

The Economic Outlook FOR U.S. COTTON 2021

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### Summary

This past year can be characterized as a year with significant uncertainty and volatility in the global economy and the world cotton market. One of the most challenging issues facing the global cotton market in 2020 was the COVID-19-19 pandemic. The pandemic caused unprecedented disruptions in the supply chains and markets for the U.S. and world cotton and textile industries. The disruptions were particularly acute during the first half of 2020. The COVID-19-19 pandemic devastated textile supply chains as retail outlets shuttered their doors for months. As the collapse in cotton demand persisted throughout 2020, the negative impacts were felt across the U.S. cotton industry from textile manufacturers to cotton producers, and all segments in between.

Billions of dollars of orders were cancelled, and manufacturing facilities in key markets for U.S. yarns and fabrics closed as countries implemented a full lockdown. In the United States and abroad, the combined impacts of government-mandated business closures and cancellations of orders by major brands and retailers led to drastic losses in cotton demand. The merchandising and distribution channels faced increased costs due to storage, interest, insurance, and other carrying costs associated with the delay of commodity merchandising and consumption.

Now, in the early weeks of 2021, while the pandemic is still creating disruptions in various parts of the world, the global economy is recovering at a much faster pace than originally expected. With this report, National Cotton Council (NCC) staff hopes to present a thorough review of the current economic landscape and the prospects for the coming year.

Prior to the COVID-19 outbreak in the U.S., cotton futures prices were trading in the 68 to 72 cent range. At the end of February 2020, futures prices began to decline as virus transmission increased in the United States. In a matter of weeks, cotton futures prices fell by 30.0% to a low of 50 cents per pound in April, marking the lowest level since early 2009. The sharp decline in futures prices and the collapse in cotton demand led to increased uncertainty in commodity markets, additional market exposure, and higher carrying costs for U.S. cotton industry members. This exacerbated an already tenuous economic situation for producers particularly since planting season was already underway. Many producers had already purchased inputs and made planting decisions for the 2020 marketing year based on much higher price expectations.

In 2020, U.S. growers planted 12.1 million acres, which was 12.0% lower than 2019. In 2020, abandonment increased to 28.1% as compared to 15.4% in 2019. In the Southwest, planted cotton acreage decreased by 345 thousand acres to 7.5 million acres. Texas producers planted 6.8 million acres in 2020 as compared to 7.1 million acres in 2019. However, since Texas abandonment increased from 25.5% in 2019 to 47.1% in 2020, harvested acreage decreased by 1.7 million acres in 2020, falling to the lowest level since 2013. Kansas area increased slightly while Oklahoma's acreage declined to 525 thousand acres as compared to 640 thousand acres in 2019.

In the Southeast, 2020 acreage declined by 597 thousand acres, or 20.1%, to 2.4 million. Acreage declined in all states in the region. In Alabama, Florida, Georgia, North

Carolina, South Carolina, and Virginia, acreage declined by 16.7%, 12.5%, 15.0%, 29.4%, 36.7%, and 22.3%, respectively.

Mid-South acreage declined by 600 thousand acres, or 25.0%, to 1.8 million acres in 2020. In recent years, Mid-South farmers have demonstrated their ability and willingness to adjust their crop mix based on market signals. Acreage decreased in all Mid-South states for 2020. For Arkansas, Louisiana, Mississippi, Missouri, and Tennessee, acreage decreased by 15.3%, 39.3%, 25.4%, 22.4%, and 31.7%, respectively.

In the West, upland acreage declined by 75 thousand acres to 202 thousand with declines in Arizona, California, and New Mexico. ELS acreage declined by 26 thousand acres to 203 thousand acres in 2020, with declines in Arizona and California and increases in New Mexico and Texas.

The latest USDA estimates for the 2020 U.S. crop are a good reminder that planted acreage is just one of the factors determining the supply of cotton and cottonseed. The 2020 growing season was very challenging for the U.S. cotton industry. U.S. growers were faced with a wide range of devasting weather issues including severe drought, multiple hurricanes, and excessive rainfall during harvest.

Production was estimated to be 15.0 million bales, which was 5.0 million bales lower than in 2019. Upland production was estimated at 14.4 million bales, and ELS growers harvested 552 thousand bales. The USDA estimate for 2020 cottonseed production was 4.6 million tons, down 1.4 million tons from the previous year.

In 2020, the Southeast produced 4.0 million bales, down by 1.7 million bales from the 2019 total. For 2020, the Mid-South

produced 4.2 million bales, which was 1.4 million bales lower than the previous year. At 5.7 million bales, production in the Southwest was 1.6 million bales lower than in 2019. The West produced 521 thousand bales of upland cotton in 2020, down 110 thousand bales from 2019. The 2020 ELS crop of 552 thousand bales was 134 thousand bales lower than the previous year.

For cottonseed, a regional breakdown of 2020 production shows production for the Southwest, Mid-South, Southeast, and West of 1.7 million tons, 1.3 million tons, 1.2 million tons, and 363 thousand tons, respectively.

In 2020, the estimated national average cotton yield of 825 pounds was slightly higher than the previous year but 24 pounds below the 5-year average. Looking at the numbers in more detail provides a better insight to the varying conditions faced by growers across the Cotton Belt. Overall, the Southwest, Southeast, and West regions had below average yields in 2020, while the Mid-South was above the 5-year average.

In the Southwest, the 2020 average yield of 641 pounds was 47 pounds higher than 2019 but 71 pounds below the 5-year average. Severe drought conditions in Texas resulted in a large number of unharvested acres. Hurricane Hanna also impacted the South Texas crop in 2020. In the Southeast, the 2020 yield for all states was lower than 2019. For the region, the 2020 yield of 838 pounds was 108 pounds lower than 2019 and 27 pounds below the 5-year average.

Due to a series of adverse weather events, the Southeast region experienced significant production and quality losses in 2020. Hurricanes and extended periods of rain caused an unusually large percentage of bales in Alabama, Florida, and Georgia to contain seed coat fragments. Based on classing data from the USDA Agricultural Marketing Service (AMS), the percentage of the 2020 crop containing seed coat fragments in Alabama, Florida, and Georgia was 25.2%, 54.3%, and 40.2%, respectively.

The 2020 Mid-South yield of 1,132 pounds was just 7 pounds lower than 2019 and 23 pounds above the 5-year average. In Arkansas, the 2020 yield of 1,200 pounds was a record yield.

The average upland yield in the West was estimated at 1,359 pounds, which was 176 pounds higher than 2019 but fell short of the 5-year average by 10 pounds. The national average ELS yield of 1,362 pounds was 110 pounds below 2019 and 74 pounds below the 5-year average.

With 13.9 million 480-lb upland bales classed through February 11, color grades for the 2020 crop were higher than previous years. In total for the Cotton Belt, 88.5% of the 2020 crop was grading 41 or better as compared to the 5-year average of 80.4%. In the Southeast, 85.1% of the 2020 crop was grading 41 or better. At 94.7%, the Mid-South was higher than their 5-year average of 87.9%. The Southwest had the lowest percentage grading 41 or better with 84.8% of the 2020 crop grading 41 or better. In the West, 97.1% of the 2020 crop was grading 41 or better.

The current marketing year began with cotton stocks at 7.3 million bales. When added to the recent harvest, total supplies for the 2020 marketing year are estimated at 22.2 million bales. Total supplies should be more than sufficient to satisfy estimated use of 18.2 million bales. U.S. exports for the 2020 marketing year are currently estimated at 15.8 million bales. It is worth noting that the relative balance between production and offtake will result in a significant drawdown of U.S. stocks by the end of the 2020 marketing year.

The Phase 1 trade agreement with China has resulted in additional demand for U.S. cotton. As part of the agreement, China agreed to purchase an annual average of \$40 billion in U.S. agricultural commodities, including cotton, in 2020 and 2021. While cotton specific details were not disclosed, China was expected to import between 4.0 and 6.0 million bales each calendar year. In 2020, China imported almost 4.5 million bales of U.S. cotton as compared to 1.7 million bales in 2019.

U.S. textile mills are expected to consume 2.4 million bales in the current marketing year. As a result of COVID-19 shutdowns, U.S. mill use began declining at the end of 2019 and dropped sharply in the second quarter of 2020. The Economic Adjustment Assistance for Textile Mills (EAATM), reauthorized and renamed in the 2018 Farm Bill, continues to be an important source of stability, allowing mills to invest in new facilities and equipment.

As we look ahead to the 2021 planting season, several factors will influence U.S. acreage decisions, including market price changes, weather events, and general agronomic conditions. The 2018 Farm Bill provides a measure of stability for cotton producers with the continuation of the seed cotton PLC/ARC program.

Despite the shutdowns resulting from COVID-19, the U.S. and world economies recovered at a much faster rate than anticipated in the second half of 2020. The strong recovery is expected to continue in 2021 as vaccine distribution continues across the world. However, current economic projections for the U.S. and global economies should be viewed with caution given the lack of clarity regarding the potential impacts of the ongoing coronavirus pandemic in 2021. The distribution of vaccines has created optimism for an improvement in world economic conditions, yet some uncertainty is still present due to increased infections and new virus strains in some parts of the world along with renewed restrictions.

As we look ahead to projected prices for the 2021 marketing year, cotton harvest-time futures contracts are currently trading at higher levels than last year. In mid-January, the December 2021 contract was trading at \$0.77 per pound, up 5 cents from year-ago levels. In early February, prices had increased slightly to \$0.81 per pound, representing an increase of 12 cents from a year-ago.

Corn prices declined during the first half of 2020 and followed an upward trend during the last half of the year. In mid-January, the December 2021 contract for corn was trading at \$4.60 per bushel, which was 58 cents per bushel higher than a year ago. Prices dropped slightly to \$4.47 per bushel in early February but remained 50 cents above year-ago levels.

Soybean prices, as measured by the Chicago Board of Trade November futures contract, are trading well above year-ago levels. In mid-January, the November 2021 contract traded at \$11.98 per bushel, which was \$2.39 per bushel higher than the November 2020 contract was trading a year earlier. In early February, prices declined to \$11.54 per bushel but were still trading \$2.38 higher than this same time last year.

A critical component of the economic outlook is the NCC's annual planting intentions survey. The 2021 survey was distributed in mid-December with responses collected through mid-January. Respondents were asked to provide their plantings of cotton, corn, soybeans, wheat, and 'other crops' for 2020 and intended acreage for 2021. As always, the survey results should be viewed as a measure of grower intentions prevailing at the time the survey was conducted. Changing climate and market conditions could cause actual plantings to be significantly different from growers' stated intentions.

Relative to average futures in the first quarter of 2020, soybean prices during the 2021 survey period were up by 16.5%, corn prices were trading about 7.9% higher, and cotton prices were trading 6.0% higher. As a result, corn and soybeans are expected to provide increased competition for cotton acres in 2021 acreage decisions.

It is important to call attention to the ratios because experience has shown that these ratios are reliable indicators of changes in cotton acreage. Historical data over the past 10 years shows a clear relationship between the price ratios and changes in cotton acreage. While an increase in the price ratio generally indicates an increase in cotton acreage, stronger prices of competing commodities in 2021 could pull acreage away from cotton due to lower production costs. A review of the Council's survey will begin with a look at the Southeast.

In the Southeast, survey results indicate a 4.2% decrease in the region's upland area to 2.3 million acres. Cotton acreage is expected to decline in Alabama, Florida, Georgia, and Virginia and increase in North Carolina and South Carolina. In Alabama, the survey responses indicate a 9.3% decrease in cotton acreage, increases in corn, wheat, and soybeans and a decline in 'other crops'. In Florida, respondents indicated slightly less cotton and soybeans, and more corn and 'other crops', likely peanuts.

In Georgia, cotton acreage is expected to decline by 8.6% to 1.1 million acres. Georgia growers expect to plant more corn, wheat, soybeans, and 'other crops', likely peanuts. In North Carolina, a 13.4% increase in cotton acreage is expected. Acreage of corn and soybeans is expected to decline while acreage of wheat, and 'other crops' is expected to increase. In South Carolina, acreage is expected to increase by 2.6%. South Carolina growers expect to plant more corn, soybeans, wheat, and 'other crops'. Cotton acreage is expected to decline by 10.0% in Virginia. Virginia growers intend to plant more corn, soybeans, and 'other crops' and less wheat.

In the Mid-South, growers have demonstrated their ability to adjust acreage based on market signals. The relative prices and potential returns of competing crops play a significant role in cotton acreage. Mid-South growers intend to plant 1.7 million acres, a decline of 3.7% from the previous year. Survey results suggest that the decrease in cotton acres can be attributed to a shift to corn and soybeans.

Across the region, all states except Missouri intend to decrease cotton acreage. In Arkansas, acreage is expected to decline by 6.8% to 489 thousand acres in 2021. Arkansas growers expect to plant more corn, wheat, and soybeans. Louisiana growers expect to plant 161 thousand acres, which is 5.6% lower than last year. Louisiana growers expect to plant more corn, wheat, soybeans and 'other crops'. In Mississippi, respondents expect to plant 521 thousand acres, which is 1.6% lower than last year. Mississippi respondents expect to increase corn, wheat, and soybean acreage. For Mississippi, respondents indicated a slight increase in soybean acreage and a much larger increase in corn acreage. Missouri growers expect to increase cotton acres by 1.2% to 299 thousand acres and plant more corn, less soybeans, and slightly more 'other crops'. In Tennessee, cotton acreage is expected to decline by 6.1% to 263 thousand as land shifts to corn, soybeans and wheat.

Growers in the Southwest intend to plant 7.1 million acres of cotton, a decrease of 5.5%. Increased cotton area is expected in Kansas

with declines expected in Oklahoma and Texas. In Kansas, producers intend to plant 0.9% more cotton acres in 2021. Kansas growers intend to plant more 'other crops', likely sorghum, and less corn, wheat, and soybeans. In Oklahoma, a 5.2% decrease in cotton acreage is expected. Oklahoma producers expect to plant more wheat and less corn and 'other crops'. Overall, Texas acreage is expected to decline by 5.7%. In south Texas, respondents indicate a 1.6% decrease in cotton acreage. South Texas growers intend to plant more soybeans and 'other crops, likely sorghum, and less corn and wheat. Respondents from the Blacklands indicate a decrease of 16.2% in cotton acreage, an increase in corn, wheat, and 'other crops', and a decrease in wheat acreage. In West Texas, respondents indicated a 5.9% decrease in cotton acreage, a slight increase in corn, and a large increase in wheat and 'other crops', likely sorghum.

With intentions of 197 thousand acres. producers in the West expect to plant 2.5% less acres of upland cotton. Cotton acreage is expected to decrease in Arizona and California and increase slightly in New Mexico. The survey results for Arizona suggest a 0.3% decrease in upland cotton acres and an increase in wheat and 'other crops' and a decrease in corn. In California, growers intend to plant 17.7% less upland cotton, less corn, and 'other crops', and more wheat. In New Mexico, cotton acreage is expected to increase by 3.2% in 2021. New Mexico growers intend to plant less wheat in 2021. Summing across the 4 regions gives intended 2021 upland cotton area of 11.3 million acres, 4.9% below 2020.

Overall, the survey indicates that growers intend to plant less ELS cotton in 2021 but results across the states are mixed. California growers expect to plant 26.7% less ELS cotton, while Arizona growers expect to plant 19.8% more ELS cotton in 2021. New Mexico ELS acreage is expected to remain unchanged while Texas growers expect to decrease ELS acreage by 10.5%, mostly due to water availability. Overall, U.S. cotton growers intend to plant 161 thousand ELS acres in 2021. Summing together the upland and ELS cotton intentions shows U.S. all-cotton plantings in 2021 of 11.5 million acres, 5.2% lower than in 2020.

In recent years, U.S. cotton producers have struggled with low cotton prices, high production costs, weather issues, and the resulting financial hardships. Many producers continue to face difficult economic conditions heading into 2021. Production costs remain high and prices are not high enough to cover all production expenses for many producers. While the Coronavirus Food Assistance Program (CFAP) has provided some compensation to producers for the reduction in prices due to economic disruptions, the 2020 marketing year has still been a very challenging year for many growers across the Cotton Belt.

Planted acreage is just one of the factors that will determine supplies of cotton and cottonseed. Ultimately, weather events, insect pressures, and agronomic conditions play a significant role in determining crop size. Since the NCC economic outlook does not attempt to forecast weather patterns, the standard convention is to assume yields in line with recent trends and abandonment consistent with historical averages. However, it is important to remember the volatility around projected production given the uncertainty of weather patterns.

With average abandonment for the U.S. estimated at 18.1%, Cotton Belt harvested area totals 9.4 million acres. Using an average 2021 U.S. yield of 855 generates a cotton crop of 16.7 million bales, with 16.3 million bales of upland and 431 thousand bales of ELS.

Combining projected production with expected beginning stocks of 4.1 million bales and imports of 3 thousand bales gives a total U.S. supply of 20.8 million bales. This is a decrease of 1.4 million bales from the 2020 level.

NCC projects domestic mill use of cotton at 2.8 million bales for the 2021 marketing year, 350 thousand bales above the 2020 USDA estimate of 2.4 million bales. As one of the largest markets for U.S. cotton, U.S. mills continue to be critically important to the health of the cotton industry. In the face of rising textile imports from Asian suppliers, the U.S. textile industry has focused on new investment and technology adoption in order to remain competitive.

Now, we will turn our attention to the world market with a review of 2020 and then discuss prospects for the 2021 marketing year.

World cotton production declined in 2020 to an estimated 114.1 million bales due to lower acreage and yields. As compared to 2019, India's crop of 29.0 million bales was 500 thousand bales lower, while China's 2020 crop increased by 1.8 million bales. Australia's 2020 production was estimated to be 2.6 million bales as compared to 625 thousand bales in 2019 due to higher acreage. Pakistan's production was estimated to be 4.5 million bales in 2020, which is the lowest level since the early 80's. Turkey's 2020 production of 2.9 million bales was 550 thousand bales lower than 2019. Brazil's 2020 estimated production of 12.0 million bales was 1.8 million bales below 2019 due to lower acreage and yields.

World consumption was expected to be 117.2 million bales in the 2020 marketing year, which was 14.6 million bales higher than 2019. Estimates have been revised upward due to a faster than expected recovery from the COVID-19 pandemic. China was projected to consume 39.5 million bales in 2020, which was 6.5 million bales higher than 2019. The gap between China's cotton consumption and production is currently 10.5 million bales. From 2015-2018, the gap was filled with reserve sales and a small level of imports. In the last five years, China reduced their total ending stocks from 66.4 million bales in the 2014 marketing year to an estimated 37.3 million bales in the 2020 marketing year, which is now considered to be a normal or maintainable level.

China's ending stocks include state reserve stocks and free stocks. From 2012 to 2017, the majority of total ending stocks were state-owned reserve stocks. China is now purchasing cotton to rotate the reserve stocks. For the 2020 marketing year, China was expected to import 11.0 million bales, which was 3.9 million bales higher than in 2019. The increase in imports was in part due to increased purchases of U.S. cotton as part of the Phase I trade agreement.

With the imposition of the 25% tariff, China turned to other suppliers during the 2018 and 2019 marketing years. This allowed Brazil, Australia, and other countries to gain market share. Prior to the U.S.-China trade dispute, the U.S. market share in China was 45.0% while Brazil's share was just 7.0%. In the 2018 marketing year, the U.S. market share dropped to 17.7%, while Brazil's share increased to 22.7%. The U.S. market share increased during the 2019 marketing year due to increased purchases from China in calendar 2020 as part of the Phase I agreement. For the 2019 marketing year, the average market share of Chinese imports from the U.S., Brazil, and Australia was 30.5%, 36.4%, and 13.1%, respectively. Based on the current level of export sales to China, the U.S. share of Chinese imports is projected to recover to the level prior to the U.S.-China trade dispute.

U.S. exports are projected to reach 15.8 million bales in the 2020 marketing year based on current export commitment and shipment data. As a result of a large carryover from the 2019 marketing year and increased purchases from by China, U.S. export sales and shipments have been very strong for the 2020 marketing year. As of February 4, total commitments reached 14.1 million bales while 7.8 million bales had been shipped. Weekly shipments reached a marketing year high for the week ending on February 4. Current commitments are at the highest level at this point in the marketing year since the 2010 marketing year, while current shipments are at a record level at this point in the marketing year.

While export competition from Brazil remains strong, the U.S. has increased export sales to other markets in the 2020 marketing year. Lower production in Australia, Pakistan, and Turkey has led to higher export sales in some markets.

During the 2020 marketing year, the Indian government increased purchases of Indian cotton under the Minimum Support Price (MSP) program resulting in less cotton available to export. As of the end of January 2021, the Indian government had purchased 9.4 million bales under the MSP program. With the objective of doubling farmers' income by 2022, the Indian government intends to maintain a price stabilization fund to deal with abrupt price increases in commodities, creating buffer stocks through its state-owned agencies, and ensuring higher returns for farmers.

Uzbekistan has drastically reduced cotton exports in recent years with the goal of utilizing all local cotton production domestically as early as the 2020 marketing year. From 2005 to 2015, Uzbekistan exported an average of 3.2 million bales per year. With the expansion of the Uzbekistan textile industry, Uzbekistan mill use has been rapidly expanding and domestic cotton production is now almost entirely consumed by domestic mills. A further expansion of the Uzbekistan textile industry will require Uzbekistan to increase cotton production or become a cotton importer, which is an interesting dynamic since Uzbekistan has not previously imported raw cotton.

