
1983/84						
Supply						
Beginning stocks	7.9	4.6	3.7	8.6	17.0	25.0
Production	7.8	.8	22.2	36.5	59.5	67.3
Imports	4/	15.5	1.1	3.8	20.3	20.3
Use						
Mill use	5.9	16.1	15.3	31.2	62.6	68.5
Exports	6.8	.5	7.6	4.4	12.5	19.3
Ending stocks	2.8	4.3	4.0	13.3	21.5	24.3
1984/85 5/						
Supply						
Beginning stocks	2.8	4.3	4.0	13.3	21.5	24.3
Production	13.3	1.1	24.4	41.9	67.4	80.7
Imports	4/	15.5	.7	3.8	20.1	20.1
Use						
Mill use	5.3	16.2	15.9	32.1	64.2	69.5
Exports	6.1	.5	8.3	5.4	14.2	20.2
Ending stocks	4.8	4.2	4.8	21.4	30.4	35.2

1/Includes Western Europe, Eastern Europe, Japan, Korea, Taiwan, and Hong Kong. 2/Includes the USSR, Pakistan, Egypt, Sudan, Turkey, Central America, Australia, and Mexico. 3/Total trade of individual countries, including intra-regional trade. World imports and exports may not balance due to cotton in transit and reporting discrepancies in some countries. 4/Less than 50,000 bales. 5/August projections.

Totals may not add and stocks may not balance due to rounding, a small quantity of cotton destroyed, and differences unaccounted.

Note: China is no longer classified as a major importer and has been moved to "Other." Australia is now classified as a major exporter.

Table 26.--Index of prices of selected cotton growths and qualities, and price per pound of U.S. M-1-3/32" c.i.f Northern Europe

Month	1983		1984	
	Index 1/ 1-3/32"	U.S. M 1-3/32"	Index 1/ 1-3/32"	U.S. M 1-3/32"
Cents				
Jan.	71.88	74.25	87.58	85.50
Feb.	74.32	75.50	87.44	85.38
Mar.	78.89	81.35	88.43	88.20
Apr.	80.23	80.75	88.99	89.63
May	81.96	80.63	88.88	91.25
June	86.01	85.05	83.71	83.00
July	88.44	88.06	78.99	78.94
Aug.	90.80	88.94	75.52	75.85
Sept.	89.85	88.15	73.16	74.00
Oct.	88.11	88.06	73.63	74.69
Nov.	89.13	88.81		
Dec.	89.36	89.25		
Avg.	84.08	84.07		

1/ Outlook "A" index of Liverpool Cotton Services. Average of the 5 lowest priced of 10 selected growths.

Cotton Outlook, Liverpool Cotton Services.

Table 27.--Cotton: Strict low middling, spot prices in designated U.S. markets, loan rates, and prices received by farmers for upland cotton

Year beginning August 1	Average spot market prices per pound (net weight) 1/						Price per pound received by farmers for upland cotton (net weight) 2/
	15/16 inch	1 inch	1-1/32 inches	1-1/16 inches	1-3/32 inches	1-1/8 inches	
Cents							
1982/83	52.39	56.41	61.17	63.08	63.47	64.63	3/59.1
1983/84							
August	59.63	63.66	70.52	72.93	73.39	75.39	67.0
September	58.63	62.67	69.29	71.68	72.12	73.37	63.1
October	58.02	62.10	69.49	72.01	72.45	74.44	64.0
November	60.07	64.35	70.82	73.41	73.85	75.79	66.8
December	61.71	65.77	70.44	73.04	73.48	75.13	67.3
January	60.14	64.02	68.03	70.55	70.99	72.89	62.7
February	61.66	65.43	68.98	71.38	71.82	74.19	65.7
March	66.09	69.63	72.56	74.89	75.33	77.50	70.5
April	67.28	70.77	73.37	75.64	76.08	78.12	68.1
May	70.40	73.89	77.18	79.44	79.88	82.39	73.6
June	66.15	69.63	72.74	75.00	75.44	76.80	69.5
July	60.65	63.91	65.11	67.35	67.79	68.43	68.2
Average	62.54	66.32	70.71	73.11	73.55	75.37	67.2
Loan rate	45.20	50.57	53.62	4/ 55.00	56.12	56.32	
1984/85							
August	55.91	59.15	60.78	63.01	63.45	64.49	67.2
September	54.18	57.39	58.93	61.16	61.60	62.41	64.6
October	55.07	58.21	58.95	61.15	61.59	61.90	65.0
Loan rate	45.20	49.15	52.70	4/ 55.00	55.40	55.60	

1/Spot market loan rates and prices are for cotton with micronaire readings of 3.5 through 4.9.
2/Excludes domestic allotment payments, price support and diversion payments. 3/Weighted average. 4/SLM 1-1/16" average location.

