



Locality: CANDEIAS-MG

Data: 22/04/2024

Coffee Farmer: AGROPECUÁRIA SÃO PEDRO

## MORRO ALTO ESTATE

### VISIT REPORT

Candeias is a Brazilian municipality in the state of Minas Gerais, covering an area of 720.67 square kilometers, located in the Campos das Vertentes region. Due to its high altitude, around 991 meters, the municipality has stood out as a producer of fine coffees, which is its main agricultural activity. It has an altitude ranging between 800 and 1,100 meters above sea level and good rainfall between 1,300 and 1,400 mm annually. The vegetation of the municipality consists of cerrado (savannah) and cerrado fields, with small patches of Atlantic Forest. It possesses good physical qualities such as topography, texture, and structure. The lands originally covered by the Atlantic Forest are naturally fertile but have rugged terrain. Its coffee plantation spans 6,035 hectares with an average annual production of 200 thousand sacks.

The property belongs to the J.Mendes Group and is managed by Agricultural Engineer Rodrigo Almeida, the group's Agribusiness manager. The farm sits at around 1,000 meters altitude and spans approximately 1,000 hectares, with 300 hectares dedicated to coffee crops, 223 hectares as legal reserve, 50.29 hectares as permanent preservation areas, and the remainder as structures and pasture areas for cattle. Currently, they hold two certifications in coffee production, Rainforest Alliance and Certifica Minas Café. Their current average productivity is around 32 sacks per hectare..



The majority of the planted area consists of Catucaí cultivars, which exhibit moderate resistance to coffee leaf rust, providing a great strategy in disease control and minimizing the use of agricultural chemicals. During our visit to the plantations, we observed good health and adequate nutrition. Annual foliar and soil analyses are conducted, weed control is managed through mechanized mowing and chemical herbicides, and organic coffee husks are returned to the plantation as fertilizer. Currently, they receive assistance from Agricultural Engineer Adriano Rezenda from the Minasul cooperative.

Since the planting of the crops, they have opted for cultivars that enhance beverage quality, are more productive, and are resistant/tolerant to diseases. This practice optimizes land and resource use, as reducing the use of chemical inputs increases profitability within the same area, minimizing the need to open new areas, which could be directed towards fauna, flora, water, and



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soil conservation. Another excellent practice on the farm is the use of Brachiaria grass in the inter-rows for greater soil protection.

Among the highlighted positive points, we can mention the organization and care in post-harvest coffee processing. They prioritize the cleanliness of structures and equipment, as well as daily traceability of coffee lots, separating the volumes harvested per plantation each day. They plan to expand their coffee storage facilities for better lot control and modernization of the dryer transportation system to storage. The post-harvest structure is modern and allows the separation of coffee from the plantations into four types: cherry, green, dried, and floaters, resulting in greater lot homogeneity and consequently higher final coffee quality.

In terms of environmental aspects, they focus on protecting springs through conservation and tree planting around them, as well as soil and water conservation through wells and soil protection by plants in the inter-rows. Additionally, coffee was planted respecting the terrain level.

In conclusion, among the various attributes required in the sustainability report, we can consider it satisfactory, as a large part is met, always requiring attention and adaptation to the constant changes in technical, environmental, and social aspects of agriculture in our country. Below are points to be observed and actions to be taken:

### ENVIRONMENTAL PILLAR

**Windbreak Use:** Although there are trees nearby, it is recommended that windbreak planting be included during coffee plantation renewals. This measure reduces the impact of winds on coffee plant leaves, reduces hail impact, fungal diseases, and increases producer revenue through intercropping with crops such as avocado and banana.

**Organomineral Fertilizers Use:** Although they return coffee husks to the plantation, it is recommended to also adopt the use of organomineral fertilizers, which promote greater sustainability in agricultural production by reducing the use of chemical fertilizers by up to 30%. Additionally, they contribute to carbon replenishment, with a cumulative effect over the years where the farmer adds this carbon to the soil, which also improves fertility levels and the presence of beneficial microorganisms.

**Biological Products Use:** Increasing the use of biological products, including different products such as bioinsecticides, bionematicides, and phosphorus solubilizers. The use of biological products in agriculture contributes to the balance of agricultural systems and promotes the preservation of



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insects of interest, such as natural enemies of pests and bees, which are currently threatened in various regions of the planet.

**Photovoltaic Energy:** Study the implementation of an energy production plant. It is important to mention that solar energy has several advantages: environmentally, as a renewable energy source that does not pollute, with a lifespan of approximately 25 years. Economically, it reduces electricity bills by 90%, providing a return on investment in around 5 years and requiring minimal maintenance.

Below are some images that highlight our visit.

### Biodiversity and Conservation





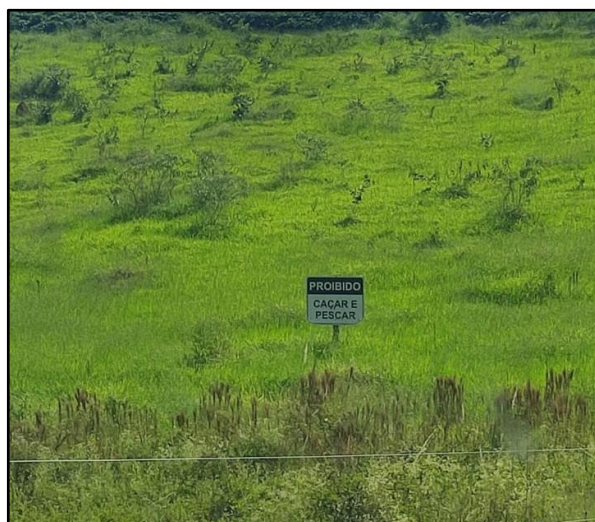


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### Soil and Nutrient Management







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### Crop Protection



### Agrochemicals







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Health, Well-being, and Safety





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### Water Management and Conservation







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Coffee Processing Area







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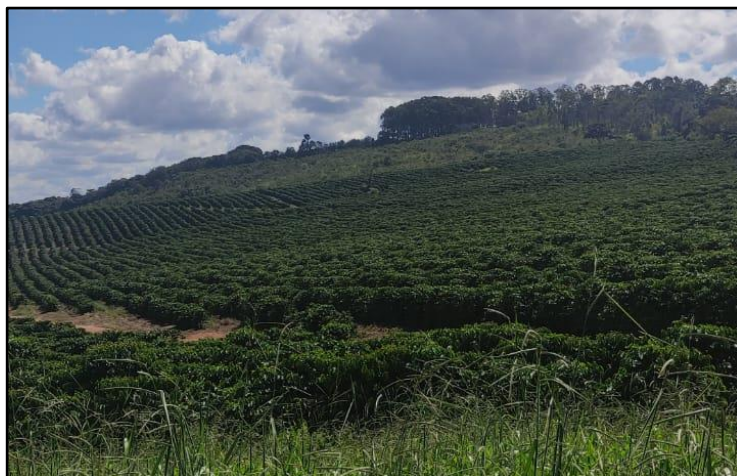
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### More Pictures from the Visit



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