

CONFIDENTIAL

YOUR BEST SOURCE OF INFORMATION ABOUT THE BRAZILIAN COFFEE BUSINESS. THIS ISSUE:

- CAN COCOA LEARN FROM COFFEE? (PAGE 3)
- COCOA PROCESSING EQUIPMENT (PAGE 4)

COFFEE GROWERS ARE INVESTING LESS IN COFFEE CULTIVATION

Brazilian Arabica growers are expected to invest less in crop cultivation in 2019/20 as profitability and potential returns are at risk due to low coffee prices and high input costs. In Espírito Santo, the main Conilon coffee producing state, the situation is the same: input purchases by growers are 50% lower this year. This, added to next crop being the off-year in the biennial production cycle, may decrease supply in the world's largest producer and exporter.

Source: Agrolink

RONDÔNIA'S PRODUCTIVITY GROWS 154% IN 10 YEARS

Rondônia coffee production was estimated at 1.98 million bags in 2018, an increase of 2.1% compared to the previous year. The planted area, estimated at 63,900 hectares, decreased 14% compared to the previous year. The average productivity is projected at 31 bags per hectare, an increase of 18.6%. The area planted with coffee fell 54% and productivity rose 154% in the last 10 years. Productivity increased due to the renewal of old crops that have been replaced with high yielding genetic material, the use of modern technology, adequate crop management and more favorable climatic conditions.

Source: Embrapa Café

BRAZILIAN EXPORTS INCREASE 7%

Brazilian Arabica coffee exports registered 23.6 million bags from January to September 2018, an increase of 7.3% compared to the same period of the previous year. However, the corresponding export value fell 6% reaching US\$ 3.5 billion. Conilon coffee exports, in turn, grew 728.6% compared to last year. This shows the great recovery of exports of this variety, that had been negatively affected by the severe drought that hit Espírito Santo in 2015/2016.

Source: CaféPoint

"COCOA ACTION BRASIL" LAUNCHED TO BOOST SUSTAINABILITY

Leading members of Brazil's cocoa and chocolate sector have launched "Cocoa Action Brasil", an initiative that gathers the major cocoa and chocolate companies in Brazil, federal and state government agencies, sectorial associations, certification systems and other stakeholders to address a range of sustainability issues in the cocoa sector. The announcement was made during WCF's Partnership Meeting, the annual conference of the World Cocoa Foundation held in São Paulo, that attracted over 300 sustainability experts and practitioners from around the world, including growers, high level executives and government authorities from Côte d'Ivoire, Ghana, Ecuador, Peru, Colombia, Nicaragua and other countries besides Brazil. Brazilian Minister of Agriculture Blairo Maggi opened the event followed by renowned speakers such as Guilherme Leal, partner in the Natura - Body Shop cosmetics group, cocoa grower and creator of a fine chocolate and shop brand, Dengo. Other presenters and panelists were CEOs and directors of cocoa and chocolate companies, traders, growers and key stakeholders. Cocoa Action Brasil is a five-year multistakeholder pre-competitive initiative developed in partnership with WCF and devoted to increasing sustainability in the cocoa supply chain with a special focus on the grower. Chocolate and cocoa industry members that have so far joined the initiative include Barry Callebaut, Cargill, Dengo, Mars, Mondelez International, Nestlé and Olam. Brazil is currently the 7th largest cocoa producing country in the world with an output of 180,000 tons grown mostly in Bahia and Pará states besides Amazonas, Espírito Santo, Mato Grosso and Rondônia.



World Cocoa Foundation

Sources: P&A and WCF

GLOBAL COFFEE PLATFORM ENCOURAGES MEMBER INITIATIVES TO PROMOTE SUSTAINABILITY

Encouraging the creation and development of Member Initiatives (MIs) is one of the focuses of the Brazil Program of the Global Coffee Platform (GCP) in 2018. According to the Platform, Member Initiatives encourage participants to advance sustainability actions that are co-financed by other members and partners with collective benefits for the supply chain and, especially, for the coffee producer. The Weed Management MI is currently being carried out while the one on Responsible Use of Agrochemicals is about to start. Three others initiatives are under development: Validation of Climate Resilience Practices, Sustainable Coffee in Rondônia, and Leaf Miner and Integrated Pest Management.



