

CONFIDENTIAL

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

- SHARED RESPONSIBILITY FROM CUP TO SEED TO ACHIEVE LIVING PROSPEROUS AND SUSTAINABLE INCOME (PAGE 3)
- REMOVAL AND DISPOSAL SYSTEMS FOR DUST AND HUSK REVISITED (PAGE 4)

OUT-OF-SEASON FLOWERING IN ESPIRITO SANTO STATE CONILON AREAS

After a long period of drought and high temperatures, the northern region of Espírito Santo registered a significant amount of rain which led to out-of-season flowering otherwise expected in October, after the harvesting period. The accumulated rainfall reached approximately 100mm after 90 days without significant rain in the area. In spite of that and delayed harvesting in some of the main producing areas, the expectation of the Brazilian coffee sector is positive for the Conilon crop this year. The market is working with a volume of at least 20 million bags.

Source: Notícias Agrícolas

UNRIPE COFFEE CHERRIES ARE MOST AFFECTED BY COLD WEATHER

The low temperatures that hit coffee growing regions of the Cerrado Mineiro last May did not damage coffee leaves and ripe cherries but did affect unripe coffee cherries, mainly the ones located at the bottom part of the tree. Affected unripe cherries presented brown spots on the skin and may now go straight from green/unripe to the dry stage with impacts on both yield and quality in the cup. Less-impacted unripe cherries may still ripen.

Source: Revista Cafeicultura

PRODUCTION OF GOOD QUALITY NUTRACEUTICAL COFFEES FROM UNRIPE COFFEE CHERRIES

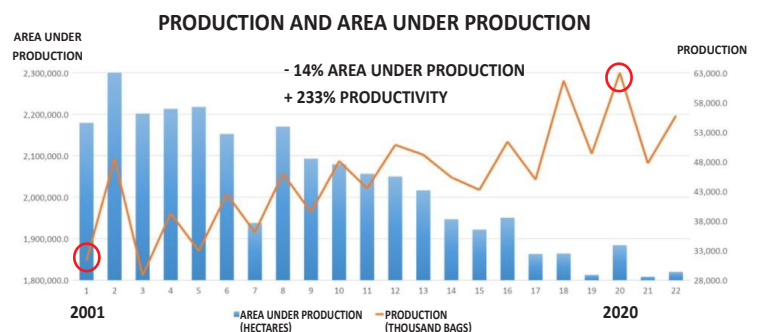
Research carried out by Lavras Federal University (UFLA) and Syngenta created a process that produces good quality coffees from unripe cherries. This post-harvesting process/technique allows early harvesting and avoids the risk of overripe beans falling on the ground if harvesting is delayed. Unripe/green cherries also have greater health benefits due to more phenolic compounds (antioxidants and anti-inflammatory). Pilot production in scale is underway after studies and trials confirmed the expected results. The patent was licensed by UFLA to Syngenta.

Source: Forbes

BRAZILIAN PRODUCTIVITY AND PRODUCTION GROW IN A SUSTAINABLE WAY

The sustainable growth of Brazilian coffee production results not only from research but also from an efficient supply chain and business environment. This “enabling environment” allows the transfer of approximately 85% of the export price to the grower. In spite of comparatively higher prices today, responsibility for sustainability has to be shared along the supply chain and include the consumer to ensure a living prosperous income for growers. The graph shows that the increase in production has been inversely proportional to the reduction in area under production, going from 31 million bags of coffee in 2001 to more than 63 million bags in 2020, and from 2.17 million hectares of planted area in 2001 to 1.88 million hectares in 2020. This result was due to the high investment in research that allowed a productivity increase of 233% (14.36 bags/ha in 2001 to 33.48 bags/ha in 2020) and a decrease of 14% in area under production.

Source: Hub do Café



INTERCROPPING OF COFFEE AND MACADAMIA INCREASES PRODUCTIVITY

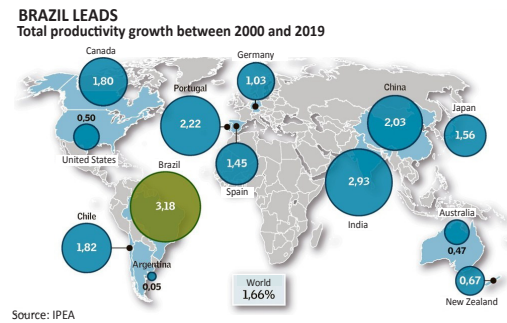
According to the São Paulo Agency for Agribusiness Technology (APTA), coffee productivity increases by intercropping it with macadamia variety HAES 816, developed in Hawaii but already used in Brazil. The HAES 816 variety was identified as the most appropriate for intercropping as it has limited horizontal growth – little pruning needed – and higher yield. The increase in coffee and macadamia productivity under irrigated conditions was 60% and 251%, respectively, compared to non-irrigated non-intercropped systems. The research evaluated six macadamia cultivars: three developed by the Campinas Agronomy Institute (IAC) and three by the Hawaii Agricultural Experiment Station (HAES). Although the IAC materials had higher productivity in non-intercropped systems, these varieties require a lot of pruning which decreases productivity in intercropping systems.

Source: Hub do Café

BRAZIL HAS THE HIGHEST AGRICULTURAL PRODUCTIVITY GROWTH IN THE WORLD

The advances observed in the research and financing sectors in recent decades have allowed Brazil to expand its food supply and to become one of the largest exporters of agricultural products in the world due to both the expansion of planted area and productivity increase. A study by the Ministry of Agriculture, Livestock and Food Supply, the Applied Economic Research Institute (Ipea), Ibmec and Viçosa Federal University (UFV) named “Total agricultural productivity: Brazil and selected countries” shows that Brazil had the greatest productivity increase since 2000 in the group of the 13 most important agricultural countries in the world.

Source: Valor Econômico



APPS FOR COOP MEMBERS FACILITATE SALES OF COFFEE AND PURCHASES OF INPUTS

APP Cooxupé is an app developed by the Cooxupé Coffee Growers’ Cooperative to facilitate and to bring convenience and security to its members. The grower can consult historical data on coffee prices and stocks, check financial positions and real-time quotations, simulate coffee sales, sell its coffee, etc. Cooxupé has also developed the InCampo app, which speeds up service to growers and enables the communication between the technical and commercial teams. The grower can purchase items at the coop store through the app without the need to go to a physical store.

Source: Hub do Café

EXPOCAFÉ TRADE FAIR RETURNS WITH RECORD PUBLIC AND SALES

The 25th edition of the Expocafé Trade Fair, held in Três Pontas, South Minas Gerais, from May 24 to 27, 2022 registered records in both attendance and business generation. More than 15 thousand participants attended the event and more than 200 companies exhibited there.

Source: EPAMIG



Brazilian Prices

Main Producing Regions / Farm Gate

May 31, 2022

Arabica Naturals (R\$/ 60 kg bag)	
Cerrado MG	1305,00 ↑
Mogiana	1300,00 ↑
South Minas	1300,00 ↑
Arabica Pulped Naturals (R\$/ 60 kg bag)	
Cerrado MG	1395,00 ↑
South Minas	1390,00 ↑

+ 7.3%

Conilon / Robusta (R\$/ 60 kg bag)	
Colatina-ES fair average price	708,00 ↓

BM&F (US\$/60kg Arabica bag)		Real R\$ / Dolar US\$	
Jul 2022	287,90 ↑	May 31, 2022	4,75 ↓
Sep 2022	285,30 ↑		
Dec 2022	287,95 ↑		

Source: www.qualicafex.com.br

SHARED RESPONSIBILITY FROM CUP TO SEED TO ACHIEVE LIVING PROSPEROUS AND SUSTAINABLE INCOME

There is a lot of work under way to determine what became known as the living income for the coffee farmer in different countries. The word “prosperous” has been added to indicate that living alone is not enough for the coffee farmer who also has to prosper. There are proposals to add the word “sustainable” because the market increasingly wants coffee that is sustainably produced. It is not enough for farmers to have income to live and prosper if they also need to pay for what is required to produce coffee sustainably.

The need to achieve living prosperous sustainable income brings up the concept of shared responsibility throughout the whole coffee supply chain, from cup to seed, to pay for sustainable production at the farmer’s end. It should be from cup to seed and not seed to cup because unless the process starts at the consumer end all that is going to happen is that coffee farmers’ poverty is going to increase.

Preliminary data already available shows that real farmer income falls short of living income let alone living prosperous sustainable income in most coffee producing countries. In some countries living income is 3, 4 or more times higher than the real income. Why is that so? More important than the reference living income itself is to understand why farmers’ income is below, often well below this reference income.

Knowing these figures – real and target income – and specially their differences in each country will help much with this country-by-country diagnosis of the problem. The list of potential suspects is known: low productivity because of lack of access to technology which has to do not only with its development and/or availability but also with its transfer to farmers, shortage of inputs and equipment due to lack of financing, imperfect markets, etc. The items above that are beyond both farm gate and farmer control are included in what has become known as the enabling environment.

The solution to improve the enabling environment is not in the hands of any single player or sector in the coffee business and includes the governments of coffee producing countries. The role of government is critical to improve the enabling environment in all countries. The ideal approach is to have government and private sector – coffee supply chain and beyond – to work together to address the improvement of the enabling environment that will create the conditions for coffee farmers to increase their income.

The challenge is to bring government and private sector together to develop and implement a road map to improve the enabling environment in order to close the gap between real and living prosperous sustainable income. There are many proposals and discussions under way in coffee associations, companies and governments in producing and consuming countries. Since it is not realistic to expect that consumers will pay more for sustainable coffee, the road map will have to rely on shared responsibility along the supply chain from before coffee reaches consumer down to the coffee farmer. Can it be done? Will it make economic sense?

It will be helpful to understand how this has been done in countries where the living income gap does not exist or is small. What can be learned from them and is applicable to other coffee producing countries? Is it the availability of public extension and training services; the development of cooperatives that support small growers; efficient supply chains for coffee, inputs and equipment; strong coffee business associations; government regulation and incentives to facilitate financing; fair and “competitive” taxation; job and business opportunities available outside the farm in coffee growing areas; else?

The suggestion is here to use case studies of countries that succeeded in improving their enabling environment to help create the road map – process, participants and actions – for other coffee producing countries to do the same and to increase the living prosperous sustainable income of their growers. The next step is to include the coffee supply chain in importing countries *and* consumers to ensure that this responsibility to increase farmers’ income is also shared from cup to seed.

REMOVAL AND DISPOSAL SYSTEMS FOR DUST AND HUSK REVISITED

For a long time dust and husk removal were not an integral part of the design of a coffee mill but something to be dealt with after the plant was designed or even built. The layout of the equipment seldomly took into consideration requirements associated with the need to deal with either dust or husk or both. In the next stage a series of rather empirical systems were developed and used with mixed results. Some worked well and a few solved the problem in a partial way. A more scientific approach was yet to be applied.

As environmental worries and sustainability concerns developed and mills became bigger, a clear need developed to ensure a healthier, dust-controlled working environment and to make sure that clients and visitors perceived the coffee mill as a workers' friendly place that processed sustainable coffees. At the same time, more sensitive neighbors and communities grew concerned with these by-products and the side effects of coffee milling.

Pinhalense's response to these new concerns and requirements has been three-fold:

- to design or adapt equipment to generate less dust and to make it easier to collect;
- to design mills with layouts that facilitate the extraction, conveyance and disposal of dust and husk; and
- to develop high-tech dust and husk systems that (1) ensure a clean working environment, (2) allow the partial use of equipment without back pressure or return of dust, and (3) enable the storage and/or packing of dust and husk for off-site removal or reuse as fuel for driers.

A lot of science and engineering now goes into the design and supply of Pinhalense dust and husk systems. Power consumption and cost of the systems are directly associated with the degree of dust removal required by clients. If on the one hand both figures may be judged on the high side when analyzed alone, they are not so high when compared with the more traditional empirical systems and the actual results or performance of each solution.

Some critical features that Pinhalense has improved in its latest systems are:

- the location of the dust extraction points;
- the types and location of the fans used; and
- the filtering systems, including their self-cleaning devices.

The tendency is for dust and husk silos and disposal to be separate even though the light fraction of husk may be fed into the dust system.

Negative pressure systems with the aspiration fans near the filter boxes, as shown in the pictures, are now favored whenever possible in existing mills and almost all the time in newly designed mills. Negative pressure systems consume less energy, require less piping, do not allow dust to get out of pipe joints, and reduce the noise level in the mill. Pinhalense dust filters, like the ones in the pictures, have a battery of synthetic cloth filters and a timer to activate the cleaning system. The filter units can be installed at floor level and emptied with the help of screw conveyors or big-bags, or placed above silos in the case of husk disposal.



Pinhalense dust and husk removal systems are available not only for new coffee mills but also for existing ones that are seeking a cleaner environment for social responsibility, sustainability and client relations reasons.