

Datanli El Diablo Smallholders

Nicaragua

Farm(s): 18 smallholder producers
Region: El Arenal Natural Reserve, Isabella Mountain Range, Jinotega
Country: Nicaragua
Association: Sajonia Estate, Campesinos Coffee Collection
Altitude: 1250-1680 masl
Variety: Catimor, Caturra, Parainema, Maracaturra, Catuai Rojo, Marsellesa, Maragogype, Java
Process: Washed. Wet milled, dry fermented for 15 hours and naturally sun dried

The *Campesinos Coffee Collection* is a social and environmental initiative that was established by Sajonia Estate in 2018. This project exists as an alliance between smallholder coffee growers located around areas of Nicaragua's national reserves, Sajonia Estate, the Nitlapan UCA Research and Development Institute and the Local Development Fund (FDL). The primary goal of *Los Campesinos Coffee Collection* is to find and maintain direct markets for smallholder producers, creating a fair, quality-driven payment system that directly benefits farmers and their families. This is achieved in partnership with on-the-field support and pre-financing programmes for farmers, promoting sustainable production of coffee in Nicaragua's protected environments.

Within the project there are five regional brands each representing coffee grown by smallholder farmers communities living within each area of natural reserve, located nearby Jinotega and Matagalpa. These brands are named after the reserves themselves and each represents the surrounding ecosystem, the growing community, their coffee profile and community values. Sajonia Estate have established agencies, or collection stations, nearby each reserve to provide easy access for producers to deliver their coffees and retrieve support and assistance. These are used as hubs for nearby farming communities and a platform for providing in-the-field assistance, training and support, pre-financing and access to post-harvest processing and drying infrastructure and external markets. The objectives of the *Campesinos Coffee Collection* are to create harmony between Nicaragua's diminishing ecosystems and coffee farming, strengthening the local environment, community, and economy.

Datanlí-El Diablo is named after the Reserva Natural Cerro Datanlí-El Diablo. The 100 square metre protected reserve is situated in the Isabella Mountain range that sits in-between the eastern side of Jinotega and Matagalpa, in the north of Nicaragua. Its steep mountainsides, tropical cloud forests and fertile soils climb from the edge of Lake Apanás, to the heights of the mountains of Cerro Datanlí. The reserve is renowned for its biological diversity as well as its socio-cultural and environmental significance to the 300 families who occupy the area. Despite its environmental and cultural importance, the Datanlí-El Diablo is going through a period of deforestation and soil degradation and is currently considered an ecosystem that is in danger of extinction. Smallholder producers in the region, however, understand the importance of preserving the land and are collectivising alongside partners like Sajonia Estate to protect the reserve from further damage through considered cultivation of coffee in harmony with the natural environment. The microclimate, resilient ecosystem and fertile clay soils in Datanlí-El Diablo provide excellent coffee-growing conditions, whilst the cultivation of shade-grown coffee is a preferred crop to support productivity, while reforesting and nourishing the soil.

Sajonia Estate have three primary coffee collection agencies that cater to smallholder coffee growers in Datanlí-El Diablo. These are in Pantasma, Pueblo Nuevo and Jinotega. Currently there are 18 farms delivering their coffee to these agencies, each with an average of just 2.72 manzanas of land, around 1.9 hectares producing 25-30 quintales, roughly 1125 to 1350 kg, of coffee each year. These farms are scattered throughout the region which are owned by families who manage the plantation, hiring a small number of workers to assist during harvest. Like most coffee in Nicaragua the coffee grown within Datanlí-El Diablo is predominantly shade-grown, which typically covers around 70% of the farm. With an average rainfall of 158 mm per year and temperatures averaging between 29C-16C the growing conditions are ideal for coffee. A tropical cloud forest climate creates high humidity within the reserve, so it is important that farmers do not utilise too much shade, which will trap moisture and promote disease within the coffee. The shade trees, which are either native trees or subsistence crops, provide sun protection, prevents soil erosion, strengthens ecosystems, and creates resilient nutrient and water cycles on the farms. On average 85% of the farms throughout the reserve is cultivated with coffee, with the remaining land being left as either natural forest environments or used to grow subsistence crops. Each farm averages around 2520 trees per hectare, with shade trees like banana and pine, and subsistence crops such as corn, legumes, beans and cacao which are grown alongside coffee to help the farmer with additional food or sales revenue. Although the forest provides a quality

growing environment, coffee does require some fertilizer application. This usually takes form in a blend of a 20-5-20 formula of nitrogen, phosphorus, and potassium, with the addition of Nitro-Xtend to help protect soils against nitrogen loss and the fungicide Amistar. These agronomical inputs are supplied to producers by Sajonia's fieldworkers at an affordable price.

There is a range of varieties grown throughout the reserve. Catimor, Caturra, Parainema, Maracaturra, Catuai Rojo, Marsellesa, Maragogype and Java are the typical varieties cultivated. These varieties are separated throughout the production process to create unique regional microlots and create increase quality premiums for producers. During harvest coffee is selectively picked by families and a small team of additional workers. Workers are usually provided with transport to and from the farm at the start and end of each week, with free accommodation and meals each day. Pickers are paid by the *lata*, which is a local measurement volume of 10" x 10" x 12.5" that equates to around 20 litres, or 14kg of cherry. Harvesting consists of selective handpicking by lot, separated by variety, which is then delivered to the house for processing on the farm's micro mill. Once picked, coffee is sorted, washed, pulped and dry-fermented for around 15 hours before being washed again and sent for drying. Mostly coffee is dried at the farm on patios until moisture content reaches 12%, however some producers also have raised beds or drying tunnels. Once dry coffee is then transported to Sajonia's nearest collection point, a journey which takes no longer than 45 minutes, before making its way to Sajonia Estate in Matagalpa. Coffee is delivered to agencies by public or private transport in *quintales*, which are 100lb bags, or around 45kg of parchment. Upon delivery, coffee is analysed on variety, quality and humidity. Farmers receive an initial payment on delivery of coffee which, at the time of our visit, was 1617 Cordobas per quintal. Following the sale of their coffee, however, growers receive an additional payment which varies depending on quality.

As humidity is high in the tropical cloud forests and rainfall often unpredictable it is sometimes hard for producers to adequately dry their coffee. On these rare occasions coffee is delivered in the morning to the agency as wet parchment, who then transport the coffee to Sajonia Estate for drying the same day. Once coffee arrives at Sajonia Estate quality is again checked and coffees are cupped, scored and assigned accordingly either as a regional blend or a micro lot. Sajonia have developed their own software traceability system which they can input quality analysis that is available to producers. This process provides real-time information for farmers and agronomists to help create immediate feedback for reactive decision-making, improving consistency and quality during harvest, enabling smallholders to maximise their potential and, therefore, revenue. Recently poor coffee prices, a lack of available credit, costly transport costs and a lack of labour have created challenges for coffee producers in Nicaragua's areas of natural reserve. Sajonia's Campesinos Coffee Collection project aims at providing growers with solutions to these challenges, whilst contributing positively to the environment.

