

CONFIDENTIAL

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

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CLIMATE CHANGE: EARLY HARVESTING AND QUALITY LOSSES

Arabica harvest in the main producing areas of Brazil started about 30 days earlier this year. Under regular conditions, harvesting would have typically started in mid-May but almost all coffee areas in São Paulo and Minas Gerais have started harvesting in the second half of April. Warm climate has favored such anticipation: flowering occurred early last September with good rainfalls between last December and March; April has also been a warm and dry month. Such anticipation of coffee harvesting happened for the last time in the 2002/03 season. Unusual levels and frequency of rainfall at this time of the year are impairing harvesting and drying in the South Minas and Mogiana regions that produce the bulk of the Arabica crop in Brazil. Cup quality is likely to fall as a result of inclement weather that included even hail in some localities.

Sources: Valor Econômico and P&A

FROSTS MAY NOT HIT COFFEE PLANTATIONS IN 2016

Frosts will not hit coffee plantations this year according to the Department of Atmospheric Science of the University of São Paulo. Atmospheric data indicates that the Atlantic Ocean has not been registering low enough temperatures that are usually necessary for the phenomenon to occur.

Source: Folha Rural

THE GOOD FUNGUS *CLADOSPORIUM CLADOSPORIOIDES* PRESERVES COFFEE QUALITY



After its natural occurrence on a farm in West Bahia in 2008, the fungus *Cladosporium cladosporioides* has been isolated and is now produced in vitro. Tests with this “good” fungus in West Bahia have shown substantial improvement in cup quality because it prevents the growth of “bad” fungi like *Fusarium*, *Aspergillus*, *Colletotrichum* and *Penicillium* that negatively affect coffee quality as indicated by studies at the Federal University of Lavras (UFLA).

Source: Revista Attalea Agronegócios

COOP DEVELOPS SYSTEM TO ENHANCE TRACEABILITY

In order to increase control and to reduce coffee storage mistakes, an automatic tracking system was developed by the Paraguaçu Coffee Growers Cooperative in Minas Gerais state. Coffees that arrive at the coop receive a chip containing information about its origin, weight, lot and location where the bag will be stored. The cooperative’s warehouses have the capacity to store as many as 4,000 big-bags of coffee. The fully automated traceability system was implemented two years ago with the convenience that all information regarding the stored coffees can be followed up on real time by growers using an app for mobile phones.

Source: G1 Sul de Minas



IMPORTS OF CAPSULES INCREASE

Despite the political and economic crises, imports of coffee capsules keep growing in Brazil. The country imported 975,000 kg of roasted coffee from January to April, 22% more than in the same period in 2015. The capsule market, which once grew 40% per year in Brazil, is likely to expand 15% on average until 2019. Quality and convenience are reasons that lead coffee consumers to pay more to acquire the product.

Source: Folha de São Paulo

ABIC TO INCLUDE CAPSULES IN ITS COFFEE QUALITY PROGRAM

After more than one year of technical studies, the Brazilian Coffee Roasters’ Association (ABIC) has launched a methodology to analyze and evaluate the quality of coffee in capsules. The idea is to extend the existing Coffee Quality Program and start to certify coffee capsules based on attributes such as quality of the raw material, degree of roasting, flavor, aroma, acidity and aftertaste, among others, in order to support the industry and to offer higher quality coffees to consumers. There are already 90 brands of coffee capsules in the market today with Nestlé dominating the segment with a 48% share, held by the Nespresso and Dolce Gusto brands together. The 12-year-old ABIC Quality Program has already certified 585 R&G coffees offered by 110 companies. The association is currently planning to expand the program to reach smaller roasters that need to invest in the quality of their products to compete with larger players. ABIC intends to have 750 coffees certified and 220 companies in the Quality Program in the next three years, with a focus on the superior and gourmet categories.

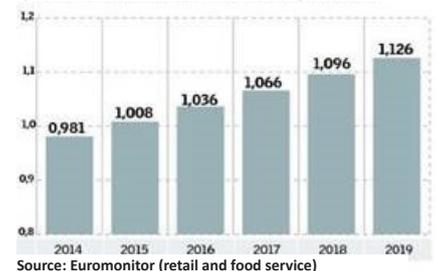
Sources: ABIC, Valor Econômico and O Estado de São Paulo

COFFEE CONSUMPTION GROWS DESPITE CRISIS

Local coffee consumption in Brazil has increased 3.5% between November 2015 and February 2016 in relation to the same period one year before despite the economical crisis. If this growth rate continues, total demand for coffee should reach 21.3 million bags in 2016 according to the Brazilian Coffee Roasters’ Association (ABIC). A survey by Euromonitor also indicates that coffee consumption will continue to advance in the country between 2015 and 2019 with capsules accounting for 1.1% of market participation, twice as much as today. Roast and ground coffee will continue to dominate the sector with an 80% share.

