The World and U.S. Cotton Outlook for 2018/19

Interagency Commodity Estimates Committee

Presented by
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Agricultural Outlook Forum
February 23, 2018
USDA Cotton Outlook

• Current year review, 2017/18:
  – Broad global expansion boosts cotton consumption
  – Favorable cotton/polyester price ratio boosts consumption
  – Production continues rebound: fastest growth since 2004/05
  – Ending stocks outside China rise
  – Prices average similar to 2016/17

• Upcoming year outlook, 2018/19:
  – Global consumption rises, more slowly
  – Global production falls: mixture of yield and area declines
    • U.S. planted area up, production down
  – Ending stocks outside China rise further
  – Prices lower
2017/18
Current World Cotton Situation
Large World Consumption Increase Expected for 2017/18

*Cotton consumption estimated at 120.5 million bales.*

- 5.0-percent growth expected—fastest since 2009/10.
  - 6th consecutive year of growth (longest positive run since 1980s)
- Global economic growth fastest since 2011.
  - IMF forecasts calendar 2017 and 2018 world income growth to average 3.8 percent.
- Policy changes affecting polyester production in China.
  - Cotton/polyester price ratio most favorable in 3 years.
- China Reserve sales program well established.
- Impact of past extreme cotton price volatility fading.
Cotton’s Share of U.S. Textile Imports,
2010/11 to Aug-Dec 2017/18
(raw-fiber-equivalent basis)

Source: USDA/ERS.
China’s Mill Use: Rising, But Below Peak…

…mill use decline > yarn import growth

Sources: USDA and Global Trade Atlas.
China’s Cotton Yarn Imports Stabilize

Vietnam’s shipments continue to grow

Sources: USDA and Global Trade Atlas.
New Markets Lead Global Consumption Growth, 2012-2017

Source: USDA Cotton ICEC.
Production Rises in Most Major Producing Countries in 2017/18

World production estimated 14% above 2016/17

Source: USDA Cotton ICEC.
2017/18
Current U.S. Cotton Situation
U.S. Cotton Planted Area: A Historical Perspective

2017/18 area planted near historic average; SW share highest since at least 1965/66

Source: USDA/NASS.
U.S. Cotton Regional Production,
2014/15 to 2017/18

Source: USDA/NASS.
U.S. Domestic Cotton Consumption: Total and Per Capita

Calendar Year

Source: USDA/ERS.
## U.S. Cotton Supply and Demand

<table>
<thead>
<tr>
<th></th>
<th>Unit</th>
<th>2016/17</th>
<th>2017/18</th>
<th>Change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beg. Stocks</td>
<td>mil bales</td>
<td>3.8</td>
<td>2.8</td>
<td>-27.6</td>
</tr>
<tr>
<td>Production</td>
<td>&quot;</td>
<td>17.2</td>
<td>21.3</td>
<td>23.8</td>
</tr>
<tr>
<td>Imports</td>
<td>&quot;</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Total supply</td>
<td>&quot;</td>
<td>21.0</td>
<td>24.0</td>
<td>14.5</td>
</tr>
<tr>
<td>Mill use</td>
<td>&quot;</td>
<td>3.3</td>
<td>3.4</td>
<td>3.1</td>
</tr>
<tr>
<td>Exports</td>
<td>&quot;</td>
<td>14.9</td>
<td>14.5</td>
<td>-2.8</td>
</tr>
<tr>
<td>Total use</td>
<td>&quot;</td>
<td>18.2</td>
<td>17.9</td>
<td>-1.7</td>
</tr>
<tr>
<td>Ending stocks</td>
<td>&quot;</td>
<td>2.8</td>
<td>6.0</td>
<td>118.2</td>
</tr>
<tr>
<td>Stocks-to-use</td>
<td>%</td>
<td>15.1</td>
<td>33.6</td>
<td>122.5</td>
</tr>
<tr>
<td>Farm price</td>
<td>cents/lb.</td>
<td>68.0</td>
<td>69.0</td>
<td>1.5</td>
</tr>
</tbody>
</table>
2018/19
World Cotton Outlook
World Cotton Consumption and Economic Growth

Marketing years

Sources: USDA and IMF.
Cotton/Polyester Price Ratio
Shifts in Cotton’s Favor—But Historically High

Source: USDA and ICAC.

