# **Citrusvil | Primary Production**

# San Rafael: Our emblematic orchard Strategic and sustainable Production

San Rafael orchard is the 23rd unit of Citrusvil purchased in September 2017 with 871 hectares and 716 hectares available for production.

It is placed at the foothill in Tucumán which is an optimal area for lemon production due to climate and agricultural conditions. It is limited on the West side by Aconquija Hills, on the South by the Colorado River on the North side by Provincial Route 341 and Tucumán Paper Mill (Papelera Tucumán) and on the East side by the town of San Rafael, in Lules location. This is an ideal location to work on this project as a unique orchard preserving land which has great ecological value.





## How we improve and develop

We have added San Rafael orchard to our management system integrating it as a social, economic and sustainable production unit.

We elaborated a complex roadmap within a context of economic uncertainty and global pandemic. We built new infrastructure in order to adapt the Orchard to Citrusvil and Lucci Group standards. "To eradicate sugar cane and plant lemon is not an easy task" says Juan Altamiranda, Primary Production Manager for Lucci Group.

We must be extremely careful with the water flow since it is a sloping orchard at the foot of the mountain. The water must drain without hurting our orchard nor our neighbors 'so this is why we have been working with an interdisciplinary team of specialized professionals in order to obtain a proper systematization of the orchard. We have done construction works to capture water which is later used to pulverize by means of a pressurizing system through gravity.



**Juan Altamiranda**Field and Primary Production
Manager for Grupo Lucci

# Difficulties we found on the way

- The orchard had a deteriorated sugar cane production.
- It had pine tree forests over 30 years old without maintenance.
- Burglary, rubbish spots, illegal quarries.

Nevertheless 220 thousand plants were planted over a 3 year period so we were able to meet our goals.

# **Good agricultural practices**

We made an investment with a purpose: to systematize the orchard with clear objectives:

- To recover and stop soil degradation.
- To mitigate or eliminate existing problems with floods in close urban centers.
- To stabilize productive units.

By meeting these goals, we were able to keep the soil healthy in the long run, reducing our problems given by climate variability and by stopping hydric erosion. This is strategically very important considering the lemon plant has a productive life of 20 years.

It also allows us to manage water in a much more organized way. We developed a project consisting of a water terrace system and drainpipe channels to carry excess water:

- First of all, to a reservoir that will absorb excessive water (Dam 1).
- This one pours into a second reservoir (Dam 2) and then gently flows into Calimayo Stream.

#### **Diversion works**

We have completed works for water diversion towards natural courses in order to avoid damage in neighborhood properties and urban centers.





#### **Bio-engineering-Vetiver Plants**

We have taken an interest in Bio-engineering by planting Vetiver since we have been evaluating alternatives regarding erosion control. The most important benefits given by these plants are that they reduce damage caused by water erosion. Speed is reduced and solids that remain suspended are held back which benefits in soil protection.

San Rafael Orchard is now self sufficient in Vetiver plantation, we have already planted more than 1000 mt. of this natural barrier which is absolutely sustainable and economical.

#### **Water Suppy**

We don't use any source of energy to pump water in any part of our water network system in our orchard. The original source comes from Papelera del Tucumán Company channel during the first stage and Calimayo Stream in the second stage.

#### **Integrated Management System**

Our aim is to guarantee harmless and safe product elaboration without neglecting environmental protection and also labor force protection. This is why we have built adequate infrastructure such as sheds, storerooms to keep phytosanitary products and their containers, restrooms, changing rooms and also administrative offices.





# **Biodiversity Protection**

# We have 716 productive hectares out of 871, and 155 are a preserved native forest.

In the year 2020 the environmental characterization was performed together with ProYungas Foundation. We studied the fauna and flora in those areas which have the greatest conservation value. After this study we joined the program called Paisaje Productivo Protegido that defines all actions that follow for the preservation of natural habitats.





Regarding Social Business Responsibility, Grupo Lucci works together with San Rafael Community through the Fundación Vicente Lucci developing actions that involve principles in education, labor insertion and entrepreneurship.

We are implementing educational programs in rural schools to more than 100 students attending primary school which include several important topics such as human rights, child labor prevention and environmental care.

We are also carrying out projects for waste management together with an awareness campaign focusing on the importance of cleaning in collaboration with companies such as **Arcor**, **NGOs** and **municipalities**.

## Why we stand out

#### Our professionals are different because our approach is different.

We have an integral view of the process, from seed time to export time. As we are focused on clear goals, everyone is deeply involved in the project. This is the basis of our work which can be noticed in every member of the team.

# **Future challenges**

To continue innovating by creating an I+D area that depends on Primary Production which enables the application of new technologies and measure its results.

To make progress in all the works designed to improve the rationing water system based on sustainability. And also to continue giving support to all our close communities under Social Business Responsibility standards.

We are convinced that excellence in business matters must satisfy the expectations of special interest groups as well as contribute to environmental protection, guarantee sustainability of our natural resources and promote the development of our society.

Our characteristic lies on incorporating qualified environmental and social-management practice which increase our production and qualified standards in the whole region.

"Innovation and sustainability are our primary production pillars", says Juan Altamiranda, Field and Primary Production Manager for Lucci Group.



