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Guatemala

Coffee Annual

Production slightly recovering from coffee leaf rust

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Report Highlights:

After the past three years outbreak of "coffee leaf rust", Guatemalan farmers are starting to recover production as replanted trees and pruned ones have entered full harvest. Coffee production in marketing year 2014/15 (October 2014-September 2015) is estimated 3 percent above previous harvest; expecting 3.506 million (60 Kg) bags. Dry conditions for the past two years and more preventive and cultural controls on coffee production have increased average yields to 0.9 MT/Ha. Coffee rust is still a concern for lowland coffee, where Robusta and Timor hybrids are replacing the Arabica's Caturras and Catuais. Planted area has been revised up 10 percent.

Executive Summary:

The rust outbreak in Guatemala (2012-2014) reduced by 20-25 percent the production achieved in 2011/2012 (record high). As a result of the coffee rust crisis, Guatemalan coffee farmers addressed the problem – by heavy pruning, improving crop techniques, expanding use of fumigation and other inputs – as well as replanting with newer, more rust resistant varieties in the lowlands. The lowlands have been replanted with Robusta and Catimor hybrids, as Arabicas' are too susceptible to coffee rust, and have made the use of Caturras and Catuais non-cost effective.

For MY2014/2015, a three percent increase in production is estimated at 3.506 million (60 Kg) bags. A minimum three percent increase on MY2015/2016 is also expected (3.61 million bags – 60 Kg). Dry conditions for the past two production cycles have helped better control for coffee rust and slightly recover yields (from 0.8 MT/Ha to 9 MT/Ha).

ANACAFE working with the World Coffee Research institute and CATIE (Tropical Crop Institute) are running several multi-variety trials to determine which coffee varieties are most appropriate for different agronomic zones in Central America, including Guatemala, and first results will be available by the end of 2015.

Commodities:

Coffee, Green

Production:

Guatemala's coffee production area for the last 30 years has been relatively steady at 276,000 hectares, which is about 2.5% of the country's total area. However, now, coffee area and planted trees has been revised up to 305,000 hectares, and close to 1,200 million trees. For the past 30 years, Guatemalan coffee had been composed by 99% Arabica and 1% Robusta. Coffee rust for the past three years has changed slightly the proportion of Arabica and Robusta, increasing Robusta's and Timor hybrids planted in the lowlands.

Highest yields are estimated at 2.00 metric tons/hectare (MT/Ha), while lowest yields can reach 0.66 MT/Ha. National average in MY 2011/12 was 1.10 MT/Ha, reduced to 0.83 MT/Ha in MY 2013/14 as a result of the coffee leaf rust outbreak, and recovering to 0.90 MT/Ha in MY2014/2015.

Previously, Post estimated MY-2014/15 coffee production at 3.62 million bags; however, our new estimate is 3.51 million bags (as shown in Table 1), given that recovery from coffee rust has been slow (3% up from previous harvest). Coffee production reached a recent record high in MY-2011/12, when it reached 4.4 million bags. Rust disease initiated in that year (2011 or 2012 depending on the zone), but during MY-2012/13 the disease became an epidemic, dispersing geographically and with higher intensity – and greater impact on the trees.

At first, rust was a minor concern, as most of the trees were able to reach harvest (with only a small decline in production); however in following years the rust outbreak became worse. In response, Guatemala developed a coordinated control strategy at the national level which allowed for increased technology transfer according to the production region (ANACAFE), fumigation brigades (Smallholder Coffee Association for Exports - FEDECOCAGUA), and government support through monitoring, surveillance, and a pesticides subsidy (Ministry of Agriculture - MAGA). In addition to those three major stakeholders, many NGOs (supported by international donors, roasters and coffee buyers) also started or expanded projects supporting Guatemala's coffee producers, focusing on the many smallholder families.

After the previous "coffee leaf rust" impacted harvest, many Guatemalan farmers heavily pruned their trees; some replanted with newer varieties, and most continued periodic fumigations to control the fungus. About 10% of the planted area was heavily pruned and another 10% was replanted. Post estimates Guatemalan coffee production for MY-2014/15 will continue recovering at a three-five percent growth annually.

