

CONFIDENTIAL

**13th
Anniversary
Issue!**

YOUR BEST SOURCE OF INFORMATION ABOUT THE BRAZILIAN COFFEE BUSINESS.

THIS ISSUE:

- COVID-19, SUSTAINABILITY AND MARKET MYTHS - 1 (PAGE 3)
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☉ “DRAIN” EFFECT MAY REDUCE COFFEE BEAN SIZE AND CHANGE ITS SHAPE

The “drain” effect, i.e.: the unequal division of the reserves of the plant in its different parts, is already well known in coffee trees, mainly during the bean development (“filling”) period when vegetative growth is almost paralyzed. The drain effect is also observed in coffee beans resulting from different flowerings. Beans from second and third flowerings present smaller size. The occurrence of higher percentages of peaberries (round beans) – 10 to 12% in the second flowering and 80 to 90% in the third to be compared with 0% in the first flowering – may also be related to the drain effect. However, other factors such as climate and physiology may be behind the occurrence of peaberries.



Source: Procafé

☉ COFFEE VARIETIES NAMED AFTER BIRDS FLY HIGH!

Coffee varieties with bird names, like the Arara cultivar, have been well accepted by growers due to their high productivity and resistance to diseases. New varieties being launched, such as Asa Branca, Beija-Flor, Rouxinol and Acauã, are suggested for warmer and drier regions since they are more tolerant to water stress apart from good resistance to leaf rust. The Japy cultivar has good tolerance to phoma, and is indicated for higher altitudes and high humidity areas such as mountains. Siriema, that will be available soon, combines multiple resistance to leaf miner and leaf rust besides high productivity. Procafé Foundation, that developed these varieties, has a scheme that supplies their seeds within Brazil.

Source: Folha Procafé

☉ FINTECHS TO OFFER UP TO US\$ 100 MILLION IN CREDIT TO COFFEE

Fintechs are becoming more popular in Brazil and in 2019 reached 64% of Brazilians using banking services up from only 16% in 2015. This number, already high and reaching 72% for younger users, may increase even more in 2020 due to the digitalization imposed by the pandemic. Fintechs focused on the agri sector are offering simplified and 100% online access to credit for coffee growers who have their coffee stored in warehouses registered with the platform. More than R\$ 5 million (US\$ 923 thousand) have been already released to growers in São Paulo, South Minas and Cerrado. The fintechs estimate that up to US\$ 100 million in credit will be contracted by the coffee sector over a two-year period.

Source: Agrolink

☉ EMATER MINAS LAUNCHES DIGITAL TOOL FOR RURAL EXTENSION WORK

The Technical Assistance and Rural Extension Institute of Minas Gerais (Emater-MG), has just launched the “Mexpar 4.0” document, that presents and describes the digital tools to be used with its rural extension methodology. Mexpar 4.0 makes available via internet the techniques already used and improves connection with rural growers to disseminate knowledge in a more agile way. Although this is specially welcome at these difficult Covid-19 times, it may change the way extension services are performed thereafter.

Source: Emater-MG

BRAZILIAN SPECIALTY COFFEE EXPORTS TO ASIA CATCHING UP

There are good news for the Brazilian specialty coffee sector with exports resuming to Asian countries after being postponed due to the pandemic. Uncertainty related to coffee consumption continues, though, in the American market that is still going through tough times due to COVID-19. The United States are the main destination for Brazilian specialty coffees.

Source: Notícias Agrícolas and BSCA

HIGH COST SAVINGS WITH MOUNTAIN-COFFEE-COMPATIBLE HAND-HELD HARVESTERS

Harvesting with hand-held vibrating machines is a technology that multiplies by four the productivity of coffee picking labor. It is specially suited to mountainous coffee plantations where conventional self-propelled or tractor-towed large harvesters cannot operate. This technology positively impacts coffee growers' and pickers' productivity and income with cost savings estimated at R\$ 770 million (US\$ 143m) in 2019, according to a survey coordinated by Embrapa. Conducted by the National Agricultural Confederation (CNA) and CaféPoint, another survey with growers in the main Brazilian coffee producing states of Minas Gerais, Espírito Santo, São Paulo, Bahia, Rondônia and Paraná, showed that manual harvesting (without equipment) is used by 42% of them, mechanical harvesting by 25%, harvesting with hand-held machines by 23% and 10% of Brazilian growers use selective manual harvesting (picking of ripe cherries only).

Sources: Embrapa and Agrolink

LOWEST HISTORICAL INTEREST RATES FOR BRAZILIAN COFFEE GROWERS

Leaders of the coffee sector unanimously proposed a reduction of Funcafé's interest rates for the current crop in order to optimize the use of the fund to benefit coffee growers in Brazil and to protect the production chain from the difficulties and impacts imposed by the pandemic. The proposal is maximum interest rates of up to 5.25% for growers and cooperatives and 6.75% for industry and trade, compared to the current 6% and 7.5%, respectively.

