



Cotton and Wool Outlook: September 2022

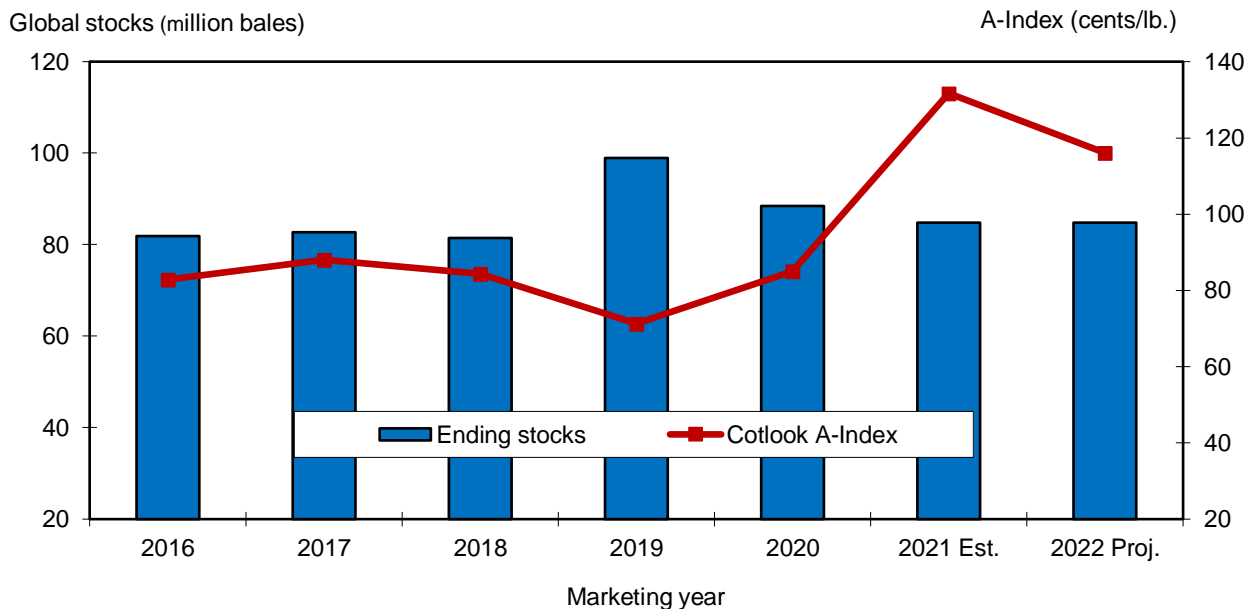
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World 2022/23 Cotton Stocks Increase to 2021/22 Level

The latest U.S. Department of Agriculture (USDA) cotton estimates for 2022/23 (August–July) indicate that global ending stocks are projected at 84.8 million bales, 2 million bales higher than last month and equal to 2021/22 ending stock levels (figure 1). This year’s stock increase is attributable to an increase in global production this month compared to August by 1.4 million bales—much of it in the United States—coupled with a decrease in global mill use of 0.46 million bales.

Global cotton production is projected at 118.5 million bales in 2022/23, 2.7 million bales above the previous year. World cotton mill use is forecast at 118.6 million bales in 2022/23, 0.8 million bales lower than the 2021/22 season. Global 2022/23 cotton trade is projected at 44.6 million bales, unchanged this month but 1.5 million bales (3.4 percent) higher than in 2021/22. With demand remaining stable, prices remain at historically high levels.

Figure 1
Global cotton stocks and prices



Note: 1 bale = 480 pounds.

Sources: Cotlook and USDA, Interagency Commodity Estimates Committee.

