# Cotton and Wool 

United States Department of Agriculture

Situation and<br>Outlook Report

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## Summary

U.S. cotton production in 1994/95 is projected at 17.7 million bales, 1.6 million ( 10 percent) above the current season. USDA's Prospective Plantings report placed 1994 cotton acreage at 13.8 million acres- 13.66 million of upland and 177,000 of extra-long staple (ELS). By May 22, 71 percent of the crop was planted, topping both 1993 plantings and the 5 -year average.

Total U.S. cotton use is projected to rise 200,000 bales in 1994/95 to 17.5 million, the highest since 1926/27. An increase in domestic mill consumption is expected to account for the larger use. The initial domestic mill use projection is set at 10.5 million bales, 2 percent above the 1993/94 estimate. Continued strong demand for cotton textile and apparel products, both here and abroad, is expected to contribute to the rise in mill consumption. U.S. exports are projected to reach 7 million bales, equaling the 1993/94's relatively high estimated level. An increase in world consumption and tight supplies abroad will allow the United States to provide a larger-than-normal share of world trade.

Based on projections of 1994/95 supply and use, U.S. cotton stocks could rise slightly, from 3.6 million bales at the beginning of the season, to 3.9 million at season's end. However, the implied stocks-to-use ratio of 22 percent is only one percentage point above the ratio expected this season.

World cotton production in 1994/95 is projected at 84 million bales, up 10 percent from 1993/94's 76 million. Assuming a return to more normal yields, foreign production is forecast to rise nearly 6.5 million bales from 1993/94, to 66.3 million. World cotton consumption is also expected to rise in 1994/95. Consumption is projected at 85.5 million bales with foreign use at 75 million, 600,000 bales higher than this season. Foreign consumption growth is expected to resume as industrial economies emerge from the slowdown of the last several years. As consumption improves, world cotton trade is also expected to rise to 27 mil lion bales. Foreign exports, at 20 million bales, are projected to account for all of the gain in 1994/95.

Supply and use projections show 1994/95 world ending stocks would fall below 29 million bales, the third consecutive year of stock declines. Likewise, the world stocks-touse ratio is expected to decline to 33.5 percent at the end of 1994/95. While U.S. stocks may rise, foreign ending stocks may decrease to less than 25 million bales in 1994/95, the lowest foreign ending stocks in 5 years.
U.S. cotton production in 1993/94 totaled 16.1 million bales, almost identical to 1992/93's output. Upland produc-
tion reached nearly 15.8 million bales, while the ELS crop equaled 381,000 bales. Planted area totaled 13.4 million acres, 13.2 million upland and 190,000 of ELS. With harvested area reaching nearly 12.8 million acres, the national abandonment rate was less than 5 percent, compared with last season's 16 percent.

With lower abandonment in 1993, particularly in Texas, the beltwide yield was pushed lower. The U.S. average cotton yield was 606 pounds per harvested acre, 93 pounds below last season and the lowest national yield since 1986/87.
The upland cotton yield was 601 pounds per harvested acre ( 693 in 1992/93) and the ELS yield was 967 pounds (938 in 1992/93).

Total U.S. offtake in 1993/94 is estimated at 17.3 million bales, up nearly 1.8 million from 1992/93. Exports account for virtually all of the increase and are forecast at 7 million bales this season. Declining foreign stocks, due to production shorffalls, have boosted U.S. exports in the latter part of 1993/94. The U.S. share of world cotton trade is expected to rise from last season's 21 percent to nearly 27 percent.

Domestic mill consumption in 1993/94 is expected to reach 10.3 million bales, up slightly from a year ago and the largest since 1950/51. The strength in cotton mill use is attributable to continued consumer preference for cotton textiles and apparel. Cotton's share of fiber use on the cotton system averaged close to 76 percent during the first 9 months of this season.

During the 1993/94 season, world and U.S. cotton prices moved upward. Prices jumped dramatically as crop shortages in several major-producing countries became apparent. Currently, the A Index is around 85 cents per pound. Through mid-May, this season's A Index averaged nearly 67 cents, compared with 57 cents for the year earlier period. U.S. spot prices are more than 20 cents above yearago levels. In addition, the adjusted world price in May averaged above 71 cents per pound, the highest since September 1987.
U.S. mill consumption of raw wool totaled 157 million pounds in 1993, up 4 percent from 1992, and the largest since 1972. In particular, the popularity of light-weight wool apparel has increased the demand for finer wool grades. During first-quarter 1994, raw wool mill consumption totaled 41 million pounds, 2 percent above a year ago. In contrast, 1994 U.S. wool production is forecast at only 35 million pounds, 15 percent below 1993.

## Textiles and the Economy

## Economic Recovery Gained Strength in Late 1993 and Early 1994

The U.S. economy continued to strengthen significantly in late 1993 and early 1994. The current economic recovery, which began in the second quarter of 1991, was characterized by slow growth in its first 2 years, as real Gross Domestic Product (GDP) grew at an average rate of 2.5 percent. However, over the last year real growth increased to 3.6 percent. The strengthening recovery has led to recent rapid growth in labor employment and manufacturing. Reflecting the expansion of employment and hours worked, growth in real income accelerated last year. Real disposable personal income increased at a rate of 3.9 percent over the last year, compared with an average annual rate of 1.8 percent during the first 2 years of the recovery.

Industrial production, responding to strong demand for consumer durable goods and business durable equipment, expanded 4.8 percent over the last year, compared with 3.1 percent in 1991 and 1992. The strengthening of labor markets and the manufacturing sector has improved the outlook for the sustainability of the recovery by boosting consumer income and confidence and by strengthening the prospects for increased business investment spending to expand capacity. Thus, the prospects for continued moderate growth with low inflation for the rest of 1994 and 1995 bodes well for the demand for cotton and other fibers.
U.S. fiber consumption generally follows GDP growth, particularly changes in personal consumption expenditures. Real personal consumption expenditures rose $\$ 32.9$ billion ( 3.8 percent) during first-quarter 1994, slightly below the previous quarter's increase of $\$ 37.3$ billion ( 4.4 percent) (figure 1). In addition, disposable personal income rose $\$ 24.5$ billion and totaled $\$ 3,783$ billion (seasonally adjusted annual rate) in first-quarter 1994. Per capita disposable income in March rose 3.0 percent over a year earlier (table A). The outlook for sustained growth of GDP and personal consumption expenditures should support continued growth in U.S. fiber consumption.

Figure 1
Change in Gross Domestic Product and Personal Consumption Expenditures

Percent 1987 dollars


## Apparel Retail Sales Up in 1994

Apparel retail sales continue to support U.S. fiber consumption. Sales of apparel during January through April 1994 totaled $\$ 35.2$ billion, nearly 1 percent above the same period a year earlier. Apparel sales dropped over $\$ 100$ million in April but still remain above a year ago. Inventories of apparel have also increased this year despite larger sales. The apparel inventory-sales ratio rose to 2.55 in March, well above the ratio of a year earlier. Textile mill and broadwoven fabric and other textile shipments rose in March, compared with a month earlier. Textile mill ship-

|  | 1994 |  |  | Latest month previous |
| :---: | :---: | :---: | :---: | :---: |
| Item | Feb | Ma | Apr | year |
|  |  | 1982-8 | -100 |  |
| Consumer Price Index ${ }^{2 /}$ |  |  |  |  |
| ${ }^{\text {Alp }}$ Apparban consumers | 146.7 132.4 | 147.2 | 147.4 136.4 | 144.0 136.9 |
| Producer Price Index 21 |  |  |  |  |
| All commodities ${ }^{\text {Textiles and apparel }}$ | 119.2 | 119.7 | 119.8 | 119.3 |
|  |  | 1987 do | lars |  |
| Disposable personal income per capita | 14.612 | 14.648 | NA | 14.220 |
|  |  | Perce |  |  |
| Unempl oyment |  |  |  |  |
| All U.S. sectors | 6.5 | 6.5 | 6.4 | 7.0 |
| Textile mill products | 6.6 10.4 | 14.9 | 3.9 10.2 | ${ }^{9} 9.8$ |
|  |  | 1987 - |  |  |
| Industrial production |  |  |  |  |
| All U.S. sectors | 115.1 | 115.7 | 116.0 | 110.4 |
| Textile mill products | 108.0 | 109.7 | 109.5 | 104.2 |
| Appare 1 products | 92.4 | 93.7 | 94.6 | 92.0 |
|  |  | Perc |  |  |
| Capacity utilization All U.S. sectors | 83.4 | 83.6 | 83.6 | 81.7 |
| Textile mill products | 90.1 | 90.9 | 90.5 | 89.0 |
| Appare 1 products | 79.7 | 80.9 | 81.7 | 78.4 |

## Sales

| Sales ${ }^{\text {U.S. retail }}$ | 181.958 | 185.000 | 183,608 | 170.428 |
| :---: | :---: | :---: | :---: | :---: |
| Apparel \& accessory | 8.956 | 8.900 | 8.784 | 8.724 |
| Textile mill shipments | 6.026 | 6.107 | NA | 5.750 |
| Broadwoven fabrics | 3.738 | 3.806 | NA | 3.620 |
| Inventories |  |  |  |  |
| Textile mill 3/ | 9.648 | 9.678 | NA | 9.192 |
| Inventory/shipments | 1.60 | 1.58 | NA | 1.60 |
| Broadwoven fabrics |  |  |  |  |
| $\&$ other textiles 3/ | 5.403 | 5.381 | NA | 5,306 |
| Inventory/shipments | 1. 45 | 1.41 | NA | 1.47 |
| Apparel \& accessory | 22.443 | 22.723 | NA | 20,556 |
| Inventory/sales | 2. 51 | 2.55 | NA | 2.37 |

Textile trade 2/ 4/
Total imports

| 511.566 | 587.771 | NA | 550.320 |
| ---: | ---: | ---: | ---: |
| 267.403 | 303.156 | NA | 293.298 |
| 198.221 | 243.228 | NA | 213.426 |
| 73.550 | 92.942 | NA | 81.880 |

NA - Not avallable
1/ Seasonally adjusted unless stated otherwise. $2 /$ Not seasonally adjusted. 3/ Includes materials and supplites. work in progress. and finished goods. 4/ Raw-fiber equivalent.

Change from previous quarter at seasonally adjusted annual rates.
ments totaled $\$ 6.1$ billion in March, up $\$ 81$ million ( 6 percent) from March 1993. However, inventories of broadwoven fabric, at $\$ 5.4$ billion, have remained about unchanged during the past 3 months and near a year ago.

## U.S. Textile Trade Deficit Widens

Textile imports in March reached 588 million pounds (raw fiber equivalent), an increase of 13 percent from February. Imports expanded in each end-use category, particularly yarn, thread, and fabric. About 53 percent of March's increased imports came from cotton textiles, which rose 13 percent to 303 million pounds. Compared with March 1993, textile imports were 37.5 million pounds, or about 7 percent higher. Cotton imports were 3.3 percent above a year ago.

Although imports are climbing, textile exports rose above month-earlier and year-earlier levels as well. Textile exports during March totaled 243 million pounds, up 23 percent from February and 14 percent higher than March 1993. Exports improved from a month earlier in all enduse categories. Similar to imports, cotton textiles accounted for 43 percent of the monthly increase in total exports, rising to 19.4 million pounds ( 26 percent).

Overall, the total textile trade deficit for first-quarter 1994 totaled 1.04 billion pounds, 10 percent higher than the firstquarter 1993 level. The cotton textile trade deficit was 621 million pounds. Although the cotton trade deficit is nearly 4 percent higher than the first 3 months of 1993, cotton's share of the total deficit has fallen from 63 to 60 percent due to textile export strength. With strengthening U.S. cotton textile export demand, domestic mills continue to operate at robust levels.

## U.S. Cotton Situation and Outlook

## Upland Cotton Situation

## Final Production Above 1992/93, Yields Lower

The final 1993 crop production data released in May reported U.S. upland cotton production at 15.8 million bales, slightly above the 1992 crop (table B). Planted area was 13.2 million acres, while harvested acreage equaled 12.6 million. Acreage abandonment amounted to only 654,000 acres ( 5 percent), compared with 2.1 million ( 16 percent) in 1992/93. With lower abandonment in Texas this season, the U.S. average lint yield fell 92 pounds from 1992/93 to 601 pounds per harvested acre.

Regionally, production and yield improved from a year ago in the Southwest and West, but decreased in the Delta and Southeast. The Southwest retumed as the leading production region, accounting for 34 percent of the U.S. upland crop in 1993/94. Texas and Califomia, the leading cottonproducing States, produced their largest crops in 5 and 6 years, respectively. Also, these two States recorded their

Table B--Final 1993 and 1992 upland cotton acreage. yi eld and production 11

| Region | Planted | Harvested | Yield | Production |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { Southeast } 2 / \\ 1993 \\ 1992 \\ \text { Delta } 3 /: \\ 1993 \\ 1992 \end{gathered}$ | $\cdots 1.000$ | acres | Lbs./ac | 1.000 bales |
|  | 1.727 <br> 1.524 | 1.689 1.504 | 552 689 | 1.943 2.160 |
|  | 4.180 4.200 | 4.095 4.138 | 754 | 4.670 6.486 |
| Southwest 4/ | 5.922 5.873 | ${ }_{3}^{5.801}$ | 447 | 5.366 3.475 |
|  | 1.420 1.380 | 1.409 1.355 | 1,290 | 3.786 3.590 |
| $\begin{array}{r} \text { Total } \\ 1993 \\ 1992 \end{array}$ | 13.248 12.977 | 12.594 10.883 | ${ }_{693}^{601}$ | 15.764 15.710 |
| 1/ Based on Foryda. Geor missourt an Texas. $5 /$ A |  |  | eport. a. Miss New Mex | Alabama ina. sippi and |

second highest yields ever. On the other hand, Delta yields were the lowest since 1980, with Arkansas, Tennessee, and Missouri reporting their smallest yields in 10 years. Despite the production decline in the Southeast in 1993/94, Florida and Virginia produced historically high cotton crops. Florida's output was a record, while Virginia's was the largest since 1942/43.

## Mill Consumption Pace Improves

During the first 9 months of $1993 / 94$, U.S. mills used 7.66 million 480-pound bales of upland cotton, compared with 7.67 million for the same period a year earlier. Upland mill consumption this season is estimated at 10.24 million bales, slightly above 1992/93. Based on actual and expected mill use patterns thus far this season, domestic consumption has proved consistent with the current forecast (figure 2).

On May 26, the Department of Commerce released preliminary consumption data for April and revised March data. U.S. mills used 872,000480 -pound bales of upland cotton

Figure 2
Upland Mill Use Near Seasonal Expectations


Based on USDA's May forecast.
during April (adjusted to a calendar month) or roughly 41,500 bales per day. The daily average is above March's 41,200 bales and the 40,200 bales used in April 1993. In addition, upland cotton's share of fiber use on the cotton system remains relatively strong, despite recent price increases. During April, upland's share was 75.5 percent, compared with 75.9 percent in March and 75.4 percent in April 1993 (figure 3).

As estimates of U.S. and foreign stocks began declining at mid-season, mill-delivered cotton prices, like other cotton prices, moved significantly higher. Prices for strict-lowmiddling $1-1 / 16$ inch cotton rose above 80 cents per pound ( 90 cents on a raw-fiber equivalent basis) during April, the highest since June 1991 (figure 4). While cotton prices have jumped, manmade fiber prices have remained relatively stable, allowing polyester to regain a price advantage. The cotton/polyester price ratio rose to 1.21 in April, compared with 0.91 in December 1993. Despite the rise in prices, domestic mills continue to use large amounts of cotton as demand remains healthy.

Figure 3
Upland Share Stable


* Cotton's share of total fibers used on the cotton system.

Figure 4
Cotton Fiber Prices
Continue Above Polyester


Figure 5
Upland Exports--Expected and Actual


## Exports Highest in 3 Years

Upland exports, currently estimated at 6.7 million bales, are expected to climb to the highest level since 1990/91's 7.4 million. Crop declines in major competing countries and a shrinking supply in China have boosted U.S. export prospects this season.

Exports for the current season through April totaled 4.4 million running bales, well above last year's 3.6 million. However, to obtain the current upland export estimate, shipments will have to maintain a strong pace through July as opposed to normal seasonal declines (figure 5). With foreign supplies falling and U.S. export sales improving during the past several months, a greater share of exports is expected to be shipped during the last 3 months of the season. As of May 19, upland shipments reached nearly 5 million 480 -pound bales. Shipments will have to average approximately 174,000 bales per week for the rest of the season to attain the projected level. The previous record for the last 10 weeks of the season was in 1979/80 when shipments averaged 165,000 bales per week.

The rise in U.S. cotton exports this season has elevated the U.S. share of world trade to nearly 27 percent, the highest in 10 years. Large quantities of shipments to China this season are aiding the rise in the U.S. share. In 1993/94, the United States is expected to supply over 80 percent of China's import needs (table C). To a lesser extent, U.S. shares to most other major importers will also rise above 1992/93. For example, the United States will supply over half the import needs of Japan and Korea, two perennial large customers.


Table D--U.S. cotton prices. 1993/94

| Month and day |  | Average spot market price 1/ | July futures price $1 /$ | Adjusted world price $2 /$ |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Cents/lb |  |
| Aug . | 5 | 53.82 | 60.00 | 42.82 |
|  | 12 | 51.48 | 58.22 | 41.87 |
|  | 19 | 52.34 | 58.98 | 41.22 |
|  | 26 | 53.16 | 60.60 | 41.56 |
| Sept. | 2 | 53.09 | 59.90 | 41.37 |
| Sept. | 9 | 53.25 | 60.28 | 41.36 |
|  | 16 | 53.96 | 61.50 | 41.79 |
|  | 23 | 54.38 | 61.73 | 41.64 |
|  | 30 | 54.89 | 61.33 | 41.68 |
| Oct. | 7 | 55.02 | 61.56 | 41.58 |
|  | 14 | 54.48 | 60.75 | 41.49 |
|  | 21 | 54.17 | 60.80 | 40.88 |
|  | 28 | 54.34 | 60.90 | 40.76 |
| Nov. | 4 | 53.75 | 60.80 | 40.77 |
|  | 11 | 55.71 | 63.45 | 40.66 |
|  | 18 | 55.96 | 62.78 | 41.34 |
|  | 25 | Holiday | Hollday | 42.16 |
| Dec. | 2 | 57.75 | 64.10 | 42.86 |
|  | 9 | 59.62 | 66.30 | 44.19 |
|  | 16 | 60.09 | 66.82 | 45.37 |
|  | 23 | 61.70 | 68.38 | 46.90 |
|  | 30 | 63.34 | 69.25 | 48.28 |
| Jan. | 6 | 64.24 | 70.33 | 50.03 |
|  | 13 | 64.91 | 71.30 | 52.38 |
|  | 20 | 67.57 | 74.07 | 55.33 |
|  | 27 | 69.22 | 74.89 | 59.12 |
| Feb. | 3 | 71.71 | 76.82 | 63.77 |
|  | 10 | 72.71 | 77.78 | 66.31 |
|  | 17 | 72.40 | 77.92 | 67.14 |
|  | 24 | 74.25 | 79.75 | 67.80 |
| Mar. | 3 | 71.84 | 76.55 | 68.70 |
|  | 10 | 73.19 | 78.20 | 68.12 |
|  | 17 | 71.87 | 76.95 | 67.71 |
|  | 24 | 72.86 | 77.62 | 67.63 |
|  | 31 | 74.26 | 78.83 | 68.67 |
| Apr. | 7 | 73.21 | 77.47 | 68.13 |
|  | 14 | 77.66 | 81.25 | 69.20 |
|  | 21 | 78.21 | 81.20 | 71.27 |
|  | 28 | 78.96 | 81.55 | 71.11 |
| May | 5121926 | 81.19 | 83.17 | 72.42 |
|  |  | 77.34 | 79.97 | 71.93 |
|  |  | 79.32 | 82.65 | 70.47 |
|  |  | 80.14 | 82.79 | 71.46 |

1/ Spot and July futures prices are for SLM 1-1/16-1nch cotton. U.S. base quality. 2/ Adjusted world price is the Northern European price adjusted to SLM 1-1/16 inch at U.S. average location. Adjusted world prices are appilicable for the week following the date shown.

## Cotton Prices Climb

World cotton prices have moved upward since October 1993. While the A Index averaged under 60 cents per pound in December, prices jumped dramatically as crop shortages in several major-producing countries became apparent. By May, the A Index average exceeded 85 cents. The California/Arizona (C/A) quote continues among the five cheapest offerings in the A Index. During May, the C/A quote averaged 90 cents per pound, 9 cents above the low Central Asian quote.

Following the same pattern, U.S. cotton prices are more than 20 cents above a year ago. Cash and futures prices for old-crop cotton are near 78 and 80 cents per pound, respectively (table D). In addition, the adjusted world price (AWP) has improved to nearly 72 cents, the highest since September 1987.

As prices held stable during harvest, large quantities of cotton were placed under Commodity Credit Corporation (CCC) loan (table E). Through April 1994, approximately 7.7 million bales of the 1993 crop were put under loan. This quantity is below year-ago levels; however, it represents nearly half of this season's crop. By the end of April, 6.7 million bales of the 1993 crop had been redeemed from the CCC, leaving roughly a million bales outstanding.

## Step 2 Program Revisions Announced

In mid-April, USDA announced revisions to the upland cotton user marketing certificate (Step 2) program. The Step 2 program is intended to ensure the competitiveness of U.S.grown cotton in both domestic and foreign markets by providing payments to U.S. textile mills and exporters of U.S. upland cotton. The revision seeks to improve the program by reducing the likelihood of extraordinarily large forward weekly export sales which disrupt normal cotton marketing practices.

The revisions apply only to the payment rate calculation for forward export sales (sales for shipment after September 30 of the next marketing year). No changes in the calculation for current export sales (sales for shipment before September 30 of the next marketing year) or to domestic mills were made. The revision phases in the forward certificate payment rate to exporters, but allows them to earn a payment on forward crop sales beginning earlier in the marketing year. These changes are expected to support the program intentions of competivitely priced U.S. cotton.

| Region | -------Loans made--.-.-. |  |  | -----Loans repaid----- |  |  | --Loans outstanding-- |  |  | - Loans forfeited-- |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1991 | 1992 | 1993 | 1991 | 1992 | 1993 | 1991 | 1992 | 1993 | 1991 | 1992 | 1993 |
| 1.000 bales |  |  |  |  |  |  |  |  |  |  |  |  |
| Southeast 21 | 462.4 | 434.3 | 360.7 | 460.9 | . 432.7 | 218.4 | 0.0 | 1.4 | 142.3 | 1.5 | 0.2 | 0.0 |
| Delta 3/ | 3.499 .0 | 4.786 .8 | 3.822.0 | 3.494 .6 | 4,776.0 | 3.140 .0 | 0.0 | 6.2 | 682.0 | 4.4 | 4.5 | 0.0 |
| Southwest 4/ | 1.006 .0 | 1.021 .6 | 1.226 .0 | 1.004 .5 | 1.019 .1 | 1.125.7 | 0.0 | 0.2 | 100.3 | 1.4 | 2.4 | 0.0 |
| West 5/ | 1.343 .5 | 2.059 .0 | 2.311 .9 | 1.342 .7 | 2.057 .7 | 2.225 .1 | 0.0 | 0.3 | 86.8 | 0.8 | 0.9 | 0.0 |
| United States | 6.310 .9 | 8.301 .6 | 7.720 .7 | 6.302 .7 | 8.285 .5 | 6.709 .3 | 0.0 | 8.1 | 1.011 .4 | 8.2 | 8.0 | 0.0 |

[^0] and Texas. 5/ Arizona, California. and New Mexico.

## Effects of the Uruguay Round Agreement on Upland Cotton

On December 15, 1993, the United States reached agreement in concluding the Uruguay Round of Multilateral Trade Negotiations (UR) under the auspices of the General Agreement on Tariffs and Trade (GATT). The UR is an effort to open world agricultural markets, prompting increased trade and dynamic growth. The agricultural agreement covers 4 areas, including export subsidies, market access, internal supports, and sanitary and phytosanitary rules. USDA's Office of Economics and the Economic Research Service evaluated the effects of the UR using economic models and analysts' judgement. The approach was based on commodity supply and demand analysis. The economic effects were measured against the President's February 1994 budget baseline extended to 2005.

For agriculture, the agreement will lead to substantially improved access for U.S. exports. Increased exports are expected to raise farm prices and income, lower Government outlays on price and income support programs, and also lead to more export-related employment. U.S. agriculture is expected to gain from the increase in world income that will arise from the Uruguay Round agreement. The growth in world income will increase the demand for food and fiber products.

The principal source of UR impacts on cotton is higher world incomes which will increase world consumption of cotton textiles and apparel. Liberalization of textile and apparel trade eventually will further increase world cotton demand. Export subsidies are not important in world cotton trade, and support for cotton production is limited among GATT member countries. The United States will increase raw cotton exports about 500,000 to 1 million bales by 2005, with small increases in U.S. and world cotton prices.

UR impacts on cotton depend significantly on liberalization of textile and apparel trade. The flexibility of UR provisions for liberalization make the scale and timing of impacts uncertain. Most impacts will likely be negligible until after 2000. Importers retain discretion over products to be liberalized and will minimize impacts. Almost half of all textile products can remain under quota until after 2005. Broad transitional safeguards will prevent surges in imports during the transition period. China, the largest supplier of U.S. cotton textile and apparel imports, is not a GATT member and will receive limited benefits from liberalization. China's membership, expected during the next few years, will increase those benefits. Liberalization of textile and apparel trade will tend to transfer manufacturing from developed to developing countries. The greatest impact will be on highly labor-intensive apparel trade in which developing countries have a strong advantage.

Higher incomes under the UR will increase world demand for cotton textiles and apparel. The largest income increases will occur in moderate-income developing countries where the propensity to spend additional income on clothing is high. Liberalization of textile and apparel trade also will increase world demand for cotton textiles and apparel as lower manufacturing costs in developing countries reduce apparel prices. The increase in mill use in developing countries will more than offset the decline in developed countries like the United States. For the United States, increased textile and apparel consumption, and some increase in exports, will partially offset increased textile and apparel imports, minimizing reductions in mill use. World consumption is expected to grow about 1.7 million bales above baseline projections by 2005 .

Higher world consumption of textiles and apparel will require higher world cotton production. The United States is expected to increase cotton production as increased world demand for U.S. cotton exports more than offsets a decrease in U.S. mill use caused by more textile and apparel imports. Because the United States still has 1.4 million acres idled under the Acreage Reduction Program (ARP) in baseline projections for 2005, expansion of U.S. production will not require significant price increases or other adjustments.

