## Cotton and Wool



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## Summary

The ratio of U.S. cotton use to supply could be tighter during 1984/85 than previously expected because farmers may plant only about 11 million acres of cotton. Planting intentions totaled 10.8 million acres as of February 1 -compared with 8 million actual planted in 1983. This year's planted acreage may differ from intentions, however, depending on the weather, participation in the 25 -percent acreage reduction program, and price expectations. Yields could be relatively high as less-productive land is idled. Still, production could range from 10-12 million bales, even if plantings are near intentions.

Economic recovery is boosting U.S. mill use of cotton this season about 5 percent to an estimated 5.8 million bales. After declining during August-December, seasonally adjusted mill use in January rebounded sharply. Continuation of this higher rate would lead to even stronger mill use. However, disappointing retail sales at apparel and assessory stores and record cotton textile imports are limiting the gain. Slower economic growth in 1985, competition with manmade fibers, and a large textile trade deficit could push mill use lower in 1984/85.

Domestic consumption of cotton (mill use plus the cotton textile trade deficit) reached 7.8 million equivalent bales in 1983-the highest level since 1973 and up 1.3 million from 1982. Foreign mills use higher cotton blend levels than domestic mills, so increased textile imports have caused the retail supply of cotton to increase. Consumer demand for cotton apparel may also have increased. Cotton's share of domestic consumption was 27 percent in 1983; however, cotton's share of U.S. mill use fell to 23.1 percent.
U.S. exports of cotton are booming and may reach 6.8 million bales in 1983/84. Reduced competition from the Soviet Union, Pakistan, and Brazil is the main cause. At seasonally adjusted annual rates, U.S. exports have accelerated since February 1983, averaging 7 million bales during November 1983-January 1984. Recent Soviet and Pakistani purchases, coupled with large sales to traditional markets, will probably keep seasonally adjusted exports above 6.5 million bales through July, despite the Southern Hemisphere harvest.

Exports may decline in 1984/85 as foreign supplies expand. Larger harvests, forecast for Pakistan, Mexico, and other countries, plus stable output in China, could boost foreign production sharply. Foreign consumption may also grow, but probably by less than production.
U.S. ending stocks for $1983 / 84$ are estimated at 3.3 million bales, raising the use-to-supply ratio to a tight 0.80 . Farm prices, which usually move in tandem with the ratio, have risen about 7 cents a pound from the $1982 / 83$ average. The use-tosupply ratio is expected to decline in 1984/85, but the low stocks carried over from 1983/84 will make prices more volatile.

Mill use of manmade fibers totaled 9.1 billion pounds in 1983 and accounted for about 76 percent of total fiber mill use. At seasonally adjusted rates, consumption of manmade fibers on the cotton system showed little growth during October-December 1983. The manmade fiber trade deficit exceeded 600 million pounds in 1983compared with 260 million in 1982 and 1.3 million in 1981.

Mill use of wool reached 144 million pounds in 1983, but the trade deficit grew to 129 million pounds, or 47 percent of domestic wool consumption. Farm prices during spring 1984 may average about 75 cents a pound-up 10 cents from a year earlier.

The cotton textile trade deficit accounted for 25 percent of domestic cotton consumption in 1983-up from 21 percent in 1982 and only 8 percent 4 years ago. Cotton textile imports increased 27 percent to 2.3 million bales (raw fiber equivalent) last year, and at seasonally adjusted rates, imports accelerated during the fourth quarter. Cotton textile exports in 1983 fell 13 percent to 458,000 bales and were holding steady in the fourth quarter. In absolute terms, and as a percentage of domestic consumption, the trade deficit could rise again in 1984.

## TEXTILES AND THE ECONOMY

U.S. textile mills used about 12.1 billion pounds of fiber in 1983,19 percent more than a year earlier and the largest quantity since 1979. Use of all fibers in the United States could reach 12.3 billion pounds in 1984, but a decline in 1985 is possible. The correlation between total fiber mill use and the percentage change in real gross national product (GNP) during 1972-1983 is 0.73 (figure 1). Real growth in 1983 reached 3.3 percent, the best in 5 years. Growth in 1984 is expected to exceed 5 percent because business investment and personal consumption expenditures remain strong. However, the rate of economic growth in 1985 could fall to about half the 1984 rate. Federal budget deficits are expected to remain high for several years. Further, the structural component of the deficit, the estimated deficit with full employment, could grow from about $\$ 100$ billion in 1983 to nearly $\$ 200$ billion in 1989-implying higher interest rates.

Real economic growth during fourth-quarter 1983 was 4.9 percent-about one-half the average rate of the previous two quarters. Large increases in personal consumption expenditures and producers' durable equipment purchases caused growth in the fourth quarter, but the widening trade deficit was a negative factor. The GNP price deflator, a broad-based measure of inflation, rose 4.2 percent, the largest increase since the first quarter. The prime rate increased to 11 percent from 10.5 in the summer. Personal savings increased to 5.4 percent of disposable personal income in the fourth quarter, compared with 4.9 percent in the third quarter. The savings rate is not expected to rise sharply in 1984.

Fourth-quarter consumer spending improved, especially in the durable goods sector, but growth in nondurable goods sales slowed slightly. Fourth-quarter nondurable goods production rose at an annual rate of 14.6 percent, the lowest since fourth-quarter 1982, and textile mill production went up only 2.3 percent, the lowest since third-quarter 1982. The unemployment rate in textile mills fell during June-December 1983.

## Figure 1

Total Fiber Use Follows GNP
Billion pounds

$\Delta$ Projected.

## COTTON SITUATION

1984/85 U.S. Cotton Outlook

## Production Between 10 and 12 Million Bales Possible

Based on the recent survey of farmer's intentions, planted acreage of cotton in 1984 is expected to total 10.8 million but could range from 10.5 to 11.5 million (table 1). With acreage substantially below the 15.5 -million-acre base, above-average yields are probable-weather permitting-but production could range between 10 and 12 million bales. Disappearance during 1984/85 is expected to decline from $1983 / 84$, pushing up stocks.

In the 10 years before 1984, the January or February planting intentions reports indicated acreage above actual plantings five times and below actual five times (table 2). The average difference has been 632,000 acres. The February intentions reports in 1982 and 1983 were each above actual planted acreage by 1.3 million. The planting intentions report is not designed to forecast acreage but to provide growers with information useful in making final planting decisions.

Data for February's report were collected around February 1-over 6 weeks before the end of signup for the 1984 program. Since farmers will be penalized if they withdraw from the program after March 16 , most probably waited until after February 1 before making final participation decisions.

## Table 1 -Cotton: All kinds, U.S. acreage planted by States

| State | 1983 | $\begin{aligned} & \text { Indicated } \\ & 1984^{1} \end{aligned}$ | 1984 as a percentage of 1983 |
| :---: | :---: | :---: | :---: |
|  | 1,000 acres |  | Percent |
| Upland |  |  |  |
| Alabama | 219 | 300 | 137 |
| Arizona | 291 | 450 | 155 |
| Arkansas | 340 | 525 | 154 |
| California | 980 | 1,450 | 148 |
| Georgia | 120 | 165 | 138 |
| Louisiana | 420 | 640 | 152 |
| Mississippi | 685 | 1,000 | 146 |
| Missouri | 108 | 170 | 157 |
| New Mexico | 54 | 68 | 126 |
| North Carolina | 60 | 80 | 133 |
| Oklahoma | 320 | 450 | 141 |
| South Carolina | 69 | 100 | 145 |
| Tennessee | 220 | 270 | 123 |
| Texas | 4,000 | 5,000 | 125 |
| Other states ${ }^{2}$ | 13 | 18 | 140 |
| Total | 7,898.9 | 10,686.1 | 135 |
| American-Pima |  |  |  |
| Texas. | 21 | 21 | 100 |
| New Mexico | 11 | 12 | 109 |
| Arizona | 30 | 40 | 135 |
| Total | 62 | 73 | 118 |
| Total |  |  |  |

Table 2.-History of planting intentions reports

| Year | Indications ${ }^{\text {1 }}$ |  |  | Apr. | Actual | Jan. | Difference ${ }^{1}$ |  | Apr. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Jan. | Feb. | Mar. |  |  |  | Feb. | Mar. |  |
| 1,000 acres |  |  |  |  |  |  |  |  |  |
| 1974 | 14,505 |  | 14,718 |  | 13,596 | 909 |  | 1,122 |  |
| 1975 | 9,500 |  | 9,884 |  | 9,408 | 92 |  | 476 |  |
| 1976 | 11.225 |  | 11,190 | 11,590 | -365 |  |  | -400 |  |
| 1977 | 12,807 |  | 13,618 | 13,604 | -797 |  |  | 14 |  |
| 1978 | 12,642 |  | 12,842 | 13,298 | -656 |  |  | -455 |  |
| 1979 | 14,046 |  | 14,300 | 13,887 | 159 |  |  | 413 |  |
| 1980 | 13,905 |  | 14,753 | 14,461 | -556 |  |  | 292 |  |
| 1981 | 14,128 |  | 14,484 |  | 14,330 | -202 |  | 154 |  |
| 1982 |  | 12,599 |  |  | 11,340 |  | 1,259 |  |  |
| 1983 |  | 9,281 |  |  | 7,961 |  | 1,321 |  |  |
| 1984 |  | 11,600 |  |  |  |  |  |  |  |

1974-1981 refer to upland cotton only. 1982-1984 refer to all kinds.

The 1984 upland cotton program requires a 25 -percent acreage reduction in exchange for target price and loan rate protection. The 1984 target price is 81 cents a pound, but in early January 1984, farm prices averaged less than 65 cents. Because the deficiency payment rate is based on the 1984 average farm price, each month with prices below 70 cents makes a large deficiency payment rate more likely. Program participation by at least two-thirds of the cotton base would be consistent with an expected deficiency payment rate of between 15 and 20 cents a pound and the $\$ 50,000$ payment limitation. However, even with participation of 100 percent, planted acreage could reach 11.6 million, nearly 1 million above reported intentions. Thus, the February report may slightly underestimate actual planted acreage in 1984.

Abandonment of upland acreage averaged 7 percent between 1973 and 1983, although it was somewhat higher during the most recent 5 years.

During the past 11 seasons, upland cotton yields have ranged between 403 and 589 pounds an acre. The average yield has been 491 pounds, but yields in 1984 will probably be above average. Partly because production is shifting toward the Far West, national average yields are rising. In the past 5 years, yields averaged 517 pounds an acre. During the past 3 years, yields averaged 545 pounds, partly because acreage reduction programs have been in effect since 1982/83.

Planted acreage will probably be less than the 12.3 million average of the past 11 years, and acres idled under the payment-in-kind program will again be planted to cotton in 1984. These factors should be positively correlated with yields.

## Trends in Mill Use To Continue

During 1966/67-1982/83, mill use declined at an average annual rate of nearly 4 percent. Large cotton textile imports and slower growth in the U.S. economy could cause U.S. mill use to continue downward in 1984/85.

The 1974-75 recession ended in the first quarter of 1975. In 1976, 1977, and 1978, real GNP grew by $5.4,5.5$, and 5 percent, respectively. But in 1985, real GNP growth may slow to less than 3 percent. Since demand for cotton is linked to overall economic activity, slower economic growth portends a decline in mill use.

Slower economic growth also implies a reduction in cotton textile imports. However, in 1981 and 1982, years of slow or negative economic growth, imports took an increasing share of domestic cotton consumption. The cotton textile trade deficit could account for as much as 26 percent of domestic consumption in 1984/85. The trade deficit accounted for 8.5 percent of domestic consumption in 1980, 18 percent in 1981, 20.6 percent in 1982, and 24.7 percent in 1983.

## Exports To Weaken

Anticipated increases in foreign production, particularly for Pakistan and other major foreign producers, will probably cause U.S. exports to decline from 1983/84. On the other hand, increased supplies of high quality California, Arizona, and Memphis territory cotton, the reliability of U.S. supplies, and moderate foreign economic growth are positive factors for future U.S. exports.

Recent developments in China have obscured some underlying developments in the world cotton situation. Since 1979, Chinese production has doubled from 10.1 million bales to 20.5 million, while Chinese consumption has grown from only 13.5 million bales to 17.5 million. As a result, China has moved from being a large net importer of cotton to being a modest net exporter. But the Chinese experience has caused the gap between foreign production and consumption to narrow from about 8.3 million bales in 1979 to about 4 million in 1983.

To a large extent, China is not participating in world cotton trade because its domestic market consumes almost all production; the quality of most Chinese cotton does not meet international standards; and China desires to export higher valued textiles rather than raw cotton. Even in 1983/84, with Chinese production rising to 20.5 million bales and ending stocks expected to exceed 8 mil lion, China will probably export only about 500,000 bales.

A good indication of U.S. export potential in 1984/85 is gained by looking at trends in production and consumption in foreign countries other than China (figure 2). Since 1965, foreign consumption outside of China has grown at an annual average rate of 1.6 percent while production has grown 1.2 percent. The gap between production and consumption grew about 190,000 bales per year, and in 1983/84, it will almost equal U.S. exports-

Table 3.-Cotton: Acreage, production, and yield per acre on harvested acreage

| Year beginning | Planted |  | Harvested |  | Production |  | Yield |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 1,000 \\ & \text { acres } \end{aligned}$ | Percent of total | $\begin{aligned} & 1,000 \\ & \text { acres } \end{aligned}$ | Percent of total | $\begin{aligned} & 1,000 \\ & \text { bales }{ }^{1} \end{aligned}$ | Percent of total | Pounds ${ }^{2}$ | Pounds ${ }^{3}$ |
| West ${ }^{4}$ |  |  |  |  |  |  |  |  |
| 1981 | 2,318 | 16.2 | 2,276 | 16.4 | 5,287 | 33.8 | 1,115 | 1,031 |
| 1982 | 1,977 | 17.4 | 1,955 | 20.1 | 4,323 | 36.1 | 1,073 |  |
| $19836{ }^{8}$ | 1,366 | 17.2 | 1,337 | 18.2 | 2,797 | 36.2 | 1,005 |  |
| Southwest ${ }^{5}$ 1, ${ }^{\text {S }}$ |  |  |  |  |  |  |  |  |
| 1981 | 8,128 | 56.7 | 7,858 | 56.8 | 6,103 | 39.0 | 373 | 322 |
| 1982 | 6,300 | 55.6 | 4,769 | 49.0 | 2,961 | 24.8 | 298 |  |
| $1983{ }^{8}$ | 4,341 | 54.5 | 3,821 | 52.1 | 2,532 | 32.8 | 318 |  |
| Delta ${ }^{6}$ |  |  |  |  |  |  |  |  |
| 1981 | 3,107 | 21.7 | 2,943 | 21.3 | 3,394 | 21.7 | 554 | 576 |
| 1982 | 2,429 | 21.4 | 2,381 | 24.5 | 3,707 | 31.0 | 747 |  |
| $1983{ }^{8}$ | 1,773 | 22.3 | 1,703 | 23.2 | 1,985 | 25.7 | 559 |  |
| Southeast ${ }^{7}$ |  |  |  |  |  |  |  |  |
| 1981 | 777 | 5.4 | 764 | 5.5 | 862 | 5.5 | 541 | 513 |
| 1982 | 634 | 5.6 | 623 | 6.4 | 972 | 8.1 | 749 |  |
| $1983{ }^{8}$ | 481 | 6.0 | 470 | 6.5 | 411 | 5.3 | 420 |  |
| U.S. |  |  |  |  |  |  |  |  |
| 1981 | 14,330 | 100.0 | 13,841 | 100.0 | 15,646 | 100.0 | 543 | 518 |
| 1982 | 11,340 | 100.0 | 9,728 | 100.0 | 11,963 | 100.0 | 590 |  |
| $1983{ }^{8}$ | 7,961 | 100.0 | 7,331 | 100.0 | 7,725 | 100.0 | 506 |  |

Figure 2

## Non-Chinese Foreign Production and Consumption Million bales


6.8 million bales. If foreign production and consumption (excluding China) return to trend in 1984/85, the potential level of U.S exports will decline.

