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Report Name: Cultivating Growth- The State of Sorghum Production in Brazil

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Prepared By: Marcela Formiga

Approved By: Joseph Degreenia

Report Highlights:

Sorghum cultivation is widely adapted to the climate and soil conditions of various regions in Brazil, making it appealing during seasons marked by delays in soybean planting and harvesting, reinforcing its position as a key crop in Brazilian agribusiness. The planted area and production have been increasing with each harvest, propelling Brazil to become the world's third-largest sorghum producer. In the coming years, the expansion of sorghum production is anticipated as producers explore alternative uses, enhance its application in animal feed, and establish new export agreements with foreign markets.

Sorghum as a Rotation Crop

Brazil is the third-largest sorghum producer in the world, with a forecasted production of 5 million metric tons (MMT) in 2025/26. Producers in Brazil once viewed sorghum as detrimental, fearing it would deplete nutrients needed for subsequent soybean crops. However, there is a growing acknowledgment of sorghum's positive impact on soil health - which has changed perceptions and sparked new opportunities.

Sorghum is gaining popularity among Brazilian farmers due to its impressive versatility, increasing liquidity, and financial benefits, but it remains limited. It is now considered one of the most viable options for second-crop planting because of its adaptability to varying climate conditions and its resistance to water stress, particularly in areas with limited water availability. Sorghum is highly drought-resistant, due to its fibrous root system, which minimizes water loss. Compared to other cereals, such as corn and wheat, sorghum requires significantly less water to support its growth.

Sorghum can be a profitable substitute for second season plant alternatives and has a different profit margin. The market price of sorghum ranges between 80 to 85 percent of corn's value while its production costs are 20 to 30 percent lower than those associated with second-crop corn. The reduced costs are primarily attributed to sorghum's resilience to diseases and pests, which decreases the need for pesticides and fertilizers.

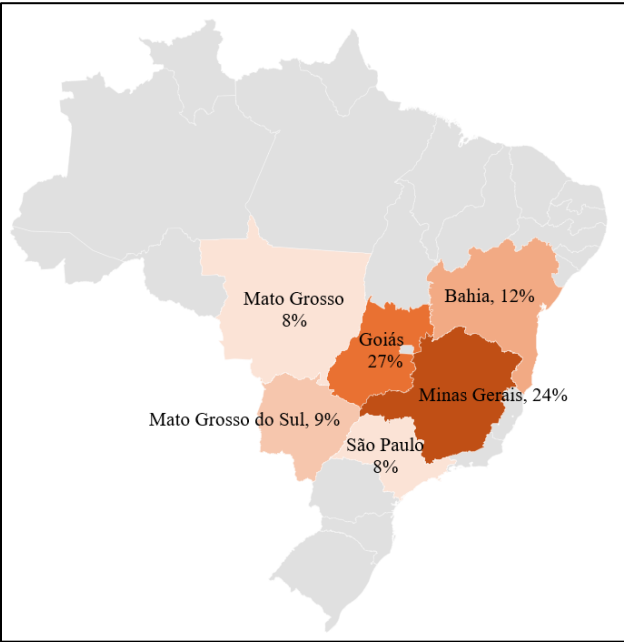
Sorghum is rotated with soybeans, cotton, and corn, making it especially useful for producers who miss the ideal planting window for these crops. This window is a period considered optimal for sowing corn immediately after the soybean harvest. Additionally, sorghum is highly adaptable to sandy soils and soils with limited fertility and acidity, resulting in compatibility for most regions in Brazil.

Slow and Steady Growing Demand

According to Brazil's National Supply Company (CONAB), in the 2024/25 harvest, sorghum planted area occupied 1.5 million hectares (ha), an increase of 6.5 percent compared to the previous period. Production is expected to reach 5 million tons (MMT), almost 12 percent above the 2023/24 harvest.

Brazil's sorghum production in 2024/25 is concentrated in the states of Goiás (27%) and Minas Gerais (24%). Bahia accounts for 12 percent of production, followed by Mato Grosso do Sul (9%), São Paulo (8%), and Mato Grosso (8%).

