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Based on August 1 crop conditions, 1988 U.S. cotton production is estimated at 14.9 million bales, up from 14.8 million in 1987. Harvested acreage is up 16 percent to 11.6 million acres, reflecting this year's smaller acreage reduction program. The average cotton yield in 1988 is forecast at 616 pounds per harvested acre, 3 percent above the previous 5-year average, but 13 percent below last year's record yield. Lower yields are expected in all regions of the Cotton Belt, ranging from a 4 -percent decline in the Southeast to 13-15 percent declines elsewhere.

The total supply of cotton is forecast at 20.5 million bales for 1988/89, the largest since the 1966/67 season. With production expected to exceed total use again this season, stocks at the end of 1988/89 could increase to 8.9 million bales, compared with an estimated 1987/88 carryover of 5.6 million.

Although U.S. textile imports remain at very high levels, domestic mills used more cotton in 1987/88 than at any time since $1972 / 73$. Strong early-season usage, partially associated with large denim demand, led to the higher consumption. Mill use for 1987/88 was an estimated 7.7 million bales. This season, slower denim business and larger textile inventories could contribute to mill use falling to near 7.0 million bales. Domestic per capita cotton consumption may fall over 2 pounds this season.
U.S. cotton export sales, including rollover, for delivery during 1987/88 reached 3.7 million bales by the start of last season, the highest preseason commitments in the 1980's. At the beginning of the 1988/89 marketing year, export sales totaled only 2.4 million bales, a result of noncompetitive U.S. prices and improved 1988 foreign production prospects. The current 1988/89 U.S. cotton export forecast is 4.7 million bales, nearly 2 million below last season. The U.S. share of global cotton trade is projected at 20 percent, compared to 27 percent in 1987/88.

World cotton production in 1988/89 is expected to rise to nearly 86 million bales, 7 percent above 1987/88 and the second largest on record. Foreign production is projected up almost 5 million bales and may total 71 million bales. These gains reflect both increased area
and improved yields. India, Greece, Turkey, and Australia expect record crops.

World cotton exports are projected to decline 2 percent or about 500,000 bales in 1988/89, but remain the third highest on record. Exports are expected to rise among many foreign producers because of substantial carryover supplies from last season in Pakistan and the Southern Hemisphere, and recoveries from weather-related declines in several northern producing countries.

World consumption is forecast at nearly 83 million bales, about matching 1987/88. Consumption is expected to increase primarily among producers while falling among importers. Foreign consumption is projected to rise 1 percent and total nearly 76 million bales. World stocks are expected to increase nearly 9 percent and total over 35 million bales by the end of this season. All of the stock buildup is expected to occur in the United States, while foreign stocks are expected to decline 2 percent.

World and U.S. cotton prices generally moved lower last season, reflecting larger 1987 U.S. and foreign production, stable world consumption, adequate carryover supplies, and larger 1988 production prospects in most major producing countries. Prices in Northern Europe--the " A " and " B " indices--have declined nearly 21 and 25 percent, respectively, since last August. The average U.S. spot price for Strict Low Middling (SLM) $1-1 / 16$ inch cotton continued to fall last season through April, then strengthened this spring due to early season weather problems before dropping lower during July and averaging 57 cents per pound.
U.S. cotton has not been competitively priced in world markets for several months. Reduced export sales, together with the large 1987 crop and the potential for another large crop in 1988, are expected to result in a significant increase in U.S. stocks and higher program costs this season. To make U.S. cotton more competitive, the Secretary of Agriculture on August 19 amended the regulations for determining the prevailing world market price, adjusted to U.S. quality and location. The transportation adjustment component of the formula has been revised to
reflect actual transportation costs more accurately. Also, the adjustment for coarse count cotton has been modified.

In addition, several provisions of the price support loan program were revised on August 22. The most important revision is that when the U.S. upland cotton loan rate plus the sum of accrued interest and warehouse charges (except compression) exceeds the adjusted world price, the Commodity Credit Corporation will not require payment of that portion of the interest, and will pay that portion of warehouse charges that is determined to permit upland cotton loan collateral to be redeemed with cash at the adjusted world price.

These changes in the upland cotton program have lowered the adjusted world price
for base quality cotton as well as coarse count cotton, and reduced the cost of redeeming cotton under loan with cash. These revisions are expected to have a significant influence on U.S. export potential for the remainder of this marketing year.

Raw wool mill consumption in second-quarter 1988 was 37 million pounds, clean, 5 percent below the first quarter. The woolen system used 14 million pounds, 11 percent below the previous quarter, while the worsted system's use, at 19 million, was 3 percent more. Carpet mills used 4 million pounds, 15 percent below the first quarter. Both woolen and worsted mills are using a smaller share of the finer grades because of higher prices. Stocks of raw wool on January 1, 1988 were 45 million pounds, clean, 10 percent below 2 years earlier.

## TEXTILES AND THE ECONOMY

The U.S. economy continues to expand during 1988, as evidenced by the following:
o Real gross national product increased 3.3 percent in the second quarter, following a 3.4 -percent rise in the first quarter;

- Industrial production rose .4 percent in June, .8 percent in July, and has not slipped since September of the past year;
- Capacity utilization increased .4 percent in July to 83.5 percent--its highest level in over 7 years;
- In June the index of leading economic indicators rose a strong 1.4 percent;
o Unemployment during the first half of 1988 is well below average;
- Personal income continues to increase, with substantial gains in wages and salaries.

The driving force behind the expansion is demand--strong export demand for U.S. goods and increasing domestic demand for plant and equipment. With some industrial sectors operating near 90 percent of capacity, many analysts foresee upward pressure on prices resulting in inflation. Not surprisingly, recent monetary policy has focused on tightening credit through higher interest rates in order to alleviate these pressures.

Many of the trends in the general U.S. economy are paralleled in the textile and apparel sectors, while some are not. Comparison of January-June dollar values of imports and exports for 1987 and 1988 reveals that in 1988, general merchandise imports are up 11 percent, textile yarn and fabric imports are up 1 percent, and clothing imports are up 1 percent; while general exports are up 31 percent, textile yarn and fabric exports are up 22 percent, and clothing exports are up 36 percent over the same period in 1987. Thus, in the textile and apparel sectors, imports have lagged and exports have kept pace with the general trend.

While the value of imports has remained rather stable recently, the quantity of imports has declined. Comparison of January-June imports for 1987 and 1988 indicates that cotton, wool, and manmade fiber textile imports in 1988 are down 7.7, 15.7, and 7.2 percent, respectively, from the like period of 1987. Import price increases have compensated for decreased volume to maintain the value of imports.

The U.S. import price index for all commodities, less fuel, rose 8.7 percent from June 1987 to June 1988. Textile import prices increased 7.9 percent and clothing import prices increased 5.1 percent. In the second
quarter of 1988, import prices for clothing decreased .7 percent. The relatively small import price increase for clothing seems to indicate that foreign producers are more willing to absorb exchange rate losses than to give up market share.

The U.S. unemployment rate for all wage and salary workers stood at 5.4, 5.0, and 5.1 percent in May, June, and July, respectively. Unemployment in the textile mill products sector (and apparel, in parenthesis) for these three months was 6.1 (7.1), 4.1 (7.5), and 4.1 (6.8) percent, respectively. For both sectors, these rates indicate an improvement over early-1988 levels.

As more people work, personal income has increased. Through the first 6 months of 1988, real disposable personal income (DPI) increased 1.46 percent, while real personal consumption expenditures (PCE) increased 1.6 percent. In 1987 (and 1986), real DPI increased 1.72 (3.86) percent and real PCE increased 2.68 (4.26) percent for the year, respectively.

During the last year, consumption expenditure increases have largely accrued to durable goods producers, and this pattern continues. However, sales to apparel and accessory stores posted sizable gains in June ( 1.4 percent) and July ( 1.6 percent). Slow sales helped push the inventory/sales ratio to very high levels earlier in the year, before stocks were drawn down and sales strengthened (Figure 1).

Figure 1
Inventory/Sales Ratio Remains Large


A comparison of growth rates for real disposable income and real personal consumption expenditures reveals that through mid-1988 the pattern was similar to 1986, a year of low inflation. In 1988, consumers do not appear to be outspending income increases, and yet there are signs of upward pressure on prices. Through July, the consumer price index for urban consumers indicated prices increasing at a 4.5 -percent annual rate. One significant difference in the general economies of 1986 and 1988 is the level of industrial capacity utilization (other differences would be falling oil prices in 1986 and the decrease in the value of the dollar). For all of 1986, utilization averaged 79.4 percent, and now it is about 4 percentage points higher. Capacity constraints may thus limit output and push prices upward.

While some industrial sectors are approaching the 90 -percent utilization level, the textile mill sector has been operating at or near this level for some time (Figure 2). The high levels in textile mills are due largely to slow capacity increases over the last decade (Figure 3). Should textile mills experience demand increases similar to those among other sectors, severe constraints may arise. However, recent data indicate textile mill capacity utilization is slackening somewhat. Perhaps this trend portends less pressure on consumer prices for textile products.

As inflation continues to dominate concerns about the 1988 U.S. economy, recent trends in apparel prices have eased concern in

Figure 2
Textlle Mill Capacity Utilizatlon High


Figure 3
Textlle Mill Capacity Lags

that area. Prices for apparel and upkeep decreased .3 percent in June and .6 percent in July to an annual rate of 5.6 percent--still high, but much improved over the double-digit rate of early 1988.

## U.S. COTTON SITUATION AND OUTLOOK

Upland Cotton Situation

## Overview

The 1987 upland cotton crop totaled 14.5 million bales, 52 percent above a year earlier. Harvested area was 9.9 million acres, and the national average yield rose to a record 702 pounds per harvested acre, up 155 pounds from 1986 and 74 pounds above the previous record in 1985.

The 1988 U.S. upland cotton crop is forecast at 14.5 million bales, based on August 1 conditions. Planted acreage of 12.0 million was 16 percent more than 1987, while forecast yield of 611 pounds per acre would be 13 percent below the previous year. The total supply of upland cotton is forecast at 20.1 million bales for $1988 / 89,664,000$ above the previous year and the largest since 1966.

Mill use of upland cotton during 1987/88 was 7.6 million bales, 4 percent more than the previous season and the largest since 1972/73. However, mill consumption in 1988/89 is
expected to drop to near 6.9 million bales, reflecting higher textile inventories and reduced demand for denim. Upland exports are projected to fall to 4.4 million bales, a decline of 31 percent from 1987/88. Fierce competition from near-record and generally lower- priced foreign crops has reduced U.S. export prospects. Ending stocks on August 1, 1989 could increase to 8.8 million bales, based on production and use projections.

## Crop Conditions Improve

Based on August 1 crop conditions, 1988 upland production is estimated at 14.5 million bales, about matching the 1987 crop. Based on past differences between the August estimate and final production, chances are 2 out of 3 that 1988 production will range between 13.3 and 15.8 million bales.

Planted acreage in 1988 is estimated at 12.0 million acres, about 1.7 million more than a year earlier. Participation in the 12.5-percent acreage reduction program (ARP) is projected at 88 percent, down slightly from 1987 which had 92 -percent
participation. Participation rates dropped slightly in all states except Arizona, where 83 percent of the base is enrolled in the ARP. compared to 79 percent in 1987.

The 1988 cotton acreage base increased by almost 100,000 acres from the 1987 level to 14.6 million acres. However, since 1986/87, about 1.0 million acres of cotton base have been enrolled in the conservation reserve program. For 1988/89, actual plantings represent only 92 percent of participants' permitted plantings, plus the nonparticipants' base. In the Southwest, permitted plantings by participants alone are 6.0 million acres, while total planted acreage is only 5.8 million. However, actual plantings in the Delta represent 102 percent of full plantings (table A).

The average cotton yield in 1988 is forecast at 611 pounds per harvested acre, 3 percent above the previous 5-year average of 596 pounds, but 13 percent below last year's record yield. Lower yields are expected in all regions of the Cotton Belt. However, yields in the Southeast are expected to be down only 4 percent, compared to reductions of 13-15 percent elsewhere (table B).

Table A. -Estimated 1988 upland cotton acreage

| Region 1/ | Base 2/ | Enrolled $3 /$ | Full plantings 4/ | Actual planted 5 | Planting proportion 6/ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\ldots \ldots$ |  |  |  | Ratio |
| Southeast | 1,141 | 1,032 | 1,013 | 980 | 0.97 |
| Delta | 3,725 | 3,410 | 3,300 | 3,380 | 1.02 |
| Southwest | 7,464 | 6,853 | 6,607 | 5,841 | 0.88 |
| West | 2,235 | 1,522 | 2,044 | 1,760 | 0.86 |
| Total | 14,565 | 12,817 | 12,963 | 11,951 | 0.92 |

1/ States in order of greater base acres are: Southeast: AL, GA, SC, NC, FL, VA; Delta: MS, LA, AR, TN, MO, ; Southwest: TX, OK, KS; West: CA, AZ, NM, NV. 2/ Acres eligible for cotton program benefits. 3/ Acres enrolled in the 1988 cotton program. 4/ Enrolled acres less 12.5 percent plus the nonparticipants' base. Nonparticipants may exceed their base acres. 5/ August crop production report. 6/ Actual plantings as a proportion of full plantings.

Table B. --Estimated 1988 and actual 1987 upland cotton acreage, yield, and production i/

| Region | Planted | Harvested | Yield | Production |
| :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  |  |  |  |  |

During the first 6 months of 1988, U.S. imports of foreign cotton textiles totaled 2.2 million bale-equivalents, 7 percent below the same period in 1987. In addition, U.S. textile exports increased 8 percent above year-ago levels. Even though the weaker dollar has led to a slight improvement in the cotton textile trade balance, the deficit is expected to be near 3.8 million bale-equivalents for calendar year 1988. Cotton textile imports may account for more than 40 percent of total domestic consumption this year (table C).

Although textile imports remain at very high levels, U.S. mills used more upland cotton in 1987/88 than at any time since 1972/73. Strong early-season usage, partially associated with large denim demand, led to higher mill consumption last season. Upland mill use for 1987/88 was an estimated 7.6 million bales. This season, slower denim business and larger textile inventories could contribute to mill use falling to 6.9 million bales. Weaker cotton prices relative to polyester may result in some substitution in favor of cotton in blends (figure 4). However, domestic cotton consumption could fall over 2 pounds per capita in 1988.

Upland cotton export sales, including rollover for delivery in 1987/88, had reached 3.5 million bales by the start of the season, the highest preseason commitments in the 1980's (table D). In 1987/88 preseason sales accounted for 55 percent of actual U.S. shipments during the marketing year and have averaged 53 percent for the past 4 seasons. As of July 31, 1988, preseason sales plus carryover totaled only 2.2 million bales. Noncompetitive U.S. prices and improved 1988

Figure 4
Cotton Prices Become More Competitive


Table C. --Per capita domestic cotton consumption I/

| Calendar <br> year | Mill <br> consumption | Imports |
| :--- | :---: | :---: | :---: | :---: | :---: |

[^0]Source: Bureau of the Census.

Table D. --Preseason upland cotton export sales, carryover sales, and actual exports

| Crop <br> year | Preseason <br> sales 1/ | Carryover <br> $2 /$ | Total | Crop year <br> exports |
| :--- | :---: | :---: | :---: | :---: |


| Million bales |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
|  |  |  |  |  |
| 1980 | 2.6 | 0.8 | 3.4 | 5.9 |
| 1981 | 1.2 | .4 | 1.6 | 6.6 |
| 1982 | 1.4 | .5 | 1.9 | 5.2 |
| 1983 | 2.2 | .7 | 2.9 | 6.8 |
| 1984 | 2.4 | .7 | 3.1 | 6.1 |
| 1985 | .8 | .5 | 1.3 | 1.9 |
| 1986 | 3.1 | .2 | 3.3 | 6.6 |
| 1987 | 3.1 | .4 | 3.5 | $3 / 6.4$ |
| 1988 | 1.8 | .4 | 2.2 | $4 / 4.4$ |

T/ New-crop sales as of July 31. $2 /$ Undelivered old-crop sales as of July 31. 3/ Estimated. 4/ Projected.
Source: USDA, Foreign Agricultural Service.
foreign production prospects have contributed to lower U.S. export sales. The current 1988/89 upland cotton export forecast is 4.4 million bales, 2.0 million below last season.

## Cotton Prices Fell Last Season

World and U.S. cotton prices generally moved lower last season, reflecting larger 1987 U.S. and foreign production, stable world consumption, adequate carryover supplies, and larger 1988 production prospects in most major producing countries. Prices in Northern Europe--the " A " and " B " indexes---have declined nearly 21 and 25 percent, respectively, since last August (table E).

The average U.S. spot price for Strict Low Middling (SLM) $1-1 / 16$ inch cotton continued to fall last season through April, then strengthened this spring due to early-season weather problems before dropping lower during July. The adjusted world price, representing the U.S. equivalent of world prices, followed a pattern similar to spot prices and established a seasonal low in July, averaging 52.18 cents per pound. During the 1987/88 season, the marketing loan provisions for U.S. cotton were implemented for a 1 -week period in May and the last 2 weeks in July.

Lower cotton prices last season resulted in substantial CCC loan entries. Upland cotton under loan at the end of the marketing year totaled 3.2 million running bales (table F). Almost 5.4 million bales of 1987 -crop
cotton have been entered this season, with Southern Plains cotton making 41 percent of the total. Only 29 percent of the 1987 Southern Plains crop placed under loan was redeemed last season.

## New-Crop Prices Noncompetitive

U.S. price quotations for 1988-crop cotton delivered on the Northern European market climbed 5-7 cents per pound above foreign competitor prices this summer. During June, Memphis Territory A-type cotton averaged 72 cents per pound, c.i.f. Northern Europe, while price quotations from Pakistan, which are generally the lowest in the index, were 66 cents. In recent weeks, Memphis Territory prices have remained 5 cents above Pakistani quotes (figure 5). Similarly, for coarse count cottons, Orleans/Texas price quotations ranged 4-7 cents above Pakistani B-type cotton bids. In July, Orleans/Texas quotes for November/December delivery, c.i.f. Northern Europe, averaged 61 cents per pound compared to 55 cents for Pakistani growths (figure 6). More recently, the price difference has declined to about 4 cents a pound.

## Program Changes Should Enhance

## U.S. Exports

U.S. 1987-crop cotton has generally not been competitive in world markets since last February, and 1988-crop cotton since May. As a result, both old-crop and new-crop export sales have declined. Reduced sales, together with the larger-than-expected 1987 crop and the potential for another large crop in 1988, have resulted in a significant increase in U.S. stocks, lower cotton prices, and higher program costs.

To make U.S. cotton more competitive in world markets, the Secretary of Agriculture on August 19 amended the regulations for determining the prevailing world market price for upland cotton, adjusted to U.S. quality and location (adjusted world price).

1. Transportation Adjustment - The period for determining the adjustment of the Northern Europe price to average designated U.S. spot market has been reduced from 156 weeks to 52 weeks, and includes authority to further adjust the 52-week calculation if, based on periodic reviews of actual transportation costs, it is determined that the calculated adjustment is not reflecting actual transportation costs.

Table E. --World and U.S. cotton prices in 1987/88

Month A Northern Europe 1/ B Spot $\quad$| United States 2/ |
| :--- |
| futures | Adjusted world

- . . . . . . . . - Cents/lb. . . . . . . . . . .

|  |  | 81.55 | 75.89 | 69.08 | 74.27 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| August | 86.60 | 78.44 | 71.41 | 66.94 | 72.01 |
| September | 83.61 | 70.77 | 64.30 | 64.21 | 64.73 |
| October | 76.17 | 71.73 | 64.66 | 64.26 | 63.48 |
| November | 75.83 | 71.08 | 62.26 | 63.26 | 60.29 |
| December | 75.29 | 68.15 | 59.69 | 62.53 | 50.62 |
| January | 72.19 | 64.21 | 57.83 | 59.50 | 55.69 |
| February | 67.49 | 62.69 | 59.64 | 57.61 | 54.34 |
| March | 66.34 | 61.30 | 60.07 | 56.07 | 53.78 |
| April | 65.75 | 61.30 | 61.55 | 59.48 | 53.52 |
| May | 65.58 | 62.73 | 62.86 | 63.84 | 56.70 |
| June | 68.78 | 61.50 | 57.40 | 57.12 | 52.19 |

1/A=Northern Europe price for MiddIing, $1-3 / 32$ inch; $B=$ Northern Europe coarse count price. Monthly prices are averages of Thursday quotes. 2/Spot and December futures for SLM, 1-1/16 inch at average U.S. producing location.

Table F.-Cotton loan statistics I/

| Region | Loans made |  |  | Loans repaid |  |  | Loans outstanding |  |  | Loans forfeited |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1985 | 1986 | 1987 | 1985 | 1986 | 1987 | 1985 | 1986 | 1987 | 1985 | 1986 | 1987 |
|  | - . . . . . . . . . . - 1,000 running bales- . . . . . . . . . . . . . |  |  |  |  |  |  |  |  |  |  |  |
| Southeast 2/ | 584.7 | 550.0 | 280.9 | 568.8 | 539.2 | 108.4 | 2.0 | 9.4 | 172.5 | 13.9 | 1.4 |  |
| Delta 3/ | 2,403.6 | 2,553.3 | 1,811.2 | 2,334.9 | 2,494.9 | 1,008.6 | 8.5 | 53.8 | 802.6 | 60.2 | 4.6 |  |
| Southern Plains 4/ | 2,786.9 | 1,860.1 | 2,196.1 | 2,700.9 | 1,801.7 | 636.6 | 3.2 | 56.0 | 1,559.5 | 82.8 | 2.4 |  |
| West 5/ | $1,513.6$ | 1,205.2 | 1,073.4 | 1,508.6 | 1,197.7 | 586.1 | 1.3 |  | 487.3 | 3.7 | 0.2 | 6/ |
| U.S. | 7,288.8 | 6,168.6 | 5,361.6 | 7,113.2 | 6,033.5 | 2,339.7 | 15.0 | 126.5 | 3,021.9 | 160.6 | 8.6 |  |

Figure 5

## New-Crop Cotton Prices Favor <br> Forelgn Growths



[^1]Figure 6
U.S. and Forelgn Coarse Count Cotton Prices Fall


[^2] European market for Nov-Dec 1988 delivery.
2. Coarse Count Adjustment - The additional adjustment for coarse count cotton will be modified by: (a) removing the 1 -cent minimum adjustment and (b) applying the adjustment to any grade of upland cotton with a staple length of $11 / 32$ inch or shorter and to the following grades of upland cotton with a staple length of 1-1/16 inch or longer: White Grades; SGO Plus, SGO, GO Plus, and GO, Light Spotted Grades; LM and SGO, Spotted Grades; Mid, SLM, LM, and SGO, Tinged Grades; SM, Mid, SLM, and LM, Yellow Stained Grades; SM and Mid, Light Gray Grades; SLM and Gray Grades; Mid and SLM.

The initial effect of the revised transportation adjustment increased charges 2.2 cents per pound, which decreased the adjusted world price by the same amount. Similarly, the coarse count adjustment in effect for August 19-25 was 0.74 cents per pound.

In addition to changes in the calculation of the world price formula, the provisions of the price support loan program are being revised. All price support loan redemptions of upland will be calculated based on the schedule of premiums and discounts for grade and staple, and the schedule of micronaire differences and location differentials applicable to each warehouse location that were in effect for the crop year in which the cotton was produced.

Also, for qualities of cotton eligible for the coarse count adjustments, price support loan redemptions will be permitted with cash at: the lower of the adjusted world price, adjusted to specific qualities and warehouse locations based upon the schedule of premiums and discounts for grade and staple and at the location differentials applicable to each warehouse location that were in effect for the crop year in which the cotton was produced and for the announced coarse count adjustment for the week in which the redemption occurs; or the loan rate for the specific quality and location that was in effect for the crop year in which the cotton was produced.

On August 22, 1988 the Secretary of Agriculture announced additional changes in the 1988 upland cotton program, designed to further ensure that U.S. upland cotton will be competitive in world markets. When the U.S.
upland cotton loan rate plus the sum of accrued interest and warehouse charges (except compression) exceeds the adjusted world price, the Commodity Credit Corporation will not require payment of that portion of the interest and will pay that portion of the warehouse charges that is determined necessary to permit upland cotton loan collateral to be redeemed with cash at the adjusted world price.

Prior to this announcement, when upland cotton pledged as loan collateral was redeemed with cash, the redeemer had to pay all the accrued interest plus warehouse charges previously paid by the CCC.

Under the new procedure for cash redemption, when the adjusted world price is:
(1) Below the loan rate for the base quality of 52.25 cents per pound for the 1987 crop and 51.8 cents for the 1988 crop, CCC will not require the payment of any interest and will pay all of the warehouse charges.
(2) Above the base loan rate by less than the sum of accrued interest and warehouse charges, CCC will not require the payment of that portion of the accrued interest, and will pay that portion of the accrued warehouse charges that are determined to be necessary to permit the loan collateral to be redeemed at the adjusted world price.
(3) Above the base loan rate by as much as or more than the sum of the accrued interest and warehouse charges, CCC will require the payment of all accrued interest and will not pay any of the accrued warehouse charges. In such case, the loan collateral may be repaid at the loan rate plus accrued interest and any warehouse charges previously paid by CCC.

The recent changes in the 1988 upland cotton program have lowered the adjusted world price for base quality cotton as well as coarse count cottons, and reduced the cost of redeeming cotton under loan with cash. Although no changes were made in the procedure to obtain loan cotton with certificates, a substantial amount of 1987-crop loans will be phased into an
extended status this fall. When cotton under loan in extended status is obtained with certificates, storage charges for the first 10 months the cotton was under loan are paid by CCC, but storage costs will accrue for months 11 through 18 of the term of the loan.

The changes in the upland cotton program are expected to have a significant influence on U.S. raw cotton exports for the remainder of this season. With U.S. cotton priced more competitively in world markets the potential for U.S. cotton exports is enhanced.

## ELS Cotton Situation

## ELS Exports Remain Strong

Plantings of ELS cotton totaled 197,800 acres in 1988, up 43 percent from 1987. With 1988 average yield projected at 940 pounds per harvested acre, down from 1,000 in 1987, production may reach 386,000 bales, up 35 percent from 1987 (table G).

Exports of ELS cotton of 237,000 bales during 1987/88 were double the 1986 level. Exports for 1988/89 are estimated at 315,000 bales, an increase attributable to strong foreign demand and larger production this season.

Domestic mill consumption fell off sharply during 1987/88. In June, monthly consumption was 3,160 bales, compared with 6,700 the previous June. For the 1987/88

Table G. Estimated 1988 and actual 1987 ELS cotton acreage, yield, and production 1/

| State | Planted | Harvested | Yield | Production |
| :---: | :---: | :---: | :---: | :---: |
|  | --T,000 acres- |  | Lbs./acre | 1,000 bales |
| Arizona 01.0 |  |  |  |  |
| 1987 |  |  | 91.0 | 90.8 | 1,126 | 213.0 |
| 1988 | 140.0 | 139.7 | 1,031 | 300.0 |
| Texas |  |  |  |  |
| 1987 | 32.0 | 31.0 | 787 | 50.8 |
| 1988 | 40.0 | 39.5 | 729 | 60.0 |
| New Mexico 13.9 |  |  |  |  |
|  |  |  |  |  |  |  |
| 1988 | 16.0 | 16.0 | 660 | 22.0 |
| Callfornia |  |  |  |  |
| 1987 | 0.9 | 0.9 | 1,173 | 2.2 |
| 1988 | 1.8 | 1.8 | 960 | 3.6 |
| Total |  |  |  |  |
| 1987 | 137.9 | 136.6 | 1,000 | 284.6 |
| 1988 | 197.8 | 197.0 | 940 | 385.6 |

[^3]season through June, total mill usage was 49,290 bales-well off the pace of the 2 previous years. The decline in domestic mill consumption was largely due to higher ELS cotton prices. ELS farm prices for the 1987/88 season through March averaged \$1.04 per pound, about 16 percent higher than a year earlier. Domestic mill use in 1988/89 is projected at 60,000 bales, up slightly from the past season.

In 1988/89, total ELS usage is expected to reach 375,000 bales, 28 percent above the past season. Strong export demand and strengthened domestic mill consumption should lead use higher. Preseason export sales plus rollover totaled a record 224,700 bales, compared with 113,000 bales a year ago. Based upon estimates of production, exports, and domestic consumption, stocks at the end of 1988/89 may stand at 68,000 bales.

## World ELS Production Increases

According to the International Cotton Advisory Committee, in 1987/88 world ELS production, at 4.3 million bales, was down about 10 percent from the previous year, while consumption in producing countries, at 3.3 million bales, was little changed (table H). The United States, with about 7 percent of world ELS production in 1987/88, ranked fourth among major producers, behind Egypt ( 38 percent), India ( 33 percent), and the Soviet Union (15 percent).

The majority of ELS production in 1987/88 was consumed in producing countries. Consumption/production ratios among major producers were .73, .93, 1.13, and . 19 for Egypt, India, the Soviet Union, and the United States, respectively. Thus, the United States is a major source of ELS cotton for export, and garnered 18 percent of world trade in the 1987/88 marketing year.

The downturn in world production in 1987/88, combined with stable consumption in producing countries and increased use by importers, contributed to a more than 40-percent decline in ending stocks to 324,000 bales. In 1988/89, world production is projected at 5.1 million bales, with increases among all major producing countries. World exports of ELS cotton are expected to increase by one-fourth to 1.6 million bales,

Table H-ELS cotton supply and use in producing countries

| Year Beginning August 1 | 1984 | 1985 | 1986 | $\begin{aligned} & 1987 \\ & \text { Prel. } \end{aligned}$ | $\begin{aligned} & 1988 \\ & \text { Proj. } \end{aligned}$ | $\begin{aligned} & 1989 \\ & \text { Proj. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| beginning stocks |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Egrpt, L. STR. | 82 | 375 | 244 | 121 | 65 | 46 |
| Isrsal | 5 | 5 | 5 | 5 | 5 | 8 |
| Peru | 53 | 12 | 4 | 36 | 13 | 6 |
| Sudan | 164 | 156 | 147 | 234 | 94 | 88 |
| United States 1/ | 82 | 78 | 59 | 84 | 67 | 68 |
| USSR | 13 | 29 | 46 | 46 | 36 | 46 |
| Other producars | 32 | 23 | 27 | 27 | 19 | 28 |
| Subtotal | 444 | 684 | 604 | 555 | 311 | 303 |
| Egypt, ELS | 98 | 72 | 62 | 10 | 13 | 10 |
| Total | 542 | 756 | 666 | 565 | 324 | 313 |
| PRODUCTION |  |  |  |  |  |  |
| Egypt, L. STPL. | 1297 | 1558 | 1324 | 1218 | 1380 |  |
| India | 1758 | 1300 | 1499 | 1394 | 1724 |  |
| Isral | 23 | 33 | 73 | 57 | 98 |  |
| Peru | 71 | 102 | 129 | 49 | 83 |  |
| Sudan | 344 | 309 | 346 | 212 | 284 |  |
| United States 1/ | 130 | 155 | 206 | 285 | 386 |  |
| USSR | 534 | 576 | 598 | 621 | 650 |  |
| Other producers | 26 | 40 | 43 | 43 | 54 |  |
| Subtotal | 4183 | 4073 | 4219 | 3878 | 4660 |  |
| Egypt, ELS | 511 | 417 | 502 | 379 | 397 |  |
| Total | 4694 | 4490 | 4721 | 4257 | 5057 |  |
| CONSUPPTION |  |  |  |  |  |  |
| Egypt, L. STPL. | 1040 | 1172 | 1062 | 950 | 1050 |  |
| India | 1427 | 1420 | 1222 | 1300 | 1443 |  |
| Isral | 7 | 8 | 10 | 10 | 15 |  |
| Peru | 51 | 69 | 48 | 51 | 50 |  |
|  | 52 | 61 | 42 | 22 | 40 |  |
| Unitad States 1/ | 49 | 61 | 67 | 55 | 60 |  |
| USSR | 550 | 660 | 660 | 700 | 700 |  |
| Other producers | 40 | 40 | 44 | 45 | 47 |  |
| Subtotal | 3216 | 3492 | 3155 | 3133 | 3405 |  |
| Egypt, ELS | 158 | 110 | 231 | 216 | 200 |  |
| Total | 3374 | 3602 | 3386 | 3349 | 3605 |  |
| EXPORTS |  |  |  |  |  |  |
| Egypt, L. STPL. | 311 | 346 | 350 | 276 | 350 |  |
| India | 38 | 11 | 400 | 150 | 300 |  |
| Israel | 16 | 25 | 63 | 47 | 80 |  |
| Peru | 61 | 40 | 50 | 20 | 40 |  |
| Sudan | 301 | 256 | 218 | 331 | 250 |  |
| United States 1/ | 90 | 105 | 114 | 237 | 315 |  |
| USSR | 9 | 9 | 11 | 33 | 55 |  |
| Other producars | 25 | 26 | 31 | 38 | 30 |  |
| Subtotal | 851 | 818 | 1237 | 1132 | 1420 |  |
| Egypt, ELS | 359 | 316 1134 | 303 | 160 | 200 |  |
| total | 1210 | 1134 | 1540 | 1292 | 1620 |  |

Source: Cotton: Review of the World Situation, July - August 1988. international Cotton Advisory Committee. Washington, DC.
with the United States increasing slightly to a 19-percent share of 1988/89 ELS exports.