Agricultural Stabilization and Conservation Service, Agricultural Marketing Service, and Statistical Reporting Service.

Table 30.—Cotton and manmade fibers: Daily rate of mill consumption on cotton-system spinning spindles, unadjusted and seasonally adjusted

Month	Upland cotton				Manmade staple							
	1982/83		1983/84 1/		1982/83				1983/84 1/			
	Unad-justed	Ad-justed	Unad-justed	Ad-justed	Rayon and acetate		Non-cellulosic 2/		Rayon and acetate		Non-cellulosic 2/	
					Unad-justed	Ad-justed	Unad-justed	Ad-justed	Unad-justed	Ad-justed	Unad-justed	Ad-justed
	480-lb. bales				1,000 pounds							
August	20,202	19,982	23,731	23,449	779	781	5,417	5,385	954	943	6,467	6,139
September	19,636	19,538	23,321	23,205	756	773	5,400	5,405	954	949	6,365	6,371
October	21,576	19,959	24,053	22,209	837	786	5,694	5,382	967	935	6,652	6,287
November	20,211	19,815	23,341	22,905	882	813	5,451	5,397	999	917	6,347	6,284
December	17,620	19,910	19,604	22,226	681	787	4,723	5,385	893	1,036	5,493	6,278
January	20,954	21,017	24,408	24,482	841	807	5,718	5,514	1,004	964	6,356	6,129
February	22,425	21,542	23,224	22,309	856	824	6,183	5,991	1,162	1,118	6,417	6,218
March	22,805	21,907	22,723	21,828	874	825	6,127	5,802	1,112	1,048	6,375	6,037
April	22,305	21,804	22,494	21,988	937	914	5,956	5,727	1,045	1,020	6,034	5,802
May	22,805	21,970	23,116	22,270	939	910	6,201	6,079	1,046	1,014	6,127	6,007
June	22,579	22,444	20,851	20,726	960	981	6,207	6,195	1,055	1,078	5,858	5,846
July	19,093	22,542	18,335	21,647	736	888	5,202	6,042	777	937	5,221	6,064
1984/85												
August			21,521	21,266					974	975	5,678	5,424
September			20,345	20,244					933	955	5,639	5,429
October												

1/Preliminary. 2/Includes nylon, acrylic and modacrylic, polyester, and other manmade fibers.

Compiled from reports of the Bureau of the Census.

Table 31.—Estimated U.S. mill consumption of raw cotton by major type of textile product

Item	1982		1983				1984 1/	
	Annual	1 Q	2 Q	3 Q	4 Q	Annual	1 Q	2 Q
	1,000 bales 2/							
All or most cotton								
Duck	102	33	30	26	28	117	30	34
Sheeting	344	88	91	90	97	366	102	94
Print cloth	253	74	68	69	71	282	74	73
Denim	965	307	317	301	299	1,224	301	291
Toweling	701	178	174	178	166	696	169	137
Blanketing	80	23	24	24	22	93	26	28
Corduroy	269	66	70	65	63	264	64	71
Misc. 3/	406	101	117	107	101	426	115	108
Total	3,120	870	891	860	847	3,468	881	836
Polyester/cotton fab:								
Batiste	39	10	8	8	9	35	9	8
Bed sheeting	302	85	90	86	89	350	84	87
Broadcloth	39	11	12	11	13	47	9	9
Twills	273	78	78	65	72	293	85	89
Oxfords	17	5	6	9	11	31	11	10
Poplins	82	20	20	20	19	79	23	23
Sateens	7	1	2	2	2	7	3	2
Yarn dyed fabric	71	15	17	19	22	73	23	18
Print cloth	205	56	55	58	58	227	60	60
Other	98	20	24	28	32	104	26	25
Total	1,133	301	312	306	327	1,246	333	331
Other textile products								
Knit fabric	1,425	411	413	406	414	1,644	411	412
Narrow	44	10	10	10	10	40	10	10
Thread	99	28	26	21	27	102	25	24
Rope	48	11	11	10	13	45	13	12
Total	1,616	460	460	447	464	1,831	459	458
Grand total	5,869	1,631	1,663	1,613	1,638	6,545	1,673	1,625
Actual mill consumption	5,183	1,429	1,485	1,481	1,455	5,850	1,538	1,449
Residual	+686	+202	+178	+132	+183	+695	+135	+176

1/ Preliminary. 2/480-pounds, net weight. 3/ Includes fine cotton fabrics

Based on data from Bureau of the Census reports and National Cotton Council.

