

Awakening the World to Colombian Orthodox Tea

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NEW & NOTABLE

TEA & COFFEE REPORTS BREWING WORLDWIDE

Brazil's Farmers Apply Colombian Specialty Production Techniques



Colombia's year-round harvest spurs infrastructural adaptations of interest to Brazilian producers. Winners of the Minas Gerais cup quality competition, hosted by agricultural extension organization EMATER-MG of Minas Gerais, Brazil, travelled to Huila, Colombia for a producer-to-producer exchange trip hosted by Ally Coffee, based in Lausanne, Switzerland and sponsored by Atlantica Coffee, located in Belo Horizonte, Brazil.

"My impression of Colombia is that coffee growers are coffee growers wherever they are on the planet. It's a different kind of farming when our job is to add quality and flavour," said Edson Tamekuni, the top producer from Cerrado Mineiro. One way that producers are converting more of their harvest to specialty is through improvements in the fermentation process.

Many producing countries have seen drastic changes in the last decade, from extreme weather events or prolonged shifts in climate. Due to the latter, Colombia has witnessed a total transformation of when and how coffee cherries ripen. The year-round harvest changes labour demand and creates opportunities for new types of processing.

When there is a lower volume of cherries coming off the trees at any given time, producers can process cherries in slower, space-intensive

processes like honey, natural, and experimental refrigerated fermentations that previously were not feasible.

"For cold fermentation, we place depulped coffee in the refrigerator between 10-13 degrees Celsius for three days," said producer Rodrigo Sanchez of Finca Monteblanco in San Adolfo, Huila. "After it comes out of refrigeration, we wash the coffee and then it goes straight to the [shaded] African beds to dry. We've had scores up to 96 points SCA," [per the Specialty Coffee Association grading system] described Sanchez.

Tamekuni explained, "I'm trying cold fermentation, but at scale, using Supersacks in a cold room. First I tested the process with GrainPro bags in small volumes."

The results of Tamekuni's first cold fermentation test used an Acaia variety prepared with pulped natural processing, followed by 72 hours of fermentation in a cold room at temperatures of 11-13 degrees Celsius in GrainPro bags. The coffee cupped at 85.5 points SCA and gave "fruity, caramel, and chocolate notes with improved acidity," Tamekuni reported.

The same coffee washed and depulped without fermentation gave 84 points SCA with notes of chocolate, caramel, and nuts. The addition of a cold fermentation stage improved the cup score by 1.5 points and added fruit notes. "The result is desirable, but because of

the work it takes, it is only possible to process microlots in this way," concluded Tamekuni.

Most coffee in Brazil is processed as pulped natural or full natural, but the group of Brazilian farmers' visit to Colombia showed that both fermenting and washing coffee can contribute to improved cup score when the goal is sensory quality over quantity of production.

Ruggero Pisa Simonini Spada runs Fazenda Tecad, part of CBI Agropecuaria, Lta, in Capelinha, Minas Gerais. This was his second trip to Colombia, and after seeing raised drying beds in Huila in 2017, he returned to Colombia to gather final observations before modifying Tecad's post-harvest processing.

"Previously we just produced pulped natural coffees. Now, we follow this process: 12 hours in cherry, 36-hour fermentation after depulping, bath in cold water to stop fermentation, centrifuge to remove mucilage, four to five days drying on patio," Spada explained.

Fazenda Tecad was originally planted for industrial volume production, but the growing demand for larger volumes of specialty coffees means that tweaks in processing – through the addition of fermentation or washing stages – open opportunities for commercial farms to produce specialty quality coffees in both microlots and macrolots.

