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GAIN Report

Global Agricultural Information Network

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Guatemala

Coffee Annual

Coffee farmers struggle with low prices, disease and weather

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Report Highlights:

Coffee production for Marketing Year (MY) 2020 (Oct. 2019-Sept. 2020) is forecast at 3.39 million 60-kilogram bags. Coffee production in Guatemala for MY2018 and MY2019 fell from last years' estimates. Exports for MY2020 are forecast to continue at 3.1 million bags, as in the previous years. Planted area is kept at 305,000 Ha, with continued renovation. Coffee farmers are struggling with low international prices, coffee rust, and a volcanic eruption combined with drought, and significant loan defaults. The United States, Japan, and Canada continue to be the top export markets.

Executive Summary:

Guatemalan coffee production is not recovering as expected from the rust outbreak of 2012, and combined with depressed international prices, continues to push farmers out of the coffee business. Production for MY2018 closed at 3.43 million bags, down 10 percent from the previous estimate. MY2019 coffee production is estimated at 3.39 million bags, down 15 percent from last year's forecast and it is forecast to remain stable in MY2020. Farmers are struggling to make a living from coffee. Efforts to support coffee farmers include the coffee-fund trust extension, strengthening coffee cooperatives and associations to export directly to specialty coffee buyers, and promotion of domestic sales using a marketing strategy for tourists.

Commodities:

Coffee, Green

Production:

Coffee production for MY2020 is forecast unchanged. MY2019 levels are estimated at 3.39 million bags, 15 percent down from last year's estimate, as coffee rust continues affecting farmers. In addition, at least half of the renovated area has not entered into production. Nationwide erratic rainfall resulted in reduced precipitation causing smaller coffee beans, increasing the cherry to parchment ratio from 4.55 Kg cherry for 1 Kg parchment to 4.85. Also, in the Acatenango Valley, one of the eight coffee regions, the Fuego Volcano eruption during the flowering season destroyed the first harvest of the coffee plantations (see figure 1), affecting 3,873 hectares and half the expected production; total loss accounted for two percent of total production.

Figure 1
Coffee plants affected by lava from Fuego Volcano eruption in 2018



Source: Prensa Libre, ANACAFE- Guatemala National Coffee Association, June 8, 2018

Total national production for MY2018 closed at 3.4 million bags, down 10 percent from the previous estimate, due to an extended drought during the harvest season. Guatemalan coffee production is recovering from the rust epidemic of 2012, when 20 percent of the coffee production was lost to the

disease, but recovery is slower than expected. Despite the efforts to support renovation, coffee farmers are finding that the Timor and Catimor hybrids planted do not have the cup quality needed to participate in the specialty coffee market. In addition, some of the rust tolerant hybrids for the low altitudes have not expressed the tolerance expected and coffee rust continues reducing production. The Anacafe 14 - Catimor and Pacamara cross- appears to be the most rust tolerant variety. Figure 2 shows a farmer's successful use of the Anacafe 14 variety.

Figure 2
Farmer Alejandro Ramos, Monte Llano Cooperative,
showing renovation with Anacafe 14 variety



Source: USDA, Yepocapa, Chimaltenango, 2019

In the highlands, farmers are struggling to keep the high quality Bourbons, Caturras, and Catuahi Arabica varieties free of disease because coffee rust is now well established up to 1,600 meters above sea level, as shown in Figure 3.

Figure 3
Caturra, Catimor and Borbon varieties affected by coffee rust at 1,600 meters above sea level