Domestic Outlook

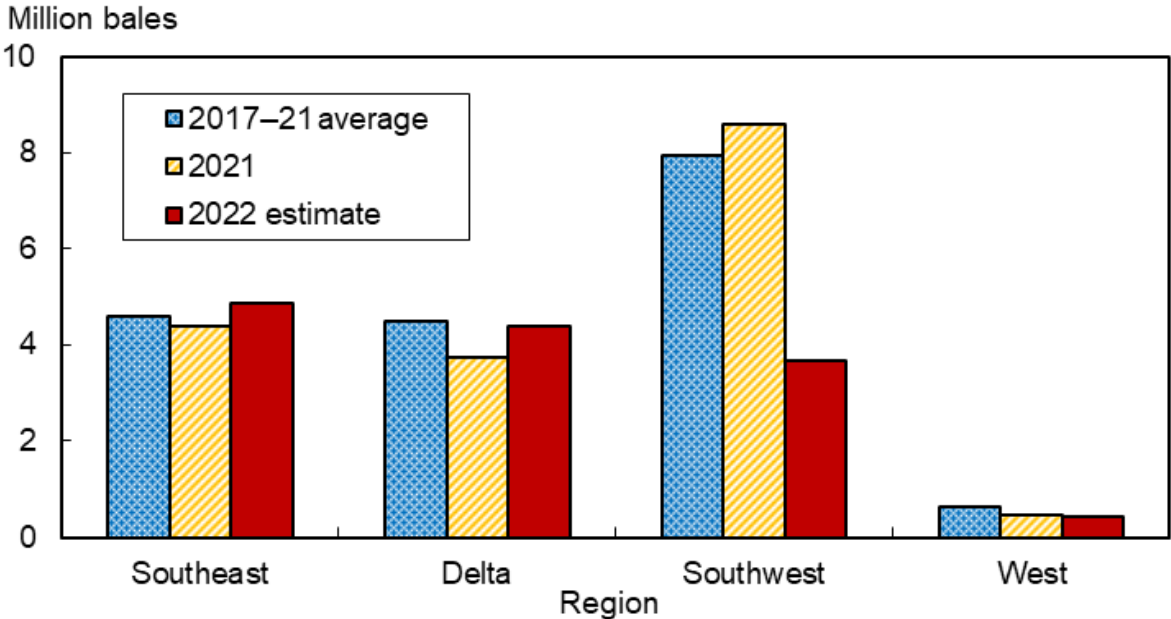
U.S. 2022 Cotton Crop Forecast Higher in September

USDA’s September *Crop Production* report forecasts 2022 U.S. cotton production at 13.8 million bales, 1.3 million above the August estimate but 3.7 million bales below the 2021 crop. The larger September forecast is attributable to a higher planted acreage projection which more than offset a slightly lower yield estimate. If realized, the 2022 U.S. cotton crop would still be the smallest crop since 2015/16 and the third lowest of the last decade.

U.S. cotton planted area for 2022 was increased 10.5 percent in September based on acreage reported to USDA’s Farm Service Agency (FSA). Planted acreage is estimated at 13.8 million acres by USDA’s National Agricultural Statistics Service (NASS), while harvested area is projected at 7.9 million acres, also 10.5 percent above the August forecast. As a result, 2022 abandonment projected remains at 43 percent, still the highest on record. The national yield is forecast at 843 pounds per harvested acre this season, slightly below last month’s estimate but still above the 3-year average of 834 pounds. For current production estimates by State, see table 10 published separately with this report.

Upland cotton production in 2022 is forecast at 13.4 million bales, 22 percent (3.8 million bales) below 2021 and 24 percent below the 5-year average of 17.5 million bales. Compared with last season, 2022 upland production is expected to increase in two of the four Cotton Belt regions (figure 2).

Figure 2
U.S. regional upland cotton production



Note: 1 bale = 480 pounds.
 Source: USDA, National Agricultural Statistics Service, *Crop Production* reports.