Other factors affecting U.S. exports are quality and reliability. In 1984/85, the United States could produce 3-5 million bales of high quality California and Arizona cotton-about 75 percent of which is usually exported. The Delta may produce a total of 2.5-3.5 million bales, and one-fifth of that may also be high-grade cotton destined for export.

## U.S. Outlook for 1983/84

## Mill Use To Continue Down

U.S. mill use of cotton is following a traditional postrecession pattern related to the decline and rebuilding of textile and apparel inventories. In August 1983, mill use reached 6.1 million bales at a seasonally adjusted annual rate (SAAR) but trended lower through December (figure 3). Mill use in January rebounded to 6.4 million bales SAAR.

Figure 3

## U.S. Cotton Mill Use at Seasonally Adjusted Annual Rates <br> Million bales



USDA

Mill use performances following past recessions demonstrate a definite cyclical pattern (figure 4). Counting the 1980 and 1982 recessions as one, the United States is in its sixth economic recovery since May 1954. During each of the recovery cycles, including the current, mill use rose to approximately its pre-recession level in an average of 14 months. Following four of the previous five recovery peaks, mill use declined at an average annual rate of 8.6 percent, and only in 1971 was mill use able to establish a 12 -month plateau near the peak.

During September-December 1983 of the current cycle, mill use declined at an average annual rate of 15 percent. December mill use equaled 5.78 million bales, SAAR, and October-December mill use averaged 5.85 million. After falling 3 months in a row, the 3 -month centered average of seasonally adjusted daily rates during the previous five recovery cycles never turned around, establishing a new positive trend. Consequently, it is unlikely that mill use in 1983/84 will be able to maintain a 1971 -style plateau at 6 million bales. Assuming an average decline of 10 percent in seasonally adjusted rates during 1983/84, mill use for the year may total 5.8 million bales.

## Domestic Consumption Greater Than Retail Sales in 1983

In 1983, domestic cotton consumption (́mill use plus the textile trade deficit) grew about three times as much as retail sales of textile products. Over one-half of cotton mill use is associated with apparel production, and deflated retail sales data at apparel and accessory stores suggest that unit sales of apparel increased about 6 percent during 1983. Retail sales at apparel and accessory stores do not account for all clothing activity because sales from factory outlets and department stores are not included. However, when deflated by the seasonally adjusted consumer price index for apparel, sales from apparel and accessory stores do serve as useful indicators of retail activity.

The slope of a trend line through these sales from fourth-quarter 1982 through fourth-quarter 1983 indicates a rate of growth of 6.2 percent (figure 5). Using the same method to calculate rate of growth during the four quarters following the 1970 and 1974 recessions, increases of 6.3 and 6.7 percent, respectively, are derived. However, real apparel and accessory store sales began

Figure 4

## Mill Use Cycles

Three-month centered average of seasonally adjusted daily rates as a percentage of each trough.
Percent of mill use at trough


Table 4. - Estimated U.S.mill consumption of raw cotton by major type of textile product

| Item | 1982 |  | 1983 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3 Q | 4 Q | 1 Q | 2 Q | 3 Q |
|  | $1,000 \mathrm{bales}^{2}$ |  |  |  |  |
| Wholly or chiefly cotton |  |  |  |  |  |
| Duck | 28 | 29 | 31 | 31 | 29 |
| Sheeting | 73 | 83 | 90 | 94 | 96 |
| Print cloth | 61 | 67 | 73 | 67 | 68 |
| Denim | 226 | 269 | 303 | 313 | 294 |
| Toweling | 145 | 184 | 176 | 180 | 198 |
| Blanketing | 19 | 28 | 24 | 25 | 25 |
| Corduroy | 56 | 52 | 58 | 61 | 57 |
| Miscellaneous ${ }^{3}$ | 87 | 113 | 99 | 115 | 105 |
| Total | 695 | 825 | 854 | 886 | 872 |
| Polyester/cotton fab. |  |  |  |  |  |
| Batiste | 7 | 5 | 7 | 5 | 6 |
| Bed sheeting | 71 | 70 | 80 | 87 | 83 |
| Broadcloth | 12 | 13 | 15 | 16 | 16 |
| Twills | 56 | 58 | 65 | 64 | 54 |
| Oxfords | 4 | 5 | 6 | 6 | 10 |
| Poplins | 19 | 19 | 20 | 20 | 20 |
| Sateens | 1 | 1 | 1 | 1 | 1 |
| Yarn dyed fabric | 19 | 14 | 16 | 16 | 17 |
| Print cloth | 36 | 39 | 47 | 46 | 48 |
| Other | 20 | 20 | 21 | 25 | 30 |
| Total | 245 | 244 | 278 | 286 | 285 |
| Other textile prod. |  |  |  |  |  |
| Knit fabric | 339 | 400 | 405 | 410 | 396 |
| Narrow | 11 | 11 | 10 | 10 | 10 |
| Thread | 20 | 21 | 18 | 17 | 16 |
| Rope | 12 | 12 | 11 | 11 | 10 |
| Total | 382 | 444 | 444 | 448 | 432 |
| Grand total | 1,322 | 1,513 | 1,576 | 1,620 | 1,589 |
| Actual mill cons. | 1,252 | 1,307 | 1,429 | 1,485 | 1,461 |
| Residual | +70 | +206 | +147 | +135 | +128 |

${ }^{1}$ Preliminary. ${ }^{2} 480$-pounds, net weight. ${ }^{3}$ includes fine cotton fabrics
Based on data from Bureau of the Census reports and National Cotton Council.
recovering before the 1970 and 1974 recessions ended, while sales during 1983 did not begin rising until the second quarter of the recovery. Thus, apparel sales in 1.983 were less robust than might have been expected. Back-to-school sales during third-quarter 1983 and sales during December 1983, which declined from the November volume, may have disappointed some clothing retailers.

Domestic consumption of cotton increased about 20 percent in 1983, based on a comparison of fourth-quarter-to-fourth-quarter activity. The 1983 cotton textile trade deficit equaled 1.9 million bales, and mill use reached about 5.9 million. Therefore, domestic consumption hit 7.8 million bales-the highest since 1973 . While the increase in mill use during 1983 was typical for a recovery year, the rise in the cotton textile trade deficit was unprecedented. From 1970 to 1971, the deficit was essentially unchanged at about 550,000 bales. From 1974 to 1975 , the deficit grew from 229,000 bales to $307,000-$ a 34 -percent increase. However, from 1982 to 1983, the deficit rose from 1.3 million bales to 1.9 million-a 42 -percent change. Compared with past

Figure 5
Retail Sales at Apparel and Accessory Stores, Seasonally Adjusted, Deflated
Million dollars


## Fiber Prices and Textile Imports Affecting Cotton's Market Share

Cotton textile imports have probably encouraged an increase in domestic cotton consumption but a decrease in cotton's share of mill use. Cotton accounted for about 23.1 percent of U.S. mill use in 1983-a record low - and cotton's share of domestic fiber consumption fell to 27 percent (figure 6). The cotton/polyester price ratio and an influx of cotton textile imports contributed to the changes in market share. Cotton prices, on a raw fiberequivalent basis at Group B mill points, averaged 10 cents a pound above polyester prices during 1983. While cotton was temporarily priced an average of 4 cents under polyester during 1982, the current price relationship is typical of most of the 1970 's.

Cotton's share of mill use and cotton's share of domestic consumption were within 1 percentage point of each other until 1978. However, since 1979, cotton's share of domestic consumption has risen; it now exceeds cotton's share of mill use by about 4 percentage points. Possibly foreign products with a high cotton content are forcing U.S. mills out of cotton by holding cotton yarn, fabric, and apparel prices below those at which U.S. producers can operate. Because foreign mills generally produce yarn and fabric with higher cotton blends, textile imports are causing an increase in the retail supply of cotton in the United States.

## Cotton Textile Trade Deficit Accelerating

The cotton textile trade deficit totaled a record 1.9 million bales on a raw fiber-equivalent basis in 1983 (table 5). The deficit accelerated during the year.

## Cotton's Share of Mill Use and Domestic Consumption Percent



Figure 6

Cotton textile imports equaled about 2.336 million bales in 1983. During January-March 1983, imports averaged 2.244 million bales, SAAR, but grew to an average of 2.551 million, SAAR, during October-December. The increase occurred despite import quotas, import tariffs, and Government attempts to cover fast-growing import categories with new quotas through the "consultation call" mechanism.

Cotton textile exports equaled 458,000 bales in 1983 , down from 528,000 in 1982 and 1.1 million in 1980. Exports in 1983 were the lowest since the recession year of 1970. At SAAR, exports averaged 459,000 during October-December-indicating neither growth nor decline from the 1983 average. Because imports rose at seasonally adjusted rates during the year, the cotton textile trade deficit rose from an average of 1.760 million bales during January-March to an average of 2.093 million bales during October-December.

The cotton textile trade deficit may reach 2.2 million bales in 1984. The dollar is expected to remain strong, and production costs for U.S. textiles and apparel often
exceed foreign costs per unit of output. Tariffs on imported cotton textiles are declining slowly, and quotas may only limit the rate of increase in imports.
U.S. import tariffs on cotton yarn, woven cotton fabrics, and wearing apparel and accessories averaged 7,12 , and 26 percent of foreign export values, respectively, in 1982 (table 6). These rates will decline about 2 percent a year through 1987. The tariffs, especially on wearing apparel and accessories, undoubtedly inhibit imports; reducing tariffs will affect U.S. textile trade.
U.S. tariff schedules differentiate between textile products on the basis of fine differences in yarn count, fabric quality, apparel quality, principal fiber content, and country of origin. Coarser, lower quality products suffer lower tariff rates, so average tariff rates vary by country of origin depending on the type and quality of items being exported. Cotton yarn and woven cotton fabrics have lower tariff rates than wool and manmade fiber products. For example, the trade-weighted average tariff on woven wool fabrics in 1982 was 38 percent and on woven manmade fiber fabrics, 22 percent.

Quotas may be less effective at inhibiting U.S. textile imports than tariffs. Only about half of U.S. cotton textile imports, on a square yard-equivalent basis, are charged against import quotas (table 7) while tariffs cover all textile imports.

The Multi-Fiber Arrangement (MFA) essentially constitutes a set of rules that signatory countries have agreed to follow when trying to limit textile imports. Under the MFA, importing and exporting countries negotiate bilaterally to set mutually acceptable trade limits. The purpose of the MFA is to allow third-world countries to develop their economies by expanding textile exports without destroying textile industries in developed countries. Accordingly, the MFA prevents the United States from establishing global quotas designed to reduce imports. Rather, the United States must seek to control the rate of growth in imports of only certain items. Controls on new import categories can be set only after those particular imports have proven to be disrupting the domestic industry.

Table 5.-U.S. cotton textile trade in 1983

| Month | index | Imports | Exports | Cotton textile trade seasonally adjusted annual rate Imports | Exports |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1,000 480-1b bales |  |  |
| Janunary | 106.4 | 92.5 | 2,260.0 | 546.3 | 1,713.7 |
| February | 98.2 | 95.8 | 2,202.6 | 462.2 | 1,740.4 |
| March | 99.1 | 111.3 | 2,268.1 | 443.6 | 1,824.5 |
| April | 90.3 | 105.2 | 2,145.5 | 458.7 | 1,686.4 |
| May | 98.5 | 103.1 | 2,288.1 | 411.0 | 1,877.1 |
| June | 109.2 | 104.4 | 2,318.0 | 441.0 | 1,877.0 |
| July | 105.5 | 90.2 | 2,448.9 | 417.5 | 2,031.4 |
| August | 107.7 | 91.2 | 2,426.3 | 483.9 | 1,942.4 |
| September | 101.3 | 100.2 | 2,488.6 | 478.7 | 2,009.9 |
| October | 97.4 | 102.3 | 2,617.0 | 479.0 | 2,138.0 |
| November | 93.4 | 98.2 | 2,519.5 | 471.2 | 2,048.3 |
| December | 88.6 | 101.4 | 2,517.1 | 425.7 | 2,091.4 |

Table 6.-Approximate 1982 tariff rate as percent

|  | of fas value ${ }^{\mathbf{2}}$ |  |  |
| :--- | :---: | :---: | :---: |
| Countries | Cotton <br> yarn | Woven <br> cotton <br> fabrics | Wearing <br> apparel <br> and accessories |
| Hong Kong | 1 | 10 | 23 |
| PRC | 0 | 11 | 24 |
| Taiwan | 5 | 10 | 31 |
| Pakistan | 5 | 9 | 19 |
| Korea | 7 | 11 | 30 |
| India | $(1)$ | 11 | 23 |
| Japan | 12 | 17 | 19 |
| Peru | 9 | 8 | 23 |
| Singapore | $(1)$ | 9 | 25 |
| Brazil | 9 | 10 | 16 |
| Thailand | 14 | 11 | 26 |
| Philippines | $(1)$ | 17 | 27 |
| Indonesia | $(1)$ | 7 | 22 |
| Sri Lanka | $(1)$ | $(1)$ | 22 |
| Macau | $(1)$ | $11)$ | 24 |
| Mexico | 2 | 11 | 30 |
| Dom. Republic | $(1)$ | 9 | 25 |
| Egypt | 4 | 9 | 19 |
| Canada | 7 | 9 | 23 |
| Colombia | 10 | 11 | 29 |
| Haiti | 8 | 11 | 27 |
| Romania | $(1)$ | $(1)$ | 25 |
| Portugal | 8 | 13 | 20 |
| Italy | 8 | 16 | 21 |
| Poland | $(1)$ | 16 | 18 |
| France | 8 | 14 | 21 |
| W. Germany | 11 | 14 | 22 |
| El Salvador | 9 | 13 | 32 |
| World average | 7 | 12 | 26 |
| I | 7 | 12 |  |

${ }^{1}$ Imports less than $\$ 5,000$. ${ }^{2}$ Last year for which trade weighted data available.

The United States has bilateral agreements involving cotton textile imports with 21 countries. Some of the bilaterals cover all cotton textile imports from the exporting countries (Brazil, Colombia, the Philippines, and Singapore), but most agreements cover only some categories. When imports of an uncovered category are shown to be disruptive, the United States can issue a consultation call and negotiations to establish a quota on the category in question take place. The United States issued over 100 consultation calls in 1983, and more are being issued in 1984.

As of December 31, 1983, about two-thirds of U.S. cotton textile imports from Hong Kong, Taiwan, and Korea were covered by limits. From Hong Kong, sheeting and trousers were over 90 percent filled in 1983, and knit shirts, twill and sateen fabric, blouses, and underwear categories were over 80 percent filled. Shirts, trousers, twill and sateen fabric, print cloth, and nightwear from Taiwan came close to reaching limits. From Korea, only twill and sateen fabric came close to its limit. In Hong Kong, quotas are auctioned to competing exporters, so the percentage filled for each category only partially reflects the inhibiting effect of the agreements. The 1984 limits for each country increased about 1 percent.

Only about one-third of U.S. cotton textile imports from Japan were covered by limits in 1983, and no category was close to filled. Japan is affected by textile imports; consequently, Japanese mill use of cotton is declining.

Only about one-half of Chinese cotton textile exports to the United States were charged to 1983 limits. Some categories, such as nightwear, shirts, and gloves, were overshipped and will be applied to 1984 limits. Limits on imports from China will grow by an average of 3.8 percent in 1984.