## WORLD COTTON SITUATION AND OUTLOOK

## Production Rises

In 1988/89, world cotton production is expected to rise 7 percent to nearly 86 million bales, as both area and yield increase.
Because of this increase, world supplies will be up. However, at 82.7 million bales, consumption is projected to approximate last season's, increasing primarily among producers while falling among importers. With import demand expected to drop, world trade is forecast down 2 percent to 23.5 million bales (table I).

Excess supplies will raise world stocks nearly 9 percent by the end of 1988/89; but all of the growth will occur in the United States. Foreign stocks are expected to fall 2 percent as their competitive prices raise exports, pushing their market share up and U.S. exports down (figure 7).

Outside the United States, weather has so far been normal to better than normal, and the major Northern Hemisphere competitors are still expecting improved crops. While Southern Hemisphere competitors may not all equal last year's spectacular harvests, they too expect large outturns. Foreign production is forecast at 71 million bales, 8 percent over 1987/88.

China, the largest producer, has had mixed weather this season. Drought and flooding in some areas since June may have affected some of the cotton crop; but it is still too early to assess the impact. According to China's most recent report, area is expected to exceed last year's, so production is still forecast up nearly 8 percent to 21 million bales.

The Soviet crop this year was planted on schedule under good weather conditions for the first time in several seasons. It is projected at 12.4 million bales, 9 percent above 1987/88.

In India, the performance of this year's monsoon has been excellent, and plantings are up considerably over last season's drought-impacted crop. Production is estimated to jump 22 percent to a record 8.6 million bales.

Pakistan, like India, has had a fine start to the rainy season, but reports indicate that flooding may now be a problem in some areas. Output is still likely to match last year's record 6.75 million bales.

Along the Mediterranean, crops are doing very well. Production for Spain, Greece, and Turkey is forecast at $450,000,1$ million, and a record 2.96 million bales, respectively, compared with $378,000,827,000$, and 2.47 million bales in 1987/88.

Egypt is benefiting from rains upstream which improved the water situation, and an output of 1.6 million bales is expected. A

Table 1.-World cotton supply and use, 1987/88 and 1988/89 1/

| Year beginning August 1 | World less United States |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | United States | Major importers 2/ | Major exporters 3/ | Other | Total foreign | World |
| Million 480-pound bales |  |  |  |  |  |  |
| 1987/88 |  |  |  |  |  |  |
| Supply |  |  |  |  |  |  |
| Beginning stocks | 5.0 | 5.6 | 16.0 | 7.9 | 29.5 | 34.5 |
| Production | 14.8 | 1.3 | 45.1 | 19.1 | 65.5 | 80.3 |
| Imports | 4/ | 18.2 | 1.0 | 5.2 | 24.4 | 24.4 |
| Use |  |  |  |  |  |  |
| Mill use | 7.7 | 18.8 | 36.3 | 19.8 | 74.9 | 82.6 |
| Exports | 6.6 | 0.9 | 11.5 | 5.1 | 17.5 | 24.1 |
| Ending stocks | 5.6 | 5.3 | 14.1 | 7.2 | 26.6 | 32.2 |
| 1988/89 |  |  |  |  |  |  |
| Supply |  |  |  |  |  |  |
| Beginning stocks | 5.6 | 5.3 | 14.1 | 7.2 | 26.6 | 32.2 |
| Production | 14.9 | 1.5 | 48.3 | 21.2 | 71.0 | 85.9 |
| Imports | 4/ | 17.7 | 0.7 | 5.1 | 23.5 | 23.5 |
| Use |  |  |  |  |  |  |
| Mill use | 7.0 | 18.3 | 37.2 | 20.2 | 75.7 | 82.7 |
| Exports | 4.7 | 1.1 | 12.3 | 5.4 | 18.8 | 23.5 |
| Ending stocks | 8.9 | 5.0 | 13.4 | 7.8 | 26.2 | 35.1 |

1/ Based on August II, 1988, World Agricultural Supply and Demand Estimates report. 1987/88 estimated and 1988/89 projected. Totals may not add and stocks may not balance due to rounding, a small quantity of cotton destroyed, and differences unaccounted. 2/ Eastern Europe, Western Europe, Japan, Hong Kong, Republic of Korea, and Taiwan. 3/ Australia, China, Central America, Egypt, Mexico, Pakistan, Sudan, Turkey, and the USSR. 4/ Less than 50,000 bales.

Flgure 7
Foreign Production and Exports Rise
As U.S. Exports Fall

potential reduction, however, could be forthcoming in Sudan, as the same rains have recently flooded some of the 750,000 bales of cotton expected there.

Harvest has begun without problems in Mexico, where production is expected to rise 9 percent to 1.1 million bales. Peru and Colombia are also harvesting their first crop while completing planting of the second crop on expanded area.

Higher relative prices and incentives for competing crops are expected to reduce area somewhat in Brazil and Argentina. But Paraguay may continue to expand. Australia is likely to equal last season's large plantings, and better yields are anticipated because of more normal harvest weather.

## Prices Falling, but Consumption Stable

With production prospects strong, world prices generally fell steadily in 1987/88 and are continuing to fall in early $1988 / 89$. The A Index average of the 5 lowest quotes on the Northern European market has dropped in a pattern quite similar to that in 1984/85 and 1985/86 when the United States was priced out of the market (figure 8). The A Index was down to 60 cents per pound at the beginning of 1988/89, compared with 86 cents at the start of last season, and has since slipped to about 55 cents in late August.

Foreign consumption is anticipated to be up marginally, from 74.8 to 75.7 million bales, a 1-percent increase. Higher polyester prices
and lower cotton prices are making cotton more attractive; but the recent slowdown in yarn and textile offtake is reducing import demand.

Use continues strong in producing countries that have substantial domestic demand. Expected consumption increases of 7 percent in Pakistan, 3 percent each in China and India, and 1 percent each in the Soviet Union and Turkey, a total of 1.1 million bales, will more than offset losses among importers.

Despite more attractive prices, cotton demand in Western Europe and Asia remains slow, and buyers are delaying purchases until closer to the time of use. Weak demand in part reflects slower offtake. But slower contracting also suggests buyers expect prices to fall further later in the year. Taking Japan as an example, as of the end of July it had forward purchased only 729,000 tons for 1988/89 delivery, compared with 1.6 million by the same date last season (figure 9).

## Foreign Exports Rise as

## U.S. Exports Fall

With production rising but importers' demand slow, export price competition has intensified to the benefit of foreign exporters. Foreign exports are expected to rise 1.3 million bales to 18.8 million in 1988/89, an 8-percent increase, raising the foreign share of the market.

Until the United States becomes more competitive, U.S. exports are projected to

Figure 8


Figure 9
Japan's Cotton Contracts Slow

total only 4.7 million bales for 1988/89, 29 percent below last season. And the U.S. share of world trade is expected to drop to 20 percent, compared with 27 percent in 1987/88 (figure 10).

Exports are expected to rise among many foreign producers. Because a record 1987/88 crop in Pakistan had not been anticipated until late in the season, substantial exports from that crop will carry over into 1988/89. Similarly, Southern Hemisphere producers with large 1987/88 crops, such as Australia, Paraguay, and Argentina, are also likely to carry exports over into 1988/89 in competition with the U.S. harvest. In addition, increased exports are anticipated from producers recovering from 1987/88 difficulties, such as India, Greece, Spain, Turkey, Syria, and Central America. China, the Soviet Union, Egypt, and western Africa may equal last season's large exports, but are not expected to raise them despite good production.

## U.S. WOOL SITUATION AND OUTLOOK

Raw wool mill consumption in the second quarter of 1988 was 36.5 million pounds, clean, almost 5 percent below the first quarter and 3 percent below a year earlier (table J). Apparel mills used 32.7 million pounds. The woolen system consumed 13.8 million pounds, almost 11 percent below the previous quarter and 18 percent below a year earlier. The worsted system used 18.9 million pounds, 3 percent above the first quarter and nearly 9 percent more than a year earlier. Carpet

Figure 10
U.S. Share of World Exports Drops

mills took 3.8 million pounds in the second quarter, 15 percent below the first. Total raw wool mill use in 1988 is estimated to be 145 million pounds, 2 percent above last year (table K).

Woolen system mills used a smaller share of the more expensive 60's and finer grades in the first and second quarters of 1988,45 and 47 percent, respectively, compared with an average of 53 percent for all the 1987 quarters. The worsted system's share of 60's and finer grades did not fall until second-quarter 1988, when it was 73 percent. During the first quarter it was 79 percent and averaged 78 percent during 1987.

The declining use of the more expensive raw wool grades, finer-than-58's, by American mills is also reflected by import data. These fine grades represented 74 percent in the first quarter and 67 percent in the second. Finer-than-58's raw wool accounted for 56 percent of total raw wool imports in 1986 and 61 percent in 1987.

Stocks of raw wool as of January 1, 1988 were 45.4 million pounds, scoured basis, compared with 50.7 million on January 1, 1986. Apparel raw wool stocks were 40.3 and 46.3 million pounds, respectively. Carpet raw wool stocks were 5.1 and 4.4 million pounds,

Table J.-LU.S. mill consumption of raw wool, scoured basis

| Year | Apparel wool | Carpet wool | Total |
| :---: | :---: | :---: | :---: |
|  | 1,000 pounds |  |  |
| 1982 | 105,857 | 9,825 | 115,682 |
| 1983 | 126,729 | 13,851 | 140,580 |
| 1984 | 128,982 | 13,088 | 142,070 |
| 1985 | 106,051 | 10,562 | 116,613 |
| 1986 | 126,768 | 9,960 | 136,728 |
| 1987 | 129,677 | 13,092 | 142,769 |
| Jan.-Mar. 31.56 |  |  |  |
| 1982 | 31,988 | 2,576 | 34,564 |
| 1983 | 30,214 | 3,462 | 33,676 |
| 1984 | 36,623 | 3,438 | 40,061 |
| 1985 | 26,846 | 3,000 | 29,846 |
| 1986 | 32,465 | 2,583 | 35,048 |
| 1987 | 33,801 | 2,828 | 36,629 |
| 1988 1/ | 33,723 | 4,527 | 38,250 |
| Apr.-June 26,960 29,365 |  |  |  |
|  |  |  |  |
| 1983 | 32,636 | 3,644 | 36,280 |
| 1984 | 36,252 | 3,940 | 40,192 |
| 1985 | 27,882 | 2,537 | 30,419 |
| 1986 | 33,653 | 2,387 | 36,040 |
| 1987 | 34,175 | 3,333 | 37,508 |
| 1988 2/ | 32,673 | 3,849 | 36,522 |
| July-Sept. 22,415 |  |  |  |
| 1982 | 22,415 | 2,728 | 25,143 |
| 1983 | 30,712 | 3,865 | 34,577 |
| 1984 | 29,326 | 2,721 | 32,047 |
| 1985 | 25,025 | 2,887 | 27,912 |
| 1986 | 30,106 | 2,739 | 32,845 |
| 1987 | 30,041 | 3,748 | 33,789 |
| Oct.-Dec. |  |  |  |
| 1982 | 24,494 | 2,116 | 26,610 |
| 1983 | 33,167 | 2,880 | 36,047 |
| 1984 | 26,781 | 2,989 | 29,770 |
| 1985 | 26,298 | 2,138 | 28,436 |
| 1986 | 30,544 | 2,251 | 32,795 |
| 1987 | 31,660 | 3,183 | 34,843 |

1/Revised. 2/ Preliminary.
Source: Bureau of the Census.
respectively. These stocks include domestic wool and foreign wool stocks in the United States.
U.S. prices of territory raw wool softened slightly by August from second-quarter prices. The 64's declined 2 percent in August to $\$ 4.50$ clean basis, while 62 's were unchanged. The 58's were $\$ 2.44$, down 4 percent, while 56's were unchanged at $\$ 2.14$. The simple average price received by farmers for raw wool, grease basis, in July was \$1.33, down 19 percent from June, but 51 percent above a year earlier (table L).

The domestic prices for the finer grades of Australian wool, clean basis, also softened

Table K. -Wool supply and disappearance, clean content


Source: Agricultural Prices, National Agricultural Statistics Service.
by August from their average second-quarter prices. The super-fine grades declined, in general, less than the fine grades. The 80's, at $\$ 8.71$ in August, were down 11 percent, and the 70's, $\$ 7.41$, were down 7 percent. In contrast, the $641 \mathrm{~s}, \$ 4.57$ in August, and $62^{\prime} \mathrm{s}$, $\$ 3.97$, were down 15 and 14 percent, respectively. The $58^{\prime}$ s declined 14 percent to $\$ 3.12$, and 56 s , 8 percent to $\$ 2.91$.
U.S. imports of raw wool in the second quarter were 25.1 million pounds, clean, down 25 percent from the first quarter and 19 percent below a year ago (table M). Dutiable wool imports were 19.1 million pounds, 28 percent below the first quarter and 12 percent below a year earlier (figure 11). About 93

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

| Year | Dutiable | Duty-free | Total |
| :---: | :---: | :---: | :---: |
|  | 1,000 pounds |  |  |
| 1982 | 39,988 | 21,433 | 61,421 |
| 1983 | 49,371 | 28,688 | 78,059 |
| 1984 | 63,271 | 30,906 | 94,177 |
| 1985 | 50,164 | 29,308 | 79,472 |
| 1986 | 66,090 | 30,901 | 96,991 |
| 1987 | 74,054 | 31,066 | 105,120 |
| Jan.-Mar. |  |  |  |
| 1982 | 15,356 | 5,515 | 20,871 |
| 1983 | 10,549 | 5,639 | 16,188 |
| 1984 | 20,665 | 7,303 | 27,968 |
| 1985 | 15,139 | 7,397 | 22,536 |
| 1986 | 19,749 | 6,910 | 26,658 |
| 1987 | 20,434 | 5,805 | 26,239 |
| 1988 | 26,763 | 6,753 | 33,516 |
| Apr.-June |  |  |  |
| 1982 | 10,798 | 6,620 | 17,418 |
| 1983 | 12,216 | 6,902 | 19,118 |
| 1984 | 16,761 | 8,126 | 24,887 |
| 1985 | 9,661 | 7,951 | 17,612 |
| 1986 | 16,744 | 7,401 | 24,145 |
| 1987 | 21,829 | 9,126 | 30,954 |
| 1988 | 19,150 | 5,965 | 25,115 |
| July-Sept. |  |  |  |
| 1983 | 10,818 | 6,614 | 17,432 |
| 1984 | 12,035 | 10,003 | 22,038 |
| 1985 | 11,573 | 7,158 | 18,731 |
| 1986 | 12,922 | 8,235 | 21,157 |
| 1987 | 13,974 | 9,761 | 23,735 |
| Oct.-Dec. |  |  |  |
| 1982 | 6,418 | 3,834 | 10,252 |
| 1983 | 15,788 | 9,533 | 25,321 |
| 1984 | 13,810 | 5,474 | 19,284 |
| 1985 | 13,790 | 6,803 | 20,593 |
| 1986 | 16,676 | 8,355 | 25,032 |
| 1987 | 17,818 | 6,374 | 24,192 |

Source: Bureau of the Census.

Figure 11
Finer Grade Wool More Important

percent came from 3 countries: Australia - 78 percent, New Zealand-10 percent, and Uruguay-5 percent.

Duty-free imports, 6.0 million pounds, were 12 percent below the first quarter and 35 percent less than a year ago. About 93 percent came from 3 countries: New Zealand-74 percent, the United Kingdom-11 percent, and Argentina-8 percent.

The share of raw wool imports entering the United States through the New England and Middle Atlantic customs districts declined from 45 percent in 1985 to 25 percent during the first 6 months of 1988 (table N). Conversely, the percentage entering through the South Atlantic and other districts has risen from 55 percent to 75 percent. During the January-June period about 66 percent of the duty-free wool came through the New England and Middle Atlantic regions compared with 13 percent of the dutiable. In contrast, most of the dutiable raw wool, 87 percent, entered through the South Atlantic and other customs districts while 34 percent of the duty-free did.

## WORLD WOOL SITUATION AND OUTLOOK

The latest data indicate that world raw wool production in the 1988/89 season, 4.06 billion pounds, clean, will be a record high. It is 2 percent above the previous season and 6 percent above the preceeding 5 -year average. More finer grade merino wool will be available in the coming season. The composition of the 1988/89 world wool clip is divided as follows: merino-46 percent compared with 45 percent last year; crossbred-28 percent in both years; and coarser grades-26 percent compared with 27 percent last year.

In absolute terms, the five countries making the biggest contribution to the 83.8-million-pound, clean, increase over last season were Australia- 48.5 million, China-17.6 million, Argentina-15.4 million, Uruguay-8.8 million, and the United Kingdom- 6.6 million. The two countries experiencing the largest decline were New Zealand- 17.6 million pounds, and the Soviet Union-6.6 million.

Mills in 9 major wool textile manufacturing countries experienced increased activity in first-quarter 1988. Mill

Table N.-Raw wool imports by regions I/

| Region | 1985 | Duty-tree |  | $\begin{gathered} \text { Jan-June } \\ \hline 988 \end{gathered}$ | Dutiable |  |  | Jan-June 1988 | 1985 | 1986 | Total 1987 | $\begin{gathered} \text { Jan-June } \\ 1988 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1986 | 1987 |  | 1985 | 1986 | 1987 |  |  |  |  |  |
| Percent |  |  |  |  |  |  |  |  |  |  |  |  |
| New England | 34 | 34 | 30 | 26 | 28 | 25 | 16 | 12 | 30 | 28 | 20 | 15 |
| Middle Atlantic | 36 | 33 | 38 | 40 | 3 | 2 | 2 | 1 | 15 | 12 | 12 | 10 |
| South Atlantic and other 2/ | 30 | 33 | 32 | 34 | 69 | 73 | 82 | 87 | 55 | 60 | 67 | 75 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

17 Imports entered through customs districts in the respective regions. $2 /$ Includes customs districts along the Gulf, the Mexican border, the Pacific Coast, and the Canadian border.

Source: Bureau of the Census.
consumption of raw wool at the carding stage was 383 million pounds, clean, 8 percent more than fourth-quarter 1987 and 6 percent above a year earlier. Production of yarns spun on the worsted system in 10 major producing countries in first quarter 1988 was 485 million pounds, clean, 6 percent above the previous quarter. Yarn production on the woolen system in 8 countries was 295 million pounds, 9 percent more than the previous quarter.

Prices in the Australian market softened in the second quarter at the end of the 1987/88 season. The Australian Market Indicator (AMI, a weighted average index of 13 wool categories) declined 2 percent in May from the record high in April of A1257 cents per kilogram, while the Australian Wool Corporation's stockpile declined 8 percent. In June, the AMI closed the season at 1118, 9 percent below the May level. The average AMI for the $1987 / 88$ season was 1003,60 percent above the previous year. Season-ending stocks were a negligible 9,000 bales. By comparison, stocks at the end of the 1986/87 season were 346,000 bales, and 895,000 in 1985/86.

Four countries accounted for almost 52 percent of the wool exported by Australia, 1.78 billion pounds, greasy, during the first 11 months of the 1987/88 season: Japan-20 percent, China and the Soviet Union-11 percent each, and Italy-10 percent.

The 1988/89 floor price for the AMI has been set at 870,35 percent above last season. Five weeks into the new season the AMI dropped 7 percent. Nevertheless, the offering of the new season's clip has attracted firm and widespread trade demand. The Australian

Wool Corporation has purchased only 1-2 percent of the offering. While stocks at 13,000 bales are 60 percent more than at the season's opening, they were only 7 percent of the level a year earlier and 2 percent of 2 years ago. The principal buyers for Australian wool came from eastern and western Europe and the Far East.

The New Zealand wool market indicator in the last quarter rose to a 1988 high of 612 in April. During the next 2 months prices softened slightly, down 3 percent in May and an additional 1 percent in June. The New Zealand market indicator ended the season in June at 599. The New Zealand Wool Board purchased 13 percent of the April-June offering, leaving stocks virtually unchanged at 94,350 bales.

New Zealand exported 736 million pounds, greasy, during the $1987 / 88$ season. Five countries purchased a total of 53 percent: China-20 percent, the United Kingdom-10 percent, the Soviet Union and Japan-9 percent each, and Belgium-6 percent.

The New Zealand wool market began this season on a rather strong basis. By mid-August, the MI had reached 635, 6 percent above last season's close. The buyers were from the Far East and Europe. The minimum floor for the 1988/89 season is 500, up 5 percent from last season.

The South African wool market came to a record high in April when the MI reached 2,231 . Prices softened in May with the MI averaging 2,174 down 3 percent. About 87 percent of the May offering was sold,
compared with 96 percent in April. During May, stocks fell 1 percent to 17,258 bales.

In the past wool-selling season the South African offering was 587,000 bales, 3 percent more than the previous season. Trade clearances averaged 93 percent, slightly below the 95 percent in 1986/87. The MI averaged 1644 cents per $\mathrm{kg}, 77$ percent above the 1986/87 average.

## MOHAIR

American exports of mohair during second-quarter 1988 were 4.0 million pounds, clean, 23 percent more than the first quarter and 1 percent above the comparable period last year. About 81 percent of the second-quarter shipments went to 3 countries; the United Kingdom, 71 percent, and 5 percent each to India and France. Exports in 1988 are expected to be 13 million pounds, 7 percent below last year (table 30).

Stocks of mohair were reported to be 1.78 million pounds, scoured basis, as of January 1, 1988. Adult and young goat hair (30's and coarser) stocks were 1.65 million, and kid ( 31 and finer) 0.12 million. Two years earlier these respective quantities were $1.30,1.15$, and 0.16 million pounds.

Recent data from Turkey concerning production and exports of mohair, grease basis, for the last decade are shown in table O. Domestic consumption and stockpiling represent the difference between production and exports. In 1987, the USSR purchased a very large quantity of Turkish mohair.

Table 0.--Mohair production and exports of Turkey

| Year | Production | Exports |
| :--- | :---: | :---: |
| Million pounds |  |  |
| 1978 | 8.82 | 8.88 |
| 199 | 8.82 | 3.89 |
| 1980 | 9.92 | 3.00 |
| 1981 | 9.92 | 8.13 |
| 1982 | 8.82 | 9.38 |
| 1983 | 8.82 | 10.87 |
| 1984 | 7.13 | 4.87 |
| 1985 | 7.72 | 4.45 |
| 1986 | 7.72 | 4.37 |
| 1987 | 7.72 | 8.34 |

[^4]
## MANMADE FIBERS

The manmade fiber industry experienced a high level of production, factory shipments, and mill consumption in second-quarter 1988. Production in the second quarter was 2.3 billion pounds, 3 percent more than the first quarter and 2 percent above a year earlier (table 26). Output of nonglass manmade fibers was the largest since second-quarter 1981. End-of-June stocks at producers' plants were 6 percent above the March level. Staple fiber stocks (mostly acrylic and nylon) were up 12 percent, while filament stocks were only 4 percent more than the March level.

Domestic shipments of noncellulosic fibers in the second quarter were 1.98 billion pounds, 1 percent above the previous quarter and the same as a year earlier. Staple fiber shipments, almost 1 billion pounds, were slightly above the first quarter. Filament fibers, at 0.98 billion pounds, were 2 percent ahead of the previous quarter.

Plants producing nonglass manmade staple fiber operated at an average capacity of 90 percent during first-half 1988, compared with an average of 93 percent last year. Filament fiber plants operated at an average capacity of 89 percent in the same period this year, compared with an average of 87 percent last year. To obtain a desired rate of return on investment, fiber producers need to operate at 85 to 90 percent of capacity.

Recent data on nonglass manmade fiber capacity indicate that the industry plans to expand 2 percent annually into 1990 (table 26). The more significant expansion rates will be olefin staple ( 6 percent) and filament ( 5 percent). Nylon filament capacity is expected to expand 3 percent annually.

Consumption data for the first quarter are shown for three fiber markets in table 27. The carpet market continues to be the largest ( 45 percent), consuming almost 727 million pounds. Carpet use of fibers has continued at a high level despite a softness in 1988 construction activity. First-quarter use was more than 7 percent above the average quarterly shipment of the last 2 years. It is believed that many homeowners have been influenced by the recently developed and promoted "stain resistant" carpet properties, and have been replacing significant
quantities. Nylon, at 63 percent, continues as the major carpet fiber. Olefin fibers, in second place, constitute 28 percent. Preliminary data for the second quarter indicate that 449 million pounds of nylon were shipped to carpet manufacturers. These shipments, while 2 percent below the first quarter, are 1 percent above the average quarterly nylon carpet use in 1986 and 1987.

Woven textiles continue as the second largest manmade fiber market. About 564 million pounds were used in the first quarter, 3 percent above the 1986/87 quarterly average. Polyester at 57 percent and olefin fibers at 17 percent together constitute almost three-fourths of this market.

The knit market used about 328 million pounds in the first quarter, 1 percent above the previous quarter. Polyester fiber's (175 million pounds) share was 53 percent, down from 58 percent in the fourth quarter. Nylon fibers, at 61 million pounds, did not lose their share, 19 percent. Acrylic fibers ( 85 million pounds) regained their share in the first quarter, 26 percent, compared with 21 percent in the fourth quarter.

Prices of raw materials used to make noncellulosic fibers strengthened in the first 7
months of 1988 due to strong domestic demand, exports aided by a weak dollar, and an unplanned plant shutdown (table P).

Para-xylene (a raw material for polyester fiber) experienced a 45-percent price rise, from 17.5 cents per pound early in the year to a reported 25.5 cents in late July. Ethylene glycol (a raw material for polyester fiber) doubled in price from 22 cents a pound in January to the 42-45 cent range in the third quarter. A short supply and firm demand from both fiber and nonfiber markets resulted in the price rise. Cyclohexane (a raw material for nylon) had a modest price rise. The demand was strong but no supply shortage existed. Since January its price rose 16 percent, from $\$ 1.054$ per gallon to $\$ 1.219$ in late spring.

The price of acrylonitrile (a raw material for acrylic fibers) was 36 cents per pound in May, down 1-2 cents from the beginning of the year due to lower acrylic fiber demand and lower propylene (a raw material for acrylonitrile) prices. Caprolactam's (a raw material for nylon) price rose $2-5$ cents per pound, from 85 cents per pound to the $87-90$ cent range during the first 7 months of 1988. A strong overseas demand and high domestic nylon production prompted this increase.

- Table P. --Reported spot prices of raw materials for manmade fibers, 1988.

| Product | January | February | March | April | May | June | July | August |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Para-xylene 1/ | 17.5 | 17.5 | 17.5 | 17.5-21.5 | 21.5 | 22.8-23.5 | 23.5-25.5 | NA |
| $\text { Propylene } 1 /{ }^{\prime}$ | 18 | 18 | 17 | 17 | 17 | 17 | 17 | NA |
| Ethylene gTyco 1/ | 22 | 26-28 | 30-32 | 30-32 | 27-27.5 | 30-32 | 42-45 | 42-45 |
| Cyolohexane 2/ | 1.054 | NA | 1.199 | 1.260 | 1.219 | 1.219 | 1.219 | NA |
| Aorylonitrile $/$ / | 37-38 | NA | NA | NA | 36 | NA | NA | NA |
| Caprolactani 27 | 85 | 85 | 85 | 85 | 85 | 85-87 | 87-90 | NA |

I/ Cents per pound. 2/ Dollars per gallon. N.A. = Not available
Source: Chemical Marketing Reporter
A. Estimated 1988 upland cotton acreage
B. Estimated 1988 and actual 1987 upland cotton acreage, yield, and production
C. Per capita domestic cotton consumption
D. Preseason upland cotton export sales, carryover sales, and actual exports
E. World and U.S. cotton prices in 1987/88
F. Cotton loan statistics
G. Estimated 1988 and actual 1987 ELS cotton acreage, yield, and production
H. ELS cotton supply and use in producing countries
I. World cotton supply and use, 1987/88 and 1988/89
J. U.S. mill consumption of raw wool, scoured basis
K. Wool supply and disappearance, clean content
L. Average U.S. farm prices per pound for shorn wool, grease basis
M. U.S. imports of dutiable and duty-free raw wool for consumption, clean content
N. Raw wool imports by regions
O. Mohair production and exports of Turkey
P. Reported spot prices of raw materials for manmade fibers

## FACTORS INFLUENCING DISAGGREGATED DEMAND FOR COTTON FIBER AT THE MILL LEVEL

Eluned Jones-Russell and Thomas L. Sporleder*


#### Abstract

Estimation of mill demand of cotton fiber is shown to be influenced by different market factors depending on end-use category. Blend prices for each end-use and spinning technology are significant in explaining mill end-use demand for cotton fiber. Yarn prices for end-use categories also influence demand for cotton fiber inputs. Results indicate that once open-end spinning was introduced cotton blend prices and yarn prices for open-end spinning were more important in explaining mill demand for cotton fiber than prices associated with ring spinning.


Keywords: Cotton end-use demand, blend prices, yarn prices, spinning technology.

## Introduction

Recent studies of mill use of cotton fiber indicate that technology advances in spinning systems have led to an increased awareness of the differing importance of fiber characteristics -.- staple length, micronaire, grade, and strength (Jones-Russell and Sporleder, 1988a). Mill survey results indicate that minimum fiber characteristic requirements depend on the spinning technology and intended end-use interaction. Since growths of cotton fiber are blended to achieve the minimum requirements for an end-use, a unique blend price is expected for
each end-use category (Jones-Russell and Sporleder, 1988b). Mill demand is shown to be quite sensitive to differing price-quality relationships across end-uses.

[^5]end-use category i

The minimum fiber characteristics requirements for each end-use and spinning technology interaction may be obtained from mill surveys (Jones-Russell and Sporleder, 1988a). A linear-programming approach was used to derive the minimum blend price for fiber inputs into each end-use and spinning technology interaction (Jones-Russell and Sporleder, 1988b). The set of growths entering into each optimal blend was comparable to the mill survey results, indicating that mills minimize cost of cotton fiber inputs.

Cotton Fiber Demands at the Mill Level: General Specification

Broadwoven fabric demand was defined to consist of eight end-use categories that are typically woven from the same yarn-count range and which have distinct processing requirements (Bureau of Census, and Rogers, 1978). The quantity of cotton fiber in different end-uses depends on consumer demand for each end-use, whether the end-uses are mostly 100-percent cotton or polyester/cotton blends, and on the weight of the cloth. Heavier weight, or coarse yarn, end-uses yield fewer square yards of woven fabric per pound of fiber. For example, denim and towelling end-uses yield about 1.5 square yards per pound of fiber. Conversely, lighter weight fabrics, or fine yarn counts, such as apparel and printcloth, yield over 3.5 square yards of woven fabric per pound of fiber (Bureau of the Census). Demand for cotton fiber at the mill is estimated as the quantity consumed in each end-use category.