For the Southwest, despite a 1.8 million acres (25 percent) increase in planted acreage from last year, the extreme dry conditions this year led to a projected record abandonment rate of 66.1 percent and a year-to-year reduction in harvested acreage by 3.1 million acres down to 3 million acres. This results in an upland cotton production forecast of only 3.7 million bales for the region—almost a 5 million bale decrease from 2021 and well below the 5-year average of 7.9 million bales. The Southwest yield is forecast at 596 pounds per harvested acre in 2022, the lowest since 2011.

In the Southeast, 2022 cotton production is forecast at nearly 4.9 million bales, 11 percent above 2021. The higher production is mostly attributable to a 0.3 million acre increase in harvested area—forecast at 2.6 million acres. Even though the 2022 Southeast forecast yield of 893 pounds per harvested acre is down slightly from 2021, it is still above the 5-year average. In the Delta, 2022 cotton production is expected to approach 4.4 million bales, almost equal to the 5-year average of 4.5 million bales. This is largely the result of a 24 percent year-to-year increase in harvested acreage to 1.965 million acres, more than offsetting a modest drop in yield to 1,069 pounds per harvested acre from 1,131 pounds last year.

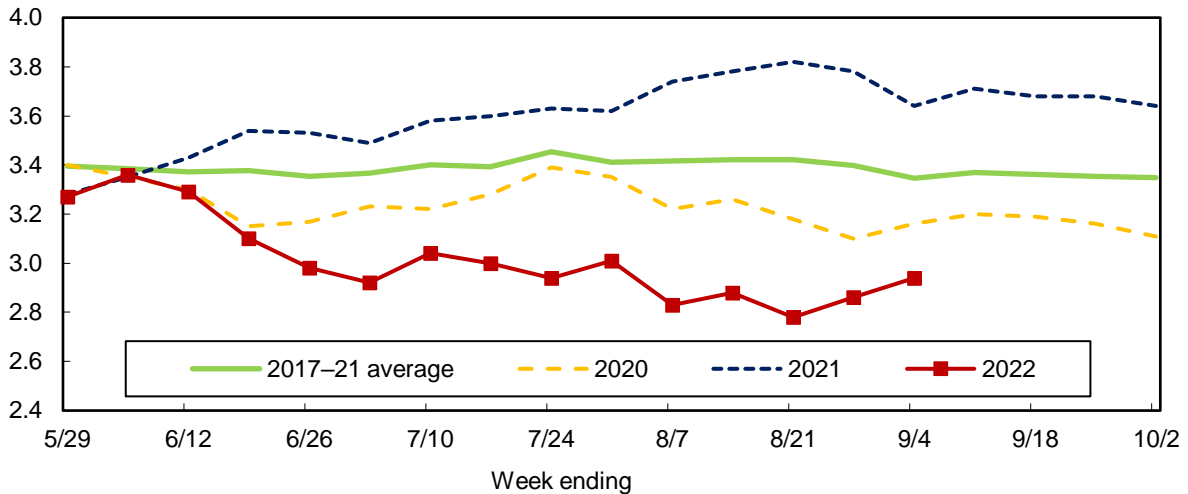
In the West, the 2022 upland crop is projected at 445,000 bales, compared with 478,000 bales in 2021. Planted area is estimated at 186,000 acres, slightly above last year's area but still well below the 5-year average of 252,000 acres. Meanwhile, a yield expectation of 1,283 pounds per harvested acre—compared with a 5-year average of 1,314 pounds—is likely to keep the West's upland crop at its lowest in over 80 years. In addition, the extra-long staple (ELS) cotton crop—primarily grown in the West—is projected at 460,000 bales in 2022, above last year's significantly reduced crop of 332,000 bales.