The UR will increase world trade in textiles and apparel but is not expected to change world trade in cotton significantly. High-income countries will reduce cotton imports and expand textile and apparel imports as their textile industries face increased competition from lower-wage countries. Korea, Taiwan, Hong Kong, and Japan will reduce cotton imports as textile and apparel exports decline to North America and Europe because UR liberalization of textile and apparel trade eliminates their assured quotas in those markets.

India, China, and Pakistan are major cotton producers that also are major manufacturers of yarn, textiles, and apparel. Under the UR, they will increase textile and apparel exports at the expense of cotton exports. As opportunities for textile and apparel exports open up in developed countries because of liberalization or worldwide because of higher incomes, these countries will seek to secure the employment gains that expansion of textile exports will provide. Under UR internal support disciplines, these countries have some flexibility in choosing internal support policies to assure adequate raw materials for expanded textile and apparel exports. However, increases in cotton consumption will continue to exceed increases in production, as in baseline projections. Larger increases in world prices for other crops, especially grains, will keep production in some countries from expanding as rapidly as consumption. In Australia, a major competitor for the United States, cotton production and exports will likely decline. Developing countries that have strong comparative advantages in labor-intensive apparel production, like Indonesia and Thailand, are expected to show increased raw cotton imports. Collectively, the countervailing influences on world cotton trade are largely offsetting. The reduction of raw cotton exports from several major competitors will provide significant export opportunities for the United States.
U.S. cotton producers benefit from smaller ARPs and higher production under the UR. Higher raw cotton exports more than offset decreased domestic use. Higher U.S. prices increase market returns and farm incomes, while deficiency payments decrease. Elimination of U.S. Section 22 import quotas for cotton will have virtually no effect on U.S. raw cotton imports because transportation costs are too high for foreign cotton to be competitive in the U.S. market. No changes in domestic commodity programs are required to meet the internal support commitments.

## Uruguay Round Effects on Upland Cotton

|  | Units | 2000 |  | 2005 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Uruguay Round | Percent change from baseline | Uruguay Round | Percent change from baseline |
| World trade 1/ | mil. bales | 28.6-28.9 | (1) -0 | 30.4-30.9 | (2) -0 |
| United States: |  |  |  |  |  |
| Planted acres | million | 13.2-13.3 | 2-2 | 13.7-14.2 | 1-4 |
| Production | mil. bales | 18.2-18.3 | 2-2 | 19.8-20.5 | 2-5 |
| Exports | mil. bales | 6.8-7.0 | 5-8 | 7.5-8.0 | 7-14 |
| Domestic use | mil. bales | 11.3-11.4 | (2) - (1) | 12.1-12.3 | (3) - (2) |
| Farm price | cents/lb. | 21 | 1-2 | 2/ | 2-5 |
| Gross farm receipts | bil. \$ | 5.20-5.27 | 3-4 | 5.99-6.35 | 3-9 |
| Deficiency payments | bil. \$ | 0.77-0.74 | 3-0 | 0.61-0.54 | (9) - (19) |

0 denotes negative number. 1/ Includes a small amount of Extra-Long Staple (ELS). 2/ USDA is prohibited from publishing projected prices.

## Import Quota To Trigger--June Loan Extensions Prohibited

A special limited global import quota for upland cotton will trigger at the end of May. The quota is triggered when the average spot market price for any month exceeds 130 percent of the previous 36 -month spot market average. The quota shall equal 21 days of domestic mill consumption of upland cotton at the seasonally adjusted average rate for the most recent 3 months for which data are available, and is in effect for a 90 -day period.

Based on the previous 36 months (May 1991-April 1994), the spot market average equaled 59.15 cents per pound. To trigger the quota, the May spot market average must exceed 130 percent of 59.15 cents, or 76.90 cents. The quota amount, when triggered, will equal 404,978,070 pounds, or approximately 843,704480 -pound bales. With foreign cotton supplies relatively tight, however, it is unlikely that a significant amount of cotton, if any, would be imported under the quota.

Upland cotton loans mature 10 months from the first day of the month in which the loan is made. Producers may request an 8 -month extension; however, loan extensions are prohibited whenever the average price for upland cotton (base quality) in designated spot markets for the preceding month exceed 130 percent of the average spot price for base quality for the preceding 36 months. Since the May spot market average price will exceed 76.90 cents, outstanding CCC nonrecourse upland cotton loans that have a maturity date of June 30,1994 will not be extended. This determination is made on a month-to-month basis.

## Stocks To Decline in 1993/94

With production finalized, total upland cotton supply this season is 20.2 million bales. Although the largest supply since 1988/89, total upland use, currently estimated at 16.9 million bales, is expected to be the highest since 1926/27. With use exceeding production this season, upland stocks are forecast to decrease to 3.4 million bales. The decline drops the stocks-to-use ratio to 20 percent, the lowest level in 3 years.

## Outlook for 1994/95: Acreage and Production To Increase

The 1994 upland cotton acreage, based on USDA's Prospective Plantings report released at the end of March, indicated a 3-percent increase in acreage from 1993/94. Farmers intend to plant nearly 13.7 million acres despite a slightly higher acreage reduction program. Acreage is projected to rise in each region with the exception of the Delta, where acreage may be 4 percent below last year (table F).

Assuming that actual planted acreage is close to March intentions and average abandonment occurs, upland production could increase 10 percent above this season. The initial USDA upland cotton forecast is projected at 17.35 million bales. This projection is based on a 10 -year average abandonment rate, by State, averaging 7.5 percent and

Table F--Estimated upland cotton acreage, 1994/95

| Region 1/ | 1993 | $\begin{aligned} & \text { Indicated } \\ & 199421 \end{aligned}$ | Percentage change |
| :---: | :---: | :---: | :---: |
| 1.000 acres |  |  |  |
| Southeast | 1.717 | 2.041 | 18.9 |
| Delta | 4.185 | 4.030 | -3.7 |
| Southwest | 5.922 | 6.092 | 2.9 |
| West | 1.430 | 1.500 | 4.9 |
| Total | 13.254 | 13.663 | 3.1 |
| 1/ South North Car Loutsiana Texas. Ok Arizona. Plantings | Al abama <br> Virginia <br> vas. Ten <br> kans as. <br> ed on Ma | $\begin{aligned} & \hline \text { eorgia. So } \\ & \text { loryda } \\ & \text { see. Mis } \\ & \text { est: } \\ & \text { Cali } \\ & \text { 31, } \\ & 1994 . \end{aligned}$ | Caroitna Mississip Southwest: ia. New Mexi spective |

Figure 6
Cotton Planting Progress

a projected yield of 660 pounds per harvested acre, which is based on 25-year State trends, weighted by area.

Although early in the year, and significant variations in abandonment and yield may occur, 1994 cotton plantings are progressing ahead of both last year and the previous 5year average (figure 6). As of May 22, 71 percent of the crop had been planted, compared with 68 percent in 1993 and during the past 5 years. This season, the Delta States experienced excellent field conditions and plantings are well ahead of previous years.

## Upland Use To Rise Further

Although upland use is expected to reach historically high levels this season, offtake in 1994/95 is projected to increase again. Strong export demand is likely to continue next season as foreign supplies are expected to shrink further. U.S. upland exports are projected at 6.7 million bales, the same as this season's estimate. Although no improvement in exports is expected at this time, the U.S. share of world trade would remain near this season's above average level.

Figure 7
Upland Stocks, Stocks-to-Use
Ratio To Rise In 1994/95


Estimated 1893 and projected 1894.
While U.S. exports may be identical, domestic mill use is expected to improve in 1994/95. Upland consumption is currently projected at 10.4 million bales, about 2 percent above the 1993/94 estimate. Continued consumer demand for denim and apparel products, as well as an anticipated increase in cotton textile exports, will likely push mill consumption higher. Although potential domestic use may be greater, the recently higher cotton prices, if they persist, will likely moderate the gains achieved in domestic upland consumption in 1994/95.

With 1994/95 beginning stocks of upland cotton projected at 3.4 million bales and production near 17.3 million, available supplies would total 20.7 million bales, the largest since $1988 / 89$. Based on projected offtake of 17.1 million bales, upland ending stocks on July 31, 1995, would rise to 3.7 million bales (figure 7). These supply and use estimates would imply a stocks-to-use ratio of 22 percent, compared with 20 percent estimated for 1993/94.

## ELS Cotton Situation

## Final 1993 ELS Production Estimate Declines

Final extra-long staple (ELS) production for 1993 totaled 380,600 bales, down 127,700 bales from a year ago. This season's decline in production resulted from lower acreage. Arizona producers planted only 57,000 acres of ELS cotton, the lowest acreage since 1984. Although California acreage declined for the first time in several years, the State accounted for nearly 60 percent of the ELS crop. U.S. harvested area was 188,900 acres, nearly 27 percent below 1992 (table G). ELS lint yields averaged 967 pounds per harvested acre, compared with the previous 5-year average of 852 pounds.

Although ELS production declined 25 percent from the previous season, output is still expected to exceed projected offtake. During the first 9 months of the season, domestic mills used 51,200 bales of ELS cotton, compared with 44,700 bales last season. Domestic consumption is forecast at 65,000 bales, 8 percent above last season.

| Table G--Final 1993 and 1992 ELS cotton acreage, yield. and production $1 /$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| State | Planted | Harvested | Yfeld | Production |
|  | ---1.000 | acres.-. | Lbs./acre | $\begin{aligned} & 1.000 \\ & \text { bales } \end{aligned}$ |
| $\begin{gathered} \text { Ari zona : } \\ 1993 \\ 1992 \end{gathered}$ | 57.0 103.0 | 56.9 102.0 | 734 649 | 87.0 138.0 |
| Texas: 1993 1992 | 31.0 | 30.0 35.0 | 784 775 | 49.0 56.5 |
| $\begin{aligned} & \text { New Mexico: } \\ & 1993 \\ & 1992 \end{aligned}$ | 11.0 13.0 | 11.0 12.8 | 816 739 | 18.7 |
| $\begin{aligned} & \text { Californta: } \\ & 1993 \\ & 1992 \end{aligned}$ | 91.0 110.0 | 91.0 110.0 | 1.192 1.282 | 225.9 293.7 |
| Mississippt: 1993 1992 | $\begin{aligned} & \text { NA } \\ & 0.4 \end{aligned}$ | $\begin{aligned} & \text { NA } \\ & 0.4 \end{aligned}$ | $\begin{aligned} & \text { NA } \\ & 480 \end{aligned}$ | $\begin{aligned} & \text { NA } \\ & 0.4 \end{aligned}$ |
| $\begin{array}{r} \text { Total } \\ 1993 \\ 1992 \end{array}$ | 190.0 263.4 | 188.9 260.2 | 967 | 380.6 508.3 |
| NA = Not available. |  |  |  |  |
| 1/ Based on | May Crop Pr | Production | eport. |  |

As of May 19, exports of ELS cotton reached 262,000 bales, compared with 282,000 bales last season. ELS commitments (shipments plus outstanding sales) for 1993/94 were 322,000 bales, 14 percent below a year earlier. Based on actual shipments, adjusted for rollover and cancellations, ELS exports are projected to total 300,000 bales this season. With stable domestic use and weaker export demand, ending stocks are projected to rise to 212,000 bales, the largest carryover supplies since 1966/67.

## 1993/94 ELS Farm Prices Average Below Loan Rate

ELS spot prices began the season near 90 cents per pound, slightly above a year earlier and a 48 -cent premium to upland (figure 8). ELS prices continued to decline in 1993, averaging 84 cents last December. During 1994, ELS spot prices recovered to 94 cents per pound in April.

Figure 8
Upland Price Rise Makes Pima Less Attractive *


- Pima (46-03) and Desert SW Spot.

Figure 9
1994/95 ELS Preseason Sales
Jump Above Previous Two Seasons


ELS farm prices were below the target price of $\$ 1.057$ per pound during the $1993 / 94$ season. The national average market price for the 8 months ending March 31, 1994 was 82.8 cents per pound. Producers who enrolled in the ELS farm program were eligible to receive the maximum subsidy payment rate of 17.58 cents per pound on their 1993 production (the difference between the target price and the loan rate of 88.12 cents per pound). An estimated $\$ 11.5$ million in payments to eligible producers will be made on this season's production.

## Advance Deficiency Payments Available for 1994 ELS Cotton Program Participants

Although the preliminary ELS program report is not available, the 1994 acreage base may decline slightly below the 280,100 acres in 1993. Large carryover supplies and continued weak prices should encourage high participation in the 1994 ELS acreage reduction program. Program signup was between March 1 and April 29 at USDA's Agricultural Stabilization and Conservation Service county offices. Eligible participants may receive deficiency payments equal to their farm program payment yield multiplied by their eligible ELS cotton acreage. At signup, producers who enrolled in the 1994 program could request 50 percent of their estimated deficiency payments. The estimated payment rate and advanced payment rate are 16.97 and 8.485 cents per pound, respectively.

## Lower ELS Production Projected in 1994/95

USDA's Prospective Plantings survey, conducted in March, indicates that farmers intend to plant 177,000 acres in 1994. If actual plantings match farmers' intentions, ELS acreage would fall 7 percent below 1993 area. Arizona is expected to further reduce area to 48,000 acres, the lowest since 1983. Similarly, acreage is projected down 12 percent in California. Only Texas producers indicated intentions to plant larger acreage in 1994. Area in New Mexico, at 11,000 acres, is unchanged from last year. ELS har-
vested area (at 175,000 acres) is projected based on 198493 average acreage abandonment, by State, of 1 percent. Projected ELS yield of 970 pounds per harvested acre is based on 25 -year State trends, weighted by area. Under these assumptions, 1994 ELS cotton production could total 354,000 bales.

Demand for ELS cotton may improve from this season's offtake. Domestic mill use is projected to match 1993/94 consumption of 65,000 bales. ELS exports are expected to reach 325,000 bales, 8 percent above this year's shipments. As of mid-May, preseason export sales for 1994/95 delivery reached about 45,000 bales, nearly 40 percent above a year earlier (figure 9). ELS ending stocks are projected to fall 22 percent to 166,000 bales. Despite the decline in expected carryover supplies, the implied stocks-to-use ratio would equal 42.6 percent, representing more than a 5 month supply.

| Year beginning August | 1992 | $\begin{aligned} & 1993 \\ & \text { est. } \end{aligned}$ | $\begin{aligned} & 1994 \\ & \text { proj. } \end{aligned}$ | $\begin{aligned} & 1995 \\ & \text { proj } \end{aligned}$ | $\begin{aligned} & 996 \\ & \text { roj. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1,000 480-1b. bales |  |  |  |  |
| Beginning stocks: |  |  |  |  |  |
| Egypt. L. stpl. | 77 | 106 | 106 | 161 | 220 |
| Egypt. ELS | 103 | 312 | 83 | 55 | 46 |
| India | 463 | 565 | 556 | 386 | 271 |
| Israel | 5 | 5 | 5 | 5 | 5 |
| Peru | 38 | 28 | 18 | 14 | 14 |
| China (Mainland) | 207 | 131 | 51 | 32 | 46 |
| Sudan | 78 | 79 | 18 | 9 | 9 |
| Central Asia 1/ | 145 | 64 | 83 | 92 | 73 |
| Other producers | 54 | 38 | 23 | 28 | 28 |
| Total | 1.170. | 1.328 | 943 | 782 | 712 |
| Production: |  |  |  |  |  |
| Egypt. L. stpl. | 1.204 | 1.298 | 1.479 | 1.773 |  |
| Egypt. ELS | 418 | 553 | 220 | 266 |  |
| India | 625 | 553 | 611 | 611 |  |
| Israel | 22 | 23 | 37 | 37 |  |
| Peru | 34 | 37 | 28 | 23 |  |
| China (Mainland) | 68 | 52 | 69 | 106 |  |
| Sudan | 81 | 38 | 41 | 41 |  |
| Central Asia 1/ | 813 | 496 | 491 | 377 |  |
| Other producers | 51 | 44 | 55 | 60 |  |
| Total | 3.316 | 3.094 | 3.031 | 3.294 |  |
| Consumption : |  |  |  |  |  |
| Egypt. L. stpl. | 1.138 | 1.250 | 1.194 | 1.263 |  |
| Egypt, ELS | 166 | 275 | 115 | 115 |  |
| India | 390 | 547 | 588 | 588 |  |
| Israel | 0 | 1 | 0 | 0 |  |
| Peru | 39 | 45 | 55 | 41 |  |
| China (Mainland) | 119 | 118 | 55 | 55 |  |
| Sudan | 16 | 12 | 14 | 14 |  |
| Central Asia 1/ | 124 | 129 | 133 | 133 |  |
| Other producers | 51 | . 35 | . 32 | 32 |  |
| Total | 2.043 | 2.412 | 2.186 | 2.241 |  |
| Exports: |  |  |  |  |  |
| Egypt. L. stpl. | 39 | 46 | 230 | 450 |  |
| Egypt. ELS | 43 | 505 | 138 | 161 |  |
| India | 137 | 14 | 198 | 142 |  |
| Israel | 26 | 23 | 32 | 32 |  |
| Peru | 5 | 2 | 5 | 9 |  |
| China (Mainland) | 23 | 14 | 32 | 32 |  |
| Sudan | 65 | 85 | 41 | 32 |  |
| Central Asia 1/ | 770 | 352 | 340 | 271 |  |
| Other producers | 44 | 41 | 41 | 46 |  |
| Total | 1.152 | 1.082 | 1.057 | 1.175 |  |
| 1/ Represents the | former | Sovtet | ion. |  |  |

Source: International Cotton Advisory Committee. Washingt on. D.C.

## Foreign ELS Production Declines This Season

According to the International Cotton Advisory Committee's (ICAC) mid-May estimates, 1993 foreign production of ELS cotton is projected to decline 7 percent to 3.1 million bales (table H). Lower production, primarily in the former Soviet Union (FSU) and Sudan, has more than offset gains in other countries. Production in the FSU is forecast to decline 39 percent from last season to 496,000 bales. Egypt's long-staple production, at 1.3 million bales, is up 8 percent and extra-long staple production increased 32 percent to 553,000 bales, compared with a year earlier.

Total 1993/94 ELS consumption by foreign producing countries is expected to rebound 18 percent to 2.4 million bales. Larger consumption in Egypt and India more than offset stable or declining use elsewhere. Foreign ELS exports are estimated at 1.1 million bales, down 6 percent from the previous season. Exports from the FSU are projected to decline 54 percent to 352,000 bales this season as lower production reduced its exportable supplies. India's exports are forecast at only 14,000 bales, compared with 137,000 in 1992. However, Egypt's extra-long staple exports are expected to rebound to 505,000 bales this season, nearly 12 times the volume shipped a year ago.

In 1994/95, ICAC projects foreign ELS production at 3.0 million bales, slightly below this season's outturn. Egypt's fine-count cotton production is expected to decline 162,000 bales to 1.7 million. Production is expected to rebound in India to 611,000 bales, 10 percent above the 1993 crop. Total 1994/95 foreign ELS consumption is expected to decline 9 percent to 2.2 million bales. Lower consumption in Egypt and China accounts for most of the decline.

Exports of ELS cotton in 1994/95, among foreign producers, are expected to remain at about the same level as this season's 1.1 million bales, but about 700,000 below the record shipments during the 1990/91 marketing year. The United States is expected to continue as a major exporter of ELS cotton in 1994/95. The U.S. market share of world ELS exports is projected at 23.5 percent for 1994/95, up slightly from this season.

## Foreign Cotton Situation and Outlook

## Foreign Production and Consumption Higher

The outlook in 1994/95 is for higher production, higher consumption, and a continued shrinkage in stocks. Improved yields in countries troubled by pests and disease this year account for much of the expected 6 -million bale increase in production next year. Higher world prices will also be a factor in boosting area and production in some countries. Foreign consumption is expected to resume growing in 1994/95 as the foreign industrial economies begin to fully emerge from the slowdown of the last several years. While consumption is expected to increase less than 1 million
bales, to 75 million, production should reach only 66.3 million bales, and stocks are expected to fall to 24.7 million.

Foreign cotton production declined sharply in 1993/94 as pests and disease damaged the crops of major producers for the second consecutive year. Led by a 3.3 -million bale drop in China's crop, foreign production fell 10 percent to 60 million bales (table I). Weather, pests, and payment problems in China during 1992/93 dissuaded many producers from growing cotton in 1993/94, and area plummeted 1.3 million hectares. While China's yields saw a substantial rebound in 1993/94, they were still among the worst in a decade as bollworm infestations continued on the North China Plain (NCP).

Production fell about 1.5 million bales in India, 1 million in Pakistan, 0.4 million in Australia, and smaller amounts in several African countries. Argentina registered the most notable increase in production.

## Higher Prices Boost 1994/95 Output

The decline in cotton production has had a widespread impact on consumption and prices. China and Pakistan have reduced consumption, and their domestic prices have risen sharply, providing a spur to increase output in 1994/95.

|  | Pro. <br> duction | Imports | Consumption | Exports | Ending stocks |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1.000 480-1b. bales |  |  |  |  |
| World 950 |  |  |  |  |  |
| 1991/92 | 95.991 | 29.350 | 84,507 | 28.079 | 40.615 |
| 1992/93 | 82.770 | 25.703 | 85.610 | 24.811 | 38.585 |
| 1993/94 | 76.033 | 26.685 | 84.703 | 25.153 | 30.267 |
| 1994/95 | 84.000 | 27.000 | 85.500 | 27.000 | 28.600 |
| Forelgn |  |  |  |  |  |
| 1991/92 | 78.377 | 29.337 | 74.894 | 21.433 | 36.911 |
| 1992/93 | 66.552 | 25.722 | 75,360 | 19.610 | 33.923 |
| 1993/94 | 59.888 | 26.683 | 74.403 | 19.153 | 26.667 |
| 1994/95 | 66.300 | 27.000 | 75,000 | 20.000 | 24,700 |
| China |  |  |  |  |  |
| 1991/92 | 26.100 | 1.630 | 19,000 | 602 | 14.484 |
| 1992/93 | 20.700 | 248 | 21.700 | 684 | 13.050 |
| 1993/94 | 17.300 | 1.200 | 21.000 | 400 | 10.171 |
| Pakistan |  |  |  |  |  |
| 1991/92 | 10.000 | 20 | 6.482 | 2.059 | 2.976 |
| 1992/93 | 7.073 | 24 | 6.634 | 1.175 | 2.164 |
| 1993/94 | 6.024 | 200 | 6.100 | 330 | 1.858 |
| India |  |  |  |  |  |
| 1991/92 | 9.430 | 273 | 8.674 | 60 | 2.734 |
| 1992/93 | 10.619 | 57 | 9.370 | 1.054 | 2.986 |
| 1993/94 | 9.400 | 150 | 10.000 | 350 | 2,171 |
| EC |  |  |  |  |  |
| 1991/92 | 1.378 | 4.611 | 5.230 | 808 | 1.714 |
| 1992/93 | 1.493 | 4.235 | 4.980 | 859 | 1.604 |
| 1993/94 | 1.442 | 4.160 | 4.915 | 891 | 1.392 |
| Japan |  |  |  |  |  |
| 1991/92 | 0 | 2.705 | 2.783 | 0 | 575 |
| 1992/93 | 0 | 2.228 | 2.315 | 0 | 502 |
| 1993/94 | 0 | 2.000 | 2,050 | 0 | 452 |
| Korea |  |  |  |  |  |
| 1991/92 | 1 | 1.801 | 1.919 | 0 | 569 |
| 1992/93 | 1 | 1.725 | 1.650 | 0 | 645 |
| 1993/94 | 1 | 1.470 | 1.500 | 0 | 616 |
| Tha 11 and |  |  |  |  |  |
| 1991/92 | 197 | 1.640 | 1.699 | 29 | 465 |
| 1992/93 | 103 | 1.516 | 1. 562 | 25 | 497 |
| 1993/94 | 30 | 1.500 | 1,650 | 20 | 358 |
| 1/ May 1994 estimates. |  |  |  |  |  |
| Source: | DA, Fore | $n$ Agricu | ural Ser | ice. |  |

Similarly, higher international prices--a 37 -percent increase in the A Index between April 1993 and April 1994--are expected to encourage production elsewhere. However, only a relatively modest global response to increased prices is expected. Global area is expected to grow only 2 percent, to 32.1 million hectares.

China's target for area in 1994/95 is 6 million hectares--a 500,000 -hectare gain-but it is doubtful that this target is attainable. A 21 -percent increase in procurement prices was announced earlier, but a spring survey of planting intentions by China's State Statistical Bureau resulted in a figure of only 5.3 million hectares. While final area should be above this initial figure, a number of factors suggest it will be substantially less than the 6 -million hectare target, despite the increase in procurement prices.

Some farmers in the NCP may be reluctant to increase their commitment to cotton following 2 years of bollworm infestation. Outside the NCP, area almost certainly will rise-Xinjiang has figured prominently in such reports--but developments in the NCP will still be crucial to China's cotton production. Reportedly, Chinese authorities are trying to improve pesticide availability and cultural practices intended to help stymie the bollworm, but the efficacy of such measures is largely conjectural at this point. Under these circumstances, higher procurement prices may still fail to provide sufficient profits relative to competing, less demanding crops.

In Pakistan, along with continued concerns with pests-leaf curl virus (LCV) and whitefly infestation in this case-weather is an additional concern for the 1994/95 crop. Rainfall has been poor in the Sind, and catchment areas for irrigation in the Punjab have also received lower than normal amounts of moisture. A 40-percent decline in Pakistani production over the last 2 years has raised domestic prices substantially--even following an export ban and prospects for near-record imports--which should encourage production. However, the offsetting impacts of poor moisture, increased use of lower-yielding LCV-resistant varieties, and the possibility of a recurrence of pest problems, suggest Pakistan will not experience an enormous rebound in 1994/95 production.

Moderate improvement also is likely in India's crop in 1994/95. While lower than last year, India's 1993/94 crop was still its second highest ever, suggesting a somewhat limited scope for improvement in 1994/95. While prices are higher in India as elsewhere in the world, historically Indian production has not been very responsive to prices. Assuming normal weather and amelioration of some of the pest problems in the north, India's production should rise in 1994/95.

## Uzbekistan a Possible Exception to Higher Production

Higher production is likely in Australia, West Africa, Argentina, Paraguay, and Brazil. Australia--one of the most price responsive producers in the world--will have its ability to produce determined by rains during the next year.

Several years of reduced rainfall have reduced irrigation supplies, and timely rains will be necessary to ensure a return to more normal yields. Yields during 1993/94 were the lowest in more than a decade, largely because of reduced moisture.