The general specification comprises explanatory variables which may influence mill demand for cotton fiber by end-use:
(1) $\mathrm{DMCi}=\mathrm{f}(\mathrm{PCi}$, Ppoly, TECH, PYi, PCE, PCEclothing, ACTSPINDLE, RING, OE, INV, IMP, EXPi, Q)
where

$$
\left.\begin{array}{rl}
\mathrm{DMCi}= & \text { Per capita U.S. mill } \\
& \text { demand for cotton fiber } \\
\text { inputs by end-use }
\end{array}\right\}
$$

$\left.\begin{array}{ll} & \begin{array}{l}\text { end-use category i } \\ \text { deflated by the Bureau } \\ \text { of Labor Statistics }\end{array} \\ \text { consumer price index } \\ \text { for apparel and upkeep. }\end{array}\right\}$

| $Q=\quad$ | Dummy for quarterly |
| ---: | :--- |
| effects (eg. allows for |  |
| changes in mill demand |  |
| such as ceasing |  |
| manufacturing |  |
| operations in the |  |
| summer for vacations). |  |

Analysis is based on quarterly data for 1975 through 1984 crop years. The quantity of cotton in different end-uses is reported by calendar quarters. Since the producer level spot price is Smith-Doxey based, which excludes strength information, this price series is considered inappropriate to reflect mill demand for fiber characteristics. Landed mill-point prices were used to derive the blend prices for each end-use category, since these reflect average price paid at the mill (Jones-Russell and Sporleder, 1988b). Yarn prices are expected to be significant in explaining demand for cotton fiber.
Furthermore, yarn prices are available for both 100-percent cotton and polyester/cotton blends, and by ring-spun and open-end rotor technologies.

Since U.S. cotton consumption is expected to be positively correlated with population, demand is estimated in terms of per capita consumption. The derived blend prices are used to estimate cotton fiber demand for each end-use category. The polyester-cotton blending ratio in each category has been fairly consistent over the past 10 years due to technical requirements in spinning, consumer tastes for 'easy-care' fabric, and the 'stickiness' of changing from established blends. The eight end-use categories range from almost no use of polyester (denim), through the standard 50:50 polyester/cotton sheeting, to fine broadcloth and printcloth with a 60:40 polyester/cotton blend ratio. The use of a polyester price as an explanatory variable in the demand equation for denim would be redundant, whereas exclusion from the estimation of fiber demand for fine broadcloth and apparel would result in specification error.

Adoption of new spinning technologies may alter fiber demand through increased productivity, and must be captured in the analysis. A discrete variable approach is used to determine whether technology impacts, if significant, caused a shift in demand (additive
effect), or caused a change in the demand relationship (multiplicative effect or interaction term).

## Estimation Results

Specifications of mill demand for cotton fiber are different for all eight end-use categories. Demand for each end-use category was initially estimated by ordinary least squares, and all end-uses were subsequently reestimated as a system using Zellner's Seemingly Unrelated Regression Procedure. The weighted R-square, corresponding to the approximate F -test on all non-intercept parameters in the system, was 0.91 . The increased efficiency was primarily associated with cotton blend prices in the 100 -percent cotton, coarse yarn count end-use categories. To save space only the results for denim and apparel end-uses are presented.

## Coarse Yarn Count End-Uses

The impact of open-end spinning is most visible in the estimations of cotton demanded in denim, duck, towelling, and corduroy end-uses. A discrete variable was used to define a period during which open-end spinning was commercially accepted. In all four coarse end-use demand estimations, ring-spun blend prices explained the period where only ring spinning prevailed. Once open-end spinning was introduced, the blend prices for inputs into denim, duck, towelling, and corduroy were statistically significant and superior to blend ring prices.

The impact of new spinning technologies is incorporated via the RING, OE, and ACTSPINDLE variables, which proxy productivity. The number of spindles in place for ring and open-end spinning systems are given by RING and OE respectively. The ACTSPINDLE variable serves as a proxy for capacity utilization. An increase in open-end rotors (OE) indicates an associated increase in cotton demanded for denim end-uses.

The influence of yarn prices on cotton demanded for denim end-uses was found to be significant. Yarn prices for both ring and open-end spun denim positively influence mill demand. Ring and open-end yarn prices for towelling end-uses imply a decrease in demand for cotton inputs into denim end-uses. The
cotton input and yarn prices for ring spun end-uses were significant, with a one-period (one quarter) lag. The equivalent open-end spun prices were all significant, with a two-period (two quarter) lag. The quantity of cotton demanded for denim end-uses in the current period is influenced by the relationship between input, own-and competing-end-use yarn prices in the previous quarter for ring-spun denim, and two quarters previously for open-end spun denim (table 1).

Changes in income, either as personal consumption expenditures in total, on a per capita basis, or specifically for clothing did not significantly influence demand for cotton in denim end-uses.

## Fine Yarn Count End-Uses

In contrast with the coarse yarn count demand estimations, these estimations were expected to be affected by very different market factors. This class of fabrics was not significantly affected by new spinning technologies within this study. However, polyester staple prices were expected to influence the quantity of cotton demanded, particularly in the polyester/cotton blend end-uses. Imports of primarily cotton cloth increased from 40,000 to 60,000 bales in cotton equivalent terms between 1975 and 1985. Over the same period, apparel and manufactured product imports, which include polyester/cotton blend end-uses, increased

Table I-Parameter estimates for SUR estimation of cotton fiber demanded by U.S. mills for input into denim end-uses, 1975-1984.

| Notation | Independent variable | :Parameter :estimates <br> : | :Standard :error of :estimate : |
| :---: | :---: | :---: | :---: |
|  | : | : | : |
|  | : | : | : 1.169 |
| $a_{0}$ | : Intercept | : -1.4879 | 1.1693 |
| TECH75/78 * $\mathrm{PC}_{\text {Denim, }}$ Ring, $t-1$ | : Interaction between price of cotton : fiber inputs into ring spun denim :end-uses, lagged I quarter, with a : dummy variable for 1975-1978 | $:-0.1878{ }^{\text {a }}$ | $\begin{array}{ll}: & 0.0755 \\ \vdots & \\ \text { : } & \end{array}$ |
| $\mathrm{PC}_{\text {Denim, }}$, Open-end, t-2 | :Price of cotton fiber inputs into :open-end spun denim end-uses, lagged :2 quarters for 1979-1984 | $-0.2452^{\text {a }}$ | $: 0.0961$ |
| OE | :Number of open-end rotors in U.S. :mills | $1.2256{ }^{\text {a }}$ | $: 0.2431$ |
| ACTSPINDLE | :Number of active spindles and rotors :in U.S. mill | $0.1052^{\text {c }}$ | $: 0.0583$ |
| PCETEX | :Personal consumption expenditures on :clothing | : 0.0001 | $\begin{array}{ll}: \\ : & 0.0025\end{array}$ |
| PY Denim, Ring, $\dagger$ - 1 | :Price of ring spun yarn for denim :end-uses, lagged I quarter | : $0.4432^{\text {b }}$ | $: 0.2010$ |
| PY Denim, Open-end, t-2 | :Price of open-end spun yarn for denim :end-use, lagged 2 quarters | $: 2.3055^{\text {a }}$ | $\begin{array}{ll}: \\ : & 0.5403 \\ \end{array}$ |
| ${ }^{\text {PY}}$ Towel, Ring, $\dagger-1$ | :Price of ring spun yarn for towel :end-use, lagged I quarter | $:-0.0951^{\text {b }}$ | $\begin{array}{ll}: \\ : & 0.0502 \\ & \end{array}$ |
| ${ }^{\text {PY Towel, }}$, Open-end, $\mathrm{t}-2$ | :Price of open-end spun yarn for towel :end-use, lagged 2 quarters $\qquad$ | $-2.1130^{a}$ | $:$ 0.5024 <br> $:$  |

[^6]from approximately $1 / 3$ million bales to over 1 million bales. These two categories account for 80 percent of all textile imports and were expected to have the greatest influence. Exports of fine broadcloth were found to influence the quantity of cotton demanded in apparel end-uses.

Previous analyses of mill demand for cotton, generally estimated over a longer period of time, consider polyester staple as a competing input. Disaggregated estimates indicate that where polyester staple is used in blended end-uses, the 'fixed' proportion use of cotton and polyester staple exhibit a complementary relationship. As expected, the influence of polyester staple price on the quantity of cotton demanded in apparel end-uses is negative and significant. The 1978 and 1984 mill surveys indicated that the most common blend was 65:35 polyester/cotton. Given this weighting, a change in the polyester staple price would be expected to have a greater impact on cotton fiber demand than the cotton fiber price (table 2).

Although apparel yarn prices are significant in explaining demand for cotton fiber used in apparel, a change in the polyester/cotton yarn price should have a greater impact on demand for polyester staple. In this instance the yarn price reflects the effect of both cotton and polyester fibers
in the end-use, as compared with only cotton in denim end-uses.

During the 1970's a major shift from 100-percent cotton to polyester/cotton blends resulted in a drastic decline in 100-percent cotton broadwoven goods consumption. This change in consumer tastes and preferences was still apparent in the late 1970's. The more sensitive disaggregated per capita personal consumption expenditures on clothing, PCPCETEX, provided the expected positive relationship with demand for cotton in polyester/cotton end-uses. The ratio of PCPCETEX to disposable personal income, PCETXDPI, was expected to be sensitive to the impact of income changes on the demand for cotton. An increase in this ratio indicated a positive influence on the quantity of cotton demanded in apparel end-uses.

## Summary

The impact of new spinning technology on cotton fiber demand is considerable. Introduction of new technologies often requires adjustments within an industry, but these changes are expected to take place gradually.

Two factors emerge as important in the textile industry; 1) fiber strength information,

Table 2-Parameter estimates for SUR estimation of cotton fiber demanded by U.S. mills for input in apparel end-uses, 1975-1984.

| Notation | Independent variable | : Parameter :estimates $\qquad$ : $\qquad$ | :Standard :error of :estimate <br> : |
| :---: | :---: | :---: | :---: |
| $a_{0}$ | : Intercept | -0.1426 | : 0.0292 |
| $\mathrm{PC}_{\text {Apparel }}$, Ring, t-1 | :Price of cotton fiber inputs into :ring spun apparel end-uses, lagged : 1 quarter | $:-0.0920^{\text {a }}$ | : 0.0227 |
| $P_{\text {polyester }}$ | :Price of polyester staple fiber | $-0.1338{ }^{\text {a }}$ | : 0.0236 |
| PCETXDPI | :Ratio of per capita personal <br> :consumption expenditures on clothing <br> : to per capita personal disposable <br> : income | : $0.6446^{\text {a }}$ | $\begin{array}{ll}: & 0.1747 \\ \vdots & \end{array}$ |
| PY Apparel, Ring | :Price of ring spun yarn for apparel : end-uses | : $0.1632^{\text {a }}$ | 0.0224 |
| EXP $_{\text {Apparel }}$ | :Exports of fine broadcloth | $0.1038 \mathrm{~b}$ | $: 0.0514$ |

[^7]and 2), the 'learning' period needed for the mills to develop the minimum cotton input requirements for yarns spun on open-end spinning systems. Neither factor diluted the sudden impact of technology change. Results from fiber input cost minimizations (Jones-Russell and Sporleder, 1988b) show clear differences in industry ranking in the inportance of fiber characteristics for use on ring and open-end rotor systems. These differences are also translated, via the derived blend prices (Jones-Russell and Sporleder, 1988b), into significant differences in estimates of mill demand for cotton for different end-uses.

The estimations of mill demand for cotton in coarse yarn end-uses indicated a significant change from the use of ring-spinning systems to open-end rotor systems around 1980. The influence of yarn prices on cotton fiber demand was, in general, greater than expected. The separate influence of ring and open-end produced yarn prices was particularly noticeable in the demand estimations for denim end-uses. It is clear that yarn prices by end-use must be considered if accurate estimates of mill demand for cotton fiber are to be obtained.

Broadcloth end-uses account for over two-thirds of all cotton fiber consumption. Coarse yarn end-uses account for 60 percent of broadcloth consumption, of which almost half is denim. Thus, technology changes in
coarse yarn categories will have a greater impact than changes in fine yarn categories. In contrast, mill demand for cotton used in apparel end-uses accounts for only 2.5 percent of cotton consumed in broadcloth end-uses. Any changes in the factors influencing demand for cotton in apparel will have marginal impact on mill-level cotton consumption, unless those factors are common to the fine yarn categories.

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Table 1.--U.S. cotton supply and use, 1960/61-88/89

| Crop year | Area |  |  | Supply |  |  |  | Disappearance |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Planted | Harvested | Yield | Beginning stocks $\qquad$ I/ | Produc- <br> tion 2/ | Imports | Total | Mill use 3/ | Exports | Total | Unaccounted 4/ | Ending stocks | Farm price $5 /$ |
| 1,000 acres |  |  | Lbs. 1 acre | 1,000 480-1b. bales |  |  |  |  |  |  |  |  | Cents/ 16. |
| 1960 | 16,080 | 15,309 | 446 | 7,501 | 14,237 | 129 | 21,867 | 8,353 | 6,857 | 1,210 | 399 | 7,056 | 31.5 |
| 1961 | 16,588 | 15,634 | 438 | 7,056 | 14,283 | 153 | 21,492 | 9,017 | 5,056 | 14,073 | 280 | 7,699 | 34.3 |
| 1962 | 16,293 | 15,569 | 457 | 7,699 | 14,827 | 137 | 22,663 | 8,484 | 3,429 | 11,913 | 386 | 11,136 | 33.2 |
| 1963 | 14,843 | 14,212 | 517 | 1,136 | 15,294 | 135 | 26,565 | 8,696 | 5,775 | 14,471 | 257 | 12,351 | 33.6 |
| 1964 | 14,835 | 14,055 | 517 | 2,351 | 15,144 | 118 | 27,613 | 9,261 | 4,195 | 13,456 | 92 | 14,249 | 31.0 |
| 1965 | 14,152 | 13,615 | 527 | 4,249 | 14,951 | 118 | 29,318 | 9,596 | 3,035 | 12,631 | 341 | 17,028 | 29.3 |
| 1966 | 10,349 | 9,552 | 480 | 7,028 | 9,555 | 105 | 26,688 | 9,574 | 4,832 | 14,406 | 62 | 12,344 | 21.7 |
| 1967 | 9,448 | 7,997 | 447 | 2,344 | 7,443 | 149 | 19,936 | 9,077 | 4,361 | 13,438 | 86 | 6,584 | 26.7 |
| 1968 | 10,912 | 10,160 | 516 | 6,584 | 10,925 | 168 | 17,577 | 8,332 | 2,825 | 11,157 | 124 | 6,544 | 23.1 |
| 1969 | 11,882 | 11,058 | 434 | 6,544 | 9,990 | 52 | 16,586 | 8,114 | 2,878 | 10,992 | 249 | 5,843 | 22.0 |
| 1970 | 11,945 | 11.155 | 438 | 5,843 | 10,192 | 37 | 16,072 | 8,204 | 3,897 | 12,101 | 232 | 4,203 | 22.9 |
| 1971 | 12,355 | 11,471 | 438 | 4,203 | 10,477 | 72 | 14,752 | 8,259 | 3,385 | 11,644 | 150 | 3,258 | 28.2 |
| 1972 | 14,001 | 12,984 | 507 | 3,258 | 13,704 | 34 | 16,996 | 7,769 | 5,311 | 13,080 | 305 | 4,221 | 27.3 |
| 1973 | 12,480 | 11,970 | 520 | 4,221 | 12,974 | 48 | 17,243 | 7,472 | 6,123 | 13,595 | 160 | 3,808 | 44.6 |
| 1974 | 13,679 | 12,547 | 441 | 3,808 | 11,540 | 34 | 15,382 | 5,860 | 3,926 | 9,786 | 112 | 5,708 | 42.9 |
| 1975 | 9,478 | 8,796 | 453 | 5,708 | 8,302 | 92 | 14,102 | 7,250 | 3,311 | 10,561 | 140 | 3,681 | 51.3 |
| 1976 | 11,636 | 10,914 | 465 | 3,681 | 10,581 | 38 | 14,300 | 6,674 | 4,784 | 11,458 | 86 | 2,928 | 64.1 |
| 1977 | 13,680 | 13,275 | 520 | 2,928 | 14,389 | 5 | 17,322 | 6,483 | 5,484 | 11,967 | (8) | 5,347 | 52.3 |
| 1978 | 13,375 | 12,400 | 420 | 5,347 | 10,856 | 4 | 16,207 | 6,352 | 6,180 | 12,532 | 283 | 3,958 | 58.4 |
| 1979 | 13,978 | 12,831 | 547 | 3,958 | 14,629 | 5 | 18,592 | 6,506 | 9,229 | 15,735 | 143 | 3,000 | 62.5 |
| 1980 | 14,534 | 13,215 | 404 | 3,000 | 11,122 | 27 | 14, 149 | 5,891 | 5,926 | 11,817 | 336 | 2,668 | 74.7 |
| 1981 | 14,330 | 13,841 | 542 | 2,668 | 15,646 | 26 | 18,340 | 5,264 | 6,567 | 11,831 | 123 | 6,632 | 54.3 |
| 1982 | 11,345 | 9,734 | 590 | 6,632 | 11,963 | 20 | 18,615 | 5,512 | 5,207 | 10,719 | 41 | 7,937 | 59.4 |
| 1983 | 7,926 | 7,348 | 508 | 7,937 | 7,771 | 112 | 15,721 | 5,928 | 6,786 | 12,714 | -232 | 2,775 | 66.4 |
| 1984 | 11,145 | 10,380 | 600 | 2,775 | 12,982 | 24 | 15,781 | 5,540 | 6,215 | 11,755 | 76 | 4,102 | 57.8 |
| 1985 | 10,685 | 10,229 | 630 | 4,102 | 13,432 | 33 | 17,567 | 6,399 | 1,960 | 8,359 | 140 | 9,348 | 56.3 |
| 1986 | 10,045 | 8,468 | 552 | 9,348 | 9,731 | 3 | 19,082 | 7,452 | 6,684 | 14,136 | 80 | 5,026 | 52.4 , |
| 1987 8/ | 10,407 | 10,035 | 706 | 5,026 | 14,760 | 2 | 19,788 | 7,700 | 6,600 | 14,300 | 112 | 5,600 | 65.3 6/ |
| 1988 9/ | 12,159 | 11,632 | 616 | 5,600 | 14,934 | 2 | 20,536 | 7,000 | 4,700 | 11,700 | 64 | 8,900 | 71 |

See Table 3 for footnotes.

Table 2.--U.S. ELS cotton supply and use, 1960/61-88/89


See Table 3 for footnotes.

|  | Area |  |  | Supply |  |  |  | Disappuarance |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| begianing August 1 | Planted | Harvested | Yield stocks 1/ | Beginning | $\underset{2 /}{\text { Production }}$ | Imports | Total | Mill Exparts use 3/ | Total | Unaccounted 4/ | Ending stocks | farm pricu5/ |


|  | 1,000 acres |  | Lbs/ acre |  |  | 1,000 480-pound net weight balas |  |  |  |  |  |  | Cents/lb. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1960 | 16,017 | 15,249 | 446 | 7,344 | 14,170 | 45 | 21,557 | 8,204 | 6,849 | 15,053 | 412 | 6,916 | 31.3 |
| 1561 | 16,526 | 15,575 | 438 | 6,916 | 14,220 | 69 | 21,206 | 8,844 | 5,049 | 13,893 | 291 | 7,604 | 34.2 |
| 1962 | 16,197 | 15,475 | 456 | 7,604 | 14,715 | 54 | 22,374 | 8,322 | 3,426 | 11,748 | 304 | 10,930 | 35.1 |
| 1363 | 14,699 | 14,072 | 516 | 0,930 | 15,130 | 54 | 26,114 | 8,554 | 5,773 | 14,327 | 304 | 12,091 | 33.4 |
| 1964 | 14,725 | 13,948 | 517 | 2,091 | 15,025 | 39) | 27,151 | 9,107 | 4,174 | 13,281 | 111 | 13,980 | 30.9 |
| 1965 | 14,075 | 13,540 | 526 | 3,980 | 14,864 | 30 | 28,873 | 9,454 | 3,029 | 12,483 | 344 | 16,734 | 29.2 |
| 1966 | 10,269 | 9,474 | 480 | 6,734 | 9,484 | 29 | 26,246 | 9,438 | 4,819 | 14,257 | 92 | 12,081 | 21.5 |
| 1967 | 9,380 | 7,931 | 446 | 2,081 | 7,374 | 49 | 19,513 | 8,948 | 4,316 | 13,264 | 130 | 6,379 | 26.5 |
| 1968 | 10,844 | 10,093 | 316 | 6,379 | 10,847 | 38 | 17,263 | 8,204 | 2,816 | 11,020 | 134 | 6,377 | 22.9 |
| 1969 | 11,804 | 10,982 | 433 | 6,377 | 9,913 | 30 | 16,320 | 8,001 | 2,863 | 10,864 | 271 | 5,727 | 21.8 |
| 1970 | 11,869 | 11,080 | 439 | 5,727 | 10,135 | 11 | 15,873 | 8,105 | 3,885 | 11,990 | 251 | 4,134 | 22.8 |
| 1971 | 12,253 | 11,370 | 438 | 4,134 | 10,379 | 42 | 14,355 | 8,163 | 3,376 | 11,539 | 166 | 3,182 | 28.1 |
| 1972 | 13,903 | 12,888 | 507 | 3,182 | 13,608 | 23 | 16,813 | 7,670 | 5,306 | 12,976 | 316 | 4,153 | 27.2 |
| 1973 | 12,395 | 11,887 | 521 | 4,153 | 12,896 | 27 | 17,076 | 7,384 | 6,111 | 13,495 | 172 | 3,753 | 44.4 |
| 1974 | 13,5\% | 12,464 | 441 | 3,753 | 11,450 | 24 | 15,227 | 5,797 | 3,914 | 9,711 | 133 | 5,649 | 42.7 |
| 1975 | 9,408 | 8,730 | 453 | 5,649 | 8,247 | 36 | 13,932 | 7,160 | 3,300 | 10,460 | 143 | 3,615 | 51.1 |
| 1976 | 11,590 | 10,869 | 464 | 3,615 | 10,517 | 19 | 14,151 | 6,595 | 4,779 | 11,374 | 102 | 2,879 | 63.8 |
| 1977 | 13,604 | 13,201 | 519 | 2,879 | 14,277 |  | 17,157 | 6,416 | 5,459 | 11,875 | (4) | 5,278 | 52.1 |
| 1978 | 13,298 | 12,324 | 419 | 5,278 | 10,762 | 2 | 16,042 | 6,286 | 6,150 | 12,436 | 299 | 3,903 | 58.1 |
| 1979 | 13,887 | 12,742 | 547 | 3,905 | 14,531 | 4 | 18,438 | 6,440 | 9,177 | 15,617 | 141 | 2,962 | 62.5 |
| 1980 |  | 13,143 |  | 2,962 | 11,018 | 26 | 14,006 |  | 5,093 |  | 329 |  |  |
| 1981 | 14,272 | 13,783 | 542 | 2,614 | 15,566 | 18 | 18,198 | 5,216 | 6,555 | 11,171 | 140 | 6,567 | 54.0 |
| 1982 | 11,274 | 9,663 | 589 | 6,567 | 11,864 | 12 | 18,443 | 5,457 | 5,194 | 10,651 | 52 | 7,844 | 59.5 |
| 1983 | 7,863 | 7,285 | 506 | 7,844 | 7,676 | 8 | 13,529 | 5,861 | 6,750 | 12,611 | -225 | 2,693 | 65.3 |
| 1984 | 11,065 | 10,299 | 599 | 2,693 | 12,852 | 21 | 15,566 | 5,491 | 6,125 | 11,6il6 | 74 | 4,024 | 58.7 |
| 1985 | 10,601 | 10,145 | 628 | 4,024 | 13,277 | 33 | 17,334 | 6,338 | 1,855 | 8,193 | 148 | 9,289 | 56.8 |
| 1986 | 9,933 | 8,357 | 547 | 9,289 | 9,585 | 3 | 18,817 | 7,385 | 6,570 | 13,95) | 80 | 4,94? | 51.5 |
| $19878 /$ | 10,269 | 9,899 | 702 | 4,942 | 14,475 | 2 | 19,419 | 7,645 | 6,363 | 14,008 | 122 | 5,533 | 63.5061 |
| 1988 9/ | 11,961 | 11,435 | 611 | 5,533 | 14,548 | 2 | 20,083 | 6,940 | 4,385 | 11,325 | 74 | 8,832 | 71 |

1/ Compiled from Bureau of the Census data and adjusted to an August $\mid 480-\mathrm{lb}$. 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 Consus data and preceding season's supply less disappearance. Numbers in parenthesis are negative. 5/ Season average, including allowance for unredeemed loans. 6/ Average to April 1, 1986, with no allowance for unredeemed loans. 7/ USDA is prohibited by law from publishing cotton price forecasts. 8/ Estimated. 9/ Forecast. 10/ Imports exceeded quota of 85,600 bales, in part, because import data are not adjusted to August 1-July 31 marketing year. Also may include 6,000 or more bales of cotton stapling lass than $1-3 / 8$ inches.

Table 4.-Ulyland Cotton: Planted acreage 1960/61-88/89, by States

| Crop year | A | A2 | AR | CA | FL | GA | IL | KS | KY | LA | MS | 10 | NV | $N \mathrm{M}$ | Nc | OK | 5 C | TN | TX | VA | U.S. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  | 1,000 acres |  |  |  |  |  |  |  |  |  |
| 1960 | 878 | 407 | 1,370 | 965 | 26 | 675 | 2 | 0 | 9 | 525 | 1,580 | 423 | 4 | 203 | 410 | 655 | 568 | 525 | 6,777 | 16 | 16,017 |
| 1961 | 942 | 374 | 1,415 | 834 | 25 | 718 | 2 | 0 | 7 | 595 | 1,665 | 398 | 4 | 195 | 410 | 705 | 600 | 557 | 7,057 | 15 | 16,526 |
| 1962 | 917 | 370 | 1,403 | 826 | 21 | 710 | 2 | 0 | 7 | 581 | 1,635 | 392 | 4 | 193 | 417 | 675 | 590 | 553 | 6,886 | 15 | 16,197 |
| 1963 | 848 | 333 | 1,269 | 749 | 25 | 653 | 2 | 0 | 7 | 535 | 1,485 | 352 | 3 | 175 | 390 | 620 | 550 | 515 | 6,175 | 14 | 14,699 |
| 1964 | 847 | 333 | 1,275 | 758 | 25 | 646 | 3 | 0 | 7 | 534 | 1,498 | 354 | 4 | 171 | 395 | 614 | 549 | 512 | 6,186 | 15 | 14,725 |
| 1965 | 830 | 312 | 1,250 | 744 | 23 | 593 | 3 | 0 | 6 | 516 | 1,471 | 341 | 3 | 166 | 387 | 585 | 501 | 507 | 5,822 | 15 | 14,075 |
| 1966 | 589 | 221 | 930 | 631 | 15 | 403 | 2 | 0 | 5 | 367 | 1,032 | 255 | 2 | 126 | 244 | 447 | 355 | 398 | 4,236 | 11 | 10,269 |
| 1967 | 513 | 219 | 830 | 595 | 11 | 335 | 2 | 0 | 4 | 348 | + 955 | 245 | 2 | 118 | 191 | 425 | 307 | 336 | 3,936 | 9 | 9,380 |
| 1968 | 555 | 270 | 1,045 | 695 | 13 | 410 | 2 | 0 | 5 | 423 | 1,155 | 318 | 3 | 147 | 200 | 421 | 354 | 394 | 4,425 | 8 | 10,844 |
| 1969 | 566 | 277 | 1,090 | 706 | 14 | 410 | 2 | 0 | 6 | 440 | 1,225 | 312 | 2 | 147 | 184 | 500 | 550 | 420 | 5,148 | 5 | 11,804 |
| 1970 | 565 | 243 | 1,120 | 665 | 13 | 408 | 1 | 0 | 4 | 465 | 1,235 | 310 | 2 | 139 | 173 | 525 | 346 | 425 | 5,225 | 5 | 11,869 |
| 1971 | 579 | 242 | 1,180 | 760 | 11 | 426 | 2 | 0 | 5 | 510 | 1,355 | 343 | 2 | 135 | 194 | 445 | 381 | 447 | 5,230 | 5 | 12,253 |
| 1972 | 601 | 273 | 1,470 | 868 | 13 | 461 | 2 | 0 | 6 | 690 | 1,664 | 435 | 2 | 141 | 210 | 553 | 400 | 540 | 5,570 | 5 | 13,903 |
| 1975 | 525 | 276 | 1,045 | 950 | 13 | 386 | 0 | 0 | 1 | 530 | 1,370 | 241 | 2 | 131 | 186 | 547 | 330 | 460 | 5,400 | 3 | 12,395 |
| 1974 | 600 | 392 | 1,200 | 1,250 | 13 | 423 | 1 | 0 | 5 | 650 | 1,780 | 370 | 2 | 151 | 158 | 570 | 290 | 540 | 5,200 | 2 | 13,596 |
| 1975 | 385 | 269 | . 700 | 1,900 | 4 | 165 | 0 | 0 | 1 | 520 | 1,140 | 220 | $!$ | 95 | 56 | 360 | 107 | 335 | 4,350 | 1 | 9,408 |
| 1976 | 440 | 341 | 1,125 | 1,130 | 7 | 255 | 0 | 0 | 2 | 570 | 1,530 | 305 | 1 | 68 | 75 | 350 | 170 | 420 | 4,800 | , | 11,590 |
| 1977 | 405 | 517 | 950 | 1,400 | 6 | 230 | 0 | 0 | 1 | 545 | 1,380 | 270 |  | 131 | 87 | 535 | 170 | 325 | 6,650 | 1 | 13,604 |
| 1978 | 325 | 540 | 810 | 1,480 | 4 | 120 | 0 | 0 | 0 | 515 | 1,200 | 210 | 1 | 137 | 45 | 605 | 105 | 250 | 6,950 | 0 | 13,298 |
| 1979 | 310 | 580 | 610 | 1,650 | 3 | 155 | 0 | 0 | 0 | 470 | 1,090 | 151 | , | 154 | 46 | 600 | 110 | 250 | 7,700 | 0 | 13,887 |
| 1980 | 325 | 549 | 700 | 1,550 | 6 | 170 | 0 | 0 | 0 | 570 | 1,150 | 245 | , | 151 | 66 | 715 | 122 | 290 | 7,850 | 0 | 14,461 |
| 1981 | 377 | 600 | 610 | 1,540 | 18 | 180 | 0 | 0 | 0 | 700 | 1,230 | 242 | 1 | 136 | 83 | 650 | 119 | 325 | 7,460 | 0 | 14,272 |
| 1982 | 287 | 471 | 410 | 1,380 | 16 | 163 | 0 | 0 | 0 | 605 | 1,000 | 154 | 1 | 79 | 71 | 460 | 97 | 260 | 5,800 | 0 | 11,275 |
| 1983 | 219 | 291 | 320 | . 960 | 13 | 120 | 0 | 0 | 0 | 420 | , 687 | 108 | 0 | 56 | 60 | 320 | 69 | 220 | 4,000 | 0 | 7,863 |
| 1984 | 309 | 430 | 470 | 1,410 | 17 | 175 | 0 | 1 | 0 | 650 | 1,045 | 164 | 0 | 77 | 97 | 425 | 104 | 340 | 5,350 | 1 | 11,065 |
| 1985 | 330 | 360 | 465 | 1,330 | 25 | 255 | 0 | I | 0 | 640 | 1,050 | 152 | 0 | 70 | 68 | 370 | 124 | 340 | 5,000 | 1 | 10,601 |
| 1986 | 315 335 | 250 | 490 | 1,000 | 20 | 225 | 0 | , | 0 | 580 | 1,020 | 178 | 0 | 63 | 82 | 400 | 118 | 340 | 4,850 | 1 | 9,933 |
| 1987 | 335 | 290 | 555 | 1,150 | 30 | 250 | 0 | I | 0 | 605 | 1,020 | 190 | 0 | 66 | 96 | 420 | 120 | 440 | 4,700 | 2 | 10,269 |
| 1988 1/ | 380 | 340 | 680 | 1,350 | 32 | 300 | 0 | I | 0 | 700 | 1,230 | 220 | 0 | 70 | 120 | 440 | 145 | 550 | 5,400 | 3 | 11,961 |