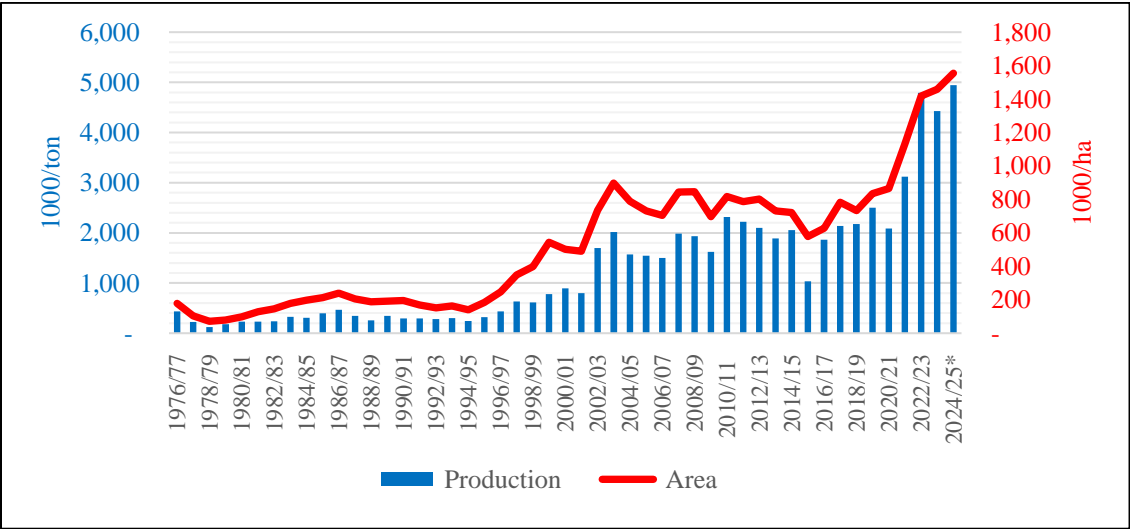
Figure 1
Main Sorghum Producing States (2024/25)



Data Source: National Supply Company (CONAB); Graph Post Brasilia

Sorghum is among the fastest growing grains in Brazil, along with soybeans and corn, which are traditionally driven by market prices. According to data from CONAB, sorghum production increased 380 percent in the last 10 years, jumping from 1 MMT in the 2015/16 harvest to an estimated 5 MMT in the 2024/25 harvest. Planted area also increased exponentially, from 600 thousand hectares (ha) in the 2015/16 season to 1.5 million hectares (ha) in 2024/25.

Figure 2
Evolution of Sorghum Production and Area in Brazil (1976 - 2025)



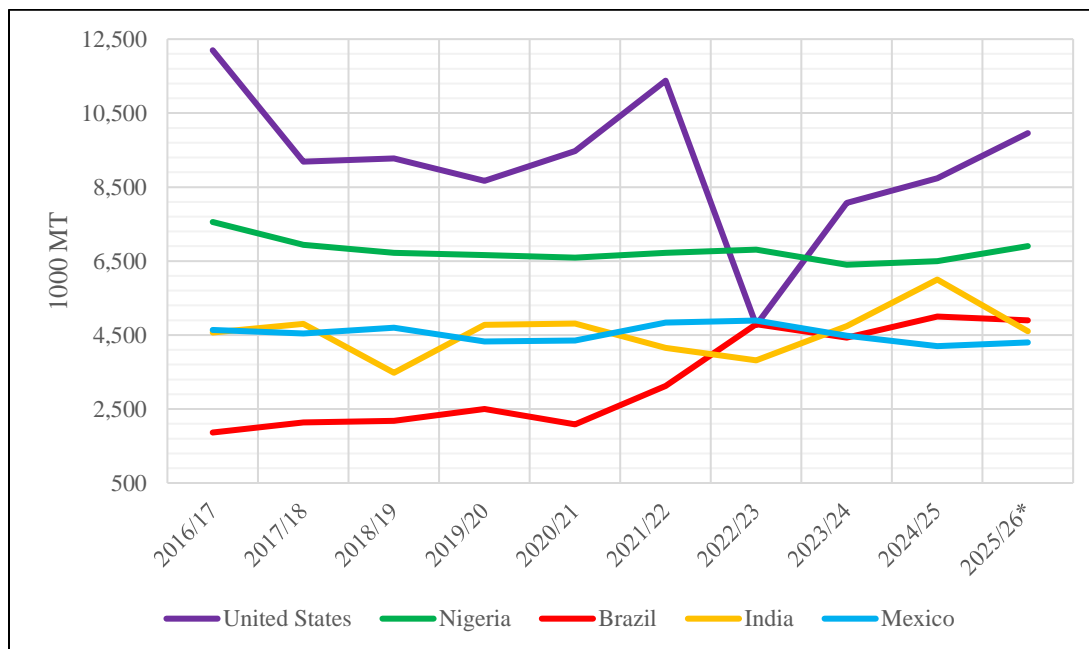
Data Source: National Supply Company (CONAB), with 2024/25 as estimates; Graph Post Brasilia