World trade is projected to be higher in the 2020 marketing year and the U.S. will remain the largest exporter of cotton with a projected market share of 35.9%, as compared to 37.6% in 2019.

World consumption is estimated to be higher than world production in the 2020 marketing year. Ending stocks are projected to decrease by 3.2 million bales to 95.7 million bales with a stocks-to-use ratio of 81.7%. Chinese stocks are projected to increase by 375 thousand bales in 2020. Stocks outside of China are projected to decline in 2020 by 3.6 million bales to 58.5 million bales.

While the world stock level was higher in the 2014 marketing year, the majority of stocks were held by China. Now, the dynamics are different and most of those stocks are held in two of the world's largest exporting countries. From 2018 to 2019, stocks outside of China increased by 20 million bales, with the largest increase of 8.6 million bales in India due to procurement under the MSP program. India and Brazil, the 2<sup>nd</sup> and 3<sup>rd</sup> largest exporters behind the U.S., have the highest level of stocks outside of China. The Indian government recently announced a 10.0% duty on cotton fiber imports to potentially support local prices amid higher domestic production. The management of stocks by the Indian government could impact the world cotton market in 2021. For the 2020 marketing year, USDA has estimated a record level of stocks for India of 18.1 million bales.

USDA estimates 2020 Chinese imports to be 11.0 million bales, up from just over 7 million bales last year. China's demand for imports, particularly from the U.S., should be closely monitored.

For the 2021 marketing year, world area is projected to increase slightly to 80.6 million. World production is estimated to increase by 1.5 million bales in 2021 to 115.6 million bales mostly due to the slight increase in area. World mill use is projected to increase by 3.1% to 120.9 million bales for the 2021 marketing year, while world trade is estimated to increase to 46.0 million bales.

China is expected to increase mill use in 2021 to 40.2 million bales as the recovery from the COVID-19 pandemic continues. However, lower-priced manmade fibers are providing strong competition for cotton demand.

China's cotton industry could be impacted by the U.S. administration's increased focus addressing forced labor issues in China's Xinjiang region, where most of the cotton is produced. Initially, products that were coming from either specific companies or specific regions were not allowed to be imported into the United States. Late in 2020, the Trump Administration added import restrictions for the Xinjiang Production and Construction Corps which produces a significant amount of the cotton in that province. In early 2021, a new Withhold Release Order (WRO) was issued for all cotton and cotton products from the Xinjiang region. This will likely have a significant impact on the global cotton textile and apparel supply chain. As of early February, the full impacts of these new restrictions on the world cotton market are unclear.

China's imports are expected to increase in the 2021 marketing year to 11.5 million bales. The deficit between domestic production and consumption along with lower reserve stocks contribute to the increased trade position. Additional imports are also supported by the Phase 1 trade agreement.

Chinese stocks are projected to fall by 2.3 million bales during the 2021 marketing year to 35.0 million bales. If realized, stocks would be down 33.5 million bales from the 2014 peak. World ending stocks are projected to decline by 5.4 million bales in the 2021 marketing year to 90.4 million bales, resulting in a stocks-to-use ratio of 74.8%.

For the U.S. balance sheet, exports in the 2021 marketing year are projected to drop slightly to 15.4 million bales. While China is expected to continue purchasing more U.S. cotton under the Phase 1 trade agreement, large stocks in other major cotton exporting countries provides additional competition for U.S. exports. If the U.S. export projection of 15.4 million bales is realized, the U.S. share of world exports would be 33.6%, which is 2.3% lower than the 2020 share.

When combined with 2.8 million bales of U.S. mill use, total offtake exceeds expected production and ending stocks are projected to decline to 2.6 million bales. If realized, the U.S. stock level would be one of the lowest levels in the last 20 years.

While the Council's economic outlook does not attempt to project cotton prices, it is important to review some of the factors shaping the current price situation.

Although global stocks remain at relatively high levels, a tighter U.S. balance sheet, low supply chain inventories, increased imports by China, speculative money flow, weaker U.S. dollar, higher grain and oilseed prices, and post-COVID-19 demand expectations are creating a bullish sentiment for cotton prices. However, additional restrictions related to the COVID-19 pandemic, large global stocks, and low man-made fiber prices could put downward pressure on cotton prices in 2021.

As with any projections, there are uncertainties and unknowns that can change the outcome. For the coming year, key factors affecting the U.S. cotton industry will be the continued implementation of the Phase 1 trade agreement and continued progress on the coronavirus vaccine distribution.

Despite the setbacks and short-term challenges that have occurred during this past year, the overall trends for cotton demand remain promising as the global economy continues to expand and world population increases.

# Table 1 - Balance Sheet for Selected Countries & Regions

World	17/18	18/10	10/20	20/21	21/22
Harvested Area (Thou Acres)	83 409	82 400	86 310	79 729	80 566
Vield (Pounds/Acre)	713	691	679	687	689
Production (Thou Bales)	123,959	118.563	122.118	114.142	115.610
Trade (Thou Bales)	41.551	42.430	40.678	43.915	45,958
Mill Use (Thou Bales)	122.878	120.460	102.607	117.205	120.850
Ending Stocks (Thou Bales)	81,107	79,955	98.924	95,735	90.365
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United States	17/18	18/19	19/20	20/21	21/22
Harvested Area (Thou Acres)	11,100	9,990	11,614	8,700	9,394
Yield (Pounds/Acre)	905	882	823	825	855
Production (Thou Bales)	20,923	18,367	19,913	14,953	16,729
Net Exports (Thou Bales)	16,278	14,834	15,524	15,747	15,440
Mill Use (Thou Bales)	3,225	2,975	2,150	2,400	2,750
Ending Stocks (Thou Bales)	4,200	4,850	7,250	4,050	2,589
Australia	17/18	18/19	19/20	20/21	21/22
Harvested Area (Thou Acres)	1,310	939	148	680	875
Yield (Pounds/Acre)	1,759	1,125	2,023	1,837	1,725
Production (Thou Bales)	4,800	2,200	625	2,600	3,145
Net Exports (Thou Bales)	3,915	3,632	1,360	1,500	3,007
Mill Use (Thou Bales)	35	35	35	35	35
Ending Stocks (Thou Bales)	3,039	1,572	802	1,867	1,970
Bangladesh	17/18	18/19	19/20	20/21	21/22
Harvested Area (Thou Acres)	109	109	111	111	110
Yield (Pounds/Acre)	596	609	613	626	615
Production (Thou Bales)	135	138	142	145	137
Net Imports (Thou Bales)	7,600	7,000	7,500	7.000	7,373
Mill Use (Thou Bales)	7,500	7,200	6,900	7,400	7,600
Ending Stocks (Thou Bales)	1,855	1,783	2,515	2,250	2,150
Brazil	17/18	18/19	19/20	20/21	21/22
Harvested Area (Thou Acres)	2.903	4.052	4.114	3.830	3.945
Yield (Pounds/Acre)	1.524	1.540	1.608	1.504	1,525
Production (Thou Bales)	9,220	13,000	13,780	12.000	12,536
Net Exports (Thou Bales)	4,092	6.001	8.932	9.975	10.462
Mill Use (Thou Bales)	3.400	3.400	2.700	3.000	3.200
Ending Stocks (Thou Bales)	8,657	12,256	14,404	13,426	12,300
China	17/18	18/19	19/20	20/21	21/22
Harvested Area (Thou Acres)	8,401	8,649	8,525	8,031	8,031
Yield (Pounds/Acre)	1,571	1,540	1,534	1,733	1,585
Production (Thou Bales)	27,500	27,750	27,250	29,000	26,518
Net Imports (Thou Bales)	5,574	9,427	6,979	10,875	11,400
Mill Use (Thou Bales)	41,000	39,500	33,000	39,500	40,200
Ending Stocks (Thou Bales)	37,993	35,670	36,899	37,274	34,992
India	17/18	18/19	19/20	20/21	21/22
Harvested Area (Thou Acres)	31,135	31,135	33,111	32,864	32,536
Yield (Pounds/Acre)	447	398	428	424	435
Production (Thou Bales)	29,000	25,800	29,500	29,000	29,485
Net Exports (Thou Bales)	3,505	1,721	920	4,200	4,319
Mill Use (Thou Bales)	24,150	24,300	20,000	24,300	24,850
Ending Stocks (Thou Bales)	9,225	9,004	17,584	18,084	18,400

# Table 1 – Selected Countries and Regions (Continued)

Indonesia	17/18	18/19	19/20	20/21	21/22
Harvested Area (Thou Acres)	7	5	5	5	5
Yield (Pounds/Acre)	194	291	291	194	259
Production (Thou Bales)	3	3	3	2	3
Net Imports (Thou Bales)	3,512	3,045	2,508	2,396	2,796
Mill Use (Thou Bales)	3,500	3,150	2,400	2,550	2,750
Ending Stocks (Thou Bales)	634	532	643	491	540
Mexico	17/18	18/19	19/20	20/21	21/22
Harvested Area (Thou Acres)	519	600	556	371	400
Yield (Pounds/Acre)	1,443	1,387	1,355	1,360	1,364
Production (Thou Bales)	1,560	1,735	1,570	1,050	1,137
Net Imports (Thou Bales)	575	329	-70	450	569
Mill Use (Thou Bales)	1,900	2,000	1,500	1,600	1,725
Ending Stocks (Thou Bales)	655	694	669	544	500
Pakistan	17/18	18/19	19/20	20/21	21/22
Harvested Area (Thou Acres)	6,672	5,683	6,054	5,436	5,300
Yield (Pounds/Acre)	590	642	492	397	450
Production (Thou Bales)	8,200	7,600	6,200	4,500	4,969
Net Imports (Thou Bales)	3,240	2,790	3,920	4,950	5,441
Mill Use (Thou Bales)	10,900	10,700	9,200	10,200	10,550
Ending Stocks (Thou Bales)	2,830	2,495	3,390	2,615	2,450
Turkey	17/18	18/19	19/20	20/21	21/22
Harvested Area (Thou Acres)	1,161	1,285	1,408	865	1,055
Yield (Pounds/Acre)	1,653	1,401	1,176	1,610	1,479
Production (Thou Bales)	4,000	3,750	3,450	2,900	3,250
Net Imports (Thou Bales)	3,906	2,894	4,222	4,150	4,284
Mill Use (Thou Bales)	7,550	6,900	6,600	7,300	7,500
Ending Stocks (Thou Bales)	1,950	1,694	2,766	2,516	2,550
Uzbe kis tan	17/18	18/19	19/20	20/21	21/22
Harvested Area (Thou Acres)	3,089	2,718	2,496	2,409	2,385
Yield (Pounds/Acre)	600	578	673	697	651
Production (Thou Bales)	3,860	3,275	3,500	3,500	3,232
Net Exports (Thou Bales)	1,000	750	300	300	165
Mill Use (Thou Bales)	2,500	2,800	3,000	3,150	3,300
Ending Stocks (Thou Bales)	1,433	1,158	1,358	1,408	1,175
Vietnam	17/18	18/19	19/20	20/21	21/22
Harvested Area (Thou Acres)	2	2	2	2	2
Yield (Pounds/Acre)	583	583	583	583	583
Production (Thou Bales)	3	3	3	3	3
Net Imports (Thou Bales)	7,000	6,940	6,480	6,700	6,883
Mill Use (Thou Bales)	6,600	7,000	6,300	6,700	7,000
Ending Stocks (Thou Bales)	1,285	1,228	1,411	1,414	1,300
West Africa	17/18	18/19	19/20	20/21	21/22
Harvested Area (Thou Acres)	7,349	7,277	7,729	6,039	6,401
Yield (Pounds/Acre)	355	358	367	379	365
Production (Thou Bales)	5,439	5,427	5,914	4,765	4,868
Net Exports (Thou Bales)	5,090	5,466	4,892	4,821	5,015
Mill Use (Thou Bales)	135	165	143	128	140
Ending Stocks (Thou Bales)	1,611	1,407	2,286	2,087	1,800

# **U.S. and World Economy**

In the early weeks of 2021, the short-term outlook for economic growth has slowed a bit due to continued concerns regarding COVID-19 and a slow start to vaccine deployment. However, the widespread distribution of vaccines should release some pent-up demand and result in a boost in economic growth in the latter part of the year.

The International Monetary Fund (IMF) January 2021 World Economic Outlook noted that although the recent approval of vaccines and distribution have created optimism for a turnaround in the pandemic later this year, new outbreaks and variants of the virus create some concerns for the outlook.

The Wells Fargo Securities January 2021 Monthly Outlook also included a similar assessment and outlook for the global economy. Additional COVID-19 outbreaks and new strains of the virus across the world have resulted in a weaker global growth outlook for the first half of 2021. For the U.S., the 2020 fourth quarter and 2021 first quarter GDP growth forecasts were revised downward due to a deterioration in the public heath situation, reduced consumer confidence, and lower consumer spending as compared to earlier expectations. Despite the short-term moderation, the overall outlook for 2021 is favorable due to additional fiscal support and vaccine distribution. The federal funds rate is expected to remain unchanged through 2020 as additional easing should be unnecessary due to current economic conditions.

The latest survey of consumer attitudes reports a low level of consumer confidence as compared to recent history. As measured by the Reuters/University of Michigan's Consumer Sentiment Index, consumer

confidence declined sharply during the initial COVID-19 outbreak in the United States. Consumer confidence did increase in October but is still well below the levels observed in recent years. The index declined in January 2021 to 79.0, as compared to 99.8 in January 2020 (Figure 1). The index is designed to gauge the attitudes of the American consumer with regards to the economy.



Figure 1 - Consumer Sentiment Index

As COVID-19 restrictions begin to ease, accumulated savings should support consumer spending in the latter half of 2021. According to the survey, consumers anticipate a slightly higher inflation rate of 3.0% in 2021 and 2.7% over the next five years.

## U.S. Gross Domestic Product

As determined by the Bureau of Economic Analysis (BEA), U.S. 2020 preliminary third quarter real Gross Domestic Product (GDP) increased by 33.4% (Figure 2), while fourth quarter GDP is estimated to increase by 4.0%. In the second quarter of 2020, GDP declined by 31.4%. The increase in real GDP primarily reflects an increase in exports, nonresidential fixed investment, personal consumption expenditures (PCE), residential fixed investment, and private

inventory investment partially offset by lower state and local government spending. The increase in real GDP in the fourth quarter primarily reflects the continued economic recovery from large declines earlier in the year from COVID-19.



The Wells Fargo January 2021 *Monthly Outlook* projected GDP for the fourth quarter of 2020 at 4.0% and a 2020 annual rate of -3.5%. Economic growth is projected to slow down in the first quarter of 2021 at a rate of 1.3%, but the economy is projected to increase by 4.0% in the 2<sup>nd</sup> quarter and 9.1% in the 3<sup>rd</sup> quarter. Business fixed investment is expected to increase by 5.0% in 2021, as compared to an estimated -4.0% in 2020 and 2.9% in 2019. The latest IMF projections take a similar tone regarding U.S. GDP growth with a contraction of 3.5% in 2020, followed by a growth rate of 5.5% in 2021.

Similar to other measures of economic activity, ISM Purchasing Managers' Index (PMI) dropped to a low in April 2020, ending 12 years of economic growth, but recovered during the second half of 2020. The PMI is an indicator of the economic health of the manufacturing and service sectors.

According to the BEA, U.S. real personal consumption expenditures (PCEs) expanded in the third quarter of 2020 by 41.0% (Figure 3), following a decline of 33.2% in

the second quarter. Durable goods increased 82.7% in the third quarter, compared with a decline of 1.7% in the second quarter. Nondurable goods increased 31.1% in the third quarter, compared with a decline of 15.0% in the second quarter. Services increased 38.0% in the third quarter, compared with a decrease of 41.8% in the second quarter.



Figure 3 - Change in U.S. Real Personal Consumption Expenditures

The latest outlook by Wells Fargo puts the fourth quarter growth in PCEs at 4.0%. In 2021, PCEs are projected to decline by 1.0% in the first quarter, expand by 5.6% in the  $2^{nd}$  quarter, and 11.7% in the  $3^{rd}$  quarter.

## **U.S. Employment**

Due to the COVID-19 pandemic, civilian employment declined to a low of 51.3% in April 2020. In January 2021, civilian employment had partially recovered to 57.5% of the population (Figure 4).



Figure 4 - Civilian Employment

Total nonfarm payroll employment increased by 49,000 in January 2021. Employment gains in professional and business services and in public and private education offset losses in leisure and hospitality, retail trade, health care, and transportation and warehousing.

Employment in professional and business services increased by 97,000 in January 2021 and employment in food services and drinking establishments declined by 19,000. Leisure and hospitality employment declined by 61,000 in January followed by a very large decline of 536,000 in December. Health care employment declined by 30,000 in January 2021 and transportation and warehousing declined by 28,000. Employment in education increased in January, including local government, state government, and private education.

Employment in transportation and warehousing declined by 28,000 in January 2021 and manufacturing employment decreased by 10,000. Construction employment declined by 3,000 and retail trade employment decreased by 38,000 in January. Employment in other major industries (information, financial activities, and other services) was relatively unchanged from the previous month. According to the latest government estimates, the January 2021 unemployment rate was 6.3% (Figure 5), as compared to 3.5% at this time a year ago.



Figure 5 - Civilian Unemployment Rate

## **U.S. Housing Market**

The housing industry, a key barometer of the well-being of the economy, showed further improvement in the latter half of 2020 as housing starts continued to increase. According to the U.S. Census Bureau, the seasonally-adjusted annual rate for new-home construction was 1.7 million units in December 2020 (Figure 6). This is 5.8% above the November 2020 estimate of 1.6 million units and is 5.2% above the December 2019 rate.



According to Freddie Mac, despite the uncertainty of 2020, the U.S. housing

market remains stable and strong entering 2021. Record low mortgage rates have been one of the largest contributors to the strength in the housing market. The low interest rate environment is projected to continue in 2021 and the demand for housing is expected to remain strong. Mortgage refinances increased in 2020 and as mortgage rates rise modestly in 2021, finance activity will likely slow down.

At 2.7%, the 30-year mortgage rate for January 2021 decreased by 0.03% from the previous month (Figure 7). Mortgage rates decreased throughout 2020. Looking forward, Freddie Mac expects mortgage rates to average 2.9% in 2020 and 3.2% in 2021.



Figure 7 - 30-Year Mortgage Rate

## **Federal Reserve Board**

Based on realized and expected labor market conditions and inflation, the target range for the federal funds rate was maintained at 0.0% to 0.25% in January 2021 (Figure 8). According to the minutes from the January 2021 Federal Open Market Committee, the Committee expects it will be appropriate to maintain this target range until labor market conditions have reached levels consistent with the Committee's assessments of maximum employment and inflation has risen to 2.0% and is on track to moderately exceed 2.0% for some time. The path of the economy will depend on the course of the virus, including progress on vaccinations. The ongoing public health crisis continues to weigh on economic activity, employment, and inflation, and poses considerable risks to the economic outlook. In assessing the appropriate stance of monetary policy, the Committee will continue to monitor the implications of incoming information for the economic outlook. The Committee will continue to monitor readings on public health, labor market conditions, inflation pressures and inflation expectations, and financial and international developments.



A January 2021 *Wall Street Journal* survey indicates respondents expect the federal funds rate to remain relatively unchanged in 2021. The survey respondents had a positive outlook for 2021 based on U.S. vaccination

efforts and additional financial relief from

## **Federal Budget Situation**

Washington.

The Congressional Budget Office (CBO) generally releases an annual Budget and Economic Outlook in January. However, for 2021, the report has been delayed until later in February. Based on the September 2020 budget report, CBO projections indicate that federal outlays will continue to outpace revenues over the next decade. If current laws remain unchanged, CBO projects an upward path for budget deficits over the next decade. For fiscal year 2020, federal spending is estimated at \$6.6 trillion, up from an estimated \$4.4 trillion in 2019, with estimated revenue of \$3.3 trillion (Figure 9), resulting in a deficit of \$3.3 trillion. The deficit in 2020 is projected to be \$2.3 trillion higher than in 2019, and 16.0% of GDP.



Figure 9 - Projected U.S. Federal Budget

Outlays are expected to decline by 45.3% in 2021, and as a result, CBO estimates a deficit of \$1.8 trillion (Figure 10). At 8.6% of GDP, the 2021 deficit is projected to be 7.4% lower than the very high level in 2020. According to CBO's long-term projections, the annual deficit would decrease to 5.4% of GDP by 2030.



Figure 10 - U.S. Federal Budget Surplus

CBO's persistent and growing deficits would result in increasing amounts of federal debt held by the public. In CBO's baseline projections, that debt rises from

98.2% of GDP in 2020 and would reach 107.0% of GDP by 2023, which is the highest level in history. According to CBO, increasing federal debt makes the economy more vulnerable to rising interest rates and inflation. The growing debt burden increases borrowing costs, slows economic growth and national income, and it increases the risk of a fiscal crisis or a gradual decline in the value of Treasury securities.

## **Consumer and Producer Price** Indices

Inflation acts as a tax on investment by increasing the cost of equity-financed investment and reducing corporate equity values. U.S. inflation is commonly measured by the Consumer Price Index (CPI) and the Producer Price Index (PPI).

