

Foreign Agricultural Service Global Market Analysis International Production Assessment Division Web: https://ipad.fas.usda.gov

## Commodity Intelligence Report

## Guyana Rice: Production Ties Record due to New Varieties

Guyana rice production has overcome past inefficiencies and difficulties to develop a staple food industry that pulls in sizeable export returns to the country. In 2020, the rice market generated over US\$238 million from rice sales. Despite the pandemic this past season, Guyana improved export sales by 13 percent over the previous season. The 2020/21 Guyana rice crop climbed to a near-record harvested area due to better variety selection, redesigned water management practices, and improved drainage. The harvested area from both rice crops in 2020 was 187,000 hectares (ha), an increase of 5 percent over the previous season and 13 percent above the 2018 season. Estimated yield for 2020 was 4 percent below that in 2019 due to less timely rainfall, and less than 1 percent below the 5-year average. Rough and milled production in 2020 was equal to that in the record production season of 2015/16 (Figure 1) and above that of 2016 through 2019. Production was 1 percent above that in 2019 and 9 percent above the 5-year average.

Several rice regions exist in Guyana with the largest production along the coastal belt (Figure 2). With two crops annually, the first crop is planted late in the calendar year into January and harvested in March through April. The second crop is sown from April to June and cut in September through October (Figure 3). In 2019, the second crop did exceptionally well, slightly better than the first crop, but in 2020, the second crop was less than the production and yield from the 2020 first rice crop.

Rice production is an important crop in Guyana. Just over six thousand farmers produce rice in Guyana. With 43 licensed rice millers and 22 registered exporters, the crop accounts for over 3 percent of the country's Gross Domestic Product (GDP) and over 20 percent of the agricultural GDP.

Improvements in the rice industry have been helped with the strong program implemented by the Guyana Rice Development Board (GRDB) to develop, test, and release new varieties. One recently released variety, GRDB16, was documented as having the potential to produce up to 9 tons of rice per hectare. The variety can maintain greenness throughout the season while not lodging as much as other varieties. The ability to emerge even through 9 inches of standing water further improves the potential for better stands while improving weed control. Taking only 110 days to maturity, the variety will likely be used more in 2021. Other new varieties are in the pipeline for Guyana, which should continue improvement of rice yields and production. Improved agronomic practices have also encouraged better paddy cultivation. Working with soil management through soil testing, land management, plant timing, seed management, balanced fertilizer nutrition, water management, integrated weed control, and integrated insect and disease management all have helped farmers to enhance yields and the quality of rice crops. Specifically, when using the new GRDB16 in Guyana, farmers have noted better stands when sown between November 15 and December 31 for first crop rice and when sown between May 15 and June 30 for second crop rice, as maximum sunlight is then available during each crop's flowering and grain filling stages.

Results are better if the rice is sown after three days of any intense land preparation and if certified seed sources are used, according to research in Guyana. Treated seeds are being used to reduce problems with water weevil and leaf miner infestations by using the seed treatment fipromil, as suggested on the label and before seed germination is initiated. Efficient water management is needed to help stand establishment and to provide better weed control. Roguing of fields, not only of weeds but of any other rice varieties, is important to produce a crop of pure seed. Nutrient management for soils is based on a chemical soil analysis to optimize plant stands and plant development.

Harvest is approximately 110 to 112 days when using the new variety, preferably at a grain moisture of 18 to 22 percent for better storage, the best milling quality, and for seed with better germination and crop vigor. Once harvested, reduction of grain moisture to less than 16 percent within 24 hours will further ensure better seed quality and grain preservation.

Guyana farmers are handling disease and pest management through proper spraying dates, use of clean and disease-free seed, avoiding excess nitrogen fertilizer, avoiding water stress, and practicing good field sanitation. Scouting and applying needed fungicides or insecticides are essential for better crop development and yield potential, with the chemicals being applied in a timely and accurate way as suggested by the Guyana Rice Development Board.

Improvements in farmers' investments in the rice industry in Guyana and in that of the government have improved the output and the ability of the country to compete in the world rice market. Due to continued improvements in rice varieties, production practices, and milling efficiencies, Guyana continues to be a strong competitor in the world's export market for rice.



Figure 1. The area harvested, milled production, rough production, and yield over the last decade for Guyana rice. Source: USDA PSD.



Figure 2. Location of the major rice growing regions in Guyana. The main rice production is along the coastal boundaries. Source: Guyana Rice Development Board.



Figure 3. The first and second rice crop calendar as compared to the soybeans grown in Guyana. Source: FAO/GIEWS information.

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