Table 32.--Manmade fiber production and capacity 1/

Fiber	1983					1984					1985					Projected 1986 capacity	Average annual change 1984-86
	Year	1Q	2Q	3Q	4Q	Year	1Q	2Q	3Q	4Q	Year	1Q	2Q	3Q	4Q		
	Million pounds																Percent
Grand total 2/ 3/ all fibers																	
Capacity	11,830	2,977	3,013	3,009	3,009	12,008	3,039	3,074	3,084	3,100	12,297	12,440	+1.8				
Production	9,361	2,416	2,426	2,269													
Percent	79	81	81	75													
Total staple 3/																	
Capacity	5,329	1,349	1,362	1,367	1,372	5,450	1,381	1,392	1,398	1,407	5,578	5,646	+1.8				
Production	4,349	1,117	1,131	1,047													
Percent	82	83	83	77													
Total filament 2/ 3/																	
Capacity	6,501	1,628	1,651	1,642	1,637	6,558	1,658	1,682	1,686	1,693	6,719	6,794	+1.8				
Production	5,012	1,299	1,295	1,222													
Percent	77	80	78	74													
Polyester total																	
Capacity	4,267	1,063	1,073	1,073	1,073	4,282	1,076	1,078	1,079	1,080	4,313	4,330	+0.6				
Production	3,544	881	870	811													
Percent	83	83	81	76													
Staple																	
Capacity	2,709	686	696	696	696	2,774	699	701	701	701	2,802	2,804	+0.5				
Production	2,184	562	573	531													
Percent	81	82	82	76													
Filament																	
Capacity	1,558	377	377	377	377	1,508	377	377	378	379	1,511	1,526	+0.6				
Production	1,360	319	297	280													
Percent	87	85	79	74													
Nylon total																	
Capacity	2,874	721	726	729	730	2,906	738	747	752	757	2,994	3,050	+2.5				
Production	2,418	622	625	576													
Percent	84	86	86	79													
Staple																	
Capacity	1,002	258	261	264	266	1,049	269	273	277	282	1,101	1,140	+4.3				
Production	926	221	217	193													
Percent	92	86	83	73													
Filament																	
Capacity	1,872	463	465	465	464	1,857	469	474	475	475	1,893	1,910	+1.4				
Production	1,492	401	408	383													
Percent	80	87	88	82													
Olefin total																	
Capacity	1,361	350	355	359	364	1,428	369	374	378	381	1,502	1,534	+3.7				
Production	906	235	247	238													
Percent	67	67	70	66													
Staple																	
Capacity	275	73	75	77	79	304	83	87	90	93	353	378	+11.5				
Production	190	57	62	64													
Percent	69	78	83	83													
Filament																	
Capacity	1,086	277	280	282	285	1,124	286	287	288	288	1,149	1,156	+1.4				
Production	716	178	185	174													
Percent	66	64	66	62													
Acrylic staple																	
Capacity	829	204	201	202	202	809	202	202	202	202	808	810	--				
Production	670	172	175	165													
Percent	81	84	87	82													
Non-cellulosic non-glass total 2/																	
Capacity	9,361	2,345	2,363	2,370	2,377	9,455	2,392	2,409	2,418	2,428	9,648	9,754	+1.6				
Production	7,558	1,915	1,922	1,795													
Percent	81	82	81	76													
Staple																	
Capacity	4,815	1,221	1,233	1,239	1,243	4,936	1,253	1,263	1,270	1,270	5,064	5,132	+2.0				
Production	3,970	1,012	1,027	953													
Percent	82	83	83	77													
Filament 2/																	
Capacity	4,546	1,124	1,130	1,131	1,134	4,519	1,139	1,146	1,148	1,150	4,583	4,622	+1.1				
Production	3,588	903	895	842													
Percent	79	80	79	74													
Rayon staple																	
Capacity	510	127	128	127	128	510	127	128	127	128	510	510	--				
Production	378	104	104	94													
Percent	74	82	81	74													
Acetate filament																	
Capacity	268	67	67	67	67	268	67	67	67	67	268	268	--				
Production	228	55	56	50													
Percent	85	82	84	75													
Glass filament																	
Capacity	1,624	421	438	4/ 429	420	1,708	436	453	456	460	1,805	1,840	+3.8				
Production	1,169	334	337	325													
Percent	72	79	77	76													

1/ Capacity data as of May 1984. 2/ Includes estimated spandex capacity and production not shown. 3/ Includes rayon filament and acetate staple capacity and production not shown. 4/ Estimated.

Compiled from Textile Organon.