West Africa's response to higher world prices should be aided by this year's large devaluation of the Communite Financiare Africain (CFA) franc. However, while the devaluation improves domestic returns for export crops, imported inputs have also become substantially more costly, possibly reducing availability and application rates. The devaluation amounted to a 50 -percent cut in the CFA franc versus the French franc in January 1994. Following 50 years of virtually fixed parity, this means an adjustment period of as much as a year may be necessary before the West African economies can fully adjust to the new currency and accompanying economic measures.

Central Asia's cotton production will be affected by the decision of the region's largest producer, Uzbekistan, to plant 5-10 percent less area. Even with some recovery in yields, smaller area would mean reduced production. Lower area could offer Uzbekistan the prospect of retreating from marginal lands and seeking to better deploy limited inputs. Also, grain area is expected to rise 140,000 hectares in Uzbekistan in 1994/95, which may affect cotton area. Little change is expected elsewhere in Central Asia.

Paraguay's production is expected to rebound from this year's pest and weather damage, and Argentina and Brazil are expected to respond to higher prices. However, since planting for these Southern Hemisphere crops is distant, the outlook there is more uncertain.

## Consumption Rebounds in 1994/95

Foreign cotton consumption has fallen an estimated 960,000 bales in 1993/94 to 74.4 million bales. Past relationships between cotton consumption and factors such as cotton prices and industrial country economic growth suggest it suffered only a temporary setback in 1993/94, and that relatively moderate improvement is expected in 1994/95. A 600,000 -bale increase in foreign consumption is forecast for 1994/95, a gain of less than 1 percent.

On the one hand, since much of the 1993/94's consumption decline has occurred in China and Pakistan, a stronger rebound is possible in 1994/95. From the early 1980's until 1993/94, world demand for cotton products had been increasingly met by textiles from cotton producing countries. However, two years of significant crop losses in China and Pakistan cut their supplies, hindering their ability to consume cotton. This should create opportunities for other countries to eventually increase mill use to make up for shortfalls in imports of cotton yarn and fabric from China and Pakistan.

On the other hand, the last few years were among the weakest for growth in cotton consumption in quite some time (figure 10). Although this parallels a period of relatively weak global economic activity that should be approaching

Flgure 10
Consumption Weak During 1989-93


Annual change in foreign consumption.
1994 is forecast.

Figure 11
U.S. Cotton Exports and Share of World Trade To Remain Stable


Estimated 1993 and projected 1994.
its end, the nature of the current economic recovery may make it less encouraging for cotton consumption than past recoveries. For example, even the most optimistic scenarios show economic growth in Russia substantially lagging the rest of the world. In addition, the continued unemployment and increased economic uncertainty in countries ostensibly achieving income gains may restrain spending on textiles.

## Trade Continues Rising

World trade is expected to continue growing in 1994/95, an 850,000 -bale gain in exports to 27 million bales. This is moderately below the 1.3 -million-bale increase estimated for 1993/94. In the late 1980's, all the major cotton importers in the world began a fairly steady decline in consumption, the sole exception being Southeast Asia. Inevitably, this was reflected in the level of world trade, which between 1988 and 1992 fell from 39 percent of world consumption to 29 percent. In 1993, although imports were lower in the EC, Russia, Japan, Korea, and Taiwan, world trade rose as China and Latin America each imported about 1 million more bales than the year before. In 1994/95, increased imports in Europe, East Asia, and Southeast Asia are expected. The gain should be smaller than in 1993/94 since increased production in Brazil and Mexico will cut

Latin America's imports, and any change in China's trade would be substantially smaller than in 1993/94.

With prospects for world trade remaining strong in 1994/95, the United States is again expected to export 7 million bales of cotton (figure 11). Increased production in Australia, Argentina, and Paraguay should consequently increase these countries' exports, but the Franc Zone countries will be hampered by lower beginning stocks, and will be hard pressed to increase exports. Pakistan is expected to increase its exports, but will probably again play a smaller role in supplying world markets than it did before 1993/94. Finally, if Uzbekistan reduces its cotton area, the world's second largest exporter could market a smaller crop, helping keep the U.S. share of world trade at about 26 percent for the second year in a row.

## U.S. Wool Situation and Outlook

## Wool Demand Continues Strong

The total 1994 U.S. supply of raw wool is estimated at 192 million pounds, clean, 2.3 percent below last year (table J). Stocks at the beginning of 1994 totaled 37 million pounds. Estimated 1994 wool production, 35 million pounds, is 15 percent below last year. U.S. raw wool imports are projected at 100 million pounds, unchanged from 1993.
U.S. shorn wool production in 1993 was 77.3 million pounds (greasy), 6.6 percent below 1992. The weighted average price received by farmers was $\$ 0.51$, the lowest price since 1975 ( $\$ 0.447$ ). The farm value of the 1993 clip was $\$ 38.98$ million. About 9.93 million sheep were shom, 5.4 percent less than in 1992. The average fleece weight was 7.78 pounds, 1.4 percent below 1992.

Ten States produced more than three-fourths of the 1993 clip: Texas, 22.0 percent; Wyoming, 9.6 percent; California, 7.8 percent; Montana, 7.2 percent; Colorado, 6.7 percent; South Dakota, 6.5 percent; Utah, 5.1 percent; New Mexico, 4.9 percent; Idaho 3.2 , percent; and Iowa, 3.2 percent.

Appendix table 25 shows the 25 States having sheep operations with the largest average raw wool production in 1993.


Table K--U.S. imports of raw wool for consumption.

Figure 12
State Average Raw Wool Production, 1993*


- Average production per operation.

These operations range from an average of 184 pounds, greasy, in Illinois to 4,965 pounds in Wyoming. The States with the largest raw wool output per sheep operation are the Rocky Mountain States, Texas, California, South Dakota, and Iowa (figure 12).
U.S. shorn wool production in 1994 is estimated at 66.4 million pounds. The American Sheep Industry Association estimated the distribution by grade to be:
less than 22 micron ( 64 's-and-finer) - 28.5 percent
22 to less than 25 micron ( 60 's -64 's) -28.4 percent
25 micron to less than 28 micron ( 56 's -58 's) - 24.4 percent

28 micron to less than 31 micron ( 50 's -54 's) - 14.7 percent

31 micron and coarser ( 48 's-and-coarser) - 4.0 percent.
U.S. raw wool imports in the first quarter of 1994 were
clean content. 1988-94

| Year | $\begin{aligned} & 48 \cdot \mathrm{~s} \\ & \text { and-fine } \end{aligned}$ | $\begin{aligned} & \text { Not-fin } \\ & \text { than-46 } \end{aligned}$ | M1 sc. $3 /$ | Total |
| :---: | :---: | :---: | :---: | :---: |
|  | 1.000 pounds |  |  |  |
| Jan-Dec: $72.323 \quad 24.418$ NA 96.74 |  |  |  |  |
| 1989 | 77.003 | 29.889 | ${ }^{48}$ | 106.940 |
| 1991 | 50.328 68.242 | 18.165 | 33 47 | $\begin{array}{r}71.716 \\ 86.455 \\ \hline\end{array}$ |
| 1993 | 65.457 76.001 | 23.802 21.876 | 26 2.434 | 89.285 100.311 |
| Jan-Mar: |  |  |  |  |
| $\begin{aligned} & 1988 \\ & 1080 \end{aligned}$ | ${ }_{20}^{26.763}$ | 8.753 | NA | 33.516 |
| 1990 | 14.466 | 6.697 | 33 | 28.982 |
| 1991 | 18.375 19.565 | ${ }^{4.605}$ | 5 | 22. ${ }^{2} 585$ |
| 1993 | 20.206 | 5. 244 | 1.006 | 26.456 |
| 1994 | 17.505 | 6.996 | 633 | 25.134 |
| ${ }^{\text {Ap }} 1988$. | 19.150 | 5.965 | NA | 25.115 |
| 1989 1990 | 22.507 | 9.265 7.070 | ${ }^{17}$ | 31.789 18.032 |
| 1991 | 15.422 | 4.545 | 0 | 20.967 |
| 1993 | 18.798 22.198 | 7.377 | 743 | 25.587 30.318 |
| Jul-Sep: |  |  |  |  |
| 1989 | 15.9328 | 6.141 5.500 | ${ }_{30}$ | ${ }_{20.858}^{16.081}$ |
| 1990 | ${ }^{1} 9.607$ | 4.275 | 0 | 13.882 |
| 19992 | 16.426 10.2988 | 4.148 5.461 | ${ }_{19}^{42}$ | 20.616 15.738 |
| 1993 | 14.675 | 5. 287 | 277 | 20.239 |
|  |  |  |  |  |
| 1989 | 19.002 | 6. 6109 | 0 | 25.311 |
| 1991 | 17.293 17.018 | 3.314 4.868 | 0 | 18.607 21.886 |
| 1992 | 16.861 | 5.426 | 7 | 22. 294 |
| 1993 | 18.923 | 3.968 | 410 | 23.301 |

NA - Not available. Numbers may not add due to rounding. 1/Formerly "Dutiable." 2/ Formerly "Duty-free." 3/ Raw wool, not carded or combed, but processed beyond the degreased condition. e.g. dyed. The grade is not identified, harmonized TSUSA 5101.21.6000. 5101.29.6000. and 5101.30.6000.
Source: Bureau of the Census.
25.1 million pounds, clean, 7.9 percent below fourth-quarter 1993 and 5 percent less than a year earlier (table K). Raw wool imports of grades 48 's-and-finer were 17.5 million pounds, 15 percent below a year earlier. About 92 percent came from two countries: Australia, 84 percent; and Uruguay, 8 percent. Imports of unimproved and other grades not-finer-than-46's totaled 7.0 million pounds, 33 percent above a year earlier. Two countries supplied 91 percent: New Zealand, 73 percent; and the United Kingdom, 18 percent. Miscellaneous graded imports amounted to 0.63 million pounds, with almost all coming from New Zealand.

Table L--Raw wool 1 mports by region. 1991-94 1/

|  | Not-finer-than-46's |  |  |  | 48's-and-finer |  |  |  | Tota 1 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Region | 1991 | 1992 | 1993 | $\begin{aligned} & 10 \\ & 1994 \end{aligned}$ | 1991 | 1992 | 1993 | $\begin{gathered} 1994 \\ 19 \end{gathered}$ | 1991 | 1992 | 1993 | $\begin{aligned} & 10 \\ & 109 \end{aligned}$ |
|  | Percent |  |  |  |  |  |  |  |  |  |  |  |
| New England Middle At Tantic | $\begin{aligned} & 25 \\ & 30 \end{aligned}$ | $\begin{aligned} & 22 \\ & 34 . \end{aligned}$ | $\begin{aligned} & 18 \\ & 48 \end{aligned}$ | 13 58 | 9 1 | 11 | 12 | 12 | 13 | 14 11 | 13 12 | 12 |
| South Atiantic and other $2 /$ | 45 | 44 | 34 | 29 | 90 | 87 | 86 | 86 | 80 | 75 | 75 | 70 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

[^1] districts along the Gulf Coast. Mexican border. Pacific Coast. and the Canadfan border.

Source: Bureau of the Census.

Table M-U.S. mill consumption of raw wool. clean basis. quarterly. 1989-94

| Year | $\begin{gathered} \text { Apparel } \\ \text { wool } \end{gathered}$ | Carpet wool | Total |
| :---: | :---: | :---: | :---: |
|  | 1.000 pounds |  |  |
| Jan-Dec: 120.534 |  |  |  |
| 1989 | 120.534 120.622 | 14.122 12.124 | 134.656 132.746 |
| 1990 | 120.622 137.187 | 12.124 14.352 | 132.746 151.539 |
| 1991 1992 | 137.187 136.143 | 14.352 14.695 | 151.839 150.838 |
| 1993 | 141.380 | 15.431 | 156.811 |
| Jan-Mar: |  |  |  |
| 1989 | 33.987 | 3.294 | 37.281 |
| 1990 | 31.511 | 3.911 | 35.422 |
| 1991 | 31.582 | 3.085 | 34.667 |
| 1992 | 36.351 | 4.580 | 40.931 |
| 1993 | 35.549 | 4.513 | 40.062 |
| 1994 | 36.520 | 4.380 | 40.900 |
| Apr-Jun: |  |  |  |
| 1989 | 31.875 | 3.979 | 35.854 |
| 1990 | 31.726 | 2.950 | 34.676 |
| 1991 | 37.111 | 3.118 | 40.229 |
| 1992 | 35.145 | 3.592 | 38.737 |
| 1993 | 35.910 | 4.343 | 40.253 |
| Jul-Sep: |  |  |  |
| 1989 | 27.867 | 3,865 | 31.732 |
| 1990 | 26.888 | 3.125 | 30.013 |
| 1991 | 34.578 | 4.561 | 39.139 |
| 1992 | 33.581 | 3.145 | 36.726 |
| 1993 | 35.502 | 2.650 | 38.152 |
| Oct-Dec: |  |  |  |
| 1989 | 26.805 | 2.984 | 29.789 |
| 1990 | 30.497 | 2.138 | 32.635 |
| 1991 | 33.916 | 3.588 | 37.504 |
| 1992 | 31.066 | 3.378 | 34.444 |
| 1993 | 34.419 | 3.925 | 38.344 |
| Source: | the Census |  |  |

The share of raw wool imports not-finer-than-46's entering through the New England and Middle Atlantic customs districts in first-quarter 1994 exceeded the share of the finer-than-48's (table L). During the first quarter of 1994, about 71 percent of the grades not-finer-than-46's entered through the New England and Middle Atlantic customs districts, compared with 29 percent of the 48 's-and-finer. By contrast, the South Atlantic and other customs districts received 86 percent of the 48 's-and-finer, compared with 14 percent of the not-finer-than-46's.

Total raw wool demand in 1994 is estimated to be 158 million pounds, clean, almost 1 percent below 1993. Exports of raw wool are projected at 3 million pounds, 20 percent more than last year. Domestic mill consumption is estimated at 155 million pounds, 1 percent below 1993. Strong demand for light-weight wool apparel will provide strong support this year for the relatively high raw wool consumption. Ending stocks in 1994 are projected at 34 million pounds.

In the first quarter of 1994, raw wool mill consumption was 40.9 million pounds, clean, 6.7 percent above fourthquarter 1993 and 2.1 percent above a year earlier (table M). Worsted-system mill consumption was 19.5 million pounds, 9.9 percent more than the fourth quarter and 7.6 percent more than a year earlier. The woolen system used 17.0 million pounds, 2 percent greater than the fourth quarter but 2.3 percent below a year ago. About 4.4 million pounds went into carpets. Top production in the first quarter was 18.5 million pounds, 10.8 percent above the fourth quarter and 6.7 percent above a year earlier.

The revised annual 1993 data show that raw wool mill con-
sumption was 156.8 million pounds, clean, 4 percent above 1992 and 11.6 percent above the average of the past 5 years. It was the largest quantity since 1972 ( 218.6 million pounds). The worsted system took 73.9 million pounds, 3.7 percent below 1992 and 0.7 percent below the average of the previous 5 years. The quantity of 60 's-and-finer used in the worsted system in 1993 was 58.8 million pounds, 0.6 percent more than in 1992 and the largest quantity since 1969 ( 75.7 million). The woolen system mills used 67.5 million pounds, 13.5 percent above 1992, 30 percent above the previous 5 -year average, and the largest quantity since 1969 ( 79.8 million). The quantity of 60 's-and-finer used in the woolen system mills in 1993 was 40.9 million pounds, 20.7 percent above 1992. It was the largest quantity since 1965 ( 41.3 million). The large use of the finer wool grades reflected the strong popularity of lighterweight wool apparel and the relatively low wool prices in 1992 and 1993. Carpet mill use was 15.4 million pounds, 5 percent above 1992 and 8.9 percent above the previous 5year average.

Raw wool exports in the first quarter of 1994 were 764,000 pounds, more than twice the fourth quarter of 1993 but 7.2 percent below a year earlier. Overseas shipments of shom wool were 313,000 pounds. Over 80 percent went to two countries: 42 percent to Germany; and 39 percent to Mexico. Exports of raw wool not-shorn (pulled) were 95,000 pounds. About 77 percent went to the United Kingdom and 23 percent went to Canada. Exports of carbonized wool were 357,000 pounds. About 63 percent went to China and 26 percent went to Italy.

Exports of wool top in first-quarter 1994 were 1.88 million pounds, 50 percent of the previous quarter and almost 7 percent below a year earlier. The average price was $\$ 2.55$ per pound, compared with an average of $\$ 1.81$ in the fourth quarter of 1993 and $\$ 2.66$ a year earlier. Two countries were the destination of 86 percent: Korea, 79 percent; and China, 7 percent. Top production in the first quarter was 18.5 million pounds, 11 percent above the previous quarter and 7 percent above a year earlier. Top production in 1993 was 69.8 million pounds, 2.8 percent below 1992 but 0.1 percent below the average of the previous 5 years.

The U.S. Department of Agriculture, in accordance with the National Wool Act of 1954, announced a support payment rate for shorn wool for the 1993 marketing year. The shom wool support payment rate of 300 percent is the percentage which brings the 1993 national average wool price of $\$ 0.51$ per pound up to the support price, which for the 1993 marketing year was $\$ 2.04$ per pound. Individual producer payments are calculated by multiplying their sales proceeds for shorn wool sold during the marketing year by the payment rate.

The Wool Act also provides that pulled wool (wool on unshorn lambs) shall be supported at a level comparable to the shorn wool support payment rate in order to maintain normal pulled wool marketing practices. Accordingly, the payment rate for wool on unshorn lambs will be $\$ 6.12$ per hundredweight.

In accordance with the regulations promulgated under the Wool Act, support payments for shorn wool and mohair will not be made on that portion of the producer's sales proceeds which exceed, on a per pound basis, four times the national average price, or $\$ 2.04$ per pound for wool and $\$ 3.28$ per pound for mohair.

The U.S. price for clean, mill delivered, territory finer grades of raw wool increased $35-50$ percent by late May from the first quarter average. The 64 's rose 50 percent to $\$ 2.30$ per pound, clean; the 62 's were up 44 percent to $\$ 1.92$ per pound; and the 60 's were $\$ 1.63$ per pound, up 35 percent. The medium grades increased 17-28 percent. The 58 's were $\$ 1.45$, up 28 percent; the 56 's, at $\$ 1.28$, were up 18 percent; while the 54 's, at $\$ 1.20$, were up 17 percent.

Figure 13
Wool Markets Rise
Cents/kg (clean)


- Mid-month May 1994

*Mid-month May 1994.


# Foreign Wool Situation and Outlook 

## Strong 1994 Demand

The latest estimate of available supply of world wool in the 1993/94 season is 4.92 billion pounds, clean, down 3 percent from the previous season. Production, at 3.55 billion pounds ( 6.16 billion, greasy), is 2.7 percent below 1992/93, reflecting the recent trend of lower sheep numbers and a slipping world demand for wool-containing textiles. Carryin supplies were 1.36 billion pounds, down 2 percent from a year earlier, and accounted for almost 28 percent of the world's wool supply.

The 1993/94 world clip is the smallest since the 1981/82 season. Most of the world's net decline of 99 million pounds from 1992/93 was in Australia. South Africa and Argentina had declines of 15-17 million pounds each, while New Zealand experienced a 33-million pound increase.

The latest Australian forecast for the 1993/94 season placed the number of sheep on March 31, 1994 at 132 million, 5.7 percent below a year earlier. Wool production was forecast at 1.79 billion pounds, greasy, 6.3 percent below last season. Shorn wool production was forecast at 1.68 billion pounds and pulled wool at 0.11 billion.

The Australian market indicator (a weighted-average index of 15 wool categories) ended the week of May 20 at A614¢ per kilogram (figure 13). The indicator averaged A429d in the first quarter (July-September), rose 11 percent to A476d in the second quarter (October-December), and averaged A528 in the third quarter (January-March), 11 percent above the second. During the 6 weeks of sales after the Easter recess, the market indicator averaged A586\&, 11 percent above the third. During the week ending May 20, the market indicator reached A614¢, the highest weekly level since January 1991. This upturn reflects strong demand by wool interests in China, Japan, and Western Europe. The share of the offerings sold to the trade increased slowly during the season from 86 percent in the first quarter, to 91 percent in the second, 89 percent in the third, and 92 percent during the 6 weeks after the Easter recess. By midMay the Australian stockpile declined to slightly less than 3.70 million bales, almost 6 percent below the end of last season, and 22 percent below the January 1991 peak of 4.766 million bales (figure 14).

In March 1994, the Australian Bureau of Agriculture Resource Economics forecast that the market indicator would average A530d in 1994/95, more than 9 percent above their forecast of A485¢ for the current season. Expecting economic recovery in Western Europe and Japan in 1994 and 1995, this would boost consumer confidence and the demand for wool textiles. Sheep numbers as of March 1994 were anticipated to be 128 million, 3 percent below estimates for the current season. Wool production during the 1994/95 season was projected at 1.74 billion pounds, 2 percent less than the current season's output. The 1994/95 season's closing stocks were forecast to be 3.15 million bales,

15 percent below this season's estimate of 3.69 million bales.

The South African 1993/94 wool clip is estimated to be 0.08 billion pounds, clean, ( 0.14 billion, greasy), down more than 17 percent from the previous season. Drought in some areas and good prices for mutton led to fat lamb crossbreeding.

The South African market indicator showed strong growth this season: it averaged $S A 1,080 ¢$ in the second quarter, up 10 percent from the first; averaged SA1,292c in the third, up 20 percent from the second; and averaged SA1,499 through May in the fourth, up 16 percent from the third and the highest level since fourth-quarter 1990. The South African stockpile reached a record low. At midMay it was about 846 bales, greasy, 1.9 percent of the end of last season and 0.2 percent of the February 1991 record high.

The New Zealand wool market in the second half of the 1993/94 season experienced slower growth than the Australian wool market. The New Zealand average marker indicator, NZA10¢ in the second quarter, rose 7.2 percent from the first quarter. The third-quarter average, NZA28 $¢$, was 4.4 percent above the second. The average of the fourth quarter through late-May, NZA66\&, was almost 9 percent above the third and the highest level since first-quarter 1992. The New Zealand stockpile at the end of April was 192,800 bales, 44 percent below the end of last season and 70 percent below the recent high in January 1991.

Because of a mild winter, New Zealand wool production rose 7.7 percent to 0.46 billion pounds, clean, ( 0.61 billion, greasy) from the 1992/93 season. Sheep numbers were forecast to be 51.1 million by June 1994, up 1.6 percent from a year earlier but down 4.4 percent from June 1992.

## Mohair

## Mohair Supply Down

U.S. mohair stocks at the beginning of 1994 were 4.44 million pounds, clean. Domestic production in 1994 is estimated to be 9.9 million pounds, clean. Total supply is estimated to be 14.34 million pounds. Mill use is expected to be 3.0 million pounds and exports 7.0 million for a total use of 10.0 million, leaving end-year stocks of 3.34 million pounds (table N ).

Mohair production in 1993 was 11.28 million pounds, clean, ( 14.84 million, greasy), 4.8 percent below the previous year. Production was divided among five States: Texas, 91 percent; New Mexico and Oklahoma, 3 percent each; Arizona 2 percent; and Michigan, less than 1 percent. The average clip was 6.9 pounds per goat, unchanged from 1992. The weighted average price in 1993 was $\$ 0.82$ per pound, greasy, compared with $\$ 0.86$ in 1992. The farm value of the 1993 clip was $\$ 12.1$ million, 10 percent below 1992. Mid-May 1994 prices for mohair were: adult, $\$ 1.55-$

| Item | 1990 | 1991 | 1992 | 1993 | 1994 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1.000 pounds |  |  |  |  |
| Stocks. 2000 |  |  |  |  |  |
| Pranuary 1 | 2.026 | 2.320 | 3.622 | 4.734 | 4.435 |
| Production | 12.400 | 12.400 | 11.800 | 12.300 | 9.900 |
| Umports | 493 | 9 493 | 19 493 | -2.000 ${ }^{1}$ | -1.001 |
| Total supply | 14.920 | 15.222 | 15.934 | 14.035 | 13.335 |
| Mil 1 use | 1.000 | 3.500 | 3.500 | 3.000 | 3.000 |
| Exports | 11.600 | 8.100 | 7.700 | 6.600 | 7.000 |
| Total use | 12.600 | 11.600 | 11.200 | 9.600 | 10.000 |
| Stocks. December 31 | 2.320 | 3.622 | 4.734 | 4.435 | 3.335 |
| 1/ Estimated by USOA. All projections are rounded. |  |  |  |  |  |
| Sources: USDA and Bureau of the Census. |  |  |  |  |  |

$\$ 1.60$, up from $\$ 0.80$ in February; young goat, $\$ 3.40$, up from $\$ 0.90$; and kid $\$ 2.25$, up from $\$ 1.40$.

Mohair exports in the first quarter of 1994 were 1.73 million pounds, clean, ( 2.24 million, greasy), 32 percent below the fourth quarter and 7.3 percent above a year earlier. The average export price was $\$ 1.22$ per pound, compared with $\$ 1.17$ the previous quarter and $\$ 1.05$ a year earlier. Three countries were the destination of 96 percent of the first quarter exports: the United Kingdom, 86 percent; and China and India, 5 percent each.

Mohair top exports are included in the Harmonized Schedule B category: "Fine Animal Hair, carded and combed." About 501,000 pounds were exported in the first quarter, compared with 478,000 pounds in the fourth quarter and 876,000 pounds a year earlier. First quarter export prices averaged $\$ 2.57$ a pound, 3.2 percent above the fourth quarter. More than 97 percent of these exports went to three countries: India, 59 percent; Taiwan, 26 percent; and Spain, 12 percent.

The long drought in South Africa has been broken but the long term effect influenced this year's production of 12 million pounds, down 20 percent from 1992. Stocks are very low, estimated to be $0.5-1.0$ million pounds.

In April and May, the price of South African mohair rose sharply from last winter. Adult and fine kid hair each rose about 40 percent. Adult hair in late-May sold at R18.75 per kilogram, 44 percent above the March price and the highest in 5 years. The demand for South African adult mohair became quite strong in 1994. Its principal use is in machine knitting yams for sweaters. Kid hair sold at R41.51 per kilogram, 38 percent above the price in March. Its main use is in fine suiting fabrics. The cumulative clearance rate of all grades of South African mohair sold during the first six sales of the summer season (March-June) was 96 percent, compared with the average of 55 percent during the previous 10 seasons ( 5 years).

## Manmade Fibers

## Manmade Fiber Business Better

The manmade fiber business in first-quarter 1994 improved from fourth-quarter 1993 and a year earlier. Production, at almost 2.34 billion pounds, was 1.8 percent more than the first quarter and 3.7 percent above a year earlier (appendix table 32). Total shipments by fiber producers, almost 2.39 billion pounds, was 2.4 percent more than the fourth quarter and 5.8 percent above a year earlier. Stocks in producers' plants at the end of first-quarter 1994 were 0.61 billion pounds, 7.5 percent below the fourth quarter and 10 percent below a year earlier. While the stocks of the noncellulosic filament fibers increased less than 2 percent, the staple stocks declined 16 percent. Almost all of this decline occurred with nylon staple and polyester staple stocks.

