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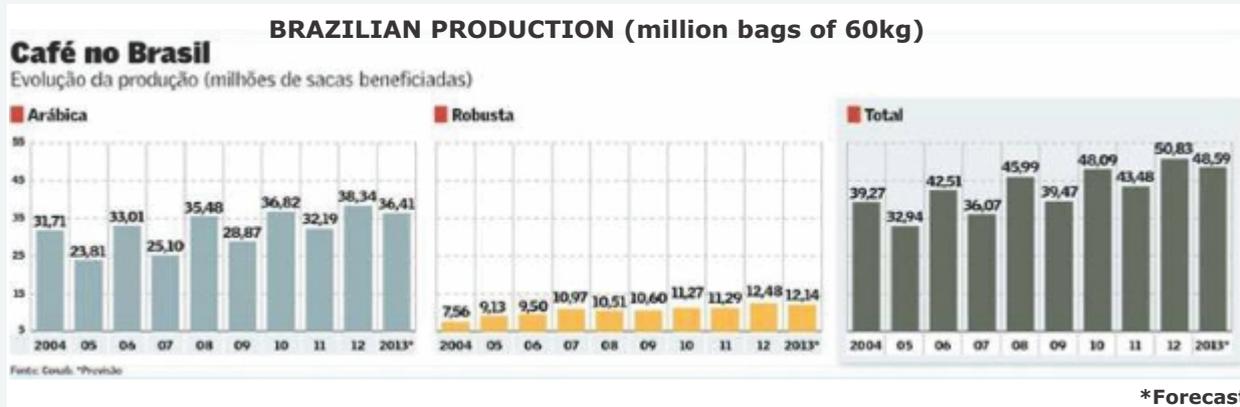
YOUR BEST SOURCE OF INFORMATION ABOUT THE BRAZILIAN COFFEE BUSINESS... AND MUCH MORE. THIS ISSUE:

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THE HIGHEST OF THE LOWEST COFFEE CROPS

The second crop estimate by Conab released on May 14 indicates that Brazil will produce 48.6 million bags of coffee in 2013. If the prediction is true, it will be the highest coffee output for a low year in the biennial cycle in Brazilian history. According to Conab, Minas Gerais may deliver over 25 million bags of Arabica, whereas Espírito Santo can reach 9.25 million bags of Conilon.

Source: Valor Econômico



BRAZILIAN EXPORTERS TO REQUEST DISCOUNT REDUCTION AT ICE

The Brazilian Coffee Exporters Association (CeCafé) is preparing a document to be soon presented to ICE Futures in New York requesting the reduction of the discount of US\$0.09/lb for Brazilian Arabica coffees that are now deliverable. CeCafé's report should be ready in 60 to 90 days.

Source: Dow Jones

GOVERNMENT ALLOCATES FUNCAFÉ MONEYS FOR 2013 CROP

The Ministry of Agriculture has confirmed the release of R\$ 3.1 billion (US\$ 1.5 billion) from the Brazilian Coffee Fund to finance cultivation, harvesting, storage and coffee trading operations in 2013 by growers, coops, exporters and industry.

Source: Agência Estado

MECHANICAL COLLECTION AND SEPARATION IN CONILON HARVESTING

Due to high labor costs and the increasing scarcity of labor in coffee areas, Conilon growers in Espírito Santo are starting to adopt a combination of manual and mechanized harvesting. Growers in Nova Venécia and in the northern areas of the state are conducting tests with excellent results: the new harvesting technique is leading to savings of up to 70% in labor costs. In the pictures below, harvesting and pruning are being done simultaneously with the use of labor and machines.

Sources: Procampo magazine and P&A



IAPAR "FROST WARNING" SYSTEM IN OPERATION

Paraná Agronomy Institute (IAPAR) "Frost Warning" system is already in operation. The system provides detailed information about the weather and orientation to growers via text messaging (and also online) to avoid or minimize the harsh effects of low temperatures in coffee plantations in the region during the cold spells that are likely to happen from May to September.

Source: IAPAR

DROUGHT RESISTANT COFFEE GENE TO BE USED IN OTHER CULTURES

The Center for Strategic Debates and Study of the Congress held a meeting with Embrapa in Brasilia to discuss the use of a drought resistant coffee gene in crops such as sugar cane, soybean, rice, wheat and beans. The objective is to guarantee the production of essential products even during the worst droughts. Apart from being more resistant, researchers believe that the new plants will cause less environmental impact since they will need less water to develop. Embrapa expects to complete the studies for the genetic adaptation of plants to the Brazilian semi-arid regions in 6 to 8 years' time.