U.S. cotton crop development in September is running ahead of both last season and the 5-year average. As of September 4, 39 percent of the cotton area had bolls opening, compared with 28 percent in 2021 and 32 percent for the 2017–21 average. Texas and Georgia—the States with the largest cotton area—had bolls opening on 41 and 38 percent of their respective area, compared with 5-year averages of 30 and 36 percent. In contrast, Missouri had bolls opening on 17 percent of its area, compared with the 2017–21 average of 28 percent. Although this season's U.S. cotton crop is slightly ahead of last season, crop conditions remain considerably below the last several seasons (figure 3). In fact, 2022 U.S. cotton crop conditions are the lowest in several years, near those of 2018 at this point in the season. As of September 4, 35 percent of the cotton area was rated “good” or “excellent,” compared with 61 percent last year, while 31 percent was rated “poor” or “very poor,” compared with 7 percent a year ago.

Figure 3

U.S. cotton crop conditions

Index (3=fair and 4=good)



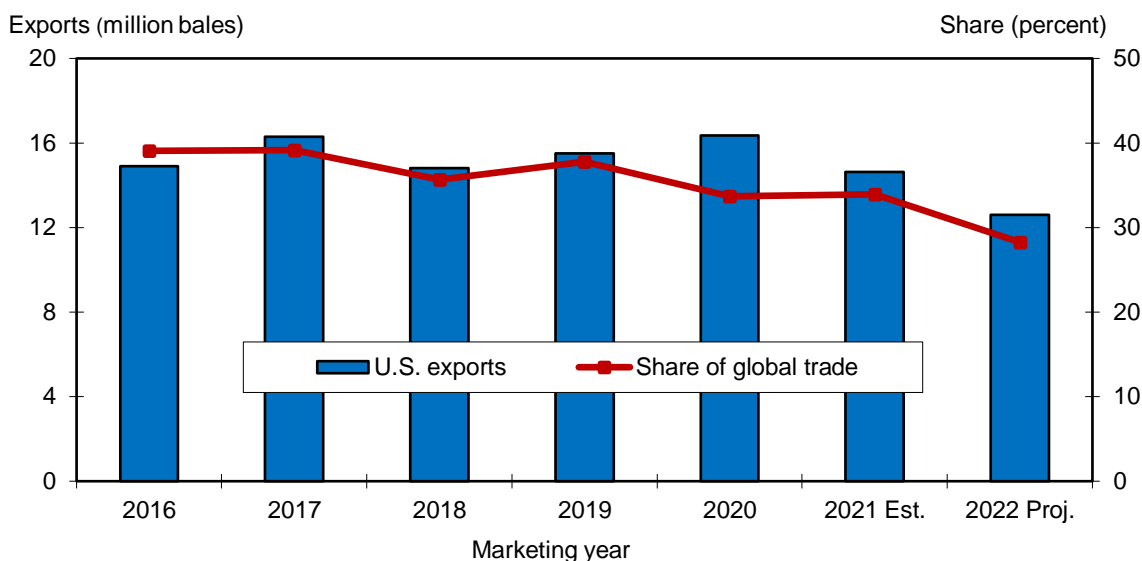
Source: USDA, *Crop Progress* reports.

U.S. Cotton Demand and Stocks Increased in September

The estimate for U.S. cotton demand for 2022/23 was raised 600,000 bales (nearly 4 percent) in September to 14.9 million bales, with U.S. exports accounting for the increase. U.S. cotton exports are projected at 12.6 million bales in 2022/23, 14 percent below the previous year. With world trade prospects this season projected to be up 1.5 million bales from last year and U.S. exports constrained by the year-to-year drop in U.S. cotton production, 2022/23 U.S. cotton exports as a share of global trade (figure 4) are projected to fall below 30 percent for the first time since 2015/16. U.S. mill use remains forecast at 2.3 million bales in 2022/23, 250,000 bales below 2021/22.

