



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

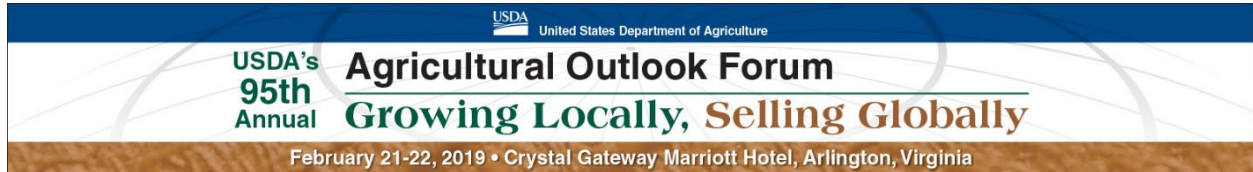
Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*



# Cotton Outlook

Friday, February 22, 2019

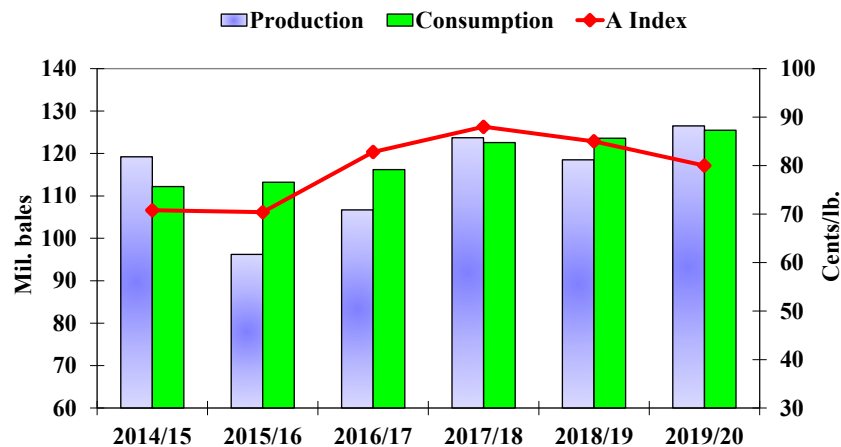
[www.usda.gov/oce/forum](http://www.usda.gov/oce/forum)

**THE WORLD AND UNITED STATES COTTON OUTLOOK**

Erik Dohlman, James Johnson, Stephen MacDonald,  
 Leslie Meyer, and Graham Soley.  
 U.S. Department of Agriculture

**Introduction**

**World Production, Consumption, and Prices  
 2014/15 through 2019/20 projection**



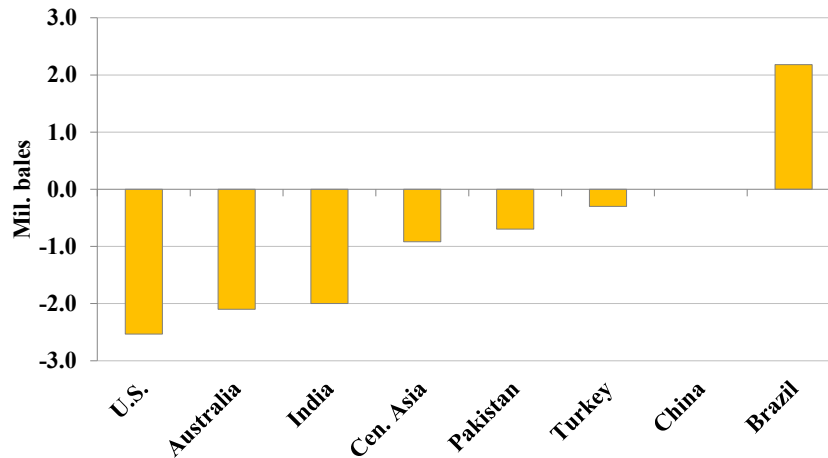
The U.S. Department of Agriculture’s (USDA’s) first 2019/20 world cotton projections anticipate that production will exceed consumption, raising world stocks slightly, by 1 million bales. World cotton production is expected to rise 6.8 percent with yields rebounding in a number of countries and area also rising. Global consumption is expected to continue growing, but at a rate slightly below its long-run average. It is expected that China will continue to gradually expand imports following years of significant limitations in import access applied to facilitate disposal of surplus government-held stocks. The A Index is forecast to decline by 5 cents to 80 cents per pound due to projected higher stocks outside of China.

U.S. 2019/20 cotton production is expected to rise to 22.5 million bales, based on a slight increase in planted area, and sharply lower abandonment. Domestic mill use is projected marginally above the 2018/19 level, and exports are expected to rise, but ending stocks are also projected higher.

## World Cotton Situation, 2018/19

### World Cotton Production, 2018/19

#### **Estimated Changes in World Production, 2018/19 compared with 2017/18**



Global 2018/19 cotton production is expected lower by 4.2 percent from the previous year to 118.5 million bales, as many major producing countries witnessed decreases excluding Brazil (up) and China (unchanged). The United States saw a 12.1-percent decrease with severe storms affecting yields and dry weather encouraging higher abandonment. Likewise, drought almost halved Australian production from the previous year as problems with precipitation also drove production down in most of Central Asia, India, Pakistan, and the United States. U.S. 2018/19 area harvested was down 5.1 percent to 4.3 million hectares with a yield of 939 kg/hectare, down 7.4 percent from a year earlier.

China's 2018/19 crop is estimated at 27.5 million bales, unchanged from last season. Lower area outside of Xinjiang province is offset by an increasing share of cotton planted in Xinjiang, where yield is nearly twice the national average. China's 2018/19 harvested area is estimated at 3.35 million hectares, 1.5 percent below 2017/18, while yield is expected to break the previous year's record at 1,787 kg/hectare, up 1.5 percent.

India's 2018/19 production is estimated at 27 million bales, down 6.9 percent from the preceding year on lower area and yield. As a result, India's crop dropped below China's for the first time in five years. Harvested area is estimated at 12.3 million hectares, marginally down 1.6 percent from 2017/18 as below-average monsoon rainfall and pink bollworm infestation truncated harvesting. India's 2018/19 yield is estimated at 480 kg/hectare, down 5.3 percent from the

previous season with deficient rainfall and pest infestation in the major cotton producing areas of Gujarat and Maharashtra.