Coffee, Green	2013/2014 Oct 2013		2014/2015 Oct 2014		2015/2016 Oct 2015				
Market Begin Year									
Guatemala	USDA Official	New post	USDA Official	New post	USDA Official	New post			
Area Planted	0	276	0	305	0	305			
Area Harvested	0	266	0	295	0	300			
Bearing Trees	0	1,089	0	1,150	0	1,170			
Non-Bearing Trees	0	120	0	39	0	30			
Total Tree Population	0	1,209	0	1,189	0	1,200			
Beginning Stocks	222	222	87	32	0	2			
Arabica Production	3,400	3,404	3,600	3,506	0	3,611			
Robusta Production	15	15	15	15	0	15			
Other Production	0	0	0	0	0	0			
Total Production	3,415	3,419	3,615	3,521	0	3,626			
Bean Imports	0	0	0	0	0	0			
Roast & Ground Imports	0	0	0	0	0	0			
Soluble Imports	175	81	175	83	0	85			
Total Imports	175	81	175	83	0	85			
Total Supply	3,812	3,722	3,877	3,636	0	3,713			
Bean Exports	3,150	3,140	3,300	3,234	0	3,331			
Rst-Grnd Exp.	0	0	0	0	0	0			
Soluble Exports	25	0	10	0	0	0			
Total Exports	3,175	3,140	3,310	3,234	0	3,331			
Rst,Ground Dom. Consum	350	400	350	300	0	275			
Soluble Dom. Cons.	200	150	200	100	0	100			
Domestic Use	550	550	550	400	0	375			
Ending Stocks	87	32	17	2	0	7			
Total Distribution	3,812	3,722	3,877	3,636	0	3,713			
1000 HA, MILLION TREES, 1000 60 KG BAGS									

Table 1

After 30 years of a fairly constant planted area of 280,000 Ha, as a result of coffee rust planted area has increased ten percent up to 305,000 Ha. Coffee plantations have been renovated throughout all elevations, and replanting with Robusta and Timor hybrids has helped farmers to deal with rust in the lowland areas.

Rust is present in all regions, but its impact has varied widely. Rust impact is a combination of economics and agronomics. Coffee production cost disaggregates into hand labor (70%) and inputs (30%). Hand labor structure is shown in Fig. 1. Roughly 66% of the hand labor cost goes for picking, followed by soil management, weed control and shade management. Most coffee producers, independently of their size (small, medium, or big), had not recognized pest and disease control, combined with tissue management, as critical for coffee production sustainability -- prior to the recent coffee rust outbreak.



Fig. 1 Coffee Production Costs in Guatemala

Source: ANACAFE

Inputs structure, as shown in Fig. 2, clearly demonstrates that fertilization applications are widely recognized as major and important production costs (81% of total costs), while fungicide and herbicide applications barely represent both 10% of input costs. When coffee prices are low, cutting inputs is the first option coffee producers have to adjust production costs, as gains apparent to be (in the short-run) fairly marginal. Prices paid to farmers range in between \$2.30-2.80/Kg while coffee production costs are presently estimated at \$1.80/Kg, representing a very small portion of the final price paid by U.S. consumers.

Fig. 2 Inputs' Cost Structure in Guatemalan Coffee

Source: ANACAFE

Coffee leaf rust is harder to control in the lowlands, where humidity and higher temperature increases the severity of the disease. These areas (under 2,500 feet) are the ones subject to renovation/replanting for both agronomical and economic reasons, as chemical control increases significantly the inputs cost. On the other hand, rust resistant/tolerant varieties experience other diseases, which may be harder to control at higher altitudes.

With proper tissue management, coffee rust is not as nearly devastating as what has been reported. Cultural management of the plant tissue, together with adequate nutrition and preventive spraying during the vegetative and flowering phases, leads to a good coffee harvest (even in the presence of leaf rust). According to ANACAFE, leaf rust is present in 70% of the plantations, most of them in the lowlands. Close to 8.0 million plants of a Pacamara and Catimor hybrid (baptized as Anacafe 14) will be planted during 2015, to start harvest on 2017. The cupping of the hybrid is good and has demonstrated excellent adaptation for the lowlands in Guatemala.

Overall, the major lessons learned from rust epidemics are:

- a) Guatemalan coffee farmers (small, medium, and large) who have learned to manage coffee in an 'intense' and year-round/hands-on manner have not been seriously impacted by coffee rust. Their input costs have risen (fumigation and more pruning).
- b). Guatemalan coffee farmers (small, medium or large) who treat coffee as a weed-tree that you can plant and forget until harvest (with poor nutrition, poor tissue management, and lack of pest and disease preventive controls) are going out of business.
- c) Coffee producers that grow coffee as an intense crop get better market prices.
- d) Coffee producers that are members of cooperatives or associations have responded more effectively to rust epidemics. NGO programs have greatly helped in some areas.
- e) Agricultural extension services, provided through private or public institutions, is key to maintaining Guatemalan coffee productivity in the long-term.
- f) Appropriate financial tools are needed to ensure the long-term sustainability of the coffee sector which is characterized by very low profits at the farm level.