Source: CNC

HIGH QUALITY SUSTAINABLE COFFEES FROM BAHIA FAMILY FARMERS

Coffees from Bahia, specially from Chapada Diamantina and the Southwestern territories, have been gaining recognition for their high quality in recent years. Cooperatives of family farmers have worked to improve quality and cater to new markets in Brazil and abroad. Piatã Specialty Coffee Cooperative (Coopiatã) and Barra do Choça and Region Coffee Growers Cooperative (Cooperbac) are good examples. The 2019 Cup of Excellence, promoted by BSCA, had 3 growers from Coopiatã among the 10 finalists. Coopiatã is currently receiving investments from the Bahia government to support technical assistance and rural extension services to small growers, processing equipment for specialty coffees, a roasting facility, and technical guidance on marketing strategies.

Source: Bahia state government/CCCMG

UNDERGROUND DRIP SYSTEM TO HELP LOWER COFFEE CULTIVATION COSTS

Considered to be a great development in irrigation, the underground drip system already covers an area of more than 15,000 hectares of Arabica and is now being introduced in Conilon plantations. The system may bring great savings in maintenance costs when compared to overground drip systems because it eliminates damage from cultivation and harvesting practices among others.

Source: Agrolink

Brazilian Prices: Main Producing Regions / Farm Gate

July 31, 2020

Arabica Naturals (R\$/ 60 kg bag)		Conilon / Robusta (R\$/ 60 kg bag)	
Cerrado MG	555,00 ↑	Colatina-ES fair average price	374,00 ↑
Mogiana	550,00 ↑		
South Minas	550,00 ↑		
Arabica Pulped Naturals (R\$/ 60 kg bag)		BM&F (US\$/60kg Arabica bag)	Real R\$ / Dolar US\$
Cerrado MG	615,00 ↑	Sep 2020	122,75 ↑
South Minas	610,00 ↑	Dec 2020	125,50 ↑
		Mar 2020	130,30 ↑
			July 31, 2020
			5,22 ↓

+ 11.8%

Source: www.qualicafex.com.br

COVID-19, SUSTAINABILITY AND MARKET MYTHS - 1

Covid-19 and New Normal times will certainly increase the costs of producing coffee in response to reduced labor availability, hygienic protection procedures, more complex logistics, etc. This negative impact on the economic pillar of sustainability will certainly affect the two other pillars – social and environmental – of sustainable coffee production.

Considering that a substantial part of the additional costs may derive from labor issues, from availability and distancing to personal protection procedures, it is high time we address labor saving technology in coffee. Usually treated as a taboo because it sounds like creating unemployment, empowering workers with the use of machines is becoming crucial given that labor is becoming progressively scarce for poorly paid coffee jobs, small-holder family farmers who use their own labor are not making enough money, and their children do not want to remain on the farm to do things the same way their parents and grand-parents did.

Market myths, especially about coffee harvesting and processing, do not help the introduction of technology at all. There is a romantic view that associates the production of quality coffee with harvesting and processing practices that are labor intensive. In other words, the use of technology in these areas is seen as detrimental to the production of quality coffee.

These myths are not many but lead to inefficient use of labor and higher production costs that go beyond labor itself. Avoidable environmental damage can be also caused by these myths. What are they? All **myths** refer to the production of quality coffee that, according to them, requires:

1. **selective picking**,
2. **sun drying*** and
3. **natural fermentation***.

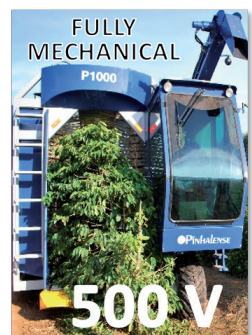
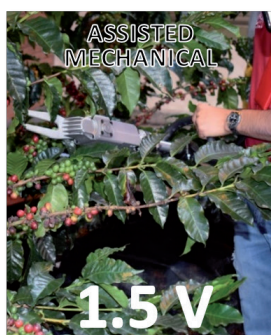
The romantic concepts behind these myths include retaining “traditional” practices and support the idea that “small is beautiful”. Altogether this goes against technology and economies of scale. It is no wonder that coffee is one of the few agricultural products traded in major exchanges that still has millions of people involved in its production. This would be great if these millions of people were making enough money! However, as shown in the Outlook at Coffidential No. 147 (<https://bit.ly/2XXuyHz>), the average income per coffee grower in all producing countries is under US\$ 100 per month...

There is today harvesting technology that can be used even in mountainous areas providing that from minor to substantial changes are made in the way coffee trees are spaced. Harvesting technologies currently available – manual and mechanical – can multiply the volume of coffee selectively hand-picked by a person from 1.5 to 500 times (! It may be argued that the degree of selectivity associated with these technologies is smaller than in the case of selective hand picking. However, reality is that “selective” hand picking today brings from 3 to 15% of non-ripe cherries depending on the country and labor availability.

There is also technology available to separate non-ripe cherries and to pulp ripe cherries only, with the possibility of pulping the unripe and over-ripe ones separately. Less selective picking and separate pulping of cherries at different stages of maturation does imply that smaller volumes of quality coffee will be available. However, more coffee can be produced to make up for this shortage, be it by much needed increases in productivity or by planting more coffee trees. In addition, the “other-quality” coffees deriving from less selective picking may find their own markets, both abroad and in their countries of origin to help increase domestic consumption.

