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

- CAN THE INTERNET BE USED TO IMPROVE TRAINING AND EXTENSION SERVICES? (PAGE 3)
- STATE-OF-THE-ART PARCHMENT COFFEE DRIERS (PAGE 4)

### (||) SYSTEM TO ALERT COFFEE GROWERS ABOUT PLANT DISEASES

Researchers at the Federal University of Lavras (UFLA) have developed a warning system to identify coffee plant diseases. Based on a mathematical model, the system detects the possible occurrence of coffee leaf rust and phoma in the near future and warns the user through a color code: red - "spray", yellow - "be alert", green - "no disease likely to occur". The technology also uses environmental variables such as rainfall and temperatures to advise whether spraying should take place, helping the grower to rationalize the use of agrochemicals, save costs and be more sustainable. The system, in development since 1998, has been implemented in 5 municipalities in Minas Gerais so far and field tests have been successful in 90% of the trials. The warning system should be available to the public at no charge at Cooxupé's website by the end of 2020.

#### Source: UFLA

### (I) GEOGRAPHICAL INDICATION FOR ESPÍRITO SANTO CONILONS

Espírito Santo state has applied for the Indication of Origin of its Conilon coffees at the Brazilian Patent Office (INPI). CAFESUL, COOABRIEL, COOPBAC, and COOPEAVI cooperatives have led the process and created Espírito Santo Coffee Federation (FECAFÉS), an entity that represents coffee growers in the state. SEBRAE-ES assisted in the process of data collection and regulatory construction for the request of Geographical Indication registration, that was also supported by the Agricultural Research and Extension Services Institute of Espírito Santo (INCAPER) and the Espírito Santo office of the Brazilian Cooperatives Organization (OCB-ES). The quality of Conilon coffees was again confirmed at the Coffee of the Year contest at the 2019 International Coffee Week (SIC), the largest coffee event in Brazil, held in Belo Horizonte, capital of Minas Gerais state, every year. Source: OCB-ES

## $(\|)$ 6 OUT OF EVERY 7 COFFEE GROWERS HAVE UNDER 50 HA OF LAND IN BRAZIL

According to the Coffee Crop Survey 2019, conducted by the National Agricultural Confederation (CNA) and Café Point with a sample of 296 coffee growers, 86% of the Brazilian coffee properties are under 50 ha. Minas Gerais has the majority (69%) of the properties, as expected since it is the largest coffee producing state in Brazil. Most of the growers interviewed indicated that 2019 had lower cup quality mainly due to adverse weather and flowering irregularities. Manual harvesting is used by 75% of the properties and natural coffee is the processing method adopted by 85% of them. Future sales of coffee are made by only 30% of the growers interviewed. The survey is carried out every year and is used to guide strategies and actions by CNA's National Coffee Commission.

#### Sources: CNA and CCCMG

### STARTUP COMPANY LAUNCHES COFFEE THAT CAN BE "EATEN"

A Brazilian food technology startup has just launched an "edible" coffee product to be presented to the market under the name Bitcoffee during the Alimentaria Fair in Barcelona, Spain in April. The product is obtained by the processing of premium Arabica coffee to preserve 85% of its nutritious content, flavor and aroma. "Bitcoffee" will soon be available for sale in the foodservice, retail and export segments.

Source: Globo Rural



### (||) METHODOLOGY TO EVALUATE QUALITY OF SOLUBLE COFFEE IS UNDER DEVELOPMENT

The Brazilian Soluble Coffee Industry Association (ABICS) is developing a methodology for the sensory evaluation of instant coffee, the first of its kind. As part of the process, it gathered specialists and stakeholders for a cupping session in February with the goal of enhancing the criteria and methodology that were developed over five sessions in 2019. Three standards have been defined: excellent, differentiated and conventional soluble coffees. A new cupping round will take place in May 2020 to finalize the process. The work is based on a wide range of quality categories, preparation methods and attributes that will allow coffee professionals and the public at large to learn more about soluble coffees.

#### Source: Revista Cafeicultura

### COFFEE SECTOR ACTIONS PREVENT EXTINCTION OF FUNCAFÉ COFFEE FUND

The Brazilian Coffee Fund (FUNCAFÉ) was under the risk of being terminated by a federal government bill under discussion in Congress. Bearing this in mind, the coffee sector worked intensively to revert this political decision and to ensure that such an important fund remains available and in operation. The effort had positive results and FUNCAFÉ will remain active supporting the coffee supply chain.

