

CONFIDENTIAL

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

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☉ FUNCAFÉ RELEASES CONDITIONS FOR FROST-RELATED FINANCING

Funcafé's R\$ 1.3 billion (US\$ 238 million) worth of loans to finance coffee growers affected by the frosts will have an annual interest rate of 7%. Credit lines for recovery and replanting of affected areas located in climate risk zones will be released against a technical report issued by a certified agronomist. Credit limits and repayment conditions, grace periods included, vary according to the type of frost-damage response to be applied: top pruning, parrot pruning, stumping, or uprooting and new planting. The credit lines will be made available by the 34 financial agents that work with Funcafé.

Source: MAPA

☉ COFFEE CONSUMPTION IN BRAZIL EXPECTED TO GROW AGAIN

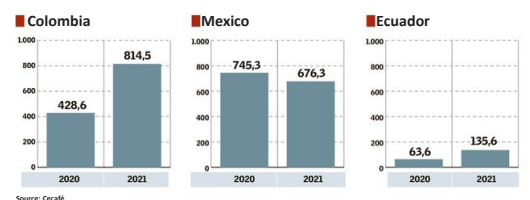
Consumption growth of 0.5% and total consumption of 21.5 million bags are estimated for 2021/22. Consumers are increasingly drinking coffee at home, a trend that prevented demand from falling due to Covid-19 sanitary restrictions. Different business models also helped the sector to overcome the difficulties imposed by the pandemics. Starbucks, for example, opened its first drive-thru store in Brazil earlier this year. Online sales, that represented only 8.3% of Brazilian retail transactions the year before, grew to 14% with an increase of 65%.

Source: Valor Econômico

☉ COLOMBIAN IMPORTS OF BRAZILIAN COFFEE ALMOST DOUBLE

Colombia, the second largest exporter of Arabica coffee in the world, has sharply increased imports of Brazilian coffee. Brazilian exports to Colombia from January to September 2021 totaled 814 thousand bags, an increase of 90% compared to the same period in 2020. Colombia imported 478 thousand bags in 2018, 298 thousand bags in 2019 and 794 thousand bags in 2020. Shortage of Colombian coffee and growing consumption may be behind such increase. According to the International Coffee Organization (ICO), Colombian domestic consumption grew 62% between 2000 and 2020, reaching 2.1 million bags. In the same period, the country's coffee production increased 38% to 14 million bags. Other producing countries, such as Ecuador and Mexico, have also increased their imports of Brazilian coffee. Global coffee consumption is growing faster than production, with impacts on coffee flows between producing countries.

GREEN COFFEE EXPORTS TO PRODUCING COUNTRIES
Exports to producing countries between January and September (in thousand 60kg-bags)



Source: Cecafé

Source: Valor Econômico

☉ COFFEE WOMEN IN LIST OF TOP 100 POWERFUL WOMEN OF BRAZILIAN AGRIBUSINESS

The presence of women in business is increasing all over the world and the agribusiness is no exception. Forbes Brazil launched its first "100 Powerful Agribusiness Women" list, with names that are transforming different segments of the sector. Two coffee women are in the list. Flavia Barbosa Paulino da Costa is the executive director of coffee exporter Exportadora Guaxupé, that exports around 1.5 million bags per year and is between the 10 largest companies in its sector in Brazil. Flavia is also the secretary of the board of the Brazilian Coffee Exporters' Association (Cecafé). Carmem Lucia Chaves de Brito is a coffee grower in Três Pontas, Minas Gerais. She was the first woman to chair the board of directors of the Brazilian Specialty Coffee Association (BSCA). A board member still today, Carmem continues to be an activist and key leader of this growing sector of the Brazilian coffee business.



Source: Forbes and Cecafé

INTERCROPPING OF COFFEE AND BRAZILWOOD PROMOTES BIODIVERSITY IN BAHIA

The Brazilian Forest Service, through its Arboretum Program, is promoting the intercropping of coffee and Brazilian redwood in Bahia. The insertion of the forestry component in crops benefits the soil and improves microclimatic conditions contributing to environmental sustainability and biodiversity conservation. The Arboretum Program will offer inputs (seedlings, fertilizers and hydrogel), technical assistance and monitoring to the growers assisted by the program. The objective is to promote conservation and enhancement of biodiversity.

Source: MAPA

RORAIMA LEARNING ABOUT CULTIVATION OF AMAZON ROBUSTAS

Coffee growers and technicians from Roraima, a Brazilian state located in the Amazon Basin, in the northern region of the country, visited several municipalities in Rondonia to learn more about Amazon Robusta production systems. Rondonia is the fifth-largest coffee producing state in Brazil and a reference on Amazon Robusta cultivation and production. The initiative is headed by the Bonfim Rural Entrepreneurs Association (AERBON, from its initials in Portuguese) with the support of Embrapa Roraima.