Table 7.-Status of quantitative limitations on U.S. imports of cotton textiles under the MFA as of December 31, 1983


The country with the highest overall percentage of limits filled in 1983 was India - an increasingly important exporter with quota growth of 3 to 4 percent a year. Pakistan was also affected by quotas and substantially overshipped its limit on other cotton manufactures (shop cloths). Pakistan's limits will grow by 7 percent in 1984.

The remaining countries with limits appear to be little affected by the agreements. In addition, Eastern and Western Europe, Canada, Australia, New Zealand, Peru, the Dominican Republic, and El Salvador had no quantitative limits on their exports of cotton textiles to the United States as of December 1983.

## Exports Boom; Early Forecasts Too Low

At SAAR, U.S. raw cotton exports averaged over 6.9 million bales during the 3 months ending January 31; exports are expected to decline only slowly from that rate during the rest of the season (figure 7). Purchases by the Soviet Union and Pakistan during January-July 1984 may offset the effects of increased supplies from the Southern Hemisphere. For the season, U.S. exports are now estimated at 6.8 million bales. Before revisions of the crop estimates for Pakistan, India, and the Soviet Union in November 1983, exports were estimated at 5.3 million bales.

Production declines in several important exporting countries are causing U.S. exports to increase. China's desire to export textiles rather than cotton and the lower quality of much of that country's production will limit the impact of the Chinese crop on world trade.

Pakistan's production is estimated to have declined 1.5 million bales to 2.2 million; Egyptian production about 300,000 bales; and Brazilian production about 500,000 bales. Production in the Soviet Union, while up about 800,000 bales from last season, is below expectations. Other smaller countries, such as the Ivory Coast, Senegal, Israel, Ecuador, and Spain, also produced less cotton in 1983/84 than during the previous season. While these declines have been partially offset by increases elsewhere, the net effect has been weak competition for U.S. exports.

Increased foreign consumption is having only a limited effect on U.S. exports. The largest consumption increase, 1.3 million bales, is occurring in China where increased production will entirely offset the gain in use. Cotton mill use is rising very little in other countries, and is associated almost exclusively with increased domestic production. The few countries in which higher mill use is aiding U.S. exports include Hong Kong and Thailand, where consumption is up a combined 110,000 bales. Consumption will rise about 90,000 bales in Eastern Europe, and Soviet purchases of U.S. cotton may be intended for transshipment to these markets.

## Farm Prices Higher

U.S. production in 1983 is estimated at 7.725 million bales, but ginnings through February 1, 1984, indicate that the final total might be slightly higher.

With a $1983 / 84$ supply of 15.7 million bales, mill use of 5.8 million, and exports of 6.8 million, the ratio of use to supply would rise to 0.80 , and ending stocks would fall to

## Figure 7

## U.S. Cotton Exports at Seasonally Adjusted Annual Rates



Table 8. - Forecast U.S. exports by destination in 1983/84

| Importer | $\begin{aligned} & \text { 1,000 480-1b } \\ & \text { bales } \end{aligned}$ | 1981/82 | Imports from U.S. as a proportion of total 1982/83 | 1983/84 |
| :---: | :---: | :---: | :---: | :---: |
| Japan | 1,800 | 0.45 | 0.42 | 0.58 |
| Korea | 1,250 | . 93 | . 88 | . 79 |
| Taiwan | 450 | . 62 | . 41 | . 41 |
| Hong Kong | 310 | . 34 | . 23 | . 33 |
| China | 5 | . 42 | . 04 | . 03 |
| Italy | 340 | . 13 | . 12 | . 35 |
| France | 155 | . 08 | . 07 | . 19 |
| West Germany | 160 | . 10 | . 10 | . 17 |
| Canada | 230 | . 92 | . 92 | . 92 |
| Indonesia | 370 | . 58 | . 57 | . 75 |
| Thailand | 240 | . 75 | . 50 | . 57 |
| Other | 1,470 |  |  |  |
| Total exports | 6,780 | . 32 | . 28 | . 36 |

3.3 million bales. The use-to-supply ratio was 0.57 in $1982 / 83$. There is a strong correlation between the use-to-supply ratio and average farm prices, with prices rising or falling as demand becomes stronger or weaker relative to supply (figure 8). Farm prices in 1982/83, supported by the loan rate, averaged 59.1 cents a pound. Because demand is stronger relative to supply in the current season, prices during August-January averaged 66.4 cents a pound-more than 7 cents above 1982/83 (figure 9 ).

The deficiency payment rate on the 1983 crop equaled 12.1 cents a pound (the target price minus the calendar year average farm price). In 1983, these prices were 76 cents and 63.9 cents a pound, respectively. Total payments may exceed $\$ 400$ million.

## World Cotton Outlook for 1983/84

## Ending Stocks Dropping Little

A 4 -million-bale production increase in China, 0.8 -million bale increase in the Soviet Union, and smaller increases in Australia, Argentina, Peru, Syria, and Turkey are offsetting production declines in the United States, Pakistan, and Brazil (table 9). As a result, 1983/84 world production may equal 1982/83's 67.5 million bales, and stocks may decline only about 2 million. World consumption could rise by about 2 million bales to 69.5 million, but almost the entire increase will occur in the United States and China. World exports in 1983/84 are estimated at 18.9 million bales-about 300,000 above $1982 / 83$.

Chinese production in 1983 rose 24 percent to 20.5 million bales, mainly because yields rose 21 percent to about 664 pounds an acre. Better varieties, intensive cultivation, hand picking, and 6 consecutive years of good weather explain China's success. Yields in the Soviet Union rose about 6 percent in 1983-mostly because of better weather-and equaled about 774 pounds a acre. Although Soviet cotton acreage is irrigated, the Soviet Union did not acquire as much lint from their seed cotton procurements as forecast-indicating a possible quality problem. Late-season insect infestations and poor weather were responsible for the production declines in both Brazil and Pakistan in 1983. Meanwhile, Egyptian production fell 13 percent because of a reduction in cotton acreage in favor of grain production. Egyptian yields actually rose about 8 pounds an acre.

Large acreage increases in Argentina (44 percent), Australia (19 percent), Greece ( 50 percent), Colombia (114 percent), Mexico ( 23 percent), Peru ( 27 percent), and South Africa ( 29 percent) explain most of the 1983 production increases in other countries. High local-currency cotton prices relative to competing crop prices are encouraging increased cotton acreage. In addition, cotton is a labor-intensive crop, suited to conditions in many low-wage countries. Increased yields in Australia (24 percent), Syria ( 15 percent), Peru ( 81 percent), and South Africa ( 50 percent) have also boosted production in those countries.

Increased world consumption in 1983/84 is occurring partially in response to increased production. Consumption is rising in China, Syria, and Turkey as their production increases. Greater consumption in Western and Eastern

Europe and the Soviet Union has been made possible by larger Soviet, Greek, and Spanish crops. However, in the major markets for U.S. cotton-Japan, Korea, Hong Kong, and Taiwan-expected consumption is down a combined 115,000 bales, despite the economic recovery. Ironically, those countries are now experiencing competition in textile production from lower wage countries. Consumption is rising in India because a textile mill workers' strike has ended.

## World Stocks-to-Use Ratio Declining

The ratio of world ending stocks to consumption is expected to decline from 0.33 in 1982/83 to 0.30 in 1983/84. Further, because of smaller production in the United States, Pakistan, and Brazil, and a record crop in

Figure 8
Cotton Use/Supply and Farm Price


Figure 9


| Year beginning August 1 | United States | World less United States |  |  |  | World ${ }^{3}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Major importers ${ }^{1}$ | Major exporters ${ }^{2}$ | Other | Total |  |
|  | Million 480-pound bales |  |  |  |  |  |
| 1982/83 |  |  |  |  |  |  |
| Supply |  |  |  |  |  |  |
| Beginning stocks | 6.6 | 9.4 | 4.9 | 7.8 | 22.0 | 28.7 |
| Production | 12.0 | 17.2 | 22.6 | 15.8 | 55.6 | 67.5 |
| Imports | (4) | 15.7 | . 4 | 2.9 | 19.0 | 19.0 |
| Use |  |  |  |  |  |  |
| Mill use | 5.5 | 31.6 | 15.4 | 15.1 | 62.1 | 67.6 |
| Exports | 5.2 | . 4 | 7.9 | 5.1 | 13.4 | 18.6 |
| Ending stocks | 7.9 | 10.3 | 4.4 | 6.2 | 20.9 | 28.9 |
| 1983/84 |  |  |  |  |  |  |
| Supply |  |  |  |  |  |  |
| Beginning stocks | 7.9 | 10.3 | 4.4 | 6.2 | 20.9 | 28.9 |
| Production | 7.7 | 21.4 | 22.0 | 16.4 | 59.8 | 67.5 |
| Imports | (4) | 15.0 | . 8 | 3.1 | 18.9 | 18.9 |
| Use |  |  |  |  |  |  |
| Mill use | 5.8 | 32.9 | 15.5 | 15.4 | 63.7 | 69.5 |
| Exports | 6.8 | . 8 | 7.1 | 4.3 | 12.1 | 18.9 |
| Ending stocks | 3.3 | 13.0 | 4.6 | 6.0 | 23.6 | 26.9 |

[^0]China, an increased proportion of world ending stocks will be held in countries classified as traditional net importers. The stocks-to-use ratio for net importing countries is expected to rise from 0.30 to 0.33 , while the ratio in net exporting nations should fall from 0.37 to 0.28 . However, for traditional importing countries except China, the stocks-to-use ratio will not change significantly in $1983 / 84$, equaling 0.27 . This suggests that world trade in 1984/85 will receive little stimulus from stock rebuilding by importers.
The simple correlation between the Outlook " $A$ " index and the stocks-to-use ratio has been -0.71 , indicating that the ratio explains about half the variation in world price movements. Since 1972/73, the ratio has been inversely related to yearly changes in the " $A$ " index, with a decline of 0.03 in the stocks-to-use ratio corresponding to roughly a 5 -cents-a-pound increase in the "A" index. However, the " $A$ " index averaged 76.65 cents a pound in 1982/83, but increased about 13 cents to an average of 89.45 cents during August-December 1983. The increase is more than double the price gain implied by a drop in the world stocks-to-use ratio; the increase is better explained by the decline in the stocks-to-use ratio for the world less China, from 0.34 in 1982/83 to an expected 0.27 in 1983/84. Because China now participates very little in world cotton trade, that country's ending stocks are having only a limited effect on world prices.

## ELS Cotton Situation in 1983/84

## Mill Use Above Trend; Stocks Declining

Mill use of extra-long staple (ELS) cotton is expected to reach 70,000 bales in 1983/84, and exports could hit

30,000 . With production estimated at 91,000 bales, ending stocks may decline by about 15,000 bales from the carryin of 93,000 .

Mill use of ELS is subject to the same cyclical forces as use of upland cotton. The building of new inventories during 1983 pushed ELS mill use to 84,500 bales, SAAR, during August-up from 40,300 in October 1982. ELS consumption has since trended lower, and the average of

Table 10. - 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 ${ }^{1}$ | $\begin{gathered} \text { U.S. } \\ M \\ 1-3 / 32^{\prime \prime} \end{gathered}$ | Index ${ }^{1}$ | $\begin{gathered} \text { U.S. } \\ M \\ 1-3 / 32 ", \end{gathered}$ |
|  | Cents |  |  |  |
| January | 71.88 | 74.25 | 87.58 | 85.50 |
| February | 74.32 | 75.50 |  |  |
| March | 78.89 | 81.35 |  |  |
| April | 80.23 | 80.75 |  |  |
| May | 81.96 | 80.63 |  |  |
| June | 86.01 | 85.05 |  |  |
| July | 88.44 | 88.06 |  |  |
| August | 90.80 | 88.94 |  |  |
| September | 89.85 | 88.15 |  |  |
| October | 88.11 | 88.06 |  |  |
| November | 89.13 | 88.81 |  |  |
| December | 89.36 | 89.25 |  |  |
| Average | 84.08 | 84.07 |  |  |

seasonally adjusted rates during October-December 1983 was 70,027 bales. The decline will probably continue, in tandem with the decline in use of all cotton.

Underlying the cyclical behavior is a real upward shift in the demand for ELS, which may be explained by the introduction of nontraditional uses of ELS cotton in shirts, sheets, and towels. An estimated trend line through ELS mill consumption for 1968/69-1982/83 explains 86 percent of the variation in ELS use and indicates a decline of about 5,000 bales a year. Trend consumption in $1983 / 84$ would be 42,000 bales-about 28,000 below the expected level. Even when growth in upland mill use and the effects of the Commodity Credit Corporation (CCC) ELS sales program are accounted for, ELS mill use of only 60,000 bales is indicated.

Declines in foreign production, particularly in Peru, have encouraged larger U.S. exports of ELS. The increased use of ELS, foreign and domestic, has boosted farm prices from an average of 98.5 cents a pound during 1982/83 to \$1.14 during August-December 1983.

American Pima production in 1983 reached about 46,000 bales in Arizona, 13,000 in New Mexico, and 31,500 in Texas. Since 1981, ELS production has declined in Arizona and risen in New Mexico and Texas.

## ELS Cotton Outlook for 1984/85

## Production Up; Disappearance Even

Production of ELS should be about as profitable as upland production in 1984, despite a change in the ELS program. Assuming an average ELS yield of 660 pounds an acre and an average upland yield of 1,000 , gross revenue per acre on both ELS and upland in 1984 could be about $\$ 700$. The Prospective Plantings report indicates that ELS acreage may rise by $15-20$ percent from 1983's 62,000.

ELS mill use will probably decline in 1984/85, as trends since 1968 and slower economic growth beginning in late 1984 offset the shift in demand for ELS. Exports could remain near the 1983/84 level, however, because production difficulties on ELS acreage in Perl may continue. Ending stocks in 1984/85 could remain essentially unchanged from beginning stocks of about 80,000 bales.

## MANMADE FIBER REVIEW

## Slow Fourth Quarter

The textile industry grew sluggishly in the fourth quarter as measured by the quantity of fibers produced and shipped to mills. This resulted from slower consumer buying of nondurable goods, an increased rate of consumer saving, and continued high interest rates. Manmade fiber production in the fourth quarter, 2.46 billion pounds, was less than 2 percent above the third quarter (table 31). Staple fiber output, at 1.13 billion pounds, was only slightly above the previous quarter. Almost all fourth-quarter growth was in filament fibers whose output increased 3 percent.

Shipments (domestic plus exports) of nonglass manmade fibers in the fourth quarter totaled 2.07 billion pounds, slightly above the previous quarter and 18 percent above a year earlier. Noncellulosic fiber shipments totaled 1.92 billion pounds and celloulosic fiber shipments, 0.15 billion pounds.

Domestic shipments of noncellulosic fibers were 1.80 billion pounds in the fourth quarter, slightly more than the third quarter but 21 percent above a year earlier. Overseas shipments of manmade fibers, 0.13 billion pounds in the fourth quarter, were 1 percent below the previous quarter and 14 percent below a year earlier.

Manmade fiber output in 1983 was 9.34 billion pounds, almost 18 percent above 1982 , but 5 percent less than in 1981. Staple production was 4.34 billion pounds in 1983 , 16 percent more than the previous year. Filament production was 5 billion pounds in 1983, 20 percent more than in 1982.