#### 2018/19 China Supply and Demand

#### **China Cotton Supply and Demand 2017/18 and 2018/19 est.**

	<b>Unit</b>	<b>2017/18</b>	<b>2018/19</b>	<b>Change (%)</b>
<b>Beg. Stocks</b>	<b>Mil. bales</b>	<b>45.9</b>	<b>38.0</b>	<b>-17.2</b>
<b>Production</b>	<b>"</b>	<b>27.5</b>	<b>27.5</b>	<b>0.0</b>
<b>Imports</b>	<b>"</b>	<b>5.7</b>	<b>7.5</b>	<b>31.0</b>
<b>Total supply</b>	<b>"</b>	<b>79.1</b>	<b>73.0</b>	<b>-7.7</b>
<b>Consumption</b>	<b>"</b>	<b>41.0</b>	<b>40.5</b>	<b>-1.2</b>
<b>Exports</b>	<b>"</b>	<b>0.1</b>	<b>0.2</b>	<b>20.0</b>
<b>Total use</b>	<b>"</b>	<b>41.1</b>	<b>40.7</b>	<b>-1.2</b>
<b>Ending stocks</b>	<b>"</b>	<b>38.0</b>	<b>32.4</b>	<b>-14.9</b>
<b>Reserve stocks</b>	<b>"</b>	<b>16.3</b>	<b>9.0</b>	<b>-44.6</b>
<b>Stocks-to-use</b>	<b>%</b>	<b>92.4</b>	<b>79.6</b>	<b>-13.8</b>
<b>% of world stks</b>	<b>"</b>	<b>46.9</b>	<b>42.9</b>	<b>-8.5</b>

China is expected to continue to draw down stocks in 2018/19, despite a slight decline in use. While sales from the State Reserve are expected to begin later than in previous years, reserve stock levels are likely to decline by 45 percent to 9.0 million bales, the lowest level since 2010/11. Total ending stocks are projected at 32.4 million, the lowest level since 2011/12. Imports are forecast at 7.5 million bales, as some additional access beyond the WTO TRQ was provided. However, import access remained well below the gap between use and production.

#### 2018/19 World Consumption, Trade, Ending Stocks, and Prices

World cotton consumption in 2018/19 is expected to reach 123.6 million bales, growing 0.9 percent from the previous year, to the highest level since 2007/08. Consumption growth is forecast in India, Bangladesh, and Vietnam, while less use is expected in China, Pakistan, and Turkey. Financial woes in Turkey have constrained mills while China's textile exports have slowed and domestic growth there has weakened. Within the top ten consuming countries, Vietnam and Bangladesh are expected to have the most robust growth at 10.6 and 6.7 percent.

**World Cotton Supply and Demand  
2017/18 and 2018/19 est.**

	<u>Unit</u>	<u>2017/18</u>	<u>2018/19</u>	<u>Change (%)</u>
<b>Beg. Stocks</b>	<b>Mil. bales</b>	<b>80.4</b>	<b>81.1</b>	<b>0.8</b>
<b>Production</b>	<b>"</b>	<b>123.7</b>	<b>118.5</b>	<b>-4.2</b>
<b>Imports</b>	<b>"</b>	<b><u>40.9</u></b>	<b><u>42.3</u></b>	<b><u>3.4</u></b>
<b>Total supply</b>	<b>"</b>	<b>204.1</b>	<b>199.5</b>	<b>-4.2</b>
<b>Consumption</b>	<b>"</b>	<b>122.6</b>	<b>123.6</b>	<b>0.9</b>
<b>Exports</b>	<b>"</b>	<b><u>40.9</u></b>	<b><u>42.3</u></b>	<b><u>3.4</u></b>
<b>Total use</b>	<b>"</b>	<b>123.1</b>	<b>124.0</b>	<b>0.8</b>
<b>Ending stocks</b>	<b>"</b>	<b>81.1</b>	<b>75.5</b>	<b>-6.9</b>
<b>Stocks-to-consumption</b>	<b>%</b>	<b>66.1</b>	<b>61.1</b>	<b>-7.6</b>

World trade is expected to increase to 42.3 million bales in 2018/19, the highest level since 2012/13's record. A record crop in Brazil is driving its exports to a record-high, while import-dependent countries, such as Vietnam and Bangladesh, are also set to reach their highest level of imports. China imports are forecast to increase 31.0 percent, but the continued reduction in State Reserve stocks limits import opportunities. These import gains are expected to more than offset slower demand from Turkey and Pakistan. Brazil has witnessed greater exportable supplies with stagnating domestic demand and increasing production during the second crop (safrina) season. Despite Australian production decreasing 44.7 percent, exports are down only 8.1 percent to 3.6 million bales with significant carry-in stocks. West African countries' exports are set to be a record at 5.5 million bales with Benin, Mali, and Burkina Faso driving shipments and record production in Benin. This more than offsets a trend of lower exports in Central Asia with lower exportable supplies, and expanded domestic use in Uzbekistan.

World ending stocks are estimated to be the lowest in seven years at 75.5 million bales, down 6.9 percent from the previous year. Lower global production from the previous year coupled with higher consumption are the primary drivers. The largest decline in stocks is in China, as the country continues to deplete State Reserves. The decline there is estimated at 5.7 million bales from the previous year to 32.4 million bales, and Australia is the second largest decline with a 35.2-percent decrease from 2017/18 to 1.9 million. Stocks outside of China are marginally up 0.2 percent to 43.1 million bales, largely fueled by record production in Brazil.

## U.S. Cotton Situation, 2018/19

### Area and Production

U.S. all-cotton production in 2018/19 is estimated at approximately 18.4 million bales, 12 percent below last season's crop. Cotton planted acreage increased 11 percent in 2018 as relative prices favored cotton over alternative crops. At 14.1 million acres, planted area rose nearly 1.4 million acres above 2017 and was the highest since 2011. The U.S. abandonment rate doubled to 25 percent in 2018, and was the highest in 5 years. Meanwhile, the U.S. 2018 yield declined from last season's record-high 905 pounds per harvested acre to 838 pounds per harvested acre. Upland production is estimated at nearly 17.6 million bales—2.6 million below 2017—with an average yield of 821 pounds per harvested acre, slightly below the 5-year average. Extra-long staple (ELS) cotton production is estimated 13 percent higher—at 794,000 bales—as the second highest yield on record resulted in the largest ELS crop since 2011.