The carpet market continues to consume more fiber in facing and backing uses than any other fiber market (appendix table 33). In the fourth quarter of 1993, this market took 816 million pounds, 5.4 percent below the third quarter and 0.4 percent above a year earlier. Non-cellulosic carpet use accounted for more than 38 percent of total domestic shipments. Nylon dominates the carpet market, constituting more than 55 percent of the total fourth-quarter use of noncellulosic carpet fibers. Conversely, nylon carpet fibers were 74 percent of nylon domestic shipments. Nylon staple carpet fibers were 93 percent of nylon staple domestic shipments, while nylon filament carpet fibers were 64 percent of nylon filament domestic shipments. Preliminary data for the first quarter of 1994 indicate that about 496 million pounds of nylon were used in carpets, about 9.5 percent above the fourth quarter and almost 10 percent above a year earlier. The use of olefin fibers in carpet backing and facing in the fourth quarter was 293 million pounds, almost 36 percent of noncellulosic fibers used in carpets. Carpeting is the most important use for olefin fibers, taking more than 55 percent of the fourth quarter market. Carpeting took almost 63 percent of olefin filament domestic
shipments and 30 percent of olefin staple fiber domestic shipments.

Woven textile production remained the second largest market for manmade fibers, taking more than 24 percent of the fourth quarter domestic shipments. The woven market used 514 million pounds in the fourth quarter, slightly more than 1 percent below the third, and 4 percent above a year earlier. Two fibers made up almost 83 percent of this market: polyester, 60 percent; and olefin, 23 percent.

The knit market took 298 million pounds in the fourth quarter, 3 percent below the third quarter and 5 percent below a year earlier. Domestic shipments of manmade fibers to knit markets were 14 percent of total domestic shipments. Three fibers dominate the knit market: polyester, at 184 million pounds, constituted 62 percent; nylon, at 58 million pounds, was 19 percent; and acrylics, at 52 million, was 17 percent.

## Figure 15

Benzene Prices Move Higher



Source: Chemical Marketing Reporter.

The price of benzene (a precursor to many chemicals), increased from $\$ 0.85$ in December and January to $\$ 1.12$ $\$ 1.13$ per gallon in April due to strong U.S. and overseas demand (figure 15). In May, the price eased to $\$ 1.05$ \$1.06. The price of cyclohexane, a basic chemical used in nylon production rose to $\$ 1.25$ - $\$ 1.30$ per gallon in May from $\$ 1.04-\$ 1.09$ per gallon last winter. The price of paraxylene, a precursor to polyester fibers, has remained steady all this year. The list price of caprolactam, a precursor to
nylon fibers, at $\$ 0.96$ per pound, has been unchanged since March, although some discounting has been reported (table O).

The price of propylene, a precursor for acrylonitrile (a raw material for acrylic fibers) and olefin fibers, remained at $\$ 13.25$ per pound. Acrylonitrile prices were unchanged in the $\$ 0.30-\$ 0.35$ per pound range. The price of ethylene glycol (a raw material used to make polyester fibers) has remained listed at $\$ 0.24$ per pound, although most producers discount the price 15 percent.

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Upland:

| Alabama | 385 | 380 | 410 | 415 | 443 | 378 | 378 | 405 | 408 | 430 | 587 | 476 | 655 | 731 | 524 | 462 | 375 | 553 | 621 | 469 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Arizona | 325 | 350 | 360 | 325 | 316 | 324 | 348 | 359 | 323 | 315 | 1.170 | 1.119 | 1.201 | 1.077 | 1.204 | 790 | 811 | 898 | 725 | 790 |
| Arkansas | 815 | 770 | 1.000 | 1.000 | 990 | 796 | 750 | 980 | 980 | 970 | 752 | 692 | 772 | 823 | 541 | 1.247 | 1.081 | 1.576 | 1.681 | 1.094 |
| California | 1.096 | 1.100 | 980 | 1.000 | 1.050 | 1.087 | 1.090 | 977 | 995 | 1.045 | 1.200 | 1.204 | 1.252 | 1.359 | 1.340 | 2.717 | 2.734 | 2.548 | 2.817 | 2.918 |
| Florida | 39 | 37 | 50 | 50 | 54 | 38 | 36 | 49 | 50 | 54 | 649 | 640 | 719 | 701 | 696 | 51 | 48 | 73 | 72 | 78 |
| Georgia | 372 | 355 | 430 | 460 | 615 | 362 | 350 | 427 | 456 | 600 | 685 | 555 | 812 | 783 | 586 | 517 | 405 | 722 | 744 | 733 |
| Kansas | 2 | 2 | 2 | 3 | 2 | 1 | 1 | 2 | 1 | 1 | 292 | 280 | 347 | 120 | 206 | 1 | 1 | 1 | 0 | 1 |
| Louisiana | 791 | 810 | 875 | 890 | 890 | 749 | 790 | 820 | 870 | 875 | 731 | 715 | 828 | 717 | 606 | 1.141 | 1.177 | 1.414 | 1.299 | 1.105 |
| Mississippi | 1.221 | 1.230 | 1.245 | 1.350 | 1.330 | 1.201 | 1.220 | 1.230 | 1.345 | 1.300 | 770 | 728 | 888 | 761 | 572 | 1.927 | 1.850 | 2.275 | 2.131 | 1.550 |
| Missouri | 274 | 248 | 332 | 335 | 345 | 267 | 235 | 327 | 328 | 335 | 668 | 641 | 630 | 792 | 539 | 372 | 314 | 429 | 541 | 376 |
| New Mexico | 66 | 69 | 69 | 55 | 54 | 58 | 62 | 65 | 37 | 49 | 641 | 735 | 465 | 616 | 769 | 78 | 95 | 63 | 48 | 78 |
| North Carolina | 256 | 201 | 460 | 380 | 390 | 254 | 200 | 457 | 377 | 385 | 622 | 631 | 672 | 596 | 535 | 329 | 263 | 640 | 468 | 429 |
| Okla homa | 404 | 380 | 440 | 370 | 370 | 372 | 370 | 380 | 335 | 350 | 338 | 496 | 303 | 301 | 370 | 262 | 382 | 240 | 210 | 270 |
| South Carolina | 166 | 155 | 211 | 197 | 202 | 163 | 154 | 210 | 192 | 198 | 594 | 452 | 786 | 565 | 495 | 202 | 145 | 344 | 226 | 204 |
| Tennessee | 554 | 525 | 620 | 625 | 625 | 546 | 515 | 610 | 615 | 615 | 543 | 461 | 552 | 651 | 425 | 618 | 495 | 701 | 834 | 545 |
| Texas | 5.510 | 5.500 | 6.300 | 5.500 | 5.550 | 4.600 | 5.000 | 5.400 | 3.550 | 5.050 | 439 | 477 | 419 | 441 | 484 | 4.205 | 4.965 | 4.710 | 3.265 | 5.095 |
| Virginia | 10 | 5 | 18 | 22 | 23 | 10 | 5 | 18 | 22 | 23 | 660 | 562 | 765 | 621 | 634 | 14 | 6 | 28 | 28 | 30 |
| Total Upland | 12.286 | 12.117 | 13.802 | 12.977 | 13.248 | 11.206 | 11.505 | 12.716 | 10.883 | 12.594 | 640 | 632 | 650 | 693 | 601 | 14.931 | 15.147 | 17.216 | 15.710 | 15.764 |

Appendfx table 2--U.S. cotton supply and use. by type, 1987/88-1993/94


1/ Complled from Bureau of the Census data and adjusted to an August 1, 480-1b. net-weight basis. Excludes preseason ginnings. 2/ Includes preseason ginnings. 3/ Adjusted to August 1-July 31 marketing year. 4/ Difference between ending stocks based on Census data and preceding season's supply less disappearance. 5/ Marketing-year average price. 6/ Average to April 1. 1994, with no allowance for unredeemed loans. 7/ Estimated.

Appendix table 3--U.S. cotton supply and disappearance of all kinds, by month. 1992/93-1993/94 1/


1/ Complled from Bureau of the Census data and adjusted to 480-1b. net-weight basis. 2/ August stocks adjusted to an August 1 basis. excluding preseas on ginnings. $3 /$ Adjusted to $480-1 b$. 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 stocks. 5/ August data include preseason ginnnings. 6/ Adjusted to a calendar month. $7 /$ Supply less disappearance. End-of-seas on stocks adjusted by Bureau of the Census data. Differences primarily reflect varying bale welghts. Monthly data are rounded. $8 /$ Preliminary and estimated.

|  | $1991 / 92$ <br> Staple length |  |  |  | 1992/93Staple length |  |  |  | 1993/94 Aug-Mar Staple length |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Country | 1-inch and under | $\begin{aligned} & 1-\text { inch } \\ & \text { to } \\ & 1-1 / 8 \text { inch } \end{aligned}$ | $\begin{aligned} & 1-1 / 8 \text { inch } \\ & \text { and } \\ & \text { over } \end{aligned}$ | Total | $\begin{gathered} \text { 1-inch } \\ \text { and } \\ \text { under } \end{gathered}$ | $\begin{aligned} & 1-\text { inch } \\ & \text { to } \\ & 1-1 / 8 \text { inch } \end{aligned}$ | $\begin{aligned} & 1-1 / 8 \text { inch } \\ & \text { and } \\ & \text { over } \end{aligned}$ | Total | $\begin{gathered} 1 \text {-inch } \\ \text { and } \\ \text { under } \end{gathered}$ | $\begin{aligned} & 1-\text { inch } \\ & \text { to } \\ & 1-1 / 8 \text { inch } \end{aligned}$ | 1-1/8 inch and over | Total |


| Asia \& Oceania: Bangladesh | 6.8 | 7.0 |  | 13.8 | 1.3 | 7.7 | 6.3 | 15.3 | 0.5 | 4.2 |  | 4.7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| China | 77.0 | 608.7 | 106.1 | 791.8 | 0.7 | 0.5 | , | 1.2 | 0.5 | 33.5 | 14.0 | 47.5 |
| Hong Kong | 18.2 | 314.9 | 2.3 | 335.4 | 3.7 | 92.8 | 2.7 | 99.2 | 3.3 | 124.8 |  | 128.1 |
| Indonesia | 192.0 | 497.3 | 36.4 | 725.7 | 87.0 | 231.9 | 94.1 | 413.0 | 142.2 | 176.3 | 106.2 | 424.7 |
| Japan | 311.3 | 678.1 | 75.7 | 1065.1 | 138.2 | 332.5 | 307.0 | 777.7 | 123.4 | 154.4 | 158.5 | 436.3 |
| Korea | 246.4 | 633.0 | 26.3 | 905.7 | 209.6 | 457.2 | 339.5 | 1.006 .3 | 93.9 | 243.4 | 291.8 | 629.1 |
| Philippines | 20.7 | 155.1 | 5.2 | 181.0 | 3.9 | 92.6 | 20.9 | 117.4 | 4.0 | 85.0 | 25.6 | 114.6 |
| Taiwan | 182.1 | 191.9 | 3.2 | 377.2 | 162.4 | 92.8 | 21.1 | 276.3 | 100.0 | 81.8 | 37.2 | 219.0 |
| Thailand | 82.0 | 269.6 | 12.2 | 363.8 | 53.1 | 71.2 | 21.8 | 146.1 | 51.1 | 74.6 | 47.9 | 173.6 |
| European Community: Belgium | 0.1 | 6.6 | 1.6 | 8.3 | 0.6 | 2.7 | 6.0 | 9.3 | 0.8 | 6.3 | 13.7 | 20.8 |
| France | 0.9 | 3.4 | 1.2 | 5.5 | 1.6 | 1.0 | 0.3 | 2.9 | 1.8 | 0.7 | 0.3 | 2.8 |
| Germany | 3.4 | 42.7 | 32.4 | 78.5 | 3.8 | 14.9 | 12.9 | 31.6 | 8.6 | 4.3 | 7.8 | 20.7 |
| Ireland | 1.8 | 14.2 | 0.4 | 16.4 | 0.5 | 6.0 |  | 6.5 |  | 4.2 | 0.6 | 4.8 |
| Italy | 26.4 | 162.7 | 24.9 | 214.0 | 30.0 | 57.6 | 16.1 | 103.7 | 13.6 | 24.2 | 23.1 | 60.9 |
| Portugal | 2.5 | 36.3 | -- | 38.8 | 0.8 | 19.4 | -- | 20.2 | -- | 1.6 | 0.7 | 2.3 |
| Spain | 3.0 | 38.9 | 9.5 | 51.4 | 9.5 | 6.8 | 8.6 | 24.9 | 2.2 | 3.2 | 8.5 | 13.9 |
| United Kingdom | 1.1 | 52.4 | 3.8 | 57.3 | 0.1 | 60.8 | 3.3 | 64.2 | 0.1 | 40.1 | 1.9 | 42.1 |
| Other Europe: <br> Sweden | 1.7 | 15.9 | 0.4 | 18.0 | 1.1 | 19.0 | 1.0 | 21.1 | 1.6 | 8.2 | 0.2 | 10.0 |
| Switzerland | 22.5 | 5.1 | 0.3 | 27.9 | 17.1 | 7.2 |  | 24.3 | 6.9 | 3.0 | 0.2 | 9.9 |
| Turkey | 15.9 | 46.1 | 9.4 | 71.4 | 39.5 | 68.8 | 4.6 | 112.9 | -. | 34.2 | 0.4 | 34.6 |
| Yugosiavia | 0.9 | 0.2 | 0.2 | 1.3 | .- | -- |  |  | -- |  |  |  |
| Western Hemisphere: Canada | 5.7 | 131.5 | 43.4 | 180.6 | 2.7 | 105.6 | 45.5 | 153.8 | 5.5 | 74.1 | 25.7 | 105.3 |
| Mexico | 2.3 | 202.3 | 6.7 | 211.3 | 56.1 | 409.8 | 87.0 | 552.9 | 40.9 | 328.2 | 148.1 | 517.2 |
| Africa: Egypt | 296.0 |  | 42.8 | 338.8 | 156.0 | 14.2 |  | 170.2 |  |  |  |  |
| Ghana |  | 4.7 |  | 4.7 |  | 0.8 | -- | 0.8 | -- | -- |  |  |
| Morocco | 0.3 | 14.6 | 2.7 | 17.6 | -- | 6.9 | 0.5 | 7.4 | -- | 0.7 | -- | 0.7 |
| Algeria |  | 35.8 | .- | 35.8 | -- | 15.8 | 0.1 | 15.9 | -- | 21.3 | -- | 21.3 |
| Other | 44.6 | 144.0 | 23.3 | 211.9 | 96.2 | 567.8 | 29.9 | 693.9 | 28.1 | 547.7 | 22.2 | 598.0 |
| Total | 1.565 .6 | 4.313 .0 | 470.4 | 6.349 .0 | 1.075 .5 | 2.764 .3 | 1.029 .2 | 4.869 .0 | 628.5 | 2.080 .0 | 934.4 | 3,643.1 |

[^2]|  | Marketing year |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Country | 1988/89 | 1989/90 | 1990/91 | 1991/92 | 1992/93 | Aug-Mar 1993/94 |
|  |  | - - | 000480 | . bales |  |  |
| European Union: | 103.2 | 183.2 | 139.7 | 74.0 | 58.5 | 29.0 |
| Belgi um | 4.0 | 11.3 | 4.7 | 5.0 | 2.8 | 1.2 |
| France | 1.2 | 0.9 |  | 0.4 | 0.5 | 0.6 |
| Germany | 53.1 | 83.4 | 41.8 | 32.4 | 19.8 | 18.3 |
| Greece | 0.2 | 1.2 | 6.0 | -- | -- | -7 |
| Ireland | 0.1 | 0.4 | 0.2 | 0.2 | 1.1 | 0.7 |
| Italy | 35.7 | 69.5 | 77.6 | 31.6 | 29.7 | 5.9 |
| Portugal | 4.4 | 9.7 | 4.4 | 2. 5 | 4.1 | 0.9 |
| Spain | 4.1 | 4.6 | 2.4 | 1.8 | 0.4 | 0.5 |
| Other Europe: | 35.2 | 89.0 | 56.1 | 26.7 | 46.7 | 18.8 |
| Austria | 1.6 | 4.7 | 1.3 | 0.7 | 1.8 | 0.1 |
| Czechos lovakia | 1.9 | 21.6 | 3.8 | -- | 0.5 |  |
| Romania |  | 19.3 | 10.4 | 0.1 | 12.6 | 1.4 |
| Switzerland | 20.2 | 32.7 | 32.0 | 21.2 | 24.4 | 13.2 |
| Turkey | 0.7 | 1.4 | 2.8 | 3.5 | 5.9 | 3.0 |
| Yugoslavia | 11.0 | 9.5 | 5.8 | 0.6 |  |  |
| Asia and Oceania: | 120.1 | 169.2 | 209.1 | 189.9 | 211.7 | 141.3 |
| Bangladesh | 3.2 | 7.1 | 13.4 | 14.1 | 24.4 | 14.7 |
| China | 2.2 | 0.1 | . |  | - | - |
| Indonesia | 3.0 | 5.8 | 15.6 | 13.2 | 22.5 | 18.0 |
| Japan | 81.2 | 96.4 | 118.5 | 118.5 | 81.3 | 66.7 |
| Korea | 22.3 | 40.5 | 44.3 | 30.5 | 49.6 | 23.0 |
| Pakistan | 1.7 | 5.4 | 1.3 | 1.8 | 6.6 | 1.3 |
| Taiwan | 0.1 | 5.6 | 8.4 | 5.5 | 7.9 | 10.5 |
| Tha 11 and | 0.9 | 4.7 | 7.4 | 2.8 | 9.5 | 5.0 |
| Africa: | 5.0 | 4.8 | 6.7 | 2.6 | 4.9 | 4.9 |
| Algeria | 5.0 | -- | 6.0 | 2.3 | 3.8 | 4.4 |
| South Africa | - - | 0.4 | 0.4 | 2.3 | 3.8 | 0.5 |
| Morocco | -- | 4.4 | 0.2 | 0.3 | $\cdots$ | -- |
| Western Hemisphere: | 0.9 | 5.7 | 4.0 | 4.5 | 10.0 | 13.7 |
| Argentina |  | 0.7 |  | 0.8 | 1.2 | 0.2 |
| Brazil | - | 3.8 | 4.0 | 2.5 | 6.4 | 4.6 |
| Chile | 0.8 | 0.7 | -- |  | - | 0.5 |
| Mexico | -- | 0.1 | -- | 0.9 | 0.9 | 0.1 |
| Peru | -- | -- | -- | 0.2 | 1.5 | 7.2 |
| Total | 265 | 452 | 415 | 298 | 332 | 207.7 |

.- - No exports.
Source: Computed from U.S. Export Sales. FAS. USDA.

Appendix table 6--U.S. raw cotton imports by country of origin
Marketing year

| Country | 1981/82 | 1982/83 | 1983/84 | 1984/85 | 1985/86 | 1986/87 | $1987 / 88$ | 1988/89 | 1989/90 | 1990/91 | 1991/92 | 1992/93 | Aug-Mar 1993/94 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | -----480 | 1b. bal |  |  |  |  |  |  |
| Barbados | -- | -- | -- | -- | 4 | 19 | -- | -- | -- | - | -- | -- | -- |
| Brazil | .- | - | .- | -- | 4 | 1 | -- | -. | -- | -- | 88 | -- |  |
| Canada | -- | 6 | -- | -- | - | 4 | -. |  | 174 | -- | 8 |  |  |
| China | 3.-9 | - | $\cdots$ | 162 | 49 | 17 | -- | 9 | 603 | - | .- | - | -- |
| Egypt | 3.016 | 4.928 | 2.978 | 3.286 | -- | 219 | -- | -- | 58 | 56 | -- | 3 | -- |
| Germany | 370 | -- | - | -- | -- | - | - ${ }^{-7}$ | $\cdots$ | -- | -7 | -- | -- | --7 |
| India | 17 -- | 11.787 | 89 | + 37 | 32. | +446 | +116 | 158 | 115 | 107 | 395 | 801 | 1.122 |
| Mexico | 17.214 | 11.777 | 5.818 | 19.520 | 32.438 | 1.726 | 1.372 | $8{ }^{-}$ | 70 | 2.063 | 9.504 | $16 \frac{1}{7}$ |  |
| Pakistan | 17.214 | - 1155 | 769 | 702 | . 402 | 189 | 81 | 825 | 706 | 232 | 225 | 167 |  |
| Peru | 2.983 | 773 | 1 | , | , | - | -1 | 825 | 706 | -- | 2.225 | -- | 267 |
| Former USSR | 2.008 | -- | -- | -- | -- | -- | -- | 4.287 | -- | 1.056 | + 503 | -- | 1.035 |
| Singapore | . 153 | 2-9 | . 36 | 2 | -- | -- | -- | . 28 | -- | 1.05 |  | -- | . |
| Sudan | 430 | 2.359 | 2.365 | 2 | -- | -- | -- | -- | 93 | -- | -- | -- | 14 |
| Venezuela | -- | -- | -- | -- | -- | -- | -- | -- | 93 | - | -- | -- | 14 |
| Other 1/ | 1 | 3 | -- | -- | 1 | -- | -- | 3 | -- | $\cdots$ | 4 | 56 | 256 |
| World total | 26.175 | 20.019 | 12.019 | 23.709 | 32.894 | 2.620 | 1.569 | 5.282 | 1.749 | 3.514 | 12.944 | 1,028 | 2.694 |

- No imports.

1/ Argentina. France. Italy. United Kingdom. Switzerland. Taiwan. Israel. and Japan.
Source: Bureau of the Census.


Appendix table 8--C.i.f. Northern Europe price quotations for principal growths of A-type cotton, weekly. 1993/94
Month California/ Memphis Central
\& week Arizona territory Asian China Africa America Australia Turkey Paraguay Mexico Pakistan India Tanzania Greece Index $1 /$ \& week Arizona territory Asian China Africa America Australia Turke

| Aug | 5 | 58.50 | 58.50 | 52.50 | NO | 55.00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 12 | 56.75 | 56.75 | 52.00 | NO | 55.00 |
|  | 19 | 56.50 | 56.25 | 52.00 | NO | 55.00 |
|  | 26 | 58.00 | 57.75 | 53.00 | NO | 55.75 |
| Sep | 2 | 55.50 | 55.25 | 51.75 | NO | 54.75 |
|  | 9 | 57.00 | 56.75 | 52.25 | NQ | 55.50 |
|  | 16 | 58.25 | 58.00 | 53.00 | NO | 56.00 |
|  | 23 | 57.75 | 57.75 | 53.00 | NO | 55.50 |
|  | 30 | 57.00 | 57.00 | 53.00 | NO | 55.75 |
| Oct | 7 | 57.50 | 57.50 | 52.50 | NQ | 55.50 |
|  | 14 | 57.50 | 57.50 | 52.25 | NO | 55.00 |
|  | 21 | 56.25 | 56.25 | 52.25 | NO | 54.50 |
|  | 28 | 56.50 | 56.50 | 52.25 | NO | 54.50 |
| Nov | 4 | 56.25 | 56.25 | 52.25 | NO | 54.50 |
|  | 11 | 57.50 | 58.00 | 53.25 | NO | 54.00 |
|  | 18 | 58.00 | 59.00 | 53.50 | NO | 54.00 |
|  | 25 | 60.00 | 61.00 | 54.50 | NQ | 55.25 |
| Dec | 2 | 60.00 | 61.00 | 55.00 | NO | 55.25 |
|  | 9 | 62.50 | 63.50 | 66.50 | 65.75 | 58.50 |
|  | 16 | 63.25 | 64.75 | 58.00 | 66.50 | 59.25 |
|  | 23 | 64.00 | 65.50 | 58.50 | 68.00 | 59.75 |
|  | 30 | 66.50 | 68.00 | 59.50 | 68.00 | 60.75 |
| Jan | 6 | 68.00 | 69.50 | 61.50 | 69.50 | 64.25 |
|  | 13 | 71.25 | 71.75 | 63.00 | 72.25 | 67.00 |
|  | 20 | 74.50 | 74.75 | 66.50 | 75.50 | 70.00 |
|  | 27 | 76.50 | 76.75 | 70.50 | 77.50 | 74.00 |
| Feb | 3 | 79.75 | 80.00 | 75.50 | 80.50 | 78.50 |
|  | 10 | 82.25 | 82.50 | 77.00 | 83.25 | 79.25 |
|  | 17 | 82.00 | 82.25 | 77.50 | 83.50 | 80.25 |
|  | 24 | 95.00 | 86.25 | 78.00 | NO | 81.25 |
| Mar | 3 | 83.25 | 83.50 | 77.50 | NO | 81.25 |
|  | 10 | 83.75 | 84.00 | 77.25 | NO | 82.00 |
|  | 17 | 83.00 | 83.25 | 76.75 | NO | 82.25 |
|  | 24 | 83.75 | 83.75 | 77.00 | NO | 83.75 |
|  | 31 | 84.25 | 84.25 | 77.00 | NO | 84.00 |
| Apr | 7 | 83.75 | 83.75 | 76.00 | NO | 83.50 |
|  | 14 | 87.25 | 87.25 | 76.50 | NO | 85.00 |
|  | 21 | 88.25 | 88.25 | 77.50 | NO | 85.00 |
|  | 28 | 87.50 | 88.00 | 78.50 | NO | 83.50 |
| May | 5 | 90.75 | 91.25 | 80.00 | NO | 84.50 |
|  | 12 | 88.25 | 89.25 | 81.00 | NO | 85.50 |
|  | 19 | 88.75 | 89.75 | 81.00 | NO | 85.50 |
|  | 26 | 91.25 | 92.25 | 81.50 | NO | 89.00 |