Source: Embrapa

NESTLÉ'S SUSTAINABLE ACTIONS IN COFFEE AND COCOA IN BRAZIL

Nestlé Brazil disclosed sustainability commitments assumed in the country to accelerate the company's global ambitions regarding climate goals. Nestlé's worldwide coffee sustainability program Cultivating with Respect, created 10 years ago, includes 1,200 certified farms with 100% traceability and 85% of them already using regenerative practices. The company's Cocoa Plan Program, focused on lower social and environmental impact and improving quality, also created 10 years ago, already counts with more than 1,100 certified producers. The farmers are geo-monitored and this increases the degree of traceability of the raw material. The goal is to have 100% of the Brazilian cocoa supply chain certified by 2025.

Source: Revista Cafeicultura

COCOA PRODUCTION AND DEMAND/CONSUMPTION TO GROW IN LATIN AMERICA

P&A's Webinar "Oportunidades para el cacao en Latino América – calidad y rentabilidad" (Opportunities for cocoa in Latin America – quality and profitability) held on November 03, was attended by cocoa business leaders whose replies to polls indicated that both production and consumption is expected to grow in Latin America. The recording of the Webinar is found here: https://youtu.be/Sub0_xTA2h4. Moderated by P&A's director João Alberto, the webinar had three presentations: 1. Cacao en el mundo y oportunidades para Latino América (Cocoa in the world and opportunities for Latin America) – from minutes 00:00 to 15:00 –, by Carlos Brando, P&A partner; 2. Calidad, productividad y sostenibilidad: áreas tradicionales y nuevas (Quality, productivity and sustainability: traditional and new areas) – from minutes 21:22 to 38:07 –, by Pedro Ronca, P&A's CocoaAction Brazil coordinator; and 3. Mecanización del postcosecha (Post harvesting mechanization) – from minutes 41:55 to 01:08:53 –, by Aline Turati, P&A's trader in charge of South America. The presentations were followed by a lively question and answer and discussion period.



Source: P&A

Brazilian Prices

Main Producing Regions / Farm Gate

October 29, 2021

Arabica Naturals (R\$/ 60 kg bag)		Conilon / Robusta (R\$/ 60 kg bag)	
Cerrado MG	1305,00 ↑	Colatina-ES fair average price	814,00 ↓
Mogiana	1300,00 ↑		
South Minas	1300,00 ↑		
Arabica Pulped Naturals (R\$/ 60 kg bag)		BM&F (US\$/60kg Arabica bag)	
Cerrado MG	1405,00 ↑	Dec 2021	242,65 ↑
South Minas	1400,00 ↑	Mar 2022	248,70 ↑
		May 2022	249,30 ↑
		Real R\$ / Dolar US\$	
		Oct 29, 2021	5,67 ↑

+ 8.1%

Source: www.qualicafex.com.br

WHAT CAN COCOA LEARN FROM COFFEE?

Although they are totally different products, cocoa and coffee are grown in countries that share a similar social and economic fabric, their growers face similar environmental, social and economic challenges, the percentage that the growers get of the price of the product paid by consumers is in the same range, and there is increasing concentration of production in a few countries. Since coffee seems to have started earlier and to be more advanced in sorting out sustainability issues, can cocoa learn from coffee?

I will use the success story of coffee in Brazil to speculate whether there are things that the cocoa sector can learn from coffee. In a nutshell, Brazil is today the largest producer and exporter and the second largest consumer of coffee in the world.

Coffee productivity in Brazil doubled in the last two decades after doubling in the decade before, i.e., productivity increased almost four times in three decades. The current average productivity of about 30 bags (1.8 tons) per hectare is only surpassed by Vietnam and the average for the rest of the world is under 10 bags (600kg) per hectare.

On a different front, the percentage of the FOB export price of coffee that reaches Brazilian growers is 85% or above, on average. This is to be compared with under 70% in most countries, with a few exceptions – e.g.: Vietnam and Colombia –, and as low as 40 or even 25% in a few cases.

Are these productivity and price to producer gaps also found in cocoa producing countries? If yes, it may be helpful to learn how to address them using the case of coffee in Brazil.

The key to reaching maximum economic productivity, i.e., not the highest productivity possible but the one that brings the greatest returns, lies on technology and therefore research to make this technology available. However, since there are cocoa producing countries with rather high average productivity and regions and specially farms that are highly productive, technology does exist. The question is how to make it available in low productivity countries and specially to small cocoa growers.