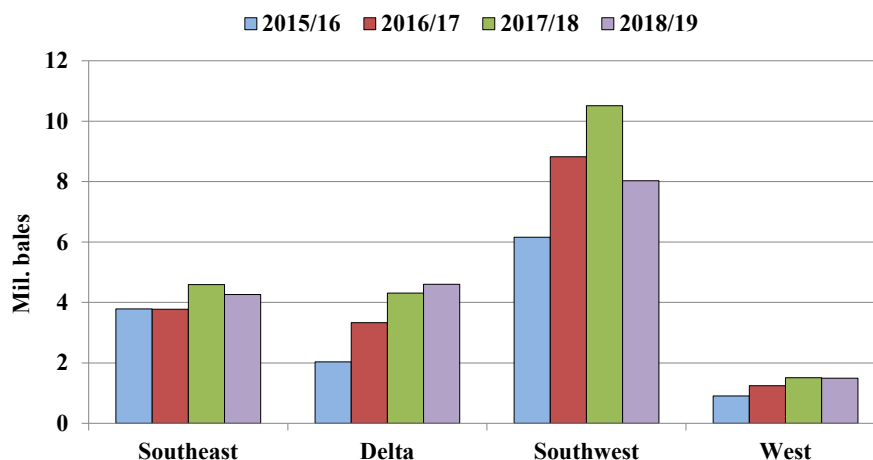
**U.S. Cotton Area, Abandonment, Yield, and Production**

	<u>Unit</u>	<u>2014/15</u>	<u>2015/16</u>	<u>2016/17</u>	<u>2017/18</u>	<u>2018/19</u>
<b>Planted acres</b>	<b>Mil. acres</b>	<b>11.1</b>	<b>8.6</b>	<b>10.1</b>	<b>12.7</b>	<b>14.1</b>
<b>Harvested acres</b>	<b>Mil. acres</b>	<b>9.4</b>	<b>8.1</b>	<b>9.5</b>	<b>11.1</b>	<b>10.5</b>
<b>Abandonment rate</b>	<b>%</b>	<b>16.1</b>	<b>5.9</b>	<b>5.6</b>	<b>12.7</b>	<b>25.3</b>
<b>Yield/harvested acre</b>	<b>lbs./acre</b>	<b>838</b>	<b>766</b>	<b>867</b>	<b>905</b>	<b>838</b>
<b>Production</b>	<b>Mil. Bales</b>	<b>16.3</b>	<b>12.9</b>	<b>17.2</b>	<b>20.9</b>	<b>18.4</b>

Compared with last season, 2018 upland cotton production was smaller in three of the four Cotton Belt regions. Upland cotton production in the Southwest decreased 24 percent from an all-time high of 10.5 million bales last season to 8.0 million bales, accounting for 45 percent of total U.S. upland production. While Southwest abandonment approached 39 percent—the highest in 5 years—the yield slipped to 721 pounds per harvested acre, the lowest in 3 years.

Southeast cotton production declined 7 percent in 2018 to approximately 4.3 million bales. Planted area increased to nearly 2.9 million acres, the region's highest since 2011, as area shifted from corn, soybeans, and peanuts. However, the effects of two hurricanes this season increased abandonment and reduced yield there to the lowest in 7 years, 748 pounds per harvested acre.

## U.S. Cotton Regional Production, 2015/16 to 2018/19



In contrast, cotton production in the Delta region increased 7 percent from the previous year to 4.6 million bales in 2018. Delta planted area approached 2.0 million acres, the highest since 2012. And, with a record yield in 2018, at 1,125 pounds per harvested acre, the Delta crop reached its highest level in over a decade.

## U.S. Cotton Supply and Demand 2017/18 and 2018/19 est.

	<u>Unit</u>	<u>2017/18</u>	<u>2018/19</u>	<u>Change (%)</u>
<b>Beg. Stocks</b>	Mil. bales	2.8	4.3	56.4
<b>Production</b>	"	20.9	18.4	-12.1
<b>Imports</b>	"	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
<b>Total supply</b>	"	23.7	22.7	-4.1
<b>Mill use</b>	"	3.2	3.2	-0.8
<b>Exports</b>	"	<u>15.8</u>	<u>15.0</u>	<u>-5.3</u>
<b>Total use</b>	"	19.1	18.2	-4.6
<b>Ending stocks</b>	"	4.3	4.3	0.0
<b>Stocks-to-use</b>	%	22.5	23.6	4.9
<b>Farm price</b>	cents/lb.	68.6	72.0	5.0

Upland planted area and production in the West decreased in 2018 after back-to-back increases. In the West, 2018 area totaled 285,000 acres, compared with 314,000 acres in 2017. Along with the area, the region's yield of 1,340 pounds per harvested acre—the West's lowest yield in more than a decade—reduced upland production there to 734,000 bales, 12 percent below 2017. ELS

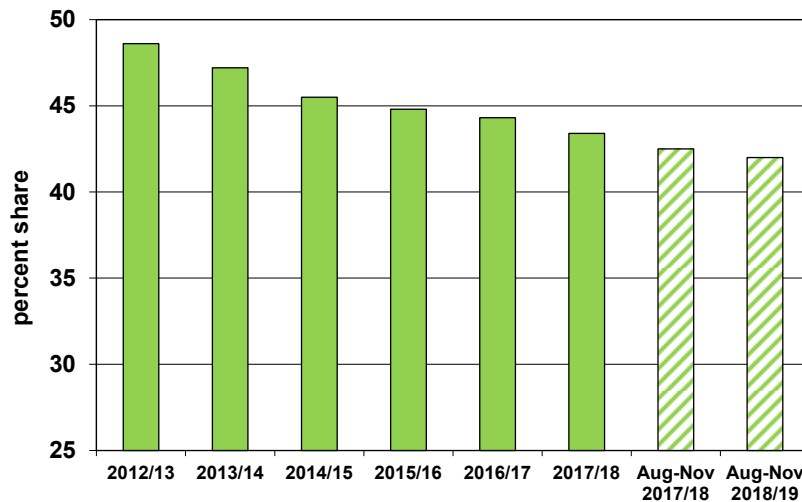


cotton area in the West was also lower in 2018 but, with a higher yield, ELS production for the region reached 759,000 bales. As a result, total cotton production in the West equaled 1.5 million bales, similar to 2017.