[^8]| Crop year | AL | A2 | AR | CA | FL | GA | IL | KS | KY | LA | MS | 40 | NV | N M | N C | OK | S C | TN | TX | VA | U.S. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  | 1,000 | res |  |  |  |  |  |  |  |  |
| 1960 | 860 | 400 | 1,320 | 946 | 25 | 653 | 2 | 0 | 8 | 510 | 1,520 | 412 | 3 | 189 | 390 | 630 | 550 585 | 512 | 6,303 | 15 | $\begin{aligned} & 15,249 \\ & 15,575 \end{aligned}$ |
| 1961 | 905 | 366 | 1,360 | 816 | 23 | 693 | 1 | 0 | 6 | 535 | 1,580 | 384 | 3 | 185 | 396 | 645 | 585 | 538 | 6,539 | 13 | $15,575$ |
| 1962 | 900 | 364 | 1,355 | 808 | 21 | 692 | 2 | 0 | 7 | 565 | 1,585 | 383 | 3 | 182 | 402 | 612 | 575 | 538 | 6,467 | 15 | 15,475 |
| 1963 | 832 | 325 | 1,230 | 729 | 24 | 639 | 2 | 0 | 6 | 519 | 1,438 | 343 | 3 | 161 | 375 | 590 | 536 | 504 | 5,801 | 14 | 14,072 |
| 1964 | 831 | 328 | 1,242 | 742 | 24 | 632 | 3 | 0 | 6 | 520 | 1,460 | 347 | 3 | 161 | 381 | 575 | 538 | 502 | 5,637 | 15 | 13,948 |
| 1965 | 809 | 307 | 1,205 | 725 | 22 | 577 | 2 | 0 | 6 | 498 | 1.430 | 334 | 3 | 158 | 368 155 | 555 | 489 | 499 | 5,539 | 14 | 13,540 |
| 1966 | 564 | 218 | 865 | 617 | 14 | 380 | 1 | 0 | 3 | 357 | 993 | 190 | 2 | 119 | 155 | 380 370 | 305 | 365 | 3,940 | 6 | 9,474 |
| 1967 | 340 | 216 | 715 | 587 | 10 | 267 | 0 | 0 | 1 | 330 | 890 | 90 | 2 | 109 | 75 | 370 | 190 | 236 | 3,501 | 1 | 7,931 |
| 1968 | 525 | 269 | 980 | 687 | 13 | 395 | 0 | 0 | 4 | 410 | 1,105 | 190 | 2 | 138 | 189 | 380 | 340 | 360 | 4,101 | 6 | 10,093 |
| 1969 | 545 | 277 | 1,055 | 705 | 13 | 385 | 0 | 0 | 5 | 420 | 1,185 | 292 | 2 | 131 | 166 | 465 | 287 | 400 | 4,648 | 5 | 10,982 |
| 1970 | 538 | 241 | 1,070 | 662 | 8 | 375 | 0 | 0 | 3 | 450 | 1,190 | 250 | 2 | 126 | 60 | 450 | 290 | 390 | 4,870 | 4 | 11,060 |
| 1971 | 558 | 241 | 1,140 | 741 | 9 | 385 | 1 | 0 | 4 | 500 | 1,325 | 313 | 2 | 130 | 75 | 396 | 320 | 425 | 4,700 | 4 | 11,370 |
| 1972 | 580 | 271 | 1,410 | 863 | 11 | 430 | 1 | 0 | 5 | 665 | 1,606 | 405 | 2 | 131 | 70 | 510 | 340 | 485 | 5,000 | 3 | 12,888 |
| 1973 | 510 | 276 | 975 | 942 | 11 | 375 | 0 | 0 | 0 | 520 | 1,340 | 173 | 2 | 127 | 73 | 526 | 294 | 440 | 5,200 | 2 | 11,887 |
| 1974 | 585 | 392 | 1,130 | 1,238 | 12 | 410 | 0 | 0 | 4 | 635 | 1,710 | 330 | 2 | 140 | 45 | 547 | 272 | 510 | 4,400 | 1 | 12,464 |
| 1975 | 370 | 268 | 680 | 875 | 4 | 160 | 0 | 0 | 1 | 310 | 1,100 | 210 | I | 85 | 53 | 295 | 103 | 315 | 3,900 | 1 | 8,730 |
| 1976 | 420 | 340 | 950 | 1,120 | 7 | 240 | 0 | 0 | 1 | 560 | 1,470 | 260 | 1 | 64 | 71 | 335 | 159 | 370 | 4,500 | , | 10,869 |
| 1977 | 395 | 515 | 930 | 1,390 | 6 | 170 | 0 | 0 | 1 | 540 | 1,360 | 258 | 1 | 128 | 83 | 520 | 153 | 300 | 6,450 | 0 | 13,201 |
| 1978 | 315 | 538 | 760 | 1,455 | 4 | 115 | 0 | 0 | 0 | 510 | 1.180 | 182 | 1 | 109 | 42 | 585 | 98 | 230 | 6,200 | 0 | 12,324 |
| 1979 | 305 | 575 | 530 | 1,635 | 3 | 150 | 0 | 0 | 0 | 465 | 1,050 | 137 | 1 | 126 | 45 | 580 | 109 | 230 | 6,800 | 0 | 12,742 |
| 1980 | 321 | 549 | 645 | 1,540 | 6 | 160 | 0 | 0 | 0 | 560 | 1,125 | 241 | I | 120 | 65 | 565 | 120 | 275 | 6,850 | 0 | 13,143 |
| 1981 | 372 | 599 | 560 | 1,530 | 17 | 175 | 0 | 0 | 0 | 695 | 1,200 | 183 | 1 | 106 | 82 | 640 | 118 | 305 | 7,200 | 0 | 13,785 |
| 1982 | 285 | 470 | 390 | 1,370 | 15 | 158 | 0 | 0 | 0 | 595 | 990 | 151 | 1 | 68 | 70 | 450 | 95 | 255 | 4,300 | 0 | 9,663 |
| 1983 | 215 | 284 | 290 | 950 | 12 | 115 | 0 | 0 | 0 | 410 | 675 | 93 | 0 | 47 | 59 | 300 | 69 | 215 | 3,550 | 0 | 7,285 |
| 1984 | 307 | 429 | 465 | 1,400 | 17 | 172 | 0 | 0 | 0 | 645 | 1,032 | 162 | 0 | 69 | 96 | 375 | 104 | 325 | 4,700 | 1 | 10,300 |
| 1985 | 329 | 359 | 440 | 1,320 | 23 | 245 | 0 | 1 | 0 | 630 | 1,040 | 150 | 0 | 54 | 87 | 360 | 122 | 335 | 4,650 | 1 | 10,145 |
| 1986 | 313 | 249 | 480 | 990 | 19 | 195 | 0 | , | 0 | 570 | 1,000 | 160 | 0 | 50 | 81 | 350 | 113 | 335 | 3,450 | 1 | 8,357 |
| 1987 | 333 | 289 | 550 | 1,140 | 29 | 245 | 0 | I | 0 | 600 | 1,010 | 189 | 0 | 62 | 95 | 400 | 119 | 435 | 4,400 | 2 | 9,899 |
| 1988 I/ | 375 | 339 | 670 | 1,335 | 28 | 290 | 0 | 1 | 0 | 615 | 1,180 | 218 | 0 | 66 | 118 | 410 | 142 | 545 | 5,100 | 3 | 11.435 |

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Table 6.-Upland cotton: Lint yield per harvested acre, 1960/61-88/89, by States


[^9]

1/ August 1988 crop production report.

Table 8.-Extra-long staple cotton: Planted and harvested acreage, 1960/61-88/89, by States

| Crop year | Planted acreage |  |  |  |  | Harvested acreage |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Arizona | California | New Mexico | Texas | United States | Arizona | California | $\begin{aligned} & \text { New } \\ & \text { Mexico } \end{aligned}$ | Texas | United States |
| - 1,000 acres - |  |  |  |  |  |  |  |  |  |  |
| 1960 | 27 | 0 | 13 | 23 | 63 | 26 | 0 | 12 | 21 | 60 |
| 1961 | 26 | 0 | 13 | 23 | 62 | 26 | 0 | 12 | 21 | 59 |
| 1962 | 42 | 1 | 19 | 34 | 96 | 41 | 1 | 19 | 33 | 94 |
| 1963 | 63 | 1 | 29 | 50 | 144 | 62 | 1 | 29 | 49 | 140 |
| 1964 | 48 | 1 | 23 | 39 | 110 | 47 | 1 | 22 | 37 | 107 |
| 1965 | 33 | 1 | 16 | 28 | 77 | 33 | 1 | 15 | 26 | 75 |
| 1966 | 35 | 1 | 16 | 29 | 80 | 34 | 1 | 15 | 28 | 78 |
| 1967 | 29 | 1 | 14 | 25 | 69 | 29 | 0 | 13 | 24 | 66 |
| 1968 | 29 | 0 | 14 | 25 | 68 | 29 | 0 | 13 | 24 | 67 |
| 1969 | 34 | 1 | 16 | 27 | 78 | 33 | 0 | 15 | 27 | 75 |
| 1970 | 33 | 1 | 15 | 27 | 76 | 33 | 0 | 15 | 26 | 75 |
| 1971 | 45 | 1 | 21 | 36 | 02 | 44 | 1 | 21 | 35 | 101 |
| 1972 | 41 | 0 | 21 | 35 | 98 | 40 | 0 | 21 | 35 | 96 |
| 1973 | 34 | 0 | 19 | 32 | 85 | 34 | 0 | 18 | 31 | 83 |
| 1974 | 35 | 0 | 15 | 34 | 84 | 35 | 0 | 15 | 33 | 82 |
| 1975 | 30 | 0 | 13 | 26 | 69 | 30 | 0 | 13 | 23 | 66 |
| 1976 | 30 | 0 | 7 | 9 | 46 | 30 | 0 | 6 | 8 | 44 |
| 1977 | 42 | 0 | 9 | 23 | 75 | 42 | 0 | 9 | 23 | 74 |
|  | 34 | 0 | 14 | 29 | 78 | 34 | 0 | 14 | 28 | 76 |
| 1979 | 43 | 0 | 16 | 31 | 91 | 43 | 0 | 15 | 31 | 89 |
| 1980 | 42 | 0 | 7 | 23 | 73 | 42 | 0 | 7 | 23 | 72 |
| 1981 | 34 | 0 | 7 | 18 | 59 | 34 | 0 | 7 | 18 | 58 |
| 1982 | 42 | 0 | 9 | 20 | 71 | 42 | 0 | 9 | 19 | 71 |
| 1983 | 29 | 0 | 11 | 22 | 63 | 29 | 0 | 11 | 22 | 63 |
| 1984 | 51 | 0 | 10 | 20 | 80 | 50 | 0 | 10 | 19 | 80 |
| 1985 | 57 | 0 | 8 | 20 | 84 | 56 | 0 | 8 | 19 | 84 |
| 1986 | 74 | 0 | 11 | 26 | 112 | 74 | 0 | 11 | 26 | 111 |
| 1987 | 91 | 1 | 14 | 32 | 138 | 91 | 1 | 14 | 31 | 137 |
| $1988 \mathrm{I/}$ | 140 | 2 | 16 | 40 | 198 | 140 | 2 | 16 | 39 | 197 |

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Table 9.-Extra-long staple cotton: Production and vield, 1960/61-88/89, by States

| Crop Year | Arizona | California | New Mexico | Texas | United States | Arizona | California | New Mexico | Texas | United States |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Yield - Pounds per harvested acre |  |  |  |  | Production - 1,000 480-1b. bales |  |  |  |  |
| 1960 | 563 | 400 | 507 | 518 | 535 | 31 | 0 | 13 | 23 | 67 |
| 1961 | 518 | 384 | 455 | 515 | 503 | 28 | 0 | 11 | 23 | 62 |
| 1962 | 665 | 534 | 450 | 539 | 576 | 57 | 1 | 18 | 37 | 112 |
| 1963 | 602 | 753 | 520 | 533 | 562 | 77 | 1 | 31 | 54 | 164 |
| 1964 | 562 | 761 | 507 | 517 | 536 | 55 | 1 | 23 | 40 | 120 |
| 1965 | 657 | 875 | 408 | 530 | 563 | 45 | 1 | 13 | 29 | 88 |
| 1966 | 507 | 628 | 408 | 392 | 447 | 36 | 1 | 12 | 23 | 72 |
| 1967 | 574 | 468 | 359 | 496 | 502 | 34 | 0 | 10 | 25 | 70 |
| 1968 | $72!$ | 762 | 411 | 456 | 565 | 44 | 1 | 11 | 23 | 79 |
| 1969 | 533 | 498 | 404 | 492 | 493 | 37 | 1 | 12 | 28 | 77 |
| 1970 | 407 | 335 | 334 | 342 | 369 | 28 | 0 | 11 | 19 | 57 |
| 1971 | 456 | 325 | 473 | 478 | 466 | 42 | 0 | 20 | 35 | 98 |
| 1972 | 587 | 385 | 349 | 437 | 480 | 49 | 0 | 15 | 31 | 96 |
| 1973 | 597 | 480 | 265 | 397 | 451 | 42 | 0 | 10 | 26 | 78 |
| 1974 | 729 | 683 | 417 | 359 | 526 | 53 | 0 | 13 | 25 | 90 |
| 1975 | 612 | 480 | 195 | 231 | 397 | 38 | 0 | 5 | 11 | 55 |
| 1976 | 804 | 640 | 476 | 444 | 692 | 50 | 0 | 6 | 7 | 64 |
| 1977 | 738 | 269 | 621 | 747 | 724 | 65 | 0 | 12 | 35 | 112 |
| 1978 | 754 | 480 | 454 | 456 | 590 | 54 | 0 | 13 | 27 | 93 |
| 1979 | 743 | 480 | 246 | 373 | 531 | 67 | 0 | 7 | 24 | 99 |
| 1980 | 824 | 480 | 464 | 533 | 698 | 72 | 0 | 7 | 25 | 104 |
| 1981 | 767 | 0 | 558 | 491 | 659 | 54 | 0 | 8 | 18 | 80 |
| 1982 | 760 | 0 | 511 | 561 | 672 | 66 | 0 | 10 | 23 | 99 |
| 1983 | 768 | 0 | 683 | 689 | 725 | 47 | 0 | 16 | 32 | 95 |
| 1984 | 841 | 0 | 595 | 744 | 786 | 88 | 0 | 12 | 30 | 130 |
| 1985 | 927 | 0 | 687 | 868 | 891 | 109 | 0 | 11 | 35 | 155 |
| 1986 | 965 | 0 | 718 | 751 | 890 | 148 | 0 | 17 | 41 | 206 |
| 1987 | 1,126 | 1,173 | 642 | 787 | 1,000 | 213 | 2 | 19 | 51 | 285 |
| 1988 1/ | 1,031 | 970 | 660 | 729 | 940 | 300 | 4 | 22 | 60 | 386 |

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Table 10. - Cotton supply and disappearance of all kinds, by months, United States, 1980/81-87/88 1/

|  | Supply |  |  |  |  |  |  | Disappearance |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date |  | Beginning s | ocks 2 / |  |  |  |  |  |  |  |  |  |
|  | $\begin{gathered} \text { At } \\ \text { milis } \end{gathered}$ | Public storage 3/ | Other 4/ | Total | $\underset{5 /}{G i n n i n g s}$ | Imports | Total supply | Mill use 6/ | Exports | Total use | Unaccounted | Ending stocks 7/ |

1,000 480-lb. net weight bales

| 1980/81 |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aug | 997 | 1,901 | 102 | 3,000 | 598 | 0 | 3,598 | 482 | 422 | 904 |  | 2,694 |
| Sep | 922 | 1,563 | 209 | 2,694 | 749 | 2 | 3,445 | 521 | 412 | 933 |  | 2,512 |
| Oct | 815 | 1,640 | 57 | 2,512 | 3,376 | 1 | 5,889 | 571 | 248 | 819 |  | 5,070 |
| Nov | 772 | 3,302 | 996 | 5,070 | 3,328 | 5 | 8,403 | 476 | 456 | 932 |  | 7,471 |
| Dec | 774 | 5,238 | 1,459 | 7,471 | 2,087 | 5 | 9,563 | 454 | 566 | 1,020 |  | 8,543 |
| Jan | 870 | 6,204 | 1,469 | 8,543 | 824 |  | 9,368 | 492 | 704 | 1,196 |  | 8,172 |
| Feb | 981 | 6,058 | 1,133 | 8,172 | 160 | 6 | 8,338 | 465 | 723 | 1,188 |  | 7,150 |
| Mar | 1,079 | 5,311 | 760 | 7,150 | 0 | 8 | 7,158 | 494 | 772 | 1,266 |  | 5,892 |
| Apr | 1,149 | 4,393 | 350 | 5,892 | 0 | 0 | 5,892 | 497 | 524 | 1,021 |  | 4,871 |
| May | 1,121 | 3,609 | 141 | 4,871 | 0 | 0 | 4,871 | 483 | 483 | 966 |  | 3,905 |
| Jun | 1,068 | 2,929 | (92) | 3,905 | 0 | 0 | 3,905 | 488 | 337 | 825 |  | 3,080 |
| dul | 977 | 2,293 | (190) | 3,080 | 0 | 0 | 3,080 | 469 | 278 | 747 | 336 | 2,668 |
| Season | 997 | 1,901 | 102 | 3,000 | 11,122 | 28 | 14,150 | 5,891 | 5,926 | 11,817 | 336 | 2,668 |
| 1981/82 |  |  |  |  |  |  |  |  |  |  |  |  |
| Aug | 923 | 1,765 | (20) | 2,668 | 440 | 0 | 3,108 | 469 | 244 | 713 |  | 2,395 |
| Sep | 845 | 1,554 | (4) | 2,395 | 1,339 | 2 | 3,736 | 474 | 221 | 695 |  | 3,041 |
| Oct | 722 | 2,017 | 302 | 3,041 | 3,936 | 0 | 6,977 | 510 | 274 | 784 |  | 6,193 |
| Nov | 690 | 4,229 | 1,274 | 6,193 | 4,761 | 0 | 10,954 | 440 | 500 | 940 |  | 10,014 |
| Dec | 698 | 7,326 | 1,990 | 10,014 | 3,408 | 1 | 13,423 | 376 | 768 | 1,144 |  | 12,279 |
| Jan | 789 | 9,658 | 1,832 | 12,279 | 1,359 | 1 | 13,639 | 409 | 685 | 1,094 |  | 12,545 |
| Feb | 856 | 9,888 | 1,801 | 12,545 | 403 | 0 | 12,948 | 414 | 792 | 1,206 |  | 11,742 |
| Mar | 921 | 9,245 | 1,576 | 11,742 | 0 | 0 | 11,742 | 477 | 924 | 1,401 |  | 10,341 |
| Apr | 962 | 8,303 | 1,076 | 10,341 | 0 | 4 | 10,345 | 473 | 710 | 1,183 |  | 9,162 |
| May | 955 | 7,454 | 753 | 9,162 | 0 | 13 | 9,175 | 432 | 509 | 941 |  | 8,234 |
| Jun | 944 | 6,591 | 699 | 8,234 | 0 | 4 | 8,238 | 421 | 523 | 944 |  | 7,294 |
| Jul | 913 | 5,810 | 571 | 7,294 | 0 | 1 | 7,295 | 369 | 417 | 786 | 123 | 6,632 |
| Season | 923 | 1,765 | -20 | 2,668 | 15,646 | 26 | 18,340 | 5,264 | 6,567 | 11,831 | 123 | 6,632 |
| 1982/83 |  |  |  |  |  |  |  |  |  |  |  |  |
| Aug | 865 | 5,495 | 272 | 6,632 | 470 | 2 | 7,104 | 448 | 360 | 808 |  | 6,296 |
| Sep | 788 | 5,259 | 249 | 6,296 | 1,114 | 10 | 7,420 | 435 | 370 | 805 |  | 6,615 |
| Oct | 700 | 5,521 | 394 | 6,615 | 3,895 | 1 | 10,511 | 455 | 308 | 763 |  | 9,748 |
| Nov | 639 | 7,919 | 1,190 | 9,748 | 3,662 | 3 | 13,413 | 448 | 399 | 847 |  | 12,566 |
| Dec | 663 | 10,644 | 1,259 | 12,566 | 1,814 | 0 | 14,380 | 404 | 395 | 799 |  | 13,581 |
| Jan | 731 | 11,619 | 1,231 | 13,581 | 752 | 1 | 14,334 | 444 | 462 | 906 |  | 13,428 |
| Feb | 819 | 11,640 | 969 | 13,428 | 256 | 0 | 13,684 | 454 | 386 | 840 |  | 12,844 |
| Mar | 813 | 10,666 | 1,365 | 12,844 | 0 | 1 | 12,845 | 531 | 513 | 1,044 |  | 11,801 |
| Apr | 827 | 10,177 | 797 | 11,801 | 0 | 0 | 11,801 | 473 | 640 | 1,113 |  | 10,688 |
| May | 834 | 9,227 | 627 | 10,688 | 0 | 0 | 10,688 | 509 | 484 | 993 |  | 9,695 |
| Jun | 816 | 8,329 | 550 | 9,695 | 0 | 0 | 9,695 | 503 | 458 | 961 |  | 8,734 |
| Jul | 794 | 7,779 | 161 | 8,734 | 0 | , | 8,735 | 410 | 432 | 842 | 42 | 7,937 |
| Season | 865 | 5,495 | 272 | 6,632 | 11,963 | 20 | 18,615 | 5,513 | 5,207 | 10,720 | 42 | 7,937 |
| 1983/84 |  |  |  |  |  |  |  |  |  |  |  |  |
| Aug | 792 | 6,978 | 167 | 7,937 | 326 | 2 | 8,265 | 552 | 403 | 955 |  | 7,310 |
| Sep | 750 | 6,493 | 67 | 7,310 | 473 | 1 | 7,784 | 520 | 339 | 859 |  | 6,925 |
| Oct | 661 | 6,077 | 187 | 6,925 | 2,664 | 1 | 9,590 | 510 | 274 | 784 |  | 8,806 |
| Nov | 581 | 7,513 | 712 | 8,806 | 2,750 | 1 | 11,557 | 509 | 462 | 971 |  | 10,586 |
| Dec | 583 | 9,114 | 889 | 10,586 | 1,248 | 0 | 11,834 | 436 | 663 | 1,099 |  | 10,735 |
| Jan | 640 | 9,197 | 898 | 10,735 | 273 | 1 | 11,009 | 540 | 696 | 1,236 |  | 9,773 |
| Feb | 675 | 7,840 | 1,258 | 9,773 | 37 | 1 | 9,811 | 492 | 759 | 1,251 |  | 8,560 |
| Mar | 742 | 6,625 | 1,193 | 8,560 | 0 | 0 | 8,560 | 506 | 947 | 1,453 |  | 7,107 |
| Apr | 772 | 5,211 | 1,124 | 7,107 | 0 | 0 | 7,107 | 478 | 763 | 1,241 |  | 5,866 |
| May | 799 | 4,125 | 942 | 5,866 | 0 | 1 | 5,867 | 528 | 644 | 1,172 |  | 4,695 |
| Jun | 798 856 | 3,089 | 808 645 | 4,695 | 0 | 2 | 4,697 | 443 | 449 | 892 |  |  |
| Jul | 856 | 2,304 | 645 | 3,805 | 0 | 3 | 3,808 | 414 | 388 | 802 | (231) | 2,775 |
| Season | 792 | 6,978 | 167 | 7,937 | 7,771 | 12 | 15,720 | 5,926 | 6,786 | 12,712 | (231) | 2,775 |

Table 10.--Cotton supply and disappearance of all kinds, by months, United States, 1984/85-87/88 1/-Continued

| Date | Supply |  |  |  |  |  |  | Disappearance |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Beginning stocks $\underline{\mathbf{2}}^{\prime}$ |  |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{gathered} \text { At } \\ \text { mills } \end{gathered}$ | Public storage 3/ | Other 4/ | Total | $\underline{5}$ | Imports | supply | use 6/ | Exports | use | counted | stocks 7/ |

1,000 480-1b. net weight bales

| 1984/85 |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aug | 830 | 1,839 | 106 | 2,775 | 656 | 2 | 3,433 | 510 | 479 | 989 |  | 2,444 |
| Sep | 747 | 1,557 | 140 | 2,444 | 558 | 1 | 3,003 | 426 | 280 | 706 |  | 2,297 |
| Oct | 673 | 1,496 | 128 | 2,297 | 3,251 | 1 | 5,549 | 509 | 307 | 816 |  | 4,733 |
| Nov | 567 | 3,540 | 626 | 4,733 | 4,807 | 0 | 9,540 | 435 | 507 | 942 |  | 8,598 |
| Dec | 586 | 6,617 | 1,395 | 8,598 | 2,177 | 0 | 10,775 | 375 | 660 | 1,035 |  | 9,740 |
| Jan | 715 | 7,914 | 1,111 | 9,740 | 1,281 | 2 | 11,023 | 485 | 836 | 1,321 |  | 9,702 |
| Feb | 851 | 7,887 | 964 | 9,702 | 252 | 3 | 9,957 | 437 | 811 | 1,248 |  | 8,709 |
| Mar | 916 | 6,853 | 940 | 8,709 |  | 5 | 8,714 | 457 | 662 | 1,119 |  | 7,595 |
| Apr | 854 | 5,918 | 823 | 7,595 |  | 6 | 7,601 | 485 | 578 | 1,063 |  | 6,538 |
| May | 834 | 5,035 | 669 | 6,538 |  | 1 | 6,539 | 523 | 453 | 976 |  | 5,563 |
| Jun | 842 | 4,199 | 522 | 5,563 |  | 2 | 5,565 | 439 | 375 | 814 |  | 4,751 |
| Jul | 769 | 3,739 | 243 | 4,751 |  | 1 | 4,752 | 459 | 267 | 726 | 76 | 4,102 |
| Season | 830 | 1,839 | 106 | 2,775 | 12,982 | 24 | 15,781 | 5,540 | 6,215 | 11,755 | 76 | 4,102 |
| 1985/86 |  |  |  |  |  |  |  |  |  |  |  |  |
| Aug | 768 | 3,070 | 264 | 4,102 | 704 | 1 | 4,807 | 526 | 207 | 733 |  | 4,074 |
| Sep | 718 | 2,960 | 396 | 4,074 | 1,808 | 0 | 5,882 | 497 | 200 | 697 |  | 5,185 |
| Oct | 650 | 3,922 | 613 | 5,185 | 3,941 | 9 | 9,135 | 591 | 218 | 809 |  | 8,326 |
| Nov | 583 | 6,413 | 1,330 | 8,326 | 3,932 | 4 | 12,262 | 502 | 235 | 737 |  | 11,525 |
| Dec | 597 | 9,390 | 1,538 | 11,525 | 2,390 | 12 | 13,927 | 457 | 197 | 654 |  | 13,273 |
| Jan | 633 | 11,184 | 1,456 | 13,273 | 602 | 5 | 13,880 | 574 | 187 | 761 |  | 13,119 |
| Feb | 720 | 11,258 | 1,141 | 13,119 | 55 | 2 | 13,176 | 522 | 192 | 714 |  | 12,462 |
| Mar | 763 | 10,730 | 969 | 12,462 |  | 0 | 12,462 | 542 | 188 | 730 |  | 11,732 |
| Apr | 813 | 10,116 | 803 | 11,732 |  | 0 | 11,732 | 571 | 173 | 744 |  | 10,988 |
| May | 827 | 9,504 | 657 | 10,988 |  | 0 | 10,988 | 580 | 81 | 661 |  | 10,327 |
| Jun | 819 | 8,851 | 657 | 10,327 |  | 0 | 10,326 | 538 | 59 | 597 |  | 9,730 |
| Jul | 826 | 8,359 | 545 | 9,730 |  | 0 | 9,730 | 499 | 23 | 522 | 140 | 9,348 |
| Season | 768 | 3,070 | 264 | 4,102 | 13,432 | 33 | 17,567 | 6,399 | 1,960 | 8,359 | 140 | 9,348 |
| 1986/87 |  |  |  |  |  |  |  |  |  |  |  |  |
| Aug | 812 | 8,502 | 34 | 9,348 | 642 | 0 | 9,990 | 581 | 393 | 974 |  | 9,016 |
| Sept | 696 | 7,988 | 332 | 9,016 | 1,834 | 0 | 10,850 | 603 | 387 | 990 |  | 9,860 |
| Oct | 610 | 8,377 | 873 | 9,860 | 2,964 | 0 | 12,824 | 660 | 648 | 1,308 |  | 11,516 |
| Nov | 590 | 9,998 | 928 | 11,516 | 2,267 | 0 | 13,783 | 554 | 552 | 1,106 |  | 12,677 |
| Dec | 606 | 10,631 | 1,440 | 12,677 | 1,125 | 1 | 13,803 | 556 | 570 | 1,126 |  | 12,677 |
| Jan | 650 | 10,690 | 1,337 | 12,677 | 702 | 1 | 13,380 | 621 | 747 | 1,368 |  | 12,012 |
| Feb | 670 | 10,486 | 856 | 12,012 | 197 | 0 | 12,209 | 587 | 544 | 1,131 |  | 11,078 |
| Mar | 741 | 9,520 | 817 | 1,078 |  | 0 | 11,078 | 676 | 653 | 1,329 |  | 9,749 |
| Apr | 731 | B,204 | 814 | 9,749 |  | 0 | 9,749 | 661 | 660 | 1,321 |  | 8,428 |
| May | 754 | 7,164 | 510 | 8,428 |  | 0 | 8,428 | 642 | 488 | 1,130 |  | 7,298 |
| Jun | 745 | 6,167 | 386 | 7,298 |  | 0 | 7,299 | 655 | 468 | 1,123 |  | 6,176 |
| Jul | 707 | 5,054 | 415 | 6,176 |  |  | 6,176 | 656 | 575 | 1,231 | 80 | 5,026 |
| Season | 812 | 8,502 | 34 | 9,348 | 9,731 | 3 | 19,082 | 7,452 | 6,684 | 14,136 | 80 | 5,026 |
| 1987/88 |  |  |  |  |  |  |  |  |  |  |  |  |
| Aug | 713 | 4,000 | 313 | 5,026 | 440 | 0 | 5,466 | 666 | 420 | 1,086 |  | 4,380 |
| Sept | 678 | 3,388 | 314 | 4,380 | 2,842 | 0 | 7,222 | 694 | 315 | 1,009 |  | 6,213 |
| Oct | 607 | 5,104 | 502 | 6,213 | 4,452 | 0 | 10,665 | 713 | 367 | 1,080 |  | 9,585 |
| Nov | 557 | 7,766 | 1,262 | 9,585 | 3,642 | 0 | 13,227 | 666 | 615 | 1,281 |  | 11,946 |
| Dec | 569 | 9,911 | 1,466 | 11,946 | 2,255 | 1 | 14,202 | 645 | 721 | 1,366 |  | 12,836 |
| Jan | 664 | 11,023 | 1,149 | 12,836 | 925 | 0 | 13,761 | 621 | 633 | 1,284 |  | 12,477 |
| Feb | 750 | 10,616 | 1,111 | 12,477 | 204 | 0 | 12,681 | 649 | 740 | 1,389 |  | 11,292 |
| Mar | 811 | 9,540 | 941 | 11,292 |  | 0 | 11,292 | 706 | 779 | 1,485 |  | 9,807 |
| Apr | 827 | 8,385 | 595 | 9,807 |  | 0 | 9,807 | 610 | 571 | 1.181 |  | 8,626 |
| May | 825 | 7,277 | 524 | 8,626 |  | 0 | 8,626 | 630 | 517 | 1,147 |  | 7.479 |
| June ${ }^{\text {8/ }}$ | 790 | 6,239 | 450 | 7,479 |  | 1 | 7,480 | 586 | 554 | 1,140 |  | 6,340 |

[^10]Table II-Program payments to cotton farmers, 1976/77-1987/88

| Crop year | : | Deficiency payments | : | Diversion payments | $\qquad$ | Disaster payments | : | Payment- : in-kind entitlements : | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | : | Million dollars |  |  |  |  |  |  |  |
|  | : |  |  |  |  |  |  |  |  |
|  | : |  |  |  |  |  |  |  |  |
| 1976 | : | 0 |  | 0 |  | 98 |  | 0 | 98 |
| 1977 | : | 0 |  | 0 |  | 69 |  | 0 | 69 |
| 1978 | : | 0 |  | 40 |  | 188 |  | 0 | 228 |
| 1979 | : | 0 |  | 0 |  | 108 |  | 0 | 108 |
| 1980 | : | 0 |  | 0 |  | 302 |  | 0 | 302 |
| 1981 | : | 469 |  | 0 |  | 81 |  | 0 | 550 |
| 1982 | : | 523 |  | 0 |  | 131 |  | 0 | 654 |
| 1983 | : | 431 |  | 3 |  | 0 |  | / 1,094 | 1,528 |
| 1984 | : | 654 |  | 0 |  | 0 |  | 0 | 654 |
| 1985 | : | 860 |  | 196 |  | 0 |  | 0 | 1,056 |
| 1986 | :2/ | / 1,482 |  | 0 |  | 0 |  | 0 | 1,482 |
| 1987 | : ${ }^{\prime}$ | / 950 |  | 0 |  | 0 |  | 0 | 950 |

I/ 4.3 million bales valued at average loan redemption rate of $\$ 0.53$ per pound.
2/ Includes $\$ 296$ million of loan forgiveness payments and loan deficiency payments of $\$ 70$ million paid in cash plus $\$ 65.3$ million paid in certificates.
3/ Preliminary.
Source: ASCS Commodity Fact Sheet: Upland Cotton, Agricultural Stabilization and Conservation Service, USDA, annual issues.