Manmade fiber production capacity in 1983 was 11.9 billion pounds, slightly more than 1 percent below 1982. Staple capacity was 5.3 billion pounds, 1 percent less than in 1982, while filament capacity was 1.5 percent below 1982. The operating rate of manmade fiber plants in 1983 averaged 78 percent; the low rate of 70 percent in the first quarter brought down the average for the year. Staple fiber plants operated at an average of 80 to 83 percent of capacity in the last three quarters of 1983 , while filament plants operated at rates ranging from 77 to 82 percent. To obtain a desired rate of return on investment, fiber producers need to operate at 85 to 90 percent of capacity

Recent data on future capacity construction indicate olefin staple and nylon staple will have annual expansion rates of about 9 percent and 5 percent, respectively, into 1985. Two filament fibers, glass and olefin, are expected to have average annual capacity growth of 3 to 4 percent. Three fibers will likely have a decline in capacity: acetate filament, 5.2 percent a year; polyester filament, 0.9 percent; and acrylic staple, 0.3 percent.

## Fiber Use Down in the Third Quarter

Consumption data for all three major manmade fiber markets reflected a slight decline in use in the third quarter (table 11). The largest market, woven products, used 604 million pounds of fiber in the third quarter, down 3 percent from the second. Within this market, nylon fibers had a 10 -percent decline, while the other fibers had slight increases. Polyester fibers constituted two-thirds of this market.

The carpet market leveled off in the last half of 1983 , after a 26 -percent rise in the second quarter. Thirdquarter total fiber use in carpeting was 555 million pounds, down slightly more than 2 percent from the second quarter. Nylon fibers, constituting almost threefourths of this market, declined 1 percent. This decline occurred in the use of nylon staple for plush-type carpets found in executive offices. Filament nylon, used to make the loop pile-type carpet installed in high-traffic areas, had no decline in the third quarter. Preliminary fourthquarter data indicate that slightly less nylon staple and

Table 11.-U.S. major manmade fiber markets ${ }^{\mathbf{1}}$

| Fiber type | 1982 |  |  |  | 1983 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 10 | 2Q | 3Q | 4Q | 1Q | 2Q | 3 Q | 4 Q |
|  | Million pounds |  |  |  |  |  |  |  |
|  | Woven products |  |  |  |  |  |  |  |
| Total | 480.5 | 491.0 | 476.8 | 503.9 | 534.2 | 621.4 | 604.3 | NA |
| Polyester | 318.1 | 322.1 | 318.6 | 337.3 | 351.7 | 417.4 | 401.1 | NA |
| Rayon | 38.2 | 34.4 | 35.1 | 37.8 | 40.8 | 45.3 | 47.0 | NA |
| Olefin | 49.3 | 53.6 | 48.8 | 49.0 | 57.5 | 65.7 | 66.8 | NA |
| Nylon | 41.3 | 43.5 | 39.8 | 44.2 | 43.7 | 48.1 | 43.0 | NA |
| Acetate | 23.2 | 24.0 | 21.9 | 22.6 | 25.1 | 29.4 | 30.1 | NA |
| Acrylic | 10.4 | 13.4 | 12.6 | 13.0 | 15.4 | 15.5 | 16.3 | NA |
|  | Knit products |  |  |  |  |  |  |  |
| Total | 318.7 | 332.6 | 318.8 | 315.4 | 373.0 | 395.8 | 373.6 | NA |
| Polyester | 151.4 | 151.6 | 150.7 | 150.5 | 191.1 | 196.6 | 184.6 | NA |
| Nylon | 64.6 | 61.3 | 63.0 | 64.2 | 71.1 | 76.0 | 72.9 | NA |
| Acrylic | 79.1 | 95.6 | 85.1 | 83.3 | 89.6 | 96.5 | 93.4 | NA |
| Acetate | 20.6 | 21.2 | 17.1 | 14.4 | 18.7 | 24.1 | 20.7 | NA |
| Rayon | 3.0 | 2.9 | 2.9 | 3.0 | 2.5 | 2.6 | 2.0 | NA |
|  | Carpets |  |  |  |  |  |  |  |
| Total | 359.4 | 412.9 | 439.2 | 408.9 | 451.5 | 568.8 | 555.0 | NA |
| Nylon | 248.7 | 291.5 | 319.8 | 293.9 | 319.2 | 417.1 | 412.3 | 401.2 |
| Olefin | 86.1 | 89.2 | 91.7 | 84.5 | 97.6 | 111.8 | 109.5 | NA |
| Polyester | 24.6 | 32.0 | 27.6 | 30.5 | 34.7 | 39.8 | 33.2 | 31.3 |
| Acrylic | - | - | - | - | - | - | - | NA |
| Rayon | - | . 1 | - | - | - | 0.1 | - | NA |

${ }^{1}$ Filament plus staple.
$N A=$ not available.
Compiled from Textile Organon.
the same quantity of nylon filament were used by the carpet market in the fourth quarter. The only other important carpet fiber, olefin, declined 2 percent.

The knit products market for manmade fibers, 374 million pounds, declined more than 5 percent in the third quarter. This decline was rather general, affecting the filament and staple forms of all the fiber types.

## WOOL SITUATION

## U.S. Situation

In 1983, the U.S. wool textile business completed the best year of the past decade. Industry sources believe that strong mill orders should continue into 1984. However, mill demand will slacken if economic growth slows in late 1984.

Mill consumption of raw wool in the fourth quarter was 37 million pounds, clean, which was the largest fourthquarter since 1972. Apparel wool was 34.5 million pounds, 41 percent more than last year. Raw wool use in carpets was 2.5 million pounds, 16 percent above a year earlier (table 12).

In 1983 , U.S. raw wool use was 144 million pounds, clean, the most raw wool used in any year since 1973 when 151.3 million pounds were consumed. The woolen system used 66.5 million pounds, the largest quantity since 1969.

There was strong consumer demand for apparel made by these mills, including women's coating and heavy skirts. The worsted system used 65.7 million pounds, which was exceeded only by 1973's 68.2 million. Much of the worsted system wool is for men's suiting fabric. About 59 percent of the woolen system's and 64 percent of the worsted system's raw wool were grades 60 's and better. Raw

Table 12.-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 |
| $1983{ }^{1}$ | 132,151 | 11,892 | 144,043 |
| Jan.-Mar. ${ }^{1}$ |  |  |  |
| 1982 | 31,988 | 2,576 | 34,564 |
| 1983 | 31,269 | 2.981 | 34,250 |
| Apr.-June ${ }^{1}$ 2, 3,260 |  |  |  |
| 1982 | 26,960 | 2,405 | 29,365 |
| 1983 | 34.291 | 3.128 | 37.419 |
| July-Sept. ${ }^{\text {' }}$ |  |  |  |
| 1982 | 22,415 | 2,728 | 25,143 |
| 1983 | 32,085 | 3,332 | 35.417 |
| Oct.-Dec. ${ }^{\text {P }}$ |  |  |  |
| 1982 | 24.494 | 2,116 | 26,610 |
| 1983 | 34,506 | 2,451 | 36,957 |

[^1]Compiled from reports of the Bureau of the Census
wool use in carpets was 11.9 million pounds in 1983, 10 percent more than the average of the past 5 years and the most since 1979 , when 13 million pounds were used (table 13).

Imports of raw wool, for both the fourth quarter and for the year, were the largest quantities in more than a decade (table 14). Fourth- quarter imports were 25.3 million pounds, clean, divided between 9.5 million pounds duty-free and 15.8 million dutiable. Imports for the year were 78.1 million pounds. Duty-free imports were 28.7 million pounds; 95 percent came from three countries: New Zealand ( 76 percent), the United Kingdom (12 percent), and Argentina ( 7 percent). Dutiable imports were 49.4 million pounds, of which 92 percent came from three countries: Australia ( 71 percent), South Africa (17 percent), and New Zealand ( 5 percent). The raw wool content of imported textile products in 1983 was 149.8 million pounds.
U.S. raw wool exports in the fourth quarter were 183,000 pounds, clean. For 1983, exports were 1 million pounds, 25 percent less than the previous year. Almost all the exports were to three countries: the United Kingdom (41 percent), France ( 38 percent), and Canada (19 percent). The raw wool content of exported textile products in the fourth quarter was 6.1 million pounds and for the entire year, 20.8 million pounds.

Wool prices increased steadily from the beginning of the season in September through the fourth quarter and into January 1984. Territory medium-grade prices advanced 10 to 13 percent while, in contrast, the finer grades went up 2 to 3 percent. Most of the pressure on mediumgrade prices came from relatively larger consumption, especially in the woolen system. At the same time, somewhat depressed world demand has kept the prices of fine grades from rising too much. Finer grades, such as the 64 's and 62 's, rose from $\$ 2.25$ to $\$ 2.30$ a pound and from $\$ 2.00$ to $\$ 2.50$, respectively. The medium grades 56 's and 54's advanced from $\$ 1.23$ to $\$ 1.33$ and $\$ 1.30$ to $\$ 1.43$, respectively. The price of grade 54's fleece wool went from $\$ 1.18$ to $\$ 1.28$. Prices of the finer grades of imported wool rose 1 to 3 percent during SeptemberJanuary. Grade 70 's rose from $\$ 2.75$ to $\$ 2.83$; 64 's, $\$ 2.53$ to $\$ 2.58$; and 62 's, $\$ 2.44$ to $\$ 2.47$. The average U.S. farm price in January was 63.7 cents a pound. Prices this spring could be 5 to 10 cents higher than in 1983, and they are expected to reach the mid-70's by April or May (table 15).

Recent data indicated that the inventory of all sheep and lambs in the United States on January 1, 1984, totaled 11.4 million head, down 5 percent from a year earlier. The value of these animals was $\$ 594$ million, down 5 percent from a year ago. About 75 percent of the sheep and 74 percent of their value are in the Western States of the Pacific Coast, the Rocky Mountains, Texas, and South Dakota.

The number of sheep operations in 1983 was 126,500 , a decline of slightly more than 1 percent from the previous year. These 1983 data indicate the numerical difference between the large flock operations and the small flocks, which constitute only part of the total farming operation. The average flock in the Western States was about

206 sheep, while the average flock in the Great Plains and Eastern States was about 35 sheep.

Table 13.-Wool supply and disappearance, clean content

| Item | 1982 | $1983^{1}$ | $1984^{1}$ |
| :--- | ---: | :---: | ---: |
|  | Million pounds |  |  |
| Stocks, Jan. 1 | 44.6 | 46.0 | 36.1 |
| Production | 56.2 | 53.1 | 49.3 |
| Imports | 61.4 | 78.1 | 80.0 |
| Diff. unacc. | 0.9 | 3.9 | 9.4 |
| Total supply | 163.1 | 181.1 | 174.8 |
| Mill use | 115.7 | 144.0 | 140.0 |
| Exports | 1.4 | 1.0 | 1.0 |
| Total use | 117.1 | 145.0 | 141.0 |
| Stocks, Dec. 31 | 46.0 | 36.1 | 33.8 |

Estimated.
Compiled from reports of the Bureau of the Census.

Table 14.-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 |  |
| 1982 | 39,988 | 21,433 | 61,421 |
| 1983 | 49,372 | 28,688 | 78,060 |
| Jan.-Mar. |  |  |  |
| 1982 | 15,356 | 5,515 | 20,871 |
| 1983 | 10,549 | 5,639 | 16,188 |
| Apr.-June |  |  |  |
| 1982 | 10,798 | 6,620 | 17,418 |
| 1983 | 12,216 | 6,903 | 19,119 |
| July-Sept. | 7,417 |  |  |
| 1982 | 10,818 | 6,464 | 12,881 |
| 1983 |  |  | 17,432 |
| Oct.-Dec. | 6,418 | 3,834 | 10,252 |
| 1982 | 15,789 | 9,532 | 25,321 |
| 1983 |  |  |  |

Compiled from reports of the Bureau of the Census.

Table 15.-Average U.S. farm prices per pound for shorn wool, grease basis

| Month | 1981 | 1982 | $1983^{1}$ |
| :--- | ---: | :--- | :--- |
|  |  | Cents |  |
| January | 84.6 | 73.1 |  |
| February | 88.3 | 72.9 | 53.2 |
| March | 91.8 | 63.6 | 57.7 |
| April | 101.0 | 83.6 | 58.4 |
| May | 99.8 | 76.5 | 67.4 |
| June | 101.0 | 68.0 | 65.5 |
| July | 94.4 | 77.0 | 70.0 |
| August | 84.8 | 64.2 | 71.4 |
| September | 84.3 | 56.5 | 62.3 |
| October | 87.3 | 70.7 | 61.6 |
| November | 91.1 | 54.7 | 75.6 |
| December | 84.2 | 55.5 | 70.5 |
| Weighted |  |  | 71.4 |
| season |  |  |  |
| $\quad$ average | 94.5 | 68.4 | NA |

${ }^{1}$ Preliminary.
$N A=$ not available.

Recent cost data on sheep production indicate that the relatively profitable position of 3 to 4 years ago disappeared when lamb prices declined in 1981 and 1982 in response to expanded production. The added meat output was marketed at lower farm prices, but production expenses continued to increase.

Average cash receipts per ewe in production were $\$ 50.58$ in 1980 , but they dropped to $\$ 47.20$ by 1982 . Lower sheep and lamb prices were partially offset by larger income from wool and wool incentive payments. The revenue from wool (sales plus incentive payments) were 20 percent of total cash receipts in 1980 and 26 to 27 percent in 1981 and 1982. From 1980 to 1982, total cash expenses per ewe increased from $\$ 36.94$ to $\$ 41.18$. Interest was one of the major expense items, ranging from 21 percent of total (fixed plus variable) expenses in 1980 to 25 percent in 1982.

## WORLD OVERVIEW

## Weak Fourth Quarter, Stronger January

The weak demand for Australian wool that began the season continued through December. Australia's market indicator (a weighted-average index of 13 wool categories) declined from a high of 482 in September to 476 at the end of the year. In addition to subdued textile activity overseas, another factor dampening wool sales was a strengthening of the Australian dollar. To maintain the market, the Australian Wool Corporation (AWC) purchased 35 percent of the offerings during November and December, bringing the rate for the first 6 months to 30 percent. There has been a strong demand for the superfine grades, 70's and above, while prices for the finer grades, 60 's- 70 's, remained unchanged. The medium grades, 54 's- 58 's, declined in price by an average of 7 percent. At the end of the year, the AWC stockpile was 1.32 million bales, 52 percent more than at the beginning of the season.

In the first month after the Christmas recess, the Australian wool market experienced stronger demand, aided by a slight weakening in the Australian dollar. The market indicator rose 3 percent to 490 , and price rises were recorded for both the merino and crossbred wool types. This stronger demand caused a 5 -percent decline in the AWC stockpile. East Europeans and Japanese were the most active buyers.

The Australian Wool Production Forecasting Committee's latest estimate of wool production for $1983 / 84$ was 1.51 billion pounds, less than 3 percent below last season's output. Since the end of the drought in the wool-growing areas, there have been signs of movement into wool production relative to cattle and lambs. Thus, flock retention rates will be higher, while slaughtering rates will be lower. The result should produce a considerable expansion in sheep numbers in 1984/85.

The New Zealand wool market saw moderate wool demand in the first half of the season. The market indicator ranged from a high of 307 in late September to a low of 282 in December. The principal buyers have been from Western and Eastern Europe and China. In Janu-
ary, New Zealand wool prices rose in response to stronger demand, and the market indicator rose to 314.

The demand for South African wool in the first half of the season was quite strong; the market indicator rose 11 percent, reaching 575 at the year's end. This demand resulted from the rand's favorable exchange ratios with the currencies of wool-importing countries; at the same time, there was an appreciation of the Australian dollar. Demand rose for all types of wool; 60 's-62's rose 15 percent, and 64's-70's, 11 percent. A few record prices were realized for superfine grades. The principal buyers were Western Europe, Japan, and the United States. The demand for South African wool continued to be strong in January, with the market indicator rising more than 9 percent to a record 629.