Domestic Mill Use and Consumer Demand

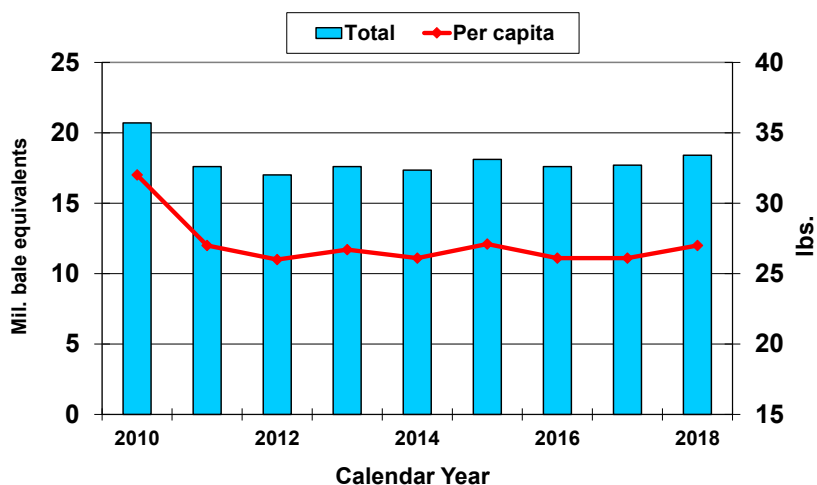
U.S. cotton mill use for 2018/19 is forecast at 3.2 million bales, slightly below 2017/18. Mill use is expected to stabilize near last season’s level as prices for polyester fiber remain competitive. During the first 5 months of 2018/19, cotton mill use approached 1.3 million bales, compared with approximately 1.35 million bales a year earlier. With a relatively strong U.S. economy, the pace of U.S. cotton mill use is expected to improve slightly during the second half of 2018/19.

**Cotton’s Share of U.S. Textile Imports,  
2012/13 to Aug-Nov 2018/19**  
(raw-fiber-equivalent basis)



U.S. consumer demand for textiles and apparel products follows the global economy. As U.S. GDP growth strengthened in calendar year 2018, total U.S. fiber product imports—based on 11 months of data—are expected to increase to a new record. Based on the January-November 2018 data, fiber product imports rose 5.5 percent—compared with a year earlier—with synthetic fiber products accounting for the majority of imports. In 2018, U.S. cotton textile and apparel imports rose 4 percent during the first 11 months to 17.3 million bale-equivalents, while synthetic product imports gained 7 percent. Competitively-priced synthetic fibers—like polyester—and consumer demand for athleisure clothing is expected to reduce the U.S. cotton product import share slightly in calendar 2018 to 43 percent, compared with 44 percent in 2017. On a marketing year basis, during the first 4 months of 2018/19, cotton’s share was slightly below the corresponding period of 2017/18.

## U.S. Domestic Cotton Consumption: Total and Per Capita



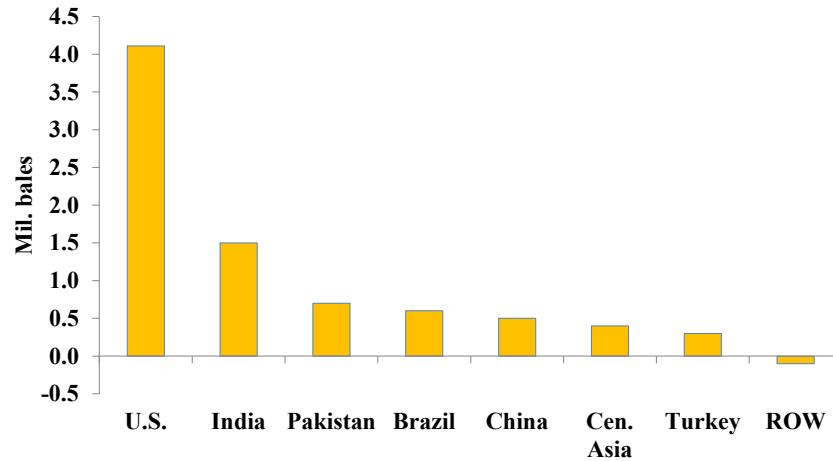
Meanwhile, U.S. cotton product exports decreased 3 percent during the first 11 months of 2018 to 3.2 million bale-equivalents, the smallest since 2012. As a result, U.S. domestic consumption of cotton (mill use plus net textile trade) in calendar 2018 is estimated at 18.4 million bale-equivalents, up 4 percent from 2017 and the highest since 2010. In addition, U.S. per capita cotton consumption is estimated at 27 pounds in calendar 2018, nearly matching its 2015 level.

### World Cotton Outlook, 2019/20

#### World Cotton Production, 2019/20

World cotton production is expected to rise 6.9 percent in 2019/20 to a near-record 126.5 million bales. Production is projected at its second-highest level ever, only 0.6 percent lower than 2011/12's 127.2 million bales. Harvested area devoted to cotton is projected to rise close to 4 percent, to about 34.5 million hectares, as producers in the United States and Pakistan respond to relatively favorable cotton prices during 2018, and to likely improved planting conditions. Rebounding yields in India, Central Asia, China, and Turkey are also a factor driving cotton production higher in 2019/20. The United States is expected to realize the largest year-to-year production increase of any country—despite little change in planted area—as abandonment drops from the relatively high level realized in 2018/19.

## Estimated Changes in World Production, 2019/20 compared with 2018/19



The world's largest cotton producer in 2018/19, China, is forecast up 2 percent or 500,000 bales from the year before in 2019/20, to 28.0 million bales. A small increase in Xinjiang's planted area is indicated by early intentions surveys, but lower planted area in China's eastern provinces is expected to be offsetting. Higher production is projected due to yield as Xinjiang's yield returns closer to trend levels and as that high-yielding region once again expands its share of China's national total.

A larger production increase is foreseen in India, where output is expected to grow by 1.5 million bales from 2018/19, to 28.5 million, restoring its position as the world's largest cotton producer. Area is projected to be unchanged, at 12.3 million hectares, but yields are expected to rebound after falling 7 percent in 2018/19. Higher yields are expected as India's central cotton-growing states recover from a relatively poor 2018 monsoon.

Brazil's 2019/20 production is expected to rise 600,000 bales as area rises slightly in response to continued investment in production and transportation infrastructure there and in a lagged response to high cotton prices during 2018. Australia's crop is projected unchanged from year-to-year. El Nino conditions during 2018/19 have hindered dryland plantings and dramatically cut current reservoir levels there this year. Assuming normal weather going forward, 2019/20 would likely see higher dryland plantings, but see irrigated area constrained by continued lower reservoir levels. As a result, while harvested area there is projected slightly higher than the year before, production is expected to be unchanged.

With area in Pakistan—and yields in Central Asia and Turkey—likely to rebound from

2018/19's weather-reduced levels, an additional total increase of 1.4 million bales has been factored into USDA's estimates.