With the rise in cotton production more than offsetting the demand increase this month, the U.S. ending stocks estimate for 2022/23 is now forecast higher at 2.7 million bales, a month-to-month 28 percent increase of 900,000 bales. The U.S. stocks-to-use ratio is expected to be 18 percent in 2022/23, down from almost a 22 percent stocks-to-use ratio the year before. Although both projected U.S. cotton stocks and the stocks-to-use ratio are higher this month compared with August, they are still down from the year before. With tighter U.S. stocks and with stable global cotton demand, prices continue to be supported at above-average levels. The 2022/23 upland cotton farm price is forecast at 96 cents per pound, down 1 cent from August but still up from an estimated 92 cents per pound in 2021/22 and still at a record level. The final 2021/22 upland farm price estimate will be released by USDA, NASS at the end of September.

Figure 4
U.S. cotton exports and share of global trade



Note: 1 bale = 480 pounds.

Source: USDA, *World Agricultural Supply and Demand Estimates* reports.

Revisions to 2021/22 U.S. Cotton Demand and Stocks

Estimates for U.S. cotton demand and stocks were revised in September with the release of complete marketing year data for 2021/22. Data from USDA’s FSA and NASS confirmed that U.S. cotton mill use in 2021/22 totaled 2.55 million bales, 150,000 bales above 2020/21. U.S. cotton exports, in contrast, were below 2020/21, reaching 14.6 million bales in 2021/22. The export estimate was obtained by averaging cotton shipments data reported by the U.S. Census Bureau and USDA’s *U.S. Export Sales* reports; this procedure is consistent with the calculation used for the previous 4 seasons when considerable differences between these sources of trade data were also observed. In addition, U.S. cotton stocks data collected and reported by AMS, FAS, FSA, and NASS led to the computation of ending stocks for 2021/22, which are estimated at 3.75 million bales, compared with 3.15 million bales for 2020/21. For details on the calculation of U.S. cotton ending stocks, see the Highlight section in this report.

International Outlook

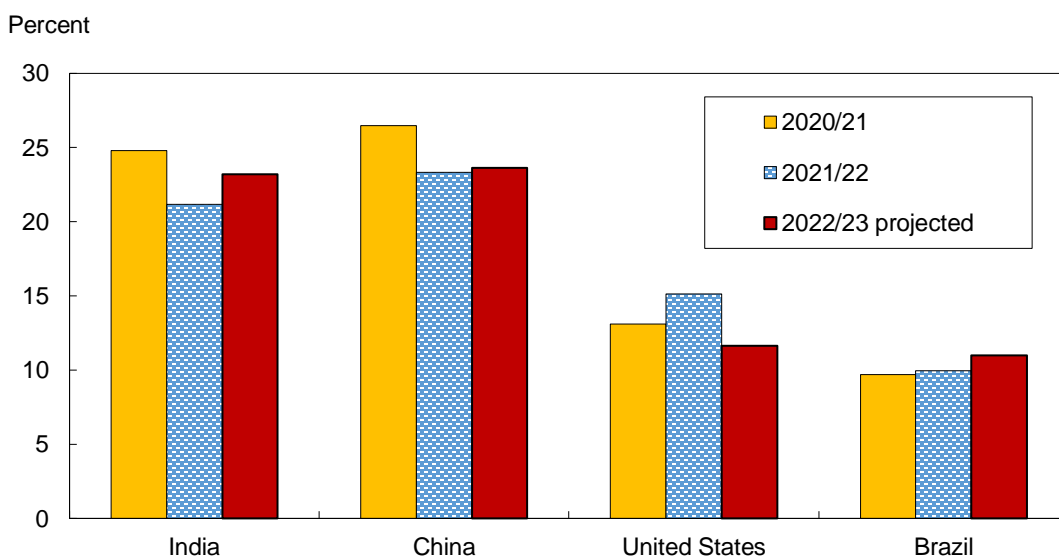
Global Cotton Production Forecast Higher in 2022/23

World cotton production is projected at 118.5 million bales this season, 1.4 million bales above last month's projection and 2.7 million bales above 2021/22. With the exception of the United States, larger cotton crops are forecast for the major cotton-producing countries in 2022/23. World cotton harvested area in 2022/23 is forecast at approximately 32.7 million hectares (80.1 million acres), slightly above 2021/22—with a large increase in India and smaller increases elsewhere offsetting the large year-to-year decrease in harvested area in the United States. Meanwhile, the global cotton yield is forecast at 788 kilograms (kg) per hectare (703 pounds per acre) in 2022/23, about 2.4 percent above the previous 3-year average.