NO - No quotes

Source: Cotton Outlook. Cotlook Limited

| Appendt $x$ |  | 9--C.i.f. Northern |  |  | rope price <br> . weekly | $\begin{aligned} & \text { quotat } \\ & 1993 / 9 \end{aligned}$ | for | growths o |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Month \& week |  | Orleans/ Texas | Pakistan | China | Central Asia | Turkey | Southern Brazil | Argentina | India | $\begin{gathered} \text { B- } \\ \text { Index } 1 / \end{gathered}$ |
| Cents/1b. |  |  |  |  |  |  |  |  |  |  |
| Aug | 5 | 52.25 | 52.50 | NO | 50.25 | NO | NO | NO | NO | 51.65 |
| Aug | 12 | 50.25 | 52.25 | NO | 49.75 | NO | NO | NO | NO | 50.75 |
|  | 19 | 50.25 | 52.00 | NO | 49.75 | NO | NO | NO | NO | 50.65 |
|  | 26 | 51.00 | 53.25 | NO | 50.75 | NQ | NO | NO | NO | 51.65 |
| Sep | 2 | 49.00 | 51.75 | NO | 49.50 | NQ | NO | NO | NO | 50.10 |
|  | 9 | 50.00 | 52.25 | NO | 50.00 | 51.25 | NO | NO | NO | 50.40 |
|  | 16 | 51.50 | 52.75 | NO | 50.75 | 51.25 | NO | NO | NO | 51.15 |
|  | 23 | 51.50 | 52.25 | MO | 50.75 | 51.00 | NO | NO | NO | 51.10 |
|  | 30 | 51.50 | 52.50 | NO | 50.75 | 51.50 | NO | NO | NO | 51.25 |
| Oct | 7 | 51.50 | 52.50 | NO | 50.25 | 52.50 | NO | NO | 52.75 | 51.40 |
|  | 14 | 51.50 | 51.75 | NO | 50.00 | 51.75 | NO | NO | 52.00 | 51.10 |
|  | 21 | 50.25 | 51.00 | NO | 50.00 | 51.50 | NO | NO | 51.50 | 50.40 |
|  | 28 | 50.50 | 51.25 | NO | 50.00 | 51.50 | NO | NO | 51.50 | 50.60 |
| Nov | 4 | 50.25 | 51.50 | NO | 50.00 | 51.50 | NO | NO | 51.50 | 50.60 |
|  | 11 | 52.50 | 52.25 | NO | 51.00 | 51.50 | NO | NO | 52.25 | 51.60 |
|  | 18 | 53.25 | 53.00 | NO | 51.25 | 52.25 | NO | NO | 53.00 | 52.15 |
|  | 25 | 55.25 | 55.00 | NO | 52.50 | 53.25 | NO | NO | 55.00 | 53.60 |
| Dec | 2 | 55.25 | 57.00 | NO | 53.50 | 55.25 | NO | NQ | 56.25 | 54.65 |
|  | 9 | 56.75 | 59.00 | NO | 55.00 | 56.50 | NO | NQ | 58.00 | 56.10 |
|  | 16 | 57.75 | 60.50 | NO | 56.50 | 58.50 | NO | NO | 59.50 | 57.60 |
|  | 23 | 58.50 | 61.50 | NO | 57.00 | 59.75 | NO | NO | 60.50 | 58.40 |
|  | 30 | 60.25 | 62.00 | NO | 58.00 | 60.50 | NO | NO | 61.00 | 59.60 |
| Jan | 6 | 61.25 | 64.00 | NO | 60.00 | 65.50 | NO | NO | 63.00 | 61.40 |
|  | 13 | 64.50 | NO | NO | 61.50 | 67.00 | NO | NO | 64.50 | 63.50 |
|  | 20 | 68.00 | HO | NO | 65.50 | 71.50 | NO | NO | NO | 68.35 |
|  | 27 | 71.75 | NO | NO | 69.50 | NO | NO | NO | NO | NO |
| Feb | 3 | 75.75 | NO | NO | 74.50 | NO | NO | NO | NO | NO |
|  | 10 | 77.50 | NO | NO | 76.00 | NO | NO | 78.25 | NO | 77.25 |
|  | 17 | 79.75 | HO | NO | 76.50 | NO | NO | 78.50 | NO | 78.25 |
|  | 24 | 82.25 | NO | NO | 77.00 | NO | NO | 80.00 | NO | 79.75 |
| Mar | 3 | 80.50 | NO | NO | 76.50 | NO | NO | 79.00 | NO | 78.65 |
|  | 10 | 81.50 | NO | NO | 76.25 | NO | NO | 80.00 | NO | 79.25 |
|  | 17 | 80.75 | NO | NO | 75.75 | NO | NO | 78.75 | NO | 78.40 |
|  | 24 | 81.25 | NO | NO | 76.00 | NO | NO | 80.25 | NO | 79.15 |
|  | 31 | 81.75 | NO | NO | 76.00 | NO | NO | 81.00 | NO | 79.60 |
| Apr | 7 | 81.25 | NO | NO | 75.00 | NO | NO | 80.00 | NO | 78.75 |
|  | 14 | 85.00 | NO | NO | 75.50 | NO | NO | 83.25 | NO | 81.25 |
|  | 21 | 86.00 | NO | NO | 76.50 | NO | NO | 83.25 | NO | 81.90 |
|  | 28 | 85.25 | NO | NO | 77.50 | NO | NO | 83.50 | NO | 82.10 |
| May | 5 | 88.75 | NO | NO | 79.00 | NO | NO | 84.00 | NO | 83.90 |
|  | 12 | 86.25 | NO | NO | 80.00 | NO | NO | 83.25 | NO | 83.15 |
|  | 19 | 86.50 | NO | NO | 80.00 | NO | NO | 83.25 | NO | 83.25 |
|  | 26 | 89.00 | NO | NO | 80.50 | NO | NO | 84.25 | NO | 84.60 |

NO - No quotes.
$1 /$ The B -Index is based on coarse grades of cotton varying in staple length from 1 inch to $1-3 / 32$ inch. It is an average of the three cheapest types of eight styles. so marked.

Source: Cotton Outlook. Cotlook Limited.

Appendix table 10--Strict low middling spot prices in designated U.S. markets. laan rates. and prices received by farmers for upland cotton. 1990/91-1993/94


1/ 1991/92 spot-market loan rates and prices are for cotton with micronaire readings of 3.5-3.6 and 4.3-4.9 and strength of 24-25 gpt. 2/ Prices do not include an allowance for loans outstanding and Government purchases. 3/ Weighted market average. U.S. prices based on U.S. monthly prices wefghted by monthly marketings from August through the following july. $4 / \mathrm{SLM} 1-1 / 16$ inch average location.

Sources: Agricultural Stabilization and Conservation Service. Agricultural Marketing Service, and National Agricultural Statistics Service, USDA.

| Appendix table 11--CCC base loan rates for upland cotton at specific locations, base quality. net weight. by season. 1986-94 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Grade 41 staple 34 |  |  |  |  |  |  |  |  |
| Market Location |  |  |  |  |  |  |  |  |  |
|  | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
| Cents per pound |  |  |  |  |  |  |  |  |  |
| Greenville | 57.55 | 54.70 | 54.25 | 52.40 | 52.55 | 53.05 | 54.60 | 54.60 | 52.20 |
| Augus ta | 56.90 | 54.00 | 53.55 | 51.70 | 51.95 | 52.45 | 54.00 | 54.00 | 51.60 |
| Montgomery | 56.30 | 53.45 | 52.95 | 51.10 | 51.35 | 51.85 | 53.40 | 53.40 | 51.00 |
| Memphis | 56.10 | 53.25 | 52.75 | 50.90 | 51.15 | 51.65 | 53.20 | 53.20 | 50.80 |
| Greenwood | 55.95 | 53.05 | 52.60 | 50.75 | 51.00 | 51.50 | 53.05 | 53.05 | 50.65 |
| Pine B1uff | 55.95 | 53.05 | 52.60 | 50.75 | 51.00 | 51.50 | 53.05 | 53.05 | 50.65 |
| Rayville | 55.95 | 53.05 | 51.95 | 50.75 | 51.00 | 51.50 | 53.05 | 53.05 | 50.65 |
| Altus | 55.25 | 52.40 | 51.95 | 50.10 | 50.35 | 50.85 | 52.40 | 52.40 | 50.00 |
| Waco | 55.25 | 52.40 | 51.85 | 50.10 | 50.35 | 50.85 | 52.40 | 52.40 | 50.00 |
| Harlingen | 55.20 | 52.30 | 51.85 | 50.05 | 50.25 | 50.75 | 52.30 | 52.30 | 49.90 |
| Lubbock | 55.20 | 52.30 | 51.80 | 50.05 | 50.25 | 50.75 | 52.30 | 52.30 | 49.90 |
| El Paso | 55.15 | 52.25 | 50.70 | 50.00 | 50.20 | 50.70 | 52.25 | 52.25 | 49.85 |
| Phoenix | 53.95 | 51.20 | 50.70 | 48.90 | 49.15 | 49.65 | 51.15 | 51.15 | 48.75 |
| Fresno | 53.95 | 51.20 | 50.70 | 48.90 | 49.15 | 49.65 | 51.15 | 51.15 | 48.75 |
| Average location | 55.00 | 52.25 | 51.80 | 50.00 | 50.27 | 50.77 | 52.35 | 52.35 | $50.00$ |
| Target price | 81.00 | 79.40 | 75.90 | 73.40 | 72.90 | 72.90 | 72.90 | 72.90 | $72.90$ |

Source: Agricultural Stabilization and Conservation Service. USDA.

Appendix table 12--CCC loan premfums and discounts for grade and staple length of 1994-crop American upland cotton. basis grade 41. leaf 4. staple 34. (SLLM 1-1/16 inch), net weight

| Grade | Staple length (inches) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Color 1/ | Leaf content $2 /$ | $\begin{gathered} 13 / 16(26) \\ \text { through } \\ 29 / 32(29) \end{gathered}$ | $15 / 16$ $(30)$ | $31 / 32$ $(31)$ | (32) | $1-1 / 32$ $(33)$ | $\underset{(34)}{1-1 / 16}$ | $1-3 / 32$ $(35)$ | $1-1 / 8$ $(36)$ | $\begin{aligned} & 1-5 / 32 \\ & (37) \& \\ & 1 \text { onger } \end{aligned}$ |
| - |  |  |  |  |  |  |  |  |  |  |
| White: |  |  |  |  |  |  |  |  |  |  |
| SM \& better | Leaf 1-2 | -690 | -490 | -310 | -230 | -80 | 105 | 170 | 175 | 180 |
| (11 \& 21) | Leaf 3 | -695 | -495 | -315 | -235 | -85 | 95 | 160 | 165 | 175 |
|  | Leaf 4 | -720 | -525 | -345 | -265 | -115 | 60 | 125 | 130 | 135 |
|  | Leaf 5 | -800 | -595 | -410 | -370 | -220 | -85 | -15 | -15 | -15 |
|  | Leaf 6 | -970 -1250 | -790 | -665 | -665 | -515 | -495 | -455 | -455 | -450 |
|  | Leaf 7 | -1250 | -1210 | -1210 | -1210 | -1060 | -1060 | -1060 | -1060 | -1060 |
| MID (31) | Leaf 1-2 | -700 | -490 | -310 | -230 | -80 | 100 | 160 | 165 | 170 |
|  | Leaf 3 | -705 | -495 | -315 | -235 | -85 | 95 | 160 | 165 | 170 |
|  | Leaf 4 | -730 | -525 | -345 | -270 | -120 | 40 | 105 | 110 | 115 |
|  | Leaf 5 | -800 | -595 | -410 | -370 | -220 | -85 | -25 | -20 | -15 |
|  | Leaf 6 | -970 -1250 | -790 | -665 | -665 | - 515 | -495 | -455 | -455 | -455 |
|  | Leaf 7 | -1250 | - 1210 | -1210 | -1210 | -1060 | -1060 | -1060 | -1060 | -1060 |
| SLM (41) | Leaf 1-2 | -710 | -515 | -320 | -270 | -120 | 0 | 60 | 70 | 75 |
|  | Leaf 3 | -720 | -525 | -330 | -280 | - 130 | 0 | 60 | 70 | 75 |
|  | Leaf 4 | -740 | -550 | -355 | -300 | -150 | Base | 60 | 70 | 75 |
|  | Leaf 5 | -890 | -700 | -515 | -495 | - 345 | -270 | -230 | -230 | -225 |
|  | Leaf 6 | -970 | -790 | -665 | -665 | - 515 | -500 | -465 | -460 | -455 |
|  | Leaf 7 | -1255 | -1220 | -1220 | -1220 | -1070 | - 1070 | -1070 |  | -1070 |
| LM (51) | Leaf 1-2 | -890 | -705 | -550 | -550 | -400 | -345 | -310 | -305 | - 300 |
|  | Leaf 3 | -895 | -710 | -555 | -555 | -405 | -350 | -315 | -310 | -305 |
|  | Leaf 4 | -920 | -730 | -575 | -575 | -425 | -375 | -335 | -335 | -330 |
|  | Leaf 5 | -955 | -785 | -620 | -615 | -465 | -400 | -360 | -355 | - 355 |
|  | Leaf 6 | -1185 | -1120 | $-1110$ | -1110 | -960 | -960 | -960 | -960 | - 960 |
|  | Leaf 7 | -1260 | -1235 | -1235 | -1235 | -1085 | -1085 | -1085 | -1085 | -1085 |
| SGO (61) | Leaf 1-4 | -1265 | - 1215 | -1215 | - 1215 | -1065 | -1065 | - 1065 | - 1065 |  |
|  | Leaf 5-6 | -1280 | -1230 | -1230 | -1230 | -1080 | -1080 | -1080 | - 1080 | -1080 |
|  | Leaf 7 | -1560 | -1505 | -1480 | - 1480 | -1330 | -1330 | -1330 | -1330 | -1330 |
| G0 (71) | Leaf 1-7 | -1565 | -1515 | -1500 | -1500 | -1350 | -1350 | -1350 | -1350 | -1350 |
| Light spotted: |  |  |  |  |  |  |  |  |  |  |
| SM \& better | Leaf 1-2 | -730 | -530 | -375 | -280 | -130 | 25 | 70 | 75 | 85 |
| ( 12 \& 22) | Leaf 3 | -735 | -535 | -380 | -290 | -140 | -10 | 50 | 55 | 60 |
|  | Leaf 4 | -820 | -600 | -445 | -350 | -200 | -75 | -35 | -30 | 0 |
|  | Leaf 5 | -875 | -695 | - 560 | -530 | -380 | -290 | -255 | -255 | -255 |
|  | Leaf 6 | -1095 | -970 | -895 | -895 | -745 | -745 | -745 | -745 | -745 |
|  | Leaf 7 | -1375 | -1355 | -1355 | - 1350 | -1200 | -1200 | -1200 | -1200 | -1200 |
| MID (32) | Leaf 1-2 | -750 | -555 | -390 | -310 | - 160 | -10 | 50 | 55 |  |
|  | Leaf 3 | -755 | -560 | -395 | -315 | -165 | -10 | 50 | 55 | 55 |
|  | Leaf 4 | -835 | -655 | -500 | -470 | -320 | -275 | -235 | -230 | -225 |
|  | Leaf 5 | -890 | -730 | - 570 | -560 | -410 | -330 | - 290 | -280 | -275 |
|  | Leaf 6 | -1095 | -975 | -900 | -900 | . 750 | -750 | - 750 | -750 | - 750 |
|  | Leaf 7 | -1375 | -1355 | -1355 | -1350 | -1200 | -1200 | -1200 | -1200 | -1200 |
| SLM (42) | Leaf 1-2 | -830 | -640 | -475 |  |  |  | -55 | -50 | -45 |
|  | Leaf 3 | -845 | -665 | -510 | -485 | -335 | -290 | -260 | -255 | -255 |
|  | Leaf 4 | -865 | -680 | -530 | -505 | -355 | -315 | -280 | -275 | -270 |
|  | Leaf 5 | -1010 | -885 | -770 | -770 | -620 | -620 | -620 | -620 | -620 |
|  | Leaf 6 | -1095 | -980 | -905 | -905 | -755 | -755 | -755 | -755 | -755 |
|  | Leaf 7 | -1375 | -1355 | -1355 | - 1355 | -1205 | -1205 | -1205 | -1205 | -1205 |
| LM (52 | Leaf 1-2 | -900 | -755 | -595 | -595 | -445 | -430 | -395 | -390 | -390 |
|  | Leaf 3 | -905 | -760 | -600 | -600 | -450 | -440 | -400 | -395 | - 395 |
|  | Leaf 4 | -1070 | -945 | -880 | -880 | -730 | -730 | -730 | -730 | -730 |
|  | Leaf ${ }^{5}$ | -1075 | -960 | -885 | -885 | -735 | -735 | -735 | -735 | -735 |
|  | Leaf 6-7 | -1375 | -1370 | -1370 | -1370 | -1220 | -1220 | -1220 | -1220 | -1220 |
| SGO (62) | Leaf 1-4 | -1365 | -1330 | -1310 | -1310 | -1160 | -1160 |  | -1160 |  |
|  | Leaf 5-6 | -1400 | -1380 | -1380 | -1380 | -1230 | -1230 | -1230 | -1230 | -1230 |
|  | Leaf 7 | x | x | x | x | $\times$ | $\times$ | x | x | x |

See footnotes at end of table.
continued--


| Spotted: <br> SM \& better <br> (13 \& 23) | Leaf $1-2$ <br> Leaff 3 <br> Leaf 4 <br> Leaf 5 <br> Leaf 6 <br> Leaff 7 | $\begin{aligned} & -1000 \\ & -1050 \\ & -1060 \\ & -1200 \\ & -1460 \\ & -1660 \end{aligned}$ | $\begin{array}{r} -850 \\ -930 \\ -940 \\ -1185 \\ -1420 \\ -1625 \end{array}$ | $\begin{array}{r} -740 \\ -820 \\ -830 \\ -1150 \\ -1410 \\ -1595 \end{array}$ | $\begin{array}{r} -710 \\ -820 \\ -830 \\ -1135 \\ -1410 \\ -1595 \end{array}$ | $\begin{array}{r} -560 \\ -670 \\ -680 \\ -985 \\ -1260 \\ -1445 \end{array}$ | $\begin{array}{r} -560 \\ -670 \\ -680 \\ -985 \\ -1260 \\ -1445 \end{array}$ | $\begin{array}{r} -560 \\ -670 \\ -680 \\ -985 \\ -1260 \\ -1445 \end{array}$ | $\begin{array}{r} -560 \\ -670 \\ -680 \\ -985 \\ -1260 \\ -1445 \end{array}$ | $\begin{array}{r} -560 \\ -670 \\ -680 \\ -985 \\ -1260 \\ -1445 \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MID (33) | $\begin{array}{rrr}\text { Leaf } & 1-3 \\ \text { Leaff } & 4 \\ \text { Leaf } & 5 \\ \text { Leaf } & 6 \\ \text { Leaf } & 7\end{array}$ | $\begin{aligned} & -1050 \\ & -1195 \\ & -1200 \\ & -1460 \\ & -1660 \end{aligned}$ | $\begin{array}{r} -930 \\ -1175 \\ -1185 \\ -1420 \\ -1625 \end{array}$ | $\begin{array}{r} -820 \\ -1135 \\ -1150 \\ -1410 \\ -1595 \end{array}$ | $\begin{array}{r} -820 \\ -1130 \\ -1135 \\ -1410 \\ -1595 \end{array}$ | $\begin{array}{r} -670 \\ -980 \\ -985 \\ -1260 \\ -1445 \end{array}$ | $\begin{array}{r} -670 \\ -980 \\ -985 \\ -1260 \\ -1445 \end{array}$ | $\begin{array}{r} -670 \\ -980 \\ -985 \\ -1260 \\ -1445 \end{array}$ | $\begin{array}{r} -670 \\ -980 \\ -985 \\ -1260 \\ -1445 \end{array}$ | $\begin{array}{r} -670 \\ -980 \\ -985 \\ -1260 \\ -1445 \end{array}$ |
| SLM (43) | Leafr $\begin{array}{rr}\text { L-2 } \\ \text { Leaff } & 3 \\ \text { Leaff } & 4 \\ \text { Leaf } & 5 \\ \text { Leaf } & 6 \\ & 7\end{array}$ | $\begin{aligned} & -1060 \\ & -1195 \\ & -1200 \\ & -1460 \\ & -1465 \\ & -1670 \end{aligned}$ | $\begin{array}{r} -940 \\ -1190 \\ -1190 \\ -1455 \\ -1460 \\ -1630 \end{array}$ | $\begin{array}{r} -905 \\ -1190 \\ -1190 \\ -1455 \\ -1460 \\ -1620 \end{array}$ | $\begin{array}{r} -905 \\ -1190 \\ -1190 \\ -1455 \\ -1460 \\ -1620 \end{array}$ | $\begin{array}{r} -755 \\ -1040 \\ -1040 \\ -1305 \\ -1310 \\ -1470 \end{array}$ | $\begin{array}{r} -755 \\ -1040 \\ -1040 \\ -1305 \\ -1310 \\ -1470 \end{array}$ | $\begin{array}{r} -755 \\ -1040 \\ -1040 \\ -1305 \\ -1310 \\ -1470 \end{array}$ | $\begin{array}{r} -755 \\ -1040 \\ -1040 \\ -1305 \\ -1310 \\ -1470 \end{array}$ | $\begin{array}{r} -755 \\ -1040 \\ -1040 \\ -1305 \\ -1310 \\ -1470 \end{array}$ |
| LM (53) | $\begin{aligned} & \text { Leaf } 1-3 \\ & \text { Leaf } 4-5 \\ & \text { Leaf } \\ & \text { Leaf } \\ & \hline \end{aligned}$ | $\begin{aligned} & -1210 \\ & -1470 \\ & -1495 \\ & -1670 \end{aligned}$ | $\begin{aligned} & -1210 \\ & -1470 \\ & -1495 \\ & -1630 \end{aligned}$ | $\begin{aligned} & -1210 \\ & -1470 \\ & -1495 \\ & -1630 \end{aligned}$ | $\begin{aligned} & -1210 \\ & =1470 \\ & =1495 \\ & -1630 \end{aligned}$ | $\begin{aligned} & -1060 \\ & -1320 \\ & -1345 \\ & -1480 \end{aligned}$ | $\begin{aligned} & -1060 \\ & -1320 \\ & -1345 \\ & -1480 \end{aligned}$ | $\begin{aligned} & -1060 \\ & -1320 \\ & -1345 \\ & -1480 \end{aligned}$ | $\begin{aligned} & -1060 \\ & -1320 \\ & -1345 \\ & -1480 \end{aligned}$ | $\begin{aligned} & -1060 \\ & -1320 \\ & -1345 \\ & -1480 \end{aligned}$ |
| SGO (63) | $\begin{array}{lr}\text { Leaf } & 1-4 \\ \text { Leaf } & 5 \\ \text { Leaf } & 6 \\ \text { Leaf } & 7\end{array}$ | $\begin{array}{r} -1490 \\ -1630 \\ -1670 \\ -\quad x \end{array}$ | $\begin{array}{r} -1490 \\ -1630 \\ -1670 \\ \mathbf{x} \end{array}$ | $\begin{array}{r} -1490 \\ -1630 \\ -1670 \\ x \end{array}$ | $\begin{array}{r} -1490 \\ -1630 \\ -1670 \\ \mathrm{x} \end{array}$ | $\begin{array}{r} -1340 \\ -1480 \\ -1520 \\ x \end{array}$ | $\begin{array}{r} -1340 \\ -1480 \\ -1520 \\ x \end{array}$ | $\begin{array}{r} -1340 \\ -1480 \\ -1520 \\ \mathbf{x} \end{array}$ | $\begin{array}{r} -1340 \\ -1480 \\ -1520 \\ x \end{array}$ | $\begin{array}{r} -1340 \\ -1480 \\ -1520 \\ x \end{array}$ |
| Tinged 3/: <br> SM (24) | $\begin{array}{rrr}\text { Leaf } & 1-2 \\ \text { Leaf } & 3 \\ \text { Leaf } & 4-5 \\ \text { Leaf } & 6 \\ \text { Leaf } & 7\end{array}$ | $\begin{array}{r} -1630 \\ -1680 \\ -1730 \\ -1895 \\ x \end{array}$ | $\begin{array}{r} -1540 \\ -1540 \\ -1630 \\ -1805 \\ x \end{array}$ | $\begin{array}{r} -1485 \\ -1485 \\ -1605 \\ -1755 \\ x \end{array}$ | $\begin{array}{r} -1485 \\ -1485 \\ -1605 \\ -1755 \\ x \end{array}$ | $\begin{array}{r} -1335 \\ -1335 \\ -1455 \\ -1605 \\ x \end{array}$ | $\begin{array}{r} -1335 \\ -1335 \\ -1455 \\ -1605 \\ x \end{array}$ | $\begin{array}{r} -1335 \\ -1335 \\ -1455 \\ -1605 \\ x \end{array}$ | $\begin{array}{r} -1335 \\ -1335 \\ -1455 \\ -1605 \\ x \end{array}$ | $\begin{array}{r} -1335 \\ -1335 \\ -1455 \\ -1605 \\ x \end{array}$ |
| MID ( 34 ) | $\begin{array}{lr} \text { Leaf } & 1-3 \\ \text { Leaf } & 4-5 \\ \text { Leaf } & 6 \end{array}$ | $\begin{array}{r} -1680 \\ -1730 \\ -1895 \\ x \end{array}$ | $\begin{array}{r} -1590 \\ -1680 \\ -1855 \\ x \end{array}$ | $\begin{array}{r} -1555 \\ -1655 \\ -1805 \\ x \end{array}$ | $\begin{array}{r} -1535 \\ -1655 \\ -1805 \\ x \end{array}$ | $\begin{array}{r} -1385 \\ -1505 \\ -1655 \\ x \end{array}$ | $\begin{array}{r} -1385 \\ -1505 \\ -1655 \\ x \end{array}$ | $\begin{array}{r} -1385 \\ -1505 \\ -1655 \\ x \end{array}$ | $\begin{array}{r} -1385 \\ -1505 \\ -1655 \\ x \end{array}$ | $\begin{array}{r} -1385 \\ -1505 \\ -1655 \\ x \end{array}$ |
| SLM (44) | Leaf 1-2 <br> Leaf 3-4 <br> Leaf 5-6 <br> Leaf 7 | $\begin{array}{r} -1680 \\ -1730 \\ -1895 \\ x \end{array}$ | $\begin{array}{r} -1590 \\ -1680 \\ -1855 \\ x \end{array}$ | $\begin{array}{r} -1555 \\ -1655 \\ -1805 \\ x \end{array}$ | $\begin{array}{r} -1535 \\ -1655 \\ -1805 \\ x \end{array}$ | $\begin{array}{r} -1385 \\ -1505 \\ -1655 \\ x \end{array}$ | $\begin{array}{r} -1385 \\ -1505 \\ -1655 \\ x \end{array}$ | $\begin{array}{r} -1385 \\ -1505 \\ -1655 \\ x \end{array}$ | $\begin{array}{r} -1385 \\ -1505 \\ -1655 \\ x \end{array}$ | $\begin{array}{r} -1385 \\ -1505 \\ -1655 \\ x \end{array}$ |
| LM (54) | $\begin{array}{ll} \text { Leaf } & 1-3 \\ \text { Leaf } & 4-5 \\ \text { Leaf } & 6-7 \end{array}$ | $\begin{array}{r} -1730 \\ -1895 \\ x \end{array}$ | $\begin{array}{r} -1680 \\ -1855 \\ x \end{array}$ | $\begin{array}{r} -1655 \\ -1805 \\ x \end{array}$ | $\begin{array}{r} -1655 \\ -1805 \\ x \end{array}$ | $\begin{array}{r} -1505 \\ -1655 \\ x \end{array}$ | $\begin{array}{r} -1505 \\ -1655 \\ \mathbf{x} \end{array}$ | $\begin{array}{r} -1505 \\ -1655 \\ x \end{array}$ | $\begin{array}{r} -1505 \\ -1655 \\ x \end{array}$ | $\begin{array}{r} -1505 \\ -1655 \\ x \end{array}$ |

$x-$ Not eligible for loan.
1/ Grade Symbols: SM-Strict MIddling; MID-Middling; SLM-Strict Low Middling: LM-Low Middling: SGO-Strict Good Ordinary: G0-Good Ordinary. 2/ Leaf content: Combined leaf levels have identical values. Leaf level 8 is Below Grade and not eligible for loan. 3/ Cotton classed as "yellow Stained" (midding and better) grades will be eligible at a discount 200 points greater than the discount for comparable quality in the color group " linged.
Source: Agricultural Stabilization and Conservation Service. USDA.

