**Commodity Intelligence Report**

## Brazil Cotton:  Record MY 2024/25 Production on the Heels of Becoming the World's Leading Cotton Exporter

Brazil became the world's leading exporter of cotton for the first time in marketing year (MY) 2023/24 (see Figure 1), due to expanded planted area, up 4 percent over the previous year, and a record yield of 1,911 kg/ha (see Figure 2). China, Vietnam, and Bangladesh were the largest purchasers of Brazilian cotton, accounting for 75 percent of Brazil's cotton exports. Brazil's cotton exports are estimated at 12.3 million bales (mbales) for MY 2023/24, nearly twice that of the previous year.

The success of the MY 2023/24 crop incentivized farmers to increase cotton planting by 17 percent in MY 2024/25, to more than 1.9 million hectares (mha). Farmers were spurred on, not only by last year's record productivity, but also by higher returns relative to corn, which competes with cotton for planted area. Cotton and corn are largely planted as a second crop following the January soybean harvest (see Figure 3). Cotton area expansion has historically been more limited due to the requirements of specialized equipment for harvesting cotton, while corn can be harvested using the same equipment as that for soybeans. Despite this headwind, cotton planting has more than doubled over the past 10 years, and this year is at its highest level since 1991 (see Figure 4). In Mato Grosso, where over 70 percent of Brazil's cotton crop is grown (see Figure 5), area is up 19 percent from last year and 151 percent above plantings a decade ago. In Bahia, which produces 20 percent of Brazil's cotton, planted area is up 11 percent over last year and 23 percent on the decade.

The Brazilian Cotton Producers Association (ABRAPA) reports that up to 92 percent of Brazil's total cotton area is rainfed. Leading into and during the growing season, precipitation was mostly below-normal in the cotton-growing areas of Mato Grosso and Bahia (see Figure 6), which limited top-end yield potential. Rainfall did, however, reach adequate levels to aid crop development; and, according to the latest reporting from the *Companhia Nacional de Abastecimento* (CONAB), yields in Mato Grosso and Bahia are expected to see only 2 percent and 4 percent declines, respectively, from last year's records. In Mato Grosso, some of the crop was reportedly planted earlier than normal due to farmers choosing not to replant struggling soybean crops. Earlier planting and positive conditions accelerated crop development in these areas.

Crop conditions were consistently positive throughout the season. Analysis using the satellite-derived Normalized Difference Vegetation Index (NDVI) indicated similarly positive crop conditions this year to those seen in last year's record-yielding crop (see

Figure 7). Another record yield is not expected, however. A comparison of peak growing season NDVI from this year versus that of last year shows many major cotton growing areas lagging those of last year (see Figure 8). The expectation is that, while this year will again see an above average yielding crop, yield will not eclipse that of last year's record.

The MY 2024/25 harvest is more than halfway complete according to the latest harvest reports from CONAB, and Brazil is expected to produce a record 16.7 mbales, a 15 percent year-over-year increase, primarily due to the increased planting described above. The cotton harvest concludes in September.