### World Cotton Consumption, 2019/20

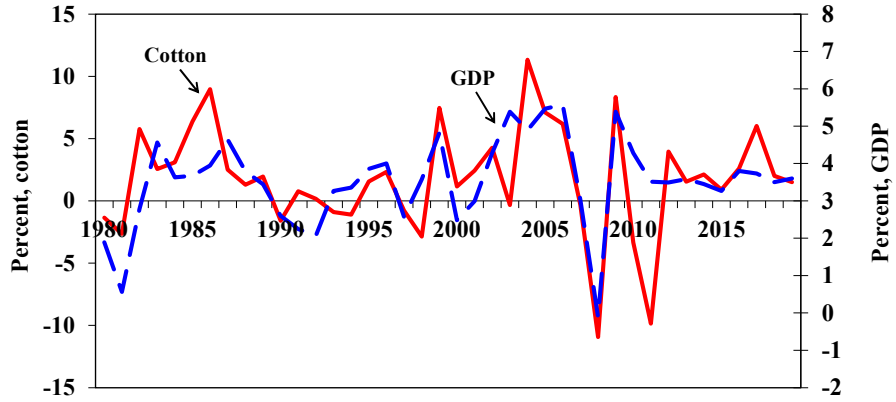
World cotton consumption is expected to continue growing in 2019/20, with a 1.5-percent increase from the year before bringing use to a record 125.5 million bales. Global mill use is expected to surpass the previous record of 123.8 million bales reached before the Global Financial Crisis and subsequent high level of cotton price volatility drove global consumption to as low as 104.1 million bales in 2011/12.

Consumption in China is likely to again grow slightly faster than the world average after slipping in 2018/19. At 41.3 million bales, China's mill use of cotton is expected to be nearly 10 million bales lower than it was in 2007/08—the year world use reached its current record-high—but is projected to be nearly 7 million bales above China's 2013/14 consumption.

Elsewhere in the world, consumption is expected to grow at a slightly lower rate than the 2.0 percent forecasted for China. Growth in Southeast Asia will be mixed, with above-average growth in Vietnam offsetting lower growth in Indonesia and continued stagnation in Thailand. In South Asia, growth outside of Bangladesh is likely to average below the world average, while Bangladesh continues its above-average pace of expansion. With world income growth forecast by the International Monetary Fund (IMF) in 2020 at 3.6 percent—slightly above its 10-year median rate—cotton consumption can be expected to grow only slightly below its long-run rate of 1.7 percent.

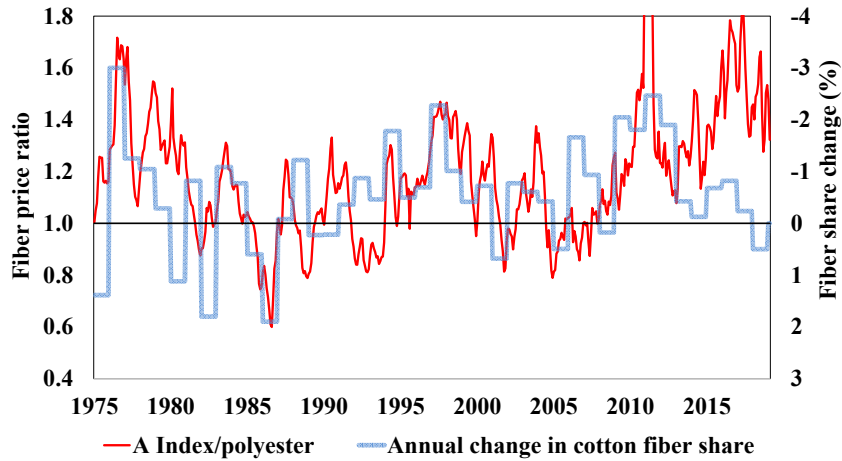
Another factor boosting cotton consumption in 2018/19 has been the stabilization of cotton prices vs. polyester. This is likely to persist into 2019/20, as cotton prices are expected to decline. Over the 2009-2012 seasons, cotton suffered a loss in its share of world fiber consumption that was unprecedented in its severity and persistence. Since then, cotton has managed to lose share more slowly than its 1960-2008 median annual rate of decline, and International Cotton Advisory Committee data show that cotton's share of world fiber consumption even rose in calendar year 2018, its first such increase since 2008. Additional future demand for cotton will continue to be largely derived from increased demand for all fibers rather than gains in cotton's share of fibers, but favorable relative prices have slowed or recently even halted the pace of cotton's share loss.

## World Cotton Consumption and Economic Growth



Sources: USDA and International Monetary Fund.

## Cotton/Polyester Price Ratio Trend Stabilizes



Source: USDA calculations based on data from Cotlook Ltd., Cncotton, National Cotton Council, and International Cotton Advisory Committee.

**World Cotton Supply and Demand  
2018/19 est. and 2019/20 proj.**

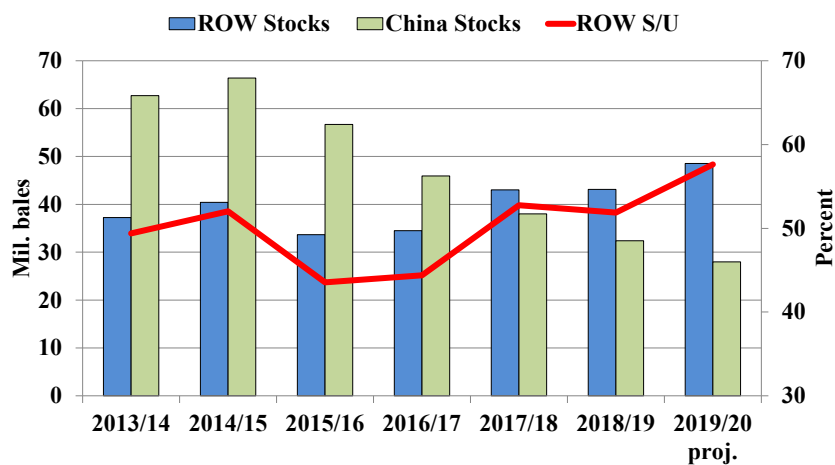
	<b>Unit</b>	<b>2018/19</b>	<b>2019/20</b>	<b>Change (%)</b>
<b>Beg. Stocks</b>	<b>Mil. bales</b>	<b>81.1</b>	<b>75.5</b>	<b>-6.9</b>
<b>Production</b>	<b>"</b>	<b>118.5</b>	<b>126.5</b>	<b>6.8</b>
<b>Imports</b>	<b>"</b>	<b>42.3</b>	<b>45.0</b>	<b>4.6</b>
<b>Total supply</b>	<b>"</b>	<b>199.5</b>	<b>202.0</b>	<b>1.2</b>
<b>Consumption</b>	<b>"</b>	<b>123.6</b>	<b>125.5</b>	<b>1.5</b>
<b>Exports</b>	<b>"</b>	<b>42.3</b>	<b>45.0</b>	<b>6.3</b>
<b>Total use</b>	<b>"</b>	<b>124.0</b>	<b>125.5</b>	<b>1.2</b>
<b>Ending stocks</b>	<b>"</b>	<b>75.5</b>	<b>76.5</b>	<b>1.3</b>
<b>China stocks</b>	<b>"</b>	<b>32.4</b>	<b>28.0</b>	<b>-13.6</b>
<b>Stocks-to-consumption</b>	<b>%</b>	<b>61.1</b>	<b>61.0</b>	<b>-0.2</b>

