

COURSE REPORT

SUSTAINABLE PRODUCTION IN THE CANTAREIRA SYSTEM – DAIRY PRODUCTION CHAIN

ELTI-IPÊ Focal Training Site

Nazaré Paulista, Piracaia & Bragança Paulista, Brazil

June 12, 19 & 26 – 2019

A field course organized by:

The Environmental Leadership and Training Initiative (ELTI), the Faculty for Environmental Conservation and Sustainability of the Institute of Ecological Research (ESCAS-IPÊ) and the *Semeando Água* Project.



Photo: Tiago Baccarin

Participants of the “Sustainable Production in the Cantareira System.”



Background

The Cantareira system is one of the largest water supply systems on the planet. It provides water to nearly nine million people in São Paulo state, covers 230,000 hectares and captures 44,200 liters of water per second. As part of the Atlantic Forest, the Cantareira system houses several endangered species and is a biodiversity corridor and a priority area for conservation actions. Despite its important role in water production and biodiversity conservation, the land use in the region is often inadequate. Only about 43% of the region consists of native forest. The other land uses comprises 41% of non-forest (especially very degraded pasture), 13% of reforestation (especially eucalyptus) and 3% of dams and ponds. In addition, about 49% of the zones demarcated as areas of permanent protection (APP) present anthropic occupations. Undeniably, water supply, biodiversity and livelihoods are at risk around this landscape dominated by highly degraded pastures and small fragments of native forests.

To help in restoring these degradation processes, ELTI has partnered with IPÊ *Semeando Água* (“Sowing Water”) project, sponsored by “Petrobras Socioambiental” Program, to promote capacity building in eight municipalities over Cantareira Supply System. The goal is to influence rural producers to adopt sustainable land-use practices and to restore the forests that has been suppressed.



Photo: Tiago Baccarín

Newly implanted demonstrative unit of a silvopastoral system, *Serrinha* Farm, Bragança Paulista.



Objectives

Working in partnership with the "Sowing Water" project, ELTI has developed a field course for farmers to train them on sustainable production and forest restoration. The course focused on farm management and the potential to increase productivity and add value to dairy products.

Course content: The central topics were rural management, community association, valuing and commercializing dairy products, ecological pasture management, silvopastoral systems and forest restoration.

Module 1: Rural management and production chain

Module 2: Ecological pasture management

Module 3: Silvopastoral systems and native forestry

Field-course format: The training took place in Nazaré Paulista, Piracaia and Bragança Paulista, where experts presented sustainable production systems to farmers and extensionists and helped them to develop a project for their own farms.

Day 1 Nazaré Paulista , São Paulo

The day started with a breakfast and an introduction of participants and trainers facilitated by Dr. Miriam Perilli (Neotropics Training Program Brazil Coordinator). Soon after, Miriam presented ELTI and the Leadership Program and Alexandre Uezu (*Semeando Água* coordinator and senior IPÊ researcher) made an overview of the Cantareira System.



Photo: Miriam Perilli

Talk about artisan cheese production chain given by Fernando Oliveira.



Afterwards, the first the day of training continued with several presentations. Mr. Marcelo Baptista (Veterinarian of the “Sustainable Rural Development Coordination” - CDRS) presented about farming management and how to evaluate costs and productivity. Mrs. Heloisa Collins, a small artisan cheese producer (“*Capril do Bosque*”) shared her history and how she was able to add value to her products and became today one of the most recognized small scale producers in the country.

After lunch, Mr. Antonio Ruy Machado Pupo Pastana (Agricultural Assistant at ICA - Institute of Cooperatives and Associations, Coordination of Agribusiness Development - Codeagro / Secretary of Agriculture and Supply of the State of São Paulo) presented on associativism and cooperativism. Closing the day, Mr. Fernando Oliveira (“A Queijaria”) gave a talk on cheese productive chain, adding value and respecting the artisan way of producing. He explained the importance of the *terroir*, of a diverse diet for the cattle and of producing in a sustainable way. Fernando also shared his positive views of the market for small artisan producers.



Photo: Cibeles Quirino

End of the first day of the training on “Sustainable Production in the Cantareira Systems.”



Photo: Cibeles Quirino

Dr. Fabricio Casteleni lecture on pasture management .

Day 2 Piracaia, São Paulo

The second day of the training was held at *Cravorana* Farm, administrated by Mr. Miguel Uchôa. Miguel implemented ecological pasture management with the support of *Semeando Água* and is restoring the forests around water bodies. The day started with a presentation of the day's agenda, followed by Dr. Fabricio Casteleni (Zootechnist, member of the *Semeando Água* project team) lecture on ecological management of pastures. Then, participants went to visit the model implemented at *Cravorana*.



Photo: Cibeles Quirino

Participants at the "Aquarium activity" at *Cravorana* Farm.

After lunch, Dr. Tiago Pavan Beltrame (Forest Engineer and IPÊ researcher) presented on forest restoration and participants went to visit the areas being restored. By the end of the day, participants enrolled in a activity known as "Aquarium dynamics", where they talked with farmers who have already implemented Ecological Pasture Management and restored Permanent Preservation Areas (APPs).

Day 3 Bragança Paulista, São Paulo

The third day was held at *Serrinha* farm, a property that has also an ecological reserve and encompasses tourism, art and farming.

The day started with a presentation of the day's agenda followed by a lecture on silvopastoral systems by Dr. Fabrício Casteleni.



Photo: Cibeles Quirino

Participants visiting a restoration site at *Cravorana* Farm.



After, participants went to visit an agroforestry plot, a recent implemented silvopastoral system and the forest restoration site designed by Jean-Paul Ganem.

After lunch, Dr. Miriam gave a lecture about intensive silvopastoral systems and shared some case studies from the Colombia farms assisted by CIPAV Foundation (*Fundación Centro para la Investigación en Sistemas Sostenibles de Producción Agropecuaria*). Following, Mr. Marcelo Delduque talked about *Serrinha* history and projects and Dr. Tiago Pavan presented on native forestry. Next, participants went to work on the hands-on exercise of implementing the knowledge they received on their own properties.

The training then ended with a course evaluation and the delivery of the certificates.



Photo: Tiago Baccarin

Dr. Miriam lecture on intensive silvopastoral systems at *Serrinha* Farm.



Photo: Tiago Baccarin

Visit to the newly established silvopastoral systems at *Serrinha* Farm.



Photo: Tiago Baccarin

Participants working in their projects with the support of trainers.



Photo: Tiago Baccarin

An example of one participants project.



Participants

This field course was announced in ELTI's website and advertised mainly in agricultural stores and social medias. Indeed, WhatsApp was our main channel of communication. We gave preference to the farmers and extensionists of the Cantareira system, especially the ones closer to the municipalities.

A total of 16 participants attended the training, mostly small farmers and extensionists seeking for a diversification of their activities, improvements in their production and solutions for their water and soil issues.

Outcomes and Follow-up:

All participants were actively engaged throughout the course and one participants asked for after course assistance. In the months following, ELTI will follow up with the participants to see how the training and final project have influenced their activities.

This event was possible thanks to Arcadia Fund, whose Environmental Conservation grants support programs that protect and enhance biodiversity, and provide field training and academic research.