Another explanation for the growth of sorghum cultivation in Brazil is the expansion of poultry and pork production in the Cerrado region, especially in the Center-West. This increases the supply of more affordable food for livestock in these central states.

Sorghum production developed with the support of cooperatives and large buyers that use the grain in the formulation of feed, since many producers seek alternative foods for animal nutrition.

Figure 3

Main Sorghum Producers (2016 - 2025)



Data Source: Foreign Agricultural Service, Official USDA Estimates, with 2025/26 as estimate; Graph Post Brasilia

Different Types, Different Uses

Sorghum, which was previously primarily used for animal feed, has gained popularity in human diets. It is now found in a variety of products, including flour, beer, popcorn, and other foods, due to its antioxidant properties, high starch content, and gluten-free nature. The biofuel industry has also increasingly adopted sorghum. In Brazil, sorghum cultivation began in the 1970s, and five types are grown in the country: grain, forage, sweet, broom, and biomass.

GRAIN SORGHUM

The cultivation of grain sorghum in Brazil steadily increased due to its versatility and adaptability to various environmental conditions. According to the Brazilian Association of Corn and Sorghum Producers (ABRAMILHO), grain sorghum production in the country has doubled over the past four years. This growth reflects its lower production costs and greater climate resilience.

Grain sorghum is primarily planted as a second-harvest crop in most regions of Brazil. In the Center-West, Southeast, and North regions, the optimal planting times are from January to March. In the Northeast region, some states also plant between January and March, while others have planting windows from April to May. The exceptions are Maranhão and Piauí, where planting typically occurs between November and December. In the South region, the best time for sowing grain sorghum is from September to December.

Although grain sorghum is not yet commonly used in human nutrition in Brazil, efforts were made to promote its consumption, particularly in the Northeast. Post contacts noted that due to the gluten-free characteristics and antioxidant properties, various food manufacturers developed sorghum flour products aimed at launching in the Brazilian market in the coming years. In addition, sorghum traditionally uses less energy to be milled than wheat, increasing its acceptance within the milling industry.

Grain sorghum's chemical composition is quite similar to that of corn, with only a slightly lower nutritional value. As a result, it serves as an effective substitute for energy sources in animal feed, which is the primary use in Brazil.

FORAGE SORGHUM

This variety of sorghum is a highly versatile crop that is utilized in several ways, including as silage (a nutritious, bulky feed for livestock), pasture (for direct grazing by animals), and as a cover crop (to prevent erosion, enhance soil structure, and increase organic matter).

In Brazil, silage is the most common method of utilizing forage sorghum, thanks to its sprouting characteristic. This variety of sorghum adapts well to drier regions, making it an excellent energy source for animal feed, particularly because of its high digestibility. While forage sorghum has slightly lower silage quality compared to corn, this is largely offset by the greater production of green mass.

Grain and forage sorghums are the most widely cultivated types in Brazil. According to data from the Brazilian Agricultural Research Corporation (EMBRAPA), 37 percent of sorghum production is used for poultry farming, followed by cattle farming (36%) and pig farming (26%).