The economic rule behind the decision to move away from manual selective harvesting is that the cost-savings attached to this change will more than offset the reduction of revenues from the sale of less parchment from ripe cherries combined with parchment from other cherries. Growers will therefore have higher profits than before, bearing in mind that, like in any business, their objective is to maximize profit and not necessarily quality. Last but not least, growers can increase productivity to bring-up the level of quality coffee they will produce to the higher level they produced before the change in harvesting technology. This will eventually add to profits the full revenues from other qualities!

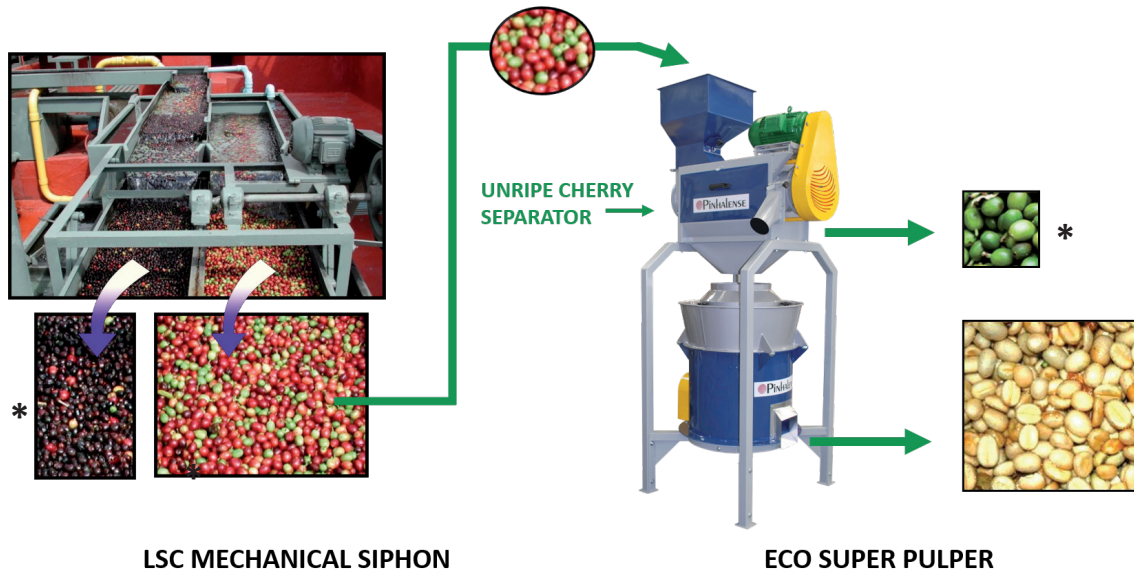
**Myths 2 and 3 will be addressed in future Outlooks.*



V = Volume of coffee picked by a single person

CHERRY SEPARATION

Considering that today “selective” hand picking may bring in a substantial percentage of non-ripe cherries, now is the right time to introduce cherry separation at *all* cherry processing facilities. This will also prepare such facilities for the changes in harvesting technology that several countries are considering.



* Can be pulped *later* in the same pulper or *at the same time* in another pulper

The cherry separation technology proposed here is compatible with *all* coffee harvesting techniques, from manual selective to full mechanical harvesting, including manual stripping, assisted mechanical harvesting and hand-held vibrating machines.

1. Separation of floaters

The LSC mechanical siphons not only separate impurities larger or smaller than coffee, like twigs and sand, and stones but, most importantly, they separate the less dense (“lighter”) over-ripe and partially dry cherries from the denser (“heavier”) ripe and unripe cherries.

The Pinhalense LSC mechanical siphons are ecologically friendly because they recycle themselves, in a closed loop, the little water they require to operate. This water has to be replaced only periodically, when it becomes dirty, after a couple of days of use if coffee arrives clean.

2. Separation of unripe (green) cherries for washed coffee

The Pinhalense line of Eco pulpers has adjustable pressure unripe cherry separators *before* the vertical pulper. Pressure can be adjusted to pulp either ripe cherries only, in order to have top quality parchment, or ripe and semi-ripe cherries together to still have quality parchment for a wider market. This money-making adjustment to produce the coffees that the market wants is only possible with unripe/green cherry separators that *precede* the vertical pulper.

The Eco machines can also be adjusted to pulp separately over-ripe and semi-ripe cherries that usually cup better and reach a higher price than their corresponding natural/unwashed versions.

Finally, the unripe cherry separators in the Pinhalense Eco pulpers can be bypassed if the cherries received are 100% ripe or nearly so.

Known for zero-loss of parchment beans with the pulp, the Eco pulpers are multi-purpose machines that allow growers to deliver their parchment coffee in the conditions the market wants in order to maximize profits.

3. Separation of unripe (green) cherries for natural coffees

If growers want to prepare natural coffees free from cherries other than fully ripe, they can use the color sorters Pinhalense by Angelon.