The World and U.S. Cotton Outlook for 2023/24

Interagency Commodity Estimates Committee

Presented by
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USDA-Economic Research Service

99th USDA Agricultural Outlook Forum
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USDA Global Cotton Highlights

• 2022/23 Review:
  – World production slightly lower—affected by weather events.
  – Global mill use continues decline with sluggish economic conditions.
  – World trade lowest in 6 years.
  – Global stocks and stocks-to-use at 3-year highs.
  – World price (A Index) weakens from 2021/22, but averaging above $1.00 per pound.
USDA Global Cotton Highlights

• 2023/24 Outlook:
  – World production relatively flat, with a mix of country area and yield variations.
  – Global mill use projected to begin recovery—4.4% growth forecast.
  – China expected to increase imports, supporting higher mill use.
  – Global stocks and stocks-to-use marginally lower.
  – World price continues decline from elevated levels.
2022/23 World Cotton Situation
World Cotton Mill Use Continues Decline While Production Stable…

...with price weakening from 11-year high.

Source: USDA, Interagency Commodity Estimates Committee and Cotlook.
Global Cotton Production Changes in 2022/23: *Weather played key role in crop changes*

-3.0  -2.5  -2.0  -1.5  -1.0  -0.5  0.0  0.5  1.0  1.5  2.0

Million bale change

**U.S.:** drought in Southwest.  
**Pakistan:** flooding.  
**Franc Zone:** pest damage.  

**India:** rebound in area.  
**Brazil:** second largest on record.  
**China:** record yield.

Source: USDA, Interagency Commodity Estimates Committee.
Sizeable World Cotton Mill Use Decrease in 2022/23

*Cotton mill use estimated at 110.7 million bales.*

- Decline of 5.7% forecast following last season’s 4.7% decrease.
  - 2022/23 mill use lowest in 3 years and second lowest in 9 years.
  - Macroeconomic conditions— inflation and slowing demand for cotton products.
  - High product inventories and falling yarn orders also weakened mill demand.

- Lower cotton mill use seen for most major spinners.
  - Top 6 countries account for more than 80% of global mill use.
  - Considerable declines estimated for India, Pakistan, and Turkey.
  - China is the exception (+3% growth) as their economy reopens—fell > 14% in 2021/22.
  - The United States decreases below 2019/20: COVID shock.
China’s Cotton Mill Use + Yarn Imports Weaken in 2022/23

Mill Use  Yarn Imports

Source: USDA and Trade Data Monitor.
Global Cotton Stocks Second Highest Since 2015/16...

...with supplies representing 9+ month’s worth of mill use.

Million bales

Source: USDA, Interagency Commodity Estimates Committee.

China stocks relatively stable since 2018/19
2022/23 U.S. Cotton Situation
U.S. Production Decline Led by Southwest:

*Total planted area 23% higher y-o-y, but harvested area 28% lower*

Source: USDA, National Agricultural Statistics Service.

Source: USDA, National Agricultural Statistics Service.
Change in 2022 U.S. Cotton Harvested Acres: 
While TX plantings rose 24% y-o-y, harvested area declined 63%

Note: harvested area changes in 1,000 acres and percent.

Source: USDA, National Agricultural Statistics Service.
U.S. Cotton Supply & Demand Estimates: *Production and Exports Lower; Stocks Rise*

