United States Department of Agriculture

Foreign Agricultural Service
Global Market Analysis
International Production Assessment Division
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Commodity Intelligence Report

India's Cotton Production Up Slightly Despite Decline in Area

USDA estimates marketing year (MY) 2021/22 cotton production for India at 28.0 million 480-pound bales, unchanged from 2020 (Figure 1). The harvested area is estimated at 12.4 million hectares, down nearly 5 percent from last year. The area decrease is due to the late arrival of the 2021 southwest monsoon and competition with other crops such as soybeans and pulses. Yields are expected to reach 492 kilograms per hectare, up nearly 5 percent from 2020. India cotton yields have increased since MY 2018/19.

Cotton planting ended in mid-September. In some areas, cotton planting was up to 30 days later than normal, which caused a decrease in the total area planted. According to the latest report from India's Department of Agriculture and Farmers Welfare, first advance area estimates for cotton were down nearly 7 percent from last year. Cotton area in the central region of Maharashtra, Gujarat, and Madhya Pradesh, was nearly 5 percent down from 2020. Cotton planting in Maharashtra, the largest cotton state, was down 6 percent as farmers shifted to soybeans. Planted area in Gujarat was similar to last year but down nearly 14 percent from the long-term average. This 14-percent decrease is due to drought. The southern region which comprises the third-largest producing area, was down 13 percent year-to-year. Telangana planted area dropped 15 percent from 2020 but is up 12 percent from the long-term normal due to competition from pulses. The significant increase in Telangana from the long-term average is due to favorable government policy changes. The State Government realized that it was more economical to buy corn and rice than to grow it. Thus, farmers with irrigation capacity were encouraged to grow cotton instead of corn and rice. The other smaller states in the southern region, such as Andhra Pradesh, Karnataka, and Tamil Nadu, experienced area reductions from 2020 because of competitively priced oilseed crops. Plantings in the northern regions of Punjab, Haryana, and Rajasthan, however, were up 3 percent from 2020, an indication that sufficient labor was available despite Covid restrictions. (Figure 2).

Satellite-derived MODIS Normalized Difference Vegetation Index (NDVI) analysis showed crop vigor above the long-term average despite the dry conditions in the major producing areas of Gujarat and parts of Maharashtra during the square/flowering stage (Figure 3). The strong crop vigor could be attributed to farmers using irrigation to mitigate any yield loss. FAS-Mumbai representatives on crop travel in Gujarat also observed above-average crop conditions (Figure 4). Thrips and leafhoppers, pests with piercing-sucking mouthparts were reported in early September which may impact yields. The Government issued advisories in Maharashtra for whitefly and aphids. Despite above-average crop vigor in the irrigated north, Punjab, Haryana, and Rajasthan, pink bollworm infestation on a third of area planted was reported in Punjab Trade reports mid-October.

Cotton planting was 30 days late because of the erratic rainfall at the beginning of the season. Farmers in central and western India planted cotton in soils that were drier than usual. Consequently, plantings didn't peak until mid-July and sowing activities slowed into August. Rainfall in late July and August was not as intense when the crop was in the vegetative stage. As the crop entered the vulnerable flowering/squaring stage, rainfall increased in September. Precipitation in Gujarat in September was 20 percent above average for the entire state, and roughly 35 percent above the normal average in Maharashtra. Late rains further boosted yields in Gujarat, Maharashtra, and Madhya Pradesh.

The India Metrological Department calculated cumulative rainfall for 2021 southwest monsoon as 1 percent below the long-term average, however, the late rains in September reversed some of the dryness in central and western India and boosted yields and limited yield losses. The southwest monsoon officially withdrew as late as early October in some parts of western India (Gujarat and Rajasthan). This late rainfall will provide soil moisture for additional picking. .