Table 33.--Domestic shipments of manmade fibers by major category 1/

Fiber type	1982				1983				1984		
	1 Q	2 Q	3 Q	4 Q	1 Q	2 Q	3 Q	4 Q	1 Q	2 Q	3 Q
Million pounds											
Woven products											
Total	480.5	491.0	476.8	503.9	538.0	624.3	604.8	618.1	586.7	570.4	NA
Polyester	318.1	322.1	318.6	337.3	355.5	420.3	401.6	421.4	387.4	374.7	NA
Rayon	38.2	34.4	35.1	37.8	40.8	45.3	47.0	49.0	48.9	42.8	NA
Olefin	49.3	53.6	48.8	49.0	57.5	65.7	66.8	61.5	60.6	63.4	NA
Nylon	41.3	43.5	39.8	44.2	43.7	48.1	43.0	43.1	43.6	45.8	NA
Acetate	23.2	24.0	21.9	22.6	25.1	29.4	30.1	30.7	29.9	30.8	NA
Acrylic	10.4	13.4	12.6	13.0	15.4	15.5	16.3	12.4	16.3	12.1	NA
Knit products											
Total	318.7	332.6	318.8	315.4	373.0	395.8	373.6	374.3	345.9	333.3	NA
Polyester	151.4	151.6	150.7	150.5	191.1	196.6	184.6	192.4	166.0	154.5	NA
Nylon	64.6	61.3	63.0	64.2	71.1	76.1	72.9	75.6	73.1	64.5	NA
Acrylic	79.1	95.6	85.1	83.3	89.6	96.5	93.4	87.3	86.4	92.1	NA
Acetate	20.6	21.2	17.1	14.4	18.7	24.1	20.7	17.7	18.5	20.8	NA
Rayon	3.0	2.9	2.9	3.0	2.5	2.5	2.0	1.3	1.9	1.4	NA
Carpets											
Total	359.4	412.9	439.2	408.9	451.5	568.8	555.0	537.3	517.5	540.0	NA
Nylon	248.7	291.5	319.8	293.9	319.2	417.1	412.3	401.2	385.7	393.8	370.0
Olefin	86.1	89.2	91.7	84.5	97.6	111.8	109.5	104.7	100.4	110.6	NA
Polyester	24.6	32.0	27.6	30.5	34.7	39.8	33.2	31.3	31.2	35.6	32.0
Acrylic	---	---	---	---	---	---	---	---	---	---	NA
Rayon	---	.1	---	---	---	0.1	---	0.1	0.2	---	NA

1/ Filament plus staple.
NA = not available.

Compiled from Textile Organon.

Table 34.--Reported spot prices of raw materials for manmade fibers

Product	1984					1984				
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.
Virgin xylene 1/	1.18-1.20	1.18-1.20	1.15-1.16	1.15-1.16	1.08-1.13	1.04-1.12	0.98-1.02	0.98-1.00	0.96-1.00	0.96-1.00
Cyclohexane 1/	1.53	1.53	1.53	1.53	n.a.	n.a.	1.40-1.47	1.40-1.47	1.40-1.47	1.36
Propylene, 2/ Polymer grade	0.19	0.19	0.19	0.19	0.19	0.195	0.195	0.85	0.87-0.89	0.87-0.89
Caprolactam 2/	0.81-0.83	0.83	0.83	0.83	0.85	0.85	0.85	0.195	0.19-0.195	0.19-0.195
Acrylonitrile 2/	0.43	0.43	0.43	0.455	0.455	0.455	0.455	N.A.	N.A.	N.A.

1/ Dollars per gallon. 2/ Dollars per pound.

Source: Industry sources.
N.A. = Not available.

Table 35.—Raw cotton equivalent of U.S. textile imports

Year and month	Yarn, thread, and woven fabric					Primarily manufactured products						
	Yarn	Sewing thread, crochet, knitting yarn	Woven fabric			Pile fabrics and mfrs. 2/	Table damask and mfrs.	Bed clothes and towels 3/	Gloves, hosiery, and hdkf.			
			100 percent cotton	Blends 1/	Total							
1,000 pounds					1,000 pounds							
1982	27,264	1,244	218,619	41,518	288,645	6,342	481	64,060	22,652			
1983	40,881	1,250	274,467	64,108	380,706	7,721	438	70,067	25,383			
1984												
January	6,443	72	31,243	9,852	47,610	787	25	9,305	2,529			
February	6,455	168	31,420	8,284	46,327	870	53	10,015	2,236			
March	5,717	223	34,604	8,472	49,016	871	38	9,251	2,261			
April	6,221	159	31,194	9,407	46,981	965	33	10,296	2,070			
May	5,297	185	25,734	6,736	37,952	877	22	7,746	1,692			
June	4,015	109	34,633	8,729	47,486	1,292	31	7,224	2,151			
July	5,478	213	32,802	10,342	48,835	1,796	28	10,557	3,309			
August	3,605	117	33,010	7,089	43,821	1,209	41	8,992	2,281			
September	2,779	152	29,380	6,144	38,455	947	34	7,795	3,168			
					Primarily manufactured products				Total 9/			
					Other wearing apparel 4/	Lace fabric and articles 5/	Household and clothing articles 6/	Misc.-products 7/9/	Floor covering	Total 9/	Weight	Bales
					1,000 pounds					1,000 pounds	1,000 bales 8/	
1982	487,867	4,046	10,628	10,053	2,408	608,537	897,182	1,869.2				
1983	597,423	5,957	11,855	14,335	7,526	740,631	1,121,337	2,336.1				
1984												
January	57,114	859	1,779	1,106	1,137	74,641	122,251	254.7				
February	65,701	663	1,452	1,693	1,125	83,808	130,135	271.1				
March	66,964	689	1,356	1,828	1,564	84,822	133,838	278.8				
April	54,962	872	1,604	1,340	1,264	73,406	120,387	250.8				
May	54,046	904	1,560	1,236	907	68,990	106,942	222.8				
June	60,220	554	1,227	1,514	749	74,962	122,448	255.1				
July	87,790	1,328	1,933	1,765	1,572	110,078	158,913	331.1				
August	66,788	872	1,221	1,688	1,622	84,713	128,534	267.8				
September	71,222	870	1,767	2,074	1,068	88,945	127,400	265.4				