February 2018 ratio ↓ 16 % yty
Projected Changes in World Production, 2018/19 Compared With 2017/18

- More normal yields in the United States and China
- Reduced area in bollworm-affected Indian states
- Reduced area in Brazil and Australia

Source: USDA Cotton ICEC.
China’s State Cotton Reserves:

*Reserve sales expected to continue in 2018/19*

Source: USDA, Cotton ICEC.
China Cotton Supply & Demand Projections:

*Large supply limits need for imports*

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<tr>
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<th>2018/19</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Beg. Stocks</td>
<td>mil bales</td>
<td>48.4</td>
<td>40.9</td>
<td>-15.6</td>
</tr>
<tr>
<td>Production</td>
<td>&quot;</td>
<td>27.5</td>
<td>27.0</td>
<td>-1.8</td>
</tr>
<tr>
<td>Imports</td>
<td>&quot;</td>
<td>5.0</td>
<td>7.0</td>
<td>40.0</td>
</tr>
<tr>
<td>Total supply</td>
<td>&quot;</td>
<td>80.9</td>
<td>74.9</td>
<td>-7.5</td>
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<tr>
<td>Consumption</td>
<td>&quot;</td>
<td>40.0</td>
<td>41.2</td>
<td>3.0</td>
</tr>
<tr>
<td>Exports</td>
<td>&quot;</td>
<td>0.1</td>
<td>0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Total use</td>
<td>&quot;</td>
<td>40.1</td>
<td>41.3</td>
<td>3.1</td>
</tr>
<tr>
<td>Ending stocks</td>
<td>&quot;</td>
<td>40.9</td>
<td>33.6</td>
<td>-17.8</td>
</tr>
<tr>
<td>Reserve stocks</td>
<td>“</td>
<td>18.0</td>
<td>10.5</td>
<td>-42.0</td>
</tr>
<tr>
<td>Stocks-to-use</td>
<td>%</td>
<td>102.0</td>
<td>81.3</td>
<td>-20.3</td>
</tr>
</tbody>
</table>

Source: USDA, Cotton ICEC.
Assumptions Behind 2018/19 Projections

• Constant rate of global economic growth.
  – Little change in exchange rates
  – General policy continuity

• Cotton/polyester price ratio little changed.
  – Ratio remains favorable vis-à-vis levels of last 2 years.
  – Ratio remains above 2000-08 average.

• Continuity in China Reserve sales and trade policy.
  – Continued draw-down of government-owned stocks
  – No sliding-scale import quota in calendar 2018

• Normal weather during 2018 and 2019
• Current 2017/18 estimates have minimal error
World Cotton Supply & Demand Projections:

*China’s stocks fall more than world stocks*

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</thead>
<tbody>
<tr>
<td>Beg. Stocks</td>
<td>mil bales</td>
<td>87.7</td>
<td>88.6</td>
<td>1.0</td>
</tr>
<tr>
<td>Production</td>
<td>&quot;</td>
<td>121.4</td>
<td>117.0</td>
<td>-3.6</td>
</tr>
<tr>
<td>Imports</td>
<td>&quot;</td>
<td>38.2</td>
<td>40.0</td>
<td>4.6</td>
</tr>
<tr>
<td>Total supply</td>
<td>&quot;</td>
<td>247.3</td>
<td>245.6</td>
<td>-0.7</td>
</tr>
<tr>
<td>Consumption</td>
<td>&quot;</td>
<td>120.5</td>
<td>122.9</td>
<td>2.0</td>
</tr>
<tr>
<td>Exports</td>
<td>&quot;</td>
<td>38.2</td>
<td>40.0</td>
<td>4.7</td>
</tr>
<tr>
<td>Total use</td>
<td>&quot;</td>
<td>158.7</td>
<td>162.9</td>
<td>2.6</td>
</tr>
<tr>
<td>Ending stocks</td>
<td>&quot;</td>
<td>88.6</td>
<td>82.7</td>
<td>-6.7</td>
</tr>
<tr>
<td>China stocks</td>
<td>&quot;</td>
<td>40.9</td>
<td>33.6</td>
<td>-17.8</td>
</tr>
<tr>
<td>Stocks-to-consumption</td>
<td>%</td>
<td>73.5</td>
<td>67.3</td>
<td>-8.4</td>
</tr>
</tbody>
</table>