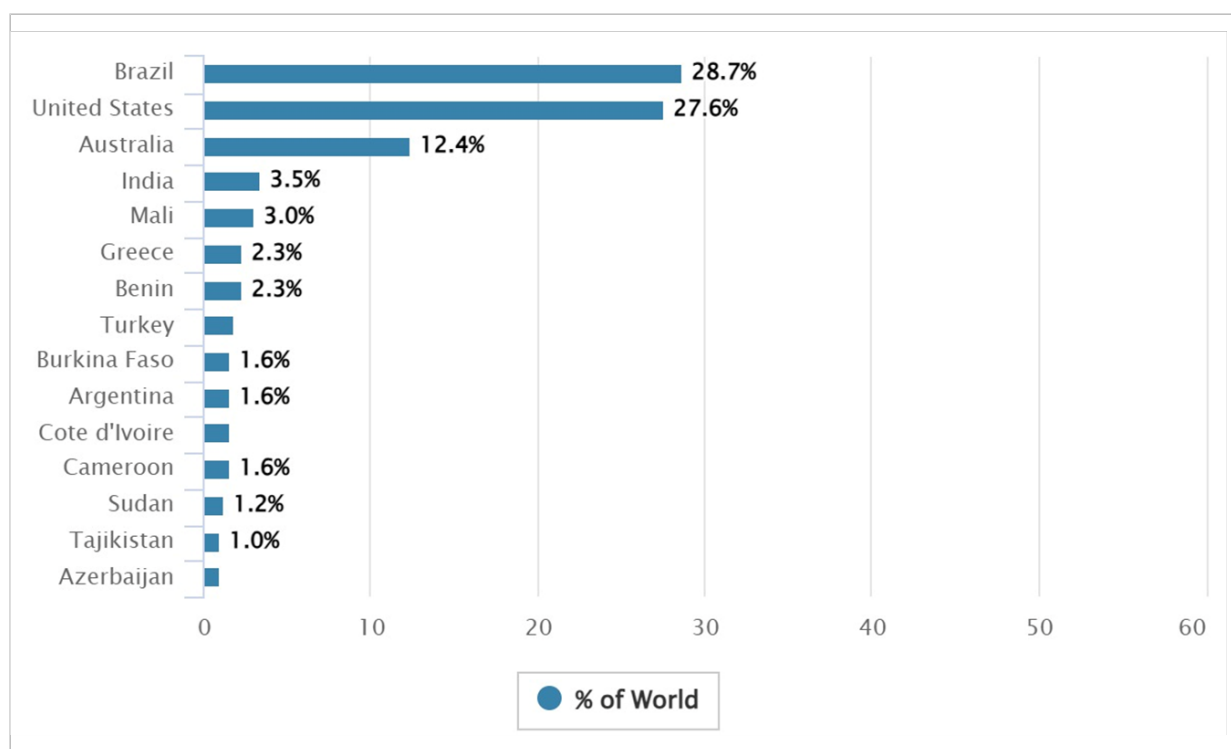## My 2023/24 Cotton Exports:  Percent of Annual World Total



**Figure 1. Brazil became the world's leading cotton exporter for the first time, following a historic crop in MY 2023/24. Source: USDA PSD Online**

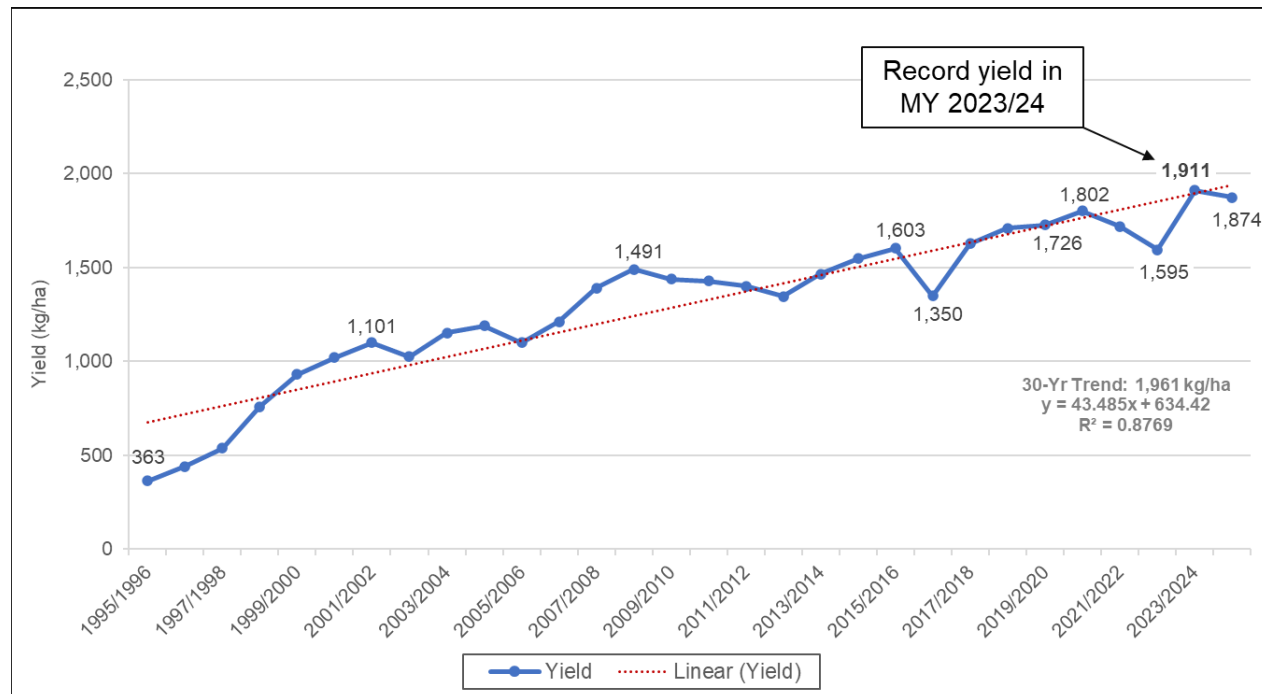## Brazil Cotton Yield: 30-Year Time Series



