



Strategy for Sourcing Sustainable Coffee

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Executive Summary

Three major areas of concern exist in the coffee business: **1)** climate change affecting farming yields; **2)** an aging farmer base possessing no clear succession plan; and **3)** wasteful consumption in the globally growing American-style café culture. The Colombian coffee enterprise, La Palma y El Tucan (“P&T”), addresses the former two problems with some of the most comprehensive and rigorous sustainability practices in the entire coffee industry. The company aggregates beans into batches from small community farmers before putting them through a complex series of sorting, fermenting, and drying methods using a circular economic process. The farm should not only serve as a model company from which Saxbys Coffee ought to purchase its premium beans, but should also become an important strategic partner. The key to maintaining a financially viable relationship with ‘P&T’ will be for Saxbys to effectively market P&T coffee so that it commands a higher price point than typically sourced alternatives.

Saxbys Coffee Background

The trip to P&T was sponsored by Saxbys Coffee so that it could further develop a relationship with the P&T owners. Saxbys is currently revamping its entire menu and is looking to start sourcing and roasting its own coffee rather than purchasing wholesale from a national roaster/distributor. The management team believes this change presents an opportunity to concurrently develop a comprehensive sustainability program, and it has requested a business case for such an initiative. Saxbys management wants to understand the entire value-chain of its cafes including: farming and sourcing the beans, roasting, distributing, and serving coffee. It believes the company loses economic and brand value through environmental waste and wants to understand the short and long-term financial impacts of adopting more sustainable practices.

La Palma & El Tucan Coffee Plantation

La Palma & El Tucan is an eighteen-hectare coffee farming enterprise located in a valley at approximately 6,000 feet elevation in the Cordillera Range, forty miles west of downtown Bogota, Colombia. Divided into 14 terroirs, each with unique soil, topography, and climate characteristics, the operation produces 4 exotic varieties for market distribution: Gesha, Sidra, Typica, and Java. The company experiments with different fermentation processes to empower the attributes of the varieties, using state-of-the-art infrastructure and techniques to drive quality. The plantation is something of a novelty in the region: a well-funded operation focused on producing high-quality varieties on its own land through rigorously and comprehensively-implemented sustainability measures. The enterprise continuously experiments with different growing and production methods to identify and optimize the most sustainable, quality producing practices. Current operations have yielded the following:

- ~35,000 kgs. of green coffee per year since 2015
- 10 bags of micro lots, 35 kgs. each
- Scores of at least 86 points (based on SCAA cupping protocol) on all bean outputs
- Utilization of ~200 coffee-growing families in a 10 km perimeter of the plantation
- New, exotic cup profiles (**Exhibit 1**) as a result of experimentation with different processing methods



**P&T site visit photographs taken in November 2018 by Duke University Nicholas School students*

The farm also sources coffee cherries, the key input to production, from hundreds of local farmers. These small-scale producers lean on P&T as their primary purchaser and family revenue source. Community sourcing enables consistent production and provides enough diverse supply to experiment with and meet specialty customer demand. Saxbys has established a relationship with the owners of P&T and plans on using the farm's beans as a part of its new pivot to sustainability-sourced coffee. Maintaining the relationship with P&T will be an important initiative in establishing legitimacy in the world of sustainable coffee, providing a source of consistent high-quality beans, and serving as an inspiration for connecting farms to cafés.

Farmer Succession

Despite efforts of the Colombian Coffee Federation (“FNC”) to subsidize prices, small coffee growers often struggle to make substantial profits from their growing efforts. The next generation of coffee growers, therefore, is shrinking across the globe as younger generations seek better-paying, service-based jobs in nearby cities. Visits to several small farms in the region of P&T unveiled this phenomenon. Husband and wife teams live on small plots of land in relative isolation cutoff from towns and cities by a challenging landscape and very poor roads and infrastructure. Many of these small-scale producers related stories of their children leaving the family farming business for Bogota to seek an easier and more modern lifestyle. P&T pays these farmers twice the maximum price paid by the FNC for beans and helps the families pick and distribute the beans. The P&T model provides a partnership and investment in the local communities which should prove a more effective catalyst for drawing back family farmers to the region compared to simply subsidizing prices.

P&T Circular Economy Practices

The vertically-integrated enterprise aims to disrupt normal industry practices and “shatter the status-quo” by prioritizing and implementing sustainability measures and green infrastructure throughout its operations – from origin to roasting. The company believes integrating sustainability into its growing/production processes not only produces a higher quality coffee, but also creates a more profitable business model. P&T hopes to use the success of its farm as a model for underperforming growers and processing specialists in the region, ultimately catalyzing local producer growth and reinvigorating a dying Colombian industry. The various sustainability measures implemented create a near-complete circular economy that observes substantial operational cost savings and produces premium level coffee outputs. Core P&T sustainability/social impact measures include:

Table 1: Core P&T Sustainability Measures

<i>Sustainability Measure</i>	<i>Program</i>	<i>Description</i>	<i>Benefits</i>
Solar Panels on Processing Infrastructure & Resort Buildings	<i>Estate & Varietals</i>	<ul style="list-style-type: none"> P&T has installed solar panels on its wet mill station and sorting facility to supplement power needs during processing Solar panels have also been installed on the roofs of other facilities across the plantation/resort; the main lobby and communal areas utilize this renewable option as a main source of power Parchments from coffee cherry casings are collected and dried for use as fuel for the mechanical dryer 	<ul style="list-style-type: none"> The solar panels, coupled with the parchments from the casings of the coffee cherries, provide more than 40% of the plantation’s power needs Electricity intermittency resulting from an antiquated grid is mitigated
Onsite Water Treatment Plant	<i>Estate & Varietals</i>	<ul style="list-style-type: none"> P&T has built a fully functional wastewater/water treatment plant onsite that provides sufficient, clean water for all operations Plant delivers clean water for all sorting, fermenting, and drying needs, as well as the resort; water meets quality standards 	<ul style="list-style-type: none"> Circulates excess, treated (clean) water used in production back to the surrounding communities Saves the farm thousands \$ / year
Soil Improvement Project / Onsite Composting	<i>Estate & Varietals</i>	<ul style="list-style-type: none"> Calibrated amounts of livestock waste, human waste, and food/production waste contribute to an onsite compost plot P&T leads soil improvement/innovation projects on different parcels of land to identify the appropriate balance of inputs to create the most effective, organic coffee fertilizer 	<ul style="list-style-type: none"> Fertilizer produced through P&T operations is provided to farmers Better fertilized coffee trees onsite produce higher quality, more elegant strains of coffee beans Compost contributes to energy need
Biochar Utilization Onsite	<i>Estate & Varietals</i>	<ul style="list-style-type: none"> Biochar is a charcoal (produced onsite using locally grown and harvested trees) used as a soil amendment It’s a stable solid, proves rich in carbon, and can endure in soil for thousands of years; like most charcoal, biochar is made from biomass via pyrolysis on the property 	<ul style="list-style-type: none"> Demonstrates excellent water retention capacity that helps maintain humidity levels for beans Insulates the beans from fluctuations in the microclimate
Plantation Forest & Biodiversity Integration	<i>Estate & Varietals</i>	<ul style="list-style-type: none"> P&T incorporates as much natural flora and fauna into its property as possible, dedicating over 75% of the land to natural species Reversion to a more natural state facilitates cherry pollination and produces better, more sustainable soil for production 	<ul style="list-style-type: none"> Erosion is prevented, and the topographic integrity is maintained Healthy insect and bird populations keep harmful fungus away
Local Farmer Education & Strategic Advice / Donations	<i>Neighbors & Crops</i>	<ul style="list-style-type: none"> P&T trains local farmers in the maintenance of their crops and the implementation of more sustainable practices Company donates coffee trees raised sustainably in its nursery to local producers Provides a team of agronomists that visit the farms and provide feedback on operations and technical support 	<ul style="list-style-type: none"> Strengthens relationships with key suppliers to ensure business continuity Ensures a higher quality coffee cherry reaches processing Incentivizes continued operation of farming properties
Local Farm Subsidization & Origin Traceability	<i>Neighbors & Crops</i>	<ul style="list-style-type: none"> P&T pays 100% more than the country’s average price point for similar varietals offering different premiums for quality P&T trains its own cherry-picking team and finances 100% of the training and subsidizes 35% of the cost for the grower Provides coffee cherry transportation to and from mill 	<ul style="list-style-type: none"> Leverages expertise of P&T in the development and execution of coffee cherry production Encourages permanent participation in its farmer program Goes beyond the traditional cupping score and profile parameters

Premium Varietals and Marketing Suggestions

An overwhelming majority of millennial consumers are willing to spend more for ‘sustainable products’ and studies suggest the price elasticity of demand for coffee is very lowⁱ. These factors combined present an opportunity to pass on higher prices for sustainably grown coffee, and maybe even increase profit margin for high-quality varietalsⁱⁱ. Establishing relationships with sustainable coffee farmers is a good start to building an authentically sustainable coffee brand. However, Saxbys needs to market its efforts effectively to make them financially viable. Global coffee sourcing and distributing company, Volcafe, has created a two-year roadmap for establishing sustainable coffee supplies and realizing cost and branding benefits from them (**Exhibit 2**). In addition to following this roadmap, Saxbys should have café spaces that connect consumers to farm. Saxbys could decorate the interiors with local artwork and pictures of origin communities. The company could also host farmers to come and speak about their products with customers and employees, going well beyond describing the beans’ origins. Furthermore, Saxbys Circular would be a suitable place to try out new initiatives like some of the operational measures already implemented by P&T.

Recommendation

Sustainable coffee practices are not a passing trend, but rather they have emerged as an integral part of many established coffee companies and play an important role in the future of coffee, both ecologically and economically. Saxbys is a small operation and can integrate sustainability into its DNA in the next few years, first and foremost, by creating relationships with coffee farms like P&T. These relationships are the foundation of a coffee sustainability program and should reverberate across the entire value chain, and, importantly, they need to be expressed (i.e. marketed) in the cafés. After all, the ability to get the customer to pay more for sustainable coffee is ultimately the best economic support for the entire industry.