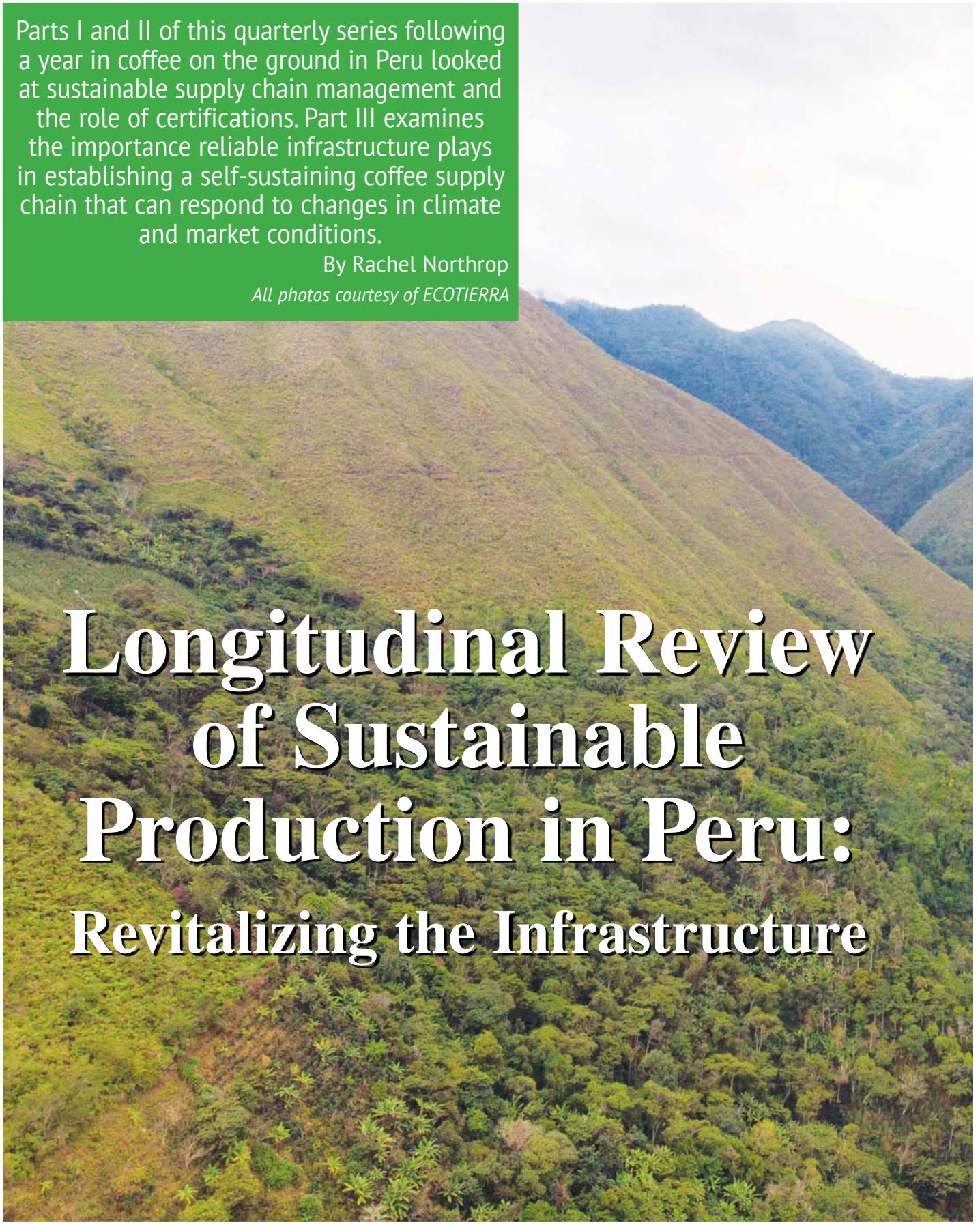
Rachel Northrop



Parts I and II of this quarterly series following a year in coffee on the ground in Peru looked at sustainable supply chain management and the role of certifications. Part III examines the importance reliable infrastructure plays in establishing a self-sustaining coffee supply chain that can respond to changes in climate and market conditions.

By Rachel Northrop

All photos courtesy of ECOTIERRA



Longitudinal Review of Sustainable Production in Peru: Revitalizing the Infrastructure

The milling stage of coffee post-harvest production has the ability to make or break both the quality of coffee that has been established up until that point by attentive care in the field and to make or break export sales through proper packing, sorting, and timely shipments.

In the mountains of Peru, access to milling infrastructure and space for business negotiations are both challenging for smaller cooperatives. Sherbrooke, Quebec-based project developer ECOTIERRA's construction of a mill for the four cooperatives in its Café Selva Norte project will add both value and agility to their supply chains, allowing them to take more responsibility for quality control into their own hands and to increase the systemic sustainability of the region's production.

Investing in Infrastructure

Karina Santana is the co-founder of ECOTIERRA and all projects pass through her hands, including the construction of a new multi-functional mill in Jaén, Cajamarca that will serve the four Café Selva Norte cooperatives. "The idea of building a mill came from the ideas of the cooperatives," Santana told *Tea & Coffee Trade Journal*. "One of the necessities all the cooperatives identified was that they currently do not have access to a reliable dry mill."

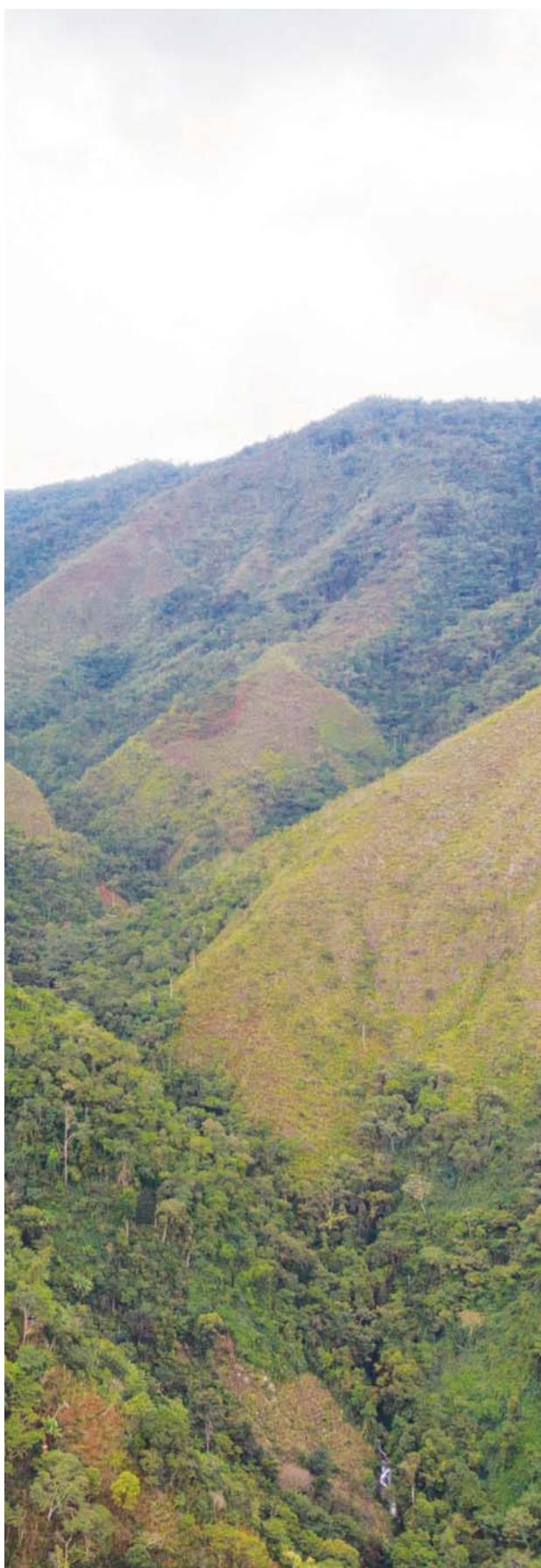
In Peru, farmers grow, harvest and wash coffee on their respective properties and cooperatives function largely as warehouses and points of aggregation. The cooperatives are then responsible for the dry milling and commercialization of coffee, a stage that is crucial to earning adequate returns for their members. Waiting in line to pay inflated fees to use third party facilities and hauling coffee long distances to those facilities means that cooperatives have limited autonomy over their own coffee and therefore miss out on the opportunity to exercise the level of quality control they envision.

"By not having access to a good mill, it becomes a question of timing," continued Santana. "Coffee is delayed in milling and shipments leave late, the quality of the sorting and milling doesn't meet the cooperatives' standards." ECOTIERRA's main goal with the construction of a shared mill for the four cooperatives is to stabilize the quality of the coffee. The dry mill represents an investment in processing infrastructure to maximize quality and traceability.

Impact on Product Quality

Traceability is essential to quality control, with each lot being monitored to guarantee that samples and final delivery both match and meet roaster client expectations. Santana also noted that the capacity to guarantee that a certain percentage of coffee does not go missing in the milling process is also essential to cooperatives' success. Handling their own product the whole way through export preparation controls against the mixing or swapping of lots that can degrade quality and sour a cooperative's reputation with its buyers. "Transparent controls assure that if one sack goes in, one sack goes out," said Santana.

Esther Requejo oversees processing for exporter Perunor in Santiago de Sucro, Peru, which receives coffee from eight producer organizations. Each organization groups 200-300 small producers who independently carry out the initial stages of quality control through wet mill processing. Each producer's respective knowledge of their location determines whether or not coffee is fermented prior to washing, and if so for how long. "Many producers dry their coffee on movable trays in order to expose them to sun and protect them from rain," said Requejo. "When coffee arrives at the collection points, it is our responsibility to take control of quality evaluation. Perunor handles all dry milling, which includes weighing, sorting, bag marking, and other intermediary activities. All our dry mills are accredited if they handle organic, Rainforest Alliance or other certified coffees." Requejo emphasized that milling is not





ECOTIERRA is building a dry mill for the four cooperatives in its Café Selva Norte project to add both value and agility to their supply chains. This will enable them to take more responsibility for quality control into their own hands.

one single step, but rather a series of stages that must be carried out properly every single time to ensure quality.

In the dry mill, coffee is hulled, sorted by density, siloed by certification, and always sorted and resorted for defects. There are personnel dedicated to verifying that each step is carried out correctly. The attention to detail that Perunor executes as a private company is what the cooperatives belonging to the Café Selva Norte project also aspire to achieve.

Market Access and Negotiation

ECOTIERRA's second goal in building the collective mill in Jaén is to create a dynamic, multi-functional space that will allow cooperative leaders and producers to take control of negotiations with buyers to generate increased sales. "The dream behind the project is to build a second home for producers," Santana said. "Yes, there's the equipment at the mill, but there will also be a space for members to meet with clients in a private conference room, hold meetings in the mill's own café, and host workshops and trainings in classrooms."

Santana explained that producers and cooperative managers, who are also farmers themselves, in most cases travel six to eight hours from their farms farther in the mountains to reach central cities in order to meet with prospective buyers. As origin engagement becomes more important to coffee importers and roasters, it is paramount that producers and cooperatives have adequate spaces to receive visitors and to spend a day or two away from the farm in a facility designed to promote the business of

moving green coffee.

Details of accommodations for cooperative administrators might seem insignificant, but access to the differentiated specialty market's buyers often comes down to the ability to hold a meeting or host a coffee cupping, activities that cannot happen without dedicated spaces. Requejo at Perunor has also observed that changing demand towards individualized microlots consequently expects the dry milling process to be agile enough to process smaller volumes separately. "We've seen that facilities are building smaller dry mills within the larger plants in order to process tiny lots," she reported. "If we were to put small volumes of coffee into equipment designed to manage large volumes it would be very difficult to process. We've been learning to implement what the market demands." ▶

Without access to a mill at the cooperative, farmers often have to walk long distances with their hauls to use third-party facilities.





Future Ownership

ECOTIERRA is building the shared Jaen dry mill in its role as the project developer for Café Selva Norte, but the property will eventually belong to the four cooperatives after it is paid over the course of 15 years

through the fees for service for use of the facility. But, in spirit, the space will belong to cooperative members from the beginning. Santana described that, "We are already thinking like it belongs to them. We want everyone at the cooperatives to think of it as their space."

Taking ownership of quality control through the dry milling phase ensures that the quality produced in the field makes it to final consumers. While the work can be tedious, and investment in infrastructure to streamline export preparation activities is an investment in long term quality.

The series conclusion in Part IV will look at digital infrastructure and explore the data captured by ECOTIERRA's proprietary online Minka platform and discuss what that data can tell all parties along the supply chain about production volumes, coffee quality, and comprehensive sustainability. 

Rachel Northrop has been covering coffee for *T&CTJ* since 2012, while she lived in Latin America's coffee lands writing *When Coffee Speaks*. She was based in Brooklyn, New York but has recently relocated to Miami, Florida. She may be reached at northrop.rachel@gmail.com.

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