Table 12--Average price support levels and season-average prices received by farmers for upland cotton, 1974/75-1987/88

| Year | : | Loan rate 1/ | : | Target price ${ }^{\text {: }}$ | Season-average price received by farmers (net-weight basis) |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | : | Cents per pound |  |  |  |
|  | : |  |  |  |  |
| 1974 | : | 27.06 |  | 38.00 | 42.7 |
| 1975 | : | 36.12 |  | 38.00 | 51.1 |
| 1976 | : | 38.92 |  | 43.20 | 63.8 |
| 1977 | : | 44.63 |  | 47.80 | 52.1 |
| 1978 | : | 48.00 |  | 52.00 | 58.1 |
|  |  |  |  |  |  |
| 1979 | : | 50.23 |  | 57.70 | 62.3 |
| 1980 | : | 48.00 |  | 58.40 | 74.4 |
| 1981 | : | 52.46 |  | 70.87 | 54.0 |
| 1982 | : | 57.08 |  | 71.00 | 59.5 |
| 1983 | : | 55.00 |  | 76.00 | 65.3 |
|  | : |  |  |  |  |
| 1984 1985 | : | 55.00 57.30 |  | 81.00 81.00 | 58.7 56.8 |
| 1986 | : | 55.00 |  | 81.00 | 51.5 51.8 |
| 1987 | : | 52.25 |  | 79.40 | $63.5 \mathrm{~L} /$ |
| 1988 | : | 51.80 |  | 75.90 | 3/ |

1/ Base loan rates for SLM I-I/I6-inch cotton (micronaire 3.5-4.9) at average location, net weight. 2/ Average to April 1, 1988, with no allowance for unredeemed loans. 3/ USDA is prohibited by law from publishing cotton price forecasts.
Source: USDA, Agricultural Stabilization and Conservation Service.

Table 13. --Number of active cotton gins, by State, 1982/83-1986/87

| State | 1982/83 | 1983/84 | 1984/85 | 1985/86 | 1986/87 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Alabama | 96 | 87 | 91 | 84 | 82 |
| Arizona | 112 | 98 | 100 | 91 | 85 |
| Arkansas | 155 | 138 | 143 | 132 | 129 |
| California | 192 | 166 | 169 | 163 | 146 |
| Georgia | 59 | 56 | 53 | 61 | 57 |
| Louisiana | 95 | 92 | 93 | 89 | 86 |
| Mississippi | 263 | 247 | 247 | 237 | 223 |
| Missouri | 59 | 48 | 54 | 50 | 50 |
| New Mexico | 37 | 33 | 33 | 31 | 30 |
| North Carolina | 37 | 34 | 37 | 36 | 36 |
| OKlahoma | 79 | 78 | 76 | 71 | 69 |
| South Carolina | 57 | 51 | 53 | 49 | 48 |
| Tennessee | 83 | 78 | 79 | 74 | 73 |
| Texas | 672 | 643 | 629 | 601 | 545 |
| United States | 1,996 | 1,849 | 1,857 | 1,772 | 1,662 |

Source: U.S. Department of Commerce, Bureau of the Census, Agriculture Division.

Table 14. ---Cotton ginning charges, by State, 1982/83-1986/87

| State | 1982/83 | 1983/84 | 1984/85 | 1985/86 | 1985/86 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dollars per bale |  |  |  |  |
| Alabama | 33.70 | 36.46 | 36.27 | 37.76 | 37.04 |
| Arizona | 42.87 | 43.17 | 40.16 | 40.70 | 40.33 |
| Arkansas | 37.61 | 41.12 | 40.82 | 38.94 | 37.19 |
| California | 48.59 | 50.15 | 49.84 | 48.91 | 48.62 |
| Georgia | 44.50 | 43.34 | 42.93 | 42.89 | 42.41 |
| Louisiana | 35.32 | 35.24 | 38.43 | 38.46 | 37.20 |
| Mississippi | 36.00 | 38.54 | 37.62 | 36.59 | 37.16 |
| Missouri | 39.99 | 41.90 | 39.49 | 37.39 | 39.76 |
| New Mexico | 47.02 | 49.72 | 51.85 | 54.26 | 52.80 |
| North Carolina | 44.50 | 45.40 | 46.18 | 45.42 | 45.83 |
| Oklahoma | 47.35 | 46.35 | 50.15 | 48.57 | 50.35 |
| South Carolina | 42.75 | 41.11 | 41.52 | 42.97 | 42.81 |
| Tennessee | 33.86 | 39.50 | 39.71 | 38.78 | 34.69 |
| Texas | 49.01 | 50.20 | 52.48 | 50.18 | 52.92 |
| United States | 43.46 | 45.87 | 45.64 | 44.86 | 44.91 |

Source: U.S. Department of Agriculture, Economic Research Service, Cotton Ginning Charges, Harvesting Practices, and Selected Marketing Costs (annual).

| Year |
| :--- |
| and |
| method |

Ala. Ariz. Ark. Calif. Ga. La. Miss. Mo. N. Mex.
// Less than 0.5 percent. $--=0$
Source: U.S. Department of Agriculture, Economic Research Service, Cotton Ginning Charges, Harvesting Practices, and Selected Marketing Costs (annual).

Table 16. --Methods of seed cotton assembly, by State, 1982/83-1986/87
Year
and
method Ala. Ariz. Ark. Calif. Ga. La. Miss. Mo. N. Mex. N.C. Okla. S.C. Tenn. Tex. U.S.

| Percent |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ginned from | tra | ers: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1982/83 | 90 | 40 | 97 | 50 | 96 | 92 | 85 | 100 | 80 | 100 | 80 | 99 | 100 | 42 | 64 |
| 1983/84 | 92 | 45 | 98 | 40 | 94 | 94 | 85 | 100 | 75 | 100 | 63 | 99 | 100 | 43 | 58 |
| 1984/85 | 87 | 42 | 98 | 52 | 90 | 94 | 90 | 100 | 71 | 100 | 85 | 100 | 99 | 41 | 64 |
| 1985/86 | 93 | 39 | 96 | 49 | 82 | 93 | 85 | 100 | 70 | 100 | 79 | 100 | 99 | 37 | 61 |
| 1986/87 | 88 | 35 | 90 | 39 | 77 | 96 | 86 | 100 | 87 | 100 | 67 | 100 | 100 | 26 | 55 |
|  | mod |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1982 / 83$ | 10 | 60 | 3 | 49 | 4 | 8 | 15 | - | 20 |  | 20 | 1 | - | 57 | 36 |
| 1983/84 | 8 | 55 | 2 | 59 | 6 | 6 | 15 | -- | 25 | $1 /$ | 37 | 1 | -- | 57 | 42 |
| 1984/85 | 13 | 58 | 2 | 48 | 10 | 6 | 10 | _- | 29 | $1 /$ | 15 | $1 /$ | 1 | 59 | 36 |
| 1985/86 | 7 | 61 | 4 | 51 | 18 | 7 | 15 | -- | 30 | - | 21 | $1 /$ | 1 | 63 | 39 |
| 1986/87 | 12 | 65 | 10 | 61 | 23 | 4 | 14 | -- | 13 | - | 33 | 1/ | 1/ | 74 | 45 |

T/ Less than 0.5 percent. - $=0$
Source: U.S. Department of Agriculture, Economic Research Service, Cotton Ginning Charges, Harvesting Practices, and Selected Marketing Costs (annual).

Table.17.-_Cotton: Strict low middling, spot prices in designated U.S. markets, 1960/61-87/88

| Crop year | Average spot market prices per pound (net weight) I/ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 15/16 ${ }^{\prime \prime}$ | $1 "$ | $1-1 / 32$ | 1-1/16" | $1-3 / 32$ " | $1-1 / 8$ " |
| Cents per pound |  |  |  |  |  |  |
| 1960 |  |  |  | 31.29 |  |  |
| 1961 |  |  |  | 34.83 |  |  |
| 1962 |  |  |  | 34.47 |  |  |
| 1963 |  |  |  | 34.25 |  |  |
| 1964 |  |  |  | 31.94 |  |  |
| 1965 |  |  |  | 30.73 |  |  |
| 1966 | 19.53 | 21.09 |  | 23.76 |  |  |
| 1967 | 19.90 | 23.93 |  | 29.95 |  |  |
| 1968 | 19.50 | 21.58 |  | 25.54 |  |  |
| 1969 | 20.14 | 21.22 |  | 24.08 |  |  |
| 1970 | 22.71 | 23.38 |  | 25.33 |  |  |
| 1971 | 30.00 | 30.80 |  | 32.95 |  | 33.60 |
| 1972 | 28.57 | 31.25 |  | 35.59 |  | 36.14 |
| 1973 | 49.95 | 55.86 | 64.59 | 67.10 | 67.31 | 67.82 |
| 1974 | 34.88 | 37.41 | 40.02 | 41.69 | 41.89 | 42.53 |
| 1975 | 51.29 | 53.49 | 56.44 | 57.99 | 58.18 | 58.91 |
| 1976 | 63.87 | 65.99 | 69.34 | 70.88 | 71.08 | 71.83 |
| 1977 | 46.80 | 48.26 | 51.27 | 52.74 | 52.96 | 54.55 |
| 1978 | 53.43 | 55.24 | 59.92 | 61.58 | 61.89 | 64.43 |
| 1979 | 60.51 | 63.39 | 69.53 | 71.48 | 71.87 | 73.86 |
| 1980 | 69.74 | 75.70 | 80.95 | 82.99 | 83.39 | 84.47 |
| 1981 | 49.92 | 54.13 | 58.28 | 60.48 | 60.89 | 62.07 |
| 1982 | 52.39 | 56.41 | 61.17 | 63.08 | 63.47 | 64.63 |
| 1983 | 62.54 | 66.32 | 70.71 | 73.11 | 73.55 | 75.37 |
| 1984 | 52.39 | 55.98 | 58.30 | 60.51 | 60.29 | 60.64 |
|  | 52.16 | 55.81 | 57.87 | 60.02 | 59.62 | 59.77 |
| 1986 | 44.80 | 47.71 | 50.78 | 53.16 | 53.81 | 55.89 |
| 1987 | 57.38 | 59.33 | 60.81 | 63.13 | 63.63 | 64.45 |

I/ Spot market prices are for cotton with micronaire readings of 3.5-4.9.
Compiled from reports of the Agricultural Marketing Service.

Table 18. - 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 21 |  | Polyester 3/ |  | Price ratios 5/ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual | Raw fiber equivalent 4/ | Actual | Raw fiber equivalent 4/ | Actual | Raw fiber equivalent 4/ | Cotton/ rayon | Cotton/ polyester |
| Cents per pound |  |  |  |  |  |  |  |  |
| 1960 | 32.04 | 35.60 | 28.33 | 29.51 | 126.00 | 131.25 | 1.21 | 0.27 |
| 1961 | 34.58 | 38.42 | 26.17 | 27.26 | 118.00 | 122.92 | 1.41 | 0.31 |
| 1962 | 34.15 | 37.94 | 26.00 | 27.08 | 114.00 | 118.75 | 1.40 | 0.32 |
| 1963 | 33.63 | 37.37 | 27.08 | 28.21 | 114.00 | 118.75 | 1.32 | 0.31 |
| 1964 | 25.43 | 28.26 | 28.00 | 29.17 | 99.33 | 103.47 | 0.97 | 0.27 |
| 1965 | 25.11 | 27.90 | 27.38 | 28.52 | 85.17 | 88.72 | 0.98 | 0.31 |
| 1966 | 22.39 | 24.88 | 25.63 | 26.70 | 79.50 | 82.81 | 0.93 | 0.30 |
| 1967 | 23.63 | 26.26 | 24.42 | 25.44 | 62.17 | 64.76 | 1.03 | 0.41 |
| 1968 | 23.59 | 26.21 | 25.00 | 26.04 | 56.00 | 58.33 | 1.01 | 0.45 |
| 1969 | 22.96 | 25.51 | 25.50 | 26.56 | 45.33 | 47.22 | 0.96 | 0.54 |
| 1970 | 27.20 | 30.22 | 25.00 | 26.04 | 40.67 | 42.36 | 1.16 | 0.71 |
| 1971 | 30.64 | 34.04 | 26.92 | 28.04 | 37.00 | 38.54 | 1.21 | 0.88 |
| 1972 | 36.21 | 40.23 | 31.00 | 32.29 | 34.50 | 35.94 | 1.25 | 1.12 |
| 1973 | 57.99 | 64.43 | 33.13 | 34.51 | 36.75 | 38.28 | 1.87 | 1.68 |
| 1974 | 59.94 | 66.60 | 50.83 | 52.95 | 46.00 | 47.92 | 1.26 | 1.39 |
| 1975 | 49.18 | 54.64 | 51.00 | 53.13 | 47.83 | 49.82 | 1.03 | 1.10 |
| 1976 | 72.18 | 80.20 | 53.50 | 55.73 | 53.00 | 55.21 | 1.44 | 1.45 |
| 1977 | 65.81 | 73.12 | 58.00 | 60.42 | 55.83 | 58.16 | 1.21 | 1.26 |
| 1978 | 64.34 | 71.49 | 58.25 | 60.68 | 54.33 | 56.59 | 1.18 | 1.26 |
| 1979 | 68.95 | 76.61 | 65.25 | 67.97 | 60.33 | 62.84 | 1.13 | 1.22 |
| 1980 | 87.98 | 97.76 | 74.50 | 77.60 | 74.33 | 77.43 | 1.26 | 1.26 |
| 1981 | 80.41 | 89.34 | 86.50 | 90.10 | 84.75 | 88.28 | 0.99 | 1.01 |
| 1982 | 68.00 | 75.56 | 84.50 | 88.02 | 76.75 | 79.95 | 0.86 | 0.95 |
| 1983 | 77.72 | 86.36 | 80.25 | 83.59 | 73.00 | 76.04 | 1.03 | 1.14 |
| 1984 | 76.06 | 84.51 | 84.00 | 87.50 | 78.83 | 82.12 | 0.97 | 1.03 |
| 1985 | 65.83 | 73.16 | 78.84 | 82.12 | 66.34 | 69.10 | 0.89 | 1.06 |
| 1986 | 60.99 | 67.77 | 75.75 | 78.91 | 62.33 | 64.93 | 0.86 | 1.04 |
| 1987 | 72.71 | 80.79 | 81.00 | 84.38 | 65.75 | 68.49 | 0.96 | 1.18 |

I/ 1960-69, midding 15/16" at Group B Mill points, net weight; 1970 to date, SLM 1-1/16". 2/ I.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 . 5/ Raw fiber equivalent.

Compiled from Agricultural Marketing Service and trade reports.

Table 19.--Index of prices of selected growths and qualities, and price per pound of U.S. cotton c.i.f. Northern Europe, $1960 / 61-87 / 88$

| Year beginning August 1 | $\stackrel{A}{\text { Index }}$ | U.S. Memphis territory 2/ | U.S. <br> Cal./Ariz. territory 2/ | $\begin{gathered} \text { B } \\ \text { Index } \end{gathered}$ | U.S. <br> Orleans/Tex. territory 4/ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Cents per pound |  |  |  |  |
| 1960 |  | 29.46 |  |  |  |
| 1961 |  | 30.23 |  |  |  |
| 1962 |  | 29.75 |  |  |  |
| 1963 | 29.18 | 29.12 |  |  |  |
| 1964 | 29.03 | 29.49 |  |  |  |
| 1965 | 28.13 | 28.47 |  |  |  |
| 1966 | 28.35 | 28.35 |  |  |  |
| 1967 | 31.30 | 33.32 |  |  |  |
| 1968 | 28.75 | 29.97 |  |  |  |
| 1969 | 28.00 | 28.82 |  |  |  |
| 1970 | 31.10 | 31.67 |  |  |  |
| 1971 | 37.15 | 37.43 |  |  |  |
| 1972 | 41.95 | 43.54 |  |  |  |
| 1973 | 76.50 | 78.31 |  |  |  |
| 1974 | 52.50 | 56.41 |  |  |  |
| 1975 | 65.26 | 71.41 |  |  |  |
| 1976 | 81.75 | 82.47 | 83.05 | 72.91 | 75.64 |
| 1977 | 65.01 | 65.25 | 66.52 | 57.02 | 56.85 |
| 1978 | 75.99 | 75.99 | 70.69 | 67.97 | 66.88 |
| 1979 | 85.46 | 87.76 | 87.68 | 74.55 | 74.54 |
| 1980 | 93.30 | 101.22 | 99.52 |  | 87.74 |
| 1981 | 73.76 | 75.87 | 76.01 | 64.39 | 64.09 |
| 1982 | 76.65 | 77.95 | 78.61 | 66.65 | 66.38 |
| 1983 | 87.61 | 87.09 | 90.04 | 80.37 | 76.67 |
| 1984 | 69.18 | 73.90 | 73.75 | 59.55 | 64.21 |
| 1985 | 48.90 | 64.79 | 64.13 | 40.93 | 56.44 |
| 1986 | 61.98 | 61.83 | 64.63 | 54.97 | 54.38 |
| 1987 | 72.66 | 76.34 | 79.66 | 67.68 | 70.55 |

I/ The "A' Index is an average of the cheapest five types of SM 1-1/16" staple length cotton offered on the European market. The staple length used to calculate the index was changed to Middling $1-3 / 32^{\prime \prime}$ in July 1981. Calculations for 1963-72 were made using data published in "Statistics on Cotton and Related Data, $1960-78^{\prime \prime}$. 2/ The Memph is and California/Arizona territories were based on SM 1-1/16" staple length cotton until July 1981, when they were changed to Middling 1-3/32'. 3/ The 'B' Index is based on coarse grades of cotton varying in staple length from I" to $1-3 / 32^{\prime \prime}$. 4/ Based on SLM I" cotton.

Table 20.- CIF Northern Europe price quotations for principal growth of "A" type cotton

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Month 8 week \& Callfornia'
Arizona \& $$
\begin{aligned}
& \text { Memphis } \\
& \text { Territory }
\end{aligned}
$$ \& Russia \& ChIna \& Africa \& Cantral America \& Australia \& Turkey \& Paraguay \& Mexico \& $$
\begin{gathered}
\text { Pakistan } \\
1 /
\end{gathered}
$$ \& $$
\begin{aligned}
& \text { "AN } \\
& \text { Index } 2 /
\end{aligned}
$$ <br>
\hline \& \multicolumn{12}{|c|}{U.S. cents per pound} <br>
\hline 1987 \& 90.75 \& 86.00 \& 86.00 \& 90.25 \& 86.00 \& 85.00 \& 89.50 \& 90.00 \& 89.50 \& 85.75 \& 84.50 \& 5.45 <br>
\hline Aug. 13 \& 91.00 \& 86.50 \& 86.25 \& 90.50 \& 87.00 \& 86.50 \& 89.50 \& 91.00 \& 91.00 \& 86.75 \& 84.50 \& 86.10 <br>
\hline 20 \& 92.50 \& 88.25 \& 87.50 \& 91.00 \& 87.50 \& 87.50 \& 90.50 \& 92.75 \& 89.00 \& 87.75 \& 86.00 \& 87.25 <br>
\hline 27 \& 93.00 \& 88.75 \& 88.00 \& 91.50 \& 88.00 \& 87.50 \& 90.75 \& 93.25 \& 90.00 \& 88.25 \& 86.25 \& 87.60 <br>
\hline \multirow[t]{4}{*}{Sept. 3} \& 88.00 \& 84.00 \& 85.00 \& 89.50 \& 86.00 \& 85.00 \& 86.75 \& 92.50 \& 88.00 \& 86.00 \& 82.50 \& 84.50 <br>
\hline \& 85.75 \& 81.25 \& 83.50 \& 86.00 \& 84.00 \& 83.00 \& 85.00 \& 93.50 \& 84.00 \& 85.00 \& 79.50 \& 82.25 <br>
\hline \& 88.50 \& 83.50 \& 85.00 \& 88.50 \& 85.50 \& 83.50 \& 85.50 \& 94.50 \& 86.00 \& 86.50 \& 82.00 \& 83.90 <br>
\hline \& 89.00 \& 83.50 \& 84.50 \& 89.00 \& 85.50 \& 83.00 \& 85.50 \& 96.00 \& 86.00 \& 86.00 \& 82.50 \& 83.80 <br>
\hline \multirow[t]{5}{*}{Oct.
1
8
15
22
29} \& 84.50 \& 80.00 \& 80.50 \& 86.50 \& 82.00 \& 80.00 \& 84.00 \& 100.00 \& 84.75 \& 83.00 \& 78.00 \& 80.10 <br>
\hline \& 83.75 \& 79.25 \& 79.50 \& 85.00 \& 80.75 \& 78.75 \& 83.75 \& 100.00 \& 83.50 \& 81.75 \& 76.50 \& 79.00 <br>
\hline \& 82.00 \& 77.25 \& 77.00 \& 82.00 \& 77.75 \& 75.75 \& 81.00 \& 98.00 \& 79.75 \& 78.75 \& 75.80 \& 71.25 <br>
\hline \& 79.00 \& 75.25 \& 76.25 \& 81.75 \& 75.00 \& 74.25 \& 79.00 \& 95.00 \& 78.50 \& 76.25 \& 72.00 \& 74.55 <br>
\hline \& 75.50 \& 72.00 \& 74.00 \& 79.00 \& 73.50 \& 71.00 \& 76.00 \& 91.00 \& 73.50 \& 73.50 \& 67.50 \& 71.50 <br>
\hline \multirow[t]{4}{*}{Nov. $\begin{array}{r}5 \\ 12 \\ 19 \\ 26\end{array}$} \& 78.25 \& 75.25 \& 76.25 \& 81.50 \& 75.25 \& 73.25 \& 79.00 \& 91.00 \& 77.00 \& 76.50 \& 75.00 \& 75.00 <br>
\hline \& 77.00 \& 74.25 \& 75.50 \& 81.25 \& 74.75 \& 72.75 \& 78.00 \& 93.00 \& 75.25 \& 75.75 \& 74.50 \& 74.30 <br>
\hline \& 81.00 \& 78.25 \& 78.75 \& 81.75 \& 77.00 \& 75.50 \& 80.50 \& 94.00 \& 78.00 \& 77.75 \& 79.00 \& 77.30 <br>
\hline \& 80.50 \& 78.00 \& 79.00 \& 80.00 \& 76.75 \& 74.00 \& 80.00 \& 94.00 \& 78.00 \& 77.25 \& 77.50 \& 76.70 <br>
\hline \multirow[t]{5}{*}{Dec. $\begin{array}{r}3 \\ 10 \\ 17 \\ 24 \\ 31\end{array}$} \& 80.00 \& 76.50 \& 78.00 \& 77.50 \& 76.25 \& 74.75 \& 78.00 \& 95.00 \& 77.50 \& 77.00 \& 76.50 \& 76.20 <br>
\hline \& 76.25 \& 74.00 \& 75.50 \& 77.00 \& 75.25 \& 72.00 \& 76.75 \& 95.00 \& 74.75 \& 75.75 \& 75.00 \& 74.20 <br>
\hline \& 77.00 \& 73.50 \& 76.00 \& 77.50 \& 75.25 \& 73.00 \& 76.75 \& 96.00 \& 75.50 \& 75.50 \& 75.50 \& 74.55 <br>
\hline \& 78.50 \& 75.00 \& 77.00 \& 78.00 \& 75.25 \& 74.00 \& 78.25 \& 96.00 \& 77.00 \& 76.25 \& 76.25 \& 75.35 <br>
\hline \& 79.00 \& 75.75 \& 77.50 \& 78.75 \& 75.50 \& 75.50 \& 78.75 \& 94.50 \& 78.00 \& 77.00 \& 77.00 \& 76.15 <br>
\hline \multirow[t]{5}{*}{1988
Jan.

7
14
21
28
28} \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline \& 77.75 \& 74.25 \& 75.50 \& 77.25 \& 75.00 \& 73.50 \& 77.50 \& 91.00 \& 75.50 \& 75.25 \& 74.00 \& 74.40 <br>
\hline \& 77.75 \& 74.25 \& 74.75 \& 76.75 \& 73.75 \& 72.75 \& 77.25 \& 90.00 \& 75.00 \& 75.00 \& 72.75 \& 73.65 <br>
\hline \& 75.50 \& 72.00 \& 73.00 \& 74.50 \& 72.75 \& 69.50 \& 75.50 \& 90.00 \& 72.25 \& 71.75 \& 70.00 \& 71.10 <br>
\hline \& 74.00 \& 70.50 \& 71.50 \& 76.00 \& 71.75 \& 68.00 \& 73.50 \& 88.00 \& 70.50 \& 71.50 \& 67.50 \& 69.60 <br>
\hline \multirow[t]{4}{*}{Feb. $\begin{array}{r}4 \\ 11 \\ 18 \\ 25\end{array}$} \& 73.25 \& 69.50 \& 71.50 \& 75.50 \& 70.50 \& 66.50 \& 72.00 \& 85.00 \& 68.00 \& 68.00 \& 67.50 \& 67.90 <br>
\hline \& 73.25 \& 69.50 \& 71.00 \& 74.75 \& 70.00 \& 66.75 \& 72.00 \& 83.00 \& 67.00 \& 67.25 \& 67.50 \& 67.60 <br>
\hline \& 75.50 \& 72.25 \& 72.00 \& 75.25 \& 70.00 \& 67.00 \& 73.25 \& 82.00 \& 68.25 \& 68.00 \& 67.25 \& 68.10 <br>
\hline \& 72.00 \& 68.00 \& 70.50 \& 74.00 \& 68.00 \& 65.75 \& 70.00 \& 81.00 \& 66.25 \& 66.25 \& 65.50 \& 66.35 <br>
\hline \multirow[t]{5}{*}{Mar. $\begin{array}{r}3 \\ 10 \\ 17 \\ 24 \\ 31\end{array}$} \& 74.00 \& 70.00 \& 71.25 \& 74.50 \& 67.50 \& 66.25 \& 71.75 \& 81.00 \& 67.25 \& 66.50 \& 65.50 \& 66.60 <br>
\hline \& 73.25 \& 69.50 \& 71.00 \& 74.00 \& 66.75 \& 65.00 \& 70.75 \& 77.50 \& 67.00 \& 65.50 \& 65.00 \& 65.85 <br>
\hline \& 75.75 \& 71.75 \& 73.00 \& 74.25 \& 67.25 \& 66.25 \& 73.00 \& 76.00 \& 68.50 \& 66.50 \& 65.25 \& 66.75 <br>
\hline \& 75.25 \& 71.00 \& 73.50 \& 73.75 \& 67.75 \& 67.00 \& 72.25 \& 76.50 \& 66.75 \& 66.50 \& 64.25 \& 66.45 <br>
\hline \& 75.75 \& 71.50 \& 73.00 \& 73.00 \& 66.50 \& 67.00 \& 71.75 \& 76.50 \& 66.50 \& 66.75 \& 63.50 \& 66.05 <br>
\hline \multirow[t]{4}{*}{Apr. $\begin{array}{r}7 \\ 14 \\ 21 \\ 28\end{array}$} \& 74.75 \& 70.50 \& 72.25 \& 72.25 \& 66.50 \& 65.50 \& 70.50 \& 76.50 \& 66.00 \& 65.75 \& 63.00 \& 65.35 <br>
\hline \& 76.25 \& 72.75 \& 73.00 \& 72.00 \& 66.75 \& 66.00 \& 69.00 \& 76.00 \& 66.75 \& 67.00 \& 65.00 \& 66.30 <br>
\hline \& 76.50 \& 72.75 \& 72.50 \& 71.50 \& 66.00 \& 65.25 \& 68.25 \& 76.00 \& 66.00 \& 66.00 \& 64.50 \& 65.55 <br>
\hline \& 77.00 \& 73.50 \& 73.50 \& 71.00 \& 66.50 \& 65.50 \& 69.00 \& 76.00 \& 66.00 \& 66.50 \& 64.50 \& 65.80 <br>
\hline \multirow[t]{4}{*}{$\begin{array}{lr}\text { May } \\ \\ \\ 12 \\ 19 \\ & \\ \\ 26\end{array}$} \& 77.00 \& \& \& \& \& \& 67.50 \& 76.00 \& 65.00 \& N.O. \& N.Q. \& 66.95 <br>
\hline \& 77.25 \& 74.00 \& 73.50 \& 69.50 \& 66.50 \& 64.50 \& 67.50 \& 75.50 \& 65.25 \& N.Q. \& N.Q. \& 66.65 <br>
\hline \& 80.25 \& 77.00 \& 76.25 \& 72.75 \& 69.00 \& 67.50 \& 70.25 \& 75.50 \& 67.00 \& N.O. \& N.Q. \& 69.30 <br>
\hline \& 80.00 \& 77.00 \& 76.00 \& 72.00 \& 70.00 \& 69.00 \& 71.75 \& 75.50 \& 68.00 \& N.Q. \& N.Q. \& 70.15 <br>
\hline \multirow[t]{5}{*}{June $\begin{array}{r}2 \\ 9 \\ 16 \\ 23 \\ 30\end{array}$} \& 81.00 \& 78.00 \& 77.00 \& \& \& \& \& \& 69.00 \& N.Q. \& \& <br>
\hline \& 81.00 \& 79.00 \& 78.25 \& 70.50 \& 68.50 \& N.Q. \& 71.00 \& 80.00 \& 70.00 \& N.Q. \& N .9. \& 71.65 <br>
\hline \& 84.00 \& 82.25 \& 78.50 \& 73.50 \& 70.00 \& N.O. \& 73.00 \& 82.00 \& 72.50 \& N.O. \& N.Q. \& 73.50 <br>
\hline \& 83.50 \& 81.75 \& 78.00 \& 74.25 \& 72.50 \& N.Q. \& 75.00 \& 83.00 \& 72.75 \& N.Q. \& N.O. \& 74.50 <br>
\hline \& 79.50 \& 78.75 \& 76.00 \& 70.25 \& 71.00 \& N.Q. \& 72.50 \& 82.00 \& 70.25 \& N.O. \& N.Q. \& 72.00 <br>
\hline \multirow[t]{4}{*}{July $\begin{array}{r}7 \\ 14 \\ 21 \\ 28\end{array}$} \& 79.75 \& 79.00 \& 74.00 \& \& \& \& \& \& \& \& \& 70.90 <br>
\hline \& 76.00 \& 76.00 \& 68.00 \& 70.00 \& 67.50 \& N.Q. \& 69.00 \& 82.00 \& 67.25 \& N.Q. \& N.O. \& 68.35 <br>
\hline \& 76.25 \& 76.25 \& 68.00 \& 67.75 \& 67.50 \& N.Q. \& 69.00 \& 82.00 \& 67.25 \& N.O. \& N.O. \& 67.90 <br>
\hline \& 75.00 \& 75.00 \& 66.25 \& 67.00 \& 65.00 \& N.Q. \& 65.50 \& 82.00 \& 65.00 \& N.O. \& N.Q. \& 65.75 <br>
\hline
\end{tabular}

I/ On August 1, 1987 Pakistan type 1505 has been included in the "A" Index selection.
2/ The " $\mathrm{A}^{\prime \prime}$ index is an average of the cheapest five types of $M 1-3 / 32$ " staple length cotton offered on the European market. N.Q. $=$ No quotes.