**Figure 2. Brazilian cotton yields have been increasing along a strong trend over the last few decades. The historic MY 2023/24 cotton crop returned a record yield, boosting Brazil to the top of the world's cotton exporting nations. The MY 2024/25 crop will return the second-highest yield. Source: USDA PSD Online**
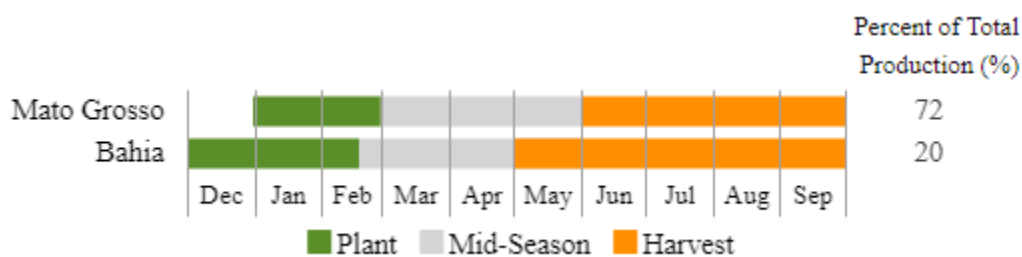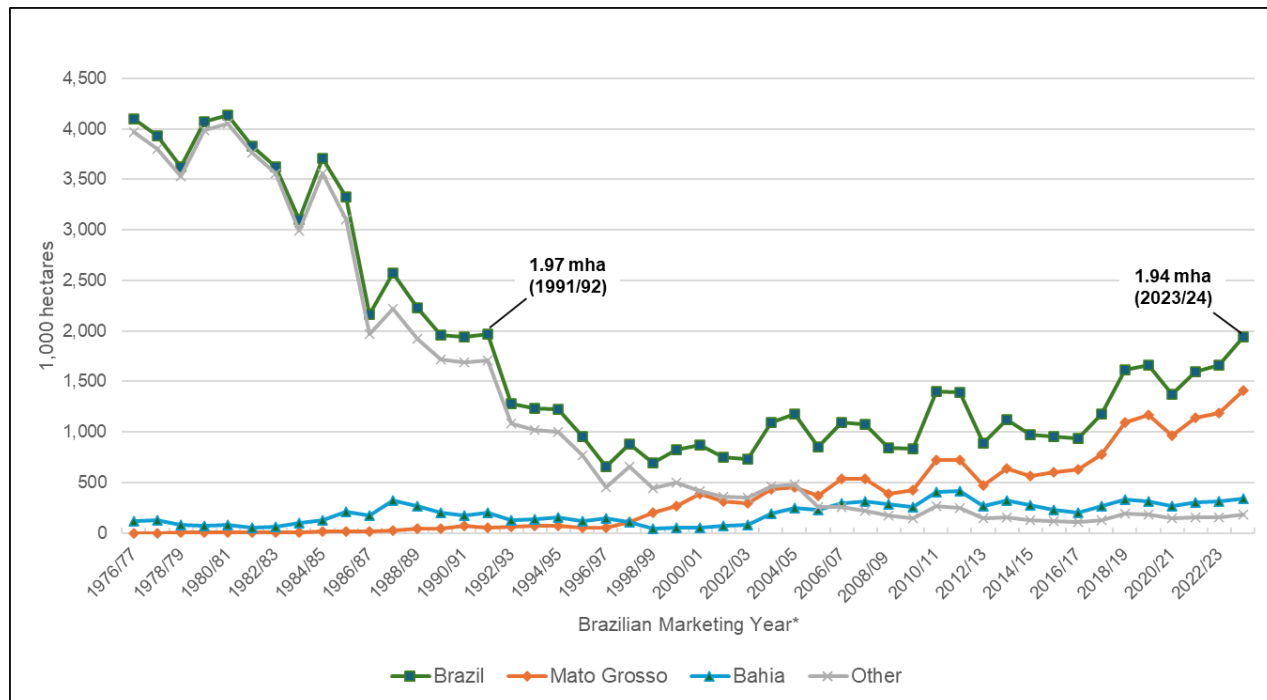
## Brazil Cotton Crop Calendar



**Figure 3. Cotton is planted, largely as a second crop following the soybean harvest in January, and harvested beginning in May or June. Source: USDA Foreign Agricultural Service**
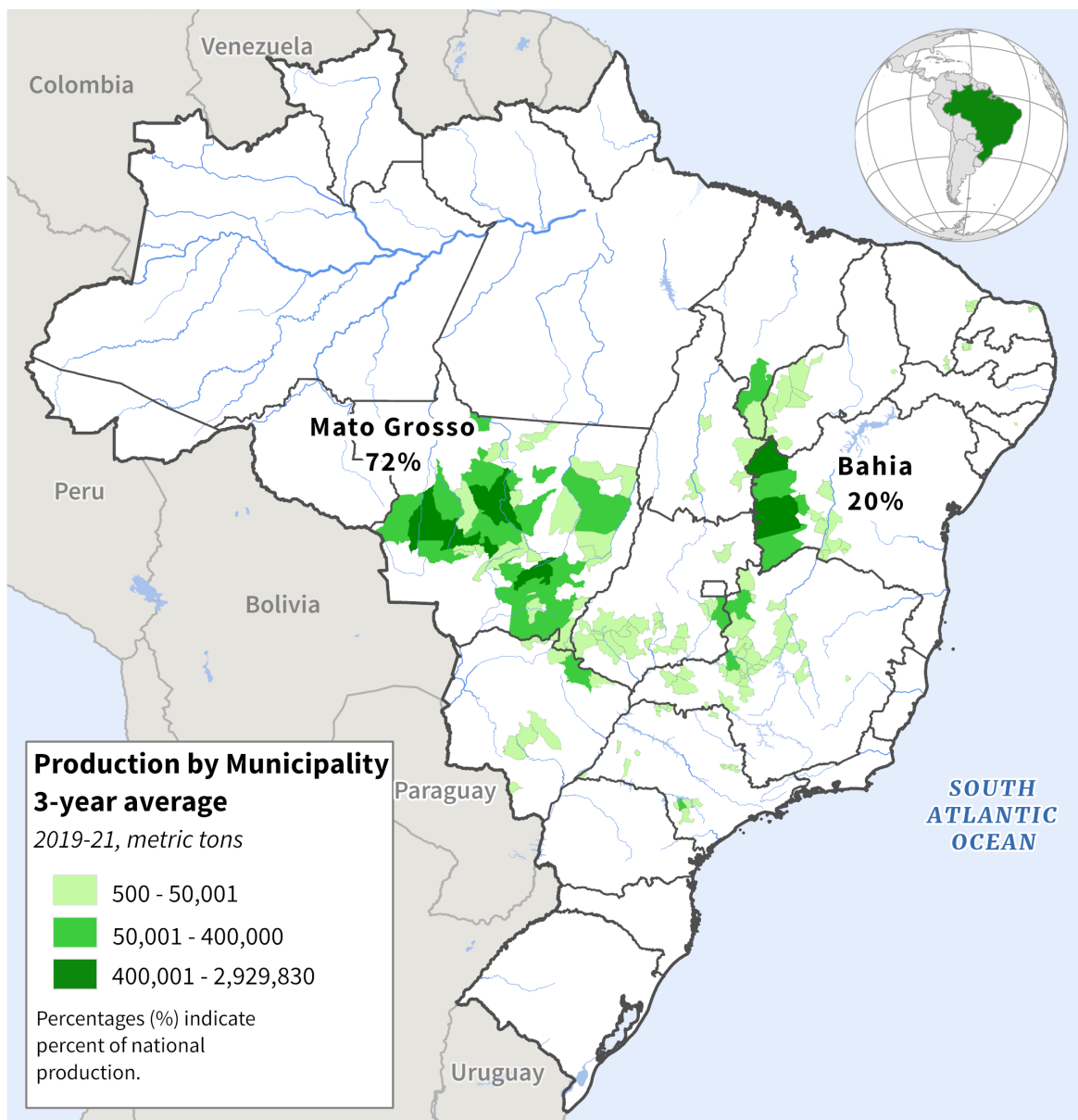
# Brazil Cotton Planted Area:  Historical Time Series



*Brazilian marketing years correspond to the subsequent USDA marketing year (i.e., CONAB MY 2023/24 = USDA MY 2024/25)

**Figure 4. Brazil planted more area to cotton than any year since the 1991/92 Brazilian cotton season. Note:  The Brazilian marketing year corresponds to the subsequent USDA marketing year (i.e., CONAB's MY 2023/24 is the equivalent of USDA's MY 2024/25). Source:** *Companhia Nacional de Abastecimento* **(CONAB)**

# Brazil: Cotton Production



**Production by Municipality
3-year average**

*2019-21, metric tons*

- 500 - 50,001
- 50,001 - 400,000
- 400,001 - 2,929,830

Percentages (%) indicate percent of national production.

Source: IBGE - Produção Agrícola Municipal

**Figure 5. Most of Brazil's cotton is grown in two states: Mato Grosso (72 percent) and Bahia (20 percent). Source: Instituto Brasileiro de Geografia e Estatística (IBGE)**

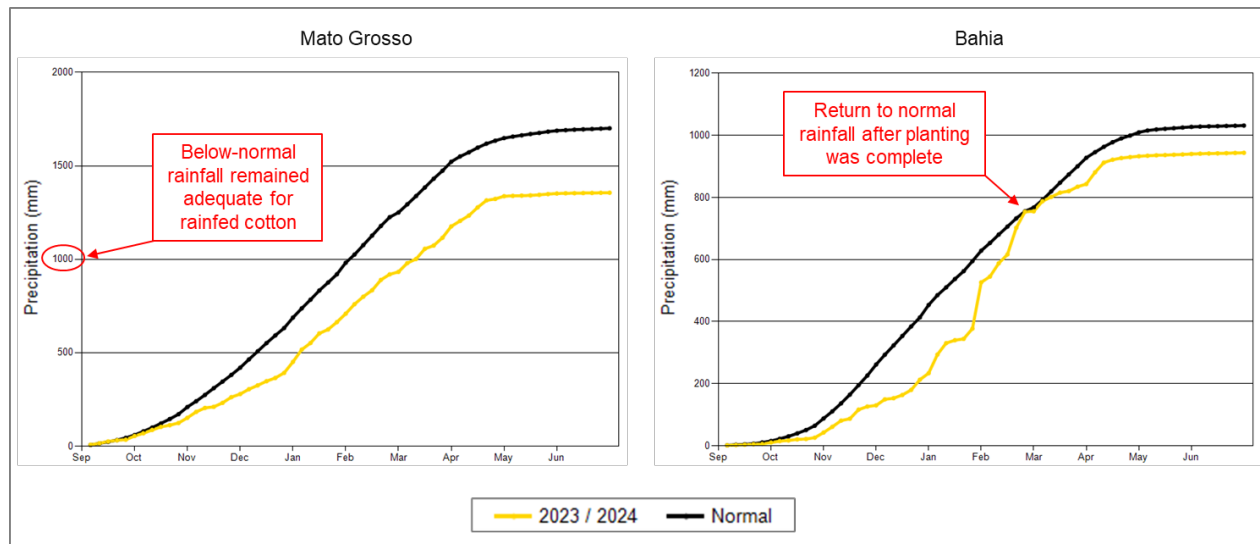# Cumulative Precipitation in Major Cotton-Growing States



**Figure 6. Cotton is mostly rainfed in Brazil, emphasizing the importance of adequate soil moisture. Precipitation in the major cotton-growing states of Mato Grosso and Bahia was below normal for most of the season. However, normal precipitation exceeds the requirements for cotton, and this season's rainfall was adequate for the crop. Source: University of California, Santa Barbara (UCSB) Climate Hazards Group InfraRed Precipitation with Station data (CHIRPS) Cumulative Precipitation; IFPRI SPAM Rainfed Cropland Crop Mask, 2010**

# Central Brazil: MODIS NDVI Difference from Normal
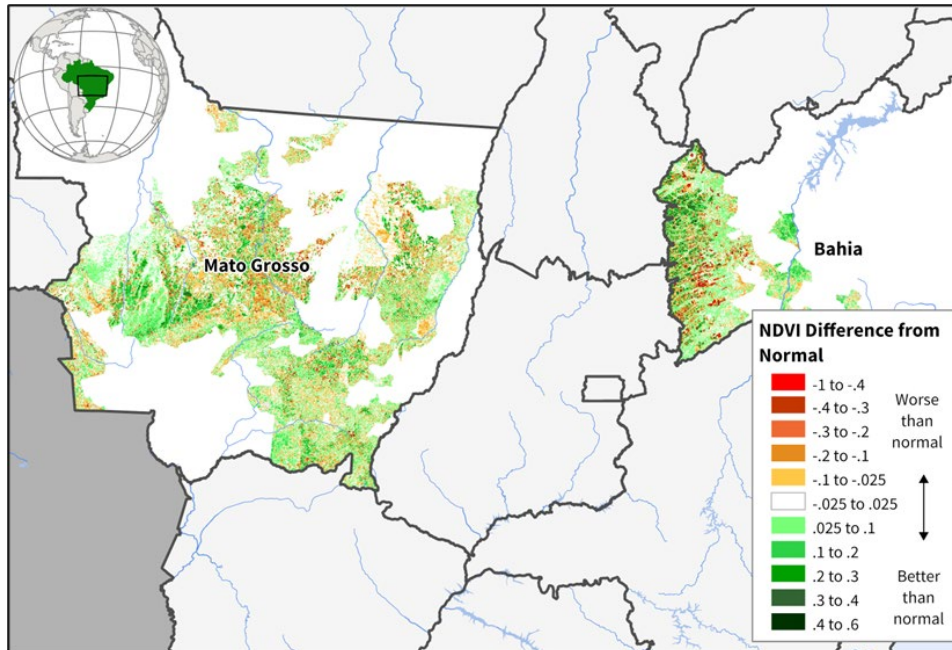*May 17 to May 24, 2023*
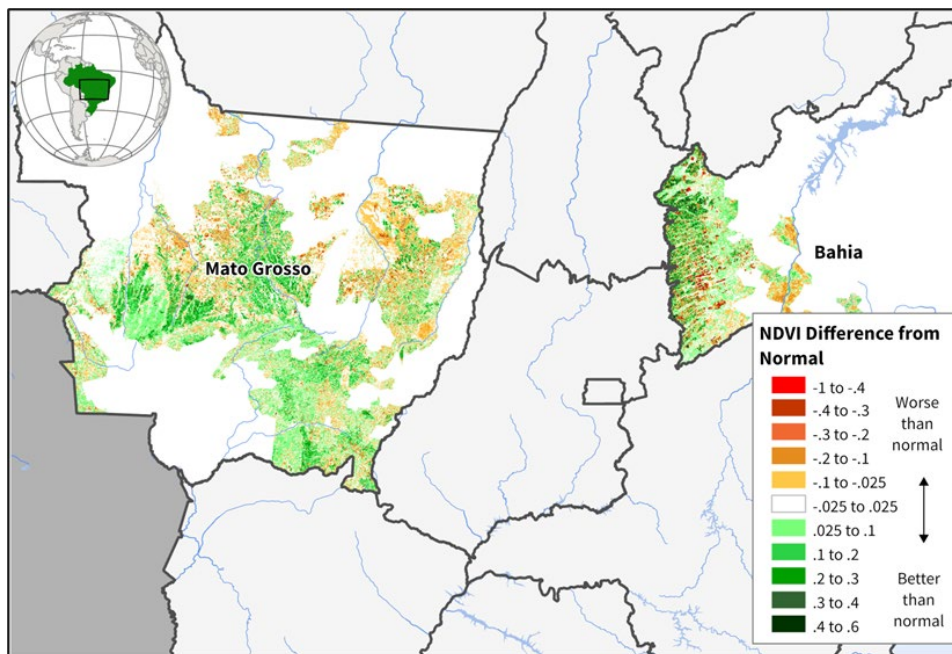


*May 16 to 23, 2024*



**Figure 7. NDVI analysis around the peak of the growing season indicates similar crop conditions in MY 2024/25 to those of the MY 2023/24 record-yielding crop. Positive crop conditions were observed in the imagery of most of Mato Grosso and Bahia, corroborating reports of good conditions from industry and government sources. Sources: NASA MODIS 8-Day NDVI Anomaly, 250m Imagery; Crop Mask based on IBGE 2021 PAM Cotton Production Statistics**

# Central Brazil: MODIS NDVI Difference from Previous Year
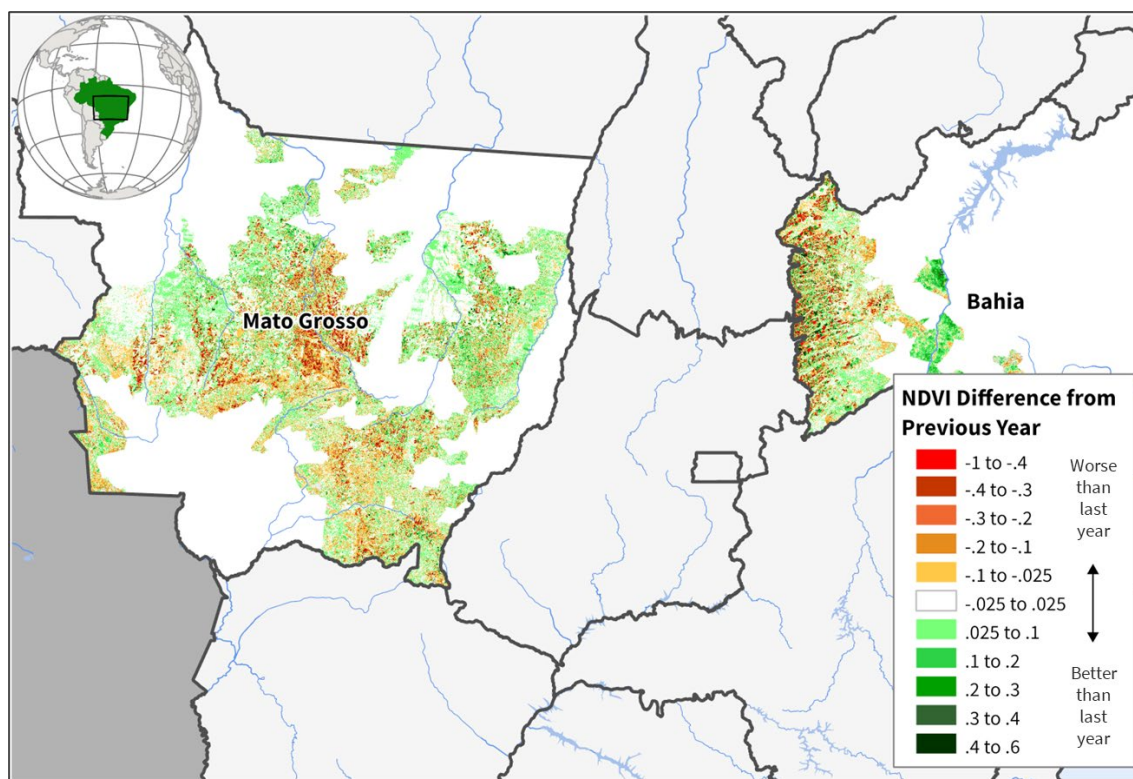*May 16 to 23, 2023 versus May 17 to 24, 2024*



**Figure 8. Despite similar, positive crop conditions to MY 2023/24 observed in NDVI imagery, comparing the differences in NDVI reveals MY 2024/25 conditions in many areas in Bahia and Mato Grosso lagged those of last year's record-yielding crop. Sources: NASA MODIS 8-Day NDVI 250m Imagery; Crop Mask based on IBGE 2021 PAM Cotton Production Statistics**

**Author contact information:**

Aaron Mulhollen
aaron.mulhollen@usda.gov

**For more information and to access FAS databases and reports please visit:**

Current World Agricultural Production Reports
https://www.fas.usda.gov/data/world-agricultural-production

Production, Supply and Distribution Database (PSD Online)
https://apps.fas.usda.gov/psdonline/app/index.html#/app/home

Global Agricultural Information Network (Agricultural Attaché Reports)
https://www.fas.usda.gov/databases/global-agricultural-information-network-gain

Crop Explorer
https://ipad.fas.usda.gov/cropexplorer/

Global Agricultural and Disaster Assessment System (GADAS)
https://geo.fas.usda.gov/GADAS/index.html