For India 2022/23 cotton area is projected at 13 million hectares (32 million acres), up 0.85 million hectares (2.1 million acres) from last year as more normal weather patterns allowed cotton plantings to rebound in key regions. With harvested area forecast higher in 2022/23 and the national yield also projected 7 percent higher at 461 kg per hectare, India's cotton crop is projected at 27.5 million bales, 3 million bales (11 percent) above the 2021/22 season. India is expected to account for 24 percent of the global cotton crop in 2022/23 (figure 5).

In China—the projected top producing country this year—2022/23 cotton harvested area is forecast marginally (1.6 percent) higher at 3.15 million hectares (7.8 million acres), with cotton acreage concentrated in the high-yielding Xinjiang region. In addition, growing conditions appear to be favorable in Xinjiang similar to the good conditions of 2020/21, offsetting some drier weather in other regions. As a result, the national yield is forecast at 1,935 kg per hectare in 2022/23, up 2 percent from last season and approaching 2020/21's record of 1,976 kg per hectare. China's 2022/23 cotton crop is projected at 28 million bales, compared with last season's 27 million bales. China is expected to contribute 24 percent of world cotton production in 2022/23.

Figure 5
Share of total cotton production by major producer



Source: USDA, *World Agricultural Supply and Demand Estimates* reports.

Production forecasts for other significant cotton countries of Brazil, Australia, and Pakistan are mixed in 2022/23. Brazil production is projected to increase 1.5 million bales (13 percent) from the 2021/22 season to 13 million bales—11 percent of total global cotton production—attributable to a 13 percent rebound in forecast yield at 1,719 kg per hectare and up from 2021/22's yield of 1,565 kg per hectare. Meanwhile, Australia's cotton crop is forecast to increase even further in 2022/23, as above normal precipitation and high reservoir levels have continued to support higher cotton area. Australia's projected area for 2022/23 is 650,000 hectares (1.6 million acres), an 8 percent increase from 2021/22 season and the highest level in 6 years. As a result, Australia's crop is projected to increase 4 percent to 6 million bales. In contrast, in Pakistan—the world's fifth largest producer—recent floods and heatwaves have contributed to a 700,000-bale reduction in their crop this month compared to August to 5.5 million bales, a reduction of 500,000 bales from the previous year's crop and the second lowest production level in nearly 40 years.

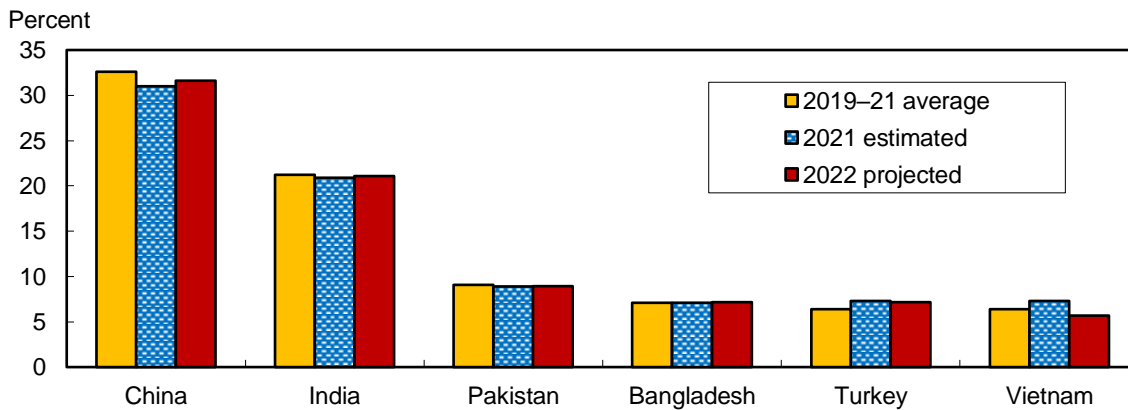
World Cotton Mill Use Down Slightly in 2022/23