Appendix table 13--CCC loan schedule of micronaire and strength premfums and discounts and bark discounts for $1994-$ crop upland cotton


Appendix table 14--CCC schedule of loan rates and micronaire differences for eligible qualities of 1994-crop ELS cotton stored in approved warehouses at all locations. I/


1/A micronaire premium of 122 points ( 1.22 cents) per pound is reflected in the loan rates for the eligible qualities: thus, the national average loan rate reflected in the above schedule is 85.03 cents per pound. Cotton with micronaire readings below the micronaire range " 3.5 and above" will be subject to the discounts as indicated.

Source: Agricultural Stabilization and Conservation Service, USDA.

| Appendix table 15--Fiber prices: Landed Group B mill point cotton prices and mill-delivered manmade stapl prices. actual and estimated raw fiber equivalent. 1989-94 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Cotton 1/ |  | Rayon 2/ |  | Polyester 3/ |  | Price ratios 4/ |  |
| Calendar year | Actua 1 | Raw-fi equiva 5/ | Actua 1 | Raw-fiber equivalent 5/ | Actual | Raw-fiber equivalent 5/ | Cotton/ <br> rayon | Cotton/ polyester |
|  |  |  | - | /lb |  |  | --- | cent-- |
| 1989 | 72 | 80 | 110 | 114 | 86 | 89 | . 70 | . 90 |
| 1990 | 79 | 88 | 120 | 125 | 83 | 86 | . 71 | 1.03 |
| 1991 | 79 | 88 | 122 | 127 | 74 | 77 | . 69 | 1.15 |
| 1992 | 62 | 69 | 114 | 119 | 74 | 77 | . 58 | . 90 |
| 1993: |  |  |  |  |  |  |  |  |
| Janua ry | 64 | 71 | 112 | 117 | 73 | 76 | . 61 | . 94 |
| February | 65 | 72 | 112 | 117 | 73 | 76 | . 62 | . 95 |
| March | 65 | 73 | 112 | 117 | 73 | 76 | . 62 | . 96 |
| April | 65 | 72 | 112 | 117 | 73 | 76 | . 62 | . 95 |
| May | 65 | 72 | 112 | 117 | 73 | 76 | . 62 | . 95 |
| June | 63 | 70 | 112 | 117 | 73 | 76 | . 60 | . 92 |
| Juty | 63 | 70 | 112 | 117 | 72 | 75 | . 60 | . 93 |
| August | 58 | 64 | 112 | 117 | 72 | 75 | . 55 | . 86 |
| Sep tember | 57 55 | 64 | 112 | 117 | 72 | 75 | . 55 | . 85 |
| October | 55 | 61 | 112 | 117 | 72 | 75 | . 53 | . 82 |
| November | 56 | 63 | 112 | 117 | 72 | 75 | . 54 | . 84 |
| December | 65 | 72 | 112 | 117 | 72 | 75 | . 62 | . 96 |
| Average | 62 | 69 | 112 | 117 | 73 | 76 | . 59 | . 91 |
| 1994: 72 79 72 |  |  |  |  |  |  |  |  |
| January | 72 | 79 | 112 | 117 | 72 | 75 | . 68 | 1.06 |
| February | 80 79 | 88 | 112 | 117 | 71 | 74 | . 76 | 1.20 |
| March | 79 | 88 | 112 | 117 | 71 | 74 | . 76 | 1.19 |
| April | 81 | 90 | 112 | 117 | 72 | 75 | . 78 | 1.21 |

$1 /$ SLM $1-1 / 16^{\prime \prime}$ at Group B mill points, net weight, $2 / 1.5$ and 3.0 denier regular rayon staple.
3/ Reported average market price for 1.5 -denier polyester staple for cotton blending. 4/ Raw fiber equivalent. 5/ Actual prices converted to estimated raw-fiber equivalent as follows: cotton. divided by 0.90 : rayon and polyester, divided by 0.96.
Sources: Agricultural Marketing Service, USDA and trade reports.

Appendix table $16--\mathrm{Up}$ land cot ton and manmade staple fibers: Mill consumption on the cotton-system


1/ Preliminary.
Source: Bureau of the Census.

Appendix table 17--Cotton spindles in place and active, and hours operated. 1992-94

| Date | Spindles |  | Percentage of active spindles used on |  |  | Daily average spindle hours operated |  | Total fiber spun per spindle hour |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 100- | 100- | Other |  |  |  |
|  | In place | Active | percent cotton | percent <br> manmade | fibers and blends | Actual | Seas onally adjusted |  |
|  | ------1, | --- | --- | -Percent | ------- | -...-M | hours | Lbs. |
| 1992: |  |  |  |  |  |  |  |  |
| January | 9.246 | 8.814 | 42.7 | 15.1 | 42.2 | 233 | 236 | .100 |
| February | 9.141 | 8.747 | 42.8 | 15.3 | 41.9 | 241 | 236 | . 107 |
| March | 9.126 | 8.727 | 43.1 | 15.3 | 41.6 | 236 | 233 | . 104 |
| April | 9.054 | 8.695 | 43.6 | 15.6 | 40.9 | 237 | 229 | . 102 |
| May | 9.025 | 8.730 | 43.3 | 15.8 | 40.9 | 240 | 230 | . 089 |
| June | 8.964 | 8.598 | 43.5 | 15.8 | 40.7 | 226 | 224 | . 105 |
| July | 8.941 | 8.540 | 43.4 | 16.0 | 40.6 | 212 | 244 | .109 |
| August | 8.899 | 8.508 | 43.2 | 16.0 | 40.8 | 231 | 218 | . 113 |
| September | 8.903 | 8.461 | 42.1 | 15.7 | 42.2 | 221 | 213 | . 115 |
| october | 8.804 | 8.391 | 41.9 | 15.6 | -42.6 | 233 | 215 | . 113 |
| November | 8.731 | 8.306 | 41.6 | 15.8 | 42.6 | 214 | 212 | . 116 |
| December | 8.690 | 8.240 | 42.1 | 16.0 | 41.9 | 182 | 219 | . 114 |
| 1993: |  |  |  |  |  |  |  |  |
| January | 8.605 | 8.177 | 41.9 | 15.9 | 42.2 | 216 | 216 | . 119 |
| February | 8.584 | 8.154 | 41.9 | 16.0 | 42.1 | 222 | 215 | . 119 |
| March | 8.480 | 8.081 | 42.1 | 16.0 | 41.9 | 217 | 213 | . 120 |
| Aprl1 | 8.472 | 8.086 | 42.1 | 16.1 | 41.8 | 213 | 205 | . 121 |
| May | 8.435 | 8.011 | 41.0 | 16.3 | 42.7 | 219 | 207 | . 120 |
| June | 8.398 | 8.012 | 41.4 | 16.4 | 42.2 | 205 | 203 | . 123 |
| July | 8.423 | 7.959 | 41.8 | 16.1 | 42.1 | 187 | 219 | . 123 |
| August | 8.334 | 7.865 | 41.7 | 16.5 | 41.9 | 210 | 198 | . 125 |
| September | 8.264 | 7.807 | 41.6 | 16.7 | 41.7 | 197 | 193 | . 130 |
| October. | 8.181 | 7.732 | 41.5 | 16.6 | 41.9 | 207 | 191 | . 126 |
| November | 8.169 | 7.660 | 42.2 | 16.9 | 41.0 | 194 | 194 | . 123 |
| December | 8.046 | 7.513 | 42.4 | 17.0 | 40.6 | 170 | 204 | . 122 |
| 1994: |  |  |  |  |  |  |  |  |
| January | 7.977 | 7.483 | 43.0 | 17.3 | 39.7 | 195 | 195 | . 125 |
| February | 7.924 | 7.429 | 43.3 | 17.1 | 39.7 | 204 | 195 | . 126 |
| March | 7.921 | 7.371 | 43.1 | 17.3 | 39.6 | 201 | 196 | . 130 |
| April $1 /$ | 7.836 | 7.249 | 42.5 | 17.3 | 40.2 | 200 | 193 | . 133 |

1/ Preliminary.
Source: Bureau of the Census.

Appendix table 18--Mill consumption of cotton, wool, and manmade fibers. quarterly. 1989-94

| Year | Cotton | Wool | Cellutosic | Noncellulosic | Total manmade | Total fibers | Cotton's share of total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | --Mi | tion lbs |  |  | Percent |
| 198910 | 949.9 | 37.3 | 165.8 | 2.174 .2 | 2.340 .0 | 3.327 .2 | 28.5 |
| 20 | 1.033 .3 | 35.9 | 159.9 | 2.234 .0 | 2.393 .9 | 3.463 .1 | 29.8 |
| 30 | 1.054 .1 | 31.7 | 140.9 | 2.134 .5 | 2.275 .4 | 3.361 .2 | 31.4 |
| 40 | 1.008 .7 | 29.8 | 134.2 | 2.074 .1 | 2.208 .3 | 3.246.8 | 31.1 |
| Total | 4.046 .0 | 134.7 | 600.8 | 8.616 .8 | 9.217 .6 | 13,398.3 | 30.2 |
| 199010 | 1,056.6 | 35.4 | 141.5 | 2,088.1 | 2.229 .6 | 3.321 .6 | 31.8 |
| 20 | 1.071 .1 | 34.7 | 144.7 | 2.163 .0 | 2,307.7 | 3.413 .5 | 31.4 |
| 30 | 1.037 .6 | 30.0 | 159.2 | 2.089 .4 | 2.248 .6 | 3.316 .2 | 31.3 |
| 40 | 950.0 | 32.6 | 153.5 | 2.107 .6 | 2.261 .1 | 3.243 .7 | 29.3 |
| Total | 4.115 .3 | 132.7 | 598.9 | 8.448 .1 | 9.047 .0 | 13.295.0 | 31.0 |
| 199110 | 1.032.9 | 34.7 | 128.3 | 1.898 .1 | 2.026 .4 | 3.094 .0 | 33.4 |
| 20 | 1.109 .5 | 40.2 | 141.1 | 2.173 .1 | 2.314 .2 | 3.463 .9 | 32.0 |
| 30 | 1.108.3 | 39.1 | 145.8 | 2.244 .0 | 2.389 .8 | 3.537 .2 | 31.3 |
| 40 | 1.096 .8 | 37.5 | 141.3 | 2.230 .6 | 2.371 .9 | 3.506.2 | 31.3 |
| Total | 4.347 .5 | 151.5 | 556.5 | 8.545 .8 | 9.102 .3 | 13.601.3 | 32.0 |
| 199210 | 1.169.2 | 40.9 | 140.7 | 2.207 .2 | 2.347 .9 | 3.558 .0 | 32.9 |
| 20 | 1.178 .7 | 38.7 | 144.4 | 2.320 .1 | 2.464 .5 | 3.681 .9 | 32.0 |
| 30 | 1. 219.6 | 36.7 | 140.3 | 2.323 .5 | 2.463 .8 | 3.720 .1 | 32.8 |
| 40 | 1.194 .1 | 34.5 | 132.3 | 2.334 .2 | 2.466 .5 | 3.695.1 | 32.3 |
| Total | 4.761 .6 | 150.8 | 557.7 | 9.185 .0 | 9.742 .7 | 14.655 .1 | 32.5 |
| 199310 | 1.255 .1 | 40.1 | 144.7 | 2.313 .4 | 2.458 .1 | 3.753 .3 | 33.4 |
| 20 | 1.260 .1 | 40.3 | 158.3 | 2.463 .2 | 2.621 .5 | 3.921 .9 | 32.1 |
| 30 | 1.249 .1 | 38.1 | 152.2 | 2.422 .6 | 2.574 .8 | 3.862 .0 | 32.3 |
| 40 | 1.173 .4 | 38.3 | 139.2 | 2.370 .4 | 2.509 .6 | 3.721.3 | 30.7 |
| Total | 4.937 .7 | 156.8 | 594.4 | 9.569 .6 | 10.164 .0 | 15.258 .5 | 32.4 |
| 199410 | 1.242 .0 | 40.9 | 144.8 | 2.430 .8 | 2,575.6 | 3.858 .5 | 32.2 |

Sources: Bureau of the Census and Fiber Organon.

Appendix table 19--U.S. fiber consumption: Total and per capita, by type of fiber. 1990-93

| Fiber and year | U.S. mill use | $\begin{aligned} & \text { Percent } \\ & \text { of } \\ & \text { fibers } \end{aligned}$ | Textile trade 1/ |  | ```Total domestic consumption 2/``` | Percent of fibers | Per capita 3/ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Exports | Imports |  |  | Mill | Domestic |
|  |  |  |  |  |  |  | use | consumption |
|  | Million lbs. | Percent |  | Million |  | Percent |  | Lbs. |
| Cotton: |  |  |  |  |  |  |  |  |
| 1990 | 4.115 .3 | 30.6 | 664.8 | 2.416 .4 | 5.866 .9 | 35.9 | 16.5 | 23.5 |
| 1991 | 4.347 .5 | 31.7 | 722.9 | 2.592 .9 | 6.217 .5 | 37.3 | 17.2 | 24.6 |
| 1992 | 4,761.6 | 32.3 | 844.9 | 3.193 .2 | 7.109 .9 | 38.1 | 18.6 | 27.8 |
| 1993 | 4.937.7 | 32.1 | 958.3 | 3,574.4 | 7.553 .8 | 38.5 | 19.1 | 29.3 |
| Wool: |  |  |  |  |  |  |  |  |
| 1990 | 132.7 | 1.0 | 59.6 | 205.8 | 278.9 | 1.7 | 0.5 | 1.1 |
| 1991 | 151.5 | 1.1 | 63.3 | 210.9 | 299.1 | 1.8 | 0.6 | 1.2 |
| 1992 | 150.8 | 1.0 | 72.2 | 237.4 | 316.0 | 1.7 | 0.6 | 1.2 |
| 1993 | 156.8 | 1.0 | 77.6 | 260.5 | 339.7 | 1.7 | 0.6 | 1.3 |
| Manmade fibers: |  |  |  |  |  |  |  |  |
| 1990 | 9.047 .0 | 67.3 | 1.339 .3 | 1.750 .4 | 9.458 .1 | 57.9 | 36.2 | 37.8 |
| 1991 | 9.102 .3 | 66.3 | 1.400 .1 | 1.769 .0 | 9.471 .2 | 56.8 | 36.0 | 37.5 |
| 1992 | 9.742 .7 | 66.0 | 1.418 .8 | 2.126 .5 | 10.450 .4 | 56.5 | 38.1 | 40.9 |
| 1993 | 10,164.3 | 66.2 | 1.388 .1 | 2,221.2 | 10.997.4 | 56.1 | 39.4 | 42.6 |
| Flax and silk: |  |  |  |  |  |  |  |  |
| 1990 | 149.9 | 1.1 | 91.5 | 667.7 | 726.1 | 4.4 | 0.6 | 2.9 |
| 1991 | 122.3 | 0.9 | 93.4 | 647.9 | 676.8 | 4.1 | 0.5 | 2.7 |
| 1992 | 107.2 | 0.7 | 90.8 | 653.4 | 669.8 | 3.6 | 0.4 | 2.6 |
| 1993 | 104.9 | 0.7 | 98.3 | 711.2 | 717.8 | 3.7 | 0.4 | 2.8 |
| A11 fibers: |  |  |  |  |  |  |  |  |
| 1990 | 13.444.9 | 100.0 | 2.155 .2 | 5,040.3 | 16.330.0 | 100.0 | 53.8 | 65.3 |
| 1991 | 13.723 .6 14.762 .3 | 100.0 100.0 | 2.279 .7 | 5.220 .7 6.210 .5 | 16.664 .6 18.546 .1 | 100.0 100.0 | 54.3 57.8 | 65.9 72.6 |
| 1992 | 14.762 .3 15.363 .7 | 100.0 100.0 | 2.426 .7 2.522 .3 | 6.210 .5 6.767 .3 | 18.546 .1 19.608 .7 | 100.0 100.0 | 57.8 59.5 | 72.6 |

1/ Raw-fiber-equivalent of imports and exports of textile products. $2 /$ Total domestic consumption is $U$. S. mill consumption plus net textlle product trade balance. 3/ July 1 population for 1990-249.9 million, $1991-252.6 \mathrm{ml} 11 \mathrm{ion}$. 1992-255.5 milition and 1993-258.2 milition.

Source: Bureau of the Census.

Appendix table 20--U.S. raw wool imports by country of origin. clean yield

.- - Not available.
Source: Bureau of the Census.

|  | Shorn wool |  |  |  | Unshorn wool |  |  |  | Carbonized wool |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Country | 1991 | 1992 | 1993 | $\begin{gathered} \text { Jan-Mar } \\ 1994 \end{gathered}$ | 1991 | 1992 | 1993 | $\begin{gathered} \text { Jan-Mar } \\ 1994 \end{gathered}$ | 1991 | 1992 | 1993 | $\begin{aligned} & \text { Jan -Mar } \\ & 1994 \end{aligned}$ |
| 1.000 lbs. |  |  |  |  |  |  |  |  |  |  |  |  |
| Austral a | -- | $\because$ | 8.4 | $\because$ | -7 | 17 | 152.7 | --7 | -- | $\cdots$ | $\cdots$ | -- |
| Canada | 58.0 | 75.7 | 112.3 | 31.9 | 157.0 | 113.9 | 152.7 | 21.7 | -- | 4.8 | 20.2 | -- |
| Bel gium | 172.3 | 100.4 | 60.0 | -- | -- | 45.9 | 11.2 | -- | -- | - | 36.6 | -- |
| Czecho |  | -- | -. | -- | -- | -- | -. | -- | -- | 4.6 |  | - |
| China M | -- | -- | -- | -- | -- | 30.4 | 122.4 | -- | -- | -- | -- | 224.0 |
| Dominican Rep. | -- | 181.1 | -- | -- | -- | 15.4 | . | -- | -- | -- | -- | 224.0 |
| Gua tema la | -- | --1 | -- | -- | -- | 26.0 | -- | -- | -- | -- | .- | -- |
| Hong Kong | , | 29.1 | 5 | -- | 100.0 | 111.5 | 123.5 | -- | 43.2 | -- | -- | -- |
| India | 206.4 | 77.1 | 105.2 | -- | ... | 49.2 | 48.5 | -- | -. | -- | -- | -- |
| Irag | - | -- | -- | -- | 79 | $\cdots$ |  | -- | -- | $\cdots$ | $\cdots$ | - |
| Italy | 36.4 | $\cdots$ | - | -- | 79.2 | 44.3 | -- | -- | - | 11.8 | 173.1 | 92.9 |
| Japan | 511.7 | 581.4 | 480.0 | 29.5 | 71.2 | 75.2 | -- | -- | 6.9 | -- | 116.2 | -. |
| Kiribati | -- |  | -- | -- | -- | 6.7 | -- | -- | - | -- | -- | -- |
| Korea | 185.5 | -- | -- | -- | -- | $\because$ | -- | -- | 2.2 | -- | $\cdots$ | -- |
| Luxembourg | -9, | $\cdots$ | -- | - | - | 31.3 | - | -- | -- | -- | - | -- |
| Mexico | 195.3 | 182.4 | *- | 120.3 | 67.1 | 4.2 | 3.7 | -- | -- | -- | 4.8 | -- |
| New Zealand | -- | 7.7 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Pakistan | -- | 27.7 | 30.6 | ** | - | -- | -- | -- | -- | -- | -- | -- |
| Portugal | -- | 27.7 | -- | -- | -- | -- | -- | -- | -- | - | -- | -- |
| Singapore | 50.3 | -- | -- | -- | -- 6 | -- 2 | $\cdots$ | -- | -- | 9.7 | -- | -- |
| Taiwan | 61.0 | 97.8 | -- | -- | 24.6 | 13.2 | -- | -- | - 26 | -- | 43.0 | -- |
| Thatl and | 61. | -. | -- | -- | 96.5 | -- | 3.9 | -- | 2.6 | -- | -- | -- |
| United Kingdom | 314.2 | 301.5 | 30.3 | 120.9 | 201.4 | 175.8 | 41.6 | 73.2 | 9.0 | 4.3 | 485.6 | 39.7 |
| West Germany | 873.5 14.4 | 724.6 | 272.8 | 130.9 | 135.0 | 283.9 | - 110 | -- | -80.9 | $\bigcirc$ | - | - |
| Other | 14.4 | 0.0 | 10.7 | 0.0 | 22.9 | 0.0 | 31.9 | -- | 40.9 | 0.1 | 0.0 | 0.0 |
| Total | 2.679 .0 | 2.386 .5 | 1.110 .3 | 312.6 | 1.188 .0 | 1.026.9 | 539.4 | 94.9 | 104.8 | 35.3 | 879.5 | 356.6 |

-. = No exports.
Source: Bureau of the Census.

| Country | U.S. imports |  |  |  |  | U.S. exports |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1990 | 1991 | 1992 | 1993 |  | 1990 | 1991 | 1992 | 1993 | $\mathrm{Jan}-\mathrm{Mar}$ 1994 |
| 1.000 lbs . |  |  |  |  |  |  |  |  |  |  |
| Argentina | -- | 75 | 10.5 | . $0^{-7}$ | -- |  | 3.2 | -- | 3.3 |  |
| Australia | 54.0 | 752.4 | 1.443.1 | 2.005 .0 | 616.4 | 199.1 |  |  |  |  |
| Belgium | -- | -- | 71.1 | -- | -- | 46.3 | -- |  |  |  |
| Canada | -- | -- | 0.3 | -- | -- | 651.4 | 565.8 | 349.5 | 349.8 | 76.5 |
| Chile | 100.2 | 66.9 | 22.3 | 66.6 | -- |  |  |  |  |  |
| China |  |  |  | -- | -- | 1.782 .6 | 7.707 .5 | 5.394.1 | 5.637 .7 | 131.4 |
| Col ombia | -- | -- | , | -- | -. |  |  | 42.2 | -- | 42.5 |
| Ecuador | 10.9 | 0.3 | 107.4 | 42 |  |  |  |  |  |  |
| France Hong Kong | 10.9 | 0.3 | 107.4 | 42.6 | 43.2 | 154.9 213.9 | 526.7 | 933.6 | 213.9 |  |
| India | -- | -- | 51.9 | 202.6 | -- |  |  | 472.7 |  |  |
| Ireland |  | -- |  |  | -- | - | -. | 167.3 | -- |  |
| Israel | 27.5 | 0.7 | 58.1 | 377.4 |  |  |  |  |  |  |
| Italy | 0.2 | 0.7 | 0.5 | -- | - | 4110.7 | 175.3 | 290.8 | 74.8 |  |
| Mexico | -- | $\cdots$ | 65.7 | 181.1 | 79.3 | 44.1 | 1.9 1.4 | 8.6 | 11.7 |  |
| Netherlands | -- | -- |  |  |  | 6.0 |  |  |  |  |
| New Zealand | 1.0 | 0.8 | 0.5 | 0.1 | 6.2 |  | -- | -- | -- |  |
| Peru | 22.9 | 0.7 | 1.0 | 0.2 | -- | -- | -- | -- | $\cdots$ |  |
| Singapore | -- | -- |  |  |  | . | - | - | 2.2 |  |
| South Africa | -- | -- | 187.6 | 65.9 | 36.2 |  |  |  | 3.208 .6 | 1.488 .9 |
| Taiwan | -- | -- | -- | -- | -- | 1.336.5 | 1.354 .0 | 4.943.9 | +360.6 | . 86.4 |
| Turkey |  | -- |  | -- | -- | 299.5 |  |  |  |  |
| United Kingdom | 82.9 | 40.0 | 77.3 | 67.4 | 4.0 | 43.1 | 228.2 | 1.9 | $\cdots$ |  |
| Uruguay | 58.9 | -- | -- | 38.6 |  |  | $8{ }^{8.5}$ |  |  |  |
| Venezuela West Germany | -- | 90.1 | 29.9 | 907.8 |  | 262.1 43.9 | 856.1 | 976.0 479.0 | 373.7 110.9 | 49.9 |
| Other | 0.0 | 0.2 | 0.0 | 0.0 | 2.7 | 0.6 | 1.5 | 0.0 | 1.1 |  |
| Total | 358.3 | 952.1 | 2.127 .2 | 3.956 .2 | 974.3 | 10.308.1 | 16,824.7 | 15.730 .0 | 10.453 .9 | 1.875 .6 |

-- No imports or exports.
1/ Raw wool. not carded or combed, but processed beyond the degreased condition. e.g. dyed. Grade is not identified.