Furthermore, more than 80 percent of forage sorghum planted area is sown in succession to soybeans during the winter (June to August in Brazil). It is also notable for its role in crop-livestock-forest integration (ICLF) systems and for its effectiveness in rehabilitating degraded pastures, thanks to its deep root system. Both ICLF and the recovery of degraded pastures are technologies encouraged to mitigate and adapt to climate change, contributing to low-carbon agriculture.

SWEET SORGHUM

Sweet sorghum is intended to produce first-generation (derived from edible materials) ethanol, morphologically resembling sugarcane due to its bulky stalk. Unlike grain sorghum, sweet sorghum is harvested for its stalks rather than the grain and is crushed, similar to sugarcane. It is widely cultivated

in the United States mainly for syrup production, serving as a sugar substitute in various industries. In Brazil, however, sweet sorghum has not traditionally been utilized in the food industry.

Due to the increasing demand for biofuels and the need for more affordable raw materials, ethanol production from sorghum is gaining traction in Brazil. Sorghum is emerging as a profitable alternative for ethanol plants, particularly in the Center-West region, where facilities are already designed for corn ethanol. These plants require only minor machinery adjustments to process sorghum. Currently, three facilities are under construction to adopt this hybrid production model, and some ethanol plants are preparing to start producing ethanol from sorghum. Operations for sorghum-based ethanol production are expected to commence in the state of Mato Grosso do Sul in 2025. Although sorghum does not produce oil as a byproduct, it does yield distillers dried grains (DDG), a valuable protein meal used in animal feed.

BROOM SORGHUM

This type of sorghum is valued for its long, strong fibers, as well as its generally thin stalks and panicles, which make it ideal for producing high-quality brooms and brushes. Planting typically uses seeds harvested from the previous year. On average, most cultivars produce about 1.5 tons of dry matter per hectare, with straw lengths ranging from 40 to 60 centimeters. Currently, broom sorghum faces several disease issues, leading to a decrease of cultivation in Brazil.

BIOMASS SORGHUM

Biomass sorghum is a variety that gained prominence globally as an alternative to wood to produce second-generation (derived from non-edible materials) energy. This crop can reach heights of up to six meters and mature in as little as 180 days, potentially enhancing energy security in regions with a shortage of wood. However, the research and development of this crop in Brazil require ongoing and substantial investment in technology to fully realize its potential.

Although biomass sorghum offers a more viable alternative to wood, persuading Brazilian producers to embrace its adoption has proven difficult. Adopting biomass sorghum would require producers to replace their annual high-value crops, such as soybeans, corn, and cotton, with a crop that still demands further research and investment.

Additionally, the high moisture content and low density of biomass sorghum complicate its use in Brazil. These characteristics hinder transportation and combustion, affecting logistics and storage. One of the solutions explored by EMBRAPA in Brazil is the compaction of this biomass into pellets, along with the utilization of varieties with high yield, growth, and resistance to diseases and pests. This approach offers significant opportunities for industries seeking to diversify energy sources while strengthening their energy security.

Biomass sorghum has also been investigated for its potential to aid in the regeneration of degraded pastures, which is one of the greatest challenges facing Brazilian livestock farming. EMBRAPA is developing technology that utilizes biomass sorghum intercropped with forage grasses to improve soil