<table>
<thead>
<tr>
<th></th>
<th>Unit</th>
<th>2021/22</th>
<th>2022/23</th>
<th>Change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beg. stocks</td>
<td>Mil. bales</td>
<td>3.2</td>
<td>3.8</td>
<td>19.0</td>
</tr>
<tr>
<td>Production</td>
<td>&quot;</td>
<td>17.5</td>
<td>14.7</td>
<td>-16.2</td>
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<tr>
<td>Imports</td>
<td>&quot;</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
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<tr>
<td>Total supply</td>
<td>&quot;</td>
<td>20.7</td>
<td>18.4</td>
<td>-10.8</td>
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<tr>
<td>Mill use</td>
<td>&quot;</td>
<td>2.6</td>
<td>2.1</td>
<td>-17.6</td>
</tr>
<tr>
<td>Exports</td>
<td>&quot;</td>
<td>14.6</td>
<td>12.0</td>
<td>-17.9</td>
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<tr>
<td>Total demand</td>
<td>&quot;</td>
<td>17.2</td>
<td>14.1</td>
<td>-17.9</td>
</tr>
<tr>
<td>Ending stocks</td>
<td>&quot;</td>
<td>3.8</td>
<td>4.3</td>
<td>14.7</td>
</tr>
<tr>
<td>Stocks-to-use</td>
<td>%</td>
<td>21.8</td>
<td>30.5</td>
<td>8.7</td>
</tr>
<tr>
<td>Upland farm price</td>
<td>Cents/lb.</td>
<td>91.4</td>
<td>83.0</td>
<td>-9.2</td>
</tr>
</tbody>
</table>

Source: USDA, Interagency Commodity Estimates Committee.
U.S. Cotton Export Seasonality Altered Recently

Weekly exports, actual and projected

Source: USDA, U.S. Export Sales and ICEC committee.
U.S. 2022/23 Cotton Export Prospects Improving... …as recent Warehouse activity indicates increased exports forthcoming.

![Graph showing cotton export trends] (Note: BMAS = Bales Made Available for Shipment. Source: USDA, U.S. Export Sales and BMAS reports; and U.S. Department of Commerce.)
2023/24 World Cotton Outlook
Key Points for USDA’s 2023/24 Outlook

• Assume continuation of current policies.

• World economic growth bottoms out in calendar 2023 (2.9%) and more favorable in calendar 2024 (3.1%), aiding cotton mill use prospects.

• Global mill use growth rebounds after back-to-back reductions.

• China’s cotton imports and mill use increase.

• Normal weather and growing conditions support marginally higher world production.

• World and U.S. cotton prices decline slightly.
World Cotton Mill Use Often Follows Economic Growth

Source: USDA and International Monetary Fund (IMF).
World Cotton Mill Use Rebound Projected in 2023/24

• Global mill use projected at 115.5 M bales.
  – Rebound after two consecutive declines—slightly above 5-year average.
  – Growth rate (4.4%) well above long-term average.

• Factors supporting 4.4% growth rate.
  – Positive GDP growth estimates—2.9% CY 2023 and 3.1% CY 2024.
  – Supply chain improvements and inventories return to more normal levels.
  – More favorable fiber prices (e.g., 27% lagged A Index decline)
  – Resilient consumer demand.

• China consumption growth projected above 2.5%.
  – Increased access to cotton, including imports.
  – Govt. support for Xinjiang spinning continues.

• Consumption outside China: Moderate growth projected.
Cotton/Polyester Price Ratio

Source: USDA calculations based on data from Cotlook Ltd., Cncotton, National Cotton Council, and International Cotton Advisory Committee.
Global Production Projected Marginally Higher in 2023/24:

*Mix of area and yield adjustments behind change*

Gains for Pakistan and the U.S. nearly offset by declines for China and Turkey; Modest changes seen elsewhere.

Source: USDA, Interagency Commodity Estimates Committee.
# World Cotton Supply & Demand Projections:

*Mill Use Exceeds Production; Stocks Decrease Slightly*

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<td>Beg. stocks</td>
<td>Mil. bales</td>
<td>85.2</td>
<td>89.1</td>
<td>4.5</td>
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<tr>
<td>Production</td>
<td>&quot;</td>
<td>114.4</td>
<td>115.0</td>
<td>0.5</td>
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<tr>
<td>Imports</td>
<td>&quot;</td>
<td>40.4</td>
<td>42.5</td>
<td>5.1</td>
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<tr>
<td>Total supply</td>
<td>&quot;</td>
<td>199.6</td>
<td>204.1</td>
<td>2.2</td>
</tr>
<tr>
<td>Mill use</td>
<td>&quot;</td>
<td>110.7</td>
<td>115.5</td>
<td>4.4</td>
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<td>110.6</td>
<td>115.5</td>
<td>4.4</td>
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<td>Ending stocks</td>
<td>&quot;</td>
<td>89.1</td>
<td>88.6</td>
<td>-0.6</td>
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<tr>
<td>Stocks-to-mill use</td>
<td>%</td>
<td>80.5</td>
<td>76.7</td>
<td>-3.8</td>
</tr>
</tbody>
</table>

Source: USDA, Interagency Commodity Estimates Committee.
Global Cotton Stocks Projected Slightly Lower…

…and world prices decline.

Source: USDA, Interagency Commodity Estimates Committee.
2023/24 U.S. Cotton Outlook
Outlook for 2023 U.S. Cotton Area

• Planted acreage expected significantly lower.
  – Total plantings projected at 10.9 M acres—a 21% decrease.
  – NCC survey indicated 11.4 M acres.

• Relative harvest prices favor competing crops as of mid-February.
  – Cotton futures down 17 cents (17%) compared with last year.
  – Corn futures up 3% while Soybean futures nearly identical to year ago.
  – Cotton insurance reference price considerably lower also.

• Other important/influencing factors to consider.
  – Farmers’ experiences during previous season—positive or negative.
  – High production costs vs net return prospects.
  – Weather and soil moisture conditions.
Drought To Persist Across Much of Texas/Southwest Region
Texas High Plains Precipitation and Southwest Upland Cotton Abandonment, 2004-2022

*Abandonment rate can be highly variable.*

Source: NOAA and USDA, National Agricultural Statistics Service.

Source: USDA Economic Research Service
## U.S. Cotton Area, Yield, and Production

*Key Assumption Includes Normal Weather*

*Southwest expected to account for over half of harvested area*

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<tr>
<td>Planted area</td>
<td>Mil. acres</td>
<td>13.76</td>
<td>10.90</td>
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<tr>
<td>Harvested area</td>
<td>&quot;</td>
<td>7.44</td>
<td>8.90</td>
<td>19.6</td>
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<tr>
<td>Abandonment rate</td>
<td>%</td>
<td>45.9</td>
<td>18.3</td>
<td>-27.6</td>
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<tr>
<td>Yield/harvested acre</td>
<td>Lbs.</td>
<td>947</td>
<td>852</td>
<td>-10.0</td>
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<tr>
<td>Production</td>
<td>Mil. bales</td>
<td>14.68</td>
<td>15.80</td>
<td>7.6</td>
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Source: USDA, Interagency Commodity Estimates Committee.
U.S. Export Forecast Higher in 2023/24:

*Growth Contingent Upon Several Factors*

- Relatively high import demand to satisfy global mill use growth.
  - Import demand (42.5 M bales) rises 5% with improved global economy.
  - China’s imports (8.5 M bales) rise to highest level in 3 years.
  - Mill use growth returns for other major importers/consumers.

- Increased exportable supplies in the United States.
  - Additional early season exportable supplies and larger crop prospects.
  - U.S. share of world trade (33%) rising to near 10-year average.

- Lower prices and a more balanced quality distribution of the 2023 U.S. crop expected.
## U.S. Cotton Supply & Demand Projections:

*Production and Exports Rebound; Stocks Decline*

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<td>83.0</td>
<td>80.0</td>
<td>-3.6</td>
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Source: USDA, Interagency Commodity Estimates Committee.
Potential Variables that Could Change the Outlook

• Higher/Lower world area response to prices than anticipated.

• Weather and growing conditions altering production.

• U.S./China relationship improves/worsens.

• Macroeconomic growth varying from expectations.

• Changes in consumer demand for clothing.
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