Source: Notícias Agrícolas

MORE FUNDS FOR COFFEE STORAGE

Despite the unfavorable fiscal scenario in Brazil, the National Coffee Growers' Council (CNC) informed that Funcafé has already released R\$ 1.26 billion (US\$ 340 mi) for coffee cultivation and storage from the total of R\$ 1.86 billion (US\$ 503) budgeted for 2018. The National Agricultural Confederation (CNA) requested more funds for storage and the development of instruments for coffee price recovery given the record Brazilian crop this year.

Source: Reuters

CHAPADA DE MINAS AND CERRADO MINEIRO WIN COE 2018

The best Brazilian specialty coffees of the current crop were identified during Cup of Excellence Brazil 2018. The first place winner in the Pulped Natural category was produced at Fazenda Primavera in the Chapada de Minas Gerais region that scored 93.89 points. Fazenda Paraíso, in Carmo do Paranaíba in the Cerrado Mineiro region, won the first place in the Naturals category with 93.26 points. Mantiqueira de Minas, Cerrado Mineiro and Sul de Minas were the main regions with winning coffee lots in the naturals category. In turn, Chapada Diamantina, Mantiqueira de Minas and Matas de Minas were the main regions with winning washed coffee lots.

Source: BSCA

COFFEE MATURED IN BARRELS

The specialty coffee market has undergone an intense process of development and growth in Brazil. Besides the intrinsic quality of Brazilian beans, the excellent work of baristas all over the country, who started to invest on new roasting and preparation techniques, also contributed to quality improvement in the cup. Espresso Station is maturing coffee in barrels previously used to mature distilled beverages like whiskey, rum and tequila and producing a line of coffee with hops. The whole process is carried out before coffee is roasted.

Source: Franck's Ultra Coffee

MELITTA GROWS DESPITE A CHALLENGING YEAR

After registering a 15% increase in 2017, reaching a gross revenue of R\$ 1.6 billion (US\$ 432 mi), Melitta plans to close 2018 with a smaller growth of 5%. The company's average growth in the last five years was 11%. Melitta's sales will grow while the Brazilian coffee market is expected to fall 1% in value.

Source: Valor Econômico

Brazilian Prices

Main Producing Regions / Farm Gate

October 31, 2018

Arabica Naturals (R\$/ 60 kg bag)		Conilon / Robusta (R\$/ 60 kg bag)	
Cerrado MG	435,00 ↑	Colatina-ES fair average price	337,00 ↑
Mogiana	430,00 ↑		
South Minas	430,00 ↑		
Arabica Pulped Naturals (R\$/ 60 kg bag)		BM&F (US\$/60kg Arabica bag)	
Cerrado MG	455,00 ↑	Dec 2018	132,75 ↑
South Minas	450,00 ↑	Mar 2019	136,40 ↑
		Jul 2019	140,40 ↑
		Real R\$ / Dolar US\$	
		Oct 31, 2018	3,72 ↓

+ 5.8%

Source: www.qualicafex.com.br

CAN COCOA LEARN FROM COFFEE?*

Brazil, Vietnam and Colombia are three success stories in the coffee business. Brazilian coffee production increased 50% in ten years without expansion of the planted area and the country produced a record 60 million bags this year. Production grew 33% from 26 to 48 million bags while the planted area fell between 2006 and 2013. This resulted from a productivity growth of 44%, from 16 to 23 bags per hectare. Annual average exports are above 30 million bags, one third of it sustainable and specialty coffees, and the country consumes 22 million bags per year. Brazil is today a dynamic Arabica and Robusta production pole. How did it get there?

There was a technological revolution that is still under way involving new varieties, improved cultivation practices, new harvesting techniques and latest post-harvesting technology. Density of planting went from about 1,000 to over 4,000 trees per hectare. But this technological revolution would not have happened in the absence of an *enabling environment* that included efficient extension services supplied by state governments and cooperatives, strong private institutions bringing together growers, trade and industry, organization of growers in cooperatives and associations, and efficient supply chains and markets for coffee, inputs and equipment,

Increases in coffee production depend on growers' investment that depends on positive returns that in turn depend on productivity. Positive returns on growers' investments depend on the percentage of the FOB export price that reach growers. Whereas 80 to 90% of the FOB price reach growers in Vietnam, Brazil and Colombia, this figure is only 50 to 70% in many countries, 40% in a few of them. Therefore it is no wonder that while average productivity in these three countries together is 30 bags/ha (1,800kg/ha), the average for the rest of the world is under 10 bags/ha (600 kg/ha).