Source: Valor Econômico

Coffee Consumption in Brazil
(sales volume in million tons)



THIRD COFFEE WAVE HITS SÃO PAULO

The Third Coffee Wave, started in the USA in the years 2000 with the establishment of micro roasters and artisanal coffee preparation, is new to Brazil. It has grown since 2015 in large cities like São Paulo where young roast masters and baristas help to develop the trend focused on lighter roasted coffees that lead to milder beverages with pronounced acidity and fruity and nutty notes. There are currently 3 micro roasters that cater to 78 coffee houses in the city. According to them, this is still a niche segment due to the higher quality, more expensive coffees and also because the average national preference goes for strong and highly concentrated coffees, usually dark roasted. Consumers interested in the third wave are youngsters, between 20 and 40 years old, who travel and have tasted different types of coffee abroad.

Source: O Estado de São Paulo (Paladar Section)

PEPPER REPLACES COFFEE IN ESPIRITO SANTO



Pepper production is increasing in Espírito Santo state due to its good financial returns. Many coffee growers are replacing coffee with pepper; they find pepper cultivation “easier to deal with” and more profitable with less need for water, agrochemicals and labor. Data by the Agriculture Census of Espírito Santo indicate that pepper production has increased 82.5% in 2015 with a 50% growth in harvested area, while coffee production declined 20.2% in the same period, with a reduction of 0.8% in harvested area. The production of pepper is already present in 31 municipalities of the state, with marked presence in large coffee producers like São Mateus, Jaguaré and Vila Valério.

Source: G1 ES | A Gazeta

EMBRAPATEC TO BE CREATED TO SUPPORT EMBRAPA

The Brazilian Agricultural Research Corporation (Embrapa) expects Congress to approve still this year the creation of Embrapatec, its wholly-owned subsidiary that will engage in the commercialization of state-of-the-art agribusiness technology. It is important for the institution to enter into partnerships with the private sector in order to grant financial support to advance scientific research instead of relying solely on public funds. Embrapa, a reference in tropical agricultural research, has contracts worth R\$ 110 million (US\$ 30.5 mil) but that is not enough to support its current research needs. Embrapatec should be financially supported by Embrapa during its first three years and it should be able to support itself thereafter.

Source: Valor Econômico

IS MANUAL SELECTIVE HARVESTING A SOURCE OF JOBS... OR POVERTY?

Polemic as this title may sound, it does convey a strong message about the need to change the way coffee harvesting is done today. Coffee harvesting has been and still is a major source of employment and income in most coffee producing countries but it remains to be seen whether these jobs will pay fair wages in the future. Brazil has been facing this challenge for a couple of decades now and there is already strong evidence that other coffee producing countries are now reaching this stage.

One hears that in important producing countries labor to pick coffee does not seem to be as available as before at going wages and the returns for small growers who harvest coffee themselves seem progressively small to justify remaining in the business. Brazil has been reacting to these same problems for years and many solutions have been devised although others are still to come. Two related questions lie at the heart of the problem: does coffee harvesting have to be selective and does it have to be performed manually?

Top quality coffee can be produced without the selective picking of only ripe cherries providing that cherries harvested at different stages of maturation are separated and only coffee coming from ripe cherries reach the most demanding markets. Manual harvesting can be performed in ways other than selective, for example, by stripping together some, most or all cherries on a given branch. Mechanical harvesting is today possible in a variety of ways, some of which may have a moderate degree of selectivity. The options above empower labor to pick more coffee and to earn more money with the added benefit to growers that the cost per unit of coffee harvested falls!

Understanding the facts above and changing current harvesting paradigms in response to them creates a win-win situation except for the fact that if cherries other than ripe are picked there will be a smaller offer of higher quality products and a larger offer of lower quality products than today. This can be solved by increasing production to supply top quality coffee to demanding markets and using the lower-quality, lower-price products to create additional demand and consumption in market segments that are more price oriented and less quality conscious. Grower income will grow altogether! Sacrilegious as this may sound to quality gurus, it makes perfect marketing sense because most products, food and beverage included, are offered in a wide range of qualities and prices, from gourmet/luxury products to those that meet basic needs.

From a different perspective, it may be simply the case that the savings in non-selective harvesting more than offset the losses due to lower quality and, as a result, profits may increase. This is the very incentive that any coffee grower needs to challenge current harvesting paradigms and to embrace new harvesting techniques! Trials and calculations have to be made to further endorse changes in harvesting systems.

Special techniques to process other than ripe cherries and central wet milling can help change the selective harvesting paradigm. Technology is today available to get the best out of unripe, partially ripe and over-ripe cherries and also to support the current tendency to produce natural coffees in traditional washed coffee origins. Central wet milling not only lowers processing costs for small growers – there are huge diseconomies of scale in investing in small wet milling equipment – but also enables both the production of top-quality washed coffee with reliable and consistent cup features and aggregation of different qualities deriving from other than ripe cherries. If departing from well established manual selective harvesting may at first sight imply losses, there are ways to turn them into gains as shown by the techniques in this paragraph.

Last but not least, there are barriers to change harvesting practices, for example, uneven cherry maturation and very steep slopes, that prevail in some areas. They should be addressed and are not necessarily unsurmountable. P&A has developed a roadmap to change harvesting practices that can be customized to specific farm, regional or country needs. Do contact us if interested to learn more about how P&A can assist you change harvesting paradigms and make more money.