Coffee production, in general, generates close to 150,000 full-time and 300,000 part-time jobs in Guatemala. Coffee is one of Guatemala's major contributors to the agricultural GDP, representing US\$667 million during CY 2014, seven percent down from previous year. Despite the fact that Rust epidemics have significantly impacted production of Guatemalan coffee, coffee stills represents an important source of income for small holders. Few agricultural options are available for coffee substitution at high altitudes, where 70% of the production is concentrated.

Coffee is an interesting agroforestry model. Given that coffee is grown under shade, the coffee agroforestry system in Guatemala is an environmentally suitable crop. Some of the coffee shade might also generate economic benefits, as does "black pepper", but coffee is a great resource for the highlands and steep areas. Coffee is an important economic option for rural families in Guatemala, and it reduces soil erosion compared to other crops grown on steep hills such as corn.

Consumption:

Coffee consumption in Guatemala has been revised. Guatemala has 16,188 wet coffee mills and 29 roasters. Coffee per capita consumption in Guatemala continues above the world average of 1.3 Kg per person. Specialty coffee in Guatemala is highly appreciated, and presently there are at least seven big gourmet coffee chains in Guatemala, such as: &Café, Café Gitano, El Cafetalito, Barista, Café León, McCafé, and Starbucks. At least the first three chains are present at both colleges and universities as in main commercial areas (including malls). New generations are gaining an appreciation for high-end coffee, significantly increasing its demand.

Trade:

Exports for MY 2015/2016 are forecast at 3.3 million bags (60 Kg), a slight recovery from previous estimate for MY 2014/2015 (3.1 million bags - 60 Kg). Green coffee continues to be the preferred exports product.

Guatemala's main export markets have been the United States, Japan, Canada, Belgium, and Germany. During MY 2013/2014 exports to the U.S. represented 43% of total exports, followed by Japan (14%), Canada (10%), and the European Union (6%), as shown in Fig. 3.



Source: ANACAFE

Table 2 shows volumes of green coffee exported during the 2012/2013 and 2013/2014 harvest. U.S. continues to have the major share. The EU and the rest of the world dropped their share during last MY.

Guatemala Coffee Export Statistics						
Export Trade Matrix						
Country	Guatemala					
Commodity	Coffee, Green	60 Kg bags				
Time Period	MY	(1000's)				
	2012/2013	2013/2014				
United States	1691	1374				
Japan	641	425				
Canada	349	328				
Belgium	228	224				
Germany	235	171				
Italy	155	141				
Other EU Countries	211	185				
Total for Others*	1820	1474				
Others not Listed	238	301				
Grand Total	3749	3149				

Source: Global Trade Atlas

Imports have decreased to 81,000 bags (60 Kg), corresponding to soluble coffee, mainly sourced by Mexico, Colombia, Nicaragua, Costa Rica, and Brazil.

Stocks:

Stocks dropped from 32,000 bags (60 Kg) during MY 2013/2014 to 2,000 bags (60 Kg) on MY 2014/2015. The expected trend is to reach 7,000 bags (60 Kg) during MY 2015/2016, to maintain exports as high as possible. Stocks are forecast to recover after 2015.

Policy:

Legislative Decree 19-69 created the Coffee Law in Guatemala in 1969, and Presidential Decree 13-70 regulates it. ANACAFE is responsible for advising the Government of Guatemala on coffee matters, and establishing the coffee policy for production and commercialization purposes. ANACAFE is mandated to provide technical services that include research, trials, demonstration, assistance, and outreach. Overall, the Coffee Association must promote economic and agricultural activities related to coffee, including crop diversification. Other services that ANACAFE must provide: cupping, arbitrage, registration, statistics, warehouses, and other auxiliary services.

In addition, ANACAFE must propose financial solutions for the milling and commercialization of coffee, mainly attending the small producers. ANACAFE is also responsible for issuing the export and shipment permits. ANACAFE sets minimum prices and supervises overall sales activities, including

quality. ANACAFE is financed through an export tax, which imposes a Q 0.25 fee for every hundredweight of green bean exported (equivalent to US\$0.08/60 Kg bag). The export tax is collected through the Government of Guatemala Customs Authority, and transferred via Bank of Guatemala to ANACAFE.