*“Shatter the status-quo by implementing groundbreaking social, environmental, and technological innovations. Located in Colombia’s Cundinamarca department, we are changing the model that Colombia has used to grow, process, and market coffee - where productivity comes before quality. Our projects do not come at the expense of our surroundings, but instead by cooperating with our environment and our community. We invite you to **Join the Movement.**”*

~Felipe, Founder, La Palma y El Tucan

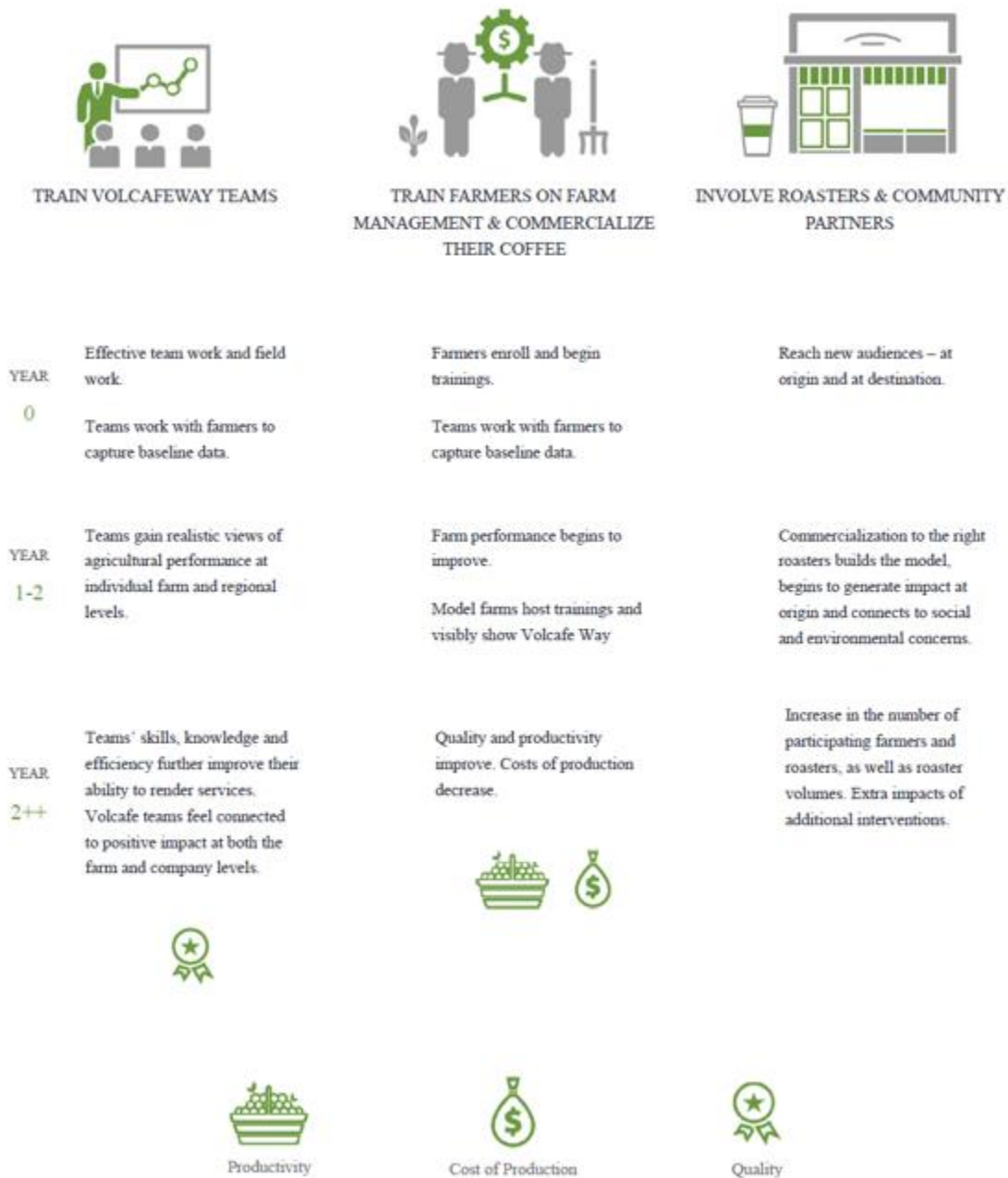
ⁱ (Curtin): Curtin, Melanie. <https://www.inc.com/melanie-curtin/73-percent-of-millennials-are-willing-to-spend-more-money-on-this-1-type-of-product.html>. 30 March 2018.

ⁱⁱ (Dolan): Dolan, Marvin Perez and Lynn. <https://www.aol.com/article/finance/2014/03/13/coffee-cravers-ignoring-bean-price-surge/20849174/>. 13 March 2014.

Exhibit 1: “Coffee Taster’s Flavor Wheel” helps P&T better classify its product portfolio



Exhibit 2: Volcafe Roadmap for Managing Sustainable Coffee Sources



Volcafe created this roadmap in 2014 after years of sourcing the best beans from farms employing sustainable practices. The roadmap emphasizes the need for managing relationships directly with the origin farms and then trying to make a connection between those farms, a roasting company, and the final customer.