## MOHAIR

Last year was one of the best years in over a decade for American angora goat owners. In 1983, mohair exports were 9.65 million pounds, clean, 42 percent more than the average of the previous 5 years and the largest since 1972 . These exports were valued at $\$ 44.6$ million. Three countries accounted for 82 percent of our exports: the United Kingdom ( 57 percent), Italy ( 16 percent), and France (9 percent).

The inventory of angora goats in Texas on January 1 , 1984, was 1.15 million, nearly 1 percent above last year. Pasture conditions continue severe, but underbrush was still available. In some areas, vegetation should improve as weather warms this spring, because moisture levels are higher than a year ago.

About 1 million pounds of the spring clip have reportedly been advance contracted at $\$ 5$ to $\$ 5.10$ a pound. Some softening in the price for the spring clip has been forecast because of price resistance among overseas buyers to last fall's prices.

The South African clip now coming on the market should be smaller than last year's 14.3 million pounds because of the continued drought. The last sale, held December 9, cleared out South Africa's mohair holdings. French and British mills were the principal buyers. Adult hair was $\$ 5.75$ a pound; young goat, $\$ 5.96$; and kid, $\$ 7.14$. The first sale of the new clip was held in mid-February. South African mohair ought to move into the European market more easily than the American product because the rand has softened more in respect to European currencies than it has toward the dollar.

Little information has been reported from Turkey. Mohair output there has fallen 15 percent because of Turkey's effort to supply the strong meat demand from the Middle East.

# The U.S. Raw Cotton Content of Textile Imports by Country of Origin, 1983 

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#### Abstract

U.S. cotton textile imports totaled 2.3 million bales on a raw fiber equivalent basis in 1983. Of this total, an estimated 500,000 bales originated as U.S.-produced raw cotton.


Keywords: Textile imports, raw fiber equivalents, foreign trade, cotton consumption, export return ratio.

## Introduction

This article is the second in an annual series that provides country-of-origin detail on the quantity of raw cotton contained in U.S. textile imports. Estimates for 1982 were published in the March 1983 issue of the Cotton and Wool Outlook and Situation report. In addition, estimates of how much U.S.-produced raw cotton or fabric was contained in 1982 U.S. textile imports were reported in the September 1983 issue.

The methodology used in developing these estimates is essentially the same as that detailed in the two previous articles. Estimates are reported in pounds on a raw fiber-equivalent basis. Processing and manufacturing losses are accounted for so that the raw fiber equivalent can be directly converted to 480 -pound bales.

## U.S. Textile Imports by Country Of Origin

During 1983, the United States imported textiles containing about 2.3 million bales of cotton-an increase of nearly 25 percent from 1982 (table 16). While textiles were imported from 103 individual countries, the 34 listed accounted for over 97 percent of total textile imports.

Hong Kong continues to be the largest supplier of U.S. textile imports. Over one-fourth of U.S. cotton textile imports, or the equivalent of 602,000 bales, came from Hong Kong in 1983, compared with 490,000 equivalent bales in 1982. China, Korea, and Taiwan combined, accounted for over 30 percent of all U.S. cotton textile imports during 1983, about the same as the previous year.
U.S. imports from countries in the Western Hemisphere and Western Europe also showed moderate growth during 1983. Especially sharp increases occurred for Mexico and Brazil, where the volume of imports rose 56 and 77 percent, respectively, over year-earlier levels.

A significant volume of cotton textiles is imported from countries that purchase little or no U.S. raw cotton. In 1983, approximately 45 percent of all U.S. cotton textile imports came from countries that accounted for only about 13 percent of total U.S. exports of raw cotton.

## U.S. Cotton Content of Textile Imports

An estimated 22 percent of the cotton contained in U.S. textile imports during 1983 originated in the United States (table 17). This proportion is down from an estimated 29 percent in 1982 because U.S. cotton exports declined from 6.6 million bales in 1981/82 to 5.2 million in 1982/83.

Of the 10 largest cotton textile exporters to the United States, nine have export return ratios less than 0.50 . U.S. cotton accounted for less than 25 percent of Hong Kong mill use in 1982/83, down from 36 percent in 1981/82. Further, over one-half of Hong Kong's cotton fabric supply in 1982 was imported, and about 40 percent of those imports came from China-a country now using almost no U.S. cotton. Hong Kong also imports large quantities of cotton fabric from Japan and Taiwan, but those countries have export return ratios of less than 0.50 themselves. In total, only about one-fifth of the cotton in U.S. textile imports from Hong Kong during 1983 was grown in the United States.
U.S. cotton exports to China have fallen to nil, and China imports little cotton fabric. The same is true for Pakistan, India, Mexico, Egypt, Romania, Poland, and Brazil.

Between 34 and 39 percent of the cotton used in Taiwanese and Japanese mills was grown in the United States, and neither country imports large quantities of cotton textiles for processing and reexport. The majority of Taiwan's cotton textile imports originate in Japan and Hong Kong, and those countries each receive a majority of their cotton textile imports from China. Consequently,
little U.S. cotton is contained in the fabric imports of either Taiwan or Japan.

Over 80 percent of U.S. cotton textile imports from Korea are composed of U.S. cotton. Korea was the largest market for U.S. cotton exports in 1982/83, and cotton fabric imports compose only about 6 percent of Korea's fabric supply. The majority of Korean cotton fabric imports are produced in Japan.

The export return ratio for Peru is about 0.19-
unchanged from 1982. Like Sri Lanka, Macau, the Dominican Republic, and Haiti, Peru imports no U.S. cotton directly, but does import cotton fabrics that contain U.S. cotton. About three-fourths of Peru's cotton fabric imports in 1982 came from the United States, and imports compose about one-fourth of Peru's cotton fabric supply. The majority of Sri Lanka's cotton fabric imports come from Hong Kong and Japan-countries

Table 16.-Raw cotton equivalent of U.S. imports by country, 1983

| Country of origin | Yarn, thread, and woven fabric |  |  |  |  | Primarily manufactured products |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Sewing thread, crochet, knitting yarn | Woven fabric |  | Totalsemi-manufactu-red | Pile fabrics and mfrs. | Table damask and mfrs. | Bed clothes and towels | Gloves, hosiery and hdkfs |
|  | Yarn |  | 100 percent cotton | Blends |  |  |  |  |  |
|  | 1,000 pounds |  |  |  |  |  |  |  |  |
| Western Hemisphere: |  |  |  |  |  |  |  |  |  |
| Canada | 55 | 8 | 3,928 | 117 | 4,107 | 1 | - | 414 | 13 |
| Mexico | 2,193 | 6 | 427 | 67 | 2,693 | - | - | 636 | 6 |
| El Salvador | 2,857 | - | 101 | - | 2,958 | 1 | - | 1,326 | - |
| Jamaica | - | - | - | - | - | - | - | - | - |
| Haiti | 98 | 3 | 1 | - | 102 | 1 | - | 5 | 112 |
| Dominican Republic | 20 | - | 150 | - | 171 | $-$ | - | - | - |
| Colombia | 1,149 | 5 | 4,593 | 113 | 5,860 | 70 | - | 886 | 20 |
| Peru | 4,854 | 8 | 17,616 | 298 | 22,776 | - | - | 344 | - |
| Brazil | 10,455 | 32 | 18,901 | 533 | 29,921 | 578 | 6 | 5,453 | - |
| Other | 1,757 | 1 | 687 | 72 | 2,517 | - | - | 573 | 98 |
| Total | 23,438 | 62 | 46,405 | 1,199 | 71,104 | 650 | 7 | 9,636 | 249 |
| Western Europe: |  |  |  |  |  |  |  |  |  |
| United Kingdom | 187 | 31 | 1,093 | 84 | 1,396 | 10 | - | 362 | 10 |
| Ireland | 1 | - | 4 | 17 | 23 | 35 | - | 65 | - |
| France | 149 | 807 | 802 | 394 | 2,152 | 11 | 13 | 156 | 12 |
| West Germany | 395 | 50 | 1,179 | 243 | 1,867 | 8 | 3 | 427 | 11 |
| Switzerland | 14 | 32 | 544 | 58 | 648 | - | 3 | 4 | 24 |
| Spain | 457 | 3 | 156 | 187 | 803 | - | 1 | 47 | 12 |
| Portugal | 270 | 39 | 2,664 | 59 | 3,032 | 1 | 7 | 1,269 | 39 |
| Italy | 109 | 77 | 642 | 1,538 | 2,366 | 8 | - | 64 | 30 |
| Other | 157 | 53 | 899 | 925 | 2,035 | 4 | 55 | 436 | 38 |
| Total | 1,740 | 1,092 | 7,983 | 3,506 | 14,321 | 77 | 81 | 2,830 | 176 |
| Eastern Europe: |  |  |  |  |  |  |  |  |  |
| East Germany | - | - | - | - | - | - | - | - | - |
| Poland | - | - | 2 | 5 | 6 | 3 | - | 355 | - |
| Romania | - | - | 1 | 5 | 5 | - | - | - | - |
| Other | - | - | 118 | 17 | 135 | - | 178 | 452 | 81 |
| Total | - | - | 120 | 26 | 147 | 3 | 178 | 807 | 81 |
| Asia/Oceania: |  |  |  |  |  |  |  |  |  |
| India | - | - | 7,288 | 216 | 7,504 | 96 | 1 | 4,540 | 307 |
| Pakistan | 55 | 2 | 22,236 | - | 22,293 | 2,547 | - | 24,332 | 907 |
| Sri Lanka | - | - | - | - | - | - | - | 398 | 850 |
| Thailand | 123 | 2 | 7,965 | 4,675 | 12,765 | 9 | - | 231 | 494 |
| Singapore | 280 | - | 2,229 | 251 | 2,760 | - | - | 144 | 84 |
| Indonesia | - | - | 2,700 | 3,796 | 6,496 | - | - | 215 | 783 |
| Philippines | - | - | 6 | - | 6 | - | - | 12 | 1,271 |
| Macau | - | - | 23 | - | 23 | 15 | - | 3 | 275 |
| China-Mainland | 21 | - | 44,086 | 10,769 | 54,876 | 1,581 | 38 | 14,682 | 9,515 |
| Korea | 2,881 | - | 22,460 | 10,113 | 35,454 | 91 | - | 1,012 | 688 |
| Hong Kong | 3 | 1 | 60,394 | 8,898 | 69,296 | 259 | - | 3,213 | 6,614 |
| Taiwan | 7 | 24 | 33,248 | 15,764 | 49,043 | 2,262 | - | 6,119 | 983 |
| Japan | 1,185 | 44 | 9,956 | 4,204 | 15,388 | 64 | 135 | 463 | 1,861 |
| Other | 330 | 16 | 1,088 | 688 | 2,123 | 47 | - | 1,253 | 229 |
| Total | 4,884 | 90 | 213,679 | 59,375 | 278,029 | 6,973 | 175 | 56,616 | 24,861 |
| Africa: |  |  |  |  |  |  |  |  |  |
| Egypt | 10,307 | 1 | 6,260 | - | 16,568 | - | - | 70 | 15 |
| Other | 511 | - | 19 | 1 | 531 | 19 | - | 63 | $\dagger$ |
| Total | 10,818 | 1 | 6,280 | 1 | 17,099 | 19 | - | 132 | 16 |
| World total | 40,881 | 1,250 | 274,466 | 64,108 | 380,706 | 7.721 | 438 | 70,067 | 25,383 |

which import cotton from the United States-and imports make up about one-half of Sri Lanka's supply. Macau trades mostly with Hong Kong and China, while the United States is the major fabric supplier to the Dominican Republic and Haiti.

Singapore imports small amounts of U.S. cotton; it imports cotton fabric mostly from Hong Kong, China, Japan, and Malaysia. Thailand, the Philippines, and

Indonesia import larger quantities of U.S. cotton and have mill use return ratios between 0.39 and 0.69 . Unlike Singapore, domestic production in Thailand, the Philippines, and Indonesia accounts for almost all of their fabric supplies.

Of the remaining countries, Canada is the only one with a large export return ratio- 0.84 . Canada imports most of its raw cotton from the United States and was one of

Table 16.-Raw cotton equivalent of U.S. imports by country, 1983-Continued

| Country of origin | Primarily manufactured products |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Other wearing appare | Lace fabrics and articles | Household and clothing articles | Misc. products | Floor covering | Total primarily manufactu- |  |
|  | 1,000 pounds |  |  |  |  |  |  |
| Western Hemisphere: |  |  |  |  |  |  |  |
| Canada | 3,257 | 5 | 56 | 314 | 40 | 4,100 | 8,207 |
| Mexico | 10,618 | 16 | 188 | 428 | 3 | 11,895 | 14,588 |
| El Salvador | 95 | 2 | 5 | 6 | - | 1,435 | 4,393 |
| Jamaica | 882 | - | 26 | - | - | 909 | 909 |
| Haiti | 4,755 | 25 | 89 | 77 | 8 | 5,072 | 5,174 |
| Dominican Republic | 7,125 | 483 | 136 | 158 | - | 7,903 | 8,074 |
| Colombia | 538 | 2 | 1 | 4 | - | 1,521 | 7,381 |
| Peru | 412 | - | 541 | - | - | 1,297 | 24,074 |
| Brazil | 4,794 | 6 | 64 | 55 | 434 | 11,390 | 41,311 |
| Other | 5,276 | 7 | 193 | 12 | 3 | 6,163 | 8,679 |
| Total | 37,753 | 547 | 1,299 | 1,055 | 487 | 51,684 | 122,788 |
| Western Europe: |  |  |  |  |  |  |  |
| United Kingdom | 975 | 84 | 88 | 497 | 351 | 2,378 | 3,774 |
| Ireland | 45 | - | 1 | 4 | 756 | 906 | 929 |
| France | 1,288 | 57 | 182 | 145 | 8 | 1,873 | 4,026 |
| West Germany | 455 | 8 | 208 | 375 | 152 | 1,646 | 3,514 |
| Switzerland | 46 | 18 | 21 | 78 | 10 | 203 | 852 |
| Spain | 239 | 2 | 86 | 47 | 44 | 478 | 1,281 |
| Portugal | 801 | 1 | 31 | 1 | 42 | 2,192 | 5,223 |
| Italy | 1,948 | 31 | 118 | 180 | 6 | 2,385 | 4,751 |
| Other | 732 | 23 | 139 | 181 | 1,462 | 3,070 | 5,104 |
| Total | 6,530 | 225 | 873 | 1,509 | 2,831 | 15,132 | 29,453 |
| Eastern Europe: |  |  |  |  |  |  |  |
| East Germany | 243 | - | - | - | - | 243 | 243 |
| Poland | 1,904 | - | - | - | - | 2,263 | 2,270 |
| Romania | 5,221 | - | 3 | - | - | 5,224 | 5,229 |
| Other | 722 | - | 217 | 33 | 17 | 1,699 | 1,834 |
| Total | 8,089 | - | 220 | 33 | 18 | 9,429 | 9,575 |
| Asia/Oceania: |  |  |  |  |  |  |  |
| India | 22,311 | 2,776 | 1,323 | 269 | 2,734 | 34,357 | 41,861 |
| Pakistan | 10,817 | - | 1,301 | 47 | 39 | 39,990 | 62,283 |
| Sri Lanka | 15,087 | 1 | 6 | - | - | 16,343 | 16,343 |
| Thailand | 9,546 | 26 | 47 | 93 | 52 | 10,498 | 23,263 |
| Singapore | 20,014 | - | - | 3 | 3 | 20,250 | 23,010 |
| Indonesia | 17,480 | 22 | 20 | 3 | - | 18,523 | 25,019 |
| Philippines | 22,162 | 257 | 334 | 541 | 11 | 24,588 | 24,594 |
| Macau | 13,479 | 2 | 5 | 118 | - | 13,898 | 13,921 |
| China-Mainland | 78,049 | 1,527 | 2,024 | 2,973 | 268 | 110,657 | 165,533 |
| Korea | 34,553 | 49 | 583 | 903 | 43 | 37,922 | 73,377 |
| Hong Kong | 205,059 | 127 | 2,523 | 2,390 | 21 | 220,208 | 289,504 |
| Taiwan | 56,699 | 291 | 428 | 3,812 | 32 | 70,625 | 119,668 |
| Japan | 25,088 | 51 | 175 | 537 | 791 | 29,165 | 44,553 |
| Other | 13,931 | 55 | 621 | 27 | 181 | 16,344 | 18,467 |
| Total | 544,276 | 5,183 | 9,391 | 11,717 | 4,174 | 663,366 | 941,395 |
| Africa: |  |  |  |  |  |  |  |
| Egypt | 45 | - | - | - | 7 | 138 | 16,706 |
| Other | 529 | - | 28 | 1 | 9 | 649 | 1,180 |
| Total | 574 | - | 28 | 1 | 16 | 787 | 17,886 |
| World total | 597,428 | 5,957 | 11,855 | 14,335 | 7,526 | 740,631 | 1,121,337 |

Totals may not add because of rounding.
the few countries to increase cotton imports in 1982/83.
The United States is also the largest textile supplier to
Canada.
During 1984, the export return ratio will probably increase. U.S. cotton exports during 1983/84 may rise 1.6 million bales to about 6.8 million, while cotton textile imports will probably increase much more slowly than in 1983. If the ratio for 1984 equals 0.27 , about 700,000 bales of 1983/84 U.S. cotton exports would be returned as textile imports.