Source: Cotton Outlook, Liverpool Cotton Servicas LTD.

Table 21. - C.l.F. Northern Europe price quotations for principal growth of coarse count cotton

| Month \& weok | Orleans/ Texas | Pakistan | China | Russia | Turkey | Southern Brazil | Argentina | $\begin{gathered} \text { "B" } \\ \text { index } / \text { / } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |


| 1987 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aug. 6 | 79.50 | 80.00 | N.Q. | 82.00 | 81.25 | N.Q. | N.Q. | 80.25 |
| 13 | 80.25 | 80.00 | N.Q. | 82.50 | 82.50 | N.Q. | N.Q. | 80.90 |
| 20 | 82.00 | 81.50 | N.Q. | 83.75 | 84.25 | N.Q. | N.Q. | 82.40 |
| 27 | 82.00 | 81.75 | N.Q. | 84.25 | 84.75 | N.Q. | N.Q. | 82.65 |
| Sept. 3 | 78.00 | 78.50 | N.Q. | 81.50 | 84.75 | N.Q. | N.Q. | 79.35 |
| 10 | 75.50 | 75.00 | N.Q. | 80.00 | 85.00 | N.Q. | N.Q. | 76.85 |
| 17 | 78.25 | 77.50 | N.Q. | 81.00 | 87.00 | N.Q. | N.Q. | 78.90 |
| 24 | 78.00 | 77.50 | N.Q. | 80.50 | 89.00 | N.Q. | N.Q. | 78.65 |
| Oct. 1 | 74.50 | 72.50 | N.Q. | 76.00 | 90.00 | N.Q. | N.Q. | 74.35 |
| 8 | 73.75 | 71.25 | N.Q. | 75.00 | 90.00 | N.Q. | N.Q. | 73.35 |
| 15 | 71.75 | 66.25 | N.Q. | 72.75 | 88.00 | N.Q. | N.Q. | 70.25 |
| 22 | 69.75 | 66.50 | N.Q. | 72.00 | 85.00 | N.Q. | N.Q. | 69.40 |
| 29 | 67.25 | 62.50 | N.Q. | 69.75 | 83.00 | N.Q. | N.Q. | 66.50 |
| Nov. 5 | 70.00 | 69.50 | N.Q. | 72.50 | 83.00 | N.Q. | N.Q. | 70.65 |
| 12 | 68.50 | 68.50 | N.Q. | 71.75 | 85.00 | N.Q. | N.Q. | 69.60 |
| 19 | 72.50 | 73.50 | N.Q. | 75.00 | 85.00 | N.Q. | N.Q. | 73.65 |
| 26 | 71.75 | 72.00 | N.Q. | 75.25 | 85.00 | N.Q. | N.Q. | 73.00 |
| Dec. 3 | 70.00 | 72.00 | N.Q. | 74.25 | 85.00 | N.Q. | 75.50 | 72.10 |
| 10 | 67.75 | 69.75 | N.Q. | 72.75 | 85.00 | N.Q. | 71.50 | 69.65 |
| 17 | 69.00 | 70.00 | N.Q. | 73.00 | 86.00 | N.Q. | 72.50 | 70.50 |
| 24 | 70.25 | 70.25 | N.Q. | 74.00 | 86.00 | N.Q. | 73.00 | 71.15 |
| 31 | 71.25 | 71.25 | N.Q. | 75.00 | 84.50 | N.Q. | 73.50 | 72.00 |
| 1988 |  |  |  |  |  |  |  |  |
| Jan. 7 | 69.50 | 68.50 | N.Q. | 73.00 | 81.00 | N.Q. | 72.00 | 70.00 |
| 14 | 69.50 | 67.25 | N.Q. | 72.25 | 80.00 | N.Q. | 72.25 | 69.65 |
| 21 | 67.75 | 65.00 | N.Q. | 70.50 | 80.00 | N.P. | 70.00 | 67.60 |
| 28 | 66.00 | 62.50 | N.Q. | 68.75 | 78.00 | N.Q. | 67.50 | 65.35 |
| Feb. 4 | 65.00 | 62.50 | N.Q. | 68.25 | 75.00 | N.Q. | 66.00 | 64.50 |
| 11 | 65.00 | 63.00 | N.Q. | 67.75 | 73.00 | N.Q. | 65.00 | 64.35 |
| 18 | 67.50 | 63.00 | N.Q. | 68.50 | 72.00 | N.Q. | 64.50 | 65.00 |
| 25 | 64.75 | 61.25 | N.Q. | 67.50 | 72.50 | N.Q. | 63.00 | 63.00 |
| Mar. 3 | 66.00 | 61.25 | N.Q. | 68.25 | 69.00 | N.Q. | 64.00 | 63.75 |
| 10 | 65.75 | 60.00 | N.Q. | 67.75 | 66.50 | N.Q. | 62.75 | 62.85 |
| 17 | 68.25 | 60.00 | N.Q. | 70.00 | 66.50 | N.Q. | 62.50 | 63.10 |
| 24 | 67.75 | 59.00 | N.Q. | 70.50 | 66.50 | N.Q. | 61.50 | 62.35 |
| 31 | 67.00 | 58.25 | N.Q. | 70.00 | 65.00 | N.Q. | 61.00 | 61.40 |
| Apr. 7 | 66.50 | 57.75 | N.Q. | 68.25 | 64.75 | N.Q. | 61.25 | 61.25 |
| 14 | 67.25 | 59.25 | N.Q. | 68.25 | 64.75 | N.Q. | 61.50 | 61.85 |
| 21 | 67.50 | 58.50 | N.Q. | 67.75 | 64.75 | N.Q. | 60.00 | 61.10 |
| 28 | 68.25 | 58.50 | N.Q. | 68.50 | 65.00 | N.Q. | 59.50 | 61.00 |
| May 5 | 68.50 | 58.75 | N.Q. | N.Q. | 64.50 | N.Q. | 59.75 | 61.00 |
| 12 | 68.50 | 59.50 | N.Q. | N.Q. | 63.50 | N.Q. | 57.25 | 60.10 |
| 19 | 71.50 | 62.25 | N.Q. | N.Q. | 63.50 | N.Q. | 59.50 | 61.75 |
| 26 | 71.00 | 61.75 | N.Q. | N.Q. | 63.50 | N.Q. | 60.50 | 61.90 |
| June 2 | 71.50 | 62.00 | N.Q. | N.Q. | 63.50 | N.Q. | 60.50 | 62.00 |
| 9 | 72.00 | 63.50 | N.Q. | N.Q. | 65.00 | N.Q. | 61.00 | 63.15 |
| 16 | 74.50 | 64.75 | N.Q. | N.Q. | 67.00 | N.Q. | 63.50 | 65.10 |
| 23 | 73.00 | 66.00 | N.Q. | N.Q. | 66.00 | N.Q. | 64.25 | 65.40 |
| 30 | 70.50 | 65.00 | N.Q. | N.Q. | 66.00 | N.Q. | 62.25 | 64.40 |
| July 7 | 70.75 | 63.00 | N.Q. | N.Q. | 66.00 | N.Q. | 60.75 | 63.25 |
| 14 | 65.00 | 60.00 | N.Q. | N.Q. | 66.00 | N.Q. | 58.50 | 61.15 |
| 21 | 65.25 | 60.00 | N.Q. | N.Q. | 66.00 | N.Q. | 58.50 | 61.25 |
| 28 | 64.00 | 59.25 | N.Q. | N.Q. | 66.00 | N.Q. | 57.75 | 60.35 |

1/ The "B" index is based on coarse grades of cotton varying in staple length from 1" to 1-3/32". It is an average of the cheapest three types of seven styles, so marked. N.Q. No quotes.
Source: Cotton Outlook, Liverpool Cotton Services LTD.

Table 22.-World cotton supply and use, 1960/61-88/89 //

| Year beginning August I | Harvested area | Yield | Beginning stocks | Production | Consumption | Exports |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Million acres | Pounds/acre | $\ldots$ - . . - Million 480-1b. bales $\ldots \ldots \ldots$ |  |  |  |
| 1960 | 79.5 | 272 | 19.7 | 45.1 | 46.2 | 17.1 |
| 1961 | 79.5 | 269 | 19.0 | 44.5 | 45.2 | 15.6 |
| 1962 | 79.1 | 285 | 18.8 | 47.0 | 43.9 | 15.9 |
| 1963 | 81.1 | 302 | 22.7 | 51.0 | 48.0 | 17.9 |
| 1964 | 82.7 | 313 | 25.7 | 54.0 | 51.5 | 16.9 |
| 1965 | 82.3 | 333 | 28.8 | 57.1 | 54.0 | 16.9 |
| 1966 | 77.2 | 327 | 32.3 | 52.5 | 56.0 | 18.2 |
| 1967 | 76.6 | 324 | 28.5 | 51.7 | 56.1 | 17.5 |
| 1968 | 79.3 | 346 | 24.0 | 57.1 | 56.5 | 17.0 |
| 1969 | 80.3 | 329 | 24.5 | 54.9 | 56.2 | 17.7 |
| 1970 | 78.8 | 337 | 23.3 | 55.3 | 57.3 | 17.7 |
| 1971 | 82.1 | 347 | 22.4 | 59.4 | 58.6 | 18.7 |
| 1972 | 82.9 | 359 | 22.9 | 62.0 | 59.8 | 21.2 |
| 1973 | 81.2 | 374 | 24.9 | 63.2 | 60.9 | 19.6 |
| 1974 | 83.0 | 372 | 27.7 | 64.2 | 57.9 | 17.5 |
| 1975 | 76.5 | 340 | 33.4 | 54.2 | 61.9 | 19.1 |
| 1976 | 75.6 | 360 | 26.0 | 56.6 | 60.9 | 17.6 |
| 1977 | 81.9 | 376 | 22.0 | 64.1 | 61.2 | 19.1 |
| 1978 | 81.4 | 353 | 25.2 | 59.9 | 63.5 | 19.8 |
| 1979 | 79.6 | 396 | 21.7 | 65.7 | 66.2 | 23.2 |
| 1980 | 79.3 | 393 | 21.1 | 65.0 | 66.1 | 19.7 |
| 1981 | 81.4 | 420 | 20.5 | 71.2 | 66.1 | 20.2 |
| 1982 | 77.9 | 420 | 25.3 | 68.1 | 68.3 | 19.5 |
| 1983 | 76.5 | 411 | 25.2 | 65.6 | 68.3 | 19.2 |
| 1984 | 84.0 | 504 | 24.0 | 88.2 | 69.9 | 20.2 |
| 1985 | 78.6 | 486 | 42.4 | 79.6 | 75.8 | 20.2 |
| 1986 | 73.9 | 457 | 47.2 | 70.4 | 82.5 | 25.9 |
| $19872 /$ | 80.4 | 479 | 34.5 | 80.3 | 82.6 | 24.1 |
| 1988 3/ | 85.4 | 483 | 32.2 | 85.9 | 82.7 | 23.5 |

T/ Season beginning August 1. 2/ Estimated. 3/ Forecast. Source: Prepared or estimated on the basis of offical statistics of foreign governments, other foreign source materials, reports of U.S. agricultural attaches and Foreign Service Officers, results of office research and related information.

Table 23.-Foreign cotton supply and use, $1960 / 61-88 / 89 \mathrm{l} /$

| Year beginning August 1 | Harvested area | Yield | Beginning stocks | Production | Consumption | Exports |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Million acres | Pounds/acre | - . . . . - Million 480-lb. bales . . . . . . |  |  |  |
| 1960 | 64.2 | 230 | 12.2 | 30.8 | 37.8 | 10.3 |
| 1961 | 63.8 | 227 | 12.0 | 30.2 | 36.2 | 10.6 |
| 1962 | 63.6 | 243 | 11.1 | 32.1 | 35.4 | 12.5 |
| 1963 | 66.9 | 256 | 11.6 | 35.7 | 39.3 | 12.2 |
| 1964 | 68.6 | 272 | 13.4 | 38.9 | 42.2 | 12.7 |
| 1965 | 68.7 | 295 | 14.5 | 42.2 | 44.4 | 13.9 |
| 1966 | 67.6 | 305 | 15.3 | 42.9 | 46.4 | 13.4 |
| 1967 | 68.7 | 310 | 16.2 | 44.3 | 47.1 | 13.1 |
| 1968 | 69.1 | 321 | 17.5 | 46.2 | 48.2 | 14.2 |
| 1969 | 69.2 | 312 | 18.0 | 44.9 | 48.1 | 14.8 |
| 1970 | 67.6 | 320 | 17.5 | 45.1 | 49.1 | 13.9 |
| 1971 | 70.6 | 332 | 18.2 | 48.9 | 50.4 | 15.3 |
| 1972 | 69.9 | 332 | 19.6 | 48.3 | 52.0 | 15.9 |
| 1973 1974 | 69.2 70.4 | 348 359 | 20.7 23.9 | 50.2 | 53.4 52.0 | 13.5 13.6 |
| 1974 1975 | 70.4 67.7 | 359 <br> 325 | 23.9 27.7 | 52.7 45.9 | 52.0 54.7 | 13.6 15.8 |
| 1976 | 64.7 | 342 | 22.3 | 46.0 | 54.2 | 12.8 |
| 1977 | 68.7 | 348 | 19.0 | 49.7 | 54.8 | 13.7 |
| 1978 | 69.0 | 341 | 19.9 | 49.0 | 57.2 | 13.6 |
| 1979 | 66.8 | 367 | 17.7 | 51.1 | 59.7 | 14.0 |
| 1980 | 66.1 | 391 | 18.1 | 53.9 | 60.2 | 13.8 |
| 1981 | 67.6 | 395 | 17.8 | 55.6 | 60.9 | 13.7 |
| 1982 | 68.2 | 396 | 18.7 | 56.2 | 62.8 | 14.2 |
| 1983 | 69.2 | 401 | 17.3 | 57.8 | 62.4 | 12.4 |
| 1984 | 73.6 | 491 | 21.2 | 75.2 | 64.3 | 14.0 |
| 1985 | 68.4 | 464 | 38.3 | 66.1 | 69.4 | 18.3 |
| 1986 | 65.5 | 445 | 37.8 | 60.7 | 75.0 | 19.2 |
| 1987 2/ | 70.4 | 447 | 29.5 | 65.5 | 74.9 | 17.5 |
| 1988 3/ | 73.7 | 462 | 26.6 | 71.0 | 75.7 | 18.8 |

See table 24 for footnotes.

Table 24.-Upland cotton and manmade staple fibers: Mill consumption on cotton-system spinning spindles, 1960-87

| Year beginning August 1 | Cotton | Manmade |  |  | Total fibers | Cotton's share of total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Rayon and acetate staple | Noncellulosic staple | Total |  |  |
|  | 480-lb. bale equivalents |  |  |  |  | Percent |
| 1960 | 8,352,560 | 755,077 | 220,590 | 975,667 | 9,328,227 | 89.5 |
| 1961 | 9,017,265 | 980,065 | 304,555 | 1,284,621 | 10,301,886 | 87.5 |
| 1962 | 8,483,810 | 1,166,006 | 466,158 | 1,632,164 | 10,115,974 | 83.9 |
| 1963 | 8,696,429 | 1,330,546 | 553,485 | 1,884,031 | 10,580,460 | 82.2 |
| 1964 | 9,260,665 | 1,351,581 | 707,290 | 2,058,871 | 11,319,536 | 81.8 |
| 1965 | 9,595,725 | 1,312,531 | 955,354 | 2,267,885 | 11,863,610 | 80.9 |
| 1966 | 9,573,850 | 1,180,877 | 1,055,329 | 2,236,206 | 11,810,056 | 81.1 |
| 1967 | 9,076,933 | 1,276,856 | 1,433,392 | 2,710,248 | 11,787,181 | 77.0 |
| 1968 | 8,331,508 | 1,467,946 | 1,687,473 | 3,155,419 | 11,486,927 | 72.5 |
| 1969 | 8,113,873 | 1,220,717 | 1,807,658 | 3,028,375 | 11,142,248 | 72.8 |
| 1970 | 8,204,292 | 1,054,587 | 1,899,029 | 2,953,616 | 11,157,908 | 73.5 |
| 1971 | 8,259,171 | 1,107,437 | 2,201,235 | 3,308,672 | 11,567,843 | 71.4 |
| 1972 | 7,768,748 | 1,139,198 | 2,721,302 | 3,860,500 | 11,629,248 | 66.8 |
| 1973 | 7,471,977 | 1,151,987 | 2,810,637 | 3,962,624 | 11,434,601 | 65.3 |
| 1974 | 5,860,177 | 665,392 | 2,381,696 | 3,047,088 | 8,907,265 | 65.8 |
| 1975 | 7,249,667 | 810,535 | 2,941,290 | 3,751,825 | 11,001,492 | 65.9 |
| 1976 | 6,674,400 | 805,140 | 3,180,658 | 3,985,798 | 10,660,198 | 62.6 |
| 1977 | 6,482,521 | 802,933 | 3,416,958 | 4,219,891 | 10,702,412 | 60.6 |
| 1978 | 6,351,852 | 723,506 | 3,424,231 | 4,147,737 | 10,499,589 | 60.5 |
| 1979 | 6,505,540 | 632,658 | 3,521,385 | 4,154,043 | 10,659,583 | 61.0 |
| 1980 | 5,890,819 | 586,467 | 3,497,940 | 4,084,407 | 9,975,226 | 59.1 |
| 1981 | 5,263,812 | 488,169 | 3,021,594 | 3,509,763 | 8,773,575 | 60.0 |
| 1982 | 5,512,767 | 453,981 | 3,078,848 | 3,532,829 | 9,045,596 | 60.9 |
| 1983 | 5,926,283 | 540,502 | 3,314,700 | 3,855,202 | 9,781,485 | 60.6 |
| 1984 | 5,517,319 | 479,221 | 2,781,425 | 3,260,646 | 8,777,965 | 62.9 |
| 1985 | 6,496,549 | 528,040 | 3,052,558 | 3,580,598 | 10,077,147 | 64.5 |
| 1986 | 7,385,108 | 534,815 | 3,087,129 | 3,621,944 | 11,007,052 | 67.1 |
| 1987 1/ | 7,558,819 | 560,883 | 3,089,708 | 3,650,591 | 11,209,410 | 67.4 |

1/ Preliminary and estimated.
Compiled from reports of the Bureau of the Census.

Table 25.-U.S. fiber consumption: Total and per capita, by type of fiber

| Year and fiber | U.S. mill use | Percent of fibers | Textile <br> Exports | ade 1/ Imports | Total domestic consumption 2/ | Percent of fibers | Mill use | capita 3/ <br> Domestic consumption |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Million pounds | Percent | - - - - | llion pounds | ds - - - - | Percent | - - | ounds - - - |
| COTTON |  |  |  |  |  |  |  |  |
| 1984 | 2,716.1 | 25.1 | 206.1 | 1,465.5 | 3,975.5 | 30.2 | 11.5 | 16.8 |
| 1985 | 2,813.4 | 25.2 | 213.2 | 1,629.2 | 4,229.4 | 30.5 | 11.8 | 17.7 |
| 1986 | 3,256.3 | 27.0 | 274.8 | 1,910.5 | 4,892.0 | 31.0 | 13.5 | 20.2 |
| 1987 | 3,783.75 | 29.1 | 298.0 | 2,335.7 | 5,821.4 | 33.9 | 15.5 | 23.9 |
| WOOL |  |  |  |  |  |  |  |  |
| 1984 | 142.1 | 1.3 | 12.0 | 210.2 | 340.2 | 2.6 | 0.6 | 1.4 |
| 1985 | 116.6 | 1.0 | 17.8 | 264.8 | 363.6 | 2.6 | 0.5 | 1.5 |
| 1986 | 136.7 | 1.2 | 16.0 | 275.6 | 396.3 | 2.5 | 0.6 | 1.6 |
| 1987 | 142.8 | 1.1 | 23.5 | 276.1 | 395.4 | 2.3 | 0.6 | 1.6 |
| MANMADE FIBERS |  |  |  |  |  |  |  |  |
| 1984 | 7,966.1 | 73.5 | 487.9 | 1,342.6 | 8,820.8 | 67.1 | 33.6 | 37.2 |
| 1985 | 8,225.5 | 73.8 | 449.2 | 1,491.0 | 9,267.3 | 66.8 | 34.3 | 38.7 |
| 1986 | 8,652.0 | 71.8 | 519.3 | 1,703.0 | 9,835.7 | 62.4 | 35.8 | 40.7 |
| 1987 | 9,047.9 | 69.7 | 591.9 | 1,805.4 | 10,261.4 | 59.7 | 37.1 | 42.1 |
| FLAX AND SILK |  |  |  |  |  |  |  |  |
| 1984 | 7.9 | 0.1 | --- | -- | 7.9 | 0.1 | 4/ | 4/ |
| 1985 | 5.1 | 4/ | -- | --- | 5.1 | 4/ | 4/ | 4/ |
| 1986 | 4.7 | 4/ | --- | 632.2 | 636.9 | 4.1 | 4/ | 2.6 |
| 1987 | 6.0 5/ | $4 /$ | --- | 702.7 | 708.7 | 4.1 | $4 /$ | 2.9 |
| ALL FIBERS 6/ |  |  |  |  |  |  |  |  |
| 1984 | 10,832.2 | 100.0 | 706.0 | 3,018.3 | 13,144.4 | 100.0 | 45.7 | 55.4 |
| 1985 | 11,160.6 | 100.0 | 680.2 | 3,385.0 | 13,865.4 | 100.0 | 46.6 | 57.9 |
| 1986 | 12,049.7 | 100.0 | 810.1 | 4,521.3 | 15,760.9 | 100.0 | 49.9 | 65.3 |
| 1987 | 12,980.4 | 100.0 | 913.4 | 5,119.9 | 17,186.9 | 100.0 | 53.2 | 70.5 |

I/ Raw fiber equivalent of imports and exports of textile products. 2/ Total domestic consumption is D.S. mill consumption plus net textile product trade balance. 3/ July 1 population for 1984= 237.0 million, $1985=239.3$ million, $1986=241.6 \mathrm{million}$, and $1987=243.9 \mathrm{million}$. 4/ Less than 0.05 pounds or 0.1 percent. 5/ Estimated. 6/ Includes flax and silk.

Source: Bureau of the Census.


IT Capacify data as of May 1988. 2/ Includes saran and spandax. U.S.0.A. esfimafes. 37 Glass fibers are not included.
Source: Compiled from Textile Organon.

Table 27. -Domestic shipments of manmade fibers by major category, 1984-88 1/

|  | 1984 |  |  |  | 1985 |  |  |  |  | 1986 |  |  |  | 1987 |  |  |  |  | 1988 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiber type | $1 Q$ | 20 | 30 | 40 | 10 | 20 | 30 |  | 0 | 10 | 20 | 30 | 40 | 10 | 20 | 3 Q |  | 0 | 10 | 20 |

Million pounds
Woven products:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Total | 586.7 | 570.4 | 544.1 | 531.6 | 498.4 | 513.5 | 519.5 | 542.3 | 534.4 | 533.6 | 536.7 | 535.4 | 524.7 | 563.2 | 559.1 | 586.3 | 564.1 | - |
| Polyester | 387.4 | 374.7 | 362.5 | 350.9 | 320.7 | 326.9 | 327.3 | 335.0 | 326.2 | 319.0 | 319.8 | 312.7 | 314.4 | 334.0 | 316.2 | 329.8 | 322.8 | -- |
| Rayon | 48.9 | 42.8 | 43.2 | 42.8 | 39.0 | 39.4 | 44.6 | 51.9 | 53.9 | 53.2 | 55.1 | 55.8 | 52.9 | 53.2 | 59.9 | 62.7 | 58.7 |  |
| Oletin | 60.6 | 63.4 | 56.6 | 61.7 | 64.8 | 71.0 | 65.5 | 66.5 | 66.9 | 76.2 | 78.6 | 85.3 | 77.8 | 85.4 | 90.4 | 102.0 | 94.2 | - |
| Nylon | 43.6 | 45.8 | 42.0 | 41.7 | 36.1 | 32.2 | 34.8 | 36.8 | 38.2 | 38.0 | 35.1 | 35.8 | 37.1 | 39.0 | 43.1 | 41.0 | 39.1 | - |
| Acatate | 29.9 | 30.8 | 27.5 | 21.3 | 22.9 | 27.0 | 29.3 | 33.6 | 32.8 | 32.1 | 32.0 | 31.4 | 26.7 | 32.1 | 31.8 | 34.4 | 32.5 | - |
| Acryilic | 16.3 | 12.9 | 12.3 | 13.2 | 14.9 | 17.0 | 18.0 | 18.5 | 16.4 | 15.1 | 16.1 | 14.4 | 15.8 | 11.5 | 17.7 | 16.4 | 16.8 | - |

Knit products:

| Total | 345.9 | 333.3 | 291.5 | 282.3 | 296.6 | 330.1 | 338.1 | 331.0 | 345.8 | 364.3 | 357.2 | 355.4 | 368.6 | 375.0 | 339.8 | 331.5 | 328.2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Polyester | 166.0 | 154.5 | 131.7 | 139.2 | 137.9 | 163.1 | 171.5 | 165.8 | $16 \% .8$ | 165.5 | 171.5 | 183.0 | 181.5 | 196.2 | 182.5 | 150.4 | 1/5.1 |  |
| Nylon | 73.1 | 64.5 | 62.5 | 61.1 | 65.2 | 62.2 | 64.4 | 65.7 | 68.3 | 65.1 | 60.0 | 59.4 | 63.7 | 63.5 | 63.5 | 60.9 | 61.4 |  |
| Acrylic | 86.4 | 92.1 | 79.5 | 65.3 | 76.1 | 87.2 | 86.6 | 86.4 | 93.9 | 117.7 | 111.6 | 99.9 | 112.7 | 105.2 | 87.5 | 72.1 | 85.3 |  |
| Acetate | 18.5 | 20.8 | 15.7 | 14.5 | 15.9 | 15.8 | 12.8 | 11.1 | 12.0 | 14.3 | 12.3 | 11.2 | 9.1 | 8.4 | 5.2 | 6.3 | 5.9 | -- |
| Rayon | 1.9 | 1.4 | 2.1 | 2.2 | 1.5 | 1.8 | 2.8 | 2.0 | 1.8 | 1.7 | 1.8 | 2.0 | 1.6 | 1.7 | 1.1 | 1.1 | 0.5 | -- |

Carpets:
$\begin{array}{lllllllllllllllllllllllllllllllllllll}\text { Total } & 521.3 & 543.8 & 517.2 & 549.0 & 525.0 & 606.7 & 626.0 & 623.0 & 582.7 & 623.9 & 694.7 & 700.3 & 686.3 & 722.0 & 732.8 & 675.0 & 726.8 & -1\end{array}$ Nyion
Polyester
Rayon
$\begin{array}{lllllllllllllllllll}385.7 & 393.8 & 370.5 & 371.2 & 340.4 & 397.5 & 423.0 & 428.4 & 387.1 & 406.4 & 476.4 & 449.3 & 458.7 & 474.7 & 476.7 & 411.0 & 457.2 & 448.8\end{array}$
$\begin{array}{llllllllllllllllll}104.2 & 114.4 & 114.6 & 145.2 & 153.8 & 175.2 & 172.6 & 162.5 & 164.2 & 178.9 & 181.9 & 212.5 & 180.8 & 196.6 & 204.7 & 203.9 & 203.3\end{array}$

I/ Filament plus staple. 2/ Data only available for carpets; nylon and polyester. - = figures not available.
Source: Textile Organon.