Measured by the December-to-December change, the CPI rose 1.4% in 2020 after a 2.3% increase in 2019 (Figure 11). For 2020, the annual average CPI grew at 1.2%, which is lower than the 2019 rate of 1.8%.



**Figure 11 - Consumer Price Index** 

The index for all items less food and energy also rose by 1.6% over the last 12 months. The food index rose 3.9% over the last year, while the energy index fell by 7.0%.

The index for all items less food and energy rose by 0.1% in December. The indexes for apparel, motor vehicle insurance, recreation, and new vehicles increased in December. The indexes for cars and trucks, household furnishings and operations, and airline fares declined in December.

On a December-to-December basis, the PPI for finished goods decreased by 0.5% in 2020 (Figure 12).





## **Energy Prices and Supply**

For 2021, energy prices continue to stay at the forefront of any analysis of the general economy. After 5 years of crude oil prices (as measured by the West Texas Intermediate (WTI) market) ranging between \$80 and \$100 per barrel, the latter half of 2014 brought a pronounced change in energy markets with price declines approaching 50.0%. By the end of 2015, prices dropped to \$37 per barrel. Prices continued to decline to \$30 per barrel in February 2016 before starting a slow upward trajectory. The average price in 2017 was \$51 per barrel compared to \$43 per barrel in 2016. At the end of 2017, prices reached \$58 per barrel. Prices continued to climb in 2018 to reach \$71 per barrel in July, which was the highest level since November 2014. However, by December 2018, prices sharply declined to \$50 per barrel. In 2019, prices averaged \$57 per barrel. In 2020, prices plummeted to \$17 per barrel following the coronavirus outbreak, which was the lowest

price in real terms since 1999. Prices did recover in the third and fourth quarters due to rising oil consumption, reduced OPEC and OPEC+ crude oil production, and lower U.S. production.

As of early February 2021, prices had increased to \$53 per barrel as the economy continues to recover from COVIDCOVID-19. According to the U.S. Energy Information Administration (EIA), global oil consumption and production are projected to increase in 2021 and 2022 while global oil inventories are projected to decline.

Global consumption of petroleum and other liquid fuels averaged 92.2 million bbl/d in 2020, down 9.0 million bbl/d from 2019, which is the largest annual decline since 1980. Consumption is projected to increase by 5.6 million bbl/d in 2021 and by 3.3 million bbl/d in 2022 due to an increase in world GDP and a move toward prepandemic patterns of travel, particularly in late 2021 and in 2022.

EIA expects that the recent rise in COVID-19 infections, additional restrictions, and ongoing changes to consumer behaviors due to the pandemic will continue to affect global oil demand in the first half of 2021. Despite uncertainty, economic activity in the forecast returns to pre-pandemic levels in 2021 partly due to vaccine rollouts. As a result, EIA expects the pace of oil consumption growth to be dependent on the distribution of effective vaccines on a global scale. The recovery in petroleum demand will also differ by petroleum product. Among petroleum products, jet fuel consumption fell considerably in 2020, and EIA assumes that global jet fuel consumption will remain below its 2019 level through the end of 2022. EIA expects jet fuel consumption to return to prepandemic levels more quickly in China and the United States than in most other regions.

Crude oil production from the Organization of the Petroleum Exporting Countries (OPEC) is expected to average 27.2 million bbl/d in 2021, up from an estimated 25.6 million bbl/d in 2020. The growth in output reflects OPEC's announced increases to production targets and continuing rise in Libya's production. On January 5, 2021, OPEC and partner countries (OPEC+) announced that they will maintain the previously agreed-upon January 2021 production increase of 0.5 million bbl/d. The latest OPEC+ agreement also calls for production increases by Russia and Kazakhstan in February and March. However, additional voluntary cuts by Saudi Arabia for February and March result in lower overall OPEC+ production in early 2021. OPEC crude oil production is projected to increase by 1.1 million bbl/d in 2022.

Non-OPEC production declined by 2.3 million bbl/d in 2020 as compared to 2019 levels. More than 90% of this decline came from the three largest non-OPEC producers: the United States, Russia, and Canada. Non-OPEC production was its lowest for the year during the second quarter, but production began rising in the third quarter as global oil demand increased. EIA expects production of non-OPEC petroleum and other liquid fuels to increase by 1.2 million bbl/d in 2021. In 2022, EIA expects non-OPEC production to rise by 2.3 million bbl/d, surpassing 2019 production levels. Canada and Brazil drive the forecasted non-OPEC production growth in 2021 and Russia and the United States become the primary contributors to growth in 2022.

Oil prices declined during the first quarter of the year, hitting a low of \$17 per barrel in April, and slowly trended upward for the remainder of the year. The average monthly WTI crude oil spot price increased to \$52 per barrel in January 2021 as compared to \$47 per barrel in December 2020 (Figure 13). The average price for 2020 was \$39 per barrel compared to a 2019 average of \$57 per barrel. EIA expects WTI crude oil prices to average \$53 per barrel in 2021 and 2022.



Figure 13 - WTX Intermediate Crude Oil Price

Retail diesel fuel prices (Figure 14), which track closely with crude oil prices, averaged \$2.55 per gallon in 2020, which is 50 cents per gallon lower than the 2019 average price. The EIA projects diesel prices to average \$2.71 per gallon in 2021 and \$2.74 per gallon in 2022.



Figure 14 - Retail Diesel Fuel Price

The Henry Hub natural gas spot price averaged \$2.03 per one million British thermal units (MMBtu) in 2020 (Figure 15). In January 2021, the spot price averaged \$ per MMBtu as compared to \$2.02 in January 2020. EIA projects a price of \$3.01 per MMBtu in 2021 and \$3.27 per MMBtu in 2022.



Figure 15 - Henry Hub Natural Gas Price

Natural gas production is expected to average 88.2 billion cubic feet per day (Bcf/d) in 2021, down 2.8% from 2020. EIA estimates that U.S. total natural gas consumption in 2020 averaged 83.1 Bcf/d. In 2021, EIA projects a decrease of 2.8% as a result of less natural gas use in the power sector.

## **U.S. Equity Markets**

After closing 2017 at 24,719, the Dow Jones Industrials Average (Dow) decreased 5.6% to 23,327 by the end of 2018 (Figure 16). By mid-February 2020, the Dow reached 29,423 just prior to the coronavirus outbreak. At the end of March 2020, the Dow had declined to 18,591. Since the low in March, the Dow has been increasing to the current level of 31,099 as of February 5.



Figure 16 - Dow Jones Industrials

## **World Economies**

Global economies contracted in 2020 but increased economic activity is expected in 2021 and 2022. According to the latest projections by the International Monetary Fund (IMF), the world economy contracted by 3.5% in 2020, as compared to 2.8% growth in 2019 (Figure 17). IMF projections call for the world economy to grow by 5.5% in 2021 and 4.2% in 2022.



Figure 17 - World Real GDP Growth

The growth projections reflect expectations of an increase in economic activity due to vaccine distribution later in the year and additional policy support in a few large economies.

The IMF projects that growth in advanced economies will rebound from -4.9% in 2020 to 4.3% in 2021 and 3.1% in 2022. Growth

rates have been increased for all economies as the world recovers from the COVID-19 pandemic. In the U.S., growth is expected to increase from -3.4% in 2020 to 5.1% in 2021 (Table 2).

Table 2	- Selected	<b>Economies:</b>	Real GD	Ρ
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Ye	ar-Over-Y	/ear % C	hanges	
	2019	2020	2021f	2022f
World	2.8	-3.5	5.5	4.2
U.S.	2.2	-3.4	5.1	2.5
Euro Area	1.3	-7.2	4.2	3.6
Japan	0.3	-5.1	3.1	2.4
China	6.0	2.3	8.1	5.6
India	4.2	-8.0	11.5	6.8
Russia	1.3	-3.6	3.0	3.9
Brazil	1.4	-4.5	3.6	2.6
Mexico	0.1	-8.5	4.3	2.5
Source: Internati	ional Moneta	ry Fund, Jan	uary 2021	

IMF projects that output of emerging and developing economies (EMDEs) will expand at 6.3% in 2021 and 5.0% in 2022. The growth rate in emerging and developing Asia is expected to increase to 8.3% in 2021.

In Latin American and the Caribbean, growth is expected at 4.1% in 2021 and 2.9% in 2022. In the Middle East and Central Asia region, growth is expected at 3.0% in 2021 and 4.2% in 2022. In sub-Saharan Africa, growth is expected to strengthen to 3.2% in 2021 and 3.9% in 2022.

While multiple vaccine approvals have increased optimism for the 2021 global outlook, downside risks in the near-term include higher infection rates, new variants of the virus, additional lockdowns, and problems with vaccine distribution. Global growth is expected to gain momentum by the second quarter of 2021.

## **Exchange Rates**

During periods of market uncertainty, traders sell currencies that are perceived riskier and place their bets in safer havens. In 2020, the euro averaged 0.88 per dollar, which is slightly lower than the average value in 2019 (Table 3). In early February 2021, the euro stood at 0.83 per dollar.

The Brazilian real depreciated against the dollar in 2020. With an average of 5.16 per dollar for 2020, the real declined by 30.6% against the dollar in 2020 and declined further to 5.36 per dollar in early February 2021.

Curren	icy per U.S.	Dollar	
	2018	2019	2020
Euro	0.85	0.89	0.88
Japanese Yen	110.46	109.03	106.78
Brazilian Real	3.65	3.95	5.16
South Korean Won	1,101	1,166	1,180
Indian Rupee	68.17	72.85	74.12
Indonesia Rupiah	14,234	14,140	14,486
Pakistani Rupee	121.53	150.41	161.70
Chinese Yuan	6.62	6.91	6.90
Source: WSJ.com			

Table 3 - Selected Exchange Rates

The Euro, Japanese Yen, and Chinese Yuan showed a slight appreciation against the dollar in 2020. The Brazilian Real, South Korean Won, Indian Rupee, Indonesia Rupiah, and Pakistani Rupee all had decreases in 2020.

The Federal Reserve Board publishes a trade weighted U.S. dollar index comparing the dollar to other world currencies. The index has slowly trended upward since 2015 (Figure 18). In April 2020, the index was at the highest level since 2009, but dropped throughout the remainder of 2020 to 112.2 in December 2020.



Figure 18 – Trade Weighted U.S. Dollar Index

### **Commodity Prices**

The U.S. Department of Agriculture (USDA) publishes monthly indices of prices received by farmers. At the end of 2019, the crop price index was 86.1. In January 2020, the crop price index dropped slightly to 82.6. Prices fluctuated throughout the year but ended up at 91.1 in December 2020. The December 2020 index represented a 3.9% increase from the previous month (Figure 19).



Figure 19 - Ag Prices Received Index

Cotton prices are higher than a year ago. The cotton price index moved up and down throughout the year but ended the year 2.9% higher than a year ago.

The livestock price index declined during the first three quarters of 2020, increased in the last quarter, and ended the year 3.8% lower than in December 2019. Compared with a year ago, prices of cattle, eggs, and milk are lower. Prices of calves, hogs, and broilers increased in 2020.

USDA also publishes monthly indices of prices paid by farmers for various production inputs. Of particular interest are the indices for energy related inputs such as diesel fuel and nitrogen fertilizer. In line with the previous discussion on retail diesel prices, the diesel prices paid index trended downward during 2020. In December 2020, the diesel price index was 19.2% lower than a year ago.

Nitrogen prices moved up and down throughout 2020 and ended the year slightly higher than December 2019 (Figure 20). As of December 2020, the nitrogen price index was 2.5% higher than a year ago.



Figure 20 - Ag Prices Paid Index

## U.S. Net Farm Income

The latest USDA estimates place U.S. net farm income at \$121.2 billion in 2020, up 45.8% from 2019's estimate of \$83.1 billion (Figure 21). Net cash income increased by 25.0% in 2020. U.S. net farm income is projected to decrease by 8.1% in 2021 to \$111.4 million, while net cash income is projected to decline by 5.8% in 2021.



According to USDA's Economic Research Service (ERS), total commodity receipts are projected to increase in 2021. Crop receipts are expected to increase by \$11.8 billion in 2021, largely driven by a \$16.1 billion increase in corn and soybean receipts. According to ERS, cotton cash receipts are projected to decline by 3.9% in 2021 due to lower cotton lint and cottonseed receipts. Wheat receipts are projected to increase by 2.2% in 2021, while sorghum receipts are projected to increase by 12.3%.

Cash receipts for broilers, eggs, and turkeys are expected to increase in 2021 by 10.6%, 2.2%, and 1.0%, respectively. Dairy product and milk receipts are expected to increase by 2.0% and hog receipts are projected to increase by 15.0% in 2021. Cattle/calves receipts are projected to increase by 6.4% in 2021. Total production expenses are forecast to increase by 2.5% in 2021 due to higher feed, fertilizer, and labor expenses. Government payments are projected to decline by 45.3% to 25.3 billion in 2021, as compared to \$46.3 billion in 2020. Most of this decline is due to lower supplemental and ad hoc disaster assistance for the COVID-19 pandemic as compared to 2020. The 2020 level was the highest since the 2005 marketing year due to Coronavirus Food Assistance Program (CFAP) payments. The 2019 level was higher than the 10-year average of \$11.5 billion per year due to Market Facilitation Program (MFP) payments.

Farm financial risk indicators such as the debt-to-asset and debt-to-equity ratios are expected to rise in 2021, for the eighth year in a row, indicating increasing financial pressure on the sector. However, debt-to-asset and debt-to-equity ratios remain low relative to historical levels.

Increasing farm sector assets are projected due to a modest increase in farm real estate assets, animals and products, and machinery and vehicles. Farm sector debt is expected to increase by 2.2% in 2021, with real estate debt rising by 3.1%. Farm sector equity is expected to increase by 1.8%, while equityto-asset levels are projected to decrease slightly.

# **U.S. Farm and Trade Policy**

Agricultural policy provisions applying to the 2021 crop are authorized by the Agricultural Improvement Act of 2018, also known as the 2018 Farm Bill.

# The Agricultural Improvement Act of 2018

The Agricultural Improvement Act of 2018 maintained policy provisions important to upland and ELS cotton with some modifications.

#### Seed Cotton PLC/ARC Program

The 2018 Farm Bill continued the seed cotton Price Loss Coverage (PLC) and Agriculture Risk Coverage (ARC) programs. The reference price was maintained at \$0.367 per lb. Seed Cotton refers to unginned upland cotton that includes both lint and cottonseed.

Starting with the 2019 marketing year, producers had the option to elect ARC or PLC for seed cotton and that election will be effective for the 2019 and 2020 marketing years. In 2021, producers will have the option to make an annual ARC or PLC election for seed cotton.

The 2018 Farm Bill includes the addition of effective reference prices which allow PLC reference prices to adjust with sustained improvements in market prices. The effective reference price is equal to the greater of 85% of the rolling 5-year Olympic average price and the PLC Reference Price. The effective reference price or greater than the reference price or greater than 115% of the reference price.

When calculating the benchmark revenue for ARC, the effective reference price will be used as part of the calculation for the 5year Olympic average price when the effective reference price is higher than the marketing year average price. The 5-year Olympic average yield will use either the county average yield or 80% of the county transitional yield, whichever is higher for that year.

#### Base Loan Rates, Marketing Assistance Loans and LDP's

The marketing assistance loan for upland cotton is maintained in the 2018 Farm Bill. The level of the upland cotton marketing loan rate is based on the 2-year moving average of the adjusted world price (AWP) as announced by USDA. The annual decline is limited to 2% of the previous year's loan rate.

Specifically, the loan rate is equal to the 2year average AWP for the two most recently completed marketing years as of October 1 in the fall prior to planting. For example, the 2020 loan rate is based on the 2017 and 2018 marketing years since those are the 2 most recent years as of October 1, 2019. However, the loan rate cannot exceed 52 cents per pound nor be less than 45 cents per pound.

The 2018 Farm Bill includes an increase in the ELS loan rate to \$0.95/lb. The maximum price trigger for the ELS competitiveness payment is adjusted from 134% of the loan rate to 113% of the loan rate so the adjustment does not result in the program triggering more often.

Marketing loan repayment provisions, the determination of the premium and discount schedules, and storage credits remain unchanged from the 2014 farm law.

#### **Payment Yields**

Effective for the 2020 crop, producers had the opportunity to update payment yields on all crop bases on a farm-by-farm and commodity-by-commodity basis. The yield update is based on 90% of the average farm yields from 2013-2017, only including years when a crop was planted. A plug yield equal to 75% of county average yield for 2013-2017 was used for any years where the farm's yield is below that level. Each crop has an additional adjustment factor based on crop specific national yield data. The adjustment factor for cotton is 90%. So, the yield update for cotton is 90% times 90% of the average farm yields from 2013-2017, which is equal to 81% of the average farm yields from 2013-2017.

#### Payment Limitations and Eligibility Requirements

The 2018 Farm Bill maintains payment limitations and eligibility requirements contained in the 2014 Farm Bill, with a few modifications. The income means test is based on total adjusted gross income (AGI) of \$900,000 for commodity and conservation benefits. A payment limit of \$125,000 per entity applies to payments received under Title I price and revenue programs.

The \$125,000 payment limit no longer applies to marketing loan benefits, including both marketing loan gains (MLGs) and loan deficiency payments (LDPs). The current legislation maintains the separate limit for peanuts.

#### **Commodity Marketing Certificates**

Commodity certificates are maintained in the 2018 Farm Bill. Certificates allow producers with outstanding marketing assistance loans to purchase certificates and then exchange the certificate for their outstanding loan collateral rather than forfeit that loan collateral to CCC at loan maturity. By redeeming a loan with commodity certificates, the MLG, if available, is not subject to the AGI means test or the \$125,000 payment limitation. A commodity certificate exchange is not considered a "program benefit" but is considered an exchange in loan collateral.

#### Actively Engaged

The actively engaged provisions in the 2014 Farm Bill are maintained in the 2018 legislation, along with an expansion in the definition of family members. The family definition for actively engaged purposes now includes nieces, nephews, and first cousins as lineal family members.

To be considered "actively engaged in farming", certain requirements must be met for farming operations conducted by general partnerships and joint ventures that encompass non-family members. Additional details are available on the USDA-FSA website at www.fsa.usda.gov.

#### Stacked Income Protection Plan

The Stacked Income Protection Plan (STAX) is maintained in the 2018 Farm Bill. However, starting with the 2020 marketing year, farms enrolled in ARC or PLC are not eligible for STAX coverage. Producers enroll annually in ARC or PLC, so they can choose to not enroll a farm in ARC or PLC for a particular year and purchase STAX.

STAX is available for purchase in essentially all counties in which USDA's Risk Management Agency (RMA) offers upland cotton insurance products. Administered in a manner consistent with current crop insurance delivery systems, STAX is designed to complement existing crop insurance products. The STAX plan addresses revenue losses on an area-wide basis, with a county being the designated area of coverage. In counties lacking sufficient data, larger geographical areas such as county groupings are necessary in order to preserve the integrity of the program.

As with other insurance products, STAX is not subject to payment limitations or means tests. County-specific details are available both on the NCC website www.cotton.org and the USDA-RMA website www.rma.usda.gov.

#### **Cotton Import Provisions**

The 2018 Farm Bill continues without change the rules for triggering import quotas. A Special Import Quota will be opened when the average U.S. quote in the international market exceeds the prevailing world market price for 4 consecutive weeks. Global Import Quotas are triggered when the base quality spot price for a month exceeds 130% of the average for the previous 36 months.

#### ELS Cotton Competitiveness Provisions

The farm law continues competitiveness payments for eligible domestic users and exporters of American Pima cotton. The payment rate reflects the difference between the American Pima quote in the Far Eastern market (APFE) and the lowest foreign quote in the Far East (LFQ), adjusted for quality. The maximum price trigger for the ELS competitiveness payment is adjusted from 134% of the loan rate to 113% of the loan rate in order to reflect the higher ELS loan rate in the new legislation.

# Economic Adjustment Assistance for Textile Mills

The highly successful assistance for U.S. textile mills continues in the 2018 Farm Bill. The program makes a payment of 3 cents per pound for all upland cotton consumed. Payments must be used for specific purposes such as acquisition, construction, installation, modernization, development, conversion, or expansion of land, plant buildings, equipment, facilities, or machinery.

## **Trade Negotiations & Disputes**

In 2020, when anything related to the COVID-19 global pandemic seemed to dominate the headlines, trade policy issues continued to remain important to the U.S. cotton industry.

#### U.S-Mexico-Canada Agreement

On July 1, 2020, the United States-Mexico-Canada Agreement (USMCA) entered into force.

Overall, the USMCA preserves the benefits of NAFTA and encourages continued regional integration of the cotton and textile supply chain. It also enhances regulatory coordination on sanitary and phytosanitary (SPS) disciplines and encourages greater cooperation in biotechnology, including gene editing. Finally, it improves the terms of trade for U.S. textile manufacturers.

Perhaps the most important feature of the USMCA is the preservation of NAFTA's market access benefits for U.S. cotton and cotton products. During the USMCA's negotiation, NCC – along with other U.S. agricultural organizations – advocated a "do no harm" approach to market access for U.S. farm exports. USMCA retains NAFTA's market access benefits.

The new SPS chapter enhances regulatory transparency and encourages the compatibility of science-based measures. The advancement of transparent, nondiscriminatory, science-based SPS and biotechnology measures in foreign markets was a primary negotiating objective of the U.S. agriculture community. The inclusion of these provisions in the USMCA represents a significant step forward.