Cotton is grown only in the *kharif* season from May to October. Harvesting can continue into February. Cotton planting occurs at different times based on the region. It is sown in northern India in May, followed then in central India from June to August, and finally in southern India in late July into September. Planting activities ended in the southern region, including Andhra Pradesh, Telangana, Karnataka, and Tamil Nadu (Figure 5). Because of the late plantings, the possibility of additional picking into February remains uncertain. Early planted cotton in the northern areas was harvested in October.

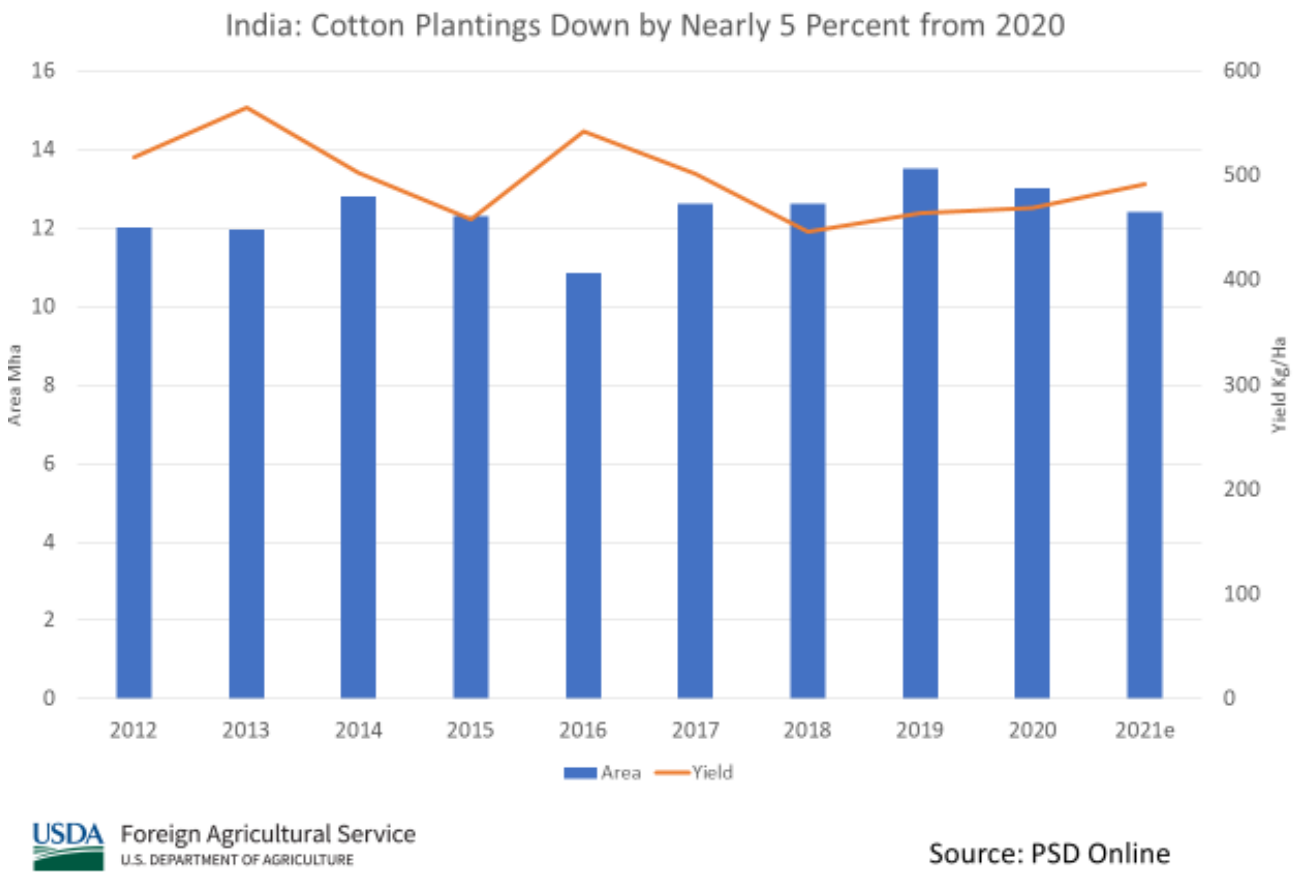

Figure 1. India's harvested area down nearly 5 percent from 2020. Source: PS&D Online