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Table 17.-Export return ratios for U.S. textile imports in 1983

| Textile exporting country | Cotton imports from the U.S. | Domestic mill use | Mill use return ratio | Domestic production share of fabric supply | Imported fabric return ratio | Imported fabric share of fabric supply | Weighted export return ratio | ```Raw cotton equivalent of U.S. imports``` | U.S. cotton exports returned |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1,000 480-16 bales |  | Percent |  |  |  |  | 1,000 480-1b bales |  |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| Hong Kong | 158 | 735 | 0.232 | 0.427 | 0.195 | 0.573 | 0.211 | 603 | 127 |
| PRC | 20 | 16,200 | . 001 | 1.000 |  | 0 | . 001 | 345 | 0 |
| Taiwan | 378 | 1,100 | . 344 | 941 | . 152 | . 059 | . 333 | 249 | 83 |
| Pakistan | 0 | 2,450 | 0 | 1.000 |  | 0 | 0 | 130 | 0 |
| korea | 1,322 | 1,565 | . 845 | . 944 | . 321 | . 056 | . 816 | 153 | 125 |
| India | 0 | 6,250 | 0 | 1.000 |  | 0 | 0 | 87 | 0 |
| Japan | 1,286 | 3,290 | . 391 | . 871 | . 147 | . 129 | . 360 | 93 | 33 |
| Peru | 0 | 232 | 0 | . 757 | . 794 | . 243 | . 193 | 50 | 10 |
| Singapore | 13 | 75 | . 173 | . 097 | . 145 | . 903 | . 148 | 48 | 7 |
| Brazil | 0 | 2,600 | 0 | 1.000 |  | 0 | 0 | 86 | 0 |
| Thailand | 197 | 505 | . 390 | . 982 | . 199 | . 018 | . 387 | 48 | 19 |
| Philippines | 72 | 105 | . 686 | . 908 | . 196 | . 092 | . 641 | 51 | 33 |
| Indonesia | 268 | 514 | . 521 | . 990 | . 205 | . 010 | . 518 | 52 | 27 |
| Sri Lanka | 0 | 40 | 0 | . 488 | . 167 | . 512 | . 085 | 34 | 3 |
| Macau | 0 | 0 | 0 | 0 | . 090 | 1.000 | . 090 | 29 | 3 |
| Mexico | 0 | 625 | 0 | . 994 | . 687 | . 006 | 0 | 30 | 0 |
| Domin. Rep. | 0 | 10 | 0 | . 594 | . 842 | . 406 | . 342 | 17 | 6 |
| Egypt | 0 | 1,370 | 0 | 1.000 |  | 0 | 0 | 35 | 0 |
| Canada | 238 | 253 | . 941 | . 766 | 486 | . 234 | . 835 | 17 | 14 |
| Columbia | 9 | 215 | . 042 | . 987 | . 621 | . 013 | . 050 | 15 | 1 |
| Haiti | 0 | 10 | 0 | . 732 | . 665 | . 268 | . 178 | 11 | 2 |
| Romania | 0 | 515 | 0 | . 949 | . 012 | . 051 | 0 | 11 | 0 |
| Portugal | 40 | 660 | . 061 | . 950 | . 095 | . 050 | . 063 | 11 | 1 |
| Italy | 105 | 980 | . 107 | . 620 | . 161 | . 380 | . 128 | 10 | 1 |
| Poland | 0 | 650 | 0 | . 954 | . 010 | . 046 | 0 | 5 | 0 |
| France | 45 | 765 | . 059 | . 572 | . 109 | . 428 | . 080 | 8 | 1 |
| W. Germany | 163 | 928 | . 176 | . 674 | . 090 | . 326 | . 148 | 7 | 1 |
| El Salvador | 0 | 50 | 0 | . 943 | . 380 | . 057 | . 022 | 9 | 0 |
| Total | 4,314 | 42,692 |  |  |  |  | . 22 | 2,244 | 497 |
| World | 5,207 | 62,132 |  |  |  |  | . 22 | 2,336 | 514 |

# World Cotton Trends and Competition 

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#### Abstract

U.S. cotton exports during 1984/85 may decline moderately from 1983/84. Foreign production keeps increasing faster than consumption, primarily because yields are increasing rapidly. Continuation of these trends would limit future growth in U.S. exports. Although the Soviets may not be as aggressive exporters as during the late 1970's, other competitors will probably increase exports in 1984/85.


Keywords: Production/consumption gap, production incentives, U.S. exports.

## Foreign Production Outpaces Consumption

Among the many factors affecting U.S. cotton exports, the difference between foreign consumption and production is probably most important over the long run. The simple correlation between U.S. exports and a 2 -year moving average of foreign consumption minus production from $1970-83$ is 0.70 . That implies that about half of the changes in U.S. exports can be linked to changes in the foreign consumption/production gap. In any year, the relationship may be disturbed by foreign stock changes caused by various factors, such as relative prices, production changes, or recessions.

In years like 1974/75 and 1975/76, when foreign production and consumption varied from trend in opposite directions, the volatile foreign consumption/production gap was a poor indicator of U.S. exports.

The foreign consumption/production gap has not trended upward over the last three decades, because foreign production increased at 2.9 percent per year, while foreign consumption has grown at 2.5 percent. Increased use of manmade fibers has dampened consumption, while yield increases have explained production growth. In 1983/84, a gap of about 4 million bales is estimated. In 1984/85, foreign production will likely be between 60 and 64 million bales, while consumption may range between 65 and 67 million. Therefore, the gap will be between 1 and 7 million bales. Assuming both production and consumption are on trend, the gap would be about the same as in 1983/84, 4 million bales.

Greater use of manmade fibers is a major factor limiting growth in cotton consumption. World cotton production rose 42 percent during $1960-80$, but cotton's share of world fiber production dropped from 76 to 50 percent. While manmade fiber's share of total fiber consumption may not increase in some developed countries, it may expand rapidly in several developing countries, particularly China, South Korea, Taiwan, and India (table 18).

Another damper on cotton consumption during the 1980's is the long-term prospect for foreign economic growth (table 19). Debt problems and sluggish growth in many parts of the world will likely keep textile demand from growing as quickly as during the three earlier decades.

Most of the cotton production increases come from improving yields. The dramatic yield increases can be attributed, among other things, to better varieties, improved farming techniques, and a shift toward irrigated land. Different countries have quite distinct patterns. In the Soviet Union, yields doubled between 1952 and 1972, but have not demonstrated a significant trend over the last 10 years. China, on the other hand, showed no yield growth from the mid-1960's to the mid-1970's, but appears to have increased yields by over 50 percent between 1977 and 1983, reaching the level of recent U.S. yields. Almost all major producers have seen yield growth during the last decade. Moreover, several major producers have a very consistent pattern of yield growth (table 20). The trend-yield increases imply that record world cotton production would only be prevented by adverse weather.

## World Area Relatively Stable

During 1950-1983, world cotton area stayed between 75 and 83 million acres. Because yields are increased rapidly, there was little need for increased area.

The two largest foreign producers are the USSR and China. Basically, these countries decide how much they need to produce and use, at least partially without consideration of relative prices and comparative advantage. Since the mid-1950's, the USSR has steadily increased cotton area, but in recent years production has failed to keep pace with needs. On the other hand, China deemphasized cotton until the mid-1970's. Serious shortages developed, and in 1979/80 China was the world's largest cotton importer. However, over the last decade, both the USSR and China have increased area almost 20 percent,

| Region | 1975 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent |  |  |  |  |  |  |
| Socialist countries | 8.6 | 7.2 | 13.9 | 3.5 | 9.6 | 3.8 | 3.9 |
| Developing countries 10.6 |  |  |  |  |  |  |  |
| Asla and Oceania | 30.0 | 22.6 | 5.8 | 14.5 | 6.6 | 10.6 | 5.7 |
| Americas | 11.6 | 2.3 | 6.7 | 3.2 | 5.9 | -. 8 | 1.2 |
| Africa | 61.9 | 1.3 | 6.8 | 44.1 | 10.3 | . 4 | 15.2 |
| Total | 23.5 | 15.2 | 6.1 | 12.0 | 6.5 | 7.1 | 4.9 |

International Cotton Advisory Committee.

| Table 19 <br> Average annual growth rates in <br> Gross <br> National Product |  |  |  |
| :--- | :---: | :---: | :---: |
|  | $1960-70$ | $1970-80$ | $1980-90$ |
| Industrialized | 5.0 | Percent |  |
| Centrally planned | $(1)$ | 3.1 | 2.5 |
| Developing | 5.6 | 5.2 | 2.4 |
| Worid | 5.0 | 5.3 | 3.8 |

${ }^{1}$ China data not available.
Worid Bank Development Report, International Financial Statistics (IMF) Projections-ERS.

Table 20.-Selected major producers: Cotton yield trends, 1970-1983

| Country | Average <br> annual <br> increases | Simple <br> correlation <br> with time |
| :--- | ---: | :--- |
| China | 12 |  |
| India | 2 | 0.74 |
| Brazil | 6 | .75 |
| Egypt | 23 | .78 |
| Mexico | 11 | .78 |
| Syria | 24 | .73 |
| Australia | 29 | .95 |
| Israel | 24 | .74 |

striving to cover domestic needs and displace imports. The Soviets maintained a large market share in Japan and Western Europe while covering most East European needs. Aggresive Soviet exports helped cause a decline of 12 percent, between 1971 and 1976, among foreign producers outside China and the USSR.

Although foreign producers have recovered some area, the total foreign area remains 2.5 million acres below its peak. Moreover, U.S. cotton area was restricted by acreage control programs in 1978, 1982, 1983, and 1984.

## Production Incentives Strong

Many countries are supporting production at prices above the U.S. loan rate. The most dramatic example of producer response to increased incentives is China. Beginning in the late 1970's, procurement prices for cotton were increased about 10 percent relative to grains; farmers
were given more control over production decisions; and improved varieties were introduced. Production doubled from about 10 million bales in 1979 to over 20 million in 1983. USDA economists, after visiting China, estimated the 1982/83 price paid to farmers in the major producing province of Shandong at about 84 cents a pound of linta guaranteed price for all the cotton a farmer can pro-
duce. Although the cotton/grain price ratio has returned to former levels, the 50 -percent increase in cotton yields has maintained cotton's profitability; it may take another year or two to get production and domestic use into closer balance.

However, the increased Chinese production may hurt U.S. cotton exports. Chinese textile exports may continue to expand and dampen demand for cotton in the major U.S. markets, especially Japan, South Korea, and Taiwan.

It appears that the Soviet farm price is also well above world prices. With high farm prices, it might seem curious that the Soviets find it attractive to export so much cotton. However, there are several possible reasons for maintaining cotton production greater than domestic mill use, including the need to ensure supplies for East European allies, generate scarce hard currency, and provide a transfer of resources (subsidy) to the Central Asian republics. Now that the Soviets are receiving hard currency from Western Europe for natural gas, they may have less incentive to push cotton exports to Western markets. For the last two years, the USSR has been a less aggressive exporter.

Many other countries with distinct production functions and diverse policies are producing cotton. Several of these countries are finding the high prices of 1983/84 attractive and are hoping to increase production and exports. Colombia is an example of a country where the Government heavily subsidizes exports, whereas Australia produces mostly for the world market price. Both are taking measures to expand exports, but the rationale differs.

Colombia is a high-cost producer, with average breakeven prices of 77 cents a pound (U.S. currency) on the coast and 70 cents in the interior, well above the U.S. loan rate. However, in 1983, the Government implemented a program that is likely to revive exports. The program means that the Government could potentially pay up to 37 cents on the export of a pound of cotton-an attractive proposition for exporters.

Australia has been increasing cotton production and exports dramatically in recent years. In the last decade, it has evolved from being a minor producer to one of the world's major exporters. A financial analysis of 11 growers in the More area showed that returns per planted acre exceeded costs (including depreciation) by about 20 percent for the 1982 crop $^{1}$. The high profits mean that more financial resources could be channeled towards further production expansion. While some government subsidies may exist for water, fertilizer, and cotton sold to the domestic industry, the Australians produce mainly to export at the world market price. Their costs and
${ }^{\prime}$ The Australian Cotton Grower, Vol. 4, No. 2, April-June 1983, p. 20.
yields are competitive, so they will likely continue to increase exports.

## Conclusions

The high cotton prices in 1983/84 may provide an incentive for increased production among exporters in 1984/85, especially for hard currency deficit countries like Colombia, Mexico, and Argentina. Additionally, several major exporters, including Pakistan, Egypt, and Brazil, had poor crops in 1983/84 and are likely to rebound in $1984 / 85$. The impact of Chinese production at, or near, 20 million bales may be increasingly felt in world markets if China expands textile capacity and exports. These factors are likely to more than offset increased foreign mill demand generated by a generally weak foreign economic recovery in 1984/85.