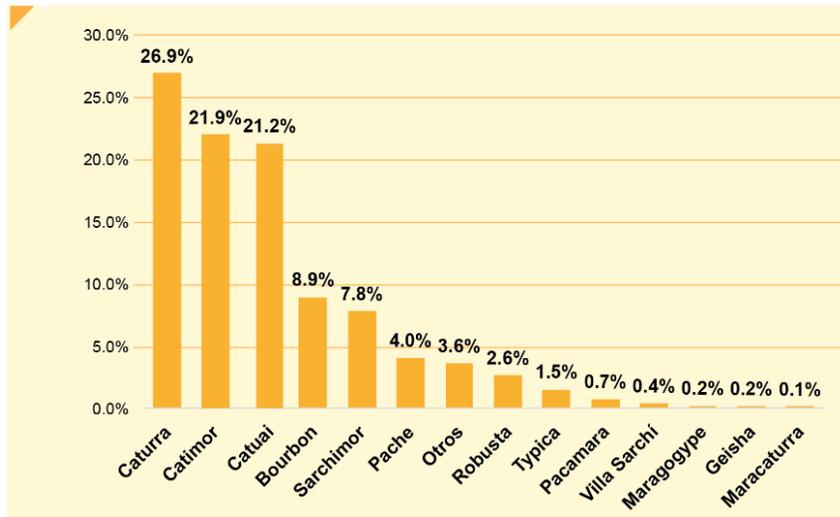
Santiago Atitlan, Solola, Guatemala



Source: COATITLAN Coffee Trials, 2019

Graph 1 shows the MY2018 varieties grown in Guatemala; Arabica represents 94 percent of the coffee planted.

Graph 1
Coffee Varieties Grown in Guatemala in MY2018
(% of total number of plants)



Source: ANACAFE, 2019

Efforts to maintain productivity have fostered collaboration between ANACAFE and partners worldwide such as World Coffee Research, CATIE – Tropical Agronomic Center for Research and Education- and the other national coffee associations in Central and South America. In addition to international cooperation between national associations, small and medium farmers in cooperatives have

also teamed up with academia to evaluate promising new plant varieties. For example, COATITLAN – Atitlan Agricultural Integrated Cooperative- in Santiago Atitlan is presently evaluating new hybrids from Brazil, with the support of San Carlos National University in Guatemala, as shown in figures 4 and 5.

Figure 4
Brazilian Coffee Hybrids Evaluated in Atitlan, Solola, Guatemala



Source: COATITLAN, 2019

Figure 5
High Quality Brazilian Coffee Hybrids with Rust Tolerance



Source: COATITLAN, 2019

Coffee is the major economic catalyst for economic growth in Guatemalan rural areas, as 20 out of 22 departments continue producing coffee, representing seven percent of the 2018 Agricultural GDP. Coffee exports in MY2018 accounted for US\$693 million, dropping 6 percent from US\$738 million in

MY2017 (Graph 2). Coffee was the second most important agricultural export in CY2018, and agriculture represented roughly 13 percent of Guatemala’s GDP.

Graph 2
 Guatemalan Coffee exports from MY2001-2018
 (US\$ million)



Source: ANACAFE, 2019

Low international coffee prices have severely affected farmers’ cash flow, imposing more pressure on crop and farm management. For a small producer, coffee production costs in MY2019 sum up to \$4,637 per hectare, distributed as shown in Table 1. With current low prices, even under the best yields and direct sales, a small farmer will still be losing money each year. Tables below explain in detail. Plant renovation represented 28% of total cost, with an investment of \$0.32 per plant for a total of 3,333 plants per hectare, and the corresponding hand labor for planting. Ideally, farmers will apply three fertilizations during the production cycle, and preventive fungicide applications. As a rule of thumb, farmers apply a total of 1,714 Kg of fertilizer per hectare distributed in three applications. Farmers choose to reduce the number of fertilizations in the cycle to reduce production costs.

Table 1
 Average Coffee Production Costs in Guatemala for a Small Farmer (2 hectares)
 MY2019

	US\$/Hectare	Percentage
Plant renovation*	\$1,298	28%
Fertilizers/Fungicides	\$1,484	32%
Hand Labor	\$1,855	40%
Total	\$4,637	100%

Source: USDA collected data, reported by producers from five different farmer associations from the Monte Llano Cooperative, Yepocapa, Chimaltenango

*Note: For areas impacted by coffee rust, renovation is not an option.

Yields will vary depending on many factors such as: a) varieties, b) crop management, c) harvest cycle, d) weather patterns, and e) pest and diseases. Information on the varieties' profiles, including yields, can be found at <https://varieties.worldcoffeeresearch.org/es/varieties>. The crop management is critical for obtaining optimal yields; in 2012 USDA evaluated farms, side by side. One farm was adequately managed and was thus hardly hit by rust, compared to a poorly managed farm which was severely hit by rust. The harvest cycle for coffee influences yields depending on the coffee plant's age. Table 2 shows expected yields for cherry, parchment, and green coffee, depending on the harvest cycle.