Importantly, USMCA establishes a new, separate textile chapter, reflecting the scale and significance of regional textile and apparel trade, and incorporates NAFTA's yarn-forward rule of origin. Together with the preservation of market access for U.S. cotton exports, the incorporation of NAFTA's yarn-forward rule of origin represents another major benefit of the USMCA. Under NAFTA, the yarn-forward rule of origin has played a central role in the development of an integrated regional supply chain. It has also helped ensure that the benefits of increased trade accrued to manufacturers within the region.

The textile chapter also strengthens customs enforcement, which is particularly important to the sector, given that U.S. imports in the sector have annually accounted for approximately 40% of all U.S. duty revenue.

The USMCA also offers new benefits corresponding to the use of USMCA-origin sewing thread, pocketing, narrow elastics, and coated fabrics for certain end items. According to the National Council of Textile Organizations, the annual value of the regional market for sewing thread in apparel applications is approximately \$250 million, while the annual market for pocketing is worth \$70 million.

Finally, U.S. textile manufacturers will benefit from the USMCA's closure of a NAFTA loophole that exempts purchases by the U.S. Department of Homeland Security's Transportation Security Administration (TSA) from the Buy American requirements known as the Kissell Amendment. The USMCA will no longer permit manufacturers from Canada and Mexico to qualify as "American" sources. In FY2019, TSA purchased approximately \$35 million worth of textile and apparel products. Eliminating NAFTA's loophole will thus provide significant benefits to manufacturers of U.S.-origin textile and apparel products.

#### **China** <u>China Tariffs</u>

In August 2017, the United States Trade Representative (USTR) initiated an investigation under Section 301 of the Trade Act of 1974 to determine if China's acts, policies, and practices related to technology transfer, intellectual property and innovation are unreasonable, unjustifiable, or discriminatory and burden or restrict U.S. commerce. In response to the findings of the investigation, President Trump announced on March 22, 2018 that the U.S. would respond to China's harmful acts, policies, and practice in three separate actions: tariffs, dispute settlement in the WTO, and investment restrictions.

There were four lists of goods for which the U.S. announced tariffs. List 1, totaling \$34 billion worth of imports from China is composed of 818 tariff lines. A 25% tariff was imposed on the items on this list with the tariffs going into effect July 6, 2018. List 1 did not contain any cotton, textile or apparel products. However, it did contain some textile machinery.

List 2 totaled \$16 billion worth of imports from China. The 25% tariff on the 279 tariff lines on this list went into effect on August 23, 2018. List 2 also did not contain any cotton, textile or apparel products.

The third list of tariff lines of products from China totaled approximately \$200 billion. Tariffs for the items on this list went into effect on September 24, 2018 and were initially set at 10%. The level of the additional tariffs increased to 25% starting May 10, 2019. List 3 contains products in HTS Chapters 50-60 which covers textile fibers, yarns, and fabrics. This includes all tariff lines in Chapter 52 covering products from cotton, not carded or combed, cotton waste, cotton thread, yarn, and woven fabric. Cotton knit fabric tariff lines from Chapter 60 are also covered by List 3. The fourth list, totaling \$300 billion worth of imports from China, is split into two groups, List 4A and List 4B. Both groups contain finished apparel and other sewn products covered in HTS Chapters 61-63. The 15% tariff on the goods included in List 4A went into effect September 1, 2019. The 15% tariff on goods included in List 4B was scheduled to go into effect December 15, 2019. However, earlier in December 2019, the U.S. government announced that it was suspending, until further notice, the additional duty of 15% on List 4B goods. The suspension was due to progress in negotiations between the U.S. and China.

On April 1, 2018, China's Ministry of Commerce announced China's intention to impose retaliatory tariffs on U.S. goods in response to the U.S. announcement of the 25% tariff on steel imports and 10% tariff on aluminum imports beginning June 1, 2018 (Sections 232 tariffs). China applied a 15% duty on 120 items including fruits, nuts, wine, and steel and iron tubes and pipes. A 25% duty was applied on 8 items including pork and aluminum scrap. These tariffs took effect on April 2, 2018.

On April 3, 2018, China released another retaliation list of U.S. goods worth \$50 billion that could be subject to an additional 25% tariff. This list was the first one announced in retaliation to the Section 301 tariffs announced by the United States. China's List 1 contained 106 products which includes soybeans, airplanes, automobiles, beef, and chemicals. Cotton fiber (HTS 5201) was also included on this list. However, the list did not include any textiles or apparel. On June 15, 2018, China's State Council announced the addition of more goods to List 1. The 25% tariff on a total of 545 categories of goods went into effect July 6, 2018.

On August 8, 2018, China released another list of retaliatory tariffs on \$16 billion in

U.S. goods. This was in response to the USTR's announcement on August 7 of the final List 2 of Section 301 tariffs on \$16 billion in Chinese imports. China's List 2 included cotton and MMF waste, but no other textile products were included. A tariff of 25% was applied to the goods on List 2 beginning on August 23, 2018.

Also, in August 2018, China announced List 3 for retaliatory tariffs. This announcement was in response to the U.S. announcement of a 3<sup>rd</sup> list of Section 301 related tariffs. China's List 3 contains 5,207 tariff lines worth \$60 billion. The original List 3 announcement stated tariffs on these goods would be 5, 10, 20, or 25% and the tariffs would be enacted beginning September 24, 2018. On September 19, 2018, China announced the tariff rates for List 3 would be 5 or 10%. China's List 3 includes combed cotton, cotton sewing thread, some cotton yarn, cotton woven and knit fabric, and some finished textile and apparel goods. Tariffs for goods included on List 3, Annex 1 increased from 10% to 25% on June 1, 2019. Tariffs for goods included on List 3, Annex 2 increased from 10% to 20% on June 1, 2019. List 3, Annex 3 goods tariffs increased from 5% to 10% on June 1, 2019. List 3, Annex 4 goods remained at a 5% tariff.

On August 23, 2019, China announced tariffs on additional goods that went into effect September 1, 2019. This list included some finished textile goods. Also, on August 23, 2019, China announced a list of goods that would be subject to additional tariffs beginning December 15, 2019. This list contained some woven fabrics. However, these tariffs have been delayed indefinitely due to progress in negotiations between the US and China.

On December 1, 2018, President Trump and China's President Xi reached an agreement on the margins of the G20 meeting in Buenos Aires to delay an increase on the third \$200 billion portion of the Section 301 related tariffs from 10 to 25%, originally scheduled for January 1, 2019. The agreement included a 90-day period of talks to resolve issues around IP theft, non-tariff barriers, and forced technology transfers. If no agreement was reached at the end of the 90-day period, the tariff increase would be implemented. According to the White House, China also agreed to purchase substantial amounts of agricultural, energy, industrial and other products from the U.S. to reduce the trade imbalance. The first round of talks between the U.S. and China was held in Beijing January 7-9, 2019. Several other rounds of talks were held in 2019. On December 13, 2019, the U.S. and China reached an agreement on a Phase 1 trade deal that requires structural reforms and other changes to China's economic and trade regime.

The U.S. and China signed the Phase 1 agreement on January 15, 2020. The agreement entered into force on February 14, 2020, 30 days after signing. In light of the entry into force of the agreement, the U.S. Trade Representative determined to reduce the level of additional duties on goods included on List 4A from 15% to 7.5%. The 7.5% tariff was effective February 14, 2020. On February 6, 2020 China announced it would cut in half some of the retaliatory tariffs on \$75 billion worth of U.S. goods it imposed in September 2019. The 10% tariffs on roughly 900 items dropped to 5% and the 5% tariffs on approximately 800 items dropped to 2.5%. The tariff cuts took effect on February 14, 2020.

The Phase 1 agreement includes a chapter on agriculture with Chinese purchases of total U.S. agricultural products, including cotton, intended to average at least \$40 billion per year for 2020 and 2021. However, the overall impact for cotton remains uncertain as commodity specific details on purchase commitments were not released. The U.S. government will be closely monitoring on an ongoing basis the level of export sales to China. For the January through November 2020 time period, U.S. exports of agricultural products to China were approximately \$22.3 billion. U.S. exports of raw cotton fiber to China during the same time period were approximately \$1.6 billion. The agreement includes a dispute resolution and enforcement mechanism to respond to industry issues related to any lack of compliance.

In January 2019, the WTO granted China's second request for a dispute panel to rule on the Section 301 tariffs the U.S. imposed on Chinese imports. China made its first request for a dispute panel in December 2018. That request was vetoed by the United States. However, WTO rules prevent members from blocking a dispute inquiry a second time. China asserts that the Section 301 tariffs violate WTO's Most Favored Nation rules saying the tariffs are "unilateral" and "WTO-inconsistent". The U.S. dismissed China's argument noting that China responded in kind with discriminatory duties on over \$100 billion in U.S. exports.

In August 2018, in recognition of the impacts of China's retaliatory tariffs, the Trump Administration announced a plan to assist U.S. farmers and ranchers facing trade disruptions from these tariffs. The plan included three components to assist farmers and ranchers: a Market Facilitation Program (MFP), a Food Purchase & Distribution Program, and an Agricultural Trade Promotion (ATP) Program.

The MFP provided \$0.06/lb on a producer's 2018 upland and ELS cotton production (paid in two installments). Producers could apply for MFP through February 14, 2019 but had until May 1, 2019 to certify their

2018 production. The Market Facilitation payments were subject to the existing \$900,000 adjusted gross income means test and a separate \$125,000 per person payment limit for the eligible crops. The other commodities eligible for the program included soybeans (\$1.65/bu), sorghum (\$0.86/bu), wheat (\$0.14/bu), corn (\$0.01/bu), dairy (\$0.12/cwt) and pork (\$8.00/head).

USDA's Agricultural Marketing Service (AMS) administers the Food Purchase and Distribution Program to purchase up to \$1.2 billion in commodities. The specific commodities to be purchased are those impacted by unjustified tariffs imposed by other nations. Purchases are spread over several months. USDA's Food and Nutrition Service will distribute these commodities through nutrition assistance programs such as The Emergency Food Assistance Program and child nutrition programs.

Through the Foreign Agricultural Service, the ATP program provided \$200 million to develop foreign markets for U.S. agricultural products. The program helps U.S. agricultural exporters identify and access new markets and help mitigate the adverse effects of other countries' restrictions. In a late January 2019 announcement, Cotton Council International received \$9.2 million for promotional activities for cotton fiber, yarn and fabric exports.

On July 25, 2019, USDA announced a \$16 billion package through the MFP, FPDP and ATP programs. MFP signup ran through July 29 to December 20, 2019. MFP payments for 2019 are being made in three tranches. The first round of payments began in August 2019 and was comprised of the higher of either 50% of a producer's calculated payment or \$15 per acre. For producers who received payment in the first round, their second-round payments began the week of November 25, 2019. Producers of MFP-eligible commodities were eligible to receive 25% of the total payment expected during the second round. The third and final round of 2019 MFP payment was announced on February 3, 2020.

#### Entity List Designation and Withhold Release Orders (WROs)

In 2020, the Trump Administration undertook two different types of national security and human rights based measures: Entity List Designations and Withhold Release Orders (WROs).

An Entity List Designation is a sanction that prohibits the export of U.S. goods to sanctioned entities. These designations are imposed by the Commerce Department. Entities on the list have been determined by the U.S. Government to be acting contrary to the national security or foreign policy interests of the U.S. Over the course of the past year, several Chinese companies have been added to the Entity List. One of the companies added in 2020 was engaged in the purchase of U.S. cotton and cotton products.

WROs are imposed by Customs and Border Protection (CBP) and prohibit the importation of goods into the U.S. from companies and/or regions that are subject to the WROs. Since September 2020, the CBP has issued three WROs on cotton products from China. On September 14, 2020, CBP announced a WRO on cotton produced and processed by Xinjiang Junggar Cotton and Linen Co., Ltd. in Xinjiang Uyghur Autonomous Region, China. According to CBP, "information reasonably indicates that this entity and its subsidiaries use prison labor in their raw cotton processing operations in Xinjiang. Cotton-processing factories and cotton farms in this region are prison enterprises that use convict labor."

On December 2, 2020 CBP announced another WRO on cotton and cotton products originating from the Xinjiang Production and Construction Corps (XPCC). This WRO was the sixth enforcement action that CBP announced in the later part of 2020 against goods made by forced labor from China's Xinjiang Uyghur Autonomous Region (XUAR). In July 2020, the U.S. Government issued an advisory to caution businesses about the risks of forced labor in XUAR. The December 2<sup>nd</sup> WRO states that, "CBP's Office of Trade directed the issuance of a Withhold Release Order (WRO) against cotton products made by the XPCC based on information that reasonably indicates the use of forced labor, including convict labor. The WRO applies to all cotton and cotton products produced by the XPCC and its subordinate and affiliated entities as well as any products that are made in whole or in part with or derived from that cotton, such as apparel, garments, and textiles." The WRO requires detention at all U.S. ports of entry of all cotton products produced by the XPCC and any similar products that the XPCC produces. Importers of detained shipments are provided an opportunity to export their shipments or demonstrate that the merchandise was not produced with forced labor.

CBP issued a region-wide "Withhold Release Order on Products Made by Slave Labor in Xinjiang" effective on January 13, 2021 that applies to all cotton/cotton products from China's Xinjiang region. The ban also applies to tomatoes and tomato products. The CBP noted in its release that, "This WRO will direct CBP personnel at all U.S. ports of entry to detain cotton products and tomato products grown or produced by entities operating in Xinjiang. These products include apparel, textiles, tomato seeds, canned tomatoes, tomato sauce, and other goods made with cotton and tomatoes. Importers are responsible for ensuring the products they are attempting to import do

not exploit forced labor at any point in their supply chain, including the production or harvesting of the raw material."

#### **Turkey Antidumping Duties**

Turkey's antidumping (AD) investigation of imports of U.S. cotton came to a conclusion in 2016. The investigation was self-initiated by Turkey's Ministry of Economy (MoE) in October 2014.

On April 16, 2016, the Turkish government released its final decision on its antidumping investigation of U.S. cotton. Based on assertions that U.S. cotton was dumped into Turkey injuring the domestic market, a 3.0% CIF (cost, insurance and freight) duty was imposed on all U.S. cotton fiber imports into Turkey, effective immediately at the time of the final decision.

The duties put U.S. cotton at a competitive disadvantage to cotton produced in other countries, thus jeopardizing business with Turkish mills.

Entering 2021, the 3.0% duty continues to be in place. However, the five-year sunset review on the antidumping duty is set to take place this Spring. The sunset review is required of countries under WTO membership. The Turkish government will assess the current status of the antidumping duty and will review to make sure, under Turkish law, it makes sense to keep the antidumping duty in place.

#### WTO Trade Talks

The Ministerial Conference is the highest decision-making body of the WTO. Under the Marrakesh Agreement Establishing the WTO, the Ministerial Conference is to meet at least once every two years. The 12<sup>th</sup> Ministerial Conference was scheduled for June 8-11, 2020 in Astana Kazakhstan. However, due to the COVID-19 global pandemic, the Ministerial Conference was cancelled. As of the writing of this publication, the next Ministerial Conference has not been scheduled.

During the WTO 10<sup>th</sup> Ministerial Conference, the decision was made to continue cotton dedicated discussions within the WTO for purposes of providing greater transparency and complete notifications of subsidies by all countries. These dedicated discussions are to be held twice each year. The latest cotton dedicated discussion was held in November 2020. During that session, members were updated on the evolution of cotton markets, including the impact of COVID-19 on cotton trade and recent improvements to monitoring tools.

After the terms of two of its judges expired in December 2019, and in light of the continuing blockage of new appointments by the U.S., the WTO Appellate Body is unable to hear appeals of cases decided by the WTO Dispute Settlement Body panels. The term of the last sitting Appellate Body member expired on November 30, 2020.

In addition to blocking new appointments to the Appellate Body, the U.S. also blocked the appointment of a new Director General in late 2020. The WTO blockings were done in an attempt to prompt consideration of ways to reform the WTO, specifically the dispute settlement system. U.S. concerns and criticisms over the dispute settlement process began during the Obama Administration. The Trump Administration put the concerns into effect by blocking the Appellate Body appointments. The Trump Administration did not put forth information on what the U.S. expected WTO reform to look like. We would expect the Biden Administration to focus on US expectations for WTO reform.

#### AGOA

The African Growth and Opportunity Act (AGOA) provides preferential access of textile and apparel products to the U.S.

market for qualifying countries in Africa. The Trade Preference Extension Act extended the provisions of AGOA to September 30, 2025.

The AGOA legislation requires an annual determination of which countries are eligible to receive benefits under the trade act. Countries must make continued progress toward a market-based economy, rule of law, free trade, and economic policies that will reduce poverty, and protect workers' rights. There are now 39 countries that are eligible for economic and trade benefits under AGOA. Of those 39 Sub-Saharan countries, 27 of them are eligible to receive AGOA's apparel benefits. Twenty-six countries also qualify for the Less Developed Country (LDC) special rule for apparel (third-country fabric). Seventeen countries also qualify for AGOA's provisions for hand-loomed and handmade articles. Five countries qualify for AGOA's ethnic printed fabric benefits.

#### Caribbean Basin Trade Partnership Act (CBTPA)

The CBTPA was first enacted on October 1, 2000 and substantially expanded the Caribbean Basin Economic Recovery Act (CBERA), which was launched in 1983, to provide duty-free access to the U.S. market for goods including apparel, petroleum products, and some agricultural products. Collectively these two programs are known as the Caribbean Basin Initiative (CBI). The CBTPA was scheduled to expire September 30, 2020. On October 10, 2020, President Trump signed a bill renewing the CBTPA through September 30, 2030. The renewal was retroactive to the previous expiration date of September 30, 2020.

CBTPA is unique among U.S. trade preference programs because it requires the use of U.S. manufactured yarns or fabrics in finished apparel goods for trade benefits. CBTPA beneficiary countries are Barbados, Belize, Curacao, Guyana, Haiti, Jamaica, St. Lucia, and Trinidad and Tobago.

Since first implemented in 2000, CBTPA has provided a structured system of textile and apparel duty preferences for beneficiary countries – most notably Haiti. U.S. textile and cotton industries see significant benefits from the program which has helped establish an export market for U.S.-grown cotton, U.S.-spun yarn and other textile materials of U.S. origin.

#### **Other Trade Issues**

On October 16, 2018, USTR officially notified Congress that the Trump Administration intended to start negotiations following the completion of necessary domestic procedures on trade agreements with Japan, the UK and the EU. This began a 90-day consultation period under Trade Promotion Authority (TPA) prior to the launch of negotiations. The U.S. would not begin negotiations on a trade agreement with the UK until after the UK left the EU on January 31, 2020. On May 2, 2020, trade agreement negotiations between the U.S and UK were officially launched. Since the launch, there have been four separate negotiating sessions. Neither the UK nor the Biden Administration has made the resumption of the negotiations a priority, but it is expected that they will resume at some point in the near future.

The U.S. – Japan Trade Agreement was signed on October 7, 2019. In the U.S. -Japan Agreement, Japan committed to provide substantial market access to American food and agricultural products by eliminating tariffs, enacting meaningful tariff reduction, or allowing a specific quantity of imports at a low duty. Tariff treatment for the products covered in this agreement will match the tariffs that Japan provides to countries in the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CP-TPP) agreement. The agreement entered into force on January 1, 2020. Both countries agreed to enter into negotiations on a Phase 2 agreement which would cover customs duties and other restrictions on trade, barriers to trade in services and investment and other issues. Negotiations on Phase 2 have yet to occur. The status of further negotiations is uncertain under both Japan's new Suga Administration and the Biden Administration.

A historical review of various trade agreements affecting textiles can be found at www.cotton.org.

# **U.S. Supply**

## 2020 Planted Acreage

U.S. farmers planted 11.9 million acres of upland cotton in 2020, a decrease of 12.0% from the previous year (Figure 22).



Figure 22 - U.S. Upland Planted Area

In the Southeast, 2020 cotton acreage decreased by 597 thousand acres, or 20.1% (Figure 23). Alabama, Florida, Georgia, North Carolina, and Virginia decreased cotton acreage by 16.7%, 12.5%, 15.0%, 29.4%, 36.7%, and 22.3%, respectively. State totals for the region are: Alabama– 450 thousand acres, Florida – 98 thousand acres, Georgia – 1.2 million acres, North Carolina – 360 thousand acres, South Carolina – 190 thousand acres, and Virginia – 80 thousand acres.



Figure 23 - Southeast Upland Planted Area

In 2020, plantings of 1.8 million acres in the Mid-South represented a 25.0% decrease (Figure 24) from the previous year. In recent years, Mid-South farmers have demonstrated their ability and willingness to adjust their crop mix based on market signals. Acreage decreased in all Mid-South states for 2020. For Arkansas, Louisiana, Mississippi, Missouri, and Tennessee, acreage decreased by 15.3%, 39.3%, 25.4%, 22.4%, and 31.7%, respectively. State totals for the region are: Arkansas - 525 thousand acres, Louisiana -170 thousand acres, Mississippi – 530 thousand acres, Missouri - 295 thousand acres, and Tennessee - 280 thousand acres.