Table 21.-Cotton: Supply and disappearance, by type, United States

|  | Supply |  |  |  | Disappearance |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| beginning August 1 | Beginning stocks August $1^{1}$ | Production ${ }^{2}$ | Imports | Total | $\begin{gathered} \text { Mill } \\ \text { con- } \\ \text { sumption }{ }^{3} \end{gathered}$ | Exports | Total | unaccounted ${ }^{4}$ | stocks <br> July 31 |


|  | 1,000 480-pound net weight bales ${ }^{5}$ |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All kinds |  |  |  |  |  |  |  |  |
| 1981 | 2,668 | 15,646 | 26 | 18,340 | 5,264 | 6,567 | 11,831 | 123 | 6,632 |
| 1982 | 6,632 | 11,963 | $20^{\circ}$ | 18,615 | 5,513 | 5,207 | 10,720 | 42 | 7,937 |
| $1983{ }^{7}$ | 7,937 | ${ }^{8} 7,725$ | 14 | 15.676 | 5,820 | 6,780 | 12,600 | 202 | 3,378 |
|  | Upland |  |  |  |  |  |  |  |  |
| 1981 | 2,614 | 15,566 | 18 | 18,198 | 5,216 | 6,555 | 11.771 | 140 | 6,567 |
| 1982 | 6,567 | 11,864 | 12 | 18,443 | 5,457 | 5,194 | 10,651 | 52 | 7,844 |
| $1983{ }^{7}$ | 7,844 | ${ }^{8} 7,634$ | 10 | 15,488 | 5,750 | 6.750 | 12,500 | 212 | 3,200 |
|  | Extra-long staple ${ }^{6}$ |  |  |  |  |  |  |  |  |
| 1981 | 54 | 80 | 8 | 142 | 48 | 12 | 60 | -17 | 65 |
| 1982 | 65 | 99 | 8 | 172 | 56 | 13 | 69 | -10 | 93 |
| $1983{ }^{7}$ | 93 | 891 | 4 | 188 | 70 | 30 | 100 | -10 | 78 |

[^2]Table 22.-Cotton: Supply and disappearance of all kinds; by months, United States ${ }^{\mathbf{1}}$

| Date | Supply |  |  |  |  |  |  | Disappearance |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Beginning stocks ${ }^{2}$ |  |  |  |  |  |  | Mill con- |  |  |  |
|  | At mills | In public storage ${ }^{6}$ | Other ${ }^{7}$ | Total | Ginnings ${ }^{3}$ | Imports | Total | sumption ${ }^{4}$ | Exports | Total | Ending stocks ${ }^{5}$ |


| 1983/84 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| August | 792 | 6,978 | 167 | 7,937 | 328 | 2 | 8,267 | 547 | 403 | 950 | 7,317 |
| September | 750 | 6,493 | 74 | 7,317 | 476 | 1 | 7,794 | 513 | 339 | 852 | 6,942 |
| October | 661 | 6,077 | 204 | 6,942 | 2,679 | 1 | 9,622 | 505 | 274 | 779 | 8,843 |
| November | 581 | 7,513 | 749 | 8,843 | 2,766 | 1 | 11,610 | 514 | 462 | 976 | 10,634 |
| December | 583 | 9,114 | 937 | 10,634 | 1,256 | 0 | 11,890 | 420 | 663 | 1,083 | 10,807 |
| January ${ }^{8}$ | 640 | 9,197 | 970 | 10,807 | 274 |  |  | 543 |  |  |  |

${ }^{1}$ 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 and exclude 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

Table 23. - Upland cotton and manmade staple fibers: Mill consumption on cotton-system spinning spindles

| Year beginning August 1 | Cotton | Manmade |  |  | Total fibers | Cotton share of total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Rayon and acetate | Noncellulosic | Total |  |  |
|  | 1,000 pounds |  |  |  |  | Percent |
| 1982/83 | 2,619,556 | 217,911 | 1,477,847 | 1,695,758 | 4,315,314 | 60.7 |
| 1983/84 |  |  |  |  |  |  |
| August | 225,485 | 19,087 | 125,717 | 144,804 | 370,289 | 60.9 |
| September | 276,984 | 23,848 | 159,119 | 182,967 | 459,951 | 60.2 |
| October | 228,543 | 19,345 | 133,046 | 152,391 | 380,934 | 60.0 |
| November | 221,777 | 19,986 | 126,933 | 146,919 | 368,696 | 60.2 |
| December ${ }^{1}$ | 222,248 | 22,333 | 137,313 | 159,646 | 381,894 | 58.2 |
| January ${ }^{1}$ | NA | 19,977 | 131,463 | 151,440 | NA | NA |

${ }^{1}$ Preliminary. $\mathrm{NA}=$ not available.
Compiled from reports of the Bureau of the Census.
Table 24.-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 ${ }^{1}$ |  |  |  |
|  | Unadjusted | Adjusted | Unadjusted | Adjusted | Rayon and acetate |  | Noncellulosic ${ }^{2}$ |  | Rayon and acetate |  | Noncellulosic ${ }^{2}$ |  |
|  |  |  |  |  | Unadjusted | Ad- justed | Unadjusted | Adjusted | Unadjusted | Adjusted | Unadjusted | Adjusted |
|  | Bales ${ }^{3}$ |  |  |  | 1,000 pounds |  |  |  |  |  |  |  |
| August | 20,202 | 19,982 | 23,488 | 23,209 | 779 | 781 | 5,417 | 5,385 | 954 | 955 | 6,286 | 6,242 |
| September | 19,636 | 19,538 | 23,082 | 22,967 | 756 | 773 | 5,400 | 5,405 | 954 | 976 | 6,325 | 6,331 |
| October | 21,576 | 19,959 | 23,807 | 21,982 | 837 | 786 | 5,694 | 5,382 | 967 | 910 | 6,652 | 6,287 |
| November | 20,211 | 19,815 | 23,102 | 22,671 | 882 | 813 | 5,451 | 5,392 | 999 | 916 | 6,347 | 6,284 |
| December | 17,620 | 19,910 | 18,521 | 20,999 | 681 | 787 | 4,723 | 5,385 | 893 | 1,036 | 5,493 | 6,278 |
| January | 20,954 | 21,017 |  |  | 841 | 807 | 5,718 | 5,514 | 999 | 959 | 6,573 | 6,338 |
| February | 22,425 | 21,542 |  |  | 855 | 823 | 6,183 | 5,991 |  |  |  |  |
| March | 22,805 | 21,907 |  |  | 874 | 825 | 6,127 | 5,802 |  |  |  |  |
| April | 22,305 | 21,804 |  |  | 937 | 914 | 5,955 | 5,726 |  |  |  |  |
| May | 22,805 | 21,970 |  |  | 939 | 910 | 6,201 | 6,079 |  |  |  |  |
| June | 22,579 | 22,444 |  |  | 960 | 981 | 6,207 | 6,195 |  |  |  |  |
| July | 19,093 | 22,542 |  |  | 736 | 888 | 5,202 | 6,042 |  |  |  |  |

[^3]Table 25.-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

| Calendar year | Cotton ${ }^{1}$ |  | Rayon ${ }^{2}$ |  | Polyester ${ }^{3}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual | Raw fiber equivalent ${ }^{4}$ | Actual | Raw fiber equivalent ${ }^{4}$ | Actual | Raw fiber equivalent ${ }^{4}$ |
|  | Cents per pound |  |  |  |  |  |
| 1983 | 78 | 86 | 80 | 84 | 73 | 76 |
| 1983 |  |  |  |  |  |  |
| November | 82 | 91 | 82 | 85 | 77 | 80 |
| December | 82 | 91 | 82 | 85 | 78 | 81 |
| 1984 January | 79 | 88 | 85 | 89 | 81 | 84 |

${ }^{1}$ SLM-1-1/16' at Group B Mill points, net weight. ${ }^{2} 1.5$ and 3.0 denier, regular rayon staple. ${ }^{3}$ Reported average market price for 1.5 denier polyester staple for cotton blending. ${ }^{4}$ Actual prices converted to estimated raw fiber equivalent as follows; cotton, divided by 0.90 , rayon and polyester, divided by 0.96.
Agricultural Marketing Service and Trade reports.

Table 26. - 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) ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 15 / 16 \\ & \text { inch } \end{aligned}$ | $\begin{gathered} 1 \\ \text { inch } \end{gathered}$ | $\begin{aligned} & 1-1 / 32 \\ & \text { inches } \end{aligned}$ | $1-1 / 16$ <br> inches | $\begin{aligned} & 1-3 / 32 \\ & \text { inches } \end{aligned}$ | $\begin{gathered} 1-1 / 8 \\ \text { inches } \end{gathered}$ |  |
|  | Cents |  |  |  |  |  |  |
| 1982/83 | 52.39 | 56.41 | 61.17 | 63.08 | 63.47 | 64.63 | 3/59.10 |
| 1983/84 |  |  |  |  |  |  |  |
| August | 59.63 | 63.66 | 70.52 | 72.93 | 73.39 | 75.39 | 67.00 |
| September | 58.63 | 62.67 | 69.29 | 71.68 | 72.12 | 73.37 | 63.10 |
| October | 58.02 | 62.10 | 69.49 | 72.01 | 72.45 | 74.44 | 64.00 |
| November | 60.07 | 64.35 | 70.82 | 73.41 | 73.85 | 75.79 | 66.80 |
| December | 61.71 | 65.77 | 70.44 | 73.04 | 73.48 | 75.13 | 67.30 |
| January | 60.14 | 64.02 | 68.03 | 70.55 | 70.99 | 72.89 | 63.90 |
| February 60.14 |  |  |  |  |  |  |  |
| March |  |  |  |  |  |  |  |
| April |  |  |  |  |  |  |  |
| May |  |  |  |  |  |  |  |
| June |  |  |  |  |  |  |  |
| July |  |  |  |  |  |  |  |
| Average |  |  |  |  |  |  |  |
| Loan rate | 46.62 | 50.57 | 53.62 | 55.72 | 56.12 | 56.32 | 4/55.00 |

${ }^{1}$ 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 27.-Raw cotton equivalent of U.S. imports for consumption of cotton manufactures


[^4]Table 28.-Raw cotton equivalent of U.S. exports of domestic cotton manufactures


[^5]Table 29. - Manmade fiber equivalent of U.S. imports for consumption of manmade fiber manufactures

| Year and month | Tops, yarn, thread, and woven fabric |  |  |  |  |  |  | Primarily manufactured products |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Sliver tops | Yarns thrown or plied' | Yarns spun | Sewing thread and handwork yarns | Rayon tire fabric including cord fabrics | Woven fabric | Total | Wearing apparel |  |
|  | and roving |  |  |  |  |  |  | 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 |
| 1983 |  |  |  |  |  |  |  |  |  |
| January | 363 | 871 | 2,725 | 234 | 169 | 8,835 | 13,197 | 17.107 | 28,010 |
| February | 336 | 828 | 2,169 | 274 | 169 | 7,144 | 10,920 | 15,867 | 23,703 |
| March | 688 | 1,198 | 2,925 | 263 | 251 | 9,118 | 14,443 | 15,030 | 23,074 |
| April | 437 | 533 | 2,799 | 223 | 228 | 10,768 | 14.988 | 15,329 | 21,297 |
| May | 526 | 721 | 3,693 | 240 | 245 | 11,064 | 16,489 | 21,733 | 25,917 |
| June | 552 | 914 | 3,693 | 333 | 72 | 13,046 | 18,610 | 27,446 | 31,433 |
| July | 547 | 854 | 3,835 | 258 | 5 | 11,311 | 16,810 | 25,440 | 29,716 |
| August | 428 | 824 | 2,878 | 293 | 29 | 11,527 | 15,979 | 27,601 | 38,128 |
| September | 195 | 1,138 | 3,337 | 196 | 2 | 10,753 | 15,621 | 24,284 | 30,104 |
| October | 476 | 889 | 4,496 | 497 | 20 | 11,028 | 17,406 | 24,218 | 32,023 |
| November | 241 | 1.187 | 3.287 | 359 | 66 | 9,547 | 14,687 | 16,189 | 26,561 |
| December | 118 | 726 | 3,148 | 272 | 17 | 9,074 | 13,355 | 11,052 | 23,125 |
|  | Primarily manufactured products |  |  |  |  |  |  |  | Total manufactured imports |
|  | Handkerchiefs |  |  | Narrow fabrics ${ }^{4}$ | Knit fabric | Floor covering | Other manu ${ }^{5}$ factures ${ }^{5}$ | Total |  |
|  | 1,000 pounds |  |  |  |  |  |  |  |  |
| 1982 | 1,162 |  |  | 10,089 | 2,284 |  | ${ }^{6} 61,749$ | ${ }^{6} 565,377$ | ${ }^{6} 697,959$ |
| 1983 | $1,578$ |  |  | 12,699 | 2,196 | 22,013 | ${ }^{6} 87,192$ | ${ }^{6} 706,441$ | ${ }^{6} 888,937$ |
| 1983 |  |  |  |  |  |  |  |  |  |
| January | 89 |  |  | 1,343 | 183 | 1,340 | ${ }^{6} 5,444$ | ${ }^{6} 53,888$ | ${ }^{6} 67,085$ |
| February | 94 |  |  | 1,239 | 145 | 1,150 | 65,815 | ${ }^{6} 48,436$ | ${ }^{6} 59,356$ |
| March | 86 |  |  | 1.069 | 127 | 1.575 | 66,254 | 647,622 | ${ }^{6} 62,065$ |
| April | 78 |  |  | 1,091 | 212 | 1,749 | 65,588 | ${ }^{6} 45,725$ | ${ }^{6} 60,713$ |
| May | 105 |  |  | 1,114 | 115 | 1,823 | 66,209 68 | 657,457 | 673,946 |
| June | 189 |  |  | 958 | 178 | 2,040 | ${ }^{6} 8,505$ | ${ }^{6} 71.225$ | ${ }^{6} 89,835$ |
| July | 191 |  |  | 915 | 176 | 1,540 | ${ }^{6} 6,814$ | ${ }^{6} 65,374$ | ${ }^{5} 82,184$ |
| August | 136 |  |  | 1,073 | 180 | 1.913 | 67.200 | ${ }^{6} 76,975$ | ${ }^{6} 92,954$ |
| September | 166 |  |  | 978 | 178 | 1,756 | 68,565 | ${ }^{6} 66,684$ | ${ }^{6} 82,305$ |
| October | 148 |  |  | 1,082 | 272 | 2,315 | 69,549 | ${ }^{6} 70,397$ | ${ }^{6} 87,803$ |
| November | 159 |  |  | 970 | 219 | 1,852 | ${ }^{6} 8,295$ | ${ }^{6} 54,848$ | ${ }^{6} 69,535$ |
| December | 137 |  |  | 867 | 211 | 2,960 | ${ }^{6} 8,954$ | 647,810 | ${ }^{6} 61,165$ |

[^6]Table 30-Manmade fiber equivalent of U.S. exports of domestic
manmade fiber manufactures

| Year and month | Tops, yarn, thread, and woven fabric |  |  |  |  | Primarily manufactured products |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Sliver tops, and roving | Yarns spun | Sewing thread and handwork | Tire cord and tire cord fabric | Woven fabric | Total | Hosiery | Underwear and nightwear | 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 |
| 1983 |  |  |  |  |  |  |  |  |  |
| January | 336 | 2,333 | 462 | 1,081 | 9,245 | 13,457 | 7241 | 915 | 4.566 |
| February | 430 | 2,450 | 293 | 1.509 | 8,697 | 13,380 | 257 | 928 | 4,238 |
| March | 373 | 2,384 | 546 | 1,848 | 10,397 | 15.548 | 217 | 983 | 5,222 |
| April | 314 | 2,513 | 332 | 1,616 | 10,839 | 15,613 | 345 | 1.155 | 4.373 |
| May | 527 | 2,351 | 588 | 1.910 | 9,072 | 14,447 | 272 | 946 | 4.248 |
| June | 201 | 2,731 | 495 | 1,655 | 9,066 | 14,147 | - 274 | 908 | 4.574 |
| July | 326 | 2,009 | 368 | 2,087 | 7.712 | 12,503 | 379 | 1,085 | 4.356 |
| August | 326 | 1,545 | 399 | 2,406 | 8,381 | 13,058 | 218 | 1,114 | 4.988 |
| September | 413 | 1,910 | 323 | 2,332 | 9.409 | 14,387 | 263 | 992 | 4,321 |
| October | 380 | 2,156 | 505 | 2,362 | 9,314 | 14,717 | 233 | 1.137 | 5.246 |
| November | 556 | 1,611 | 381 | 2.119 | 8,772 | 13,439 | 170 | 1,072 | 5,388 |
| December | 346 | 1,689 | 384 | 2,320 | 7.757 | 12,495 | - 222 | 810 | 4,382 |
|  | Primarily manufactured products |  |  |  |  |  |  |  | Total manufactured exports |
|  | House furnishings |  | Knit or crocheted | Narrow fabrics ${ }^{3}$ | Floor covering | Other manufactures ${ }^{4}$ |  | Total |  |
|  | 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 |
| 1983 |  |  |  |  |  |  |  |  |  |
| January | 834 |  | 938 | 1,792 | 10,713 |  | 4,508 | 24,509 | 37.966 |
| February | 921 |  | 995 | 1,428 | 9,584 |  | 4,611 | 22,961 | 36,341 |
| March | 1,125 |  | 1,536 | 1,930 | 11,194 |  | 5,647 | 27,855 | 43,403 |
| April | 1,208 |  | 1,240 | 2,026 | 12,804 |  | 4.790 | 27,841 | 43,454 |
| May | 975 |  | 1,258 | 2,226 | 11,234 |  | 4,789 | 25,947 | 40,394 |
| June | 1.049 |  | 1,037 | 2,146 | 10,710 |  | 4,960 | 25,658 | 39,804 |
| July | 744 |  | 1.115 | 2,720 | 7,721 |  | 4,474 | 22,496 | 34,999 |
| August | 854 |  | 1,316 | 2,670 | 7,301 |  | 4,695 | 23,155 | 36,213 |
| September | 722 |  | 1,286 | 2,262 | 10,001 |  | 5.261 | 25.108 | 39,495 |
| October | 761 |  | 1,542 | 2,399 | 6,373 |  | 4.563 | 22.255 | 36,972 |
| November | 702 |  | 1,137 | 1,990 | 8,257 |  | 4,281 | 22.997 | 36,436 |
| December | 806 |  | 837 | 2,133 | 8,647 |  | 4,903 | 22.741 | 35.236 |