1/Includes tapestry and upholstery fabrics, tire cord fabrics, and cloths in chief value cotton containing other fibers. 2/Includes velvets and velveteens, corduroys, plushes and chenilles, and manufactures of pile fabrics. 3/Includes blankets, quilts, bedspreads, sheets and pillow cases. 4/Includes knit and woven underwear and outerwear (collars and cuffs, shirts, coats, vests, robes, pajamas, and ornamented wearing apparel). 5/Includes nets and nettings, veils and veillings, edging, embroideries, etc., and lace window curtains. 6/Includes braids (except hat braids) tubing, labels, lacing, wicking, loom harness, table and bureau covers, polishing and dust cloths, fabric with fast edges, cords, and tassels, garters, suspenders and braces, corsets and brassieres etc. 7/Includes belts and belting, fish nets and netting, and coated, filled or waterproof fabrics. 8/480-pound net weight bales. 9/Does not include quantities in the TSUSA 706 luggage categories. The raw fiber equivalent quantities for May-December 1982 was 6,609 thousand pounds. For January-December 1983 these quantities are 1,271, 1,824, 1,433, 991, 879, 1,362, 1,544, 900, 1,021, 793, 743, and 1,330 thousand pounds, respectively. For January-September 1984, these quantities are 1,666, 1,934, 1,367, 1,778, 1,493, 1,362, 2,245, 1,712, and 1,198 thousand pounds respectively.

Compiled from reports of the Bureau of the Census.

Table 36.—Raw cotton equivalent of U.S. textile exports

Year and month	Yarn, thread, twine, and woven fabric					Manufactured products				
	Yarn	Sewing thread, crochet, darning and embroidery cotton	Twine and cordage	Woven fabric		Total	House, furnishings			
				Standard constructions and tire cord 1/	Other 2/		Knit fabrics	Blankets, spreads, pillow cases, and sheets	Towels	Other 3/
1,000 pounds										
1982	17,981	11,277	822	71,570	13,186	114,838	4,720	14,092	6,222	3,241
1983	18,854	11,577	793	51,667	7,747	90,636	2,434	8,725	5,705	715
1984										
January	748	979	54	4,662	377	6,821	202	461	333	43
February	843	653	28	3,970	414	5,909	272	504	359	61
March	754	613	56	4,515	592	6,530	270	624	283	54
April	1,023	823	48	4,136	421	6,451	294	829	561	62
May	1,038	250	27	5,043	471	6,830	276	835	483	40
June	1,192	502	51	5,810	577	8,132	155	809	356	43
July	888	291	79	4,587	616	6,460	277	805	412	55
August	883	496	73	4,070	611	6,133	280	963	416	44
September	826	1,463	12	4,709	524	7,534	214	641	285	26
1,000 pounds										
						Manufactured products		Total		
Wearing apparel		Other household & clothing articles 6/		Floor covering	Industrial products 7/			Total	Weight	Bales 8/
Knit 4/	Other 5/									
1,000 pounds										
1982	34,713	45,321	15,918			14,277	138,506	253,342		527.8
1983	27,957	44,113	13,736		13,986	11,601	128,977	219,614		457.5
1984										
January	2,241	3,531	935		1,223	1,000	9,970	16,791		35.0
February	2,256	3,704	1,117		1,050	695	10,018	15,927		33.2
March	2,692	4,673	1,260		965	1,093	11,914	18,444		38.4
April	2,028	3,360	1,123		1,090	1,073	10,419	16,870		35.1
May	2,162	4,011	1,073		1,363	1,620	11,863	18,693		38.9
June	2,064	4,454	1,576		732	1,708	11,897	20,029		41.7
July	1,804	3,756	1,044		703	1,253	10,109	16,569		34.5
August	1,893	3,154	879		593	1,339	9,561	15,694		32.7
September	2,054	2,946	1,389		475	1,115	9,144	16,678		34.7

