



🏠 Locality: Santana de Caldas (Caldas-MG)  
📅 Data: 12/03/2024  
👤 Coffee farmer: EDVAIR JOSÉ DE CARVALHO

# MARANHÃO PETITE ESTATE

## VISIT REPORT

Caldas is a Brazilian municipality in the state of Minas Gerais, located in the Immediate Geographic Region of Poços de Caldas, in the southern part of Minas. It covers a total area of 712 km<sup>2</sup>, with an average altitude of 1270 meters. The terrain is predominantly hilly to mountainous, with mild weather almost all year round. Its coffee-growing area spans 1311 hectares, which has seen considerable growth in the past 8 years, particularly among small-scale family producers focusing on specialty coffee.



Mr. Edivair and his family own a property in the area of Santana de Caldas, with 6 hectares of coffee, 5.5 of which are already in production. Previously, Mr. Edivair leased a property and, with the profits from a few harvests, acquired his own land, where they now operate. While their average productivity is close to the regional average, their main focus is on quality.

The coffee farmers receive assistance from various professionals: technical support from Acácio at Cooxupé, management guidance through the AteG project by SENAR MG, sustainability advice from Livia at Cooxupé's Generations Project, and quality and post-harvest support from Felipe at SMC. The proximity and presence of Cooxupé on the property are significant, as they exclusively market 100% of their production through the cooperative, either via the common platform or through SMC, dedicated to specialty coffees.

In terms of technical aspects, the crops show good health and adequate nutrition. The farmer conducts annual foliar and soil analyses, controls weeds with chemical herbicides and manual mowing. As part of modern soil conservation practices between rows, the farmer already uses a



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mix of plant seeds beneficial for nutrient recycling, soil protection, increased green mass, and attraction and protection of natural pest enemies.

At present, the farmer does not use biological products, which would contribute to a more sustainable management. We advise the use of biological pesticides on leaves and biological nematicides and fungicides in the soil. The use of biological products in agriculture contributes to the balance of agricultural systems and promotes the preservation of insects of interest, such as natural enemies of pests and bees - currently threatened in various regions of the planet.

Regarding organic fertilizers, coffee husks are returned to the field, but another important point would be to start replacing chemical fertilizers with organominerals. The use of organomineral fertilizers promotes greater sustainability in agricultural production by reducing the use of chemical fertilizers by up to 30%. Additionally, they contribute to carbon replenishment in the soil, with a cumulative effect over the years, improving fertility levels and the presence of beneficial microorganisms.

The farmer also mentioned that as they renew their crops, they opt for cultivars that improve beverage quality and/or are more productive and disease-resistant, optimizing area and resource use. This reduces the need for chemical inputs, bringing greater profitability to the same area and minimizing the need to open new areas, which could be directed towards conservation of fauna, flora, water, and soil.

For better coffee quality, the farmer uses a washer/separating machine and pays extreme attention to the hygiene of their cemented drying patio to ensure nothing compromises the beverage quality.

Although there is no permanent preservation area (APP) due to the property's size being below 4 fiscal modules, which is the minimum area required for conservation, the family is concerned with conserving hilltops and springs.

In conclusion, among the various attributes required in the sustainability report, we can consider a satisfactory level, with much of it being met, always requiring attention and adaptation to the constant changes in technical, environmental, and social aspects of agriculture in our country.

Below are some key points and actions to be considered:

### 1. ENVIRONMENTAL PILLAR



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- **Forest Reserve and PPAs:** Although Brazilian Forest Code exempts properties below 4 fiscal modules from having registered forest reserves, it's important for coffee growers to understand the importance of preservation. We recommend avoiding new coffee areas on hilltops and APPs, and considering transforming currently exploited or future areas into forest reserves. It's also crucial to protect water sources by planting more trees near water infiltration areas and fencing to prevent entry of people and animals.
- **Use of organomineral fertilizers:** Despite returning coffee husks to the soil, we recommend adopting organomineral fertilizers for greater agricultural sustainability, reducing chemical fertilizer use by up to 30%. They also contribute to carbon replenishment, improving soil fertility and beneficial microorganism presence over the years.
- **Use of biological products:** Increasing use of biological products like bioinsecticides, bionematicides, and phosphorus solubilizers contributes to agricultural system balance and preserves beneficial insects and bees, which are threatened in various regions.
- **Pesticide storage:** Expand or build a new storage facility, ensuring space compatible with the maximum volume of products to be stored and allowing personnel circulation. Install a ventilation system to renew internal air according to legal requirements, ensure good lighting for easy reading of labels, and install an emergency shower and eye wash near the pesticide storage area for easy access by operators, ensuring no splashes reach the stock. Pesticide containers should be stored at least 50 cm away from walls, solid products placed above liquid/pasty ones, and enough equipment and materials on-site to handle spills. Improper products (expired, banned, damaged packaging, etc.) should be stored separately and returned to manufacturers with appropriate notification to the competent authority.
- **Waste separation:** Proper waste separation is crucial for environmental preservation, avoiding recyclable materials ending up in landfills. We recommend starting with organic and dry waste separation, then implementing separation by material type.

## 2. SOCIAL PILLAR

- **Sanitary and Comfort Conditions in Rural Work:** Despite the property's small size and proximity of crops to the headquarters, it's essential to provide easily accessible structures for employees, supplying potable water for meals, rest, and personal hygiene (bathrooms). These areas are crucial for the well-being and comfort of workers.





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Coffee Processing Area



Coffee Processing Area





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Storage of agricultural pesticides



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Coffee washer





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Coffee washer



Raised coffee drying



Informational sign  
totem





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Flávio Meneses Soares  
Responsible Agronomist Engineer  
CREA: 14946D