Figure 24 - Mid-South Upland Planted Area

In the Southwest, 2020 upland cotton area decreased by 4.4% to 7.5 million acres (Figure 25). With an 18.0% decrease, Oklahoma's cotton area declined from 640 thousand acres to 525 thousand acres. Kansas area increased by 11.4%, bringing the 2020 total to 195 thousand acres. In Texas, producers planted 6.8 million acres, a 3.5% decline from 2019.



Upland acres in the West stood at 202 thousand acres in 2020, down 27.1% from 2019 (Figure 26). Acreage decreased by 37.0% in California, 31.7% in New Mexico,

and 21.9% in Arizona.





In 2020, overall ELS acreage decreased by 11.5%, with planted area at 203 thousand acres (Figure 27). California and Arizona had declines in ELS acres in 2020, with the largest decline of 27.9% in California.



Figure 27 - U.S. ELS Planted Area

## 2020 Harvested Acreage

Overall U.S. abandonment was 28.0%, up 12.6 percentage points from 2019 (Figure 28). In Texas, 47.1% of upland acres were unharvested, which was well above the 5year average of 23.1%. In Oklahoma, 14.3% of acres were unharvested, which was lower than the 5-year average of 18.6%.

In the Southeast, abandonment levels were slightly higher as compared to 2019. In Alabama, 1.1% of acres were abandoned as compared to the 5-year average of 1.7%. In Georgia, 0.8% of acres were abandoned as compared to the 5-year average of 2.8%. In Florida, the abandonment rate was 2.0% as compared to the 5-year average of 5.8%. In North Carolina, 2020 abandonment of 8.3% was higher than the 5-year average of 4.4%. In South Carolina, abandonment was 2.6% as compared to the 5-year average of 10.8%. In Virginia, 2020 abandonment was 1.3% as compared to the 5-year average of 1.1%.

In the Mid-South, the 2020 abandonment rate was slightly lower than the 5-year average for all states in the region except Louisiana. The abandonment rate for Arkansas, Louisiana, Mississippi, Missouri, and Tennessee, was 1.0%, 2.9%, 0.9%, 2.7%, and 1.8%, respectively. The 2020 abandonment rate for upland cotton in the West was also slightly higher than the 5year average. For ELS cotton, 2020 abandonment was 4.0% as compared to the 5-year average of 1.8%.



Figure 28 - U.S. Cotton Abandonment

## 2020 Yields

In 2020, the estimated national average cotton yield of 825 pounds was slightly higher than the previous year and 24 pounds lower than the 5-year average (Figure 29). Looking at the numbers in more detail provides a better insight to the varying conditions faced by growers across the Cotton Belt. Overall, the Southwest, Southeast, and West regions had below average yields in 2020 while the average yield in the Mid-South was above average.

In the Southeast, the 2020 yield for all states was lower than 2019.



Figure 29 - U.S. Cotton Yield

The 2020 Southeast yield of 838 pounds was 108 pounds lower than 2019 and 27 pounds below the 5-year average (Figure 30). In Alabama, the 2020 yield of 793 was 135 pounds lower than 2019 and 114 pounds lower than the 5-year average. In Florida, the 2020 yield of 625 pounds was 270 pounds lower than in 2019 and 177 pounds below the 5-year average.

The 2020 Georgia yield of 887 pounds was 66 pounds lower than 2019 and 13 pounds higher than the 5-year average. The 2020 North Carolina yield of 785 pounds was 213 pounds lower than 2019 and 65 pounds lower than the 5-year average. In South Carolina, the 2020 yield of 778 pounds was 31 pounds lower than 2019 and 21 pounds higher than the 5-year average. At 972 pounds, the 2020 Virginia yield was 172 pounds lower than 2019 and 31 pounds higher than the 5-year average.

	2019	2020	5-Year Average
Alabama	928	793	907
Florida	895	625	802
Georgia	953	887	873
North Carolina	998	785	851
South Carolina	809	778	757
Virginia	1,144	972	941
SOUTHEAST	946	838	864

Southeast Upland Yields

Figure 30 - Southeast Upland Yields

Overall, cotton acreage in the Mid-South produced yields above the 5-year average in 2020 (Figure 31). The 2020 Mid-South yield of 1,132 pounds was just 7 pounds lower than 2019 and 23 pounds above the 5-year average. In Arkansas, the 2020 yield of 1,200 pounds was a record yield. The 2020 Louisiana yield of 1,018 pounds was 17 pounds lower than in 2019 and 51 pounds above the 5-year average. In Missouri, the 2020 yield of 1,204 pounds was 11 pounds
higher than 2019 and 10 pounds higher than the 5-year average. In Mississippi, the 2020 yield of 1,097 pounds was 15 pounds lower than the previous year and 9 pounds lower than the 5-year average. The 2020 Tennessee yield of 1,065 pounds was 73 pounds lower than the record yield in 2019 and 12 pounds below the 5-year average.

Pounds per Harvested Acre				
	2019	2020	5-Year Average	
Arkansas	1,185	1,200	1,143	
Louisiana	1,035	1,018	967	
Mississippi	1,112	1,097	1,106	
Missouri	1,193	1,204	1,194	
Tennessee	1,138	1,065	1,077	
MID-SOUTH	1,139	1,132	1,110	

Figure	31	- Mid-South	Upland	Yields
	••••	initial o o a diff	opialia	

In the Southwest, the 2020 average yield of 641 pounds was 47 pounds higher than 2019 and 71 pounds below the 5-year average. In Texas, the yield of 627 pounds was 49 pounds higher than 2019 and 75 pounds lower than the 5-year average. The Oklahoma yield of 683 pounds was 5 pounds lower than in 2019 and 98 pounds below the 5-year average. At 826 pounds, the Kansas yield was 64 pounds lower than the previous year and 182 pounds below the 5-year average (Figure 32).

#### **Southwest Upland Yields** Pounds per Harvested Acre 5-Year 2019 2020 Average Kansas 890 826 1,008 Oklahoma 688 683 781 702 Texas 578 627 SOUTHWEST 594 641 713

#### Figure 32 - Southwest Upland Yields

The average upland yield in the West was estimated at 1,359 pounds, which was 176 pounds higher than 2019 and 10 pounds below the 5-year average (Figure 33). The Arizona yield of 1,268 pounds was 114 pounds higher than 2019 but 107 pounds below the 5-year average. The New Mexico yield of 1,114 pounds was 293 pounds higher than 2019 and 124 pounds above the 5-year average. The California yield of 1,905 pounds was 329 pounds higher than 2019 and 268 pounds higher than the 5-year average.

			5-Year
	2019	2020	Average
Arizona	1,154	1,268	1,375
California	1,576	1,905	1,637
New Mexico	821	1,114	991
WEST	1,183	1,359	1,369

#### Figure 33 - West Upland Yields

The national average ELS yield was estimated at 1,362 pounds was 110 pounds below 2019 and 74 pounds below the 5-year average. (Figure 34). Accounting for the majority of ELS acres, California heavily influences the U.S. average. With an average yield of 1,562 pounds, the California yield was 17 pounds higher than the previous year and 26 pounds above the 5-year average. At 1,034 pounds, ELS yields in Arizona were 234 pounds higher than 2019 and 135 pounds above the 5-year average. New Mexico's yield of 655 pounds was 209 pounds lower than 2019 and 212 pounds below the 5-year average. The 2020 Texas ELS yield of 743 pounds was 73 pounds lower than 2019 and 196 pounds below the 5-year average.

			5-Vear
	2019	2020	Average
Arizona	800	1,034	899
California	1,545	1,562	1,536
New Mexico	864	655	867
Texas	816	743	940
U.S.	1,472	1,362	1,436

Figure	34 -	ELS	Yields
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#### 2020 Production

The February 2021 USDA estimate places the 2020 U.S. cotton crop at 15.0 million bales (Figure 35), down 5.0 million bales from 2019. The 2020 crop represents a 2.9 million bale decline relative to the 5-year average. Upland production was estimated at 14.4 million bales, and ELS growers harvested 552 thousand bales.



In 2020, the Southeast was estimated to have produced 4.0 million bales, accounting for 28.1% of the total upland crop (Figure 36). The region's 2020 crop was down by 1.7 million bales from the 2019 total. For 2020, Alabama production of 735 thousand bales was 293 thousand bales lower than 2019 and 62 thousand bales below the 5-year average. In Florida, 2020 production of 125,000 bales was 80 thousand bales lower than 2019 and 37 thousand bales below the 5-year average. For Georgia, 2020 production of 2.2 million bales was 560 thousand bales lower than 2019 and 91 thousand bales below the 5year average. The 2020 North Carolina production of 540 thousand bales was 500 thousand bales lower than 2019 and 131 thousand bales below the 5-year average. The 2020 South Carolina production of 300 thousand bales was 197 thousand bales lower than 2019 and 59 thousand bales below the 5-year average. In Virginia, 2020 production of 160 thousand bales was 83 thousand bales lower than 2019 and 12 thousand bales below the 5-year average.



Figure 36 - U.S. Upland Cotton Production

For 2020, the Mid-South accounted for 29.0% of the total U.S. upland crop with 4.2 million bales. The Mid-South crop was 1.4 million bales lower than 2019 and 186 thousand bales higher than the 5-year average. For Arkansas, 2020 production of 1.3 million bales was 206 thousand bales lower than 2019 and 295 thousand bales higher than the 5-year average. For Louisiana, 2020 production was 232 thousand bales lower than 2019 and 23 thousand bales below the 5-year average. The 2020 Mississippi production of 1.2 million bales was 421 thousand bales lower than 2019 and 37 thousand bales below the 5-year average. The 2020 Missouri production of 720 thousand bales was 195 thousand bales lower than 2019 and slightly above the 5-year average. In Tennessee, the 2020 production of 610 thousand bales was 350 thousand bales lower than in 2019 and 58 thousand bales below the 5-year average.

At 5.7 million bales, production in the Southwest accounted for 39.3% of the U.S. upland crop. The 1.6 million bale decline from 2019 resulted from lower harvested area across the region. Texas production of 4.7 million bales was 1.6 million bales lower than 2019 and 2.6 million bales lower than the 5-year average. In Oklahoma, 2020 production of 640 thousand was 19 thousand bales lower than the previous year and 30 thousand bales below the 5-year average. Kansas production increased by 40 thousand bales to 320 thousand bales in 2020.

The West produced 521 thousand bales of upland cotton in 2020, down 110 thousand bales from the region's 2019 crop and 161 thousand bales below the 5-year average. The region accounted for 3.6% of U.S. production.

The 2020 ELS crop of 552 thousand bales was 134 thousand bales lower than 2019, and 86 thousand bales lower than the 5-year average. At 475 thousand bales, the California ELS crop was 172 thousand bales lower than 2019 due to decreased acreage (Figure 37). The state accounted for 86.1% of the total 2020 U.S. ELS crop. Arizona's ELS crop increased slightly to 14 thousand bales, while the Texas crop increased to 48 thousand bales. New Mexico's production of 15 thousand bales was 6 thousand bales higher than 2019 production.



Figure 37 - U.S. ELS Cotton Production

## 2020 Stock Levels

With U.S. cotton production exceeding total demand for the 2019 marketing year, the resulting carryout from the 2019 marketing year, and equivalent carry-in or beginning stocks for the 2020 marketing year, stood at 7.3 million bales (Figure 38). That represented an increase of 2.4 million bales from the stocks that were brought into the 2019 marketing year. Upland stocks totaled 6.9 million bales and ELS stocks stood at 382 thousand bales.



Figure 38 - U.S. Cotton Beginning Stocks

The smaller 2020 crop and higher cotton prices are expected to lead to a decrease in total CCC loan stocks. Fewer bales will likely be placed under the loan over the next few months as ginning nears completion.

As of January 31, 2021, outstanding upland CCC loan stocks were 4.9 million bales (Figure 39), down from 7.1 million bales on January 31, 2020. As of the end of January, the Mid-South accounts for 50.5% of cotton placed under loan, the Southwest accounts for 20.7%, the Southeast accounts for 24.4%, and the remaining 4.3% in the West.



Figure 39 - CCC Upland Loan Stocks

## 2020 Total Supply

Total supply for the 2020 marketing year

was estimated to be 22.2 million bales, down from 24.8 million bales the previous year (Figure 40). The reduced supplies are due to lower production offsetting the higher beginning stocks. Total supplies for the 2020 marketing year are 494 thousand bales below the 5-year average.



## 2020 Upland Cotton Quality

With 13.9 million upland bales classed through February 11, the national average staple length (measured in thirty-second's of an inch) was 37.1, up from a 5-year average of 36.4 (Figure 41). The Southeast staple length of 37.2 was 0.9 thirty-seconds of an inch better than the 5-year average. In the Mid-South, the average staple length of 38.2 exceeds the 5-year average by 1.0 thirtysecond's of an inch. The Southwest's average staple length of 36.1 was slightly higher than the 5-year average of 35.9. The West reports an average staple length of 37.2, down 0.1 from the 5-year average.

	Sta	<u>Staple</u>		<b>Strength</b>	
	2020	5-Year	2020	5-Year	
Southeast	37.2	36.3	29.9	29.6	
Mid-South	38.2	37.2	31.0	30.8	
Southwest	36.1	35.9	30.6	30.0	
West	37.2	37.3	31.9	31.7	
U.S.	37.1	36.4	30.6	30.1	

Figure 41 - Crop Staple and Strength

The average strength of the 2020 upland crop was 30.6 grams per tex (gpt). The highest strength occurred in the West, with an average of 31.9 gpt, just above the 5-year average of 31.7. At 29.9 gpt, the Southeast was higher than the 5-year average of 29.6 gpt. The Southwest crop has an average strength of 30.6 gpt, which was higher than the 5-year average of 30.0. In the Mid-South, an average strength of 31.0 gpt was 0.2 gpt above the 5-year average of 30.8 gpt.

Color grades for the 2020 crop were higher than previous years. In total for the Cotton Belt, 88.4% of the 2020 crop was grading 41 or better as compared to the 5-year average of 80.4% (Figure 42). In the Southeast, 85.1% of the 2020 crop was grading 41 or better. At 94.7%, the Mid-South was higher than their 5-year average of 87.9%. The Southwest had the lowest percentage grading 41 or better with 84.6% of the 2020 crop grading 41 or better. In the West, 97.1% of the 2020 crop was grading 41 or better.

#### 2020 Crop Color and Mike

	<u>%SLM+</u>		<u>Micronaire</u>	
	2020	5-Year	2020	5-Year
Southeast	85.1	78.1	4.4	4.5
Mid-South	94.7	87.9	4.5	4.0
Southwest	84.6	77.8	4.0	4.0
West	97.1	91.9	4.5	4.2
U.S.	88.4	80.4	4.3	4.1

Figure 42 - Crop Color and Mike

The average micronaire of the 2020 upland cotton crop was 4.3, which was above the 5year average of 4.1. In the Southeast, the average micronaire was 4.4, slightly below their 5-year average. In the West, the average micronaire of 4.5 was higher than the 5-year average of 4.2. The Mid-South was well above their 5-year average with a 4.5 average micronaire and in the Southwest, the average micronaire was unchanged from their 5-year average.

## Cottonseed Situation Cottonseed Supply

The USDA estimate for 2020 cottonseed production was 4.6 million tons, down 1.4 million tons from the previous year (Figure 43). The changes in cottonseed production generally mirror the movements in cotton lint production as average seed-to-lint ratios have remained relatively stable in recent years. From a longer-term perspective, seedto-lint ratios, recently ranging between 1.27 and 1.31, are down over the past 15 years from a range of 1.55 to 1.60. For the 2020 marketing year, the estimated seed-to-lint ratio is 1.28.



For the 2020 crop, a regional breakdown of production shows that the Southwest produced 1.7 million tons or 37.7% of the total, the largest of any region (Figure 44). They were followed by the Mid-South with production of 1.3 million tons for a 29.0% share. The Southeast produced 1.2 million tons, or 25.4% of total production, and the West accounted for 363 thousand tons, 7.9% of the total.



Figure 44 - U.S. Cottonseed Production

Supplementing U.S. production, beginning stocks of 456 thousand tons bring total cottonseed supplies for the 2020 marketing year to 5.1 million tons (Figure 45). Total supplies for 2020 were down by 1.4 million tons from the previous year. The 2020 total supply was 859 thousand bales lower than the 5-year average.



Figure 45 - U.S. Cottonseed Supply

#### Disappearance and Stock Levels

The February 2021 USDA estimate for cottonseed disappearance showed a crush level of 1.7 million tons for the 2020 marketing year (Figure 46). With lower supplies in 2020, whole seed feeding was estimated at 2.8 million tons as compared to 3.9 million tons in 2019.



Figure 46 - U.S. Cottonseed Disappearance

With lower supplies in 2020, feed use was projected to be lower, resulting in a decline in cottonseed stocks to 341 thousand tons (Figure 47).



## Figure 47 - U.S. Cottonseed Ending Stocks

#### 2020 Cotton Prices Upland Cotton Prices

During the first half of the year, cotton futures prices traded lower in 2020 as compared to 2019. From August to December, cotton futures traded higher in 2020 as compared to 2019. During the first few weeks of 2020, cotton futures prices traded in the 68 to 72 cent range. From the end of February until the beginning of April, prices dropped to a low of 50 cents per pound due to the COVID-19 pandemic, which was the lowest level since early 2009. Prices steadily increased throughout the remainder of the year to reach 75 cents by the end of year (Figure 48). The nearby New York futures and the world cotton price, as measured by Cotlook Ltd.'s "A" Index maintained a relationship consistent with historical experience.



Figure 48 - Nearby NY and "A" (FE) Index

Over the last few weeks, prices have been trading between 76 and 81 cents/lb., with the "A" Index close to 90 cents/lb.

Thus far in the current marketing year (Augearly Feb), the nearby NY futures contract has averaged 70.6 cents per pound. During the 2019 marketing year, the average Aug-Jan futures price was 63.7 cents per pound.

Spot prices in the U.S. followed a similar pattern to the futures market and the "A" Index. For the 2020 marketing year, spot prices averaged 65.4 cents/lb. from August to January. The average spot price in January 2021 was 76.6 cents per pound (Figure 49). The average spot 4134 value for the 2019 crop cotton was 57.6 cents per pound.



Figure 49 - Spot 4134 Price

#### **ELS Cotton Prices**

ELS cotton prices began 2020 at \$1.10 per pound and ended the year at \$1.14 per pound (Figure 50). In addition to the impact of China's retaliatory tariff, increased export competition from Egyptian cotton continues to pressure ELS markets.



Figure 50 - ELS Spot Price

#### **Cottonseed Prices**

The movement in cottonseed prices reflects changes in competing feed prices as well as available supplies (Figure 51). The average cottonseed spot price is a weighted average of the four production regions. In 2020, cottonseed prices traded higher than in 2019, with a larger increase in the latter half of the year. The national average cottonseed spot price was \$234 per ton in January 2020 and \$325 per ton in January 2021. On a regional basis, the average January 2021 spot price was \$285 per ton in the Southeast, \$313 per ton in the Mid-South, \$348 per ton in the Southwest, and \$389 per ton in the West.



Figure 51 - Average Cottonseed Spot Price

It is important to note that the cottonseed FOB delivered spot prices will range from \$25 to \$100 per ton above the cottonseed farmgate prices reported by NASS.

## **2021 Planting Intentions**

In consideration of their 2021 planting decisions, growers will compare prices for cotton, corn, soybeans and other regional crops. Growers will also be influenced by production costs for cotton and other crops. While final acreage decisions are influenced by expected returns of cotton and competing crops, farmers will also take into account weather and agronomic considerations such as crop rotation.

#### **Price Prospects**

As we look ahead to the 2021 planting season, cotton harvest-time futures contracts are currently trading at higher levels than last year. In mid-January, the December 2021 contract was trading at \$0.77 per pound, up 5 cents from year-ago levels (Figure 52). In early February, prices had increased slightly to \$0.81 per pound, up 12 cents from a year-ago.



Figure 52 - December Cotton Futures

Corn prices declined during the first half of 2020 and followed an upward trend during the last half of the year. In mid-January, the December 2021 contract for corn was trading at \$4.60 per bushel, which was about 58 cents per bushel higher than a year ago (Figure 53). Prices dropped slightly to \$4.47 per bushel in early February.



Soybean prices, as measured by the Chicago Board of Trade November futures contract, are similar to year-ago levels. In mid-January, the November 2021 contract traded at \$11.98 per bushel, which was \$2.39 per bushel higher than the November 2020 contract was trading a year earlier (Figure 54). In early February, prices declined to \$11.55 per bushel.



Figure 54 - November Soybean Futures

Relative to average futures in the first quarter of 2020, soybean prices during the 2021 survey period were up by 16.5%, corn prices were trading about 7.9% higher, and cotton prices were trading 6.0% higher. As a result, corn and soybeans are expected to provide increased competition for cotton acres in 2021 acreage decisions.

#### 2021 U.S. Cotton Acreage Intentions

In mid-December 2020, the NCC distributed the annual early season planting intentions survey. Respondents were asked to provide their plantings of cotton, corn, soybeans, wheat, and 'other crops' for 2020 and intended acreage for 2021. As always, the survey results should be viewed as a measure of grower intentions prevailing at the time the survey was conducted. Changing climate and market conditions could cause actual plantings to be significantly different from growers' stated intentions.

During the survey period, the cotton-to-corn price ratio was higher than in 2020 due to higher cotton prices more than offsetting the increase in corn prices as compared to last year. The cotton-to-soybean price ratio was lower than in 2020 due to higher soybean prices more than offsetting the increase in cotton prices.