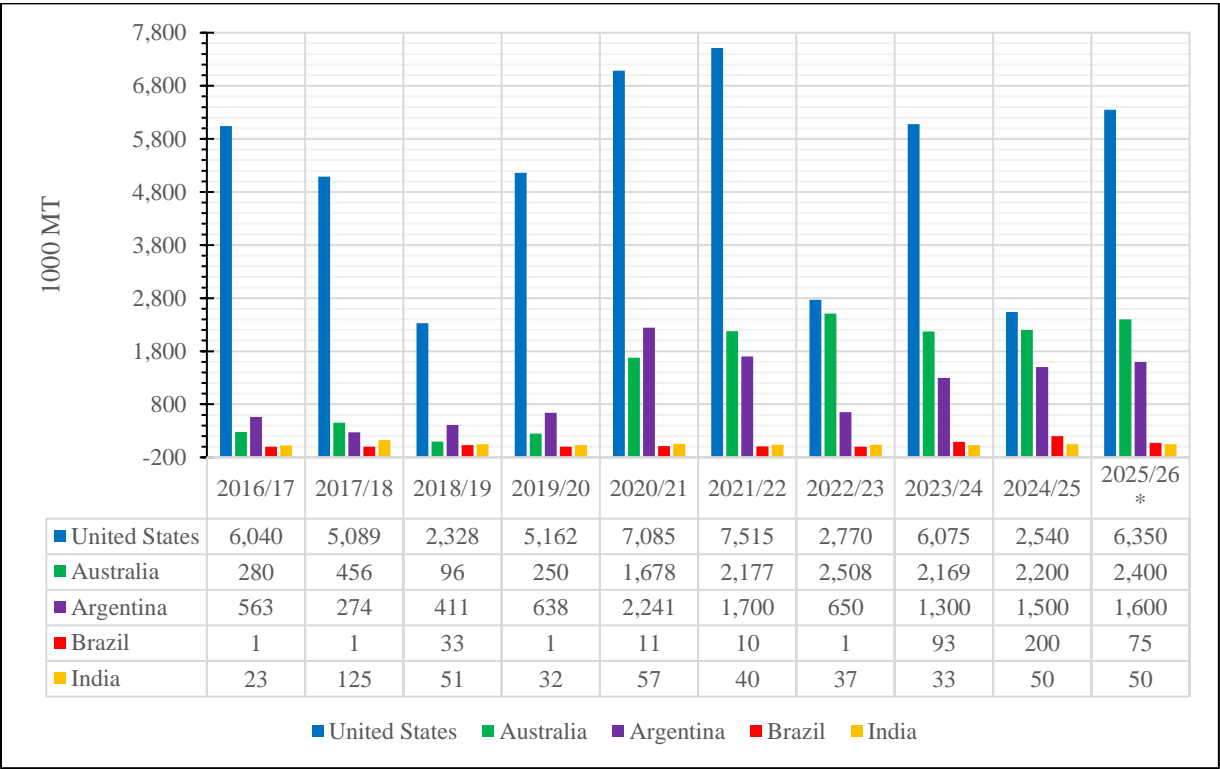
acidity and fertility, thereby increasing the capacity and productivity of pastures without the need to clear new areas. The forage produced can be used for silage, serving both as animal feed and for commercial purposes. After the harvest period of 45 to 60 days, the pasture can be renewed, demonstrating high potential for stocking and animal productivity.

Limited Trade

Brazil's sorghum exports are quite minimal, as most of the country's production is consumed by its domestic livestock and poultry industry. In 2024, Brazil exported nearly 180,000 tons of sorghum, whereas neighboring Argentina exported 1.2 million tons annually. The majority of Brazil's sorghum exports in 2024 went to South Africa (94%), and Spain (5%).

To boost its exports, Brazil recently signed an agreement with China to export Brazilian sorghum to that country. This deal comes at a time when American sorghum exports to China have significantly declined. The United States exported 2.5 million metric tons (MMT) of sorghum to China from January to April 2024, but this figure dropped to 315,000 metric tons during the same period in 2025.

Figure 4
Main Sorghum Exporters (2016 - 2025)



Data Source: Foreign Agricultural Service, Official USDA Estimates, with 2025/26* as estimate; Graph Post Brasilia

Additionally, Brazil's sorghum imports have also been low, totaling approximately 35,000 tons in 2024, most of which came from Paraguay.

With the potential for long-term sorghum cultivation throughout Brazil, increasing production is not expected to be a challenge for the country. Producers are becoming more aware of sorghum benefits for soil health and its role in the widely adopted crop rotation system. Once viewed as a problematic crop, sorghum is now recognized as an important grain that helps clean and nourish fields, offering various end products at lower production costs and providing good financial returns.

However, Brazil's ongoing infrastructure and logistics challenges, which require substantial investments, may play a critical role in determining the future size of the country's sorghum production chain. With the introduction of new varieties that enhance the quality and productivity of Brazilian grains, Brazil has the necessary tools to increase its presence in the international market.

Attachments:

No Attachments.