Region	States	Area Planted As of September 9, 2021 (mHa)	Area Planted Same Period 2020 (mHa)	Percent Change Year to Year
North	Punjab, Haryana, Rajasthan	16.99	16.56	2.6
Central	Gujarat, Maharashtra, Madhya Pradesh	68.03	71.44	-4.8
South	Andhra Pradesh, Karnataka, Tamil Nadu, Telangana	32.09	36.85	-13

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Source: India's Department of Agriculture, Cooperation & Farmers Welfare

Figure 2. India Total Area Planted by Region. Source: India's Department of Agriculture, Cooperation & Farmers Welfare

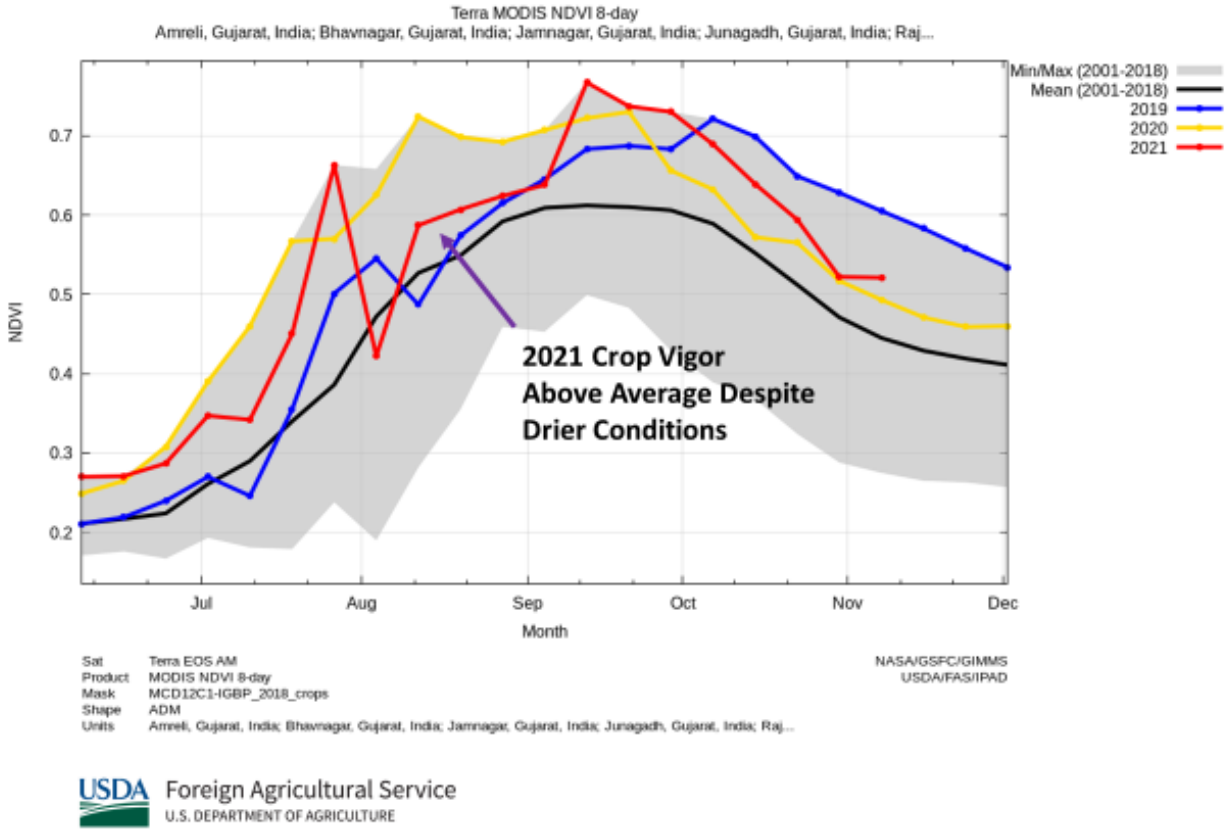

Figure 3. MODIS NDVI Gujarat Cotton Belt. Despite drier conditions, crop vigor was above normal through growing season. Source: USDA/NASA Global Agricultural Monitoring (GLAM) MODIS Terra 8-day NDVI

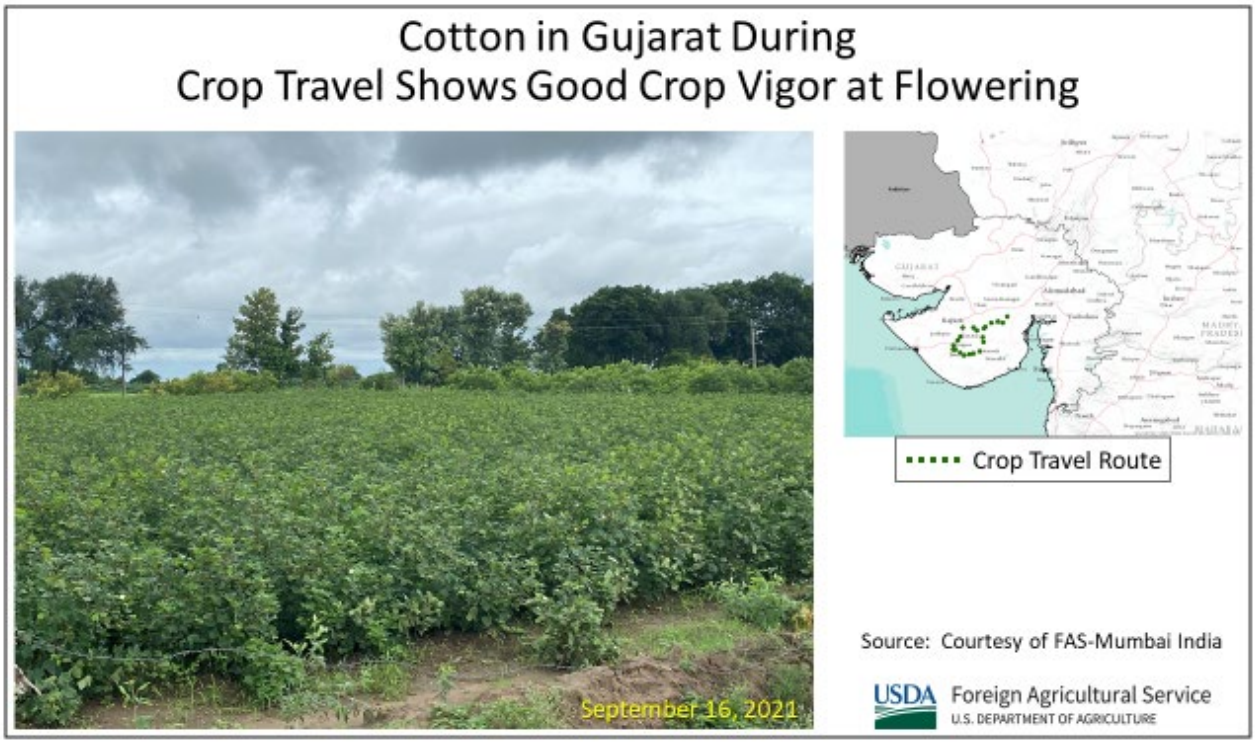

Figure 4. Cotton in Gujarat During Crop Travel Shows Good Crop Vigor at Flowering