1/Includes fabrics, tire cord and cloth for export to the Philippines to be embroidered and otherwise manufactured and returned to the United States. 2/Includes tapestry and upholstery fabrics, table damask, pile fabrics and remnants. 3/Includes curtains and draperies, house furnishings not elsewhere specified. 4/Includes gloves and mitts of woven fabric. 5/Includes underwear and outerwear of woven fabric, handkerchiefs, and wearing apparel containing mixed fibers (corsets, brassieres, and girdles, garters, armbands and suspenders, neckties and cravats). 6/Includes canvas articles and manufactures, braids and narrow fabrics, elastic webbing, waterproof garments, and laces and lace articles. 7/Includes rubberized fabrics, bags, and industrial belt and belting. 8/480-pound net weight bales.

Compiled from reports of the Bureau of the Census.

Table 37.—Manmade fiber equivalent of U.S. textile imports

Year and month	Tops, yarn, thread, and woven fabric							Primarily manufactured products	
	Sliver tops and roving	Yarns thrown or plied ¹	Yarns spun	Sewing thread and hand-work yarns	Rayon tire fabric including cord fabrics	Woven fabric	Total	Wearing apparel	
								Knit ²	Not knit
1,000 pounds									
1982	2,724	6,642	26,470	2,324	1,087	93,335	132,582	193,087	292,224
1983	4,907	10,683	38,976	3,442	1,273	123,215	182,496	241,296	333,091
1984									
January	608	1,311	3,873	582	34	12,505	18,913	17,635	33,674
February	780	1,335	4,140	468	42	11,507	18,272	22,390	40,753
March	627	1,278	4,164	670	65	12,533	19,337	18,630	34,528
April	659	1,207	3,220	410	66	14,545	20,107	19,800	31,054
May	393	818	3,928	486	12	12,648	18,285	23,332	32,774
June	77	1,147	3,717	207	56	13,447	18,651	23,846	33,938
July	373	1,372	5,806	511	39	17,335	25,436	38,383	50,510
August	266	1,603	3,708	430	4	15,628	21,639	29,245	38,687
September	380	1,756	5,436	660	15	13,519	21,766	26,697	36,002
Primarily manufactured products									
	Handkerchiefs	Laces and lace articles 3/	Narrow fabrics 4/	Knit fabric	Floor covering	Other manufactures 5/6/	Total 6/	Total manu-factured imports 6/	
1,000 pounds									
1982	1,162	4,782	10,089	2,284		61,749	565,377	697,959	
1983	1,578	6,376	12,699	2,196	22,013	87,192	706,441	888,937	
1984									
January	160	450	1,035	260	2,279	9,029	64,522	83,435	
February	161	727	1,195	211	2,921	9,249	77,607	95,879	
March	147	822	1,093	255	3,000	9,962	68,437	87,774	
April	186	643	1,057	285	2,753	10,470	66,248	86,355	
May	139	620	1,092	294	3,199	10,440	71,890	90,175	
June	182	569	897	240	2,901	9,929	74,502	93,153	
July	234	930	1,228	262	2,699	15,356	109,602	135,038	
August	132	904	1,144	311	2,869	14,466	87,758	109,397	
September	156	1,150	952	235	2,912	13,582	81,686	103,452	

1/ Not included in these data are quantities of imported textured non-cellulosic yarn not over 20 turns per inch. 2/ Includes gloves, hosiery, underwear, outerwear, and hats. 3/ Includes veils and veilings, nets and nettings, lace window curtains, edging, insertings, flouncings, allover, etc., embroideries, and ornamented wearing apparel. 4/ Includes braids (except hat braids), fabrics with fast edges not over 12 inches wide, garters, suspenders, braces, tubing, cords, tassels, gill nets, webs, seines, and other nets for fishing. 5/ Not elsewhere classified. 6/ Does not include quantities in the TSUSA 706 luggage category. The raw fiber equivalent quantity for May-December 1982 was 109,137 thousand pounds. For January-December 1983 these quantities are 12,905, 12,561, 14,461, 12,490, 13,041, 15,711, 15,960, 15,293, 16,032, 19,034, 16,298, and 16,767 thousand pounds, respectively. For January-September 1984, these quantities are 16,907, 22,981, 22,435, 24,150, 24,173, 29,295, 34,432, 18,324 and 11,554 thousand pounds respectively.

