



Locality: Nepomuceno MG

Data: 01/04/2024

Coffee farmer: Ricardo Reis Villela e Alexandre T.Vilela

Refazenda Petite Estate

VISIT REPORT

Nepomuceno is a Brazilian municipality in the state of Minas Gerais. It is located in the Immediate Geographic Region of Lavras, with a total area of 582.553 km². It has a hilly to mountainous terrain and is in the transition zone between the cerrado and Atlantic Forest biomes. Its average altitude is 920 meters. It boasts one of the largest coffee estates in the region, covering an impressive 13,823 hectares, with an annual production of 380 thousand sacks and an average productivity of 29 sacks per hectare.

The farm is managed by Alexandre and his sister. He is an agronomist engineer with the primary goal of sustainable coffee production, in an agroecological manner, while respecting the environment. Initially, the farm belonged to their grandfather, and after his passing, it was divided, and they took over its administration. Currently, they maintain a list of trees present on the property, with emphasis on those threatened with extinction. They preserve watercourse springs and the fauna in the 38 hectares of legal reserve and APPs.

They currently have 20 hectares in coffee crops and use various strategies for good management. One of them is planting brachiaria grass in the inter-rows, aiming at soil management and conservation, minimizing the use of herbicides. They also use biological products on the property, aiming to contribute to the balance of the agricultural system, increasing the preservation of insects of interest such as natural enemies of pests and bees - currently threatened in various regions of the planet. The farm also has a photovoltaic energy plant, It's important to note that solar energy has several advantages: environmentally, it's a renewable energy source, doesn't pollute, and has a lifespan of approximately 25 years. Economically, it reduces the electricity bill by 90%, bringing a return on investment in around 5 years and requiring minimal maintenance.

Below are points to be observed and actions to be taken:

ENVIRONMENTAL PILLAR

Windbreak Use: Although there are nearby trees, it is recommended that windbreaks be planted when renewing coffee crops; This measure reduces the impact of winds on coffee plant leaves; Reduces the impact of hail rain; Reduces fungal diseases, which have a higher infestation due to leaf injuries; Increases the producer's revenue through intercropping between coffee and crops such as avocado and banana. These two fruit trees are excellent windbreaks, already used.

Use of Organomineral Fertilizers: Although they return coffee husks to the fields, we recommend adopting the use of organomineral fertilizers, which promote greater sustainability in agricultural production, as their use reduces the use of chemical fertilizers by up to 30%.



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Additionally, they contribute to carbon replenishment, with a cumulative effect over the years, improving fertility levels and the presence of beneficial microorganisms.

Pesticide Depot: Expansion of the depot or construction of a new one, ensuring space compatible with the maximum volume of products to be stored and allowing the circulation of people; Implementing a ventilation system that guarantees air renewal inside, naturally, mechanically, forced, or mixed, according to legal requirements; Ensuring good lighting of the environment that allows easy reading of labels and product identification; Installation of an emergency shower and eye wash station near the pesticide storage area, so that operators have easy access; but ensuring that when they are operational, splashes do not reach the stock; Pesticide packaging should be stored away, at least 50 cm from the walls; Solid products are positioned higher than liquid/pasty products; In the storage area, maintain a set of equipment and materials in sufficient quantity to meet spills of products (absorbent materials such as sawdust, etc.); Unfit products for use (expired, banned by inspection, damaged packaging, etc.) will be stored in a specific and separate location, to be returned to the respective manufacturers, with the appropriate communication to the competent authority.

Waste Separation: Correct separation of waste makes all the difference in environmental preservation, as it prevents many recyclable materials from ending up in landfills or dumps. Some waste generated in homes is considered dangerous and for this reason, should not be mixed with others. As a tip, we recommend starting by separating organic waste from dry (recyclable) waste and then implementing separation by types of material.

SOCIAL PILLAR

Sanitary and Comfort Conditions in Rural Work: Despite the proximity of the crops to the headquarters, it is essential to have structures easily accessible to employees, providing drinking water, for them to have their meals, rest, and also for personal hygiene (bathrooms). Such areas are extremely important for the well-being and comfort of workers.

Training: Continuously train employees, enabling them to master updated technology and manage their own work, so that they achieve the desired productivity and remain in work/employment. Training contributes not only to the personal and professional fulfillment of the worker but also favors an improvement in the quality of life and the full exercise of their daily activities, with economic and social gains.

In conclusion, among the various attributes required in the sustainability report, we can consider it very satisfactory, but attention and adaptation to the constant changes in the technical, environmental, and social aspects of agriculture in our country are always necessary.



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Below are some images that highlight our visit and the attributes addressed.





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