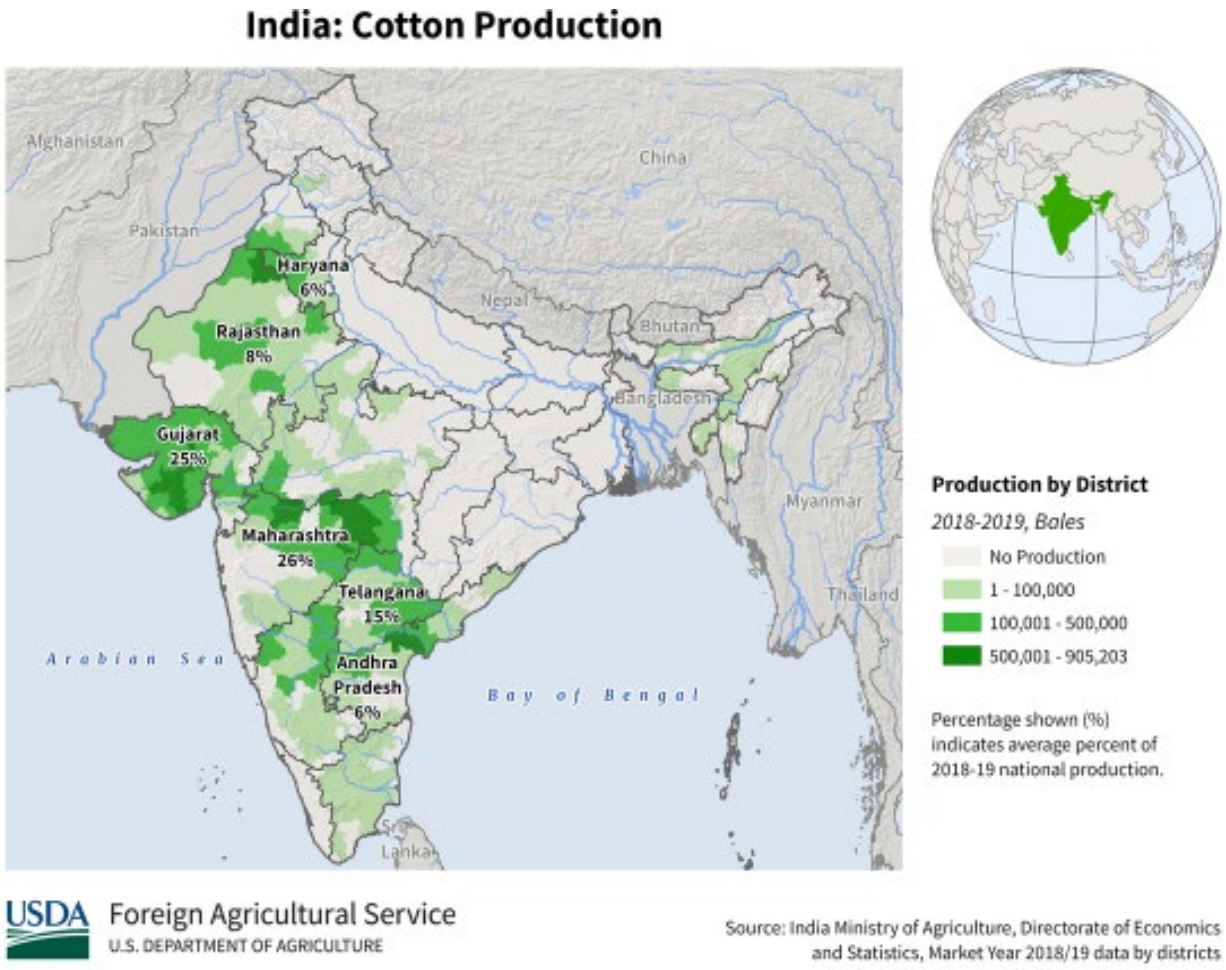

Figure 5. Top cotton producers Source: India Ministry of Agriculture, Directorate of Economics and Statistics, Market Year 2018/19 data by districts

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