'Includes products made from waste. Includes pile and tufted tabric such as corduroy includes ribbons. trimmings. and braids (except hat braids). ${ }^{4}$ Not elsewhere classified

Compiled from reports of the Bureau of the Census

Table 31. - Manmade fiber production and capacity'

| Fiber | 1982 | 1983 |  |  |  | 1984 |  |  |  |  |  | Projected 1985 capacity | Average annual change 1983-85 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Year | 10 | 20 | 30 | 4Q | Year | 1Q | 2Q | 30 | 40 | Year |  |  |
| Million pounds |  |  |  |  |  |  |  |  |  |  |  |  | Percent |
| $\begin{aligned} & \text { Grand total }{ }^{23} \\ & \text { all fibers } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 12,091 | 2,981 | 2,985 | 2,971 | 2,966 | 11,913 | 3.002 | 3.041 | 3.049 | 3.064 | 12,156 | 12,382 | +2.0 |
| Production | 7,942 | 2,090 | 2,380 | 2.415 | 2,459 | 9,344 |  |  |  |  |  |  |  |
| Percent | 66 | 70 | 80 | 81 | 83 | 78 |  |  |  |  |  |  |  |
| Total staple ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 5,388 | 1,327 | 1,328 | 1,336 | 1,347 | 5.338 | 1.364 | 1,381 | 1,389 | 1,400 | 5,534 | 5,649 | +2.9 |
| Production | 3.758 | 979 | 1,107 | 1,125 | 1.131 | 4,342 |  |  |  |  |  |  |  |
| Percent | 70 | 74 | 83 | 84 | 84 | 81 |  |  |  |  |  |  |  |
| Total filament ${ }^{2} 3$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 6,677 | 1.664 | 1.657 | 1.635 | 1,619 | 6,575 | 1,638 | 1,660 | 1,660 | 1,664 | 6,622 | 6,733 | $+1.2$ |
| Production | 4,184 | 1.111 | 1.273 | 1,290 | 1,328 | 5,002 |  |  |  |  |  |  |  |
| Percent | 63 | 67 | 77 | 79 | 82 | 76 |  |  |  |  |  |  |  |
| Polyester total |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 4.404 | 1.078 | 1.080 | 1.073 | 1,066 | 4,297 | 1.080 | 1.095 | 1.095 | 1.095 | 4,365 | 4,426 | +1.5 |
| Production | 3,168 | 815 | 920 | 890 | 918 | 3,543 |  |  |  |  |  |  |  |
| Percent | 72 | 76 | 85 | 83 | 86 | 82 |  |  |  |  |  |  |  |
| Staple 070708080 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 2,776 | 677 | 678 | 683 | 689 | 2.727 | 702 | 716 | 716 | 716 | 2,850 | 2,885 | +2.9 |
| Production | 1,955 | 492 | 559 | 562 | 571 | 2,184 |  |  |  |  |  |  |  |
| Percent | 70 | 73 | 82 | 82 | 83 | 80 |  |  |  |  |  |  |  |
| Filament |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 1,628 | 401 | 402 | 390 | 377 | 1.570 | 378 | 379 | 379 | 379 | 1,515 | 1,541 | -0.9 |
| Production | 1,213 | 323 | 361 | 328 | 347 | 1,359 |  |  |  |  |  |  |  |
| Percent | 75 | 81 | 90 | 84 | 92 | 87 |  |  |  |  |  |  |  |
| Nyion total |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 2,933 | 723 | 723 | 723 | 725 | 2,894 | 728 | 730 | 735 | 742 | 2,935 | 3.028 | +2.3 |
| Production | 1,927 | 508 | 611 | 644 | 655 | 2,418 |  |  |  |  |  |  |  |
| Percent | 66 | 70 | 85 | 89 | 90 | 84 |  |  |  |  |  |  |  |
| Staple |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 987 | 246 | 247 | 250 | 254 | 997 | 256 | 258 | 263 | 269 | 1,046 | 1.105 | +5.4 |
| Production | 685 | 196 | 235 | 252 | 243 | 926 |  |  |  |  |  |  |  |
| Percent | 69 | 80 | 95 | 101 | 96 | 93 |  |  |  |  |  |  |  |
| Filament 470 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 1.946 | 477 | 476 | 473 | 471 | 1,897 | 472 | 472 | 472 | 473 | 1,889 | 1.923 | +0.7 |
| Production | 1,242 | 312 | 376 | 392 | 412 | 1,492 |  |  |  |  |  |  |  |
| Percent | 64 | 65 | 79 | 83 | 89 | 79 |  |  |  |  |  |  |  |
| Olefin total |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 1,281 | 331 | 335 | 340 | 345 | 1,351 | 349 | 353 | 359 | 363 | 1.424 | 1.474 | +4.5 |
| Production | 723 | 205 | 230 | 233 | 227 | 897 |  |  |  |  |  |  |  |
| Percent | 56 | 62 | 69 | 69 | 66 | 66 |  |  |  |  |  |  |  |
| Staple |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 273 | 67 | 67 | 69 | 70 | 273 | 72 | 73 | 77 | 80 | 302 | 323 | +9.2 |
| Production | 138 | 38 | 43 | 50 | 55 | 186 |  |  |  |  |  |  |  |
| Percent | 51 | 57 | 64 | 72 | 79 | 68 |  |  |  |  |  |  |  |
| Filament |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 1,008 | 264 | 268 | 271 | 275 | 1,078 | 277 | 280 | 282 | 284 | 1.124 | 1,150 | +3.3 |
| Production | 585 | 167 | 187 | 183 | 172 | 709 |  |  |  |  |  |  |  |
| Percent | 58 | 63 | 70 | 68 | 63 | 66 |  |  |  |  |  |  |  |
| Acrylic staple |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 838 | 208 | 208 | 206 | 205 | 827 | 205 | 206 | 205 | 206 | 822 | 822 | -0.3 |
| Production | 624 | 160 | 178 | 169 | 163 | 670 |  |  |  |  |  |  |  |
| Percent | 74 | 77 | 86 | 82 | 80 | 81 |  |  |  |  |  |  |  |
| Non-cellulosic non-glass total ${ }^{2}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 9,485 | 2,347 | 2,354 | 2,349 | 2,349 | 9,399 | 2,369 | 2,392 | 2,401 | 2,414 | 9.576 | 9,780 | +2.0 |
| Production | 6,459 | 1,693 | 1,944 | 1,941 | 1,968 | 7,546 |  |  |  |  |  |  |  |
| Percent | 68 | 72 | 83 | 83 | 84 | 80 |  |  |  |  |  |  |  |
| Staple |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 4,874 | 1,198 | 1,200 | 1,208 | 1,218 | 4,824 | 1.235 | 1,253 | 1,261 | 1,271 | 5,020 | 5,135 | +3.2 |
| Production | 3,402 | 886 | 1,015 | 1,033 | 1,032 | 3,966 |  |  |  |  |  |  |  |
|  | 70 | 74 | 85 | 86 | 83 | 78 |  |  |  |  |  |  |  |
| Filament ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 4,611 | 1,149 | 1,154 | 1,141 | 1.131 | 4,575 | 1,134 | 1,139 | 1,140 | 1,143 | 4,556 | 4,645 | $+0.8$ |
| Production | 3,057 | 807 | 929 | 908 | 936 | 3,580 78 |  |  |  |  |  |  |  |
| Percent | 66 | 70 | 81 | 80 | 83 | 78 |  |  |  |  |  |  |  |
| Rayon staple |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 510 | 128 | 127 | 127 | 128 | 510 | 128 | 127 | 127 | 128 | 510 | 510 | 0 |
| Production | 355 | 93 | 92 | 92 | 98 | 375 |  |  |  |  |  |  |  |
| Percent | 70 | 73 | 72 | 72 | 77 | 74 |  |  |  |  |  |  |  |
| Acetate filament 00000 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 320 | 80 | 79 | 73 | 67 | 299 | 67 | 67 | 67 | 67 | 268 | 268 | $-5.2$ |
| Production | 195 | 50 | 62 | 61 | 54 | 227 |  |  |  |  |  |  |  |
| Percent | 61 | 63 | 78 | 84 | 81 | 76 |  |  |  |  |  |  |  |
| Glass filament |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 1,687 | 419 | 408 | 406 | 405 | 1,638 | 421 | 438 | 438 | 438 | 1,735 | 1,757 | +3.6 |
| Production | 899 | 245 | 273 | 313 | ${ }^{3} 330$ | 1,161 |  |  |  |  |  |  |  |
| Percent | 53 | 58 | 67 | 77 | 81 | 71 |  |  |  |  |  |  |  |

Table 32. - Raw wool content of United States imports for consumption of wool manufactures ${ }^{1}$


[^7]Table 33.-Raw wool content of United States exports of domestic wool manufactures ${ }^{\mathbf{1}}$

| $\begin{aligned} & \text { Year } \\ & \text { and } \\ & \text { month } \end{aligned}$ | Noils \& wastes ${ }^{\text {? }}$ | Tops and advanced wool |  | Yarns | Woven fabrics | Wool ${ }^{2}$ blankets | Wearing apparel knit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1.000 pounds |  |  |  |  |  |  |
| 1981 | 537 | 2,641 |  | 994 | 1,652 | 88 | 2,031 |
| 1982 | 1,069 | 4,283 |  | 663 | 1,297 | 47 | 1,762 |
| 1983 | 1,860 | 3,770 |  | 250 | 1,073 | 29 | 2,110 |
| 1983 |  |  |  |  |  |  |  |
| January | 47 | 211 |  | 16 | 55 | 3 | 110 |
| February | 31 | 262 |  | 38 | 38 | 2 | 154 |
| March | 231 | 333 |  | 21 | 108 | 2 | 151 |
| April | 234 | 342 |  | 27 | 120 | 2 | 171 |
| May | 292 | 375 |  | 33 | 104 | 4 | 121 |
| June | 247 | 186 |  | 22 | 129 | 4 | 62 |
| July | 111 | 507 |  | 14 | 58 | 2 | 411 |
| August | 102 | 321 |  | 10 | 93 | 2 | 292 |
| September | 189 | 417 |  | 22 | 92 | 2 | 205 |
| October | 147 | 311 |  | 18 | 111 | 2 | 81 |
| November | 124 | 110 |  | 14 | 102 | 2 | 179 |
| December | 105 | 395 |  | 15 | 63 | 2 | 173 |
|  | Wearing apparel other than knit |  | Felts |  | Other manufactures ${ }^{3}$ | Carpets and rugs | Knit fabrics |
|  | 1,000 pounds |  |  |  |  |  |  |
| 1981 | 1,945 |  | 294 |  | 1,729 | 201 | 211 |
| 1982 | 1,131 |  | 235 |  | 1,173 | 180 | 107 |
| 1983 | 865 |  | 297 |  | 953 | 9,313 | 232 |
| 1983 |  |  |  |  |  |  |  |
| January | 59 |  | 7 |  | 69 | 406 | 36 |
| February | 38 |  | 12 |  | 44 | 485 | 2 |
| March | 39 |  | 27 |  | 72 | 471 | 6 |
| April | 47 |  | 26 |  | 54 | 835 | 1 |
| May | 51 |  | 12 |  | 68 | 512 | 35 |
| June | 59 |  | 41 |  | 94 | 997 | 2 |
| July | 76 |  | 6 |  | 122 | 523 | 5 |
| August | 154 |  | 51 |  | 58 | 531 | 29 |
| September | 105 |  | 22 |  | 106 | 1,097 | 48 |
| October | 92 |  | 31 |  | 112 | 1,148 | 19 |
| November | 64 |  | 40 |  | 80 | 1,197 | 24 |
| December | 81 |  | 22 |  | 74 | 1,111 | 25 |

[^8]
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[^0]:    ${ }^{1}$ Includes Western Europe, Eastern Europe, Japan, PRC, Korea, Taiwan, and Hong Kong. ${ }^{2}$ Includes the USSR, Pakistan, Egypt, Sudan, Turkey, Central America, and Mexico. ${ }^{3}$ Total trade of individual countries, including intra-regional trade. Worid imports and exports may not balance due to cotton in transit and reporting discrepancies in some countries. ${ }^{4}$ Less than 50,000 bales. ${ }^{5}$ February projections.
    Totals may not add and stocks may not balance due to rounding, a small quantity of cotton destroyed, and differences unaccounted.

[^1]:    ${ }^{1}$ Preliminary

[^2]:    ${ }^{1}$ Compiled from Bureau of the Census data and adjusted to an August 1480 -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 absorbtion 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 refiects, 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). ${ }^{6}$ In 2 udes American-Pima, Sea Island, and foreign grown ELS cotton. ${ }^{7}$ Preliminary and estimated. ${ }^{8}$ Crop Reporting Board report of January, 1984.

[^3]:    ${ }^{1}$ Preliminary. ${ }^{2}$ Includes nylon, acrylic and modacrylic, polyester, and other manmade fibers. 3/480-pound net weight bales.
    Compled from reports of the Bureau of the Census.

[^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 veilings, 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. ${ }^{8} 480-\mathrm{pound}$ 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.
    Compiled from reports of the Bureau of the Census.

[^5]:    ${ }^{1}$ 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. 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 articies. Includes rubberized fabrics, bags and industrial belt and belting. ${ }^{8} 480$-pound net weight bales.
    Compiled from reports of the Bureau of the Census.

[^6]:    ${ }^{T}$ 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, allovers, etc., embroderies, 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 categoris. The raw fiber equivalent quantity for May-December 1982 was 109,137 thousand pounds. For JanuaryDecember 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.
    Compiled from reports of the Bureau of the Census.

[^7]:    Includes manufactures of mohair. alpaca, and other wool-like specialy hair. ${ }^{2}$ Includes pile fabric and manufactures, tapestry and upholstery goods press and billard ctoths. "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. ${ }^{5}$ Not including rags.
    Compiled from reports of the Bureau of the Census.

[^8]:    ${ }^{1}$ 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.