Brazilian Prices

Main Producing Regions / Farm Gate

May 31, 2016

Arabica Naturals (R\$/ 60 kg bag)		Conilon / Robusta (R\$/ 60 kg bag)	
Cerrado MG	515,00 ↑	Colatina-ES fair average price 385,00 ↑	
Mogiana	510,00 ↑		
South Minas	510,00 ↑		
Arabica Pulped Naturals (R\$/ 60 kg bag)		BM&F (US\$/60kg Arabica bag)	
Cerrado MG	535,00 ↑	Jul 2016	135,65 ↓
South Minas	530,00 ↑	Sep 2016	144,15 ↓
		Dez 2016	148,50 ↑
		Real R\$ / Dolar US\$	
		May 31, 2016	3,59 ↑

+ 4.9%

Source:

www.qualicafex.com.br

ON-FARM PROCESSING OF CHERRIES AT DIFFERENT STAGES OF MATURATION

Today so-called selective harvesting is said to bring in anywhere from 3 to 15% of unripe, partially ripe, over-ripe and partially dry cherries in different regions and coffee producing countries. If these other than ripe cherries are not removed, they will be pulped together with the ripe cherries and the whole coffee lot will have a quality and price below what it could otherwise have. If labor is a growing problem everywhere because of scarcity and cost, manual sorting of other than ripe cherries before pulping will no longer be a solution.

Pinhalense offers efficient mechanical sorting solutions that are incorporated into its line of on-farm machines that process washed, semi-washed (pulped natural or honey) and natural coffees.

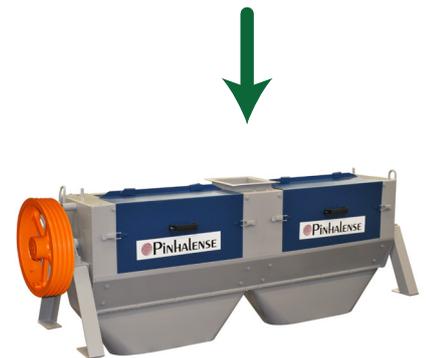
1. OVER-RIPE, PARTIALLY DRY AND DRY CHERRY SEPARATION

The mechanical siphons LSC separate over-ripe, partially dry and dry cherries from ripe and unripe ones in a process that does not consume water that is permanently recycled. At a time when many washed coffee producing origins are becoming interested in naturals, the mechanical siphon LSC becomes an important tool to improve quality because it enables cherries with different degrees of moisture to be dried separately to obtain different qualities of natural coffees with uniform moisture contents. On the other hand, the mechanical siphon LSC is the first step in a Pinhalense wet processing line designed to produce top quality washed and/or semi-washed coffees. Besides separating the unripe and ripe cherries for further processing, the mechanical siphon LSC cleans incoming cherries with the removal of leaves, twigs, sand, stones and other impurities.



2. UNRIPE AND PARTIALLY RIPE CHERRY SEPARATION

After the floaters – over-ripe, partially dry and dry cherries – are separated by the mechanical siphon LSC, the mixture of unripe, partially ripe and ripe cherries is fed to a Pinhalense unripe (green) cherry separator that uses pressure to sort out the unwanted unripe and/or partially ripe cherries. Because the unripe (green) cherry separator is placed before (*and not after*) the pulper and has a pressure adjustment, it is possible to select cherries according to their degree of maturation. For more quality demanding markets, only fully ripe cherries should be accepted and pulped whereas partially ripe cherries may be pulped together with the ripe ones for less quality sensitive markets. In addition, because the unripe (green) cherry separator is placed before the pulper, the unripe cherries are not damaged because they do not go through the pulper; this retains quality and value for this product with or without further processing. The latest version of the Pinhalense unripe (green) cherry separator does not require water to operate.



3. PULPING OF RIPE, PARTIALLY RIPE, UNRIPE AND OVER-RIPE CHERRIES

The conventional way of pulping all cherries together meets with increasing quality problems as the contents of other than fully ripe cherries increase as a result of the growing difficulties to perform real selective picking. The solution is mechanical separation as described in items 1 and 2 above. This separation leaves behind other than fully ripe cherries that are often dried with the pulp to produce low-quality naturals in markets that are known to discriminate naturals. Pinhalense offers technology to pulp unripe, partially ripe and over-ripe cherries in order to maximize their quality and price. In some countries and markets pulped / washed unripe and over-ripe cherries are known to gain 20 or even 30% in price over their natural versions. The Pinhalense double-drum vertical pulpers are known in the market for the least physical damage to coffee, the least loss of parchment with pulp, and the least pulp mixed with parchment. These pulpers are the final component of the unique Pinhalense trio of separation and pulping machines – the mechanical siphon, the unripe (green) cherry separator and the double-drum vertical pulper – that provide state-of-the-art advanced technology to efficiently produce any type of washed, semi-washed and natural coffee with any quality that the market requires. Coffee growers who use this Pinhalense trio know that they can produce different qualities in order to maximize their income with the offer of a product mix that customizes the coffees that they produce to clients' needs.



Contact the Pinhalense / P&A agent nearest to you or P&A itself to find out how the machines described above can help you make more money.