Source: Bureau of the Census.

| Appendix table 23--Sheep population, wool production and wool exports, major producing foreign countries. 1988/89-1993/94 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1988/89 | 1989/90 | 1990/91 | 1991/92 | 1992/93 | 1993/94 1/ |
|  | Million head |  |  |  |  |  |
| Sheep numbers: |  |  |  |  |  |  |
| Australia | 165 | 175 | 167 | 151 | 140 | 128 |
| USSR | 141 | 139 | 135 | 120 | 117 |  |
| China | 111 | 114 | 113 | 111 | 111 | 117 |
| New Zealand | 61 | 58 | 55 | 53 | 50 | 50 |
| Argentina | 29 | 29 | 28 | 26 | 26 | 23 |
| Uruguay | 25 | 25 | 26 | 26 | 25 | 27 |
| South Africa | 26 | 26 | 24 | 23 | 22 | 21 |
| World | 1.173 | 1.173 | 1.165 | 1.124 | 1.108 |  |
| Million lbs.. clean |  |  |  |  |  |  |
| Wool production: 380 |  |  |  |  |  |  |
| Australia | 1.380 | 1.596 | 1.5467 | 1.254 | 1.248 | 1.153 |
| China | 245 | 262 | 265 | 265 | 273 | 265 |
| New Zealand | 560 | 514 | 500 | 487 | 425 | 481 |
| Argentina | 216 | 196 | 181 | 161 | 150 | 134 |
| Uruguay | 128 | 143 | 139 | 126 | 130 | 134 |
| South Africa | 126 | 130 | 139 | 108 | 97 | 79 |
| World | 4.134 | 4.348 | 4.270 | 3.818 | 3.691 | 3.576 |
| Million lbs., clean |  |  |  |  |  |  |
| Wool exports: |  |  |  |  |  |  |
| Australia | 1.095 | 948 406 | 860 401 | 1.171 478 | 1.069 383 |  |
| New Zealand | 524 75 | 406 83 | 401 | 478 49 | 383 69 |  |
| Argentina Uruguay | 75 | 83 | 73 | 59 46 | $\begin{array}{r} 69 \\ 1 \quad 39 \end{array}$ |  |
| Uruguay South Africa | 44 | 64 65 | 47 | 46 61 | $\begin{aligned} & 1 / 39 \\ & 42 \end{aligned}$ |  |
| South Africa | 58 1.796 | 1.566 | 67 1.448 | 1.815 | 1.42 1.602 |  |

-- Not available. $1 /$ Estimated.
Source: International Wool Textile Organization in Succession to the Commonweal th Secretariat.

Appendix table 24--Wool sales, and government-owned stocks, major foreign exporters

|  | Australia |  |  | New Zealand |  |  | South Africa |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Auction offerings | Sold to trade | AWRC ending stocks | Auction offerings | Sold to trade | NZWB ending stock s | Auction offerings | Sold to trade | SAWB ending stock s |
|  | 1.000 bales | Percent | ---1.000 | bales-.. | Percent | ---1.0 | bales-..- | Percent | 1.000 bales |
| 1987/88 | 4,286 | 96.1 | 8 | 1.560 | 85.0 | 94 | 592 | 99 | 17 |
| 1988/89 | 4.601 | 88.5 | 189 | 1.406 | 85.1 | 100 | 618 | 94 | 60 |
| $1989 / 90$ | 5.771 | 49.3 | 3.065 | 1.307 | 56.6 | 490 | 661 | 70 | 242 |
| $1990 / 91$ | 5.471 | 61.9 | 4.624 | 1.293 | 80.3 | 558 | 690 | 54 | 164 |
| 1991/92 | 4.512 | 90.1 | 4.070 | 1.263 | 92.2 | 401 | 534 | 84 | 46 |
| 1992/93 | 4.298 | 88.1 | 3.950 | 1.164 | 82.7 | 343 | 463 | 81 | 45 |
| Jul -Apr $1992 / 93$ |  |  |  |  |  |  |  |  |  |
| $1992 / 93$ $1993 / 94$ | 3.679 2.154 | 87.9 | 3.960 3.726 | 1.028 1.055 | 82.8 87.5 | 354 197 | 399 389 | 80 98 | 58 |

Source: International Wool Textile Organization in Succession to the Commonwealth Secretariat.

Appendix table 25--U.S. wool production and average wool clip per operation. by State

|  | 1992 |  |  | 1993 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| State | Production | Sheep operations | Average clip per operation | State | Production | Sheep operations | Average clip per operation |
|  | 1,000 Lbs. | Number | Pounds |  | 1.000 Lbs. | Number | Pounds |
| Hyoming | 8.068 5.954 | 1.800 | 5.379 3.307 | Wyoming | 7.448 3.774 | 1.500 1.200 | 4.965 3.145 |
| New Mexico | 5.954 3.835 | 1.200 | 3.196 | Colorado | 3.174 5.199 | 1.800 | 3.1489 |
| Arizona | 1.300 | 450 | 2.888 | Arizona | 1.200 | 450 | 2.666 |
| Montana | 5.893 | 2.500 | 2.357 | Montana | 5.581 | 2.500 | 2.232 |
| Texas | 17.600 | 8.000 | 2.200 | Texas | 17.000 | 2.100 | 2.179 |
| Nevada | ${ }^{697}$ | . 350 | 1.991 | Utah | 3.930 | 2.100 | 1.871 |
| Utah | 4.377 | 2.300 | 1.903 | Nevada | 620 | 2.600 | 1.771 |
| South Dakota | 5.119 | 1.000 | 1.279 | South Dakota | 2.454 5.003 | $\frac{1}{3.400}$ | 1.753 1.282 |
| California | 6.780 | 5.300 | 1.279 | Kansas | 1.228 | 2.500 | 1.228 |
| North Dakota | 1.700 | 1.800 | 944 | California | 6.044 | 5.200 | 1.162 |
| Oregon | 2.752 1.353 | 4.000 | 688 | North Dakota | $\frac{1}{2} 500$ | 1.700 | 882 |
| Kansas | 1.353 | 2.400 | 564 | Oregon | 2.396 | 4.000 | 599 |
| Nebraska | $\begin{array}{r}\text { a } \\ 1.565 \\ \hline\end{array}$ | 1.800 4.800 | 344 326 | Nebraska | 902 1.484 | 2.600 4.800 | 347 309 |
| Iowa | 2.491 | 2.900 | 293 | Washington | . 575 | 2.000 | 288 |
| 0kl ahoma | 620 | 2.400 | 270 | Iowa | 2.443 | 8.500 | 287 |
| Michigan | 640 | 8.500 | 267 | Ohio | 1.486 | 6.000 | 248 |
| Wiscons in | 660 | 2.300 | 264 | Michigan | 569 | 2.400 | 237 |
| Washington | 580 540 | 2.200 2.200 | 264 245 | Okl ah oma | 540 700 | 2.300 3.100 | 235 226 |
| Ohio | 1.523 | 6.800 | 224 | Virginia | 470 | 2.100 | 224 |
| Mis souri | 703 | 3.300 | 213 | Wisconsin | 540 | 2.500 | 216 |
| Pennsylvanta | 810 742 | 3.700 3.700 | 203 | Pennsyl vania | 708 | 3.700 | 191 |
| Indiana | 644 | 3.300 | 184 | Indiana | 591 | 3.300 | 179 |
| Other | 2.348 | 15.760 | 218 | Other | 2.253 | 18.280 | 169 |
| U.S. total | 82.819 | 100.960 |  | U.S. total | 77.319 | 98.230 |  |


| State | Finer than 25 micron | Percent | Accumulated percent | State | 25 micron and coarser | Percent | Accumulated percent | State | Total | Percent | Accumulated percent |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1.000 lbs . |  |  |  | 1.000 lbs . |  |  |  |  |  |  |
| Texas | 13.983 | 34.9 | 34.9 | Montana | 2.606 | 8.6 | 8.6 | Texas | 14.719 | 20.9 | 20.9 |
| Wyoming | 4.836 | 12.1 | 47.0 | Wyoming | 2.604 | 8.6 | 17.2 | Wyoming | 7.440 | 10.6 | 31.5 |
| California | 4.232 | 10.6 | 57.6 | Colorada | 2.445 | 8.1 | 25.3 | California | 5,291 | 7.5 | 39.0 |
| New Mexico | 2.750 | 6.9 | 64.5 | South Dakota | 2.377 | 7.8 | 33.1 | Montana | 5.211 | 7.4 | 46.4 |
| Montana | 2.605 | 6.5 | 71.0 | Oregon | 1.941 | 6.4 | 39.5 | Colorado | 4.890 | 7.0 | 53.4 |
| Colorado | 2.445 | 6.1 | 77.1 | Idaho | 1.936 | 6.4 | 45.9 | South Dakota | 4,754 | 6.8 | 60.2 |
| South Dakota | 2.377 | 5.9 | 83.0 | Iowa | 1.707 | 5.6 | 51.5 | Utah | 3.625 | 5.2 | 65.4 |
| Utah | 1.994 | 5.0 | 88.0 | Utah | 1.631 | 5.4 | 56.9 | New Mexico | 3.236 | 4.6 | 70.0 |
| Arizona | 822 | 2.1 | 90.1 | Onio | 1.360 | 4.5 | 61.4 | Idaho | 2.420 | 3.4 | 73.4 |
| Nevada | 527 | 1.3 | 91.4 | North Oakota | 1.216 | 4.0 | 65.4 69.3 | Oregon | 2.284 2 | 3.2 2.9 | 76.6 79.5 |
| Idaho | 484 481 | 1.2 | 92.6 93.8 | Minnesota | 1.191 1.059 | 3.9 3.5 | 69.3 72.8 | Iowa | 2.008 1.512 | 2.9 | 79.5 81.6 |
| Oregon | 343 | 0.9 | 94.7 | Texas | 1.736 | 2.4 | 75.2 | North Dakota | 1.431 | 2.0 | 83.6 |
| Iowa | 301 | 0.8 | 95.5 | Pennsylvania | 586 | 1.9 | 77.1 | Minnesota | 1.254 | 1.8 | 85.4 |
| Okl ahoma | 282 | 0.7 | 96.2 | Ilitnais | 550 | 1.8 | 78.9 | Arizona | 1.027 | 1.5 | 86.9 |
| Nebraska | 242 | 0.6 | 96.8 | Indiana | 510 | 1.7 | 80.6 | Kansas | 962 | 1.4 | 88.3 |
| North Dakota | 215 | 0.5 | 97.3 | New Mexico | 486 | 1.6 | 82.2 | Nebraska | 691 | 1.0 | 89.3 |
| Ohio | 152 | 0.4 | 97.7 | Kansas | 481 | 1.6 | 83.8 | Pennsylvania | 689 | 1.0 | 90.3 |
| Missouri | 151 | 0.4 | 98.1 | Nebraska | 449 | 1.5 | 85.3 | Nevada | 620 | 0.9 | 91.2 |
| Vermont | 117 | 0.3 | 98.4 | Michigan | 417 | 1.4 | 86.7 | Illinois | 611 | 0.9 | 92.1 |
| Pennsylvania | 103 | 0.3 | 98.7 | Wiscons in | 416 | 1.4 | 88.1 | Missouri | 606 | 0.9 | 93.0 |
| Michigan | 74 | 0.2 | 98.9 | Washington | 409 | 1.3 | 89.4 | Indiana | 567 | 0.8 | 93.8 |
| Minnesota | 63 | 0.2 | 99.1 | Virginia | 360 | 1.2 | 90.6 | Oklahoma | 413 | 0.7 | 94.5 |
| New York | 63 | 0.2 | 99.3 99.5 | New York Oklahoma | 351 231 | 1.2 0.8 | 91.8 92.6 | Michigan Wisconsin | 491 462 | 0.7 | 95.2 95.9 |
| Lllinois | 61 | 0.2 | 99.5 | Oklahoma | 231 | 0.8 | 92.6 | Wisconsin | 462 | 0.7 | 95.9 |
| Other | 326 | 0.8 |  | Other | 2.269 | 7.5 |  | Other | 3.039 | 4.3 |  |
| U.S. total | 40.029 | 100.0 | 100.0 | U.S. total | 30.324 | 100.0 | 100.0 | U.S. total | 70.353 | 100.0 | 100.0 |

Appendix table $27-$ International wool prices

| Australia |  |  | New Zealand |  | South Africa |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Market indicator 1/ | Minimum <br> floor price $2 /$ | Market indicator $1 /$ | Minimum floor price | Market indicator 1/ |
| A cents/kg, clean |  |  | $N Z$ cents/kg. clean |  | cents/kg. clean |
| 1987/88 | 1.003 | 645 | 600 | 476 | 1.664 |
| 1988/89 | 990 | 870 | 672 | 500 | 2.093 |
| 1989/90 | 870 | 870 | 589 | 525 | 1.790 |
| 1990/91 | 627 | $3 /$ | 423 | $3 /$ | 1.268 |
| 1991/92 | 557 | 3/ | 435 | 3/ | 1.277 |
| 1992/93 |  |  |  |  |  |
| July | 539 |  | 471 |  | N.S. |
| August | 537 |  | 479 |  | N.S. |
| September | 538 |  | 461 |  | 1.109 |
| October | 514 |  | 460 |  | 1.067 |
| November | 516 |  | 443 |  | 1.070 |
| December | 517 |  | 440 |  | 1.103 |
| January | 504 |  | 438 |  | 1.066 |
| February | 467 |  | 415 |  | 1.026 |
| March | 438 |  | 414 |  | 1.008 |
| April | 393 |  | 387 |  | 959 |
| May | 440 |  | 382 |  | . 975 |
| June | 449 |  | 379 |  | 1.008 |
| Season | 488 |  | 431 |  | 1.039 |
| 1993/94 448 |  |  |  |  |  |
| July | 448 |  | 385 |  | N.S. |
| August | 428 |  | 380 |  | N.S. |
| September | 426 |  | 384 |  | - 983 |
| October | 462 |  | 407 |  | 1.013 |
| November | 491 |  | 423 |  | 1.159 |
| December | 477 |  | 401 |  | 1.066 |
| January | 497 |  | 401 |  | 1.187 |
| February | 531 |  | 417 |  | 1.331 |
| March | 548 |  | 468 |  | 1.378 |
| April | 570 |  | 464 |  | 1.458 |
| N.S. - No sales. |  |  |  |  |  |
| 1/ Weighted average of all types offered. $2 /$ The guaranteed minimum floor price was reduced |  |  |  |  |  |
| to A 700 cents per kg for the last 4 weeks of $1989 / 90$ season. 3/ The minimum floor price was |  |  |  |  |  |
| eltminated. |  |  |  |  |  |
| Source: International Wool Textile Organization in Succession to the Commonwealth Secretariat |  |  |  |  |  |

Appendix table 28--World wool supply and disappearance. 1987/88-1993/94 1/

| Year | Sheep population | Production (greasy) | Production (clean) | Consumption (clean) | Exports (greasy) | Beginning stocks <br> (clean) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Million head |  |  | Million lbs |  |  |
| 1987/88 | 1,145 | 6.905 | 4.000 | 3.867 | 2.584 | 212 |
| 1988/89 | 1.173 | 7.105 | 4.134 | 3.976 | 2.441 | 165 |
| 1989/90 | 1.173 | 7.421 | 4.348 | 3.836 | 2.131 | 291 |
| $1990 / 91$ | 1.165 | 7.322 | 4.270 | 3.356 | 1.937 | 1.162 |
| 1991/92 | 1.124 | 6.596 | 3.818 | 3,658 | 2,431 | 1.594 |
| $1992 / 93$ | 1.008 | 6.365 | 3.691 | 3,646 | 2.133 | 1.393 |
| 1993/94 | 1.008 | 6.166 | 3.576 | 3.64 | 2.133 | 1,365 |
| -- - Not available. <br> 1/ Sheep population during April-June of the second year indicated for most |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| indicated for most countries. Stocks are for countries that are major producers |  |  |  |  |  |  |
| Source: Internationa |  | Wool Textile Organization in Succession to the Secretariat. |  |  |  |  |


| Appendix table 29--World wool trade by major fmporting and exporting countries, 1989/90-1993/94 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Country | 1989/90 1990/91 1991/9 |  |  |  | $\begin{array}{ll} \text { Jul-Dec Jul-Dec } \\ 1992 / 93 & 1993 / 94 \end{array}$ |  |
|  | Mil. lbs.. greasy |  |  |  |  |  |
| Wool exports: |  |  |  |  |  |  |
| Australia | 1.369 | 1.224 | 1.663 | 1.511 | 797 | 776 |
| New Zealand | 463 | 450 | 543 | 425 | 201 | 242 |
| Argentina | 112 | 97 | 78 | 94 | 30 | 45 |
| South Africa | 102 | 106 | 91 | 63 | 30 | 32 |
| Uruguay |  | . 60 | . 57 | . 48 | . 26 | . 23 |
| Total exports | 2.131 | 1.937 | 2.432 | 2.411 | 1.084 | 1.118 |
| World | 2.348 | 2.152 | 2.652 | 2.482 | -- |  |
| Wool imports: 315337 |  |  |  |  |  |  |
| Japan | 315 | 337 | 321 | 241 |  |  |
| China | 70 219 | 229 280 | 339 269 | -- |  |  |
| USSR | 115 | 118 | 112 | -- |  |  |
| United Kingdom | 194 | 204 | 225 | .- |  |  |
| Italy King | 262 | 303 | 318 | -- |  |  |
| West Germany | 149 | 191 | 214 | -- |  |  |
| 8el gi um | 120 | 115 | 120 | 127 |  |  |
| United States | 103 | 112 | 115 | 127 |  |  |
| Taiwan | 69 | 135 | 118 | -- |  |  |
| South Korea | 76 | 81 | 85 | -- |  |  |
| World | 2.182 | 2,607 | 2.685 | -- |  |  |
| Source: Interna success | ional on to | ol Text <br> Common | le Orga weal th | zatio reta |  |  |


| Appendix table 30--U.S. mohair exports by country of destination. 1990-94 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Country | 1990 | 1991 | 1992 | 1993 | $\begin{gathered} \text { Jan-Mar } \\ 1994 \end{gathered}$ |
|  | 1.000 lbs., clean |  |  |  |  |
| Bel gium | 347.8 | 354.9 | 524.0 | 30.5 |  |
| China |  |  | 6.2 | 137.2 | 87.4 |
| France | 317.2 | 554.0 | 437.8 | 35.0 | -. |
| Hong Kong | 15.0 | 64.8 | 739.- | $\cdots$ | 83 |
| Ind la | 928.7 | 1.164 .8 | 739.0 | 713.4 | 83.9 |
| Ireland | 26.6 274.0 | 392.1 | 484.0 | 182.3 | 30.1 |
| japan | 13.5 |  |  |  |  |
| Mexico | 16.4 | 13.8 | 15.0 | 45.1 | 4.6 |
| Netherlands | 47.4 |  |  | -- | -- |
| South Africa | . |  | -- | 543.2 | -- |
| Spa in | 71.8 | 26.4 | -- | 19.1 | -- |
| Switzerland | 12.5 | 27.6 |  |  | -- |
| Taiwan | 12.5 | 322.7 | 465.6 | 66.9 | -- |
| Turkey kingom |  |  |  | 23.8 |  |
| United kingdom | 9.211 .3 | 5.081 .2 | 5.053 .2 | 4,835.8 | 1,479.1 |
| Former USSR | 150.9 128.5 | 164.0 | -- | --- | 43.9 |
| Other | 1.4 | 2.2 | 0.0 | 0.0 | 0.0 |
| Total | 11.563 .0 | 8.103 .7 | 7.724 .8 | 6.632 .31 .729 .1 |  |
| -- - No exports. |  |  |  |  |  |
| Source: Burea | of the | Census. |  |  |  |

Appendix table 31--World textile fiber production

| Year | Rayon and acetate | Noncellulosic fibers | Cotton | Wool <br> (clean) | Silk | F1ax | $\begin{aligned} & \text { Hemp } \\ & \text { (soft) } \end{aligned}$ | Total <br> fibers |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | M1111 |  |  |  |  |
| 1980 | 7.147 | 23.095 | 31.427 | 3.675 | 123 | 1.389 | 569 |  |
| 1981 | 7.064 | 23.869 | 30.474 | 3.719 | 126 | 1.347 | 492 | 66.969 |
| 1982 | 6.493 | 22.368 | 31.993 | 3.656 | 121 | 1.437 | 459 | 66.603 |
| 1983 | 6.457 | 24.418 | 31.560 | 3.759 | 121 | 1.733 | 406 | 69.779 |
| 1984 | 6.605 | 26.023 | 42.552 | 3.831 | 123 | 1.512 | 443 | 71.669 |
| 1985 | 6.462 | 27.533 | 38.541 | 3.816 | 150 | 1.642 | 481 | 77.011 |
| 1986 | 6. 304 | 28.499 30.293 | 33.8880 | 3.924 4.000 | 139 139 | 1. ${ }^{1} .605$ | 485 474 | 80.688 |
| 1987 1988 | 6.229 6.385 | 38.293 31.784 | 38.891 40.514 | 4.000 4.134 | 139 141 | 2.108 2.039 | 474 465 | 83.618 85.859 |
| 1988 | 6.385 6.468 | 32.,514 | 30,280 | 4.348 | 146 | 1.799 | 397 | 87.852 |
| 1990 | 6.078 | 32.862 | 41.747 | 4.270 | 146 | 1.570 | 364 | 86.374 |
| 1991 | 5, 545 | 33.631 | 46.076 | 3.818 | 148 | 1.541 | 439 | 85.687 |
| 1992 | 5.117 | 35.358 | 39.730 | 3.691 | 148 | 1.484 | 432 | 87.299 |
| 1993 | -- | , | 36.496 | 3.576 |  |  |  | 87.29 |

-- - Not available.
Sources: International Wool Textile Organization in succession to the Commonweal th Secretartat and USDA.

| Fiber | $\begin{gathered} \text { Annual } \\ 1991 \end{gathered}$ | 10 | 20 | 30 | 40 | Year | 10 | 20 | 1993 30 | 40 | Year | 10 | 20 | 30 | 40 | Year | Annual planned capacity 1995 | Average annual change 1993-95 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  | --M | $110 n$ | 5. |  |  |  |  |  |  |  | Percent |
| Grand total. 2/ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity Production | 10.500 8.783 | 2.702 2.201 | 2.769 2.303 | 2.771 2.293 | 2.772 2.300 | 11.014 | 2.763 2.255 | 2.753 | 2.782 2.378 | 2.811 2.896 | 11.109 9.300 | 2.847 | 2.884 | 2.893 | 2.900 | 11.524 | 11.712 | +2.7 |
| Production Percent | 8.783 84 | 2.201 81 | 2.303 83 | 2.293 83 | 2.300 83 | 9.097 83 | 2.255 82 | 2.371 86 | 2.378 86 | 2. 296 | 9.300 84 | $\begin{array}{r} 2.357 \\ 82 \end{array}$ |  |  |  |  |  |  |
| Total staple-. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 5.079 4.257 | 1.311 | 1.344 | 1.342 1.094 | 1.341 1.113 | 5,338 4.398 | 1.322 | 1.305 1.134 | 1.309 | 1.314 | 5.250 4.428 | $1.320$ | 1.329 | 1.331 | 1.332 | 5.312 | 5.339 | +0.8 |
| Production Percent | 4.257 84 | 1,075 82 | 1.116 83 | 1.094 82 | 1.113 83 | 4.398 82 | 1.087 82 | 1.134 87 | 1.116 86 | 1.091 83 | 4.428 85 | $\begin{array}{r} 1.057 \\ 80 \end{array}$ |  |  |  |  |  |  |
| Total filament | $3 /$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | $\begin{aligned} & 5.421 \\ & 4.526 \end{aligned}$ | 1.391 1.126 | 1.425 1.187 | 1.429 1.199 | 1.431 | 5.676 4.699 | 1.441 | 1.448 1.237 | 1.473 1.262 | 1.497 | 5.859 | 1.527 | 1.555 | 1.562 | 1.568 | 6.212 | 6.373 | +4.4 |
| Production Percent | $\begin{array}{r} 4.526 \\ 83 \end{array}$ | 1.126 81 | 1.187 83 | 1.199 84 | 1.187 83 | 4.699 83 | 1.168 81 | 1.237 85 | 1.262 86 | 1.205 81 | $\begin{array}{r} 4.872 \\ 83 \end{array}$ | $\begin{array}{r} 1.300 \\ 84 \end{array}$ |  |  |  |  |  |  |
| Polyester total: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 3.962 | 1.057 | 1.120 | 1.120 | 1.119 | 4.416 | 1.103 | 1.089 | 1.096 | 1.101 | 4.389 | 1.122 | 1.144 | 1.150 | 1.155 | 4.597 | 4.682 | +3.3 |
| Productfon Percent | 3.411 86 | 885 84 | 892 80 | 888 79 | 911 81 | 3.576 81 | 896 | 907 83 | 888 82 | 866 79 | 3.557 82 | $\begin{array}{r} 889 \\ 79 \end{array}$ |  |  |  |  |  |  |
| Staple-- |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 2.598 | 686 |  |  | 719 |  | 701 | 684 | 687 | 691 | 2.763 | 695 | 699 | 699 | 699 | 2.792 | 2.823 | +1.2 |
| Production Percent | 2.203 85 | 580 85 | 575 80 | 573 80 | 579 81 | 2.307 81 | 581 83 | 575 84 | 560 82 | 558 81 | 2.274 83 | 534 77 |  |  |  |  |  |  |
| Filament-- |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 1.364 | 371 | 399 | 400 | 400 | 1.570 | 402 | 405 | 409 | 410 | 1.626 | 435 | 456 | 457 | 457 | 1.805 | 1.859 | +7.2 |
| Production | 1.208 | 305 | 317 | 315 | 332 | 1.269 | 315 | 332 | 328 | 308 | 1.283 | 355 |  |  |  |  |  |  |
| Percent | 89 | 82 | 79 | 79 | 83 | 81 | 78 | 82 | 81 | 76 | 79 | 82 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 3.141 | 786 | 786 | 778 | 770 | 3.120 | 771 | 772 | 776 | 781 | 3.100 | 778 | 783 | 783 | 782 | 3.157 | 3.166 | +1.2 |
| Production | 2.535 81 | 614 78 | 660 84 | 655 84 | 626 81 | 2.555 82 | 628 83 | 681 91 | 692 91 | 657 85 | 2.658 88 | 673 87 |  |  |  |  |  |  |
| Staple-- |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 1.135 | 282 | 279 | 277 | 275 | 1.113 | 271 | 268 | 268 | 268 | 1.075 | 267 | 266 | 267 | 267 | 1.067 | 1.087 | +0.6 |
| Production | 869 | 199 | 243 | 229 | 233 | 904 | 222 | 251 | 248 | 237 | 958 | 223 |  |  |  |  |  |  |
| Percent | 77 | 71 | 87 | 83 | 85 | 81 | 82 | 94 | 93 | 89 | 90 | 84 |  |  |  |  |  |  |
| Filament-- | 2.006 | 504 | 507 | 501 | 495 | 2.007 | 500 | 504 | 508 | 513 |  |  | 528 | 523 | 519 | 2.090 | 2.079 | +1.3 |
| Production | 1.666 | 415 | 417 | 426 | 393 | 1.651 | 406 | 430 | 444 | 420 | 1.700 | 450 | 528 |  |  |  |  |  |
| Percent | 83 | 82 | 82 | 85 | 79 | 1. 82 | 82 | 86 | 88 | 82 | - 84 | 87 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production Percent | 1.866 | 465 79 | 503 85 | 508 84 | 518 84 | 2.000 83 | 497 80 | 542 | 557 | 546 82 | 2.142 | 574 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 546 | 139 | 139 | 140 | 142 | 560 | 143 | 144 | 144 | 144 | 575 | 146 | 147 | 147 | 148 | 588 | 591 | +1.4 |
| Production | 458 | 120 | 118 | 113 | 122 | 473 | 107 | 124 | 125 | 127 | 483 | 137 |  |  |  |  |  |  |
|  | 84 | 86 | 85 | 81 | 86 | 84 | 75 | 87 | 87 | 89 | 84 | 91 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production | 1.408 | 345 | 385 | 395 | 402 | 1.527 | 390 | 418 | 432 | 419 | 1.659 | 437 |  |  |  |  |  |  |
| Percent | . 78 | 76 | 84 | 85 | 85 | - 83 | 81 | 85 | 86 | 82 | ${ }^{83}$ | 80 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity Production | 32 31 91 | 8 | 8 8 | 8 8 | 8 8 | 32 32 | 8 | 8 8 | 8 8 | 8 8 | 32 32 | 8 8 | 8 | 8 | 8 | 32 | 32 | 0.0 |
| Percent | 97 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |  |  |  |  |  |  |
| Acrylic staple: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 476 | 123 | 124 | 124 | 123 | 494 | 122 | 121 | 121 | 121 | $485$ | 121 | 121 | 121 | 121 | 484 | 484 | 0.0 |
| Production | 454 | 109 | 110 | 111 | 109 | 439 | 109 | 109 | 109 | 107 | 434 | 102 |  |  |  |  |  |  |
| Percent | 95 | 89 | 89 | 90 | 89 | 89 | 89 | 90 | 89 | 89 | 90 | 84 |  |  |  |  |  |  |

See footnates at end of table.