Table 2
Average Coffee Yields for the First Five Harvests on a Small Farm in
Acatenango Valley, Sacatepequez, Guatemala
(MY2019)

Coffee Yields	Cherry (Kg/Ha)	Parchment (Kg/Ha)	Green (Kg/Ha)
1st. Harvest (Year 3)	1,428	304	234
2nd. Harvest (Year 4)	3,809	810	623
3rd. Harvest (Year 5)	7,618	1,621	1,247
4th. Harvest (Year 6)	11,427	2,431	1,870
5th. Harvest (Year 7)	15,236	3,242	2,494

Source: USDA collected data, reported by producers from small farmer associations in Acatenango, Sacatepequez, Guatemala

Prices paid to farmers vary depending on factors such as: a) quality of the coffee (strip picked vs. selectively picked, and the number of defects), b) farm distance from the main road, and c) type of buyer ("coyote" or intermediary at the farm, cooperative, broker, or direct buyer). Selectively picked red mature coffee is higher quality than strip picked, which contains both green, unripe cherries and red, mature cherries. Selective picking increases hand labor cost; farmers reported that strip picking was also done to avoid others stealing the cherries left on the plants after the main harvest. Table 3 shows prices paid to farmers depending on the farmer organization and quality of coffee harvested in MY2019.

Table 3
Prices (US\$/Kg) paid to coffee farmers in Guatemala according to the farmers level of organization and the quality of the harvest for Strictly Hard Bean (SHB) Arabica
(MY2019)

Farmer Organization	Quality	Low Prices (\$/Kg)			High Prices (\$/Kg)		
		Cherry	Parchment	Green	Cherry	Parchment	Green
	SHB - Arabica						
	Ratio		4.82	1.43		4.57	1.3
None	Low - Strip Picked	\$0.16			\$0.23		
Association	Medium - Strip Picked		\$0.82			\$1.16	
Cooperative	High - Selectively Picked		\$0.97	\$1.29		\$1.21	\$1.57

Source: USDA collected data, reported by producers from twelve different farmer organizations, 2019

If the farmer does not belong to an organization, the farmer is exclusively subject to the “coyote” and the lowest possible prices paid, and selling cherries are the only option. If the farmer belongs to an association, the prices improve, and the farmer may sell parchment coffee. If the farmer belongs to a cooperative, composed of different farmer associations, the cooperative buys parchment as most cooperatives have built wet mills. When cooperatives also have a dry mill –which is the minority- they can sell green coffee to a broker in the export markets. Selling directly to the buyer in the export market is the ultimate goal that very few have achieved.

Based on MY2019 production costs, yields, and prices paid to small coffee farmers, Table 4 shows the end balance for a coffee farm.

Table 4
Return on Investment for Small Coffee Farmers in Guatemala
(MY2019)

Year	Average Yield (Kg/Ha)	Production (Kg)	Production Cost (\$)	Sales (US\$) - Low Prices			Profit (US\$) - Low Prices		
				Cherry	Parchment	Green	Cherry	Parchment	Green
3	234	467	9,274	72.85	382.44	602.80	(9,201.15)	(8,891.56)	(8,671.20)
4	623	1,247	2,412	194.31	1,020.12	1,607.90	(2,217.19)	(1,391.38)	(803.60)
5	1,247	2,494	3,339	388.62	2,040.23	3,215.79	(2,950.38)	(1,298.77)	(123.21)
6	1,870	3,740	4,267	582.92	3,060.35	4,823.69	(3,683.58)	(1,206.15)	557.19

7	2,494	4,987	5,194	777.23	4,080.46	6,431.59	(4,416.77)	(1,113.54)	1,237.59
8	2,494	4,987	5,194	777.23	4,080.46	6,431.59	(4,416.77)	(1,113.54)	1,237.59
9	2,494	4,987	5,194	777.23	4,080.46	6,431.59	(4,416.77)	(1,113.54)	1,237.59
10	2,494	4,987	5,194	777.23	4,080.46	6,431.59	(4,416.77)	(1,113.54)	1,237.59
11	2,494	4,987	5,194	777.23	4,080.46	6,431.59	(4,416.77)	(1,113.54)	1,237.59
12	2,494	4,987	5,194	777.23	4,080.46	6,431.59	(4,416.77)	(1,113.54)	1,237.59
							(44,552.92)	(19,469.08)	(1,615.28)

