

# CONFIDENTIAL

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

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## IMPACTS OF PANDEMIC ON BRAZILIAN COFFEE CONSUMPTION

A survey of coffee consumption habits in Brazil in 2019 and 2021 was conducted by the Campinas Agronomy Institute (IAC) in partnership with the Axxus Institute and the Campinas State University (Unicamp). The main objectives of the study were to learn how the pandemic affected consumers' perceptions, opinions, preferences and objections, how and when coffee is present in people's daily lives, and possible changes in purchasing and consumption habits. The survey interviewed 4,074 people, 55% women and 45% men, in all regions of Brazil. The confidence level of the study is 99% and the margin of error 2%. The survey confirmed that coffee is the second most consumed beverage in Brazil, after water. Consumers have an emotional relationship with the product, that is associated with one of the pleasures of life and is seen to improve mood in everyday life. Comparing the 2019 and 2021 survey data, consumption of coffee increased more during the pandemic than in previous years but 21% of the persons interviewed stated that they opted for lower-priced products in 2021 while only 7% of the respondents affirmed the same in 2019. This scenario reflects the financial difficulties brought by the pandemic. The group that buys the brand they prefer regardless of price fell from 26% in 2019 to 12% in 2021. Those who only buy the product on sale were 6% in 2019 and soared to 11% this year. The full survey, available in Portuguese, can be accessed at <https://bit.ly/3AEgCCU>.

Source: IAC

## LATE FROST DAMAGE TO COFFEE PLANTATIONS

Late frost damage to coffee may impair coffee production in Brazil even further than originally expected. While some crops had plants affected from the middle third to the bottom (Photo 1), others had coffee trees affected only in the middle third, while the upper and bottom thirds of the plant remained green (Photo 2). When taking the “knife test” (that checks sap flow in the tree trunk) to evaluate the damage in Photo 2 trees, it was observed that the plant tissue was dry and necrotic (Photo 3). It was also noted that the upper third, that until then was green, started to die at the time of pre-flowering (Photo 4). The same phenomenon occurred in the bottom third of the tree that was also green. Frost damage needs to be carefully monitored and growers must be prepared for late consequences.



Source: Peabirus

## FROSTS CREATE OPPORTUNITIES FOR CONILON

While Brazilian Arabica coffee growers are facing problems with the weather – drought and frosts – which makes the scenario for the next crop still uncertain, Conilon coffee growers are, on the other hand, benefiting from it: higher prices and increasing demand. Domestic consumption of Conilon coffee, considering only the R&G market, is likely to increase from 9 to 13 million bags from the previous to the current year. The main coffee industries in Brazil had to change their blends and the share of Conilons in the country's coffee consumption is expected to grow to 65% from the usual 45% according to the Espírito Santo state's Vitória Coffee Trade Center (CCCV, for its initials in Portuguese). Higher demand for Conilon coffee is also being observed in the instant coffee industry and in exports. Investments in quality may also be behind increasing demand in recent years. According to Coabriel, the largest Conilon coffee cooperative in the country, growers are investing in crop renovation and productivity.

Source: Valor Econômico

**BOOK PRESENTS ADVANTAGES OF TECHNICAL AND MANAGEMENT TRAINING**

The Brazilian Agricultural Training Service (SENAR, for its initials in Portuguese) has launched the book “ATeG - Five Stages of Rural Transformation” that presents success cases of growers who have improved their lives after they attended the institution’s technical and management programs. The book describes how technology and innovation reach growers, increase their income and contribute to reducing inequalities in all regions of Brazil, and create a new rural middle class. The book is divided into three sections: the emergence of rural extension services in Brazil, SENAR’s ATeG methodology, and stories of the resilience of growers who had good technical and management results already in the first year after they used the methodology. The book, available in Portuguese, can be accessed at: <https://bit.ly/3mPIIvv>.

Source: CNA

**CECAFÉ DISCUSSES WAYS TO IMPROVE COFFEE STORAGE PRACTICES**

The National Storage Training Center of the Federal University of Viçosa (Centreinar/UFV) presented a proposal to Cecafé for a training program for coffee warehouse managers and technicians, aiming at the continuous professionalization of the sector. Special attention is needed in post-harvesting processing, with continuous monitoring of storage units, in response to the growing demand of Brazilian coffee importing markets and increasingly strict rules related to food safety.

Source: Cecafé

**BRAZILIAN SPECIALTY COFFEE SECTOR TO HAVE ONLINE COURSES**

The specialty coffee market in Brazil will have a new tool for the continued evolution and qualification of its stakeholders. The Brazilian Specialty Coffee Association (BSCA) created the BSCA School, an online platform that offers several coffee-oriented courses. BSCA’s expertise, acquired from its own experiences and through international partnerships, was used to design the courses, that follow global standards. At first, three courses will be available: Introduction to Specialty Coffees, for those who want to improve the quality or start the production of specialty coffees, the Basic Course: preparation methods and their impact on quality and flavor, and the Basic Course for Baristas: preparation of espresso and cappuccino coffee as well as its variables. Digital certificates will be available and issued at the end of the course.

Source: BSCA

**BIOINPUT AS ALTERNATIVE TO HIGH FERTILIZER AND PESTICIDE COSTS**

Labor, fertilizers and pesticides are the main components of coffee production costs and have a direct impact on the profitability of the grower. A viable solution that is increasingly used today is the adoption of bio-inputs that contribute to increasing the resilience of trees through biological conditioning of the soil. With the use of bio-inputs, mainly to improve soil conditions, plants benefit from root expansion and increasing ability to use water and nutrients. Better economic results are made possible as healthier coffee trees depend less on fertilizers and pesticides.

Source: Agrolink

**INTERNATIONAL INITIATIVE TO PROMOTE BRAZILIAN COFFEE**

The Brazilian Coffee Exporters' Association (Cecafé) is promoting a series of actions in China, Saudi Arabia, Italy, Australia, and the United States to improve the sustainable and quality image of Brazilian coffee. The initiative includes cupping, exhibitions and presentations focused on environmental, social, and economic sustainability. These countries were chosen for their great consumption potential. In addition to in-person activities, digital materials will be made available in Cecafé’s social networks in English, Spanish, Italian, Japanese, Mandarin, Arabic, and Russian.

Source: Notícias Agrícolas

**Brazilian Prices** Main Producing Regions / Farm Gate September 30, 2021

Arabica Naturals (R\$/ 60 kg bag)		Conilon / Robusta (R\$/ 60 kg bag)	
Cerrado MG	1175,00 ↑	Colatina-ES fair average price 832,00 ↑	
Mogiana	1170,00 ↑		
South Minas	1170,00 ↑		
Arabica Pulped Naturals (R\$/ 60 kg bag)		BM&F (US\$/60kg Arabica bag)	
Cerrado MG	1265,00 ↑	Dec 2021	237,50 ↑
South Minas	1260,00 ↑	Mar 2022	240,65 ↓
		May 2022	236,45 ↓
		Real R\$ / Dolar US\$	
		Sep 30, 2021	5,44 ↑

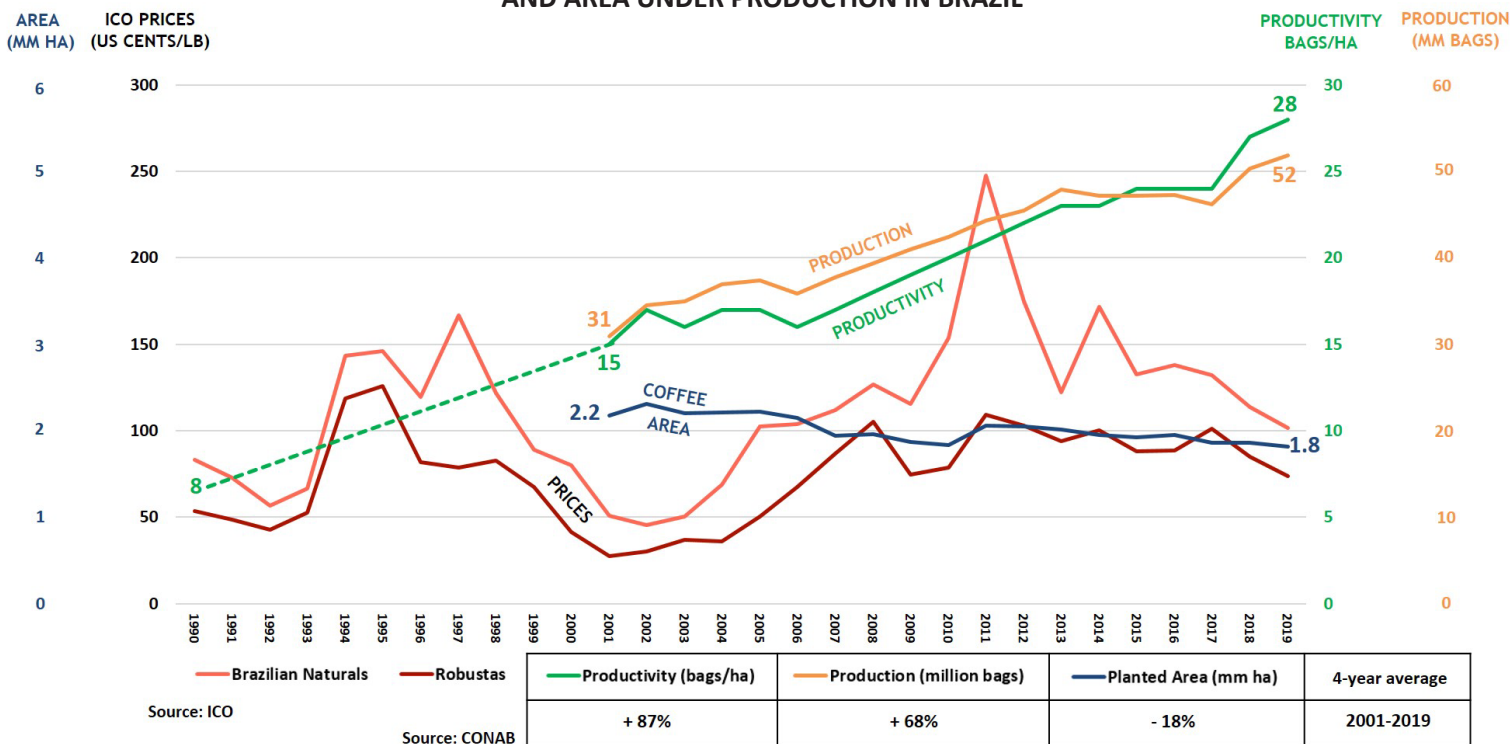
+ 8.12%

Source: [www.qualicafex.com.br](http://www.qualicafex.com.br)

## HIGH PRICES PAVE THE WAY FOR INCREASED PRODUCTION OUTSIDE BRAZIL AND VIETNAM

Higher productivity and, consequently, lower costs have boosted the participation of Brazil and Vietnam in world coffee production. Can this be reverted by the current high prices? I argue below that high coffee prices can spur this reversion but it will only be durable with structural changes. I use the case of Brazil to demonstrate how structural changes made a great difference in spite of low coffee prices.

**COFFEE PRICES, PRODUCTION, PRODUCTIVITY AND AREA UNDER PRODUCTION IN BRAZIL**



The graph above, that I chose to start in 1990, after the end of the ICO quotas, and to stop in 2019, before prices started to go up, is puzzling in the sense that productivity and production in Brazil went up very much irrespectively of coffee prices!

The extinction of the Brazilian Coffee Institute (IBC) and the end of the ICO quotas happened roughly at the same time causing the country's coffee business to enter the 1990s in the terrible situation of falling coffee prices, to be interrupted only and for a few years by the 1994 frost, and the disorganization of coffee research, extension services, marketing, etc. that used to be carried out by IBC. Oddly enough, this may have created the challenges that the Brazilian coffee business needed to become much more efficient.

Contrary to expectations, a series of reactions happened, mostly induced by the private sector and carried out by government and the private sector itself. This increased the efficiency of the coffee supply chain both within and beyond farm gate with productivity nearly doubling in the first 10 years after 1990 and doubling again in the first 20 years of this century: a four-fold increase in 30 years. I summarize these reactions below with more emphasis on what was actually done than at the time it took place.

Universities, research institutes and foundations became much more active in coffee research, with the initial problems of lack of focus and strategic planning and duplication of efforts. This was eventually corrected by the creation of the Coffee Research Consortium that brought all these institutions together to create and develop a coffee research agenda.

Coffee extension and training services that were performed by IBC were progressively transferred to the extension services offered by the state governments and cooperatives. Permeability and outreach increased rather than shrank.

Together these two changes responded to growers' eagerness to become more efficient in the face of lower coffee prices. Growers actually "woke up" from a period of controlled prices before 1990 that allowed inefficient production to prevail. New varieties, greater planting densities, mechanization and good agricultural practices (GAP) made the trick.

The pulped natural system, also called CD and honey, was developed, on-farm processing increased, the supply chain from farm-gate to harbor was streamlined with coffee changing fewer hands, and the Brazilian Specialty Coffee Association was created. Gains in on-farm efficiency were coupled with actions beyond farm gate, including the rebranding of Brazilian coffees, from fair commercial quality to all qualities, including specialty. Café do Brasil became Cafés do Brasil, "one country many flavors", and the country was divided in producing regions that offered a multitude of coffee qualities.

On a different front, Brazilian domestic coffee consumption started to be promoted not coincidentally in 1989/1990. In 30 years, Brazilian consumption increased more than 3 times, from 6.5 to about 21 million bags per year, creating a huge market for locally grown coffees.

The remaining coffee inventory at the end of the quotas period was progressively sold to create the Brazilian Coffee Fund (Funcafé) that is primarily used to finance coffee growers and, to a lesser extent, the coffee supply chain. Funcafé financing has however now been surpassed by that provided by private banks that are, by law, required to channel a given percentage of deposits at sight to low interest financing of agricultural activities. Government also supports the agribusiness with the exemption of sales taxes for agriproducts that are exported.

Coming back to my opening statement, can producing countries besides Brazil and Vietnam use this opportunity of higher coffee prices, that is likely to be temporary, to bring about durable structural change that will increase their efficiency and competitiveness? Yes, and the examples of Brazil above can help this to happen. There is much talk today about value addition and this is a great thing. However, value addition alone is not enough to account for inefficient, non-competitive production.

## MACHINE OF THE MONTH



### CONTINUATION (from last month)... REENGINEERING COFFEE DRYING 3.0 AND 4.0

The most important quality-oriented developments in Pinhalense's driers were introduced in the last five years to support the company's claim of offering the latest technology in coffee drying.

#### 3.0 STATIC PREDRIERS FOR SRE ROTARY DRIERS

The traditional Pinhalense overhead loading silos became pre-driers not only to optimize the use of spare energy but also to avoid unwanted fermentations while coffee was stored waiting to be dried. Efficiency in the use of energy increased and drying time fell without any negative impact on quality and increased drying capacity so much needed at the peak of harvesting.

The static predrier is assembled over the SRE rotary drier where the overhead loading silo is usually located. In other words, Pinhalense enlarged the overhead silo and equipped it with a hot air distribution system to make it a predrier that unloads directly into the rotary drier.



Pre-drier for SRE rotary drier and heat exchanger with coffee husk feeder in Brazil

Hot clean air is supplied by a fan that sucks it from a heating chamber created around the chimney to use heat that is usually lost, absorbed by the surrounding environment. The air that is injected along the bottom of the predrier is free from smoke that is discharged at the top of the chimney.

Even though a static drier does not homogenize the moisture of incoming coffee, the SRE rotary drier will perform this task afterward. This will be the case even for lots that arrive with coffee presenting a good dispersion of moisture contents and that cannot be homogenized in a static drier alone.

The overhead predrier will be also a great asset in cases where the rotary drier is used in dry mills to complete drying or to homogenize uneven lots. Since drying time is short in these cases – a few hours –, the predrier will heat coffee that would otherwise have to be heated while in the drier drum.

## 4.0 DIGITAL DRYING CONTROL SYSTEM

Next to built-in pre-drying, a digital system was developed to manage the drying process with the unique feature of having three temperature control points: heat source, hot air entrance into the drying drum, and coffee being dried itself. This three-point system enables better control of coffee quality, shorter drying time, lower fuel consumption and the creation of drying curves that allow heat generation to be interrupted before coffee reaches the maximum temperature allowed. In conventional systems, heat supply is only stopped after coffee reaches the maximum temperature with the adverse impact on quality that it will be exposed to above-limit temperatures for the time that it takes for fire to be extinguished, that may be short, and the heat exchangers to cool down, that may be long enough to harm quality.



Three-point CSP drying control system

Other features of the three-point control system and its drying profiles are the ability to customize drying to different types of coffee and to have intermittent drying of lots whose incoming moisture is not uniform, i.e., beans that have different moisture contents. Intermittent drying allows moisture to migrate from the wetter to the drier beans when the coffee lot is resting, with the positive results of obtaining a final product with homogeneous moisture, that does not require hot hulling and is easier to retain quality when roasted.

Can all this be done with sun drying? Of course it can but it is questionable whether temperature controls are feasible on drying grounds and tables. Even worse, is skilled labor available to handle several small (or large) lots

simultaneously with different drying profiles expected? This is all automated and easy to do in the new driers. The beautiful romantic pictures of coffee being dried under the sun will indeed remain, weather allowing and for draining or pre-drying parchment coffee, with drying itself ideally taking place in rotary machines that can preserve full quality and increase growers' income.

The market is demanding coffees with different features that derive from old and new processing techniques including many types of fermentation. This requires customized drying and more sophisticated controls because otherwise the quality nuances that these novel processes produce will be lost at the drying stage and well before they reach the cup. This is part of the challenge of replicating at market scale what is achieved in small trials.

