

# CONFIDENTIAL

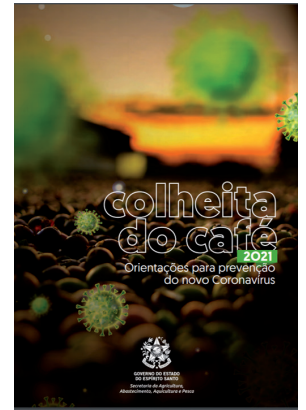
**YOUR BEST SOURCE OF INFORMATION ABOUT THE BRAZILIAN COFFEE BUSINESS. THIS ISSUE:**

- **BRAZIL IS SECOND LARGEST PRODUCER OF WET PROCESSED COFFEE IN THE WORLD, AFTER COLOMBIA (PAGE 3)**
- **HOW “CHEAP ELEVATORS” CAN ADD TO MILLING COSTS OVER THEIR LIFE TIME (PAGE 4)**

## HYGIENIC MEASURES TO PROTECT COFFEE PICKERS BEING DISSEMINATED AGAIN

Coffee institutions such as the Agricultural Research and Extension Services Institute of Espírito Santo (INCAPER) and the Technical Assistance and Rural Extension Institute of Minas Gerais (Emater-MG) are again providing and disseminating health and safety recommendations for coffee picking at COVID-19 times. The materials are illustrated and contain useful information about hygienic measures and sanitation of equipment, transportation, and workplaces. The booklets, available in Portuguese, can be accessed at: <https://bit.ly/3unsEhn> and <https://bit.ly/33fWN6F>.

Sources: INCAPER and Emater-MG



## CONILON PRICES TO REMAIN HIGH IN SPITE OF RECORD CROP

Conilon coffee harvesting has already started in Brazil and production is projected at 16.6 million bags, 16% higher than in 2020. Coaabriel, the largest Conilon coop in Brazil, located in São Gabriel da Palha, Espírito Santo state, expects to receive 1.8 million bags in 2021, a volume 28.6% higher than in 2020. Although the coop exported coffee directly for the first time in 2020 and its exports in January 2021 have already exceeded the total shipped in 2020, it does not plan to export all the coffee it receives. In spite of a possible record crop, Conilon growers expect higher prices this year due to the increased domestic demand likely to result from the smaller Arabica production expected in the country.

Sources: Money Times and Valor Econômico

## BRAZILIAN SPECIALTY COFFEE PRODUCTION TO BE AFFECTED BY ADVERSE WEATHER

Although it is still early to measure the negative impacts of less-than-ideal climate, specialty coffee production in Brazil in 2021 is expected to fall in both volume and quality. Coffee plantations in high altitude areas were less affected by high temperatures. However, irregular rainfall impaired flowering and coffee ripening is uneven. This will affect both coffee quality and production negatively.

Source: Notícias Agrícolas



## 90% OF LAST CROP SOLD BEFORE BEGINNING OF NEW HARVESTING SEASON

Brazilian coffee sales of the 2020/21 crop reached an average of 90% – Arabica coffee sales reached 89% and Conilon 95% – of the total in mid-April when the new harvest season was starting in several areas. This explains the increase in coffee sales flow.

Sources: Reuters and Notícias Agrícolas

**BRAZIL TO HAVE PIONEER STUDY ON COFFEE NUTRITION**

A pioneer survey of coffee nutrition will follow the steps of the successful study carried out for soybeans last year. Now in its final stage, the study will investigate growers’ perceptions regarding use of nutritional products, brands of fertilizers and other inputs, and strategic data. The survey will also map the products used by growers in the segments of soil correctives and conditioners, NPK fertilization, biostimulants, and fertilizers. More than 1,200 interviews will take place in 950 municipalities located in strategic coffee areas of Minas Gerais, São Paulo, Espírito Santo, Paraná, Rondônia and Bahia states.

Source: Agrolink

**COFFEE GROWERS’ COUNCIL CREATES COMMITTEES IN STRATEGIC AREAS**

The National Coffee Growers' Council (CNC) created four committees to make Brazilian coffee production more competitive, sustainable and integrated. The Sustainability Committee will develop a list of actions to support communication abroad regarding the reality of Brazilian coffee growers. The Research & Technology Committee, that will work closely with the Coffee Research Consortium, will address Brazilian coffee competitiveness and seek innovative technological solutions to reduce costs, increase growers’ income and facilitate market access. The Statistics Committee will work with the Ministry of Agriculture’s Agency in Charge of Warehousing and Crop Estimates (CONAB) to improve the transparency and credibility of Brazilian coffee crop figures and other strategic information such as production costs. The objective of the Communications Committee is to bring CNC closer to growers with more assertive communication.

Source: CNC

**PROJECT IN ESPÍRITO SANTO TO IMPROVE QUALITY AND INCREASE CONSUMPTION OF CONILON COFFEE**

Coabriel coffee coop is developing a project in partnership with the Federal Institute of Espírito Santo to improve the way growers process their coffee focusing on quality. The program expects to increase the consumption of Conilon coffee as well as growers’ income. The three-year-long program already supports 1,060 families and aims at reaching all the 6,200 members of the coop.

Source: Valor Econômico

**FIRST COFFEE SHOP IN THE WORLD TO OFFER CARBON CREDITS IS LOCATED IN BRAZIL**

Café da Margem, a coffee shop located in São Paulo, will be the first company in the world to offer carbon credits on its menu, the MCO2. This initiative, developed in partnership with MOSS, a pioneer startup on tokenizing greenhouse gas compensation, was designed by the Grape ESG platform in collaboration with Nescafé one year ago. This initiative aims at neutralizing greenhouse gases and minimizing the impacts of global warming. Visitors who purchase MCO2 will directly assist four socio-environmental projects in the Amazon. The buyer will receive an email with a certificate showing the area preserved by the initiative.



Source: Revista Cafeicultura

**Brazilian Prices**

Main Producing Regions / Farm Gate

April 30, 2021

Arabica Naturals (R\$/ 60 kg bag)		Conilon / Robusta (R\$/ 60 kg bag)	
Cerrado MG	805,00 ↑	Colatina-ES fair average price	468,00 ↑
Mogiana	800,00 ↑		
South Minas	800,00 ↑		
Arabica Pulped Naturals (R\$/ 60 kg bag)		BM&F (US\$/60kg Arabica bag)	
Cerrado MG	875,00 ↑	Jul 2021	175,50 ↑
South Minas	870,00 ↑	Sep 2021	179,75 ↑
		Dec 2021	180,35 ↑
		Real R\$ / Dolar US\$	
		April 30, 2021	5,43 ↓

+ 9.4%

Source: www.qualicafex.com.br

## INNOVATION IS ESSENTIAL... BUT RESULTS TAKE TIME!

Isn't it surprising that Brazil, a traditional supplier of natural coffees, has produced up to 10 million bags of pulped natural / honey and washed coffees in 2020 and that 1 million of these bags may be delivered to ICE, the coffee exchange in New York City? This makes Brazil the second largest source of wet processed coffee in the world, after Colombia. It is indeed a new coffee processing world, as I wrote here before.

The reason for this article is not to boast about Brazilian coffee but *to address both the need for innovation and the perseverance required for innovation to reach scale in the coffee business*. The numbers in the paragraph above derive from the creation of a new intermediate processing system between natural and washed coffees – pulped natural / CD / honey – that was developed in Brazil in the late 1980s. For over 200 years it was firmly believed and never questioned in commercial scale that parchment coffee could be dried with mucilage attached.

It was the pioneering experiments of three growers in South Minas and São Paulo's Mogiana Regions and their request to Pinhalense machinery maker to make the system feasible in commercial scale that gave birth to the new processing system. The growers' objective was to get a natural coffee cup free from the harsh taste of unripe and partially ripe cherries.

Pinhalense's response was a pulper preceded by an immature cherry separator in order to pulp only fully ripe cherries and to dry the parchment with all mucilage attached to it. Pinhalense rotary driers were able to receive and dry this parchment with mucilage after some sun drying. The surprising outcome was that the resulting coffee tasted like a special class of top quality natural ideally suited for espresso, a type of coffee that was then gaining market around the world!

Enthused by this initial success and then a director at Pinhalense, I thought acceptance of the new processing system was going to be immediate. Much to my surprise, upon visiting key European and American importers and roasters, who loved the cup features of the pulped natural samples, I learned that the coffee was great but no one was interested to buy it unless a couple of hundred thousand bags, some said half-a-million, would be available. At the time, it was much more difficult to introduce different coffee products because specialty coffee was at its infancy.

As buyers correctly anticipated, the production of what was named Cereja Descascado (CD) in Portuguese and pulped natural in English evolved slowly. The number of machines sold was well below expectations until production reached 3 or 4 hundred thousand bags at around 1995. Soon after, the number of machines sold annually increased 10 times and the new product became sought after by importers.

But this was not the end of the story. Concerned about the time it took to pre-dry parchment with all mucilage attached, larger growers requested and Pinhalense supplied a solution: the use of a new generation of mucilage removers that the company had just developed to do *partial* removal of mucilage. Parchment with less mucilage attached could be fed into the rotary driers sooner.

Organoleptic features changed as mucilage was partially removed. The cup progressively moved away from naturals and approached washed coffees the more mucilage was removed. This explains why Brazilian coffees started to be accepted at the coffee exchange in New York City in the first decade of this century. However, it was only now that the price set by ICE made it worthwhile for Brazilian growers to deliver their coffee.

It also took time for the pulped natural system to start to be used outside Brazil and Central America became its largest "second home" with countries elsewhere using it too. Central America uses the name "honey" for pulped natural coffee and created several types of honeys according to the amount of mucilage left attached to parchment. Black honey is dried with all mucilage and red and yellow have more mucilage removed, with the colors associated with the way parchment looks with different amounts of mucilage attached.

Altogether the world may be today producing 15 million bags of pulped natural coffee, an ideal component for quality espressos as it has now become widely known. Pressure extraction of coffee tends to emphasize the unwanted cup features of unripe cherries that are not present at pulped naturals produced with the use of "green" cherry separators.

The growth of the specialty coffee sector has made innovation easier to be adopted, as shown by the different types of fermentation now being experimented with and used. However, time is still required for innovation to evolve and to be standardized in order to reach the mainstream coffee market.

## HOW “CHEAP ELEVATORS” CAN ADD TO MILLING COSTS OVER THEIR LIFE TIME

Polemic as the title above may sound, it refers to the fact that it is easy to offer lower priced elevators by using several “gimmicks”. These “tricks” do make elevators to cost less but may damage coffee, mix different types of coffee, create feeding bottlenecks that decrease the capacities of machines, etc.

Bucket, also known as cup-and-belt, elevators have been addressed several times in previous Machines of the Month. Confidential No. 113 presented the most recent one (<https://bitly.com/VjGUu>) that in summary explains

- how Pinhalense elevators are designed to avoid product damage;
- why they are product – coffee and type of coffee – specific, for greater efficiency and profits;
- why they require little cleaning when changing from one type of coffee to another and therefore save labor; and
- how they are user and labor friendly.

The idea here is to provide additional information that goes beyond the items above, that are presented at much greater detail at <https://bitly.com/VjGUu>.

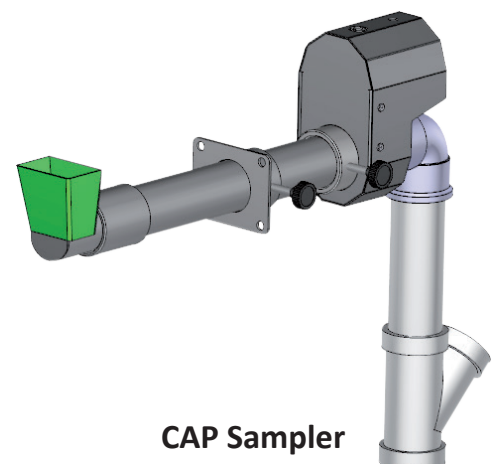
Pinhalense elevators have specific features designed for different types of coffee: cherry (wet and dry), parchment (wet and dry) and green coffee. Examples are different types of feed hoppers and pulleys designed to avoid clogging at feeding, increase efficiency, and eliminate physical damage to the product. Pinhalense recommends elevators specifically designed for the coffee product to be processed.

High speed of transport to increase capacity can be used to lower the cost of elevators but have the adverse impact of physical damage to coffee, not only breakage or cracking of green beans but also hulling of parchment. In a business known for small profits, the losses caused by damaged coffee can quickly offset the lower investment in the wrong type of elevators.

Another fallacy is the choice of elevators whose prices are lower because their capacity is very close to or even smaller than those of the machines they feed in order to make their purchase more appealing. Since “families” of elevators have different average capacities for a specific coffee product, say 4 tons/hour, 8 tons/hour and so on so forth, and these capacities may not necessarily coincide with those of the machines, it is not unusual that, for example, a 5 tons/hour machine is equipped with an elevator for 4 tons/hour in order to lower investment costs. This is something Pinhalense never does because it plays safe and always offers elevators with some spare capacity to account for “lighter” (lower density) coffee, impurities, uneven feeding, etc.

Since margins are small in coffee processing, performance and quality of the final product are critical to ensure a good return on investment (ROI). For this reason, Pinhalense elevators can now be equipped with the pneumatic samplers CAP to collect samples before and after critical machines in order to evaluate their performance and the quality of their work and to adjust the equipment accordingly if needed. The CAP samplers can be used, for example, to evaluate the efficiency of cleaning and hulling / husk removal and the precision of grading and blending. Pinhalense can, in consultation with the client’s team, advise where to install the CAP samplers in existing milling facilities.

Finally and returning to our title, the price of elevators is also closely associated to the quality of the materials used and their durability: thickness of the metal sheet, correct choice of belts and cups, efficiency of the electric motors, etc. Lower quality materials and components require earlier replacement of elevators and decrease the return on investment (ROI).



**CAP Sampler**