Year	Average Yield	Production	Production Cost	Sales (US\$) - High Prices			Profit (US\$) - High Prices			
	(Kg/Ha)	(Kg)	(\$)	Cherry	Parchmen t	Green	Cherry	Parchment	Green	Green Accum.
3	234	467	9,274.00	109.27	542.10	735.75	(9,164.73)	(8,731.90)	(8,538.25)	(8,538.25)
4	623	1,247	2,411.50	291.46	1,445.97	1,962.51	(2,120.04)	(965.53)	(448.99)	(8,987.24)
5	1,247	2,494	3,339.00	582.92	2,891.95	3,925.02	(2,756.08)	(447.05)	586.02	(8,401.23)
6	1,870	3,740	4,266.50	874.39	4,337.92	5,887.53	(3,392.11)	71.42	1,621.03	(6,780.20)
7	2,494	4,987	5,194.00	1,165.85	5,783.90	7,850.04	(4,028.15)	589.90	2,656.04	(4,124.16)
8	2,494	4,987	5,194.00	1,165.85	5,783.90	7,850.04	(4,028.15)	589.90	2,656.04	(1,468.13)
9	2,494	4,987	5,194.00	1,165.85	5,783.90	7,850.04	(4,028.15)	589.90	2,656.04	1,187.91
10	2,494	4,987	5,194.00	1,165.85	5,783.90	7,850.04	(4,028.15)	589.90	2,656.04	3,843.95
11	2,494	4,987	5,194.00	1,165.85	5,783.90	7,850.04	(4,028.15)	589.90	2,656.04	6,499.98
12	2,494	4,987	5,194.00	1,165.85	5,783.90	7,850.04	(4,028.15)	589.90	2,656.04	9,156.02
							(41,601.88)	(6,533.68)	9,156.02	11,812.05

*Source: USDA collected data, reported by small producers from twelve different farmer organizations with average area of 2 hectares in Guatemala, renovating area in Year 1, starting harvest in Year 3
Guatemala, 2019*

Table 4 summary: Small coffee farmers -with an average of 2 hectares- in Guatemala are experiencing significant losses during the first 12 years of the crop if they are impacted by low international prices, reflected in low farm gate prices. Independently of the type of organization they belong to, even well-organized cooperatives cannot make a profit from coffee when selling at low spot prices, even if selling green coffee. On the other side, if farmers get access to higher prices paid at the cooperative level, and

can sell green coffee directly via a trader in the export market, profits start at Year 6 of the crop, though payment of the investment starts in Year 9. Under the best possible scenario, farmers roughly make US\$0.24/pound.

Coffee farmers are experiencing significant losses and increasing loan defaults, resulting in considerable migration of farmers from the rural areas to the city, including many migrating to the United States. It is critical that farmers organize in associations and cooperatives if they wish to make an economically sustainable living from coffee. ANACAFE, the Federation of Cooperatives –FEDECOCAGUA- and international assistance (United States, Germany, Italy, and others) are doing their best to support farmers via organizational strengthening and connecting farmers directly to export markets. In addition, coffee plantations are diversifying their shade trees to include secondary potential crops such as nuts and avocados. Honey production is a common activity for coffee cooperatives.

Consumption:

Consumption in MY2020 is forecast at 470,000 bags, one percent growth from MY2019 estimate of 465,000 bags. Consumption of local coffee represents almost 14 percent of the country’s production, and exports account for 86 percent of total production. Despite the fact that Guatemalans are aware of the high quality coffee produced in Guatemala, almost half of the consumption is soluble.

This can be explained by the cost of high quality coffee bags (US\$4.50/pound up to \$8.45/pound), and the tradition of exporting all high quality coffee and consuming cheap soluble coffee. Gourmet coffee shops continue to expand, as high quality coffee consumers also increase demand.

Trade:

Guatemala is forecast to export 3.1 million bags in MY2020, unchanged from previous MY2019 estimates. Table 5 shows exports for MY2018, up 4 percent from MY2017. The United States continues to be the major export market with 39 percent share and combined with Canada’s 11 percent, results in a 50 percent market share for North America. Europe represents 28 percent of the export market while Asia has 20 percent share.

