Australia: Sorghum Reduced by Heat and Dryness

Australia sorghum production for 2019/20 is estimated at 0.4 million metric tons (mmt), down 0.88 mmt or 69 percent from last year. Area is estimated at 0.25 million hectares (mha), down 0.25 mha or 50 percent from last year. Yield is forecast at 1.60 tons per hectare (t/ha), down 0.98 t/ha or 38 percent from last year.

Sorghum is sown from September through February. Harvest of the early-planted crop began in February. The later planted crop will be harvested by June this year. Sorghum area decreased 50 percent from last year because of persistent dryness for several months leading up to and including the main planting window. Above normal temperatures in January stressed the crop which was already struggling from a lack of moisture.

In February, growing conditions significantly improved with cooler temperatures and heavy precipitation throughout the sorghum belt of eastern Australia. The rains arrived too late to sustain yield potential of the early planted crops but benefited later planted sorghum. The rains also encouraged producers to make additional late plantings. March rainfall continued to support crop growth in New South Wales (NSW), but Queensland (QLD) received below normal precipitation. At present, April precipitation distribution mimics that of March with NSW receiving above average rainfall and below average in QLD.

The area, yield and production of grain sorghum have fluctuated widely over the years (See figure 1). This is a result of variations in rainfall amounts, prices of cotton and sorghum and irrigation availability. Sorghum and cotton are Australia’s two major summer crops and compete for the same land. When cotton prices are high, sorghum area decreases.

Sorghum is a summer crop that is planted in areas throughout Australia, but production is concentrated mainly along the QLD and NSW border. QLD produces about two-thirds of Australia’s sorghum, with NSW accounting for the remainder (See figure 2).

In the summer crop regions of eastern Australia, heat and dryness accelerated crop maturity and initiated harvest earlier than normal. The mixed growing conditions have affected vegetation health and yield. An April MODIS satellite graphic shows the current situation in sorghum areas with QLD having below average vegetation health and NSW being near average (See figure 3).

Historically, Australia is the ninth largest producer of sorghum in the world, but the second largest exporter. Dry conditions this will year severely reduce export availability. The major grain crops grown in Australia include wheat, canola, oats, sorghum, barley, rice and pulses. Australian grain production occurs in both the summer and winter seasons. Winter crops include wheat, barley and canola. Summer crops include sorghum, cotton, rice and sunflowers.

Most cropping regions of Australia are only able to produce one crop per year, but areas of Darling Downs (southern QLD) and the Liverpool Plains (northern NSW) are capable of producing a summer and winter crop each year. This is due to their favorable soils and climate. In addition, the use of no-till and minimum-till fallow farming in QLD has expanded the planting window for sorghum by allowing the crop to be sown up to six
weeks later than normal after ample rainfall. The use of no-till fallow farming has generally increased soil moisture in fields and has improved yield prospects in recent years.

Figure 1: Australia Sorghum Time Series
Figure 2: Australia Sorghum Production Map

Australia: Sorghum Production

<table>
<thead>
<tr>
<th>State</th>
<th>SLA</th>
<th>% Prod.</th>
</tr>
</thead>
<tbody>
<tr>
<td>QLD</td>
<td>Wambo</td>
<td>13.7%</td>
</tr>
<tr>
<td>NSW</td>
<td>Queendie</td>
<td>12.1%</td>
</tr>
<tr>
<td>NSW</td>
<td>Jordaniany</td>
<td>9.1%</td>
</tr>
<tr>
<td>QLD</td>
<td>Moree Reg.</td>
<td>7.5%</td>
</tr>
<tr>
<td>NSW</td>
<td>Central Highlands</td>
<td>7.5%</td>
</tr>
<tr>
<td>QLD</td>
<td>Gunnedah Reg.</td>
<td>5.5%</td>
</tr>
<tr>
<td>NSW</td>
<td>Clermont</td>
<td>4.9%</td>
</tr>
<tr>
<td>QLD</td>
<td>Pittsworth</td>
<td>4.3%</td>
</tr>
<tr>
<td>QLD</td>
<td>Millmerran</td>
<td>3.8%</td>
</tr>
<tr>
<td>QLD</td>
<td>Clifton-Greenn.</td>
<td>2.7%</td>
</tr>
</tbody>
</table>

Percentage Production:
- 6% - 14%
- 3% - 6%
- 0.05% - 3%
- >0 - 0.05%
- None

Data Source: ABS Ag Census with 2016 SLA boundaries (SA2)
Average percent production of 2005/06, 2010/11 and 2015/16
Map last updated 3/8/2018
For additional information please contact James Crutchfield at james.crutchfield@fas.usda.gov.
Current area and production estimates for grains and other agricultural commodities are available on IPAD's Agricultural Production page:
Crop Explorer https://ipad.fas.usda.gov/cropexplorer/or
Production, Supply and Distribution Database (PSD Online):

U. S. Department of Agriculture
Foreign Agricultural Service
Office of Global Analysis
International Production Assessment Division Ag Box 1051, Room 4630, South Building
Washington, DC 20250-1051
Telephone: (202) 720-1662 Fax: (202) 720-1158