Source: USDA, Cotton ICEC.
Global Cotton Stocks Projected Lower…

…but stocks outside of China remain high

Source: USDA, Cotton ICEC.
2018/19
U.S. Cotton Outlook
February Drought Conditions Worst in Southwest Since 2015

U.S. Drought Monitor

February 20, 2018
(Released Thursday, Feb. 22, 2018)
Valid 7 a.m. EST

Drought Impact Types:
- Delineates dominant impacts
- S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
- L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

Intensity:
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

Author:
Deborah Bathke
National Drought Mitigation Center
All-Cotton Planted Acres Based on Relative Prices, Winter Wheat Area, Texas Moisture Index, 2007-2018 proj.

Estimated area 2018: 13.3 mil. acres.

Higher cotton prices
Outlook for 2018 U.S. Cotton Area

• Planted acreage expected higher at 13.3 million acres.
  – Harvested area forecast at 11.3 million acres.
  – NCC survey indicated about 13.1 million acres planted.

• Cotton is priced favorably vs. competing crops as planting approaches

• Opportunity to reassign generic base acres to “seed cotton” base in 2018/19 also supportive of higher area

• Soil moisture in Texas is at a level associated with higher abandonment
## U.S. Cotton Area, Yield, and Production

Key Factors Include Crop Conditions & Abandonment

*Southwest expected to account for 60% of area*

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<tr>
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<th>2017/18</th>
<th>2018/19</th>
<th>Change(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planted area</td>
<td>Mil. acres</td>
<td>12.61</td>
<td>13.30</td>
<td>5.5</td>
</tr>
<tr>
<td>Harvested area</td>
<td>&quot;</td>
<td>11.35</td>
<td>11.30</td>
<td>-0.4</td>
</tr>
<tr>
<td>Abandonment rate</td>
<td>%</td>
<td>10.0</td>
<td>15.0</td>
<td>50.0</td>
</tr>
<tr>
<td>Yield/harvested acre</td>
<td>Lbs.</td>
<td>899</td>
<td>828</td>
<td>-7.9</td>
</tr>
<tr>
<td>Production</td>
<td>Mil. bales</td>
<td>21.26</td>
<td>19.50</td>
<td>-8.3</td>
</tr>
</tbody>
</table>

Source: USDA, Cotton ICEC.
U.S. Share of World Trade Rises in 2018/19

Source: USDA Cotton ICEC.
## U.S. Cotton Supply & Demand Projections:  
*Exports Rise, But Stocks Unchanged*

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<td>2.75</td>
<td>6.00</td>
<td>118.2</td>
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<td>Production</td>
<td>&quot;</td>
<td>21.26</td>
<td>19.50</td>
<td>-8.3</td>
</tr>
<tr>
<td>Imports</td>
<td>&quot;</td>
<td>0.01</td>
<td>0.01</td>
<td>0.0</td>
</tr>
<tr>
<td>Total supply</td>
<td>&quot;</td>
<td>24.02</td>
<td>25.51</td>
<td>6.2</td>
</tr>
<tr>
<td>Mill use</td>
<td>&quot;</td>
<td>3.35</td>
<td>3.40</td>
<td>1.5</td>
</tr>
<tr>
<td>Exports</td>
<td>&quot;</td>
<td>14.50</td>
<td>16.00</td>
<td>10.3</td>
</tr>
<tr>
<td>Total use</td>
<td>&quot;</td>
<td>17.85</td>
<td>19.40</td>
<td>8.7</td>
</tr>
<tr>
<td>Ending stocks</td>
<td>&quot;</td>
<td>6.00</td>
<td>6.00</td>
<td>0.0</td>
</tr>
<tr>
<td>Stocks-to-use</td>
<td>%</td>
<td>33.6</td>
<td>30.9</td>
<td>-8.0</td>
</tr>
<tr>
<td>Farm price</td>
<td>cents/lb.</td>
<td>69.0</td>
<td>63.0</td>
<td>-8.7</td>
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Source: USDA, Cotton ICEC.
Revisiting the Assumptions Behind 2018/19 Projections

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Thank You!