Table 28.-U.S. mill consumption of raw wool, scoured basis, 1960-1987

| Year | Worsted apparel |  |  | Woolen apparel |  |  | Total apparel | Carpet | $\begin{aligned} & \text { Total } \\ & \text { raw } \\ & \text { wool } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 60's and finer | than 60's | Total | 60's and finer | than 60's | Total |  |  |  |
|  | 1,000 pounds |  |  |  |  |  |  |  |  |
| 1960 | 73,283 | 59,287 | 132,570 | 46,485 | 67,138 | 113,623 | 246,193 | 164,648 | 410,841 |
| 1961 | 92,916 | 57,889 | 150,805 | 51,682 | 60,915 | 112,597 | 263,402 | 149,057 | 412,459 |
| 1962 | 89,604 | 67,485 | 157,089 | 51,279 | 58,656 | 109,935 | 267,024 | 148,853 | 415,877 |
| 1963 | 77,561 | 69,308 | 146,869 | 45,003 | 56,763 | 101,766 | 248,635 | 160,399 | 409,034 |
| 1964 | 74,627 | 67,116 | 141,743 | 38,632 | 53,547 | 92,179 | 233,922 | 122,737 | 356,659 |
| 1965 | 99,999 | 56,870 | 156,869 | 41,327 | 60,281 | 101,608 | 258,477 | 112,330 | 370,807 |
| 1966 | 98,110 | 67,783 | 165,893 | 34,518 | 61,651 | 96,169 | 262,062 | 103,587 | 365,649 |
| 1967 | 82,936 | 58,430 | 141,366 | 29,381 | 56,911 | 86,292 | 227,658 | 84,544 | 312,202 |
| 1968 | 89,678 | 65,037 | 154,715 | 29,912 | 53,663 | 83,575 | 238,290 | 91,407 | 329,697 |
| 1969 | 82,280 | 56,710 | 138,990 | 29,574 | 49,805 | 79,379 | 218,369 | 93,758 | 312,127 |
| 1970 | 51,631 | 59,019 | 110,433 | 18,930 | 34,072 | 53,002 | 163,652 | 76,609 | 240,261 |
| 1971 | 37,707 | 38,069 | 75,776 | 14,760 | 25,669 | 40,429 | 116,205 | 14,779 | 190,984 |
| 1972 | 54,610 | 37,396 | 92,006 | 19,912 | 30,315 | 50,227 | 142,233 | 76,368 | 218,601 |
| 1973 | 40,151 | 28,055 | 68,206 | 13,593 | 28,073 | 41,666 | 109,872 | 41,394 | 151,266 |
| 1974 | 23,841 | 18,041 | 41,882 | 10,909 | 22,065 | 32,974 | 74,856 | 18,595 | 93,451 |
| 1975 | 34,097 | 18,965 | 53,062 | 15,738 | 25,317 | 41,055 | 94,117 |  |  |
| 1976 | 34,929 | 21,871 | 56,800 | 20,583 | 29,246 | 49,829 | 106,629 | 15,117 | 121,746 |
| 1977 | 27,552 | 19,324 | 46,876 | 22,308 | 26,301 | 48,609 | 95,485 | 12,526 | 108,011 |
| 1978 | 32,726 | 16,488 | 49,214 | 24,432 | 28,600 | 53,032 | 102,246 | 13,009 | 115,255 |
| 1979 | 30,115 | 19,062 | 49,177 | 29,035 | 28,321 | 57,356 | 106,533 | 10,513 | 117,046 |
| 1980 | 35,535 | 20,852 | 56,387 | 28,240 | 28,796 | 57,036 | 113,423 | 10,020 | 123,443 |
| 1981 | 41,238 | 22,012 | 63,250 | 35,160 | 29,342 | 64,502 | 127,752 | 10,896 | 138,648 |
| 1982 | 36,241 | 21,271 | 57,512 | 23,763 | 24,582 | 48,345 | 105,857 | 9,825 | 115,682 |
| 1983 | 42,441 | 23,607 | 66,048 | 30,467 | 30,214 32,24 | 60,681 | 126,729 | 13,851 | 140,580 |
| 1984 | 39,686 | 24,136 | 63,822 | 32,913 | 32,24\% | 65,160 | 128,982 | 13,088 | 142,070 |
| 1985 | 33,646 | 16,665 | 50,311 | 28,046 | 27,694 | 55,740 | 106,051 | 10,562 | 116,613 |
| 1986 | 41,719 | 18,760 | 60,479 | 34,122 | 32,161 | 66,289 | 126,768 | 9,960 | 156,728 |
| 1987 | 53,814 | 14,849 | 68,663 | 32,401 | 28,613 | 61,014 | 129,677 | 13,092 | 142,769 |

[^11]Table 29-U.S. wool supply and use, 1973-88


1/ Preliminary and estimated.
Source: Bureau of Census and USDA.

Table 30-U.S. mohair supply and use 1973-88

| Year | Angora goats Jan 1 I/ | Angora goats clipped 1/ | Yield I/ | Production 1/ (Texas) | Supply and utilization |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Beginning stocks Jan 1 | Production 2/ | Imports | Unaccounted | Total supply | Mill use | Exports | Total use | Ending stocks Dec 31 |
|  | Thousand |  | Lbs./hd. | Thousand grease lbs. |  | Million clean lbs. |  |  |  |  |  |  |  |
| 1973 | 1,375 | 1,450 | 6.85 | 9,930 | 5,965 | 7,944 | --- | --- | 13,909 | 2,207 | 9,324 | 11,531 | 2,378 |
| 1974 | 1,180 | 1,175 | 7.15 | 8,400 | 2,378 | 6,720 | -- | 3431 | 12,529 | 1,199 | 7,421 | 8,620 | 3,909 |
| 1975 | 990 | 1,215 | 7.08 | 8,600 | 3,909 | 6,880 | 19 | -- | 10,808 | 1,088 | 8,828 | 9,916 | 892 |
| 1976 | 950 | 1,100 | 7.36 | 8,100 | 892 | 6,480 | 37 | 2,194 | 9,603 | 822 | 7,161 | 7,983 | 1,620 |
| 1977 | 1,100 | 1,215 | 6.58 | 8,000 | 1,620 | 6,400 | 60 | 0 | 8,080 | 743 | 6,190 | 6,933 | 1,147 |
| 1978 | 1,070 | 1,188 | 6.82 | 8,100 | 1,147 | 6,480 | 6 | 319 | 7,952 | 490 | 6,557 | 7,047 | . 905 |
| 1979 | 1,050 | 1,275 | 7.29 | 9,300 | 905 | 7,440 | 7 | 514 | 8,866 | 695 | 6,452 | 7,141 | 1,719 |
| 1980 | 1,080 | 1,240 | 7.10 | 8,800 | 1,719 | 7,040 | 45 | (164) | 8,640 | 700 | 6,221 | 6,921 | 1,719 |
| 1981 | 1,050 | 1,300 | 7.62 | 10,100 | 1,719 | 8,420 | 226 | -665 | 9,700 | 800 | 7,124 | 7,924 | 1,776 |
| 1982 | 1,130 | 1,330 | 7.52 | 10,530 | 1,776 | 8,000 | 24 | 721 | 10,521 | 600 | 7,743 | 8,343 | 2,178 |
| 1983 | 1,140 | 1,360 | 7.79 | 11,400 | 2,178 | 8,660 | 45 | . 721 | 11,604 | 700 | 9,654 | 10,354 | 1,250 |
| 1984 | 1,150 | 1,450 | 7.72 | 12,170 | 1,250 | 9,250 | 5 | -1,035 | 9,470 | 700 | 7,750 | 8,450 | 1,020 |
| 1985 | 1,300 | 1,730 | 7.70 | 14,460 | 1,020 | 10,990 | 20 | -1,035 | 10,995 | 700 | 8,991 | 9,691 | 1,304 |
| 1986 | 1,430 | 2,000 | 8.00 | 17,780 | 1,304 | 13,510 | 13 | 1,436 | 16,263 | 100 | 14,622 | 14,722 | 1,541 |
| 1987 | 1,370 | 2,000 | 8.10 | 18,410 | 1,541 | 13,990 | 7 | 352 | 15,890 | 100 | 14,012 | 14,122 | 1,778 |
| $19883 /$ | 1,310 | 1,700 | 7.70 | 15,050 | 1,778 | 11.440 | 7 | 975 | 14,200 | 200 | 13,000 | 13,200 | 1,000 |

1/ Texas only 1973-1981. In 1970, the last year of production in which data were available for other States, Texas accounted for $\% .3$ percent of the U.S. total. Estimated totai U.S. production 1982-1986. 2/ Eighty percent of greasy before 1982 and 76 percent of greasy thereafter.

[^12]| Year beginning Jan 1 | U.S. <br> farm prica shorn wool grease basis 2/ | Australlan offering prices, clean 1/ |  |  |  |  |  |  | Graded territory shorn wool, clean basis 4/ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Grado 70's type 61 | Grade 64/70's type 62 | Grado 64's type 63 | Grade 62's type 64 | Grade 60/62's type 64A | Grade 58's-56's 433-34 | Market indicator 3/ | $\begin{aligned} & 64 \text { 's } \\ & \text { staple } \\ & 2-3 / 4^{\prime \prime} \\ & 8 \text { up } \end{aligned}$ | $\begin{gathered} 62 \text { 's } \\ \text { staple } \\ 3^{\prime \prime} \\ 8 \text { up } \end{gathered}$ | $\begin{gathered} 60^{\prime} \mathrm{s} \\ \text { staple } \\ 3^{\prime \prime \prime} \\ 8^{\prime} \text { up } \end{gathered}$ | $\begin{aligned} & 58 \text { 's } \\ & \text { staple } \\ & 3-1 / 4^{n} \\ & 8 \mathrm{up} \end{aligned}$ | $\begin{aligned} & 56^{\circ} \mathrm{s} \\ & \text { staple } \\ & 3-1 / 4^{\prime \prime} \\ & \text { B up } \end{aligned}$ | $\begin{aligned} & 54 \text { 's } \\ & \text { staple } \\ & 3-1 / 2^{m} \\ & 2 \mathrm{up} \end{aligned}$ |
| Cents/lb. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1978 | 74.5 | 2.11 | 2.08 | 2.06 | 2.04 | 2.05 | 1.97 | $\cdots$ | 1.89 | 1.80 | 1.74 | 1.70 | 1.67 | 1.63 |
| 1979 | 86.3 | 2.63 | 2.51 | 2.38 | 2.34 | 2.32 | 2.13 | - | 2.18 | 2.06 | 1.96 | 1.85 | 1.79 | 1.74 |
| 1980 | 88.1 | 3.07 | 2.89 | 2.74 | 2.55 | 2.45 | 2.30 | 414 | 2.45 | 2.30 | 2.17 | 2.00 | 1.89 | 1.89 |
| 1981 | 94.4 | 3.08 | 3.01 | 2.96 | 2.85 | 2.77 | 2.57 | 429 | 2.76 | 2.58 | 2.23 | 1.89 | 1.81 | 1.74 |
| 1982 | 68.6 | 2.99 | 2.90 | 2.77 | 2.63 | 2.52 | 2.27 | 445 | 2.47 | 2.30 | 1.81 | 1.58 | 1.46 | 1.30 |
| 1983 | 61.3 | 2.77 | 2.64 | 2.56 | 2.46 | 2.38 | 2.16 | 473 | 2.12 | 1.86 | 1.52 | 1.37 | 1.28 | 1.21 |
| 1984 | 79.5 | 3.01 | 2.68 | 2.53 | 2.42 | 2.31 | 2.04 | 496 | 2.29 | 2.11 | 1.92 | 1.79 | 1.65 | 1.52 |
| 1985 | 63.3 | 2.91 | 2.49 | 2.19 | 2.06 | 1.87 | 1.61 | 541 | 1.92 | 1.71 | 1.50 | 1.39 | 1.33 | 1.30 |
| 1906 | 86.6 | 2.60 | 2.38 | 2.26 | 2.13 | 1.91 | 1.64 | 553 | 1.91 | 1.71 | 1.54 | 1.42 | 1.36 | 1.31 |
| 1987 | 91.7 | 4.35 | 3.57 | 3.14 | 2.76 | 2.37 | 2.11 | 779 | 2.65 | 2.28 | 1.97 | 1.75 | 1.60 | 1.47 |

- = unavailable

I/ F.o.b. Australian wool Corporation South Carolina warehouse in bond. A duty of 10 cents per pound, clean, should be added to these prices. $2 /$
 the Rocky Mountain states.

Table 32.--U.S. imports of dutiable and duty-free raw wool for consumption, clean content, 1960-87 I/

| Calendar year | Finer than 58's | Total dutiable | Total duty-free | Grand Total | Share Finer than 58's of grand total raw wool imports |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1,000 pounds |  | Percent |
| 1960 | 46,250 | 74,226 | 153,904 | 228,130 | 20.3 |
| 1961 | 61,404 | 90,318 | 157,335 | 247,653 | 24.8 |
| 1962 | 84,743 | 125,780 | 143,460 | 269,240 | 31.5 |
| 1963 | 70,544 | 109,196 | 167,962 | 277,158 | 25.5 |
| 1964 | 63,855 | 98,415 | 113,932 | 212,347 | 30.1 |
| 1965 | 107,435 | 162,637 | 105,943 | 271,580 | 39.6 |
| 1966 | 104,921 | 162,537 | 114,625 | 277,162 | 37.9 |
| 1967 | 69,046 | 109,071 | 78,205 | 187,276 | 36.9 |
| 1968 | 82,158 | 129,717 | 119,599 | 249,376 | 33.0 |
| 1969 | 65,469 | 93,523 | 95,664 | 189,187 | 34.6 |
| 1970 | 46,318 | 79,810 | 73,325 | 153,135 | 30.2 |
| 1971 | 29,312 | 42,682 | 83,893 | 126,575 | 23.2 |
| 1972 | 20,805 | 24,790 | 71,849 | 96,639 | 21.5 |
| 1973 | 14,870 | 19,587 | 40,524 | 60,111 | 24.7 |
| 1974 | 7,593 | 11,800 | 15,147 | 26,947 | 28.2 |
| 1975 | 13,371 | 16,571 | 17,021 | 33,592 | 39.8 |
| 1976 | 31,060 | 38,387 | 19,076 | 57,463 | 54.1 |
| 1977 | 24,423 | 34,175 | 18,780 | 52,955 | 46.1 |
| 1978 | 19,833 | 26,998 | 23,403 | 50,401 | 39.4 |
| 1979 | 14,080 | 20,283 | 22,046 | 42,329 | 33.1 |
| 1980 | 27,191 | 30,491 | 25,992 | 56,483 | 48.1 |
| 1981 1982 | 39,673 | 48,106 | 26,146 | 74,252 | 53.4 |
| 1982 1983 | 32,245 | 39,988 | 21,433 | 61,421 | 52.5 |
| 1983 | 41,604 | 49,371 | 28,688 | 78,059 | 53.3 |
| 1984 1985 | 50,298 | 63,271 | 30,906 | 94,177 | 53.4 |
| 1985 1986 | 40,821 | 50,164 | 29,308 | 79,472 | 51.4 |
| 1987 | 54,001 64,130 | 66,090 74,054 | 30,901 31,066 | 96,991 105,120 | 55.7 61.0 |

I/ Wool not advanced in any way or by any process of manufacture beyond washed, scoured, or carbonized condition. Imports for consumption include entries for immediate consumption and warehouse withdrawals for consumption.

Source: Bureau of Census.

Table 33.--Raw fiber equivalent of textile manufactures, 1960-87

| Year | Cotton |  | Wool |  | Manmade |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Imports | Exports | Imports | Exports | Imports | Exports |
|  | 1,000 pounds |  |  |  |  |  |
| 1960 | 252,256 | 233,272 | 132,132 | 4,695 | 31,338 | 90,772 |
| 1961 | 188,896 | 239,181 | 127,458 | 4,538 | 23,491 | 86,351 |
| 1962 | 309,848 | 220, 307 | 145,637 | 4,369 | 30,557 | 90,467 |
| 1963 | 304,312 | 207,807 | 152,549 | 5,589 | 36,207 | 97,078 |
| 1964 | 300,165 | 213,235 | 141,147 | 6,998 | 50,005 | 108,471 |
| 1965 | 360,710 | 173,732 | 156,689 | 12,662 | 79,032 | 129,056 |
| 1966 | 510,710 | 189,526 | 144,272 | 10,110 | 123,065 | 139,976 |
| 1967 | 443,385 | 188, 399 | 123,434 | 8,641 | 138,818 | 132,978 |
| 1968 | 473,846 | 188,200 | 145,967 | 9,339 | 193,325 | 128,994 |
| 1969 | 487,897 | 232,063 | 129,670 | 8,893 | 257,460 | 146,230 |
| 1970 | 463,177 | 199,186 | 116,560 | 7,424 | 329,258 | 147,052 |
| 1971 | 492,567 | 226,311 | 89,705 | 12,046 | 451,072 | 146,667 |
| 1972 | 610,703 | 290,444 | 95,377 | 33,332 | 480,453 | 177,584 |
| 1973 | 563,501 | 325,197 | 89,962 | 33,363 | 465,319 | 228,227 |
| 1974 | 502,679 | 392,493 | 74,225 | 25,975 | 371,252 | 390,734 |
| 1975 | 501,252 | 353,663 | 68,422 | 21,386 | 400, 376 | 322, 388 |
| 1976 | 708,601 | 413,154 | 98,579 | 15,082 | 479,487 | 352,176 |
| 1977 | 669,407 | 369,461 | 116,606 | 13,038 | 531,130 | 367,076 |
| 1978 | 845,424 | 355,745 | 129,369 | 12,467 | 642,587 | 441,700 |
| 1979 | 746,096 | 477,968 | 109,543 | 15,590 | 524,973 | 596,580 |
| 1980 | 810,930 | 523,096 | 103,288 | 24,264 | 771,544 | 540,644 |
| 1981 | 961,900 | 367,300 | 113,626 | 12,332 | 637,733 | 639,076 |
| 1982 | 903,791 | 253, 342 | 112,240 | 11,945 | 807,096 | 438,551 |
| 1983 | 1,135,502 | 219,614 | 149,781 | 11,579 | 1,069,490 | 460,713 |
| 1984 | 1,465,475 | 206,081 | 210,165 | 12,028 | 1,342,569 | 487,870 |
| 1985 | 1,629,168 | 213,224 | 264,829 | 17,761 | 1,491,027 | 449,152 |
| 1986 | 1,910,474 | 274,828 | 275,626 | 16,027 | 1,702,957 | 519,307 |
| 1987 | 2,335,696 | 298,004 | 276,092 | 23,455 | 1,805,443 | 591,869 |

Source: Compiled from U.S. Bureau of the Census data.

|  | ar | thread, | broad | woven | ric | Primarily menufactured products |  |  |  |  |  |  |  |  |  |  | Grand total imports 9/ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year |  | Sowing | woven $f$ | fabric |  | Pile | Table | ${ }^{\text {Bed }}$ | Gloves, |  |  | House- |  |  |  |  |  |
| $\begin{aligned} & \text { and } \\ & \text { month } \end{aligned}$ | Yarn | thread, crochet, knitting yarn | 100 percent cotton | Blends $1 \prime$ | Total | and mfrs. $2 /$ | damask and mfrs. | and 3/ | hosiery, and hdkf. | wearing appare 4/ | $\begin{gathered} \text { fabric } \\ \text { and } \\ \text { articles } \\ \underline{5} / \end{gathered}$ | hold and clothing articles 6/ | $\begin{aligned} & \text { Misc. } \\ & \text { products } \end{aligned}$ $\underline{7}$ | cover ing | fabric B/ | Total |  |


|  |  |  |  |  |  |  |  |  | 0 | ds |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1983 | 40,881 | 1,250 | 274,467 | 64,108 | 380,706 | 7,721 | 438 | 70,067 | 25,383 | 597,423 | 5,957 | 11,855 | 28,426 | 7,526 | NA | 754,796 | 1,135,502 |
| 1984 | 52,897 | 1,809 | 360,701 | 90, 126 | 505,533 | 12,572 | 489 | 106,468 | 26,609 | 733,111 | 9,651 | 18,652 | 37,741 | 14,649 | NA | 959,942 | $1,465,575$ |
| 1985 | 53,818 | 2,588 | 341.896 | 93,569 | 491,874 | 17,916 | 515 | 127,494 | 30,052 | 865,476 | 10,372 | 19,681 | 46,197 | 17,984 | 1,608 | 1,137,294 | 1,629,166 |
| 1906 | 103,249 | 2,672 | 431,289 | 97,468 | 634,678 | 19,576 | 822 | 133,637 | 27,054 | 988,906 | 6,787 | 30,095 | 46,410 | 18,389 | 4,123 | 1,275,799 | 1,910,477 |
| 1987 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Jan. | 10,034 | 224 | 41,244 | 6,045 | 57,547 | 1,465 | 61 | 12,563 | 2,759 | 105,856 | 499 | 1,929 | 7,328 | 1,459 | 339 | 134,258 | 191,805 |
| Feb. | 10,908 | 219 | 50,617 | 6,459 | 68,203 | 1,702 | 89 | 12,788 | 3,033 | 115,268 | 572 | 1,939 | 6,491 | 1,171 | 344 | 143,397 | 211,600 |
| Mar. | 7,856 | 325 | 50,035 | 7,269 | 65,485 | 1,992 | 75 | 12,928 | 2,246 | 103,206 | 654 | 2,643 | 5,294 | 1,715 | 424 | 131,177 | 196,662 |
| Apr. | 7,220 | 201 | 42,559 | 7,437 | 57,417 | 1,757 | 100 | 12,113 | 2,060 | 94,901 | 522 | 2,352 | 4,602 | 1,439 | 540 | 120, 386 | 177,803 |
| May | 6,189 | 220 | 43,882 | 6,961 | 57,253 | 1,522 | 57 | 11,270 | 2,150 | 98,593 | 672 | 2,381 | 3,358 | 1,640 | 355 | 121,996 | 179,250 |
| Jun. | 8,833 | 239 | 51.069 | 7,24B | 67,390 | 1.528 | 72 | 12,833 | 2,551 | 113,386 | 606 | 2,119 | 4,172 | 1,641 | 629 | 139,538 | 206,926 |
| Jul. | 11,558 | 144 | 50,037 | 7,039 | 68,778 | 1,928 | 85 | 12,569 | 2,276 | 122,870 | 494 | 3,236 | 3,194 | 1.719 | 629 | 148,999 | 217,776 |
| Aug. | 11,500 | 212 | 48,575 | 7,096 | 67,383 | 1,858 | 92 | 13,125 | 2,849 | 112,861 | 658 | 3,672 | 3,271 | 1,440 | 616 | 140,442 | 207,825 |
| Sept. | 13,363 | 169 | 43,185 | 5,752 | 62,468 | 1,790 | 155 | 11,696 | 2,788 | 92,537 | 532 | 3,131 | 3,148 | 1,731 | 955 | 118,464 | 180,932 |
| Oct. | 15,275 | 182 | 48,165 | 6,746 | 70,369 | 1,385 | 98 | 13,281 | 2,978 | 99,143 | 641 | 2,506 | 3,004 | 1,649 | 1,008 | 125,692 | 196,601 |
| Nov. | 16,005 | 219 | 45,894 | 6,894 | 69,012 | 1,766 | 135 | 14,361 | 2,448 | 83,985 | 667 | 2,188 | 4,317 | 1,858 | 1,274 | 113,000 | 182,001 |
| Dec. | 13,228 | 158 | 43,983 | 7,583 | 64,953 | 1,460 | 58 | 13,218 | 3,453 | 91,434 | 596 | 2,662 | 4,974 | 3,195 | 1,037 | 122,087 | 187,039 |
| Total | 131,969 | 2,512 | 559,245 | 82,529 | 776,258 | 20,153 | 1,077 | 152,745 | 31,591 | 1,234,040 | 7,113 | 30,758 | 53,153 | 20,657 | 8,150 | $1,559,438$ | $2,335,692$ |
| 1988 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Jan. | 10,748 | 208 | 29,636 | 6,761 | 47,353 | 1,900 | 83 | 13,948 | 4,197 | 120,630 | 814 | 2,807 | 5,745 | 2,321 | 1,511 | 153,955 | 201,309 |
| Fab. | 8,389 | 224 | 33, 381 | 7,246 | 49,241 | 1,761 | 98 | 14,634 | 3,631 | 112,999 | 633 | 3,097 | 5,798 | 2,237 | 868 | 145,755 | 194,996 |
| Mar. | 8,442 | 505 | 36,290 | 6,431 | 51,668 | 2,045 | 57 | 14,537 | 3,313 | 93,429 | 808 | 3,020 | 4,790 | 2,242 | 884 | 125.125 | 176,793 |
| Apr. | 7,058 | 155 | 33,774 | 6,362 | 47,350 | 1,901 | 147 | 13,413 | 2,114 | 79,621 | 744 | 2,413 | 3,913 | 1,931 | 755 | 106,953 | 154, 301 |
| May | 7,953 | 129 | 29,376 | 5,915 | 43, 373 | 2,044 | 79 | 13,224 | 2,364 | 190,381 | 740 | 2,656 | 3.823 | 1.568 | +780 | 117,659 | 161,032 |
| Jun. | 6,296 | 115 | 30,301 | 5,211 | 41,922 | 2,145 | 146 | 13,264 | 2,209 | 116,725 | 654 | 3,014 | 4,521 | 1,509 | 1,149 | 145,335 | 187,259 |

I/ Tncludes tapastry and upholstary fabrics, fire cord fabrics, and cloths in chiof value coffon confaining other fibers. $2 /$ Tincludas velvats and velvateans, corduroys, plushes and chenilles, and manufactures of pile fabrics. 3/ Includes blankets, quilts, bedspreads, sheets and pillow coses. $4 f$ Includes knit and woven underwear and outerwear (collars and cufts, shirts, coats, vests, robes, pajamas, and ornamanted waaring apparel).
$5 /$ Includes nets and nettings, veils and vellings, edging, embroideries, narrow fabrics, and lace window curtains. 6/ Includes braids (excopt hat braids) tubing, labels, lacing, wicking, loom harness, table and bureau covers, polishing and dust cloths, fabric wifh 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
 quantity for January-December. 1983, was 14,091 thousand pounds; Jenuary-December 1984, 18,749 thousand pounds; January-December 1985, 25,032 thousand pounds; and January-December 1986, 30,236 thousand pounds.

Source: Bureau of the Census.

Table 35.--Raw cotton equivalent of U.S. textile exports, 1983-88

| Year and month | Semi-manufactured |  |  |  |  |  | Manutactured products |  |  |  |  |  |  |  |  |  | Grand Total axports |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Sowing thread crochet, |  | Broadwoven | Other |  |  | Blankets, spreads, | Towels |  | Wearing | apparel | Other house- | Indust- | Flowr |  |  |
|  | Yarn | and embroidery cotton yarn | and cordage | standard constructions I/ | woven fabric 2/ |  | fabric | $\begin{aligned} & \text { cases, } \\ & \text { and } \\ & \text { sheets } \end{aligned}$ |  | hold 3/ | Knit 4/ | Other than knit $5 /$ | clothing articles 6/ | products 7/ | ing | Total |  |
| 1,000 pounds |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1983 | 18,854 | 11,577 | 793 | 51,667 | 7,747 | 90,636 | 2,434 | 8,725 | 5,705 | 715 | 27,957 | 44,113 | 13,736 | 11,601 | 13,986 | 128,9\%1 | 219,614 |
| 1984 | 11,186 | B,369 | 647 | 55,848 | 5,997 | 82,047 | 2,917 | 9,008 | 4,470 | 655 | 25,904 | 42,360 | 13,894 | 15,014 | 9,813 | 124,032 | 200,081 |
| 1985 | 16,843 | 8,466 | 528 | 74,919 | 5,134 | 105,892 | 2,235 | 9,802 | 3,582 | 492 | 25,326 | 30,158 | 11,037 | 16,541 | 8,155 | 107,352 | 213,224 |
| 1986 | 9,892 | 6,049 | 628 | 118,154 | 6,202 | 140,925 | 2,091 | 8,192 | 4,515 | 612 | 27,413 | 46,437 | 13,860 | 20,992 | 9,793 | 135,904 | 274,828 |
| 1987 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| dan. | 969 | 469 | 40 | 7,863 | 368 | 9,709 | 171 | 485 | 358 | 40 | 2,110 | 3,878 | 869 | 1,171 | 698 | 9, 180 | 19,439 |
| $f \times b$. | 898 | 344 | 75 | 11,519 | 360 | 13,196 | 330 | 326 | 332 | 92 | 3,569 | 4,922 | 1,065 | 1,773 | 409 | 13,217 | 20,414 |
| Mar. | 973 | 483 | 62 | 10,070 | 576 | 12,163 | 151 | 594 | 442 | 86 | 4,297 | 5,120 | 1,079 | 1,849 | 528 | 14,441 | 26,610 |
| Apr. | 840 | 200 | 37 | 8,693 | 663 | 10,433 | 143 | 829 | 615 | 58 | 4,111 | 5,223 | 686 | 1,803 | 844 | 14, 310 | 24,745 |
| May | 643 | 217 | 102 | B,303 | 471 | 9,736 | 187 | 873 | 611 | 81 | 4,240 | 5,120 | 862 | 1,663 | 1,006 | 14, 642 | 24, 373 |
| Jun. | 2,368 | 233 | 49 | 7,430 | 520 | 10,601 | 169 | 757 | 641 | 60 | 3,950 | 4,736 | 876 | 2,292 | 1,007 | 14, 489 | 2り, OR8 |
| Jul. | 1,737 | 246 | 108 | 6,670 | 346 | 9,107 | 126 | 916 | 503 | 93 | 4,178 | 5,357 | 2,609 | 1,648 | 839 | 16,310 | 25,416 |
| Aug. | 913 | 1.416 | 114 | 8,164 | 436 | 11,043 | 202 | 793 | 629 | 46 | 4,0760 | 4,415 | . 853 | 1,661 | 562 | 13,636 | 24,680 |
| Sept. | 894 1,092 | 1,107 | 160 | 6,957 7,936 | 431 | 9,550 9,875 | 130 179 | 657 610 | 381 520 | 72 116 | 4,068 | 5,618 | 1,111 | 1,813 | 1,028 | 14,878 12,856 | 24.428 25.829 |
| Nov. | 1, 994 | 145 | 88 | 7,936 8,190 | 462 | 9,875 9,857 | 179 | 610 755 | 520 579 | 116 70 | 4,416 4,628 | 5,487 | 868 1,180 | 2,461 1,811 | 1,197 | 13,856 | 25,829 |
| Dec. | 1,169 | 113 | 41 | 7,741 | 469 | 9,533 | 154 | 921 | 613 | 91 | 4,180 | 5,267 | 1,131 | 1,688 | 1,447 | 15,491 | 25,025 |
| Total | 13,491 | 5,207 | 927 | 99,536 | 5,643 | 124,803 | 2,144 | 8,516 | 6,224 | 905 | 47,823 | 60,584 | 13,189 | 21,673 | 12,142 | 175,200 | 298,004 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Jan. | 966 | 142 | 36 | 7,318 | 424 | 8,886 | 168 | 536 | 452 | 53 | 3,804 | 4,857 | 1,273 | 952 | 1,665 | 13,760 | 22,646 |
| Fob. | 1,554 | 154 | 113 | 6,353 | 505 | 8,679 | 124 | 774 | 355 | 51 | 4,930 | 4,564 | 1,069 | 1,427 | 1,915 | 15,209 | 23,888 |
| Mar. | 2,497 | 179 | 151 | 8,174 | 457 | 11,458 | 321 | 1,029 | 722 | 80 | 5,326 | 6,693 | 1.230 | 1,420 | 2,106 | 19,226 | 30,685 |
| May. | ,, 751 | 210 | 105 | 7,349 | 391 | 9,807 | 178 | , 569 | 464 | 178 | 4,789 | 5,882 | 1,854 | 1,430 | 2,321 | 17,666 | 27,471 |
| may | 1,295 1,705 | 268 200 | 90 168 | 7,073 | 524 | 9,249 | 457 | 1,042 | 765 | 246 | 4,605 | 5,837 | 959 | 1,413 | 2,392 | 17,756 | 27,006 |
| Jun. | 1,705 | 200 | 168 | 7,220 | 510 | 9,804 | 354 | 887 | 605 | 97 | 4,022 | 5,193 | 1,554 | 1,848 | 2,529 | 17,089 | 26,892 |

States. $2 /$ Includes fapestry and and cloth for export to the Philippines to be embroidered and oftherwise manufactured and returned to the United
States. $2 /$ Includes tapestry and upholstery fabrics, table damesk, pile fabrics, and remnants. 3/ Includes curtains and draperies, house furnishings not alsewhere specified. 4/ Includes gloves and mitts of woven fabric. $5 /$ lneludes underwear and outerwear of woven fabric, handkerchiefs, and wearing apparel containing mixed fibers (corsets, brassieres, and girdles, garters, ambands and suspenders, neckties and cravats). $6 /$ Includes cenvas articlos and industrial belt and belting. $\theta$, Some catelastic webbing, waterproof garments, and laces and lace articles. 7 / lnciudes rubberized tabrics, bags, and industrial belt and belting. $\underline{\theta} /$ Some categorios revised.