Table 5
MY 2017-MY2018 Guatemalan Coffee Exports

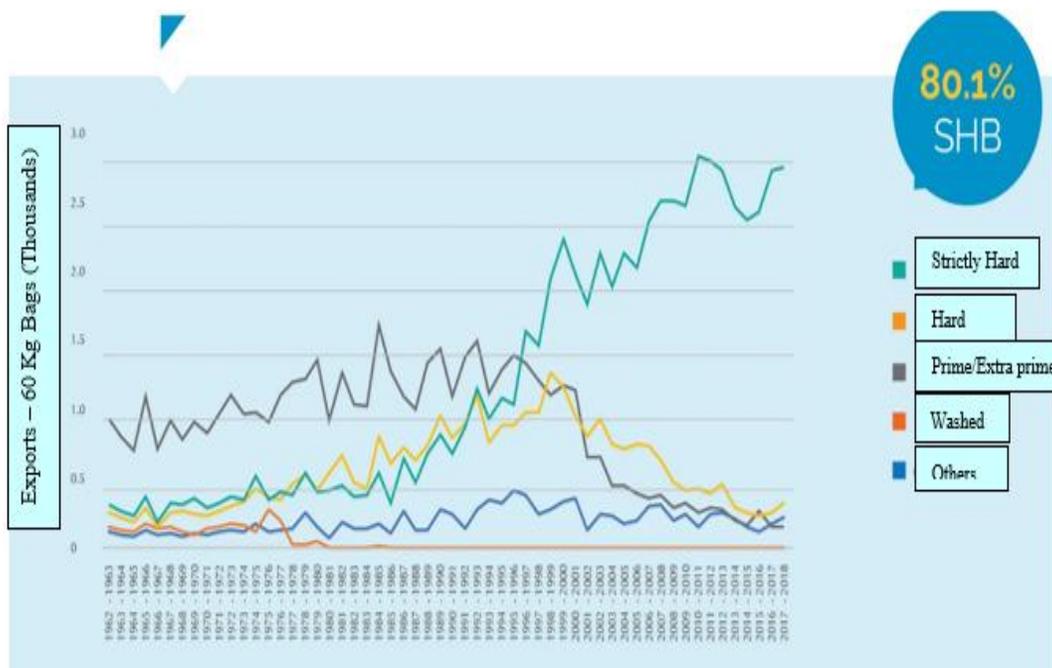
Partner Country	Guatemala Coffee Exports (60 Kg bags)	
	Marketing Year (MY)	
World		
United States	2017	2018
Japan	3,025	3,145

Canada	1,146	1,221
Belgium	457	358
Germany	353	342
Italy	254	241
Korea South	161	198
China	136	184
Netherlands	90	98
Taiwan	33	70
Others	52	53
	33	45
	308	335

Source: World Trade Atlas, 2019

ANACAFE reports that 80 percent of exports correspond to strictly hard bean (SHB). Graph 3 shows Guatemalan exports by type of coffee since MY1963, evidence of the significant evolution in high quality production as of MY1997.

Graph 3
Historical Guatemalan Exports by Type of Coffee
(MY1963 – MY2018)
(1000's 60-Kg bags)



Source: ANACAFE, 2019

Stocks:

Ending stocks are forecast at 76,000 bags for MY2020. Stocks are estimated to slightly increase for MY2019. Stocks correspond to inventories on September 30, at private exporting facilities.

Policy:

Legislative Decree 19-69 created the Coffee Law in Guatemala in 1969, and Presidential Decree 13-70 regulates it. ANACAFE is the main advisor for the Government of Guatemala on coffee matters, and establishing the coffee policy for production and commercialization. ANACAFE is financed through an export tax, which imposes a Q0.25 fee for every hundredweight of green beans exported (equivalent to \$0.03/bag).

Legislative Decree 37-72 and 74-72 provides amendments to the Coffee Law, the first establishing tax exemptions to buy fertilizers and equipment and the second, defining a 2-year term for the President and Vice President of 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 in 2026) to support measures addressing the coffee rust outbreak. The trust fund provides for: 1) non-reimbursable funds for inputs and assistance for coffee production, 2) low interest loans for producers, set at a two-percent annual rate for small producers and three percent for medium and large producers, and 3) increased public transfers up to \$100 million.