Compiled from reports of the Bureau of the Census.

Table 38.--Manmade fiber equivalent of U.S. textile exports

Year and month	Tops, yarn, thread, and woven fabric					Primarily manufactured products			
	Sliver tops, and roving 1/	Yarns spun	Sewing thread and handwork	Tire cord and tire cord fabric	Woven fabric ²	Total	Hosiery	Underwear and night-wear	Outer wear
1,000 pounds									
1982	6,730	28,169	5,270	27,854	132,569	200,589	3,813	12,884	58,537
1983	4,528	25,682	5,076	23,245	108,661	167,191	2,891	12,045	55,902
1984									
January	639	1,490	409	2,267	7,933	12,738	141	1,067	4,585
February	474	1,617	1,090	2,047	7,956	13,186	151	1,180	5,407
March	622	2,647	517	3,249	8,826	15,860	211	1,150	6,528
April	426	1,649	420	2,192	8,257	12,944	128	889	5,442
May	808	1,579	612	2,787	9,909	15,695	229	945	5,327
June	506	2,078	604	2,567	10,793	16,547	220	1,063	6,082
July	379	1,202	442	2,028	9,080	13,131	206	808	5,417
August	521	2,532	517	2,215	9,801	15,586	206	913	6,179
September	347	3,485	474	2,768	10,244	17,319	209	868	4,991
Primarily manufactured products									
	House furnishings	Knit or crocheted	Narrow fabrics ³	Floor covering	Other manufactures ⁴	Total	Total manufactured exports		
1,000 pounds									
1982	65,904	15,645	26,614		54,566	237,960	438,551		
1983	10,701	14,237	25,722	114,539	57,482	293,523	460,713		
1984									
January	687	1,063	1,913	7,977	4,907	22,341	35,079		
February	774	999	2,006	8,732	4,614	23,864	37,049		
March	736	1,215	2,123	7,030	5,354	24,348	40,208		
April	850	1,101	1,953	8,480	6,713	25,556	38,500		
May	1,275	1,177	1,831	8,544	7,764	27,091	42,786		
June	857	1,004	2,987	9,307	8,461	29,981	46,529		
July	1,089	953	2,670	7,773	8,582	27,498	40,628		
August	958	1,024	3,145	6,029	9,978	28,431	44,017		
September	1,055	1,137	3,028	7,448	7,880	26,616	43,935		

1/Includes products made from waste. 2/Includes pile and tufted fabric such as corduroy. 3/Includes ribbons, trimmings, and braids (except hat braids). 4/Not elsewhere classified.

Compiled from reports of the Bureau of the Census.

Table 39.-Raw wool content of United States textile imports 1/

Year and month	Noils	Wastes 6/	Tops and advanced wool	Yarns	Woven fabrics 2/	Wool blankets 3/	Wearing apparel		Other manufactures 5/	Carpets and rugs	Total
							Knit	Other than knit 4/			
1,000 pounds											
1981	12,299	8,233	326	4,720	27,783	400	22,789	18,098	902	18,076	113,626
1982	7,174	4,569	466	7,239	25,633	315	25,649	20,714	839	19,642	112,240
1983, total	12,200	5,706	798	7,623	28,130	643	30,279	28,526	1,047	34,829	149,781
1984											
January	1,149	322	242	695	2,425	100	1,745	1,690	88	4,263	12,719
February	844	386	311	1,025	2,929	105	1,841	2,237	121	4,061	13,860
March	1,300	684	555	1,395	3,182	87	1,207	1,682	128	5,074	15,294
April	1,415	720	440	994	4,190	27	1,246	1,524	85	3,914	14,555
May	1,472	594	472	1,511	4,073	41	1,912	2,262	125	3,467	15,929
June	887	460	364	1,056	4,247	52	3,334	2,958	121	3,033	16,512
July	1,601	705	89	1,526	5,145	99	6,760	5,970	130	4,769	26,794
August	1,344	495	193	1,244	4,368	73	5,719	6,042	144	3,737	23,359
September	1,214	398	288	1,085	3,089	127	6,354	5,981	146	5,001	23,683

1/ Includes manufactures of mohair, alpaca, and other wool-like specialty hair. 2/ Includes pile fabric and manufactures, tapestry and upholstery goods press and billard cloths. 3/ Includes carriage and automobile robes, steamer rugs, etc. 4/ Includes laces, lace articles, veils and veilings, nets and nettings, when reported in pounds. 5/ Includes knit fabrics in the piece and miscellaneous manufactures not elsewhere specified. 6/ Not including rags.

Compiled from reports of the Bureau of the Census.