There are coffee farms with productivities near those of Brazil, Vietnam and Colombia in most countries but these are usually large farms. Small growers in many countries have much lower productivity because there is little training available, access to fertilizer, pesticides and equipment is limited, and financing opportunities are few if any. Access to planting material, research results and technology alone is not enough to increase productivity if the support beyond farm gate is not there, including an efficient coffee market. The enabling environment mentioned before and available in Brazil, Vietnam, Colombia and a few other coffee producing countries with high productivity is not there in-full or partially in coffee producing countries with low productivity. Productivity growth, transfer of export price to growers and the implementation of sustainable practices are curbed by imperfect enabling environments.

The findings above are applicable to cocoa. Technology may be available – developed locally or transferred – but results within farm gate – greater productivity and returns to growers – are heavily dependent on the enabling environment beyond farm gate. This environment must be used efficiently if available, improved if partially available, or developed if not available. This is easy to propose but costly and time consuming to implement.

A key lesson from coffee is that efficiency and profitability of cocoa production depend on the support of a good enabling environment beyond farm gate: extension services, usually public, to train growers; organization of growers in cooperatives to improve access to inputs and equipment and to market cocoa; efficient supply chain and markets for inputs, equipment and cocoa; financing; logistics; etc.

Last but not least, from a development aid perspective, it is an efficient enabling environment that ensures that cocoa projects and initiatives reach beyond the direct participants/beneficiaries and have lasting impacts with findings and results disseminated widely and methodologies incorporated into the business.

** This article is based on the author's presentation "What Cocoa Can Learn From Coffee" made at the World Cocoa Foundation's Partnership Meeting in São Paulo, Brazil, on October 25, 2018. More information about the importance of the enabling environment can be found at the Outlook section of Confidential Nos. 129 and 128.*

COCOA PROCESSING EQUIPMENT

Pinhalense has been playing an increasing role in the supply of cocoa processing equipment worldwide in countries that also produce coffee or not. The Pinhalense cocoa processing line comprises: the innovative **pod breaker**, whose patent it holds, the recently launched **mucilage remover**, equipment to tilt fermentation boxes, the best-selling **rotary driers**, state-of-the-art **pre-cleaners**, **size graders** and **gravity separators**.



Pod breaker

for a shorter time – it saves one or two days – and dry faster without quality losses. It can be used in conjunction with the Pinhalense machines that transfer cocoa beans mechanically between fermentation boxes.

Pinhalense's stainless steel **cocoa pod breaker** has a strong social impact because it drastically reduces the risk of accidents in cutting the pods open with machetes. This machine not only breaks the pods and releases the seeds but also separates husk pieces from the cocoa beans. The pod breaker can be installed on a tractor cart upon request in which case a generator is required.

The latest addition to Pinhalense's cocoa line, the **mucilage remover**, was designed to shorten rather than to replace fermentation. Beans that go through this machine ferment



Mucilage remover

Pinhalense **SRC rotary driers** for cocoa, galvanized or stainless steel, are in operation in many cocoa growing countries with excellent results thanks to their special design and features that avoid physical damage to beans that are being dried. The SRC cocoa-bean driers are available in several sizes to suit different grower sizes and markets.



SRE Rotary Drier

The Pinhalense **cocoa precleaner PL** is used after drying to remove impurities that are larger or smaller than the dry cocoa beans and to prepare them for further processing. The precleaner can precede driers that are used to complete and homogenize the drying of pre-dried seeds.

The two remaining machines – the **PI size grader** with specially designed screens for cocoa beans and rubber-ball automatic cleaning system and the **MVF densimetric separator** – can be used in a process flow or separately depending on the final product required. The grader separates the lot of beans by size in order to access specific markets whereas the gravity separator removes less dense – “light” and defective beans – with positive impacts on product quality.

Pinhalense cocoa processing experts can design product flows and provide equipment layouts that combine the machines above in the most efficient way using Pinhalense **conveyance equipment** to transport cocoa from one machine to the other, Pinhalense **electronic scales** and Pinhalense **silos** for buffer, in-process and final storage.



PL precleaner



PI size grader



MVF gravity separator