It is important to call attention to the ratios because experience has shown that these ratios are reliable indicators of changes in cotton acreage. Historical data over the past 10 years shows a clear relationship between the price ratios and changes in cotton acreage. An increase in the price ratio generally indicates an increase in cotton acreage. A review of the Council's survey will begin with a look at the Southeast.

In the Southeast, survey results indicate a 4.2% decrease in the region's upland area to 2.3 million acres (See Table 4 on page 48). Cotton acreage is expected to decline in Alabama, Florida, Georgia, and Virginia and increase in North Carolina and South Carolina. In Alabama, the survey responses indicate a 9.3% decrease in cotton acreage, an increase in corn, wheat, and soybeans and a decline in 'other crops'. In Florida, respondents indicated slightly less cotton and soybeans, and more corn and 'other crops', likely peanuts. In Georgia, cotton

acreage is expected to decline by 8.6% to 1.1 million acres. Georgia growers expect to plant more corn, wheat, soybeans, and 'other crops', likely peanuts. In North Carolina, a 13.4% increase in cotton acreage is expected. Acreage of corn and soybeans is expected to decline while acreage of wheat, and 'other crops' is expected to increase. In South Carolina, acreage is expected to increase by 2.6%. South Carolina growers expect to plant more corn, soybeans, wheat, and 'other crops'. Cotton acreage is expected to decline by 10.0% in Virginia. Virginia growers intend to plant more corn, soybeans, and 'other crops' and less wheat.

In the Mid-South, growers have demonstrated their ability to adjust acreage based on market signals. The relative prices and potential returns of competing crops play a significant role in cotton acreage. Mid-South growers intend to plant 1.7 million acres, a decline of 3.7% from the previous year. Survey results suggest that the decrease in cotton acres can be attributed to a shift to corn and soybeans.

Across the region, all states except Missouri intend to decrease cotton acreage. In Arkansas, acreage is expected to decline by 6.8% to 489 thousand acres in 2021. Arkansas growers expect to plant more corn, wheat, and soybeans and less 'other crops'. Louisiana growers expect to plant 161 thousand acres, which is 5.6% lower than last year. Louisiana growers expect to plant more corn, wheat, soybeans and 'other crops'. In Mississippi, respondents expect to plant 521 thousand acres, which is 1.6% lower than last year. Mississippi respondents expect to increase corn, wheat, and soybean acreage and reduce 'other crops'. For Mississippi, respondents indicated a slight increase in soybean acreage and a much larger increase in corn acreage. Missouri growers expect to increase cotton acres by 1.2% to 299 thousand acres and plant more corn, less soybeans, and slightly more 'other

crops'. In Tennessee, cotton acreage is expected to decline by 6.1% to 263 thousand as land shifts to corn, soybeans and wheat.

Growers in the Southwest intend to plant 7.1 million acres of cotton, a decrease of 5.5%. Increased cotton area is expected in Kansas with declines expected in Oklahoma and Texas. In Kansas, producers intend to plant 0.9% more cotton acres in 2021. Kansas growers intend to plant more 'other crops', likely sorghum, and less corn, wheat, and sovbeans. In Oklahoma, a 5.2% decrease in cotton acreage is expected. Oklahoma producers expect to plant more wheat and less corn and 'other crops'. Overall, Texas acreage is expected to decline by 5.7%. In south Texas, respondents indicate a 1.6% decrease in cotton acreage. South Texas growers intend to plant more soybeans and sorghum, and less corn and wheat. Respondents from the Blacklands indicate a decrease of 16.2% in cotton acreage, an increase in corn, wheat, and 'other crops', and a decrease in wheat acreage. In West Texas, respondents indicated a 5.9% decrease in cotton acreage, a slight increase in corn, and a large increase in wheat and 'other crops', likely sorghum.

With intentions of 197 thousand acres, producers in the West expect to plant 2.5% less acres of upland cotton. Cotton acreage is expected to decrease in Arizona and California and increase slightly in New Mexico. The survey results for Arizona suggest a 0.3% decrease in upland cotton acres and an increase in wheat and 'other crops' and a decrease in corn. In California, growers intend to plant 17.7% less upland cotton, less corn, and 'other crops', and more wheat. In New Mexico, cotton acreage is expected to increase by 3.2% in 2021. New Mexico growers intend to plant less wheat in 2021. Summing across the 4 regions gives intended 2021 upland cotton area of 11.3 million acres, 4.9% below 2020. Overall, the survey indicates that growers intend to plant less ELS cotton in 2021. California growers expect to plant 26.7% less ELS cotton, while Arizona growers expect to plant 19.8% more ELS cotton in 2021. New Mexico ELS acreage is expected to remain unchanged while Texas growers expect to decrease ELS acreage by 10.5%, mostly due to water availability. Overall, U.S. cotton growers intend to plant 161 thousand ELS acres in 2021. Summing together the upland and ELS cotton intentions shows U.S. all-cotton plantings in 2021 of 11.5 million acres, 5.2% lower than in 2020.



Figure 55 - U.S. Planted Area

# 2021 U.S. Cotton and Cottonseed Supply

In recent years, U.S. cotton producers have struggled with low cotton prices, high production costs, and the resulting financial hardships. While prices have increased in recent months, many producers continue to face difficult economic conditions heading into 2021. Production costs remain high and prices still fall short of total production expenses for many producers. CFAP program payments have provided some compensation to producers for the reduction in prices due to economic disruptions, but the 2020 marketing year was a very challenging year for many growers across the Cotton Belt due to drought, hurricanes, and excess rainfall at harvest.

However, despite the challenging conditions, cotton is still the better alternative for many growers, particularly in the Southwest. In the Southeast and Mid-South, cotton continues to be a good alternative, but some growers expect higher returns from other crops in 2021. In the West, expected water availability is influencing cotton acreage decisions.

Planted acreage is just one of the factors that will determine supplies of cotton and cottonseed. Ultimately, weather, insect pressures, and agronomic conditions play a significant role in determining crop size. Since the NCC economic outlook does not attempt to forecast weather patterns, the standard convention is to assume yields in line with recent trends and abandonment consistent with historical averages. Also, it is important to remember the volatility around projected production given the uncertainty of weather patterns.

With average abandonment for the U.S. estimated at 18.1%, Cotton Belt harvested area totals 9.4 million acres (Figure 56). Using an average 2021 U.S. yield of 855 pounds generates a cotton crop of 16.7 million bales, with 16.3 million bales of upland and 431 thousand bales of ELS.



Figure 56 - U.S. Harvested Area

Combining projected production with expected beginning stocks of 4.1 million

bales and imports of 3 thousand bales gives a total U.S. supply of 20.8 million bales (Figure 57). This is a decrease of 1.4 million bales from the 2020 level.



Figure 57 - U.S. Cotton Supply

For cottonseed, multiplying the point estimate of lint production by an average lint-seed ratio generates expected production of 5.2 million tons in the 2021 marketing year. With 341 thousand tons of beginning stocks, 2021 cottonseed supply totals 5.5 million tons (Figure 58).



Figure 58 - U.S. Cottonseed Supply

	2020 Actual (Thou.) 1/	2021 Intended (Thou.) 2/	Percent Change
SOUTHEAST	2,368	2,268	-4.2%
Alabama	450	408	-9.3%
Florida	98	97	-1.2%
Georgia	1,190	1,088	-8.6%
North Carolina	360	408	13.4%
South Carolina	190	195	2.6%
Virginia	80	72	-10.0%
MID-SOUTH	1,800	1,733	-3.7%
Arkansas	525	489	-6.8%
Louisiana	170	161	-5.6%
Mississippi	530	521	-1.6%
Missouri	295	299	1.2%
Tennessee	280	263	-6.1%
SOUTHWEST	7,520	7,109	-5.5%
Kansas	195	197	0.9%
Oklahoma	525	498	-5.2%
Texas	6,800	6,415	-5.7%
WEST	202	197	-2.5%
Arizona	125	125	-0.3%
California	34	28	-17.7%
New Mexico	43	44	3.2%
TOTAL UPLAND	11,890	11,308	-4.9%
TOTAL ELS	203	161	-20.7%
Arizona	7	8	19.8%
California	147	108	-26.7%
New Mexico	11	11	0.0%
Texas	38	34	-10.5%
ALL COTTON	12,093	11,468	-5.2%

## Table 4 - Prospective 2021 U.S. Cotton Area

1/ USDA-NASS

2/ National Cotton Council

## U.S. Market

## **U.S. Textile Industry**

Preliminary data from the U.S. Bureau of Labor Statistics indicate that textile industry employment in 2020 fell by approximately 33,200 workers. These figures represent employment in all three sectors of the U.S. textile industry - textile mills, textile product mills, and apparel mills.

#### Mill Use

Cotton mill use decreased from the previous year and was estimated at 1.9 million bales in calendar 2020, 34.9% below 2019 (Figure 59). For calendar 2021, NCC forecasts domestic mill use of cotton at 2.7 million bales. NCC projects domestic mill use of cotton at 2.8 million bales for the 2021 marketing year, above the 2020 estimate of 2.4 (Figure 60). U.S. mills continue to be important and consistent customers of U.S. cotton.



Figure 59 - U.S. Cotton Mill Use (Calendar Year)





#### Economic Adjustment Assistance for Textile Mills

The Economic Adjustment Assistance for Textile Mills (EAATM), reauthorized and renamed in the 2018 Farm Bill, has provided U.S. cotton textile manufacturers with much-needed assistance for capital investments and improvements.

Under the EAATM, domestic users receive 3 cents per pound for all upland cotton consumed. Recipients must agree to invest the EAATM proceeds in plants and equipment. For fiscal year 2021, 38 U.S. companies were approved to receive payments under the EAATM.

### **COVID-19 Relief for Textile Mills**

In December 2020, Congress approved and the President signed into law, a COVID-19 relief and assistance measure that included important support for agriculture and some segments of the cotton industry.

For textile mills/cotton users, the bill included the cotton industry's recommendations for a payment of 6 cents per pound for 10 months of 2020 (March to December) based on the mill's historical average monthly use of cotton during the January 2017 to December 2019 period.

#### Net Domestic Consumption

Net domestic consumption is a measure of the size of the U.S. retail market. It measures both cotton spun in the U.S. (mill use) and cotton consumed through textile imports. Net domestic consumption of cotton in 2020 was estimated to be 16.0 million bale equivalents (Figure 61). For 2021, NCC projects net domestic consumption of cotton to increase to 16.9 million bales.



Figure 61 - Net Domestic Cotton Consumption

Imported goods make up the largest portion of U.S. net domestic consumption. Imported cotton textiles decreased from 18.6 million bale equivalents in 2019 to an estimated 16.3 million in 2020 (Figure 62).



### **Textile Trade**

Imports of cotton goods in calendar 2020 were estimated to have decreased by 12.6% to 16.3 million bale equivalents (Figure 63). In calendar 2021, NCC projects cotton textile imports to increase to 16.5 million bales.



Figure 63 - U.S. Cotton Textile Imports

For textile imports, it is important to consider that a significant portion of imported goods contain U.S. cotton. Since much of the U.S. exports to the USMCA (formerly the North American Free Trade Agreement - NAFTA) and the CBI (Caribbean Basin Initiative) countries is in the form of fabric and piece goods that come back in the form of finished goods, the trade gap is not as wide as implied by gross imports and exports. NCC analysts estimate that 23.7% of all cotton goods imported in 2020 contained U.S. cotton. This was a 1.9% decrease from the previous year. In bale equivalents, these imported cotton goods contained 3.9 million bales of U.S. cotton (Figure 64). This was due, in large part, to our trading partners in USMCA and the CBI.



Figure 64 - U.S. Cotton Content in Textile Imports

#### **U.S. Cotton Product Imports**

Apparel was once again the largest category of imported cotton goods when compared to yarn, thread and fabric, and home furnishings (Figure 65). Cotton apparel imports were estimated at 10.6 million bale equivalents for 2020, down 17.8% from 2019. Imports of cotton home furnishings (including floor coverings) decreased 4.1% in 2020 to an estimated 4.0 million bale equivalents. Cotton yarn, thread and fabric imports increased 14.7% in 2020 to an estimated 1.6 million bales.



Once again, countries in USMCA and CBI represented significant sources of imported cotton goods in 2020 (Figure 66). Imports from Mexico in 2020 were estimated at 606 thousand bales, down 32.3% from the previous year (Figure 67). Imports of cotton goods from Canada declined to an estimated 71 thousand bales in 2020, down 0.4% from the previous year (Figure 68). Imported cotton goods from CBI for the year were estimated at 1.7 million bale equivalents (Figure 69), down 24.1% from the previous year. The CAFTA-DR countries of Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and the Dominican Republic are all part of the CBI region. Imports of cotton goods from CAFTA-DR in 2020 were 1.5 million, or 87.8% of the cotton textile imports from CBI. Combined, imports from USMCA and CBI countries decreased 25.9% and accounted for 14.3% of total U.S. cotton product imports in 2020.







Figure 67 - U.S. Cotton Product Trade with Mexico



gure 68 - U.S. Cotton Product Trade wi Canada



Figure 69 - U.S. Cotton Product Trade with CBI

Other top sources of imported cotton goods in 2020 were China, Pakistan, India, Indonesia, Bangladesh, Vietnam, and South Korea. For the sixteenth consecutive year, China was the largest supplier of cotton textile imports into the U.S. (Figure 70). Total cotton product imports from China decreased to an estimated 4.6 million bale equivalents in 2020, down 17.7% from 2019 but up by almost 458% from 2001 when China entered the WTO. China's share of imported cotton goods in the U.S. market accelerated from 5.5% in 2001 to an estimated 28.1% in 2020.



Figure 70 - U.S. Cotton Product Imports from China

Imports of cotton products from Pakistan were estimated at 1.6 million bale equivalents in 2020, a decrease of 40 thousand bales. Pakistan's share of imported cotton goods in the U.S. market increased last year to 9.7%.

Imports from India stood at 2.0 million bale equivalents for 2020. This was a 7.3% decrease from last year. India now accounts for 12.5% of all U.S. cotton product imports.

Imports from Indonesia in 2020 were 453 thousand bale equivalents, down 13.4% from 2019. Indonesia's share of imported cotton goods in the U.S. remained steady at 2.8% in 2020.

Bangladesh showed a decrease in cotton product imports into the U.S. when compared to the previous year. Imports from Bangladesh in 2020 were down 6.1% from 2019 to 1.4 million bale equivalents. Bangladesh accounted for an estimated 8.9% of all cotton goods imported into the U.S. in 2020.

Vietnam showed a decrease in cotton product imports into the U.S. when compared to the previous year. Total cotton product imports from Vietnam decreased to an estimated 1.6 million bale equivalents in 2020, down 3.8% from 2019. Vietnam's share of cotton goods imported into the U.S. in 2020 increased to 10.0%, up 0.9% from the previous year. Cotton product imports from South Korea increased 0.5% from 2019 to 130 thousand bale equivalents in 2020.

It is important to note in the following discussion that the most reliable data on imports by product category and by country is in the form of square meter equivalents (SME), rather than pounds or bales. Since different products have different weights per square meter, total imports reported in bale equivalents will not necessarily show the same trend as total imports expressed in SME. NCC reports imports in bale equivalents whenever possible, but the measurement of SME best represents product categories imported from individual countries.

#### <u>Mexico</u>

Although declining relative to other countries, Mexico remained a large shipper of cotton goods to the U.S. in 2020. Cotton trousers remained the largest category of imported cotton goods from Mexico. Trousers accounted for 25.0% of all cotton product imports from Mexico based on SME (Figure 71). Knit cotton shirts were the next largest category of imports, accounting for 17.8%, followed by "other cotton apparel" (12.9%) and "other cotton manufactures" (12.0%). The U.S. Customs Service category "other cotton apparel" includes items such as waistcoats, swimwear, bodysuits and scarves. The U.S. Customs Service category "other cotton manufactures" includes items such as tablecloths, napkins, dishtowels and pillow covers.



Figure 71 - Cotton Product Imports from Mexico

#### <u>Canada</u>

U.S. cotton SME imports from Canada decreased slightly in 2020. The largest category of imports from Canada in 2020 was "other cotton apparel", which accounted for 20.9% of total SME of cotton product imports from Canada (Figure 72). The next largest category was "other cotton manufactures" with 17.4% of total imports, followed by carded cotton yarn at 1.8% and cotton coats at 1.6%.



Figure 72 - Cotton Product Imports from Canada

#### Caribbean Basin Initiative (CBI)

Continuing the trend, CBI countries shipped more cotton goods to the U.S. than did USMCA (formerly NAFTA) countries in 2020. The largest category of imported cotton goods from the region was knit shirts, accounting for 47.4% of total imports, based on SME (Figure 73). Approximately 88.5% of the cotton knit shirt imports from CBI came from the CAFTA-DR countries. Underwear, the second largest category, accounted for 26.7% of imports, followed by cotton trousers (10.0%) and cotton hosiery (4.0%). Of these imports, 89.4% of the underwear, 75.2% of the cotton trousers and 100.0% of the cotton hosiery were from the CAFTA-DR countries.



Figure 73 - Cotton Product Imports from CBI

#### <u>African Growth & Opportunity Act</u> (AGOA)

Over the past year, total cotton apparel product imports from the AGOA region decreased by 8.4% to an estimated 136.7 million SMEs (Figure 74). During the past year, the percentage of U.S. cotton apparel imports from the AGOA region receiving preferential treatment under the act decreased from 98.2% to 97.6%.



Figure 74 - Cotton Apparel Product Imports from AGOA

#### <u>Pakistan</u>

The largest category of imported goods from Pakistan in 2020 was "other cotton manufactures" (Figure 75). This category accounted for 42.3% of all cotton product imports from Pakistan based on SME. The second largest category imported from Pakistan was cotton sheets with 12.1% of total imports, followed by bedspreads and quilts (8.8%) and terry towels (4.2%).



Figure 75 - Cotton Product Imports from Pakistan

#### <u>China</u>

China remained the single largest supplier of imported cotton goods into the U.S. market last year. On a SME basis, the largest category of cotton product imports from China in 2020 was "other cotton manufactures", which accounted for 32.8% of all cotton product imports from that country (Figure 76). Trousers was the second largest category, comprising 10.8% of total cotton product imports from that country. "Other cotton apparel" accounted for 5.6% of U.S. cotton textile and apparel imports from China in 2020. Bedspreads and quilts was the fourth largest category and accounted for 5.1% of cotton product imports.



Figure 76- Cotton Product Imports from China

#### <u>India</u>

As was the case with Pakistan and China, the largest category of imported cotton goods from India in 2020 was the category of "other cotton manufactures" (Figure 77). When based on SMEs, this category represented 33.3% of all cotton goods imported from India. The next largest category was cotton sheets (11.6%), followed by nightwear (4.0%) and knit shirts (4.0%).



Figure 77 - Cotton Product Imports from India

#### <u>Indonesia</u>

The largest category of imported cotton goods from Indonesia in 2020 was cotton trousers (Figure 78). When looking at SMEs, cotton trousers accounted for 36.0% of all cotton products imported. The second largest category was cotton knit shirts with 17.9% of imports, followed by cotton woven shirts (9.6%) and cotton dresses (8.9%).



Figure 78 - Cotton Product Imports from Indonesia

#### <u>Bangladesh</u>

Based on SMEs, the largest category of cotton goods imported from Bangladesh in 2020 (35.0%) was trousers (Figure 79). The second largest category in 2020 was underwear (12.5%). Cotton woven shirts was the third largest category in 2020, representing 11.2% of total cotton goods imported from Bangladesh, followed by knit shirts at 8.9%.



Figure 79 - Cotton Product Imports from Bangladesh

#### <u>Vietnam</u>

Vietnam continues to be a more significant supplier of cotton product imports (Figure 80). U.S. cotton product imports from Vietnam have increased by over 6,770% based on SME since 2001. In 2001, the U.S. imported 24.3 million SME of cotton goods from Vietnam. This number increased to an estimated 1.7 billion SME in 2020. The largest category of imported cotton goods from Vietnam in 2020 was trousers. Based on SMEs, this category represented 25.4% of all cotton goods imported from Vietnam. The next largest category was knit shirts (15.8%), followed by underwear (14.6%) and nightwear (7.1%).



Figure 80 - Cotton Product Imports from Vietnam

#### South Korea

Based on SMEs, the largest category of cotton goods imported from South Korea in 2020 was combed cotton yarn, which accounted for 39.0% (Figure 81). The second largest category in 2020 was cotton sheeting fabric (29.0%), followed by cotton hosiery (7.0%) and cotton gloves and mittens (3.3%).



Figure 81 - Cotton Product Imports from South Korea

#### <u>Turkey</u>

Based on SMEs, the largest category of cotton goods imported from Turkey in 2020 was "other cotton manufactures", which accounted for 30.4% (Figure 82). The second largest category in 2020 was cotton sheets (17.4%), followed by terry towels (7.9%) and cotton trousers (7.8%).