Source: Embrapa Café

GREAT POSSIBILITIES FOR SINGLE SERVE IN BRAZIL



The single serve coffee market is becoming more dynamic in Brazil with the arrival of new players, including local roasters. After the success of international hits such as Nespresso and Senseo over the past years, Brazilian companies like Café Utam and 3 Corações are now investing in the segment. Utam has partnered with the Portuguese Kaffa Caffè and since March has been importing its (Nespresso-compatible) capsules. The company also plans to launch its own line of machines, Utam Uno, in July. 3 Corações/Strauss, the second largest coffee roaster in the country, is investing R\$ 100 million (US\$ 50 million) in its single serve project. Initially partnering with Italian Caffita to produce the capsules while the Brazilian manufacturing unit is not ready – it should be running by 2014/15, probably in Minas Gerais – 3 Corações system will be called TRES: a flexible machine able to deliver 16 types of beverage, among espresso, filtered coffee, cappuccino, hot chocolate and tea. TRES is expected to be launched by August 2013. Since February DE Master Blenders has been offering its Café do Ponto L'or capsules and Ethical Coffee capsules are now available in major retail chains; both are compatible with Nespresso machines.

Sources: Valor Econômico and P&A



BRAZILIAN COFFEE DINNER DISCUSSES FUTURE OF CONSUMPTION AND PRODUCTION



The 5th Coffee & Dinner Forum, organized every two years by CeCafé, the Brazilian Coffee Exporters Association, was held in São Paulo on May 28 to discuss coffee consumption trends and how they will affect the future supply of coffee. The event gathered national and international coffee experts who presented their views on the evolution and dynamics of coffee consumption, the increasing importance of soluble coffee, the single dose market, new coffee consumers and production trends, among other relevant issues. The growing role of soluble and Robusta coffee in the new scenario was a common theme that pervaded most presentations.

Source: Valor Econômico



Pictures of the Month

MECHANICAL COLLECTION AND SEPARATION IN CONILON HARVESTING



Source: Procampo magazine

WET MILLING WITHOUT WATER?

For well over a century, the wet milling of coffee was a water intensive process, as the name indicates, and there was little concern for water consumption and contamination. In the conventional technology then prevailing and still used in many areas today, water is used in flotation, to separate over-ripe and dry cherries from the ripe ones, in pulping, to remove the pulp, in mucilage removal, carried out by natural fermentation or friction in machines, and in the transport of coffee and by-products (e. g.: pulp).

The growing concern for the environment in the last quarter of the twentieth century led to the questioning of the use and contamination of so much water – often 10,000 m³ per ton of green coffee – in the wet processing of coffee. The technological reactions to environmental concerns came in different ways.

Water Recycling - The first and more obvious reaction was to recycle waste water after some sort of “treatment”, primarily settling and/or filtering to remove solid matter that could otherwise clog the system.

Dry Transport - Another obvious reaction was to move away from transporting coffee with the help of water. The solution was to use gravity wherever possible (e.g.: dry reception hoppers) and, most importantly, to avoid the transport of coffee with water in channels and pipes using instead mechanized options, like conveyors and elevators.

Semi-dry and Dry Pulping - Next came the drastic reduction and even the elimination of water in pulping; since the pulp is rich in water, it was found that the friction or tearing process that removes the pulp from around the coffee bean could take place with the addition of little or no water. The low-water-consumption and dry pulpers used today are not very different from the conventional “wet” ones. The technical changes, started in the late 1980s, are mostly related to facilitating the flow of coffee and pulp in the absence of “lubricating” water. Several technologies and types of such new pulpers are now available in the market.

Mechanical Removal of Mucilage - The last frontier of water reduction and/or elimination remains in the removal of the mucilage that sticks to the parchment skin that involves the coffee bean. The original technique of breaking down the mucilage layer by means of natural fermentation in tanks with or without water followed by washing was progressively combined with and even replaced by the removal of mucilage by friction in several types of machines that were also water intensive in the past but are quite water efficient now. Although mucilage removers have been around for over a century, it was only in the last 2 or 3 decades that low water consumption models became available, with emphasis not only on water savings but also on full removal of mucilage and minimum damage to coffee.

Although there is little debate today about the impacts on coffee quality of water recycling and the reduction of its use in transport, floating and pulping, even though bean damage may increase with dry pulping, the debate is still far from settled in what regards water conservation in mucilage removal. This is the step that by far still consumes and contaminates the most water.