The Government of Guatemala has not been fully committed to finance the trust fund despite the existing legislative decrees. On April 3, 2019 the Congress of Guatemala approved Legislative Decree 5498-2019, extending the coffee trust fund until October 23, 2051. The law provides for loan

restructuring to support farmers to pay their expired debts. In addition, coffee producers will get access to the electronic invoice, granting the option for tax credit return on exports.

Marketing:

ANACAFE continues promoting the specialty coffee market as a means to improve farmers income. ANACAFE holds domestic coffee competitions, to award coffee producers with the international marketing of their products and increasing business contracts. In addition, coffee cooperatives are now entering into the lot and micro lot differentiation, to increase profits. Indeed, Guatemala will hold the 2019 [Producer & Roaster Forum](#) on May 23-24, presenting to world roasters the first micro lot block chain auction with the best 25 coffee lots from Guatemala, opening at US\$4.25 per pound.

Cooperatives such as “[The Voice that Calls from Dessert](#)” and “[COATITLAN](#)” will get an opportunity to present their specialty coffee lots, after receiving ANACAFE awards in MY2018. The Voice presently sells organic coffee in Alaska and California. COATITLAN coffee cooperative is exporting to the United States and Germany, obtaining up to US\$8 per pound. [COFFEE JUAN ANA](#) exports to Chicago and Minnesota. These three cooperatives, together with [FEDEPMA](#), [COINATT](#), and [SAN MIGUEL](#), are located in small towns surrounding Lake Atitlan, and are part of the recently launched Atitlan Lake Basin Ecological Tour. This ecological tour is a joint effort sponsored by USDA, Counterpart International, Uniterro, CECI-/Canada, WUSC-EUMC, ANACAFE, the Lake Atitlan Sustainable Management Institution –AMSCLAE- and the Tourism National Institute –INGUAT (figure 6).

Figure 6

Representatives from USDA/Guatemala, ANACAFE, Counterpart International, and Guatemalan Barista experience coffee cup tasting from Lake Atitlan Cooperatives



From October to April, the Atitlan Lake Basin Ecological Tour provides coffee buyers and tourists with a tour of the cooperatives’ coffee plantations around the lake, the experience of the harvest and the milling operation, and a specialty coffee cupping at the cooperatives’ facilities. In addition, the cooperatives also offer tourists the opportunity to taste barista prepared special coffee lots at their own coffee shops at the main bay entering each of the six small towns of San Juan La Laguna, San Pedro La Laguna, Santiago Atitlan, San Lucas Toliman, and San Antonio Palopo (figure 7).

Figure 7
Coffee Shops along the Atitlan Lake Basin Ecological Tour



Source: USDA, 2019

Production, Supply and Demand Data Statistics:

Coffee, Green Market Begin Year Guatemala	2017/2018		2018/2019		2019/2020	
	Oct 2017		Oct 2018		Oct 2019	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	305	305	305	305	0	305
Area Harvested	259	259	259	259	0	259
Bearing Trees	1101	1150	1151	1150	0	1150
Non-Bearing Trees	121	200	199	200	0	200
Total Tree Population	1222	1350	1350	1350	0	1350

Beginning Stocks	36	36	16	86	0	82
Arabica Production	3600	3222	3700	3175	0	3180
Robusta Production	180	90	190	90	0	90
Other Production	0	123	0	123	0	123
Total Production	3780	3435	3890	3388	0	3393
Bean Imports	0	0	0	0	0	0
Roast & Ground Imports	0	2	0	2	0	2
Soluble Imports	215	215	210	215	0	215
Total Imports	215	217	210	217	0	217
Total Supply	4031	3688	4116	3691	0	3692
Bean Exports	3550	3138	3600	3140	0	3142
Rst-Grnd Exp.	0	2	0	2	0	2
Soluble Exports	5	2	5	2	0	2
Total Exports	3555	3142	3605	3144	0	3146
Rst,Ground Dom. Consum	240	245	290	250	0	255
Soluble Dom. Cons.	220	215	215	215	0	215
Domestic Consumption	460	460	505	465	0	470
Ending Stocks	16	86	6	82	0	76
Total Distribution	4031	3688	4116	3691	0	3692
(1000 HA) ,(MILLION TREES) ,(1000 60 KG BAGS)						