Figure 82 - Cotton Product Imports from Turkey

#### **U.S. Cotton Product Exports**

Exports of U.S. cotton textile and apparel products decreased in 2020 (Figure 83) by 33.8% to an estimated 2.26 million bale equivalents. This decrease was due to a decline in all three major categories of cotton exports (Figure 84). Exports of cotton yarn, thread, and fabric decreased by 33.9% to 2.0 million bale equivalents. Exports of cotton apparel decreased by 21.8% in 2020 to 217 thousand bale equivalents. Exports of home furnishings (including floor coverings) decreased by 19.6% over the previous year to an estimated 82 thousand bale equivalents. For 2021, NCC projects U.S. cotton textile exports to increase 34 thousand bales to 2.29 million bale equivalents.



Figure 83 - U.S. Cotton Textile Exports



Figure 84- U.S. Cotton Product Exports

The top customers of exported U.S. cotton textiles and apparel in 2020 were once again the USMCA and CBI countries (Figure 85). Exports to the USMCA countries last year totaled an estimated 480 thousand bale equivalents, down 29.1% from the previous year.



Figure 85 - U.S. Exports of Cotton Products

Exports to the region accounted for 21.4% of all U.S. cotton product exports. Exports to Mexico decreased to an estimated 272 thousand bale equivalents from 466 thousand in 2019. Cotton product exports to Canada decreased by an estimated 2.1% to 210 thousand bale equivalents for 2020.

U.S. exports to the CBI countries decreased last year. In 2020, exports decreased 33.3%, to 1.5 million bale equivalents or 66.7% of all U.S. cotton exports. Approximately 98.9% of the cotton products exported to CBI went to the CAFTA-DR countries.

## **World Market Situation**

World cotton prices, as measured by Cotlook Ltd.'s "A" Index, ranged between 59.2 and 84.6 cents per pound during the course of calendar year 2020 (Figure 86). For the current marketing year-to-date, the "A" Index has averaged 76.9 cents per pound, 5.6 cents higher than the previous marketing year.



Figure 86 - "A" (FE) Index

#### World

World cotton production fell in 2020 to an estimated 114.1 million bales (Figure 87). India and China remain the leading producers followed by the U.S., Brazil, and Pakistan. The U.S. crop of 15.0 million bales was 5.0 million bales lower than in 2019.



Figure 87 - World Cotton Supply & Use

World production is expected to lag behind consumption in 2020. The latest world production estimate is 3.1 million bales lower than projected mill use of 117.2 million bales. Ending stocks are projected to fall slightly to 95.7 million bales in the 2020 marketing year, resulting in a stocks-to-use ratio of 81.7%.

For the 2021 marketing year, world area is projected to grow by 1.0% to 80.6 million acres. World production is estimated to increase by 1.5 million bales in 2021 to 115.6 million bales. World consumption is projected to increase to 120.9 million bales in 2021. Ending stocks are projected to fall by 5.4 million bales in the 2021 marketing year to 90.4 million bales, resulting in a stocks-to-use ratio of 74.8%.

### China

China remained one of the largest cotton producers in 2020 with a crop of 29.0 million bales (Figure 88). The crop estimate was 1.8 million bales higher than in 2019 due to a record yield. China's cotton production continues to be centered in the Xinjiang province. Farmers in Xinjiang have benefitted from a target-price subsidy since 2017, and the province exhibits a generally stable planted area and higher yield than China's other main cotton production areas. Cotton farmers outside of Xinjiang are at a relative disadvantage in terms of government subsidies, and cotton planting is marginalized in small plots. Yield is consistently lower and planted area continues to decline in these areas.



Figure 88 - China Cotton Supply & Use

The weather conditions in Xinjiang continue to be an advantage for cotton farming. Along with the favorable weather conditions, the government's "Target Pricebased Subsidy" program, which guarantees basic cotton profits for Xinjiang farmers, stipulates a maximum annual volume that is eligible for the subsidy of 5.5 MMT. The subsidy program also stipulates that cotton planted in uncertified areas in Xinjiang will remain ineligible to receive support payments. Nevertheless, cotton continues to be the most reliable income crop in Xinjiang.

The higher yields in Xinjiang are due to a relatively advantageous climate for cotton farming as well as the ongoing mechanization process in the province, which is expected to continue. The benefits of mechanization are especially significant for those farms under the umbrella of the governmental Production and Construction Corporation (PCC), which are organized on a larger scale than non-PCC farms and are better equipped to incorporate the latest technologies. The PCC farms benefit from more investment in infrastructure as well as superior extension services.

For cotton-producing provinces outside of Xinjiang, maintaining area continues to be a challenge due to increases in labor costs (as almost 100% of harvest is hand-picked) and stagnant yields. Cotton planting in these regions is also impacted as farmers have more crop choices including grain and oilseeds (both demanding less labor inputs) and more work opportunities available in cities within the Yangtze River and the Yellow River regions.

For China, a 2021 crop of 26.5 million bales is projected, down 2.5 million bales from 2020 due to stable area and the assumption of a return to trend yields.

Domestic demand for textiles and apparel continues to be robust. China's overall increase in demand for textile and apparel products is fueled by higher disposable income, rising living standards, population growth, and urbanization. China's GDP growth was 6.1% in 2019, and per capita GDP exceeded \$10,000 for the first time. Net population growth was 4.7 million in 2019 and 5.3 million in 2018. Additionally, rapid urbanization continues, with annual urban population growth averaging 19.8 million from 2011 to 2018, and 17.1 million new urban residents added in 2019.

Despite the growing population and consumer income, the textile industry still faces significant challenges. According to a local industry association, approximately 75.0% of large-scale textile companies had resumed operations after being shuttered by the outbreak of the coronavirus, while a lower percentage of small and medium-sized enterprises were back up and running. Companies of all sizes are confronted with a shortage of workers, supply chain disruptions, and weak demand, including a drop in overseas orders. A survey of Nantong City in Jiangsu Province indicates that nearly all factories there have resumed operations, but companies complain about a shortage of export orders. At the same time, production costs have remained the same even though operations are not at full capacity. Companies report that they have

had to keep paying salaries, even to those employees who are not working due to the production slowdown, in order to maintain their supply of skilled labor should production levels recover. Additionally, prices for raw materials have fluctuated frequently and have exhibited an upward trend. The main Chinese organizations tracking cotton demand remain pessimistic about cotton consumption and imports.

Despite these concerns by local industry analysts, an increase China mill use is expected during the 2020 marketing year. China is projected to consume 39.5 million bales in 2020. The gap between China's cotton consumption and production is currently around 10.5 million bales. From 2015-2018, the gap was filled with reserve sales and a small level of imports. An increase in cotton mill use is expected for the 2021 marketing year, up 700 thousand bales to 40.2 million bales. However, the projected growth is not without downside risks, including a continued slowdown in economic activity due to the coronavirus, an escalation of trade tensions with the U.S. and strong competition from competitively priced polyester.

Imports of U.S. cotton have been constrained by China's additional 25.0% tariff on U.S. cotton. While Chinese end users favor the quality and reliability of U.S. cotton, the additional tariff on U.S. products puts U.S. cotton at a disadvantage compared to China's other main cotton suppliers, including Australia, Brazil, and India. The U.S.-China trade dispute allowed Brazil, Australia, and other countries to gain market share. The U.S. market share increased during the 2019 marketing year due to increased purchases from China in calendar 2020 as part of the Phase I agreement. For the 2019 marketing year, the average market share of Chinese imports from the U.S., Brazil, and Australia was 30.5%, 36.4%, and 13.1%, respectively. Based on the current

level of export sales to China, the U.S. share of Chinese imports is projected to recover to the level prior to the U.S.-China trade dispute.

For the past decade, China imported 80.0% of raw cotton from four countries -- the U.S., Australia, Brazil, and India. Over the years, the market share for these countries has changed, particularly as China has imported less cotton from India and more from the U.S., Australia, and Brazil.

Chinese stocks are projected to fall by another 2.3 million bales during the 2021 marketing year to 35.0 million bales. If realized, stocks would be down 31.4 million bales from the 2014 peak.

#### India

The latest USDA estimates have India producing 29.0 million bales for the 2020 marketing year (Figure 89). If these estimates hold, the 2020 crop will be 500 thousand bales lower than the 2019 crop. For the past few years, India and China have been competing for the top spot in terms of cotton production. For the 2020 marketing year, India and China are both projected to produce 29.0 million bales.



India accounts for about one-third of global cotton area. Within India, the central cottongrowing zone produces the majority of all cotton; including, the states of Maharashtra, Madhya Pradesh, Gujarat and Odisha, where much of the crop is rain fed. The northern zone, which consists of the states of Punjab, Haryana and Rajasthan, produces cotton under irrigated conditions and the southern region, which include the states of Andhra Pradesh, Karnataka and Tamil Nadu account for the remaining production of Indian cotton. The Central and Southern zones typically grow long duration cotton that allows farmers to reap multiple harvests. While the number of pickings has declined as traditional varieties are replaced by biotech hybrids, farmers can still manage up to five pickings per plant depending on weather conditions. In contrast, the irrigated cotton in the northern zone is mostly a short season crop that fits into a cotton-wheat cropping system.

Cotton, a predominantly monsoon-season or Kharif crop, is planted from the end of April through September and harvested in the fall and winter. According to the Ministry of Agriculture and Farmers Welfare, the percentage share of area under cotton is 5.7% of total crop area in India. Cotton yields have plateaued over the last five years with an average of roughly 436 pounds per acre. With the area under Bt cotton and other improved varieties now reaching an estimated 92.0% of total area, prospects for future growth in productivity are limited as most cotton is grown under rain-fed conditions and on small farms.

The regulatory approval process of introducing new biotech traits is at a standstill, which has led to many companies scaling back, stopping or withdrawing development of new biotech traits for cotton and other crops, which will likely impact future growth. Cotton plant populations are relatively low in density in India because farmers leave rows large enough to traverse with a bullock and cultivator for weed control purposes. Lower plant populations are offset to some extent by the multiple pickings farmers obtain through manual, rather than machine, harvesting. To combat this, researchers are working on production schemes with higher plant populations that could improve yields.

There are an estimated 6.0 million cotton farmers with the average farm size of 1.5 hectares (roughly four acres). Small land holdings seem to limit the ability to adopt capital-intensive production technologies and infrastructure. Even without changing holdings, yields would likely benefit from improved irrigation, fertilizer, micronutrients, pests and disease management. Future growth in cotton production is more likely to come from higher yields rather than area expansion. Various federal and state government agencies and research institutions are engaged in cotton variety development, seed distribution, crop surveillance, integrated pest management, extension, and marketing activities. In 1999, the federal government launched the Technology Mission on Cotton (TMC) to improve the availability of quality cotton at reasonable prices. The goal of the TMC is to bring about an improvement in the production, productivity, and quality of cotton through research, technology transfer, and improvement in the marketing and raw cotton processing sectors.

The government of India (GOI) establishes a minimum support price (MSP) for seed cotton. New MSP prices are announced annually and may or may not precede the start of the planting season. The Cotton Corporation of India (CCI), a governmentrun procurement and distribution company, is responsible for price support operations in all states. CCI, in addition to buying at MSP and marketing that cotton through an auction, is active in the market at other times, and buys or sells as conditions dictate. For MSP operations, CCI is assisted occasionally by other federal or state government marketing organizations (e.g., the Maharashtra State Co-op Cotton Growers Marketing Federation or MAHACOT) to purchase cotton in support of local producers. State officials in Gujarat have also previously added a premium in addition to the MSP to support local producers. With the objective of doubling farmers' income by 2022, the GOI reports that it intends to maintain a price stabilization fund to deal with abrupt price increases in commodities, creating buffer stocks through its state-owned agencies, and ensuring higher returns for farmers. It is likely that CCI may be involved in another MSP procurement operation. The industry has been lobbying CCI to offer cotton at prevailing market prices through e-auction on a regular basis and to avoid hoarding huge volumes of cotton.

Other efforts to help domestic farmers include a 10.0% duty on the imports of fiber. This duty was announced in February 2021 by Finance Minister Nirmala Sitharaman. The tax comprises a basic customs duty of 5.0% and an additional 5.0% levy to finance the development of agricultural infrastructure in the country, according to the budget documents. A levy on overseas purchases will potentially support local prices amid higher domestic production and prevent distress sales by the growers. There was no duty on cotton imports until now. In the days since the announcement, many in the Indian cotton industry have voiced their concerns regarding the imposition of the custom duty.

Even with these efforts by the Indian government, for 2021, India's acreage is projected to decline by 1.0%. While India's MSP program provides protection against low market prices, some producers have been disappointed with the MSP program. Despite the decline in cotton acres, production is projected to grow to 29.5 million bales in 2021 based on increased yield estimates.

The impact of COVID-19 is being seen across major suppliers and consumers of cotton and cotton products, with major doubts on the growth prospects for cotton consumption. Mills implemented production cutbacks as retail sales declined due to store closures, which had an impact on the entire supply chain. The Government of India mandated a 21-day countrywide lockdown causing supply chain disruptions. The curtailment of travel (banned domestic and international travel) affected businesses' ability to conduct sales and discussions which limit new business generation. Another major immediate concern was the potential delay of shipments and cancelations, given the disruptions to the supply chain. The spread of COVID-19, especially in the United States, major European markets like Spain, Portugal, Italy and the United Kingdom led to the cancellation/deferment of many orders. Buyers and major retail chains in these countries put on hold new home textile purchases from India due to market uncertainty. Even before the outbreak of COVID-19-, the signs of a slowdown were evident. According to the data from the Textile Commissioner Office (TCO), the overall production of yarn (cotton, blended and non-cotton) between April 2019 to January 2020 was down by 3.0% as compared to the same period previously. The reduction was led by a 5.0% drop in cotton yarn production.

While the fiber share in textile mill consumption is heavily skewed in favor of cotton (70.0%) as compared to man-made fiber (30.0%), the volatile cotton prices, weak demand, and cheaper manmade fibers are pushing consumption towards more blends and utilizing cotton waste (including low fiber content cotton, cotton droppings, gin motes, comber noil which are all byproducts of ginning and yarn processing which offer a cheaper alternative). While the national textile policy discusses fiber neutrality, the Government of India (GOI) has set schemes geared towards promoting natural fibers. With continued government support and ample supplies of cotton, India's mill use should increase slightly to 24.9 million bales in the 2021 marketing year.

In 2021, India's net exports are expected to increase to 4.3 million bales as cotton procurements under the MSP eventually find their way into the marketing channels. India's stocks are projected to climb to 18.4 million bales in the 2021 marketing year.

In terms of the global trade picture, government policies in India will play a role in the outlook for the coming year. India is expected to continue as a net exporter. The government of India has enacted a variety of trade policies to ensure that competitivelypriced and adequate supplies of cotton are available to the textile industry. India's national fiber policy affirms that cotton exports should be limited to an exportable surplus.

#### Uzbekistan

Current estimates put Uzbekistan cotton production at 3.5 million bales for 2020 (Figure 90).



Figure 90 - Uzbekistan Cotton Supply & Use

The government of Uzbekistan (GOU) continues to play a major role in cotton production. The intention of the government is to reduce planting in areas where field yields are lower than the country average, such as in highly salinized areas and mountain regions, and to facilitate production of other crops instead, primarily fruits, vegetables and viticulture. The presidential decree published in October 2019 establishing a state strategy called "Strategy for Development of Agriculture of the Republic of Uzbekistan for 2020 -2030" supports increasing horticulture and viticulture for domestic use and exports as well. As a major development for the cotton industry of the country, in March 2020, Uzbekistan liberalized the cotton market with a presidential decree.

Starting from the 2020 harvest season (approximately September - October), Uzbekistan will cancel state regulation of cotton production, price and mandatory sales plans. The Government of Uzbekistan (GoU) canceled state-planned production of cotton and set farmers free to choose what to plant. The GoU will not declare a price for raw cotton starting with the harvest of 2020. An indicative price will be published in the media in the beginning of December as a recommendation only.

Furthermore, cotton producers will have the right to freely choose the cotton variety they would like to grow, while a certified seed delivery system will be maintained. According to the decree, in the regions where there are no cotton clusters, voluntary cooperation of farms will be organized with the participation of cotton-ginning enterprises. The main tasks of these cooperatives will be the organization of joint use of machines, equipment, vehicles and factories by members of the cooperative.

The cluster structure in cotton production will continue. The decree liberalizing the

cotton market of Uzbekistan mentions that a regulation on the organization of cottontextile production and clusters for effective organization of cotton production will be issued. Another decree allows for the establishment of cotton production cooperatives and raw cotton processors in the provinces where no cotton-textile clusters exist. These cooperatives will be based on cotton ginneries and voluntary associations of farms.

In addition, according to the decree, starting from March 15, 2020, a new credit mechanism for production and processing of raw cotton will be introduced. Commercial banks, at the expense of the State Agricultural Support Fund, will provide loans to cover the expenses of farms, cottontextile clusters and cooperatives and seedgrowing facilities under the Seed Development Center for production of raw cotton for up to 12 months. In order to provide cotton farmers with seeds, the system for supplying certified seeds (including the current procedure for paying premiums for seed cotton) will be maintained. This responsibility will be gradually reallocated to seed-growing clusters in the structure of the Seed Development Center under the Ministry of Agriculture, as well as cotton-textile clusters. Seed-growing facilities and cottontextile clusters under Uzpakhtasanoat will supply cotton seeds for the 2020 harvest in order to provide agricultural producers with high-quality seeds adapted to local conditions in time for planting. In coming months, Uzpakhtasanoat, the monopoly which has controlled production quotas and exports of cotton, will be liquidated according to the presidential decree.

The GoU and the European Union (EU) signed a financial agreement in March 2020. The EU will provide 40 million Euros as budgetary support (grants not loans) to Uzbekistan in order to reform and improve

the agricultural sector. This project is aimed at assisting in the implementation of the new state Strategy for the Development of Agriculture for 2020 – 2030, strengthening public services to provide assistance to farms and agricultural enterprises. The GoU informed the public that they are committed to undertaking a wide range of reforms in the agriculture sector. This includes actions on agriculture land reform, development of new services to advise farmers, improve access to information, knowledge and innovation, reform of training and education systems, digitalization of the sector and investment in agri-logistics infrastructure and services. All of these actions are aimed at improving the competitiveness of agricultural products of Uzbekistan both domestically and in international markets.

As part of the transformation of the agriculture sector, reforms are being introduced to gradually move away from the historical focus on the production of cotton and wheat to encourage the production of other agriculture products in which Uzbekistan has a relative comparative advantage, such as in the production of certain high value horticulture products. Liberalization of cotton production and sales fits into these reforms. Mandatory production of wheat was also decreased 25.0% by the presidential decree at the same time as liberalization of the cotton market.

For the 2021 marketing year, Uzbekistan cotton production is projected to fall to an estimated 3.2 million bales as a result of fewer acres planted to cotton.

The most important trend in the cotton sector in Uzbekistan is the effort to consume all produced cotton in the country and not export it as raw material. According to government sources, presently about 500 enterprises are engaged in textile production in Uzbekistan. The Uzbekistan government is encouraging new partnerships to increase the use of cotton domestically. New textile investments have been approved and new mills are expected to start operation that will increase domestic consumption in the coming years. At the same time, existing mills are increasing their capacity as well. Government officials claim that due to the rapid increase in domestic consumption, Uzbekistan was aiming to utilize all local cotton production domestically as early as the 2020 marketing year.

Uzbekistan is moving forward with the new concept of implementing clusters for cotton and textile production to vertically integrate more of the sector and increase foreign investment. Through the textile clusters concept, the government will support foreign companies through tax and customs benefits, as well as providing land to grow cotton, process cotton, and produce final garments.

As a result of the ongoing expansion and investment. Uzbekistan domestic cotton consumption is estimated at 3.2 million bales in the 2020 marketing year. For 2021, Uzbekistan's mill use is projected to increase to 3.3 million bales. CIS countries were the initial market for Uzbek textiles. Additionally, the Uzbek cotton importing countries from recent years, such as China and Russia, have also now become markets for Uzbek cotton yarn and textile products. A recent agreement signed with the European Union, which went into force in June 2017, reduced the tariff for Uzbek textile goods, which will facilitate Uzbek textile exports to this market as well. An agreement signed between Uzbekistan and Georgia on mutually lowering shipping charges on railways will also facilitate Uzbekistan's utilization of the newly opened railroad connection between Baku, Azerbaijan, through Tbilisi, Georgia, to Kars, Turkey. The new railroad track will facilitate exports of cotton and products, among other goods,

from Central Asia, including Uzbekistan, to Turkey and beyond. The new route will significantly shorten shipping time and may help those countries to increase their exports significantly in coming years. All these developments are expected to help increase Uzbek cotton products exports, hence increase domestic consumption of Uzbekistan cotton.

#### Pakistan

Cotton is an important cash crop and lifeline of Pakistan's textile industry. The cotton crop is planted on 14.0% of arable land during the "Kharif" or monsoon season from April to June. Production is concentrated in two provinces with Punjab accounting for nearly 60.0% and Sindh nearly 40.0% of planting area. For the most part, cotton is produced by small farmers cultivating less than five hectares of land. An estimated 1.5 million farmers grow cotton.

Pakistan mainly produces medium staple cotton. Lint quality continues to be an issue within the industry based on the quality of the picking and ginning that result in varying bales sizes and high levels of foreign matter. Additionally, farmers often plant multiple varieties as a hedge against poor germination rates. Hence, identifying specific grades or properties from a particular variety is not done.