There are expert cuppers who insist that fermentation is the only way to enhance specific cup features, e. g.: acidity, especially in high-grown coffee. They argue that mechanical mucilage removal is yet to produce the same results in these cases although the cup differences may subsidize and even disappear as altitude drops. However, on the other side of the argument, there are studies that show that given the difficulties to control the natural process of fermentation, mechanical removal may, on the average, produce better quality coffee. Yet other studies show that natural fermentation for a few hours followed by mechanical removal, which causes water consumption to fall substantially, may yield the same cup quality in most altitudes. It may become unavoidable that mainstream, high quality and even specialty washed coffee processing will progressively resort on full or partial mechanical removal of mucilage. Natural fermentation is likely to remain the option for less and less coffee whose price will have to eventually reflect the cost of treating the waste water generated by its process.

Brazilian Prices

May 31, 2013

Main Producing Regions / Farm Gate

Arabica Naturals (R\$/ 60 kg bag)	
Cerrado-MG fair average quality T.6	295,00 ↓
Mogiana-SP fair average quality T.6	290,00 ↓
South Minas fair average quality T.6	290,00 ↓
Arabica Pulped Naturals (R\$/ 60 kg bag)	
Cerrado-MG	305,00 ↓
South Minas	300,00 ↓

5.2%

Conilon/ Robusta (R\$/ 60 kg bag)	
Colatina-ES fair average quality	260,00 ↓
BM&F (US\$/ 60 kg)	
Jul 2013	153,10 ↓
Sep 2013	156,30 ↓
Dec 2013	161,00 ↓
Real R\$/ Dolar US\$	
May 31	2,13 ↑

Source: www.qualicafex.com.br

IMMATURE CHERRY SEPARATION AND PULPING

As the quality of harvesting falls and larger percentages of immature cherries are picked, their separation becomes unavoidable and a critical part of wet milling. Only fully ripe cherries should be pulped to produce top quality washed and pulped natural coffees.

Pinhalense has pioneered and embraced a pulping system that discards immature cherries at the same time that it pulps the ripe ones. In addition to the original advantage envisaged – pulping only cherries with the desired degree of maturation – Pinhalense found out that its screen pulping system is less damaging to coffee than conventional drum pulpers that tear the pulp by means of friction between a rotary drum and stationary breasts or channels. Pinhalense pulping screens remove the pulp gently as the cherries pass through their slots; it is like pressing each and every cherry gently with the fingers to eject the bean involved by parchment and mucilage.

More recently, other systems have used a conventional pulper – usually drum but also disc – with less than usual pressure on the cherries to let immature ones pass through unpulped to be separated afterwards from the parchment beans. Nice in theory, this approach is less efficient than Pinhalense's simultaneous separation and pulping system because it tends to damage the unripe cherries and it cannot be adjusted to pulp cherries at a desired degree of maturation. To make matters worse, damage increases as water consumption is lowered or eliminated.

Pinhalense chose to retain its own system and to research ways to bring water consumption to a minimum. This led to the launching of its current generation of screens pulpers – pulpers with unripe cherry separators – that require very little water, can be adjusted to pulp (a) only 100% ripe cherries; (b) partially ripe cherries too, together with the ripe ones or separately; and, latest developments, (c) unripe cherries and (d) even over-ripe ones separately from each other or even together but definitely separately from the top quality ripe cherries.

Confusing as the scheme above may at first seem it has important advantages:

- top quality specialty coffee can be produced from 100% ripe cherries only;
- good quality coffee can be produced from ripe and partially ripe cherries if so desired; and
- cherries at almost any degree of maturation can be pulped to produce washed coffee for markets that demand somewhat lower quality.

In other words, the volume of washed coffee is maximized irrespectively of the falling quality of the harvested product that has increasing percentages of unripe, partially ripe and over-ripe cherries mixed with the fully ripe ones!

Is it right to pretend that times have not changed and that only 100% ripe cherries are picked at a time of labor scarcity, rural-to-urban migration and escalating labor costs? Instead of insisting on conventional pulping technologies that can only handle 100% ripe cherries in an efficient manner, Pinhalense has faced reality and created a screen pulping system that is fully compatible with the challenges posed by the harvesting conditions prevailing today. A little water may still be required, that can easily be recycled and reused, but the payoff is huge in terms of more washed coffee available at a range of qualities for different markets.

And if you still have the fast disappearing ability to harvest 100% ripe cherries or to sort them by hand, Pinhalense screen pulpers will still perform beautifully, separate pulp better and damage less coffee than any other system in the market today. That is why mid-size and large hi-tech farmers favor Pinhalense pulping systems, originally for Arabica but now for Robusta too. The same type of pulpers are also available at small sizes for small farmers; more and more of them are realizing that their harvesting is no longer perfect either and Pinhalense may have the small-scale hi-tech wet milling system that they need.