Sources: CNC and Noticias Agricolas

### (||) "BRAZIL WITHOUT POVERTY" PROGRAM ENABLES POOR FAMILIES TO ENGAGE IN COFFEE **PRODUCTION**

"Brazil Without Poverty" is a Brazilian government program that aims at the social and economic inclusion of families living in extreme poverty in rural areas, with per capita monthly income below R\$ 89 (US\$ 19). Families receive an amount of R\$ 2,400.00 (US\$ 516) to develop small agri projects. Beneficiaries also receive technical assistance from the state's Emater-MG to enable access to financial resources as well as to carry out their projects. More than 667 families in Minas Gerais received such benefits in 2019, totaling an investment of R\$ 1.4 million (US\$ 301,000). One example is a vulnerable family that used to work as coffee pickers but always wanted to produce coffee in their own small property which will happen this year.



Source: Fmater-MG

# (||) R\$ 15 BILLION AVAILABLE FOR SEVERAL CROPS INCLUDING COFFEE

Banco do Brasil will allocate an amount of R\$ 15 billion (US\$ 3.2 bn) to coffee, soybeans, corn, cotton, rice, and sugar-cane crops in 2020/2021. This credit line has below-market interest rates starting at 6% per year and repayment period of 14 months for perennial crops and 12 months for other crops. This credit line allows growers to have better conditions to finance their activities and stimulates the country's economy.

#### Source: Globo Rural

### (||) MIDDLE EAST DEMANDS MORE BRAZILIAN COFFEE

Demand for Brazilian coffees from Middle East and Arab countries is growing. Brazilian Coffee Exporters Council (Cecafé) data shows that this group of countries imported 1.78 million bags of Arabica coffee in 2019, a 4.9% increase over 2018. Cooxupé alone shipped 232,000 bags to the Middle East, 95% more coffee than the cooperative had ever exported to the region before.

Source: Brasil-Árabe News Agency

# (I) LARGEST BRAZILIAN ROASTER DIVERSIFYING INTO FOOD PRODUCTS

3corações Group has started 2020 with new acquisitions such as the vegetable beverage brand "A Tal da Castanha" and the Brazilian roasting and sales operation of Japanese multinational Mitsui, that includes brands like Café Brasileiro, 3 Fazendas, .br Gold (specialty), as well as soluble coffees, chocolate beverages and capsules. 3 Corações is diversifying its portfolio of products and wishes to consolidate itself as a food company. Roasted and ground coffee currently represents 70% of the group's revenue that is expected to reach R\$ 5.2 billion in (US\$ 1,15 bi) in 2020.

Source: Exame magazine



#### CAN THE INTERNET BE USED TO IMPROVE TRAINING AND EXTENSION SERVICES?

It was stated in last month's Coffidential Outlook that up to US\$ 2 billion per year may be available for coffee growers outside Colombia, Vietnam and Brazil if the average percentage of the FOB export price that reaches growers in these other countries is raised to the levels prevailing today in these three countries. The article indicated three major areas of intervention to bring this about: logistics, efficiency of the coffee supply chain, and legislation, with emphasis on taxes and fees.

These three areas of intervention are key components of what is called the *enabling environment* to make growers more sustainable, in this case addressing the economic pillar of sustainability. Other components of this enabling environment are training and extension services, organization of growers, efficient markets for inputs and equipment, and financing. This Outlook article addresses training and extension services whose high costs make them insufficient even in advanced producing countries like Costa Rica, Colombia and Brazil let alone in other countries, some of which do not have at all.

The global challenge of training 12.5 million predominantly small holders to produce coffee more efficiently, sustainably and with better quality has an enormous magnitude and cost. This leads me to question whether the current person-to-person and group training and extension services methodologies can address the challenge and solve the problem at costs that can be absorbed by the coffee supply chain. If the answer is "no" it is then obvious that we will have to rely on new communication technologies combined with adult learning methodologies to reach this end.

The group instead of person-to-person, technician-to-grower approach is already a big achievement, as shown by the case of the state of Rondônia in Brazil. A technician who assisted 105 growers with an average of 3 visits per year using the one-to-one traditional methodology now reaches 210 families with an average of 5 visits per year using a collective technical assistance methodology. However, can enough technicians be paid to reach millions of small growers who are mostly not organized in cooperatives or associations? Since the answer is again "no" the solution seems to lie on remote online training, subject to whether these small holders have access to the internet.