A Appendix table 32--Manmade fiber production and capacity, 1991-95 1/--continued

| Fiber | Annual 1991 | 10 | 20 | 30 | 40 | Year | 10 | 20 | 1993 30 | 40 | Year | 10 | 20 | 199 30 | 40 | Year | Annual planned capacity 1995 | Annual change 1993-95 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  | -M | 110n |  |  |  |  |  |  |  |  | Percent |
| Noncellulosic total 2/ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity | 9.954 | 2.566 | 2.633 | 2.634 | 2.634 | 10.467 | 2.621 | 2.608 | 2.636 | 2.665 | 10.530 | $\begin{array}{r} 2.697 \\ 2.246 \\ 83 \end{array}$ | 2.731 | 2.740 | 2.746 | 10.914 | 11.098 | +2.7 |
| Production Percent | $\begin{array}{r} 8.297 \\ 83 \end{array}$ | 2.081 81 | 2.173 83 | 2.170 82 | 2.178 83 | 8.602 82 | 2.138 82 | 2.247 87 | 2.254 86 | 2.184 82 | 8.823 84 |  |  |  |  |  |  |  |
| Percent Staple-- |  | 81 | 83 | 82 | 83 | 82 | 82 | 87 | 86 | 82 | 84 |  |  |  |  |  |  |  |
| Capacity | 4.755 | 1.230 | 1.263 | 1.261 | 1.259 | 5.013 | 1.237 | 1.217 | 1.220 | 1.225 | 4.899 | $\begin{array}{r} 1.227 \\ 996 \\ 81 \end{array}$ | 1.233 | 1.235 | 1.236 | 4.931 | 4.954 | +0.6 |
| Production Percent | 3.984 84 | 1.008 82 | 1.046 83 | 1.026 81 | 1.043 83 | 4.123 82 | 1.019 83 | 1.059 87 | 1.042 85 | 1.029 84 | 4.149 85 |  |  |  |  |  |  |  |
| Filament-- 3/ | 5.199 | 1.336 | 1.370 | 1.373 | 1.375 | 5.454 | 1.384 | 1.391 | 1.416 | 1.440 | 5.631 | 1.470 | 1.498 | 1.505 | 1.510 | 5.983 | 6,144 | +4.6 |
| Production | 4.313 | 1.073 | 1.127 | 1.144 | 1.135 | 4.479 | 1.119 | 1.188 | 1.212 | 1.155 | 4.674 | 1.250 |  |  |  |  |  |  |
| Percent | 83 | 80 | 82 | 83 | - 83 | 82 | 81 | 86 | + 85 | - 80 | 83 | 84 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity <br> Production | 324 273 | 81 | 81 70 | 81 68 | 82 70 | 325 275 | 89 68 | 89 75 | 89 74 | 90 62 | 357 279 | $\begin{aligned} & 93 \\ & 61 \\ & 66 \end{aligned}$ | 96 | 96 | 96 | 381 | 385 | +3.9 |
| - Percent | 84 | 83 | 86 | 84 | 85 | 85 | 77 | 85 | 84 | 69 | 79 |  |  |  |  |  |  |  |
| Cellulosic filament: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capacity <br> Production | 222 213 | 55 53 | 55 60 | 56 | 56 52 | 222 220 | 57 53 | 57 58 | 58 59 | 58 57 | 230 227 | $\begin{array}{r} 58 \\ 59 \\ 102 \end{array}$ | 59 | 58 | 59 | 234 | 234 | +0.9 |
| Percent | 96 | 96 | 109 | 98 | 93 | 99 | 93 | 102 | 102 | 99 | 99 |  |  |  |  |  |  |  |

Appendix table 33--Domestic shipments of fibers by major category. 1991-94 1/

| Fiber type | 1991 |  |  |  | 1992 |  |  |  | 1993 |  |  |  | 1994 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 10 | 20 | 30 | 40 | 10 | 20 | 30 | 40 | 10 | 20 | 30 | 40 |  | 10 |
|  |  |  |  |  |  | Mil | on 1b |  |  |  |  |  |  |  |
| Woven products: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total | 429.6 | 485.9 | 504.5 | 509.0 | 481.2 | 501.4 | 494.9 | 494.0 | 478.9 | 519.7 | 520.6 | 514.1 |  | NA |
| Polyester | 256.7 | 279.6 | 295.5 | 307.6 | 285.8 | 293.4 | 295.9 | 301.8 | 281.4 | 310.7 | 297.9 | 306.9 |  | NA |
| Rayon | NA | NA | NA | ${ }_{11}{ }^{\text {a }}$ | NA | ${ }_{\text {NA }}$ | NA | ${ }_{113}{ }^{\text {a }}$ | NA | NA | ${ }_{12}{ }^{\text {A }}$ | ${ }^{\text {NA }}$ |  | NA |
| 01 efin | 96.6 | 117.0 | 116.8 | 110.7 | 105.6 | 112.3 | 113.9 | 113.5 | 113.7 | 120.5 | 128.5 | 118.9 |  | NA |
| Nylon | 30.8 | 32.3 | 34.2 | 34.6 | 33.9 | 34.7 | 35.8 | 32.3 | 33.5 | 33.6 | 41.4 | 34.5 |  | NA |
| Acetate | 34.6 | 42.9 | 43.8 | 45.0 | 41.1 | 47.6 | 43.4 | 42.3 | 42.5 | 47.4 | 45.6 | 47.0 |  | NA |
| Acrylic | 10.9 | 14.1 | 14.2 | 11.1 | 14.8 | 13.4 | 5.9 | 4.1 | 7.8 | 7.5 | 7.2 | 6.8 |  | NA |
| Knit products: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total | 292.3 | 323.8 | 328.5 | 344.2 | 354.5 | 361.4 | 346.0 | 312.6 | 336.3 | 344.9 | 306.7 | 296.7 |  | NA |
| Polyester | 173.9 | 196.8 | 205.8 | 223.9 | 228.1 | 230.9 | 222.4 | 200.4 | 212.7 | 213.3 | 186.2 | 183.5 |  | NA |
| $\mathrm{Ny} 10 n$ | 60.0 | 58.9 | 61.3 | 65.1 | 60.5 | 59.0 | 61.9 | 55.7 | 58.7 | 59.6 | 53.4 | 57.5 |  | NA |
| Acrylic | 54.5 | 63.4 | 59.0 | 53.1 | 63.9 | 68.9 | 59.9 | 54.9 | 63.3 | 68.7 | 62.5 | 51.6 |  | NA |
| Acetate | 3.9 | 4.7 | 2.4 | 2.1 | 2.0 | 2.6 | 1.8 | 1.6 | 1.6 | 3.3 | 4.6 | 4.1 |  | NA |
| Rayon | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |  | NA |
| Carpets: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total | 588.6 | 739.7 | 789.9 | 733.3 | 734.0 | 806.2 | 797.4 | 812.8 | 796.7 | 864.8 | 862.3 | 815.8 |  | NA |
| Nylon | 339.6 | 438.6 | 474.5 | 410.9 | 427.6 | 462.9 | 454.2 | 461.5 | 450.9 | 494.5 | 492.5 | 452.9 | 21 | 495.7 |
| Olefin | 210.8 | 242.3 | 254.9 | 249.5 | 235.5 | 278.0 | 277.8 | 278.4 | 277.8 | 302.2 | 302.6 | 293.2 |  | NA |
| Polyester | 38.2 | 58.8 | 60.5 | 72.9 | 70.9 | 65.3 | 65.4 | 72.9 | 68.0 | 68.1 | 67.2 | 69.7 |  | 66.6 |

[^3]Source: Fiber Organon.

| Yarn, thread. and fabric |  |  |  |  |  |  | Apparel |  |  |  |  |  | Headgear |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year and month | Yarn. <br> thread. <br> cordage. <br> and <br> rope | Broadwoven fabric 100\% | Broadwoven fabric blends | Knit fabric | Narraw industri and misc. fabric | Total | Tops | Bot toms | Suits and coats | Sweaters | Other apparel | Total | Total |
|  |  |  |  |  |  | 1.000 | lbs. |  |  |  |  |  |  |
| 1992 | 115.578 | 540.495 | 194.145 | 31.143 | 23.358 | 904.719 | 980.834 | 681.697 | 128.988 | 72,863 | 112.873 | 1.977 .254 | 24.331 |
| 1993: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Jan | 9.408 | 45.699 | 20,725 | 2.661 | 1.685 | 80.177 | 79.814 | 55,996 | 10.628 | 3.237 | 13.070 | 162.745 | 3.304 |
| Feb | 8.314 | 43.256 | 15.935 | 2.726 | 1.760 | 71.991 | 84.005 | 60.319 | 9.158 | 2.424 | 11.162 | 167.069 | 1.994 |
| Mar | 10.488 | 51.853 | 21.821 | 3,005 | 2.268 | 89.435 | 92.151 | 63.595 | 6.178 | 1,184 | 10.959 | 174.068 | 2.515 |
| Apr | 10.055 | 49.619 | 21.083 | 3.236 | 2.207 | 86.199 | 80.258 | 52.779 | 6.694 | 1.702 | 9.677 | 151.111 | 2.544 |
| May | 9.208 | 45.997 | 22.711 | 3.455 | 2.155 | 83.526 | 76.475 | 56.812 | 10.730 | 3.292 | 9.580 | 156.888 | 2.212 |
| Jun | 10.929 | 57.478 | 25.568 | 4.258 | 2.198 | 100.431 | 107.915 | 80.739 | 18.513 | 8.226 | 12.305 | 227.697 | 2.702 |
| Jul | 12.014 | 50.478 50.281 | 20.960 20.218 | 4.073 | 2.376 1.848 | 89.902 84.101 | 121.380 | 75.544 67.519 | 20.518 19.552 | 9.158 9.837 | 13.017 12.602 | 239.617 227.396 | 2.486 2.658 |
| Sep | 9.330 | 45.979 | 18.292 | 3.778 | 1.983 | 79.362 | 104.146 | 60.332 | 18.003 | 10.368 | 11.132 | 203.981 | 2.444 |
| Oct | 9.634 | 48.456 | 16.645 | 4.357 | 2.242 | 81.335 | 101.130 | 58.084 | 14.068 | 11.899 | 12.240 | 197.420 | 2.633 |
| Nov | 8.988 | 42.373 | 13.859 | 3.644 | 2.418 | 71.281 | 89.723 | 57.474 | 10.888 | 8.159 | 11.142 | 177.386 | 1.616 |
| Dec | 10.202 | 43.387 | 15.506 | 2.874 | 2.559 | 74.527 | 78.663 | 55.532 | 10.017 | 2.962 | 9.793 | 156.967 | 1.464 |
| Total | 116.042 | 574.856 | 233,324 | 42.347 | 25.700 | 992.267 | 1,133,545 | 744.725 | 154.947 | 72.448 | 136.679 | 2,242.345 | 28,572 |
| 1994: | 1/8,289 |  |  |  |  |  |  |  |  |  |  |  |  |
| Jan | 8.289 7.365 | 46.452 38.912 | 17.719 15.074 | 2.192 2.368 | 2.593 2.732 | 77.245 66.452 | 93.384 91.063 | 60.777 59.169 | 11.790 | 3.680 2.279 | 14.421 | 184.052 174.517 | 2.699 2 |
| Mar | 8.090 | 46.545 | 18.661 | 2.537 | 3.258 | 80.081 | 103.569 | 65.440 | 6.778 | 1.229 | 14.689 | 191.704 | 3.150 |



Source: Bureau of the Census

| Yarn, thread. and fabric |  |  |  |  |  |  | Appare 1 |  |  |  |  |  | Headgear |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year and month | Yarn. thread. cordage. and rope | Broadwoven fabric 100\% | Broadwoven fabric blends | Knit fabric | Narrow. industrial and misc. fabric | Total | Tops | Bot toms | Suits and coats | Sweat ers | Other appare 1 | Total | Total |
| 1.000 lbs. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1992 | 36.659 | 75.688 | 90.312 | 67.233 | 69.410 | 339.302 | 180.220 | 173.718 | 17.354 | 2.698 | 41.831 | 415.821 | NA |
| 1993: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Jan | 2.751 | 7.233 | 8.714 | 4.518 | 6.166 | 29.382 | 15.465 | 13.577 | 1.120 | 221 | 3.823 | 34.207 | 41 |
| Feb | 3.431 | 6.346 | 8.432 | 4.027 | 6.688 | 28.925 | 18.571 | 15.248 | 1.147 | 285 | 3.498 | 38.749 | 37 |
| Mar | 3.329 | 7.782 | 8.646 | 4.852 | 7.271 | 31.880 | 19.955 | 18.094 | 1.311 | 226 | 3.964 | 43.550 | 56 |
| Apr | 3.086 | 6.127 | 7.810 | 5.625 | 8.155 | 30.802 | 20.846 | 17.226 | 1.054 | 195 | 3.522 | 42.843 | 42 |
| May | 3.389 | 7.010 | 9.874 | 4.689 | 7.044 | 32.006 | 18.710 | 18.750 | 1.089 | 168 | 3.420 3.742 | 42.136 | 50 |
| Jul | 2.443 | 6.142 | 8.350 | 4.557 | 5.795 | 27.288 | 19.775 | 17.789 | 1.516 | 198 | 3.400 | 42.678 | 66 |
| Aug | 3.049 | 6.825 | 8.803 | 5.986 | 6.599 | 31.262 | 20.875 | 17.510 | 1.332 | 297 | 3.891 | 43.904 | 57 |
| Sep | 4.487 | 6.501 | 9.361 | 4.928 | 6.752 | 32.027 | 21.016 | 18.531 | 1.583 | 314 | 3.722 | 45.165 | 54 |
| Oct | 3.995 | 6.654 | 8.512 | 6.420 | 6.700 | 32.281 | 21.015 | 21.197 | 1.541 | 410 | 3.750 | 47.914 | 44 |
| Nov | 3.594 | 6.235 | 7.477 | 3.846 | 6.085 | 27.236 | 21.095 | 19.253 | 1.376 | 449 | 3.962 | 46.135 | 72 |
| Dec | 4.248 | 6.835 | 7.400 | 4.858 | 7.450 | 30.791 | 18.243 | 15.101 | 1.241 | 372 | 3.798 | 38.756 | 44 |
| Total | 41.865 | 80.476 | 102.211 | 60.177 | 80.330 | 365.057 | 236.459 | 211.346 | 15.544 | 3.330 | 44.492 | 511.169 | 609 |
| 1994: 1/ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fan | 4.264 3.771 | 6.540 5.871 | 8.370 8.135 | 3.887 4.280 | 5.091 5.095 | 28.150 27.153 | 19.680 20.646 | 16.099 15.420 | 1.119 1.043 | 322 311 | 3.427 3.695 | 40.647 41.114 | 37 |
| Mar | 5.836 | 7.436 | 11.351 | 5.429 | 6.625 | 36.676 | 24.456 | 18.254 | 1.484 | 266 | 5.074 | 49.534 | 38 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Year and month | Blankets | Bedsheets. pillowcases. etc. | Table cloth placema napki etc | Bathroom and kitchen toweling | Curtains. drapes etc. | Bedspreads. quilts. and misc. | Total | Knot - ted | Woven | Tufted | Felt. tile. etc. | Misc. | Total |
| 1.000 lbs. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1992 | 3.555 | 14.754 | 637 | 16.812 | 1.075 | 1.708 | 38.541 | 616 | 9.612 | 27.761 | --- | 13.276 | 51.264 |
| 1993: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Jan | 176 | 1.004 | 18 | 1.363 | 61 | 150 | 2.773 | 45 | 620 | 1.787 | --- | 1.262 | 3.713 |
| Feb | 201 | . 672 | 34 | 1.268 | 84 | 102 | 2.360 | 35 | 793 | 1.323 | --- | 1.148 | 3.299 |
| Mar | 214 | 1.206 | 59 | 1.591 | 92 | 139 | 3.300 | 64 | 591 | 1.194 | .-. | 1.244 | 3.093 |
| Apr | 221 | 950 | 58 | 1.044 | 74 | 428 | 2.775 | 60 | 827 | 1.097 | --- | 1.254 | 3.237 |
| May | 234 | . 981 | 78 | 1.542 | 89 | 112 | 3.037 | 88 | 856 | 1.514 | --- | 1.004 | 3.462 |
| Jun | 199 | 1.293 | 86 | 1.462 | 114 | 103 | 3.258 | 56 | 1.225 | 1.510 | --- | 1.223 | 4.013 |
| Jul | 168 | - 948 | 66 | 1.561 | 79 | 135 | 2.957 | 54 | 1.478 | 1.011 | --- | 742 | 3.285 |
| Aug | 214 | 1.247 | 36 | 2.163 | 102 | 115 | 3.876 | 47 | 933 | 1.852 | -.. | 916 | 3.748 |
| Sep | 277 | 1.111 | 48 | 1.742 | 154 | 118 | 3.450 | 35 | 975 | 1.982 | --- | 902 | 3.895 |
| Oct | 279 | 1.277 | 77 | 1.733 | 90 | 102 | 3.560 | 59 | 1.681 | 1.587 | --- | 832 | 4.159 |
| Nov | 267 | 1.282 | 63 | 1.848 | 135 | 138 | 3.734 | 49 | 1.158 | 1.948 | --- | 861 | 4.017 |
| Dec | 267 | 1.548 | 31 | 1.519 | 98 | 138 | 3.602 | 40 | 875 | 1.036 | --- | 919 | 2.870 |
| Total | 2.718 | 13.520 | 654 | 18.836 | 1.173 | 1.780 | 38.681 | 632 | 12.013 | 17.841 | --- | 12.307 | 42.793 |
| 1994: 1/ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Jan | 271 | 824 | 43 | 1.217 1.123 | 96 | 89 94 | 2.540 2.326 | 19 16 | 1.049 | + 961 | --. | 1.109 | 3.139 |
| Mar | 235 | 1.217 | 70 | 1.689 | 99 | 141 | 3.451 | 30 | 1.258 | 1.102 | --- | 853 | 3.243 |
| 1/ Preliminary. NA - Not available. --- - An absence of trade. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sourc | Bureau | of the Ce | us. |  |  |  |  |  |  |  |  |  |  |



[^4]

| 1992 | 381 | 4 | --- | --- | --- | 342 | 727 | 31.601 | 15.479 | 9.485 | 2.002 | 610 | 59.176 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1993: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Jan | 14 | 1 | --- | --- | --- | 33 | 48 | 2.397 | 1.165 | 992 | 0 | 48 | 4.602 |
| Feb | 17 | 1 |  |  |  | 34 | 52 | 2.163 | 912 | 889 | 12 | 63 | 4.039 |
| Mar | 22 | 0 | --- | --- | --- | 32 | 54 | 2.646 | 1.288 | 819 | 21 | 52 | 4.827 |
| Apr | 39 | 2 | --- | --- | -.- | 21 | 61 | 2.760 | 1.378 | 1.090 | 37 | 63 | 5.327 |
| May | 64 | 0 | --- | --- | --- | 31 | 95 | 2.661 | 1.389 | 979 | 86 | 86 | 5.201 |
| Jun | 12 | - | --- | -- - | -. | 52 | 64 | 2.193 | 1.311 | 1.133 | 64 | 75 | 4.775 |
| Jul | 41 | 3 | --- | --- | --- | 45 | 89 | 1.793 | 1.415 | 1.397 | 119 | 50 | 4.775 |
| Aug | 35 | 1 | --- | --- | --- | 77 | 112 | 2.177 | 1.141 | 1.423 | 11 | 30 | 4.781 |
| Sep | 65 | 0 | --- | --- | --- | 75 | 141 | 2.163 | 1.138 | 1.380 | 49 | 33 | 4.763 |
| 0 ct | 35 | 6 | --- | --- | --- | 75 | 115 | 2.424 | 1.292 | 1.642 | 20 | 62 | 5.439 |
| Nor | 56 | 1 |  |  | -. | 65 | 122 | 2.516 | 1.406 | 1.796 | 4 | 39 | 5.762 |
| Dec | 56 | 1 | --- | -.- | .-. | 42 | 99 | 3.126 | 1.638 | 1.757 | 7 | 51 | 6.580 |
| Total | 457 | 16 | --- | --- | --- | 581 | 1.053 | 29.019 | 15.472 | 15.298 | 429 | 651 | 60.870 |
| 1994: 1/ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Jan | 31 | 1 | -- | --- | --- | 13 | 44 | 2.978 |  | 1.719 | 1 | 83 | 6.242 |
| Feb | 51 32 | 0 | --- | --- | --- | 26 96 | 82 130 | 2.228 2.628 | 1.225 | 1.305 1.805 | 1 1 | 37 50 | 4.796 6.166 |
| Mar | 32 | 2 | --- | --- | --- | 96 | 130 | 2.628 | 1.682 | 1.805 | 1 | 50 | 6.166 |

[^5][^6]


1/ Preliminary. - An absence of trade. 0 - Levels of trade less than 1.000 bs.




1/ Preliminary. NA - Not available.
Source: Bureau of the Census.


Contact: Chinkook Lee, 202/219-0785

The commodity composition of U.S. agricultural exports has changed since the 1970's. In 1977, grains and oil crops were more than half of U.S. agricultural exports. By 1990, grains and oil crops had fallen to more than a third of U.S. agricultural exports, and high-value products, such as meat and other processed products, had doubled their 1977 export volume to total about a quarter of the exported agricultural commodities. The commodity composition of U.S. agricultural exports has changed because production technology for U.S. high-value commodities has become highly mechanized, which allows greater use of the United States' abundant farmland and requires little use of labor. These factors combine to make U.S. agricultural exports highly competitive with those from other nations.

Factor Intensity and the Changing Commodity Composition of U.S. Agricultural Trade, a new report from USDA's Economic Research Service, examines the amount of U.S. land, labor, and capital devoted to the production of agricultural exports and the associated patterns of U.S. agricultural trade.

Share of U.S. agricultural exports, by commodity group, 1977-90

| Commodity group | 1977 | 1982 | 1990 |
| :--- | ---: | :---: | ---: |
|  | Percent |  |  |
| Livestock | 0.9 | 1.2 | 1.7 |
| Food grains | 11.6 | 18.3 | 10.3 |
| Feed grains | 20.8 | 17.7 | 18.3 |
| Cotton | 6.5 | 5.4 | 7.1 |
| Vegetables, fruits, and nuts | 4.1 | 4.8 | 7.6 |
| Oll crops | 20.3 | 18.6 | 9.8 |
| Tobacco | 4.6 | 4.2 | 3.7 |
| Meat products | 6.4 | 5.8 | 12.2 |
| Feeds and flours | 6.6 | 6.4 | 8.2 |
| Vegetable fats and oils | 9.9 | 8.2 | 5.4 |
| Other processed foods | 6.0 | 6.9 | 12.2 |
| Other agricultural products | 2.4 | 2.5 | 3.5 |
|  |  |  |  |

The composition of U.S. exports reflects the purchasing patterns of different nations. Over time, these patterns change as nations alter their purchases in response to changes in income, relative prices, and domestic shortages. Perhaps the most important of these factors are changes in income that result from the development process. As a nation develops, its agricultural imports tend to shift away from food grains and industrial raw materials toward high-value commodities, such as meat products and fruits and vegetables.

As developing nations earn higher incomes and become increasingly self-sufficient in food production, the composition of U.S. agricultural exports will likely shift toward high-value products, such as meats, fruits and vegetables, and other processed foods. However, products importing countries use to produce high-value commodities, for example feed grains and oil crops (used to produce livestock), will likely also remain a major share of U.S. agricultural exports. As the commodity composition of agricultural exports changes, the use of land and labor for producing agricultural exports will also change, because different commodities have different direct and economywide land and labor requirements.

## To Order This Report...

The information presented here is excerpted from Factor Intensity and the Changing Commodity Composition of U.S. Agricultural Trade, AER-683, by Chinkook Lee and Michelle Robinson. The cost is $\$ 9.00$.

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Use purchase orders, checks drawn on U.S. banks (and in U.S. funds),

- Enclosed is \$ $\qquad$ _. cashier's checks, or international money orders. Make payable to ERS-NASS. Please do not send cash.


## Credit card orders: $\square$ MasterCard Visa Total charges $\$$ <br> $\qquad$ .

Crodit card number:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Card expiration date:


Monthyoar
For fastest service, call our toll-free order desk 1-800-999-6779, in the U.S. and Canada; other areas please call 703-834-0125, or FAX this page to 703-834-0110.


[^0]:    1/ Producer and cooperative loans through April 30, 1994. 2/ Alabama. Florida. Georgia, Narth Carolina. South Carolina, and Virginia. 3/ Arkansas. Louisiana. Mississippi. Missouri. and Tennessee. $4 / \mathrm{Kansas}. \mathrm{Oklahoma}$,

[^1]:    1/ Imports entered through customs districts in the respective regions. 2/ Includes customs

[^2]:    Source: Bureau of the Census.

[^3]:    NA - Not available.

[^4]:    Source: Bureau of the Census.

[^5]:    1/ Preliminary. .-- - An absence of trade. 0 - Levels of trade less than 1,000 lbs.

[^6]:    Source: Bureau of the Census.