[^13]Table 36--Raw manmade fiber equivalent of U.S. textlle imports, 1983-88

|  | Tops, yarn, thread, and wovan fabric |  |  |  |  |  |  | Primarily manufactured product |  |  |  |  |  |  |  |  | Grand total imports 6/ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year and |  |  |  | Sewing | Rayon tire |  |  | Wearin | apparel |  | Laces |  |  |  | Other |  |  |
|  | Sliver tops, and roving | Yarns or plied 1/ | Yarns spun | thread and handwork yarns | fabric <br> including cord fabrics | Broadwoven fabric | Total | Knit <br> 2/ | Not knit | Hand-kerchiefs | and <br> lace artlcles 3/ | Narrow fabric 4/ | Knit fabric | Floor coverIng | manu-factures 2/ | Total |  |

## 1,000 pounds

| 1983 | 4,907 | 10,683 | 38,976 | 3,442 | 1,273 | 123,215 | 182,496 | 241,296 | 355,091 | 1,578 | 6,376 | 12,689 | 2,196 | 22,013 | 267,745 | 886,994 | 1,069,490 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1984 | 4,689 | 15,379 | 46,265 | 5,719 | 466 | 154,947 | 227,465 | 270,573 | 416,895 | 1,707 | 8,962 | 12,441 | 3,043 | 34,116 | 367,367 | 1,115,104 | 1,342,569 |
| 1985 | 2,057 | 23,675 | 45,541 | 9,670 | 915 | 186,198 | 268,057 | 341,372 | 45,8,731 | 463 | 9,133 | 18,449 | 9,700 | 43,012 | 342,110 | $1,222,970$ | 1,491,026 |
| 1986 | 3,424 | 23,599 | 64,540 | 4,730 | 2,676 | 207,180 | 306, 147 | 431,179 | 498,179 | 408 | 7,850 | 25,308 | 12,496 | 50,682 | 370,701 | 1,396,808 | 1,702,952 |
| 1987 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Jan. | 395 | 971 | 4,233 | 848 | 434 | 13,979 | 20,860 | 30,044 | 51,629 | 3 | 281 | 898 | 838 | 3,221 | 28,995 | 115,909 | 136,769 |
| Feb. | 287 | 1,034 | 5,576 | 676 | 209 | 14,075 | 21,858 | 34,182 | 52,370 | 77 | 338 | 1,035 | 1,879 | 3,781 | 34,348 | 128,009 | 149,867 |
| Mar. | 290 | 1,319 | 4,715 | 752 | 274 | 14,533 | 21,882 | 31,175 | 44,293 | 56 | 411 | 1,370 | 2,047 | 5,036 | 31,456 | 115,845 | 137,727 |
| Apr. | 692 | 1,208 | 5,778 | 705 | 301 | 15,746 | 24,429 | 37,820 | 43,029 | 22 | 687 | 1,456 | 1,125 | 3,950 | 35,620 | 123,709 | 148,139 |
| May | 612 | 1,382 | 6, 108 | 703 | 437 | 17,678 | 26,921 | 47,374 | 44,379 | 26 | 917 | 1,330 | 1,472 | 4,072 | 35,503 | 135,072 | 161,993 |
| Jun. | 1,053 | 1,227 | 6,423 | 936 | 652 | 16,808 | 27,098 | 53,955 | 50,621 | 48 | 986 | 1,359 | 1,263 | 4,146 | 38,851 | 151,229 | 178,328 |
| Jul. | 614 | 1,052 | 6,235 | 829 | 681 | 17,540 | 26,951 | 62,096 | 34,546 | 61 | 1,136 | 1,446 | 991 | 3,996 | 39,495 | 163, 768 | 190,718 |
| Aug. | 268 | 1,064 | 5,383 | 574 | 467 | 17,480 | 25,236 | 54,509 | 49,371 | 56 | 1,034 | 1.438 | 959 | 4,273 | 37,198 | 148,838 | 174,074 |
| Sept. | 738 | 1,342 | 4,751 | 862 | 362 | 12,264 | 20,318 | 45,886 | 39,522 | 34 | 971 | 1,092 | 657 | 4,010 | 33,081 | 125,253 | 145,572 |
| Oct. | 430 | 1,060 | 5,752 | 767 | 582 | 14,483 | 23,075 | 40,598 | 42,055 | 13 | 777 | 1,256 | 822 | 4,028 | 34,979 | 124,528 | 147,602 |
| Now. | 244 | 1,157 | 4,315 | 667 | 463 | 13,314 | 20,159 | 24,703 | 34,827 | 38 | 589 | 965 | 1,254 | 3,496 | 27,963 | 93,835 | 113,995 |
| Dec. | 170 | 991 | 4,247 | 531 | 737 | 14,615 | 21,211 | 23,017 | 41,223 | 5 | 558 | 991 | 1,262 | 3,758 | 28,633 | 99,447 | 120,658 |
| Total | 5,793 | 13,727 | 63,516 | 8,850 | 5,599 | 182,515 | 279,998 | 485,359 | 547,865 | 439 | 8,685 | 14,636 | 14,569 | 47,767 | 406,122 | 1,52b,442 | 1,805,442 |
| 1988 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Jan. | 279 | 1,379 | 4,330 | 611 | 995 | 14,626 | 22,220 | 28,538 | 55,857 | 27 | 639 | 1,034 | 1,389 | 3.492 | 30,784 | 119,761 | 141.980 |
| Feb. | 296 | 884 | 3,213 | 890 | 1,087 | 12,492 | 18,861 | 26,865 | 49,177 | 57 | 693 | 1,105 | 497 | 3,858 | 33,900 | 116,152 | 135,014 |
| Mar. | 362 | 1,003 | 3,319 | 550 | 1,067 | 14,929 | 21,231 | 23,633 | 40,962 | 55 | 637 | 996 | 771 | 4,383 | 32,811 | 104, 248 | 125,478 |
| Apr. | 546 | +912 | 3,114 | 597 | 1,068 | 15,971 | 22,108 | 25,709 | 3\%,627 | 31 | 724 | 1.414 | 1,774 | 4,208 | 29,621 | 101, 109 | 123,216 |
| May | 243 | 1.123 | 3,858 | 675 | 969 | 16,535 | 23,403 | 38,502 | 44,739 | 53 | 926 | 1,328 | 952 | 5,014 | 33,850 | 125,365 | 148,767 |
| Jun. | 190 | 839 | 4,161 | 800 | 788 | 17,950 | 24,728 | 50,584 | 52,656 | 47 | 986 | 1,268 | 756 | 4,373 | 35,917 | 146,588 | 171,315 |

I/ Nof included in these data are quantifles of imported textured non-cellulosic yarn not over 20 furns per inch. $2 /$ lacludes gloves, hosiery, underwear, outerwear, and hats. $3 /$ includes veils and veilinys, nets and nettings, lace window curteins, edging, insertings, flouncings, allovers, etc., embroderies, and ornemented wearing apparel. 4/ Includes braids (except hat braids), fabrics with fast edges not over 12 inches wide, garters, suspenders, braces, tubing, cords, tasseTs, gill nets, webs, seines, and other nets for fishing. $5 /$ Not elsewhere classified. 6/ Includes quantities in the TSUSA 706 luggage categories. The raw fiber equivalent quantity for January-itecember 1983 was 180,553 thousand pounds; January-December 1984, 228,002 thousand pounds; January-Decenber 1985, 157,422 thousand pounds; and January-December 1986, 169,369 thousand pounds.

Source: Bureau of the Census.

Table 37.--Raw mamade fiber equivalent of U.S. textile exports, 1983_88

| Year and month | Tops, yarn, thread, and woven fabric |  |  |  |  |  | Primarily manufactured products |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Sllver tops, and roving 1/ | Yarns spun | Sewing <br> thread and handwork yerns | Tire cord and tire cord fabric | Broadkoven fabric 2/ | Total | Hoslery | Underwear and nightwar | Outer wear | House furnishIngs | Knit or crocheted fabric | Narrow fabric 3/ | Floor covering | Other manu-factures 4/ | Total | Grand total exports |


|  |  |  |  |  |  |  |  | 1,000 | pounds |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1983 | 4,528 | 25,682 | 5,076 | 23,245 | 108,661 | 167,191 | 2,891 | 12,045 | 55,902 | 10,701 | 14,237 | 25,722 | 114,539 | 57,482 | 293,523 | 460,713 |
| 1984 | 5,681 | 26,228 | 6,419 | 31,329 | 109,400 | 179,058 | 2,244 | 11,387 | 65,814 | 11,041 | 12,865 | 30,331 | 91,729 | 83,400 | 308,813 | 487,870 |
| 1985 | 8,543 | 37,748 | 4,773 | 30,350 | 124,873 | 206,290 | 2,515 | 9,354 | 53,356 | 9,884 | 11,832 | 21,875 | 60,407 | 73,632 | 242,861 | 449,152 |
| 1986 | 4,632 | 38,228 | 5,042 | 46,290 | 134,581 | 228,772 | 3,011 | 12,151 | 59,744 | B,745 | 11,719 | 37,949 | 78,072 | 79,141 | 290,534 | 519,307 |
| 1987 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Jan. | 292 | 2,230 | 403 | 5,625 | 8,118 | 16,669 | 180 | 839 | 4,817 | 507 | 809 | 2,938 | 5,277 | 5,978 | 21,345 | 38,013 |
| Feb. | 507 | 2,518 | 601 | 3,814 | 12,174 | 19,613 | 220 | 1,053 | 5,504 | 937 | 830 | 3,253 | 6,189 | 7,434 | 25,419 | 45,034 |
| Mar. | 329 | 3,475 | 455 | 4,162 | 13,581 | 22,002 | 190 | 1,110 | 5,775 | 716 | 884 | 4,390 | 8,701 | 7,694 | 29,460 | 51,462 |
| Apr. | 281 | 3,729 | 488 | 4,479 | 15,245 | 24,221 | 217 | 1,152 | 6,409 | 715 | 856 | 3,921 | 9;406 | 7,302 | 29,977 | 54,200 |
| May | 395 | 4,168 | 1,044 | 5,729 | 12,756 | 24,092 | 313 | 1,373 | 5,005 | 890 | 1,166 | 4,151 | 7,149 | 8,558 | 28,606 | 52,697 |
| Jun. | 405 | 3,277 | 455 | 4,580 | 14,732 | 23,450 | 314 | 1,189 | 5,145 | 862 | 1,179 | 3,462 | 8,912 | 7,716 | 28,781 | 52,228 |
| Jul. | 426 | 3,102 | 276 | 4,102 | 9,309 | 17,215 | 274 | 1,156 | 5,356 | 1,161 | 1,031 | 3,077 | 6,204 | 7.140 | 25,399 | 42,614 |
| Aug. | 323 | 2,943 | 527 | 3,697 | 13,518 | 21,007 | 379 | 1,236 | 4,726 | 1,031 | 963 | 4,333 | 7,001 | 7,576 | 27,245 | 48,253 |
| Sopt. | 710 | 3,533 | 410 | 5,160 | 13,786 | 23,599 | 325 | 1,428 | 5,505 | 904 | 836 | 3,938 | 7,974 | 7,864 | 28,774 | 52,373 |
| Oct. | 472 | 3,988 | 431 | 4,908 | 12,803 | 22,603 | 375 | 1,192 | 5,899 | 823 | 1,050 | 3,974 | 7,152 | 8,170 | 28,636 | 51,237 |
| Nov. | 362 | 5,379 | 383 | 3,132 | 13,365 | 22,620 | 306 | 1,143 | 5,979 | 1,196 | 1,012 | 4,242 | 7,814 | 8,350 | 30,041 | 52,663 |
| Dac. | 689 | 4,395 | 494 | 4,372 | 13,266 | 23,217 | 314 | 830 | 5,304 | 856 | 991 | 3,968 | 8,612 | 7,003 | 27,877 | 51,094 |
| Total | 5,191 | 42,737 | 5,967 | 53,760 | 152,653 | 260,308 | 3,407 | 13,701 | 65,424 | 10,598 | 11,607 | 45,647 | 90,391 | 90,785 | 331,560 | 591,868 |
| 1988 5/ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Jan. | 575 | 3,502 | 385 | 3,067 | 12,541 | 20,070 | 267 | 1,097 | 4,950 | 893 | 948 | 3,964 | 6,924 | 6,788 | 25,831 |  |
| Fab. | 1,300 | 3,281 | 451 | 5,178 | 12,813 | 23,025 | 345 | 1,187 | 5,227 | 835 | 1,060 | 4,158 | 8,498 | 8,496 | 29,806 | 52,830 |
| Mar. | 1,182 | 4,565 | 576 | 4,989 | 16,560 | 27,871 | 370 | 1,323 | 6,594 | 1,104 | 1,270 | 5,605 | 12,026 | 8,673 | 36,967 | 64,837 |
| Apr. | 1,077 | 3,503 | 546 | 4,266 | 14,972 | 24,364 | 374 317 | 1,298 | 5,938 | + 902 | 1,282 | 4,922 | 11,936 | 8,818 9,517 | 35,469 39,400 | 59,834 61,488 |
| May | - 933 | 3,400 | 441 546 | 3,831 | 13,483 | 22,088 23,058 | 317 325 | 1,235 | 6,226 | $\begin{array}{r}1,237 \\ \hline 964\end{array}$ | $\begin{array}{r}1,465 \\ \hline 992\end{array}$ | 6,595 5,545 | 12,808 11,105 | 9,517 8,147 | 39,400 33,749 | 61,488 56,847 |
| Jun. | 1,201 | 4,199 | 546 | 4,262 | 12,891 | 23,058 | 323 | 1,115 | 5,557 | 964 | 992 | 5,545 | 11,105 | 8,147 | 33,749 | 56,847 |

If Tncludes prodicts made from waste. 2/ Includes pile and tufted fabric such as corduroy. 3/ Includes ribbons, trimmings, and braids
(except hat braids). 4/ Not elsewhere classified. 5/ Some categories revised.
Source: Bureau of the Census.

Table 38.--Raw wool equivalent of U.S. textile imports, 1983-88 1/

| Year and month | Noils | $\begin{gathered} \text { Wastes } \\ \text { 2/ } \end{gathered}$ | Tops and advanced wool | Yarns | Broadwoven fabric 3/ | Wool blankets 4/ | Wearing <br> Knit | apparel Other than knit 5/ | Other manufactures | Carpets and rugs | Knit fabric | Narrow fabrics | Grand total imports |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | 1,000 pounds |  |  |  |  |  |  |
| 1983 | 12,200 | 5,706 | 798 | 7,623 | 28,130 | 643 | 30,279 | 28,526 | 1,047 | 34,829 | 61 | 61 | 149,781 |
| 1984 | 13,960 | 6,127 | 3,244 | 13,223 | 39,068 | 1,217 | 40,030 | 40,901 | 1,340 | 51,055 | $6 /$ | 6/ | 210,165 |
| 1985 | 10,065 | 4,509 | 2,012 | 12,072 | 35,828 | 1,314 | 65,586 | 71,527 | 1,288 | 59,228 | 415 | 978 | 264,822 |
| 1986 | 9,898 | 5,205 | 1,838 | 11,814 | 25,058 | 2,373 | 80,193 | 75,375 | 1,829 | 60,572 | 606 | 862 | 275,623 |
| 1987 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Jan. | 794 | 346 | 23 | 747 | 1,933 | 112 | 3,121 | 5,249 | 73 | 4,185 | 56 | 44 | 16,683 |
| Feb. | 902 | 453 | 129 | 1,228 | 2,626 | 37 | 2,565 | 4,518 | 77 | 4,411 | 45 | 51 | 17,042 |
| Mar. | 516 | 395 | 140 | 1,116 | 3,011 | 61 | 2,601 | 4,355 | 104 | 5,400 | 69 | 56 | 17,824 |
| Apr. | 747 | 813 | 102 | 1,369 | 3,298 | 56 | 4,363 | 4,750 | 110 | 4,284 | 100 | 41 | 20,033 |
| May | 918 | 476 | 136 | 1,685 | 3,723 | 19 | 7,159 | 6,751 | 148 | 4,549 | 117 | 44 | 25,725 |
| Jun. | 1,309 | 735 | 78 | 1,258 | 3,050 | 28 | 11,469 | 8,024 | 116 | 4,568 | 111 | 47 | 30,793 |
| Jul. | 1,309 | 724 | 36 | 1,683 | 2,863 | 113 | 13,521 | 10,453 | 135 | 4,143 | 103 | 50 | 35,133 |
| Aug. | 801 | 625 | 66 | 856 | 1,991 | 126 | 13,134 | 10,309 | 139 | 3,680 | 44 | 32 | 31,803 |
| Sept. | 1,243 | 361 | 80 | 857 | 1,445 | 186 | 9,814 | 7,715 | 127 | 3,642 | 14 | 40 | 25,524 |
| Oct. | 1,323 | 632 | 43 | 863 | 1,652 | 177 | 8,374 | 6,341 | 129 | 4,852 | 13 | 41 | 24,431 |
| Nov. | 849 | 568 | 56 | 954 | 1,512 | 217 | 3,542 | 4,312 | 156 | 3,826 | 14 | 40 | 16,046 |
| Dec. | 659 | 298 | 72 | 13,91 | 1,898 | 118 | 1,958 | 4,490 | 162 | 4,318 | 46 | 45 | 15,055 |
| Total | 11,370 | 6,417 | 961 | 13,607 | 29,002 | 1,250 | 81,621 | 77,267 | 1,476 | 51,858 | 732 | 531 | 276,092 |
| 1988 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Jan. | 1,047 | 422 | 7 | 846 | 2,019 | 64 | 2,557 | 4,936 | 135 | 3,911 | 35 | 27 | 16,006 |
| Feb. | 478 | 309 | 60 | 842 | 2,123 | 63 | 1,880 | 4,754 | 106 | 3,480 | 68 | 38 | 14,201 |
| Mar. | 643 | 519 | 24 | 1,228 | 3,507 | 60 | 1,722 | 3,884 | 208 | 3,921 | 34 | 54 | 15,804 |
| Apr. | 306 | 760 | 43 | 1,017 | 3,296 | 49 | 2,565 | 4,088 | 143 | 3,580 | 58 | 46 | 15,951 |
| May | 241 | 414 | 58 | 1,239 | 3,052 | 21 | 5,303 | 5,847 | 138 | 3,406 | 41 | 48 | 19,808 |
| Jun. | 487 | 600 | 144 | 1,118 | 3,180 | 51 | 8,782 | 7,960 | 133 | 3,696 | 69 | 47 | 26,267 |

I/ Includes manufactures of mohair, alpaca, and other wool-like specialty hair. $2 /$ Not including rags
3/ Includes pile fabric and manufactures, tapestry and upholstery goods, press and billiard cloths. 4/ includes carriage and automobile robes, steamer rugs, etc. $5 / \operatorname{lncludes}$ laces, lace articles, veils and veilings, nets and nettings, when reported in pounds. 6/ Included in "Other Manufactures" for earlier years.

Source: Bureau of the Census.

Table 39. - Raw wool equivalent of U.S. textile exports, 1983-88 1/


|  | 1,000 pounds |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1983 | 1,860 | 3,770 | 250 | 1,073 | 29 | 2,110 | 865 | 297 | 953 | 140 | 232 | 11,579 |
| 1984 | 2,540 | 2,458 | 416 | 1,124 | 40 | 1,739 | 1,139 | 313 | 1,613 | 129 | 517 | 12,028 |
| 1985 | 1,892 | 8,643 | 460 | 1,446 | 30 | 2,158 | 1,661 | 173 | 988 | 107 | 200 | 17,761 |
| 1986 1/ | 1,863 | 5,788 | 466 | 2,150 | 36 | 1,910 | 1,863 | 101 | 1,537 | 157 | 159 | 16,030 |
| 1987 |  |  |  |  |  |  |  |  |  |  |  |  |
| Jan. | 142 | 664 | 37 | 111 | 2 | 111 | 43 | 1 | 98 | 8 | 5 | 1,272 |
| Feb. | 134 | 902 | 54 | 281 | 1 | 93 | 36 | 2 | 117 | 4 | 16 | 1,604 |
| Mar. | 176 | 833 | 43 | 165 | 1 | 77 | 128 | 13 | 147 | 12 | 3 | 1,598 |
| Apr. | 215 | 843 | 69 | 166 | 2 | 129 | 105 | 16 | 178 | 18 | 0 | 1,741 |
| May | 92 | 1,162 | 49 | 188 | 5 | 123 | 174 | 17 | 164 | 21 | 1 | 1,996 |
| Jun. | 93 | 1,274 | 29 | 179 | 3 | 192 | 111 | 6 | 111 | 4 | 26 | 2,028 |
| Jul. | 186 | 1,187 | 10 | 167 | 4 | 115 | 158 | 4 | 132 | 6 | 1 | 1,970 |
| Aug. | 61 | 1,570 | 21 | 216 | 3 | 275 | 176 | 0 | 116 | 3 | 3 | 2,444 |
| Sept. | 406 | 572 | 15 | 243 | 1 | 148 | 151 | 12 | 114 | 10 | 29 | 1,701 |
| Oct. | 141 | 861 | 31 | 197 | 4 | 415 | 197 | 5 | 178 | 19 | 62 | 2,110 |
| Nov. | 300 | 1,249 | 78 | 155 | 1 | 424 | 196 | 16 | 201 | 12 | 6 | 2,638 |
| Dec. | 194 | 1,141 | 53 | 138 | 4 | 472 | 163 | 4 | 168 | 21 | 15 | 2,373 |
| Total | 2,140 | 12,258 | 489 | 2,206 | 31 | 2,574 | 1,638 | 96 | 1,724 | 138 | 167 | 23,461 |
| 1988 5/ |  |  |  |  |  |  |  |  |  |  |  |  |
| Jan. | 173 | 767 | 28 | 100 | 2 | 550 | 201 | 1 | 131 | 13 | 5 | 1,971 |
| Feb. | 187 | 829 | 12 | 214 | 2 | 322 | 214 | 4 | 166 | 18 | 18 | 1,986 |
| Mar. | 206 | 1,227 | 21 | 228 | 5 | 406 | 337 | 11 | 234 | 17 | 21 | 2,713 |
| Apr. | 245 | 860 | 42 | 180 | 2 | 214 | 251 | 4 | 164 | 29 | 21 | 2,012 |
| May | 344 | 934 | 18 | 315 | 3 | 288 | 251 | 66 | 146 | 15 | 15 | 2,395 |
| Jun. | 210 | 1,562 | 36 | 142 | 1 | 288 | 175 | 69 | 308 | 11 | 19 | 2,821 |

I/ Includes manufactures of mohair, alpaca, and other wol-like speciality hair. 2/ Not Including rags.
3/'includes both broad and narrow woven fabrics. 4/ Census Bureau's Schedule B classification designated manufactures, n.e.c. 5/ Some categories revised.

Source: Bureau of the Census.

Table 40.--Raw fiber equivalent of U.S. imports for consumption of vegetable fibers other than cotton textile manufactures, 1986 - 88

|  | Yarn | Cordage, thread, crochet, etc. yarns | Broadwoven fabric | Knit fabric | Narrow and misc. fabric | Wearing apparel |  | Handkerchiefs | Bedding, drapes, and towals | Lace articles | Floor covering | Misc. products | Grand total Imports |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Knit | $\underset{\substack{\text { Not } \\ \text { knit }}}{ }$ |  |  |  |  |  |  |
| $\begin{aligned} & 1986 \\ & 1987 \end{aligned}$ | 18,596 | 196,761 | 255,231 | 50 | 2,098 | $51,150^{1,0}$ | $\begin{aligned} & \text { pounds } \\ & 21,187 \end{aligned}$ | 51 | 4,359 | 305 | 8,786 | 30,179 | 589,113 |
| Jan. | 824 | 34,653 | 24,273 | 11 | 142 | 7,824 | 3,199 | 1 | 212 | 6 | 938 | 2,684 | 74,767 |
| Feb. | 1,891 | 15,536 | 25,473 | 7 | 138 | 5,186 | 3,336 | 2 | 250 | 7 | 1,044 | 3,761 | 56,631 |
| Mar. | 1,735 | 29,136 | 24,005 | 3 | 157 | 3,338 | 2,984 | 2 | 271 | 9 | 885 | 3,524 | 66,049 |
| Apr. | 1,295 | 20,086 | 25,790 | 1 | 61 | 4,890 | 2,008 | 2 | 368 | 10 | 881 | 3,700 | 59,092 |
| May | 2,221 | 30,003 | 34,046 | 7 | 276 | 7,484 | 1,239 | , | 440 | 7 | 955 | 4,179 | 80,858 |
| Jun. | 2,152 | 23,649 | 12,814 | 11 | 186 | 8,286 | 988 | 1 | 230 | 22 | 942 | 3,407 | 52,688 |
| Jul. | 1,632 | 6,507 | 15,272 | 18 | 781 | 9,150 | 941 | 1 | 418 | 32 | 973 | 3,007 | 38,732 |
| Aug. | 1,593 | 15,929 | 11,146 | 9 | 992 | 10,293 | 1,421 | 2 | 493 | 11 | 941 | 4,768 | 47,596 |
| Sept. | 1,874 | 4,757 | 18,658 | 74 | 976 | 7,429 | 1,311 | 2 | 552 | 40 | 690 | 5,053 | 41,416 |
| Oct. | 2,106 | 5,162 | 23,894 | 14 | 745 | 6,666 | 1,272 | 1 | 446 | 13 | 834 | 5,239 | 46,962 |
| Hov. | 1,901 | 6.911 | 30,400 | 2 | 256 | 4,430 | 1,661 | 3 | 284 | 10 | 648 | 3,922 | 50,428 |
| Dec. | 1,744 | 12,693 | 21,310 | 15 | 433 | 4,460 | 3,386 | 2 | 226 | 8 | 668 | 3,928 | 48,873 |
| Total | 20,968 | 205,022 | 267,081 | 172 | 5,143 | 79,436 | 23,746 | 20 | 4,190 | 175 | 10,399 | 47,172 | 663,524 |
| 1988 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Jan. | 1,719 | 18,520 | 15,647 | 32 | 371 | 3,808 | 5,397 | 1 | 201 | 9 | 545 | 3,872 | 50,122 |
| Feb. | 2,817 | 26,305 | 29,379 | 4 | 217 | 2,570 | 3,816 | 1 | 342 | 8 | 397 | 3,788 | 69,644 |
| Mar. | 2,022 | 56,636 | 18,737 | 2 | 354 | 1,583 | 2,640 | 2 | 241 | 18 | 781 | 5,032 | 88,048 |
| Apr. | 1,874 | 19,601 | 18,630 | 0 | 857 | 1,661 | 1,221 | 1 | 392 | 16 | 1,087 | 3,460 | 48,800 |
| May | 1,944 | 23,332 | 12,813 | 2 | 112 | 2,983 | 1,057 | 2 | 262 | 33 | 1,793 | 3,088 | 43,421 |
| Jun. | 1,487 | 14,147 | 12,696 | 4 | 225 | 5,124 | 748 | 1 | 443 | 12 | 1,151 | 4,236 | 40,274 |

Source: Bureau of the Census.

Table 41.--Raw fiber equivalent of U.S. imports for consumption of silk textile manufactures, 1986-88

| $\begin{aligned} & \text { Year } \\ & \text { and } \\ & \text { month } \end{aligned}$ | Yarn | Cordage, thread, crochet, etc. yarns | Broadwoven tabric | Knit fabric | Narrow and misc. fabric | Wearing apparal |  | Handkerchiefs | Bodding, drapes, and towels | Lace articles | Floor covering | Misc. products | Grand total imports |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Knit | $\underset{\text { knit }}{\mathrm{Not}}$ |  |  |  |  |  |  |
|  |  | 53 | 10,015 | 2 | 70 | $\begin{array}{r} 1, \\ 14,804 \end{array}$ | $\begin{aligned} & \text { pounds } \\ & 15,090 \end{aligned}$ | 382 | 162 | 61 | 37 | 1,830 |  |
| 1986 | 550 | 53 | 10,015 | 2 | 70 |  |  | 382 | 162 | 61 | 37 | 1,830 | 43,056 |
| Jan. | 46 | 1 | 725 | 0 | 6 | 559 | 1,420 | 4 | 8 | 2 | 3 | 116 | 2,890 |
| Feh. | 39 | 2 | 749 | 1 | 3 | 320 | 1,472 | 6 | 6 | 3 | 3 | 108 | 2,712 |
| Mar. | 63 | 3 | 862 | 0 | 8 | 390 | 1,661 | 17 | 14 | 2 | 2 | 38 | 3,060 |
| Apr. | 54 | 1 | 735 | 0 | 3 | 519 | 1,412 | 11 | 12 | 3 | 3 | 55 | 2,808 |
| May | 40 | 0 | 789 | 1 | 5 | 813 | 1,131 | 11 | 14 | 1 | 3 | 56 | 2,864 |
| Jun. | 68 | 6 | 871 | 0 | 7 | 795 | 1,195 | 14 | 17 | ${ }^{3}$ | 6 | 64 | 3,046 |
| Ju1. | 53 53 | 2 | 932 964 | 0 | 10 | 812 1,229 | 1,290 | 11 | 6 | 10 35 | 4 | 87 106 | 3,213 |
| Aug. | 53 59 | 3 | 964 839 | 1 | 10 7 | 1,229 | 1,293 | 8 15 | 7 | 10 10 | 6 | 106 52 | 3,712 3,566 |
| Oct. | 54 | 1 | 959 | 0 | 14 | 1,478 | 1,704 | 21 | 9 | 18 | 4 | 63 | 4,325 |
| Mov. | 34 | 4 | 929 | 2 | 14 | 878 | 1,788 | 16 | 16 | 4 | 2 | 45 | 3,732 |
| Dec. | 42 | 1 | 821 | 0 | 7 | 553 | 1,719 | 19 | 6 | 4 | 3 | 23 | 3,198 |
| Total | 605 | 25 | 10,175 | 5 | 90 | 9,593 | 17,407 | 153 | 122 | 95 | 43 | 813 | 39,126 |
| 1988 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Jan. | 48 | 1 | 660 868 | 0 | 14 | 658 | 2,148 2,148 | 14 | 17 4 | 6 3 | 8 | 20 35 | 3,586 3,660 |
| Feb. | 87 59 | 1 | 868 718 | 0 | 14 | 488 | 2,148 1,539 | 11 | 13 | 3 3 | 1 | 35 | 3,660 2,848 |
| Mar. | 59 | 1 | 718 | 0 | 25 | 402 | 1,539 | 12 | 13 | 3 | 2 | 74 | 2,848 |
| Apr. | 64 53 | 3 0 | 731 669 | 0 | 6 | 286 375 | 1,671 | 12 | 3 15 | 30 18 | 1 | 24 37 | 2,831 2,714 |
| May | 53 150 | 0 2 | 669 764 | 0 | 8 | 375 481 | 1,531 | 13 | 11 | 18 23 | 1 | 37 47 | 2,714 3,289 |

Source: Bureati of the Census.

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[^0]:    1/U.S. mill consumption of cotton plus the trade deficit in cotton textiles. $2 /$ Imports minus exports. 3/ Based on January-June data.

[^1]:    - Average of the cheapest five types of $M 1-8 / 32$ inch staple length offered on the European market for Nov-Dec 1988 delivery.

[^2]:    * Average of the cheapest three types of coarse count cotton offered on the

[^3]:    I/ Based on August Crop Production Report.

[^4]:    Source: Turkish Consulate General Office of the Economic and Commercial Counselor, United Nations, New York.

[^5]:    * Assistant Professor, Department of Agricultural Economics, Virginia Polytechnic Institute and State University, and Professor, Department of Agricultural Economics, Texas A\&M University, respectively. This research was funded by the Texas Agricultural Experiment Station.

[^6]:    b Significant at $1 \%$ level of significance
    b Significant at $5 \%$ level of significance
    c Significant at $10 \%$ level of significance

[^7]:    a Significant at $1 \%$ level of significance
    b Significant at $5 \%$ level of significance

[^8]:    1/ August lxes crop production report.

[^9]:    Augusf 1988 crop production report.

[^10]:    If Complled from Bureau of the Census data and adjusted to 480-1b. net weight boles. 2/ Mugust stocks adjusted to an August I basis, excluding preseason ginnings. 3/ Adjusted to 480-1b. bales by use of monthly conversion factors for mill stocks. 4/ Primarily cotton on farms and in transit. Estimated by subtracting public storage and mill stocks from total stacks. 5/ August data include preseason ginnnings. 6/ Adjusted to a calondar month. 7/ Supply less disappearance. End-of-season stocks adjusted by Bureau of the Census data. Differences primarlly reflect varying bale weights. Monthly data are rounded. B/ Preliminary and estimated.

[^11]:    Source: Bureau of Census.

[^12]:    Source: Bureau of Census and USDA.

[^13]:    Source: Bureau of the Census.