Legislative Decree 37-72 and 74-72 provide amendments to the Coffee Law, the first establishing tax exemption to buy fertilizers and equipment and the second defining a 2 year term for the President and Vice president of ANACAFE.

Through Legislative Decree 11-2013, issued in January 2013, Government of Guatemala declares rust epidemics as a phytosanitary emergency. This decree allows ANACAFE and MAGA to effectively coordinate a coherent response at the national level, and assigns MAGA the mandate to support non registered coffee producers (usually small coffee farmers that are not familiar with ANACAFE).

Legislative Decree 12-2013 expands the Guatemalan Coffee Trust Fund (created in 2001 and later modified in 2005), for another 10 year period (which ends by 2026), to support measures addressing the coffee rust outbreak. The trust fund provides for: a) non reimbursable funds for assistance to coffee production for inputs and productive processes, b) low interest loans for coffee producers, set on 2% annual rate for small ones and 3% for medium and big producers, and c) public transfers of financial resources to the trust fund, to increase it up to \$100 million. The Ministry of Agriculture is responsible for the supervision of the trust fund, and the Rural Development Bank (BANRURAL) is tasked with its administration.

During 2014, Hans Neumann Gruppe GmbpH sponsored a regional coffee workshop in Guatemala, aimed towards a Climate Change policy-strategy proposal in the Central American region. As part of the "Coffee & Climate" (c&c) initiative, from which the EU coffee private sector has formed a development cooperation alliance, Neumann Gruppe seeks to support small farmers with adaptation techniques (including test plots of robusta coffee) at the farm level. The c&c methodology focuses on five stages and a tool box to stimulate systematic adaptation and participation of farmers in the process. The Central American institutes of coffee participated at the workshop, together with other stakeholders.

CABI organization emphasized the known evidence on temperature and rainfall changes in Central America, and the uncertainty of present climate models. The Regional Cooperative Programa for the Technological Development and Modernization of Coffee (PROMECAFE) insisted on site specific adaptation strategies. INCAE Business School suggested the need to develop financial tools to address adaptation. Overall, the use of robusta as the main climate change adaptation strategy, on marginal zones, was strongly recommended, together with income diversification for small holders.

Marketing:

ANACAFE, and FEDECOCAGUA, provide technical assistance (to farmers and associations interested in export certs) to support for the following certifications: Rainforest Alliance, GLOBAL GAP, Utz Certified Good Inside, Organic Coffee (IFOAM), Café Bird Friendly, Fair Trade, Private Standards for Nespresso, Naturaland, Bio Suisse, and Demeter.

ANACAFE has established its Coffee School, where baristas, chefs, and any person, group, or association can learn how to prepare gourmet coffees. ANACAFE is also responsible for Guatemala's participation at the Cup of Coffee auction. ANACAFE publishes "El Cafetal", a three times a year selective coffee magazine, with latest news related to the coffee sector, from technical information up to health studies associated with drinking coffee.

ANACAFE has pioneered a marketing effort to define Guatemala's coffee producing regions based on coffee characteristics, defined by geography and climate, reflecting in an exclusive cup profile. Eight distinctive regions of strictly hard bean quality coffees have been identified, which are promoted as Guatemala's regional coffees, as shown in Fig. 4. Antigua Coffee already has a Geographical Indication protection, and there is a defined interest to protect the rest of the regional coffees. For more information on each regional coffee description and characteristics, you can visit: http://www.guatemalancoffees.com/index.php/our-coffee/8-coffee-regions/highland-huehue.



Fig. 4 Guatemala's Regional Coffees

Source: ANACAFE

FEDECOCAGUA, the Federation of Guatemalan Coffee Cooperatives, which supports 20,000 coffee producers, mainly small, has also designed a special marketing strategy to increase market prices and opportunities for its associates, which represent 15% of Guatemalan exports. FEDECOCAGUA is the main institution that deals directly with small coffee producers (1.32 Ha per farmer), and through its 148 cooperatives, has provided small farmers with direct commercialization options.

Aside of providing technical and financial support to its members, FEDECOCAGUA provides milling, storage, classification, the federation exports directly for its members. At present, the qualities that FEDECOCAGUA offers to its associates through its dry dry mill and cupping are: Fancy SHB Cuchumatán, Genuine Antigua Pastoral (GAP), SHB-EP La Delicia, and FSHB-EP Gourmet. FEDECOCAGUA also offers exporting under direct branding of its associates.

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Production, Supply and Demand Data Statistics: