

CONFIDENTIAL

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

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- **CREATING OPPORTUNITIES AND ADDING VALUE WITH DRY CHERRY HULLERS AND SMALL GRADING EQUIPMENT (PAGE 5)**

NEW PESTICIDE AUTHORIZED TO FIGHT BERRY BORER

In response to increasing growers' concern over crop losses and almost one year after Endosulfan was banned, the Brazilian Federal Government issued a decree authorizing the temporary use of a low toxicity insecticide made of Ciantraniliprole to combat the *Hypothenemus hampei* pest, commonly known as coffee berry borer. The agrochemical, already approved by the World Health Organization and FAO and registered in the United States, European Union, Japan and Canada, is expected to be permanently released in Brazil by the end of the year. The Ministry of Agriculture believes that the insecticide will prevent the imminent risk of infestation by coffee berry borer that tends to be especially intense in warm years like the current one. A second product is also in the pipeline for approval.

Sources: Ministry of Agriculture, Livestock and Food Supply (MAPA) and P&A

STOCKS SUSTAINING BRAZILIAN COFFEE EXPORTS

Brazilian coffee exports should reach 33.5 million bags in 2014, a growth of 6.5% over 2013, according to Cecafé (Brazil's Coffee Exporters Association). This result will be possible due to the consumption of inventories since weather conditions led to a substantial drop in the size of the current coffee crop. Monthly coffee exports have been steadily high this semester totaling 17.5 million bags; considering that local consumption will make use of an additional 20 million bags and that production should be under 48 million bags in 2014, Cecafé expects low stocks in the initial months of 2015.

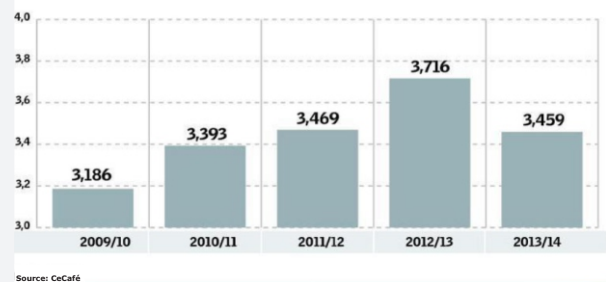
Source: Thomson Reuters

IMBROGLIO OF ROBUSTA COFFEE IMPORTS CONTINUES

A technical analysis to evaluate the risks of importing Robusta from Vietnam to compose coffee blends is finally over. Although the study demanded by the Brazilian soluble industry indicates little risk to Brazilian coffee production – one possible plague (*Trogoderma granarium* often found in grains) – permission of imports faces stronger resistance by growers. ABICS, the Brazilian Soluble Coffee Industry Association, favors imports as a way to increase industry competitiveness, to improve soluble coffee exports and to have a raw-material alternative during periods of product scarcity. Although Brazil is currently among the world's largest producers of Robusta, Conilons are mostly blended with Arabica for roast & ground brands sold in the Brazilian market which leaves the soluble industry with limited supply and high prices in relation to those practiced in the international market. Representatives of coffee growers and cooperatives, who are primarily against imports, fear that such operations may threaten the national Robusta production. This controversial subject has already been discussed several times at official meetings and may not be solved any time soon.

Soluble Coffee

Brazilian exports (million bags green coffee equivalent)



Source: Valor Econômico

POOLING OF MACHINES HELPS GROWERS REDUCE HARVESTING COSTS

A coffee cooperative in São Sebastião do Paraíso, state of Minas Gerais, has developed a leasing system of large mechanical harvesters for its associates. With the help of these machines, growers can save as much as 50% in harvesting costs in a scenario of escalating costs and scarcity of labor in Brazil. The average rental price of this type of harvester is R\$ 240 (US\$ 104) per hour but the cooperative program offers prices as low as R\$ 180 (US\$ 78) per hour. Growers wishing to rent the machine receive the visit of a technician to advise on the best use of the harvester. The cooperative owns 32 mechanical harvesters that can serve up to 800 coffee producers.

Source: Globo Rural

NEW HIGH-YIELDING CONILON VARIETIES RELEASED IN ESPÍRITO SANTO

Incaper, the institute in charge of research and rural extension in Espírito Santo, has been granted property rights over three new varieties of Conilon coffee: Diamante ES8112, Centenária ES8132 and Jequitibá ES8122. It took 12 years for the institute to develop these varieties; each of them is composed of nine clones and presents high yields and quality. These rights are similar to patents, meaning that whoever wishes to commercialize, reproduce or use the varieties will have to establish a partnership with Incaper. The good news is that there is no payment required from Brazilian growers since the institute preferred to waive its right to royalties in this specific case. The Brazilian Law of Cultivar Protection was established in 1997 to benefit new products that are innovative, homogeneous and stable enough to be considered an invention. The legislation guarantees that once protected the variety has its genetic description registered, facilitating future detection of illegal use.

Source: G1 – Espírito Santo

COFFEE RINGSPOT VIRUS STUDY COMPLETED

A study about the coffee ringspot virus conducted by researchers at the Federal University of Lavras (UFLA) in partnership with Kentucky University in the United States has resulted in a complete genome sequencing of the virus now deposited in the National Center for Biotechnology Information (NCBI). Preliminary studies coordinated by Embrapa Café were held in 2001 and served as input for the genetic sequencing of the virus under development by these universities since 2011. The complete sequencing will now enable the recommendation of more efficient control mechanisms and favor future studies for the development of new transgenic plants resistant to the virus. The complete article about the study will soon be published in the Virology Journal, one of the most reputable in its field.

Source: Embrapa Café

SOUTHERN TIP OF BAHIA BECOMES NEW CONILON GROWTH POLE

Known for its cocoa and eucalyptus production, the southern tip of the state of Bahia, next to Espírito Santo, is now rising as an important Conilon producer. Conilon harvesting in this part of Brazil will yield 1 million bags in 2014 according to Assocafé, Bahia's Coffee Growers Association, to be compared with only 400,000 bags five years ago. Part of the success is due to the region's topography, sunlight exposure and favorable climate, along with the good prices for Conilon, which motivated growers. Assocafé estimates that approximately 10,000 hectares of coffee have been planted in Southern Bahia over the past four years, which elevated the total area to 30,000 hectares. Most of the new plantings belong to growers from neighboring Espírito Santo state who do not have enough land to expand the coffee activity in their home state, the largest producer of Conilon in Brazil.

Source: Valor Econômico



COOPERATIVE IN ESPÍRITO SANTO TO EXPORT MORE ROBUSTA TO CUBA

Coopeavi, a cooperative located in Santa Maria de Jetibá, in the state of Espírito Santo, will export 45,000 bags of Conilon (Robusta) coffee to Cuba this year, totaling US\$ 5.5 million. This will be the second consecutive year that the cooperative exports to this Caribbean island as part of a governmental program to assist Cuba. The coffee being exported, a type 7 Conilon considered of good quality, will be industrialized in Cuba and included in the government's food program. Coopeavi has around 8,500 members, 5,600 of which are coffee growers; the cooperative exported 23,700 coffee bags in 2013 against only 3,800 bags in 2012.

Source: Valor Econômico

BSCA STRENGTHENS RELATIONSHIP WITH SCAE

The Specialty Coffee Association of Europe (SCAE) has recently joined the Brazil Specialty Coffee Association (BSCA) in a move that will strengthen their partnership. The cooperation, started two years ago, improves the access of Brazilian producers to specialty coffee importers, roasters and coffee houses members of SCAE. The closer cooperation between the associations also addresses training and capacity building for coffee professionals on both sides: "Young Farmers" is the first joint program designed in this context. Two young Brazilians were selected to participate in a four-week exchange program to Europe, where they will share experiences, learn more about the specialty market and develop commercial contacts.

Source: BSCA

BOOMING SINGLE DOSE MARKET IN BRAZIL

Even though Brazil is the world's second largest coffee consuming market, capsules represent only 1% of consumption in Brazilian homes. Nespresso executives estimate that this figure will reach 20% in the mid to long term, similarly to mature coffee markets like France. Nespresso witnessed a 50% growth in Brazil in 2013 where it operates 11 exclusive stores in five states. The country is currently among the ten largest Nespresso operations; the Group buys coffee from 2,200 local growers and 70% of the coffee sold in Nespresso capsules worldwide come from Brazil. The total single dose coffee market in Brazil is growing 30% per year, considering international and national brands available in pods and capsules.

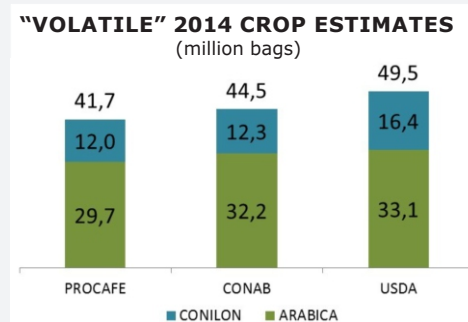
Source: Valor Econômico

DROUGHT AND DAMAGE TO COFFEE PRODUCTION IN BRAZIL: AN UPDATE

This is an update of the Outlook session of April's Confidential that is attached next, before the Machine of the Month, for ease of reference. Even though the actual extent of the losses is not yet fully known - hulling of the crop is now starting in larger volumes - it is worth mentioning three new factors: the "narrowing" of Arabica crop estimates, the high volume of Brazilian exports in 2014 and the early flowering caused by recent rains.

ARABICA VS. TOTAL CROP ESTIMATES

The graph on the right-hand side shows that the Arabica crop estimates are not as wide apart as the volatility of the market would indicate. Made by Procafé (a research institute that is a member of the Brazilian Coffee Research Consortium managed by Embrapa), CONAB (the Ministry of Agriculture agency in charge of warehousing and crop estimates) and USDA (the United States Department of Agriculture), the three estimates have total crop numbers very different as a result of Robusta (Conilon) and not Arabica estimates. The highest Conilon estimate is 37% above the lowest one whereas in the Arabica case this number is only 11%! Should this not lead to less Arabica market volatility and more consistent price behaviour?



Truth is that different as they are, Arabica and Robusta act as substitutes in many products and markets. As a result, the availability or lack of one type of coffee somehow interferes with the price of the other, reason why it does not make sense to analyze the markets for Arabica and Robusta independently from each other. Arbitrage - the difference between the price of the two types of coffee - is under permanent scrutiny by roasters and soluble makers when they make their buying and blending decisions.

In summary, the wide range of estimates of the total Brazilian crop creates Arabica market volatility irrespectively of the fact that three seems to be growing consensus about the size of the Arabica crop, as hinted by the three estimates shown in the graph.

HIGH BRAZILIAN EXPORTS

The high volume of Brazilian exports in 2014 and a possible record figure for the full year should not deceive market analysts. These high exports are being supported by inventories that are being drained down and will not be replenished by the current crop. If one takes the average figure for the total crop in the graph above - 45 million bags - subtracts 21 million for local consumption and 3.5 million for the demand of the soluble industry, one is left with 20.5 million bags that is only two-thirds of recent Brazilian exports... and there will not be much of inventories left. The deficit is much more critical if one analyzes Arabica alone which is where the losses indeed are.

Exports powered by inventories coupled with early and quick harvesting created a false impression of coffee availability that seems to be vanishing now. The new Arabica crop did enter the warehouses of cooperatives and exporters at high volumes and fast pace because harvesting was anticipated due to hot weather. However this rhythm was not sustained as harvesting of the small crop finished much earlier than usual.

EARLY FLOWERING

Rains that fell in late July and early August caused flowering in some regions. Since these flowers will not develop into coffee cherries without further consistent rainfall, that is unlikely to occur in August, an additional part of the already endangered 2015 crop may be probably lost.

Additional rains in water-stressed coffee fields is likely to cause a further fall in the 2015 crop before full-fledged flowering takes place in later months.

All in all, Brazil has to start thinking seriously about climate change mitigation. Irrigation may be the easiest but it is not necessarily the cheapest or the most sustainable solution because it does not take care of unusually high temperatures - that caused the blackening of coffee beans in irrigated areas this year -, excess ultra-violet radiation, early flowering that fails, and the like. There is a lot of research available on the subject and it is high time that it is turned into practical recommendations for coffee growers.

Brazilian Prices

July 31, 2014

Main Producing Regions / Farm Gate

Arabica Naturals (R\$/ 60 kg bag)

Cerrado-MG fair average quality T.6	455,00	↑
Mogiana-SP fair average quality T.6	450,00	↑
South Minas fair average quality T.6	450,00	↑

Arabica Pulped Naturals (R\$/ 60 kg bag)

Cerrado-MG	525,00	↑
South Minas	520,00	↑

+ 16.6%

Conilon/ Robusta (R\$/ 60 kg bag)

Colatina-ES fair average quality	240,00	=
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BM&F (US\$/ 60 kg)

Sep 2014	233,90	↑
Dec 2014	241,25	↑
Mar 2015	244,35	↑

Real R\$/ Dolar US\$

July 31	2,26	↑
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Source: www.qualicafex.com.br

DROUGHT AND DAMAGE TO COFFEE PRODUCTION IN BRAZIL

There is no doubt that some important Brazilian coffee growing areas have experienced a severe drought, excess in the amount of infra-red radiation and unusually high temperatures at a critical stage of cherry formation and, as a result, there will be losses in coffee production in this 2014 crop. The same phenomenon is likely to affect the 2015 crop for different reasons. However, the actual extent of the losses is still far from evident in both cases.

It is not difficult for the layman to understand the sources of potential losses: lack of water inhibits the process of cherry formation and as result coffee beans become smaller, lighter or do not develop at all; above normal temperatures and radiation affect photosynthesis and interfere with both cherry formation and the development of the branches that will bear cherries in the 2015 crop; and, last but not least, high temperatures help pests like berry borer and mites to flourish.

The estimates of the immediate crop losses are concentrating on poor cherry formation, with evaluations that involve counting cherries that float and/or cutting cherries to verify the stage of bean development at specific coffee regions, usually in the areas most affected by the phenomenon and process described above. One concern is that drought and high temperatures have not affected equally all coffee producing areas of Brazil. Another concern is the validity of the "sampling" of sites where evaluations take place and how representative it is of the bulk of the Brazilian coffee areas, spread over a wide range of latitudes that is equivalent to those running from northern Ecuador to southern Mexico and spanning Colombia and all of Central America. The third concern is the usual exaggeration of crop losses that tends to follow natural and man-caused disasters as it happened in Central America immediately after the leaf rust outbreak. But, to be fair, it is also true that such factors – excess of temperature and radiation and drought – have never been observed in such combination before and have reduced the capacity of the coffee plant to develop.

What makes estimates especially difficult in the present case is the fact that the cherries that are visible do not necessarily hold coffee beans of the usual size and density and may not hold commercially viable beans at all. Our experience as machinery makers indicates that even after coffee is harvested and the volume of cherries is available the losses cannot be fully evaluated. Losses will only be actually known after hulling, when the outer shell is removed and the beans – size and weight – become effectively known. Higher than usual "hulling losses" is a typical outcome of droughts.

Estimates are even more complex for the 2015 crop because they require evaluation of damage to the root system that may affect the differentiation of the buds (flower or leaf?) expected in March / April 2015 independently of branch development that is measured by number of internodes. In addition, even if, in the best scenario, rainfall returns to its normal pattern, the water deficit projected for the beginning of the next raining season will be still above what is suitable for Arabica cultivation and will compromise the ability of the plant to sustain the formation of new cherries.

The idea of this article is not to say that the losses are small. Much to the contrary, the losses are substantial in some areas but caution must be taken not to extrapolate them to all coffee areas. The market has started to read this and perhaps is even unduly minimizing the losses now. On the other hand, it is too early to say that what happened this year is a "preview" of a new weather pattern and that Brazil's production potential will be affected in the near future.

There are climate experts who claim that neither the greenhouse effect nor climate change has been proven so far and see the 2014 drought as another occurrence of a recurring pattern. Coffee experts add that even if a new pattern of less rain and higher temperatures is emerging, there is much that can be done to retain Brazilian coffee plantations where they are with responses that start with better farming – good sustainable agriculture practices –, range from irrigation to shading and include the development of coffee varieties adapted to new climate patterns.

* Eduardo Sampaio is the UTZ Certified representative in Brazil

Brazilian Prices

March 31, 2014

Main Producing Regions / Farm Gate

Arabica Naturals (R\$/ 60 kg bag)	
Cerrado-MG fair average quality T.6	405,00 =
Mogiana-SP fair average quality T.6	400,00 =
South Minas fair average quality T.6	400,00 =
Arabica Pulped Naturals (R\$/ 60 kg bag)	
Cerrado-MG	435,00 ↓
South Minas	430,00 ↓

+ 8.75%

Conilon/ Robusta (R\$/ 60 kg bag)	
Colatina-ES fair average quality	260,00 ↓
BM&F (US\$/ 60 kg)	
May 2014	211,65 ↑
Sep2014	218,45 ↓
Dec 2014	223,00 ↓
Real R\$/ Dolar US\$	
March 31	2,26 ↓

Source: www.qualificafex.com.br

CREATING OPPORTUNITIES AND ADDING VALUE WITH DRY CHERRY HULLERS AND SMALL GRADING EQUIPMENT

As domestic coffee consumption develops in producing countries the use of dry cherry hullers is no longer restricted to natural Arabica and Robusta growers. On the one hand, new markets in producing countries require different raw materials, natural coffees included, even in countries that traditionally produce washed Arabicas. On the other hand, as the selectivity of harvesting falls, more naturals tend to be produced in all countries and have to find their way into the market, specially local markets in the producing countries themselves. Finally, the market is usually less regulated for natural Arabicas than for their washed counterparts which creates specific business opportunities. In summary, the ability to hull natural dry cherry coffee has become an interesting business and a unique opportunity to add value to coffee in many if not all producing countries.

CON-12



Aware of this trend for many years, Pinhalense already has a good track record of selling dry cherry hullers in countries that produce washed Arabicas besides its strong sales of such hullers in countries that produce Arabica naturals and Robustas. Pinhalense's CON line of coffee hullers is now used in most producing countries irrespectively of the type of coffee that they grow.

The CON line of combined hullers includes in one single structure a pre-cleaner (optional), a fluid-bed destoner, a cold huller with a built-in separation and repassing system, and a catador that processes small and large beans separately. The CON's unique concept and design make it possible to increase hulling yields by up to 2% when compared with conventional hot friction hullers. The CONs deliver green coffee that may be sold directly to roasters without any need for further processing. If export

quality is required the CONs may have to be followed by size graders and/or gravity separators depending on the quality of the incoming dry cherries.

PFA-2



The CONs are available with capacities ranging from 600 to 1,800 kg of green coffee per hour in stationary and mobile versions, the latter assembled on a truck bed or trailer and driven by a diesel engine with clutches. A lower capacity (300 kg/hour) simpler version is available, the C2DRC, which is equipped with its own 3-size grader.

The removal of the silver skin is required, the CON hullers may be coupled with special polishers that may or may not be installed in the same structure. The small C2DPRC has a built-in polisher.

The hullers above may be followed by small size graders PFA or PI and or gravity separators MVF. These grading machines separate coffee according to their size and eliminate lower quality beans whose density is lower than that of sound beans in order to prepare coffee lots for roasting or export, as mentioned earlier.

C2DPRC



MVF-0