World trade in 2019/20 is projected at 45.0 million bales, up modestly from 2018/19. China's imports are projected higher, as are those for Vietnam and Bangladesh. With larger supplies outside of China, stocks outside of China are likely to increase again in 2019/20. The A Index is projected 5 cents below its expected 2018/19 average, at 80 cents per pound.

USDA Projections for China, 2019/20

USDA's China outlook is based on the policies outlined in the Appendix. Imports, consumption, and production are projected to increase, while stocks are expected to fall for the fifth consecutive year in 2019/20. China's production is projected to increase slightly after remaining stable in 2018/19, as output in the east again declines and Xinjiang production rises. China's consumption is projected to increase slightly.

## China's Stocks, Stocks Outside China, and Stocks Outside China as % of Use



State Reserve sales during calendar 2019 are expected to end in the beginning of the 2019/20 marketing year. Reserve stocks going into 2019/20 are expected to be about 9 million bales, the lowest level since the end of 2010/11. The 2019/20 season will see a transition from a period of reserve stock draw-down to a period where reserve levels are relatively stable, but with significant buying and selling. The buying and selling will be based on two objectives of the State Reserve; stock rotation and market objectives. Sales from the reserve are expected in the second half of 2019/20 to remove most of the remaining 2012 and 2013 cotton from the reserve. Offsetting purchases of both domestic and foreign cotton are expected in the middle portion of the season. Reserve stocks at the end of 2019/20 are also expected to be 9 million bales, the same as the beginning level.

**China Cotton Supply and Demand  
2018/19 est. and 2019/20 proj.**

	<u>Unit</u>	<u>2018/19</u>	<u>2019/20</u>	<u>Change (%)</u>
<b>Beg. Stocks</b>	<b>Mil. bales</b>	<b>38.0</b>	<b>32.4</b>	<b>-14.9</b>
<b>Production</b>	<b>"</b>	<b>27.5</b>	<b>28.0</b>	<b>1.8</b>
<b>Imports</b>	<b>"</b>	<b>7.5</b>	<b>9.0</b>	<b>20.0</b>
<b>Total supply</b>	<b>"</b>	<b>73.0</b>	<b>69.4</b>	<b>-5.0</b>
<b>Consumption</b>	<b>"</b>	<b>40.5</b>	<b>41.3</b>	<b>2.0</b>
<b>Exports</b>	<b>"</b>	<b>0.2</b>	<b>0.1</b>	<b>-33.3</b>
<b>Total use</b>	<b>"</b>	<b>40.7</b>	<b>41.4</b>	<b>1.8</b>
<b>Ending stocks</b>	<b>"</b>	<b>32.4</b>	<b>28.0</b>	<b>-13.6</b>
<b>Reserve stocks</b>	<b>"</b>	<b>9.0</b>	<b>9.0</b>	<b>0.0</b>
<b>Stocks-to-use</b>	<b>%</b>	<b>79.6</b>	<b>67.6</b>	<b>-15.1</b>

**U.S. Cotton Outlook, 2019/20**

2018 Farm Act Provisions Related to Cotton

On December 20, 2018, the Agriculture Improvement Act of 2018 was passed into law, and will be in place for the crop years 2019 through 2023. With one notable exception, the provisions of the 2018 Agriculture Improvement Act affecting cotton are unchanged or only somewhat modified from the 2014 Farm Act. The Marketing Assistance Loan (MAL) for upland cotton remains between \$0.45 and \$0.52/lb., with the new provision limiting how much the rate can be reduced each year. The ELS loan rate rises from \$0.7977 to \$0.95/lb., and the recourse seed cotton loan rates change only for ELS seed cotton. The Economic Adjustment Assistance for Users of Upland cotton is unchanged as is the special import quota. The ELS Competitiveness Payment Program had several parameters that could trigger payments changed, most notably the loan rate, and the percentage by which a competing low foreign price quote needs to be below the loan rate to trigger.

The most noteworthy change for cotton was the re-inclusion of seed cotton (unginned cotton containing both lint and seed) as a covered crop, eligible for base acres and associated potential Price Loss Coverage (PLC) and Agriculture Risk Coverage (ARC) payments. The seed cotton ARC and PLC programs will operate with the same general parameters as they have with other covered crops during the 2014 Farm Act. Seed cotton will have a reference price of \$0.367/lb., and the effective price will be the higher of the weighted-average of lint and cottonseed prices or \$0.25/lb. Payments would equal the payment rate, times payment yield, times 85% of the base



acres. Generic base is eliminated, which could lessen incentives to produce competing crops, such as peanuts (see Appendix: Farm Bill for more details).

### Area, Production, and Supply

The early USDA projection for 2019 U.S. cotton planted acreage is 14.25 million acres, slightly above 2018 and the largest since 2011. Historically, the relationship between expected harvest prices for cotton relative to corn and soybeans has played a key role in the area planted to cotton. Cotton futures prices for January through early February 2019 averaged about 1.5 percent below price expectations in early 2018; at the same time, however, prices for corn and soybeans have been mixed, with corn prices 3 percent higher but soybean prices 4 percent lower. Another contributing factor to acreage decisions stems from the cotton farmers' experiences during the previous season; while the 2018 crop prospects did not materialize due to inclement weather in several areas of the Cotton Belt, the potential for producing favorable yields given the soil moisture associated with the current El Nino will likely benefit cotton acreage in 2019.