Cotton yields are expected to recover from the last year as only core cotton farmers are expected to grow cotton and will be utilizing their experiences to enhance productivity. Borderline farmers will shift to other more profitable crops. Based on sufficient rainfall during February- March and heavy winter snowfall, the water availability is expected to remain normal for ensuing summer crops. There are a number of factors that affect yields including the following:1) changing weather conditions, unexpected rainfall and temperature changes at critical stages of crop growth places a heavy toll on crop productivity; 2) the narrow genetic base of cotton germplasm is prone to insect and diseases and is one of the major factors influencing crop productivity in the country; 3) reliance on a back-crossed 17-year-old biotechnology event, one that is less virulent against bollworms and other diseases.; 4) "sucking insects" such as white fly continue to spread cotton leaf curl virus (CLCV), "chewing insects" such as pink boll worm impairs cotton quality, lowers yield, and requires farmer vigilance; 5) threat of locust attack is also looming in cotton producing areas bordering Cholistan in Sindh and Thar in Punjab; and 6) cotton seed quality is a perpetual issue with low germination rates and weak certification.

Factors that are supportive of higher yields include:1) major cotton-producing provinces of Punjab and Sindh are expected to approve 6-8 new seed varieties that seem to be liked by farmers. Field sources reveal that the supply of certified seed is significantly lower as compared to last year; 2) farmers are increasingly aware of the risks associated with the weak expression of the Bt gene in local cotton plants and the need to monitor for bollwormsand 3) the government continues to heavily subsidize the supply of inputs like seed, fertilizer, water, and power for farmers.

In 2020, cotton production was estimated at just 4.5 million bales, falling to the lowest level in recent years. An increase in production is expected for the upcoming marketing year based on the assumption of better yields. Assuming normal weather conditions and lower pest infestation, production is projected to be 5.0 million bales in 2021 (Figure 91). Though a slight recovery from 2020, the projected crop remains well below historical averages.



Figure 91 - Pakistan Cotton Supply & Use

Consumption is expected to increase to 10.6 million bales in 2021, up 350 thousand bales from 2020. Cotton continues to face competition from other man-made fibers and other manufacturers in Asia. Still, textiles continue to play an important role in Pakistan's economy. The textile sector is the largest industrial sector in Pakistan and accounts for about 40.0% of the industrial labor force and employing 10.0 million people. Increased foreign investment in Pakistan's energy and infrastructure sectors could help spur the future growth of Pakistan's textile sector.

Pakistan continues to be a net importer of cotton, primarily because of strong demand for better grades of cotton for blending and producing export-oriented quality textile products. Typical imports include upland and long staple cotton, as well as medium staple cotton, to augment domestic supplies for processing and re-export. Demand for better quality fabrics for the export market and specialized products for the domestic market are growing. Thus, Pakistan's textile industry is expected to increasingly rely on imported long staple and quality cottons to produce high quality textile products.

Pakistan maintains minimal tariff restrictions on cotton imports. However, there is a tendency to impose tariffs during harvest and to limit the flow of cotton across the land border with India. Imports of cotton from India have dropped almost to zero due to border tensions and resulted in Pakistan turning to other international cotton suppliers.

Pakistan is expected to increase net cotton imports for the marketing year to 5.4 million bales.

## Turkey

Production dropped to 2.9 million bales in 2020 (Figure 92). For 2021, production is projected to grow to an estimated 3.3 million bales due to increased cotton acres.



Figure 92 - Turkey Cotton Supply & Use

The overall impact of the pandemic for the 2020 marketing year depends on how long social distancing measures remain in place and the severity of the economic impact.

Despite the effects of the pandemic, the textile industry continues to be one of the most important sectors for the Turkish economy. Presently, Turkey's production capacity is estimated at 7.5 million spindles and 700 thousand rotors. Turkey ranks among the top five countries in the world in terms of yarn production capacity and number six in ready-to-wear-items production. Turkish textile exporters have the advantage of faster order response times and higher quality compared to many of their competitors. Domestic cotton is mainly sold directly to mills and the remainder is traded on a spot basis at the exchange in Izmir. The Izmir exchange also trades some cotton from other regions and countries. There are smaller spot markets in Adana and in the Southeast.

Cotton imports are subject to zero import tax. However, since April 2016, U.S. cotton is subject to a 3.0% antidumping duty. Turkish importers of U.S. cotton are able to benefit from the inward processing regime under which importers are not required to pay the 3.0% import tax if they are exporting the materials produced from this cotton. Overall, despite the 3.0% duty, U.S. cotton still maintains its market share of 45.0% of Turkey's imported cotton market.

For 2020, Turkey's mill use is expected to be higher while net imports remain relatively unchanged. For 2021, Turkey's mill use is projected to increase slightly to 7.5 million bales. Turkey is projected to have net imports of 4.3 million bales in 2021, slightly higher than the 2020 marketing year.

## Australia

Current estimates put Australia's cotton production at 2.6 million bales for the 2020 marketing year (Figure 93). A multi-year drought in key cotton areas had sharply reduced irrigation water availability, but plentiful rains in early 2020 improved prospects for some expansion in planted area.

Australia is a major producer and exporter of cotton. There are approximately 1,500 cotton farmers in Australia of which 90.0% of producers are family farms, producing 80.0% of the total crop. Cotton in Australia is primarily grown in the states of Queensland (QLD) and New South Wales (NSW). NSW produces approximately 60.0% of the national production and QLD the remaining 40.0%. The main QLD growing areas are in the central and southern parts of the state. Within NSW, the majority of the cotton is grown in north and central areas.

With improvements in cotton varieties suitable for differing growing conditions there has been some expansion of cotton areas in southern NSW and northern Victoria. Cotton growing trials are also in place in northern QLD and Northern Territory and also in Western Australia in the Ord River Irrigation Scheme. These areas offer substantial scope for expansion if they are determined to be suitable for growing cotton.

In a typical season approximately 90.0% of cotton production is irrigated, and 10.0% is dryland. Over the last two decades, the Australian cotton industry has improved water efficiency with the advancement of cotton varieties, irrigation techniques, soil moisture monitoring and whole farm irrigation planning to recycle run off water.

The dependence on irrigation water decreases the further north towards central QLD due to the northernmost areas being subject to tropical wet season rainfall primarily between January and March (typically in the mid to late growing period). These regions have a greater proportion of their water requirements met by in-crop rainfall than regions further south, particularly in NSW. The major growing regions in NSW are highly dependent upon irrigation water availability of which some is sourced from overland flow and pumping from rivers during high flow periods into on farm storage dams. There is also a relatively small proportion sourced from ground water pumping. The majority of irrigation water is sourced from irrigation schemes with their own water storage dams.

Assuming a return to more normal weather patterns, Australia's acreage is projected to increase in 2021 resulting in production of 3.1 million bales. However, Australian cotton production has extreme volatility from year to year as it is primarily driven by irrigation water availability.



Figure 93- Australia Cotton Supply & Use

Domestic cotton processing volumes are extremely low in Australia. Manufacturing in Australia is uncompetitive due to the high cost of labor relative to the major cotton processing countries such as China, Indonesia, Vietnam, Bangladesh and India. There is no anticipated change to this situation and domestic consumption is forecast to remain at low levels.

Australia exports practically all of its cotton production, primarily to China, Indonesia, Vietnam, Bangladesh and India. China is the main export market. Australia, in typical years, is the third or fourth largest exporter of cotton behind the United States, Brazil, and India. For the 2020 marketing year, net exports are estimated to climb to 1.5 million bales. With production of 3.1 million bales during the 2021 marketing year, net exports are expected to rebound to 3.0 million bales.

### Brazil

Brazil's Center-West state of Mato Grosso and the northeast state of Bahia account for close to 90.0% of all cotton grown in Brazil. The majority of production in Mato Grosso is rain-fed second season (or safrinha) crop, sown in January-March after the harvest of first-season soybeans. In Bahia, producers plant mostly rain-fed, first season cotton during the same time frame. The remaining 10.0% of meaningful production is split between the northeast region of MATOPI (adjoining states of Maranhao, Piaui, and Tocantins), the Center-West states of Mato Grosso do Sul and Goias, as well as southeast state of Minas Gerais.

Brazil is one of the global leaders in the planting of Genetically Engineered (GE) crops. Cotton has the highest adoption rate at 95.0%. As of December 2019, Brazil's National Technical Commission of Biosafety (CTNBio) had approved a total of 107 GE events for commercial cultivation, of which 23 are for cotton. Industry sources in Mato Grosso and Bahia indicate that the new GE drought and pest-resistant seed varieties have significantly improved yields, particularly in problematic seasons with less than favorable weather. Brazil was projected to have an estimated production of 12.0 million bales for the 2020 marketing year (Figure 94). Cotton acreage

dropped to 3.8 million harvested acres while yields were down slightly to an estimated 1,504 pounds per acre in 2020.

Production for the 2021 marketing year is projected at 12.5 million bales. With the ongoing trade tensions between the U.S. and China, Brazil is responding to increased trade opportunities by maintaining a high level of cotton production.



Figure 94 - Brazil Cotton Supply & Use

Brazilian mill use for the 2020 marketing year grew to an estimated 3.0 million bales when compared to the previous year. Brazilian cotton consumption is expected to climb in the 2021 marketing year with mill use estimated at 3.2 million bales.

In terms of trade, Brazil is expected to reach net exports of 10.0 million bales of cotton in the 2020 marketing year. For the 2021 marketing year, net exports are expected to climb to roughly 10.5 million bales. With ongoing investments in infrastructure, Brazil is expected to remain a formidable competitor in world cotton trade.

## West Africa

In the West African cotton-producing countries, cotton production continues to play an important role in the economy. For all West African countries, the cotton planting season generally begins in June, with harvest starting in September/October and ending in November. Ginning mills collect cotton from October/November to March. Spurred by improved yields, cotton production in 2020 is an estimated 4.8 million bales.

Cotton producers in the region include Burkina Faso, Mali, Cote d'Ivoire, Chad, and Senegal. Despite the obstacles facing cotton producers in this region, cotton remains an important cash crop in most of Francophone West Africa, Cote d'Ivoire and Senegal.

The current projections have West Africa producing 4.9 million bales in 2021 (Figure 95). West Africa continues to measurably affect the cotton export market, since virtually all of its production is sold abroad. The region exports between 95.0% and 98.0% of its cotton production. For the 2020 marketing year, net exports of 4.8 million bales are projected. For 2021, West African net exports are expected to increase slightly to 5.0 million bales.



Figure 95 - West Africa Cotton Supply & Use

Longer term, West Africa's potential for growth and stability depends on whether or not they can address a number of internal issues related to their production, ginning, price discovery, and distribution systems.

### Mexico

Mexican cotton production for marketing year 2020 reached an estimated 1.1 million bales. Production remains stable with an estimated crop of 1.1 million bales for the 2021 marketing year as both area and yield are up slightly when compared to the 2020 marketing year. (Figure 96).



Figure 96 - Mexico Cotton Supply & Use

In terms of consumption, Mexico's outlook remains basically unchanged. Marketing year 2020 mill use is estimated at 1.6 million bales. For the 2021 marketing year, Mexican mill consumption is projected to grow slightly to 1.7 million bales.

Mexico is a major textile producer, with an industry based on competitive labor costs and deep integration with the United States. According to the Mexican National Institute of Statistics and Geography (INEGI), 63.0% of the Mexican textile industry is concentrated in the central and northeastern parts of the country, including Puebla, Mexico City, and the States of Mexico, Hidalgo, Tlaxcala, Jalisco, Guanajuato, Nuevo Leon, and San Luis Potosi. Mexico is the seventh largest exporter of denim worldwide, and the main supplier to the United States. According to INEGI, 40.0% of the denim fabricated in Mexico is divided between domestic consumption and Latin American consumption (including Peru, Chile and Colombia), while the remaining 60.0% is exported to the United States. One of the main competitive advantages Mexico holds over Asian producers is the speed of response to demand in fast-fashion to the United States. Depending on the location of the textile factory, Mexico can typically have a truck to the border within 48 hours. Many Mexican textile companies have modernized with state-of-the-art machinery
that requires a very specific range of fiber, which is not produced in Mexico and is supplied from the United States. Additionally, the textile industry in Mexico continues to struggle with efficiency (in comparison to the U.S.), with 50.0% higher costs of energy.

The outbreak of the global coronavirus pandemic and its impacts on the global economy were exacerbated in Mexico, where the economy is already weak. Previously, the uncertainty and weakness of the Mexican economy during the last 18 months had already created consumption challenges for the domestic textile sector, as consumer purchasing power has been reduced, and foreign investment remains cautious. Some Mexican fashion and textile manufacturers have reported a slight increase in orders and quotes from U.S. companies due to the increasing closure of factories in China, the main sourcing country for international fashion companies, due to COVID-19. Companies have reported that trade has remained constant, and that a few North American companies have called to inquire about production capacity in Mexico. However, as the virus impacts on the workforce and economy in both countries continues to change at a rapid pace, it is unclear if this demand will remain in the medium to long term.

In the event that demand takes a significant boost, denim may be the only sector that will be able to respond easily. The sector is very well structured in Mexico, with a high level of automation and significant growth in recent years. The denim sector is concentrated in the States of Mexico, Guanajuato, Puebla, Jalisco and Yucatan. In contrast, for the rest of the industry, the slowdown in production in China has caused a disruption in the production chain of various inputs needed in the fast-fashion sector. Several fashion companies have announced that they will not sell what they anticipated at the beginning of the year, because there will not be enough production.

The Mexican textile industry prefers to use U.S. cotton over domestic supplies for several reasons: 1) In order to comply with origin content rules if the product is for reexport, 2) The U.S. produces cotton with a unique standard degree needed to feed high speed and energy efficient machines industry uses in Mexico. Mexican fiber does not always have the standard thickness necessary, and 3) With U.S. cotton, yearly or twice a year contracts are made with textile companies to provide monthly deliveries, which saves the buyer warehouse, insurance and financial expenses. Mexican producers must sell their complete harvest because there is insufficient storage facilities in-country.

The textile and apparel industry in Mexico is based on competitive labor costs and geographic proximity to the United States. The pattern has been for U.S. companies to supply textiles and fibers to factories in Mexico (known as maquilas or maquiladoras) that receive favorable fiscal and trade treatment. The maquiladoras then re-export these inputs after processing in the form of finished garments.

Net imports climbed to an estimated 450 thousand bales during the 2020 marketing year. Mexico's net imports are expected to grow slightly to roughly 569 thousand bales for the 2021 marketing year.

#### Indonesia

Indonesian cotton production was estimated to be 2 thousand bales for the 2020 marketing year (Figure 97). Current projections show this number increasing slightly in 2021 to 3 thousand.



U.S. cotton maintains a strong reputation among Indonesian spinners compared to cotton from other origins. Recent challenges come from demands from cotton end users such as international brands and their associated garment and fabric manufacturers and merchants requiring that the cotton meet sustainability initiatives, similar to the Better Cotton Initiative (BCI), which have gained prominence in other countries. During the past year, Cotton Council International (CCI) announced the launching of the official U.S. Cotton Trust Protocol in order to meet these sustainability requirements. Industry analysts continue to monitor the rollout and how Indonesian importers and manufacturers are accepting the program.

Indonesian cotton consumption in marketing year 2021 is estimated to increase to 2.8 million bales, while net imports are also expected to increase to 2.8 million bales.

#### Vietnam

For the 2020 marketing year, Vietnam's cotton production was estimated to be 3 thousand bales with production estimates remaining unchanged for the 2021 crop at 3 thousand bales (Figure 98).



Figure 98 - Vietnam Cotton Supply & Use

Vietnam's textile and garment sector remains one of the county's top export industries, significantly contributing to the country's Gross Domestic Product (GDP) growth and providing jobs to 2.8 million workers. According to Vietnam Customs' trade data, export revenue in calendar year 2019 reached \$37.6 billion, up 7.4% over the previous year. Although significant, this growth was still lower than the goal of 11.0% set by the Vietnam Textile and Apparel Association (VITAS) at the beginning of the year. The slower growth was mostly due to ongoing trade tensions between the United States and China and weak market demand. For calendar 2020, VITAS originally projected Vietnam's exports of textiles and garments at \$41.5 to \$42.0 billion range. However, these expectations have been disrupted by COVID-19, which has affected the United States and the EU. Vietnam's largest markets for garments.

In response to COVID-19, the United States and the EU temporarily closed borders, schools, and nonessential stores, limited travel, and slashed commercial flights. Store closures have reduced market demand, and this has begun to affect exports of Vietnamese textiles and apparel. In addition, exports to Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) member countries and other traditional markets, such as South Korea and Japan, have also slowed due to COVID-19.

Following the announcement of the Phase 1 U.S.-China deal in mid-January 2020, Vietnamese spinners began to ramp-up production for the Chinese market, but this was rapidly disrupted by the occurrence of COVID-19 and the temporary closures of numerous weaving and knitting factories throughout China. Although cotton yarn exports in early 2020 remained positive, local spinning mills reported that they were carefully watching developments from China.

Estimates place 2020 marketing year mill use at 6.7 million bales. Growth continues into the 2021 marketing year with consumption climbing to 7.0 million bales.

In order to keep pace with this rising cotton demand, Vietnam will remain a significant net importer for the foreseeable future. The United States has topped the list of cotton suppliers to Vietnam for nearly a decade. Brazil has emerged as a direct competitor of the United States and most spinners in Vietnam also use Brazilian cotton for their production. Brazil's exports of cotton to Vietnam have accelerated over the past five years. Meanwhile, Australia's cotton exports have dropped significantly in the past few years due to unfavorable weather conditions. For the 2020 marketing year, Vietnam's net imports are estimated to be 6.7 million bales and estimates are higher for the 2021 marketing year at 7.0 million bales.

### Bangladesh

Marketing year 2020 cotton production in Bangladesh totaled 145 thousand bales (Figure 99). Bangladeshi cotton farmers largely produce American Upland (Gossypium hirsutum) and Tree (Gossypium arboreum) cotton, which represent 95.0% and 5.0% of total production, respectively.

Upland cotton is cultivated in northern, central, and southwestern regions of Bangladesh. Tree cotton is grown in three southeastern hill districts. With the help of the Government of Bangladesh's Cotton Development Board (CDB), farmers are slowly shifting from tobacco production to cotton production in some areas. Even with government support, a major constraint of local cotton cultivation continues to be the long growing seasons required for cotton (i.e., six months). Bangladeshi farmers, as a result of favorable growing conditions, are accustomed to rotating three crops in a year. Cotton cultivation is not widely popular in Bangladesh because it limits the farmers' ability to rotate multiple crops and take advantage of certain weather patterns. With that in mind, production for the 2021 marketing year is expected to fall to an estimated 137 thousand bales.





In terms of consumption, marketing year 2020 mill use was estimated at 7.4 million bales and an increase is expected in the 2021 marketing year with an estimate of 7.6 million bales.

As a result of increasing demand for quality cloth, raw cotton imports have steadily grown. Net imports are estimated to be 7.0 million bales for the 2020 marketing year and are projected to increase in 2021 to roughly 7.4 million bales.

# U.S. Trade

For the 2020 marketing year, net U.S. exports of raw cotton are estimated to be 15.7 million bales (Figure 100). It is estimated that exports will constitute roughly 87.0% of total use for the 2020 marketing year.



Figure 100 – U.S. Cotton Supply & Use

Customers of U.S. exports have changed in recent years. China was the largest customer in 2020, along with Vietnam, Pakistan, Turkey, Mexico, and Indonesia (Figure 101).

Top U.S. Raw Cotton Export Destinations			
2010		2020YTD	
Country	(1,000 480-Lb. Bales)	Country	(1,000 480-Lb. Bales)
China	4,860	China	4,786
Turkey	2,076	Vietnam	2,418
Mexico	1,244	Pakistan	1,531
Indonesia	889	Turkey	1,051
Vietnam	717	Mexico	880
Thailand	712	Indonesia	749

Figure 101 - Top U.S. Raw Cotton Export Destinations

A key factor that continues to affect U.S. cotton exports is the implementation of the U.S.-China Phase 1 trade agreement. China has reduced their reserve stocks and is expected to import more cotton in the 2021 marketing year under the Phase 1 agreement. While China is expected to remain a top export destination for U.S. cotton, increased competition from other exporting countries results in a slight reduction in net exports to 15.4 million bales in the 2021 marketing year.

## World Trade

In the 2020 marketing year, world cotton trade climbed to roughly 43.9 million bales (Figure 102). Current projections put 2021 marketing year world cotton trade at 46.0 million bales. As previously discussed, U.S. net exports are projected to be 15.4 million bales in the 2021 marketing year.



Figure 102 - World Cotton Exports

For 2021, cotton imports are projected to increase in most of the major cotton importing countries. (Figure 103).



Figure 103 - World Cotton Imports

Examining the world trade-to-mill use ratio for the 2020 marketing year shows a decline to 37.5% from 40.2% in 2019 (Figure 104). For 2021, the ratio is expected to increase slightly to 38.0%.



Figure 104 - World Trade Share of Mill Use

# **World Ending Stocks**

For the 2021 marketing year, ending stocks are estimated to fall to 90.4 million bales (Figure 105). The two largest producers – China and India – will continue to be significant holders of cotton stocks due in part to various government programs.



Figure 105 - World Cotton Ending Stocks

The projected world stocks-to-use ratio falls to 74.8% for the 2021 marketing year (Figure 106). As global stocks continue to fall, a stronger case can be made for an increase in prices.



Figure 106 - World Cotton Stocks vs Price