Table 40. -Raw wool content of United States textile exports 1/

Year and month	Noils & wastes 2/	Tops and advanced wool	Yarns	Woven fabrics	Wool 2/ blankets	Wearing apparel knit	Wearing apparel other	Felts	Other manufactures 3/	Carpets and rugs	Knit fabrics	Total
1981	537	2,641	994	1,652	88	2,031	1,945	294	1,729	201	211	12,332
1982	1,069	4,283	663	1,297	47	1,762	1,131	235	1,173	180	107	11,945
1983	1,860	3,770	250	1,073	29	2,110	865	297	953	9,313	232	20,753
1984												
January	477	372	9	117	2	107	51	11	79	917	9	2,152
February	367	425	23	85	2	141	32	6	91	819	4	1,995
March	283	284	92	79	2	226	42	39	85	801	4	1,937
April	201	85	73	85	1	22	100	10	78	1,005	9	1,929
May	178	60	63	132	2	31	134	44	156	893	26	1,719
June	187	171	12	126	4	19	105	28	84	544	13	1,294
July	125	115	26	88	4	32	104	13	123	347	117	1,095
August	139	175	26	65	5	169	131	19	341	343	19	1,431
September	141	335	11	98	5	161	56	71	208	239	159	1,483

1/Includes manufactures of mohair, alpaca, and other wool-like speciality hair. 2/Not including rags. 3/Census Bureau's Schedule B classification designated manufactures, n.e.c.

Compiled from reports of the Bureau of the Census.

LIST OF TABLES

Page Table

4	1. Raw fiber equivalent of apparel imports January-September, 1979-84
8	2. Non-Chinese foreign stocks and consumption
9	3. Average net returns per planted acre of upland cotton, including program benefits
12	4. U.S. mill consumption of raw wool, scoured basis
13	5. Wool supply and disappearance, clean content
13	6. U.S. imports of dutiable and duty-free raw wool for consumption, clean content
13	7. Average U.S. farm prices per pound for shorn wool, grease basis
17	8. Estimated 1985 upland cotton returns net of variable costs
18	9. Base acres needed to hit payment limit
19	10. Upland cotton planting history
19	11. 1985 upland cotton production possibilities
21	12. Cotton supply and use, China 1978-84
21	13. Retail sales of clothing, China 1978-83
21	14. Textile industry production, China 1978-83
22	15. Chemical fiber imports; yarn and textile exports, China 1978-83
23	16. Cotton exports by destination, China 1982/83 and 1983/84
24	17. Cotton procurements and rural cotton use, China 1978-83
25	18. Textile industry, China 1978-83
25	19. Utilization of textile equipment and labor productivity, China 1980-83
26	20. U.S. cotton storage capacity, by region
28	21. U.S. cotton warehouses: Total number and storage capacity
30	22. U.S. cotton supply and use 1960-84
30	23. Cotton: Supply and disappearance, by type, United States
31	24. Cotton: Supply and disappearance of all kinds; by months, United States
31	25. Cotton: Supply and use; U.S., major importers, major exporters, and world
32	26. Index of prices of selected cotton growths and qualities, and price per pound of U.S. M-1-3/32" l.i.f. Northern Europe
32	27. Cotton: Strict low middling, spot prices in designated U.S. markets, loan rates, and prices received by farmers for upland cotton
33	28. Fiber prices: Landed Group B mill points, cotton prices, and manmade staple fiber prices at f.o.b. producing plants, actual and estimated raw fiber equivalent
33	29. Upland cotton and manmade staple fibers: Mill consumption on cotton-system spinning spindles
34	30. Cotton and manmade fibers: Daily rate of mill consumption on cotton-system spinning spindles, unadjusted and seasonally adjusted
34	31. Estimated mill consumption of raw cotton by major types of textile product
35	32. Manmade fiber production and capacity
36	33. Domestic shipments of manmade fibers by major category
36	34. Reported spot prices of raw materials for manmade fibers
37	35. Raw cotton equivalent of U.S. textile imports
38	36. Raw cotton equivalent of U.S. textile exports
39	37. Manmade fiber equivalent of U.S. textile imports
40	38. Manmade fiber equivalent of U.S. textile exports
41	39. Raw wool content of United States textile imports
41	40. Raw wool content of United States textile exports



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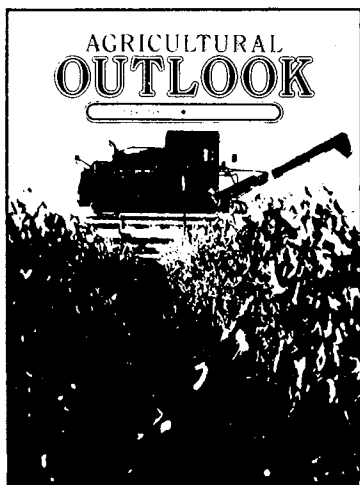
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