#### **U.S. Cotton Area, Yield, and Production 2018/19 and 2019/20 proj.**

	<b>Unit</b>	<b>2018/19</b>	<b>2019/20</b>	<b>Change (%)</b>
<b>Planted area</b>	<b>Mil. acres</b>	<b>14.10</b>	<b>14.25</b>	<b>1.1</b>
<b>Harvested area</b>	<b>"</b>	<b>10.53</b>	<b>12.93</b>	<b>22.8</b>
<b>Abandonment rate</b>	<b>%</b>	<b>25.3</b>	<b>9.3</b>	<b>-63.2</b>
<b>Yield/harvested acre</b>	<b>lbs./acre</b>	<b>838</b>	<b>835</b>	<b>-0.4</b>
<b>Production</b>	<b>Mil. bales</b>	<b>18.39</b>	<b>22.50</b>	<b>22.3</b>

The USDA projection is slightly (200,000 acres) below the recent National Cotton Council (NCC) survey, which indicated 2019 cotton plantings near 14.45 million acres; the NCC survey was released on February 9, reflecting responses received from mid-December through mid-January. Survey respondents reported 2019 upland cotton area increases for two of the four Cotton Belt regions, with the West unchanged and the Southeast indicating a modest area decline. In the Southeast, the NCC survey revealed that cotton acreage would decrease nearly 3 percent in 2019, with declines mainly in Georgia and South Carolina. For the Delta region, 2019 intentions were expected higher across all States, as fewer soybeans were anticipated being planted. In addition, the survey indicated a 2-percent increase in Southwest cotton acreage as producers add to last season's six-decade high plantings. In the West, the NCC reported that upland cotton acreage is expected to be similar to 2018. Meanwhile, the survey indicated that producers intend to plant 6 percent more ELS cotton in 2019. USDA's first survey of producer planting intentions—*Prospective Plantings*—will be conducted in early March and published on March 29, 2019.

For the purposes of this analysis, cotton plantings of 14.25 million acres are estimated to result in harvested acreage of about 12.9 million acres, nearly 23 percent above 2018. The projected 9-percent national abandonment rate is based on regional long-run averages, with the exception of the Southwest, where 2019 abandonment of 13.5 percent is projected—well below the previous season’s 39 percent and below the long-run average. Southwest abandonment rates are highly variable and conditions there will have a considerable impact on the U.S. crop. The latest NOAA seasonal outlook for the Southwest indicates that drought is not forecast to be an issue through at least the end of April, with the probability of above-average precipitation forecast for much of the region.

USDA is forecasting a national average yield of 835 pounds per harvested acre, based on regional average yields. The 2019 U.S. cotton crop is projected at 22.5 million bales, 22 percent above 2018, as a similar percentage increase in harvested area is projected. Larger crops are anticipated for each region of the Cotton Belt, with the largest increase in the Southwest, where 2019 cotton production could surpass 2017’s record. With identical carry-in stocks of 4.3 million bales for 2019/20, the total supply—26.8 million bales—would rise more than 4 million bales from 2018/19 and reach its highest since 2007/08.

U.S. Disappearance, Ending Stocks, and Farm Price

**U.S. Cotton Supply and Demand  
2018/19 est. and 2019/20 proj.**

	<b>Unit</b>	<b>2018/19</b>	<b>2019/20</b>	<b>Change(%)</b>
<b>Beg. Stocks</b>	<b>Mil. bales</b>	<b>4.30</b>	<b>4.30</b>	<b>0.0</b>
<b>Production</b>	<b>"</b>	<b>18.39</b>	<b>22.50</b>	<b>22.3</b>
<b>Imports</b>	<b>"</b>	<b>0.01</b>	<b>0.01</b>	<b>0.0</b>
<b>Total supply</b>	<b>"</b>	<b>22.69</b>	<b>26.80</b>	<b>18.1</b>
<b>Mill use</b>	<b>"</b>	<b>3.20</b>	<b>3.30</b>	<b>3.1</b>
<b>Exports</b>	<b>"</b>	<b>15.00</b>	<b>17.00</b>	<b>13.3</b>
<b>Total use</b>	<b>"</b>	<b>18.20</b>	<b>20.30</b>	<b>11.5</b>
<b>Ending stocks</b>	<b>"</b>	<b>4.30</b>	<b>6.30</b>	<b>46.5</b>
<b>Stocks-to-use</b>	<b>%</b>	<b>23.6</b>	<b>31.00</b>	<b>31.4</b>
<b>Farm price</b>	<b>cents/lb.</b>	<b>72.0</b>	<b>67.0</b>	<b>-6.9</b>

U.S. domestic mill use is projected at 3.3 million bales, a slight increase from 2018/19, due to large domestic supplies and moderate growth in demand. U.S. cotton mill use will also be

sustained by a rebound in semi-processed textile and apparel exports—mainly to Mexico and the CAFTA-DR/CBI countries—that are finished and shipped back to the United States. Another positive factor will be relatively competitive prices for cotton versus polyester.

Exports are projected to rise 2.0 million bales, boosted by a 4.0-million-bale increase in U.S. exportable supply and growing world consumption. The rise in imports by China (up 1.5 million bales) is favorable for U.S. exports to some degree, but the assumption that China's retaliatory tariffs on cotton imports from the United States continue at least through the marketing year limits the impact.

Ending stocks are projected to rise to 6.3 million bales, which would be the highest level since 2008/09. Increased supplies in the United States and in other countries outside of China are expected to pressure cotton prices in 2019/20, and the average price received by producers could fall within the range of 62-72 cents per pound, compared with the 2018/19 current forecast of 72 cents.

## Appendix: China Cotton Policy and USDA Assumptions

### **Import Policy: Sliding Scale Quota Issued Starting in 2018**

#### 2018

- Out-of-quota import duty is 40% ad valorem.
- 894,000 metric tons (MT) TRQ at 1% duty; calendar year basis, one-third reserved for State Enterprises.
- Sliding scale import licenses, 600,000 MT issued; valid Sept/18-Feb/19.
- Imports of U.S. cotton faced additional 25% duty starting in June; some imports by State Enterprises and for processing exempt from additional duties.
- Imports of foreign cotton by State Reserve.

#### 2019 & 2020

- Out-of-quota duty, TRQ, and duty-free processing imports same as previous year.
- Imports of U.S. cotton face additional 25% duty; some imports by State Enterprises and for processing exempt from additional duties.
- Imports of foreign cotton by State Reserve.
- Additional access provided; additional Sliding Scale quota likely.

### State Reserve Policy:

#### 2018

- Sales from March 12 thru September 30, 2018.
- Daily offers of 30,000 MT, 2.49 million MT sold, 58 percent of total amount offered.
- Offer price based on weekly average of internal price and A Index (same as 2016 and 2017).
- Purchased 100,000-120,000 MT foreign cotton.

#### 2019

- Sales dates not yet announced, but will likely start later than in previous years.
- Daily offers assumed to be same as previous years and offer price based on weekly average of internal price and A Index (same as 2016, 2017, 2018).
- Additional purchases of foreign cotton and purchases of domestic new crop cotton.