The answer lies on the availability of *training and extension services, access to inputs* – fertilizers and pesticides – *and equipment*, that requires *financing* and profitability to repay it that, in turn, requires *greater access to export prices*. Greater participation in export prices requires an *efficient supply chain*, with cocoa changing fewer hands until it reaches the harbor, *improved processing and logistics*, internationally competitive and *fair taxes and fees*, and *efficient harbors*, to mention the most important items.

A quick analysis of the items listed in the previous paragraph shows that most if not all of them are not within cocoa growers' control and lie on actions to be taken beyond farm gate to create what is called an *efficient enabling institutional and business environment* or simply *enabling environment*.

The creation of this enabling environment requires well-orchestrated actions between the private sector and government. It is usually private sector actors and institutions that bring up the needs to implement what has to be done with their support. Government plays a key role in the creation or improvement of this enabling environment, e.g.: the implementation of public extension and training services and a fair tax system. On the other hand, extension services and training, financing, logistics and harbor operation may be provided and improved by the private sector with government support. Finally, items like processing and trading may be improved by the private sector itself. Can the cocoa sector and government of cocoa producing countries work together to improve the enabling environment beyond farm gate for the benefit of growers who will then make more money and be in a better position to be more socially and environmentally sustainable?

Bringing cocoa growers together in associations or cooperatives may be a critical move to improve the enabling environment in several different ways: developing their own training and extension services, creating a more competitive market by supplying inputs and equipment themselves or implementing barter systems, channeling loans to growers and/or providing guarantees for them, processing their cocoa and selling it in larger volumes with a much greater bargaining power and access to future markets that small growers do not have. Where small cocoa growers prevail, which is mostly everywhere, they can also get together in small groups or associations to become as competitive as larger growers by accessing technology, buying inputs, processing and selling their product together in order to save costs and add quality and value to their product. Finally, cooperatives and associations can also be an excellent instrument to defend the interests of cocoa growers.

The concepts presented above are described in more detail in the presentation *Cacao en el mundo y oportunidades para Latino América* (Cocoa in the world and opportunities for Latin America), that was part of P&A's Webinar "Oportunidades para el cacao en Latino América – calidad y rentabilidad" (Opportunities for cocoa in Latin America – quality and profitability). The video of the presentation can be accessed at <https://youtu.be/PfrwU1zvn1M>.

COCOA PROCESSING

Pinhalense and Carmomaq offer a state-of-the-art line of cocoa processing equipment that is used in Brazil and abroad to increase processing efficiency and to preserve quality.



1

1. Cocoa Pod Breaker

Latest technology, compatible with pods of all sizes and providing cleaner cocoa beans. Eliminates the risk of accidents in manual pod breaking and provides much safer working conditions.



2

2. Pulping Machine

Shortens fermentation and drying times without affecting cocoa quality.



3

3. Fermentation Box Dumper

Greatly facilitates the transfer of cocoa beans between boxes and saves labor. Avoids residues left in the boxes and their mixing with other lots and qualities.

4. Rotary Drier SRC

Accelerates drying and saves labor without loss of quality or physical damage to cocoa beans. Can be combined with Pinhalense bed dryer with mixer for pre-drying.

5. Precleaner PL or BJ

Aspirates dust and light impurities and separates impurities larger or smaller than cocoa beans



4

6. Destoner CPFBNR

Uses flotation to separate impurities the same size of cocoa beans but with lower density ("lighter") or higher density ("heavier") than the cocoa beans.

7. Size Grader PFA or PORTO

Separates beans according to size to meet clients' requirements, to improve uniformity of roasting (same size beans) and to facilitate density separation.

8. Gravity Separator MVF

Uses flotation to eliminate beans with defects associated to density: light, mal formed, hollow and other unwanted beans.

9. Roaster ATTO line

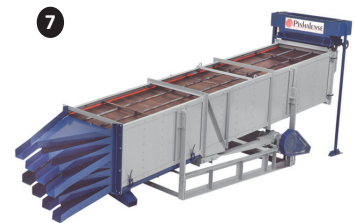
Carmomaq's ATTO line of roasters comes with high technology suitable for roasting cocoa. There is a wide range of capacities to cater for many sizes of operation.



5



6



7



8



9

The video at <https://youtu.be/Uj7HtDhgzcU>, presented at the P&A Cocoa Webinar with the title Mecanización del postcosecha (Post harvesting mechanization), further describes the machines above and shows some of them working.