China Cotton: Favorable 2020/21 Crop Planting Progress and Conditions

USDA forecasts China’s 2020/21 cotton production at 26.5 million 480-pound bales (5.77 million metric tons), down 3 percent from last year, and down 4 percent from the 5-year average. Area is forecast at 3.3 million hectares (mha), down 4 percent from last year, but up 1 percent from the 5-year average. Yield is forecast at 1,748 kilograms per hectare (kg/ha), up 2 percent from last year and up 3 percent from the 5-year average of 1,697 kg/ha. Yield is at the long-term trend due to the increasing quantity of cotton area being planted in Xinjiang province where yield has nearly doubled compared to elsewhere in the country (Figure 1). Approximately 85 percent of total China cotton is now produced in Xinjiang. Cotton area in China has been decreasing in eastern areas and increasing in Xinjiang province (Figure 2).

China’s cotton growing season is April through October. In Xinjiang, the major cotton-producing province, planting occurs in April, while in the North China plains provinces of Shandong, Hebei, and Jiangsu, planting begins in late April and extends through May. In May, FAS/Beijing reported that there were no indications of any impacts from COVID-19 on the country’s capacity to plant most summer crops on schedule including cotton, soybeans, rice and corn. The start of the 2020/21 season has so far been characterized by favorable conditions to include good irrigation water availability from rainfall in late March through April, as seen in the satellite imagery (Figures 3 and 4). The satellite images show no significant differences in irrigation water availability between the 2019 and 2020 seasons in the Bayin’gholin Mongol Region of Xinjiang in the northwest part of the country (Figure 5). The result is good soil moisture profiles, facilitating rapid planting and early crop establishment in Xinjiang province. According to Cotton Outlook from April 23, 2020, sowing is approaching completion in Xinjiang. In addition to the favorable planting conditions, farmers have also been encouraged by the government’s continuation of the target price-based cotton subsidy. On March 26, 2020, China’s National Development and Reform Commission (NDRC) published a notice stating that the target price-based subsidy will continue through 2023. The program was originally established in 2017 and was planned to expire in 2020.

The cotton industry’s production forecasts vary widely this early in the growing season. April industry reports show a production range of 25.6 to 26.64 million bales. On April 7, 2020, the ICAC (International Cotton Association Council) forecast was at 26.64 million bales. On April 23, 2020, Cotton Outlook was forecasting 25.6 million bales. Lastly, China’s National Cotton Market Monitoring Network (NCMMN) is currently forecasting 25.81 million bales. The wide variety of forecasts are primarily due to uncertainty regarding planted area.

The planting intentions survey conducted in March 2020 by the China Cotton Association indicates farmers intend to plant 3.08 mha, a 4 percent national decline from last season. According to the report, in Xinjiang, planting intentions indicate an area of 2.43 mha, down 1.2 percent year-on-year; in the Yellow River Valley intentions are 0.34 mha, down 13.5 percent; and in the Yangtze River Valley intentions are 0.28 mha, down 14.4 percent. The report further states that over 85.4 percent of survey respondents in Xinjiang said they will maintain the 2019/20 area, while only 10.3 percent said they will decrease area.
In-season temperatures will be decisive as the crop progresses. In China, the final (end-of-season) cotton production is usually more affected by temperatures during crop growth than by irrigation water availability and soil moisture at sowing, although they too remain important crop yield determinants. Xinjiang is one of the northernmost latitudes for growing cotton, so temperature will remain a primary factor this growing season.
Cotton yields for Xinjiang province are nearly double compared to other areas of China

Figure 1: Xinjiang and outside Xinjiang cotton yield time series
Yield is at the long-term trend due to the increasing quantity of cotton area being planted in Xinjiang province where yield has nearly doubled compared to elsewhere in the country. Approximately 85 percent of total China cotton is now produced in Xinjiang.

Figure 2: Cotton area distribution time series
Bayin’gholin Mongol, Xinjiang Province satellite imagery shows adequate-to-abundant water availability at the start of cotton growing season and no significant differences in irrigation water availability (dark areas) in 2019 (left) and 2020 (right).

**Figure 3.** Irrigation water availability at the start of 2020/21 cotton growing season
Kashgar region, Xinjiang Province satellite imagery shows cotton fields (in green) crop progress and crop conditions at the start of cotton growing season; in April 2020 the crop shows advanced-early growth (right) compared to the same period in 2019 (left); but no significant differences in irrigation water availability between the two seasons.

Figure 4: Cotton crop progress and conditions
Figure 5: China cotton production regions

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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):