#### 2020

- Sale of remaining 2012 and 2013 stocks.
- Additional purchases of foreign cotton and of domestic new crop.

## **Domestic Support Policy: Target Price Policy**

### 2016/17 - 2018/19

- Target price of 18,600 renminbi (RMB)/MT for Xinjiang.
- Xinjiang subsidy level based on difference between target price and average price received by gins during ginning period.
- For inland farmers, subsidy equals lesser of 2,000 RMB/MT or 60 percent of Xinjiang target price payments in given year.
- Further shift to payments being linked to production rather than area. Xinjiang yearly (2017-19) volume entitled for subsidy capped at 85 percent of 2012-14 average China cotton production. Some regions in Xinjiang have set ceilings on seedcotton yield that can be attributed to individual farmers, limiting ability of production from unregistered land to receive subsidy payments.
- Subsidy for long staple cotton at 1.3 times base rate.

### 2019/20

- No formal announcement yet, no major changes expected. Xinjiang target price fixed at least through 2019/20.
- Certification of additional cotton area in Xinjiang expands acreage qualifying for subsidies.

## **Other Support for Cotton**

- High quality planting seeds subsidy.
- Xinjiang transport subsidy: Subsidies are provided to transport cotton lint and cotton containing yarn from Xinjiang to other regions.
- Government support for spinning in Xinjiang: Government provides direct support for spinning and for investment in spinning capacity in Xinjiang.

## **Appendix: U.S. Farm Bill**

On December 20, 2018, the Agriculture Improvement Act of 2018 was passed into law, and will be in place for the crop years 2019 through 2023. In general, many of the provisions of the 2014 Act, such as Marketing Assistance Loans and the ARC/PLC programs were retained, with some upward adjustments to loan rates for some crops and an allowance for PLC/ARC reference prices to rise as much as 15% above the statutory reference price. Essentially, “generic” base acres (former cotton base acres before 2014) are eliminated, and converted to at least 80% seed cotton base (up to 100% in some cases), or converted to the proportion of covered crops, including seed cotton, planted on the farm during 2009-12.

For cotton, most of the Title I provisions that could lead to government payments are unchanged or modestly adjusted from the 2014 Farm Act, with the noteworthy exception of carrying over the “seed cotton” (unginned cotton containing both lint and seed) ARC/PLC provisions from the Bipartisan Budget Act of 2018 (signed February 9, 2018), which made seed cotton eligible for ARC/PLC for the 2018/19 crop. This was after cotton lint was removed as a “covered” commodity in the 2014 Farm Act following a successful WTO challenge of the U.S. cotton program by Brazil. The upland cotton marketing assistance loan rate remains between 45 and 52 cents/lb., the ELS rate was raised from \$0.7977/lb. to \$0.95/lb., and seed cotton loan rates correspond with their respective upland and ELS loan rates. The Economic Adjustment Assistance Program for users of upland cotton (“EAAP”) is unchanged. The Extra Long Staple (ELS) Competitiveness payment program remains in place but several parameters potentially affecting payments have been changed.

### **Seed Cotton ARC/PLC Provisions**

When cotton lint was removed as a covered crop in the 2014 Farm Act, cotton base acres were eliminated and were replaced by “generic” base acres. With no cotton base acres, no payments could be made under ARC/PLC based on cotton lint prices or revenues, as could be made to owners of other covered crop base acres. Instead, generic base acres, on an annual basis, could be eligible for payments based on the proportion of other covered crops planted on a farm with generic base acres. If conditions warranted, payments would be made for the covered crops attributed to that generic base.

The 2018 Bipartisan Budget Act (BBA) applied only to the 2018/19 crop, but the 2018 Agriculture Improvement Act applies to the 2019-23 crops. Under the BBA, owners of generic base had several options to convert generic base into seed cotton or other covered commodity base acreage, either to 80-100% seed cotton base depending on cotton planting history during 2009-12 or to the proportion of all covered crops planted during that time period. If a producer planted no covered commodities since 2009, all generic base would become unassigned and ineligible for ARC/PLC payments.

The seed cotton ARC and PLC programs will operate with the same general parameters as they have with other covered crops during the 2014 Farm Act. Seed cotton will have a reference price of \$0.367/lb., and the effective price will be the higher of \$0.25/lb. or the weighted average price

of cotton lint and cottonseed. Payments would equal the payment rate (if the effective price is lower than the reference price), times the payment yield, times 85% of the seed cotton base acres. The payment yield, by default, is the Counter-Cyclical Payment yield under previous legislation for lint cotton times 2.4, and the option to update yields also exists under the same conditions as for other covered commodities under the 2018 Farm Act.

### **Marketing Assistance Loans**

There are different provisions for upland cotton, ELS, and seed cotton marketing assistance loans (MALs) in the 2018 Farm Act. The upland cotton and ELS MALs remains nonrecourse, meaning that producers are eligible to forfeit the cotton, but only upland cotton is eligible for LDPs or Marketing Loan Benefits. The upland loan rate remains between \$0.45/lb. and \$0.52/lb., based on the simple average of the preceding two crop year's adjusted World Price (AWP), but with the new provision that the loan rate can be no less than 98% of the previous year's loan rate. The ELS loan rate, along with a number of other crops, had its loan rate raised, in this case from \$0.7977/lb. to \$0.95/lb. Seed cotton loans (unrelated to the ARC/PLC provisions discussed above) are recourse loans, requiring full repayment with interest. The loan rate for seed cotton is the same for upland cotton and ELS cotton, respectively, depending on the variety of the cotton.

### **Other Cotton Provisions**

The other main cotton programs that were continued, with some modification in one case, are the Economic Adjustment Assistance to users of Upland Cotton ("EAAP") program, the ELS Competitiveness Payment Program, and the upland Special Import Quota.

The EAAP program, established in 2008, provides a fixed payment of \$0.03/lb. to domestic users (e.g., mills) of upland cotton. The payments are to be used for capital improvements such as purchasing or improving equipment, machinery, and structures.

The ELS Competitive Payment Program is designed to make payments to domestic users or exporters of ELS when, for four consecutive weeks, a) the lowest foreign price quote for a competing variety is lower than the U.S. price quote and, b) the low foreign price quote is less than a certain percentage of the U.S. loan rate (previously 134% and changed to 113% in the 2018 Farm Act). The change to 113% is offsetting to the increased loan rate but perhaps not completely so based on an examination of historical price data. Finally, a special import quota, is continued and unchanged from prior farm bills.