Global cotton mill use in 2022/23 is forecast at 118.6 million bales, down slightly by 0.8 million bales from 2021/22 but remaining similar to recent historically elevated levels. Cotton mill use is forecast to stay similar to last season for each of the major cotton-spinning countries in 2022/23.

For the top six cotton-spinning countries—China, India, Pakistan, Bangladesh, Turkey, and Vietnam—mill use is forecast to account for a combined 82 percent of the world total in 2022/23, similar to last season. For China, cotton mill use is projected at 37.5 million bales in 2022/23, 500,000 bales (1.4 percent) above 2021/22. China is the leading cotton spinner by far, accounting for approximately one-third of global cotton mill use (figure 6). India's use is forecast at 25 million bales—21 percent of the world total—in 2022/23, the same level as the year before. For Pakistan, 2022/23 cotton mill use is projected to fall 200,000 bales to 10.5 million bales, contributing 9 percent of the global total. Sustained cotton mill use is projected for Bangladesh, Turkey, and Vietnam, with use forecast at 8.5 million bales (7 percent of the world total), 8.5 million bales (7 percent), and 6.8 million bales (6 percent), respectively.

Figure 6

Share of total cotton consumption by major spinner



Source: USDA, *World Agricultural Supply and Demand Estimates* reports.

Global Cotton Trade Increases While Stocks Hold Steady

World cotton trade is forecast at 44.6 million bales in 2022/23, unchanged from last month but 1.5 million bales above last season. The substantial year-to-year forecast reduction in U.S. exports is more than offset by increases for Australia, Brazil, and the African Franc Zone countries. While U.S. exports are forecast to decline 2 million bales (14 percent) from last season to 12.6 million bales in 2022/23, Australia's exports are projected to reach a record 6.4 million bales, a 2.5 million bales and 64 percent increase. Brazil's exports are projected at 8.6 million bales, 800,000 million bales above 2021/22.

Higher imports are expected this season by China, Bangladesh, India, and Pakistan. For China, imports are forecast at 9 million bales (+1.2 million bales) in 2022/23. Imports by Bangladesh are forecast at 8.4 million bales (+200,000 bales), and India's imports are expected to increase 50 percent (+500,000 bales) to 1.5 million bales. Pakistan imports are projected to increase 700,000 bales to 5 million bales but will be offset by 700,000 bales decrease in imports by Turkey. Imports of cotton by Turkey are forecast to be 4.8 million bales, down from last year's record 5.5 million bales as their production rises and consumption drops slightly.

Based on the latest cotton supply and demand estimates, global cotton ending stocks for 2022/23 are projected at 84.8 million bales, the same as last year. While stocks in China and the United States are forecast to decline in 2022/23, cotton stocks are expected to increase in Brazil (+1.2 million bales) and India (+300,000 bales). China's ending stocks are forecast at 36.4 million bales, while Brazil and India's cotton stocks are forecast at 12.98 and 8.9 million bales respectively. Ending stocks in China, India and Brazil continue to account for the largest portion of global stocks in 2022/23—43, 15, and 11 percent, respectively. Combined they account for almost 69 percent of world stocks, while the United States accounts for only 3 percent of 2022/23 stocks.