Let's first investigate the feasibility of online training using what the Brazilian National Agricultural Training Service (SENAR) did as a result of an agreement with the Brazilian Program of the Global Coffee Platform (GCP). Almost 10,000 coffee growers of all sizes were trained on sustainable coffee production using the GCP's Coffee Sustainability Curriculum (CSC) at a cost of about US\$ 10.00 per person! This cost will fall further as more growers are trained because the fixed costs will be distributed over a larger number of trainees.

This is not to say that the training above is all that growers need but it provides a good indication of the costs of online training. If we assume that 10 different online courses per year can be superior to the average training that growers receive (or not) today, the annual cost will be US\$ 100.00 per grower. The total cost will be about US\$ 27 million for 270,000 growers which is about the number of coffee producers in Brazil. It is estimated that the country spends 2.5 to 3.0 times this amount every year in coffee extension services that are very far from reaching all growers. This quick calculation shows that online training and extension services should definitely be further investigated.

The issue of limited access to the internet in agricultural areas of coffee producing countries can be countered by downloading the content of the online training courses in the towns that growers have to visit often as part of their business itself. The same is valid for filling questionnaires or replying to questions used to evaluate growers' proficiency regarding the training.

Last but not least, the fact that not all coffee growers will have the capability to access online training, specially older and less educated ones, is yet another reason to involve their children and to incentivize generational change.

#### **Brazilian Prices**

Main Producing Regions / Farm Gate			February 28, 2020		
Arabica Naturals (R\$/ 60 kg bag)		Conilon / Robusta (R\$/ 60 kg bag)			
Cerrado MG	545,00		Colatina-ES fair average price		315,00
Mogiana	540,00	<b>←</b> ¬			
South Minas	540,00	+ 12%	BM&F (US\$/60	kg Arabica bag)	Real R\$ / Dolar US\$
Arabica Pulped Naturals (R\$/ 60 kg bag)			Mar 2020	132,40 🕴	Feb 28, 2020 4,48 †
Cerrado MG	605,00	<b>↓</b>	Mai 2020	133,80 🛉	Source:
South Minas	600,00		Jun 2020	135,05 🛉	www.qualicafex.com.br

# MACHINE OF THE MONTH



#### STATE-OF-THE-ART PARCHMENT COFFEE DRIERS

Pinhalense has reinvented its SRE rotary driers over the years with a lot done recently to retain their condition of state-of-the-art driers for coffee parchment anywhere in the world. It is therefore no wonder that Pinhalense has sold over 25,000 SRE rotary driers to large, mid-size and small drying mills and for coffee growers of all sizes, including those who produce micro-lots, in over 45 coffee producing countries. The SRE rotary driers remain the single best-selling product in the large and diversified Pinhalense line of products and their sales are increasing again as a result of recent and exclusive product development. Let's review what has been changed, improved and introduced in drums, transmission, heat exchangers, pre-drying overhead silos and digital controls.



**Drums** - The rotary drums have evolved to accommodate different sizes of batches of coffee to be dried and to increase drying flexibility with the introduction of divided drums of several capacities. As new sizes were introduced, changes in the drums themselves included digital laser punching to ensure a more reliable air flow area and design improvement in the air distribution system.

**Transmission** - Gear boxes have been added as an alternative to the traditional easy-to-maintain cog-and-wheel transmission system.

**Heat exchangers** - Different types of heat exchangers have been used over the years and two types are currently offered in order

to adapt to the intensity of use and clients' budgets. The parchment husk feeding system has been improved to increase fuel efficiency and optional equipment to control emission is available (spark control and after burner).

**Pre-drying overhead silos** - As described in the Machine of the Month in Coffidential No. 131 (June 2018) – https://bit.ly/33tMIC9 –, the conventional overhead loading silos have been completely redeveloped to become a new product: an overhead pre-drier connected to the heat exchanger that cuts drying time by several hours depending on the moisture of incoming parchment. Equipped with its own hot-air fan and heat distribution system, the pre-drier is an alternative to the standard overhead loading silo.

Digital control system - As presented in detail at the Machines of the Month in Coffidentials Nos. 140 and 141 (March and April 2019) - https://bit.ly/2QoSfob and https://bit.ly/2whj6M8 -, the three-point temperature measurement system is unique in the market and allows heat supply to be stopped before the temperature of coffee reaches the set limit. This avoids the overheating of coffee that always happens if fuel supply is only interrupted when the temperature limit is reached. This digital system, that can be operated from mobile phones, enables automatic temperature control in the coffee mass (lower temperature oscillation and the use of customized drying curves), shorter drying time, lower fuel consumption and better control of coffee quality.