Highlight

The U.S. Cotton Ending Stocks Calculation for 2021/22

U.S. cotton supply, demand, and stocks estimates are updated monthly in USDA's *World Agricultural Supply and Demand Estimates (WASDE)* report. During most of the marketing year, the ending stocks estimate is a function of the cotton supply estimate for the season minus the cotton demand estimate; in addition—in most months—a nominal quantity is added or subtracted to allow ending stocks to round to the nearest 100,000 bales. However, once the season has ended, USDA's cotton Interagency Commodity Estimates Committee (ICEC) is tasked with finalizing ending stocks based on actual stock surveys and other relevant data.

Historically, the U.S. Department of Commerce, Bureau of the Census surveyed and reported end-of-season cotton stocks in three categories: stocks in public warehouses, stocks in consuming establishments, and stocks “elsewhere.” The elsewhere category was partially estimated, as it included cotton in private storage and cotton in transit. The Census report was used by the cotton ICEC as “official” stocks at the end of each season, with the difference between USDA's supply and demand estimate and the Census Bureau estimate placed in a residual “unaccounted” category in the *WASDE*.

However, the Census survey was eliminated in the fall of 2011, and the cotton ICEC had to rely on incomplete data to estimate U.S. cotton ending stocks for several seasons. Beginning in 2015, USDA's National Agricultural Statistics Service (NASS) assumed responsibility for reporting the previously unavailable data—extra-long staple (ELS) cotton stocks in consuming establishments and all cotton stocks in private storage at season's end.

Table A shows the components used to calculate the 2021/22 and 2020/21 U.S. cotton ending stocks estimate, with adjustments made to reflect the lag between the report dates and the end of the marketing year on July 31. Since the establishment of the USDA, NASS survey in 2015, reports now exist for all stock categories except for stocks in transit (including stocks at ports). This category is estimated by the cotton ICEC using the USDA, Foreign Agricultural Service's (FAS) *Export Sales* shipment data. In addition, the calculation includes a deduction for any reported ginnings of new crop cotton before the end of the marketing year.

Based on the available data, U.S. cotton stocks on July 31, 2022—the end of the 2021/22 marketing year—are computed to be 3.64 million running bales or 3.75 million statistical (480-pound) bales. The final U.S. stocks estimate is 600,000 bales above the 2020/21 estimate of 3.15 million bales, as U.S. production exceeded demand in 2021/22. U.S. cotton ending stocks in 2021/22 are up 19 percent from 2020/21 and the stocks-to-use ratio rose 5 percentage points to 22 percent, bringing both close to their respective 10-year averages.

Table A--U.S. Department of Agriculture's U.S. cotton ending stocks calculation, 2020/21 and 2021/22

Item	Units	2020/21	2021/22
Cotton stocks components:			
(a) Stocks held in public storage and compresses 1/	1,000 running bales	2,323	2,716
(b) Preseason ginnings 2/	1,000 running bales	0	31
(c) Upland cotton mill stocks 3/	1,000 running bales	107	109
(d) Extra-long staple (ELS) cotton mill stocks 4/	1,000 running bales	2	4
(e) Stocks held in private storage 4/	1,000 running bales	136	286
(f) Stocks subtotal (a minus b plus c, d, and e)	1,000 running bales	2,568	3,084
Further adjustments:			
(g) Stocks in transit and at ports 5/	1,000 running bales	483	548
(h) Estimated ending stocks (f plus g)	1,000 running bales	3,051	3,632
(i) Adjusted cotton ending stocks	1,000 480-lb. bales	3,150	3,750

1/ Inventory data (adjusted to July 31) from the Agricultural Marketing Service's (AMS) *Bales Made Available for Shipment (BMAS)* report.

2/ Data from the National Agricultural Statistics Service's (NASS) August 2022 *Cotton Ginnings* report.

3/ Data from FSA's *Economic Adjustment Assistance Program* report.

4/ Data from NASS's September 2022 *Cotton System Consumption and Stocks* report.

5/ Estimated based on Foreign Agricultural Service's *Export Sales* cotton shipment data early in the subsequent season.

Source: USDA, various reports.

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