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Category/Department: Honduras Nicaragua
Published: 2004-04-29

Honduran cocoa growers will not benefit this year from high world prices for their commodity. The crop has been hit by disease.

First infected in 1998, Honduran cocoa plantations are in danger of being destroyed by the fungal disease Moniliasis, found a study by the Fundacion Hondurena de Investigacion Agricola. In 1998, Honduras had about 6,500 hectares of cocoa trees, mostly along the Atlantic coast. They produced about 5,000 metric tons annually, of which 2,000 MT were processed domestically and the rest exported into the regional and European markets.

Cocoa prices are high and headed higher. But Honduran production, hit by both Hurricane Mitch (see NotiCen, 1998-11-12) and disease, has fallen to barely 1,000 MT a year. Moniliasis continues to ravage the trees. Domestic processors will import fruit from the Dominican Republic, and from Panama. This is a market that used to be filled internally. President of the Honduran Asociacion de Productores de Cacao, Tito Jimenez, said they now export half their production to Central America, a quarter to Europe, and the rest to the US.

Climate and soil factors have placed Honduras in an important position in world production. The fruit is cultivated year-round, with harvest peaks between March and May, and between September and January. "The price is going up every day in the international market and we have a product in great demand," he said. The association has capacity for processing 4,800 MT. "We export cocoa butter, paste, powder, and chocolate under the Aprocacaoh brand, which is recognized globally," he said. The most valuable product is the butter, which sells in 25-kilo boxes at between US$90 and US$100.

Jimenez said that with prices this strong, investment opportunities abound, and he is seeking help from the Secretaria de Agricultura for financing and for help with the disease. But the processing plant, the only one of its kind in Central America, is only working at 23% of capacity. It hardly makes enough to cover maintenance costs and staff salaries.

Production costs eat profits because the whole facility must be on-line, even to process a reduced volume of cocoa. Also, with reduced output, the plant is unable to fill the orders of its international clients, and has even had to suspend shipments to its best customers in the Netherlands. The plant can only manage one shipment of four containers of cocoa butter where it needs to be shipping 16 containers a week.

Moniliasis is also known as Quevado disease, and in Spanish as pudricion acuosa, helada, and mancha ceniza. It is caused by the fungus Monilia. It is thought to have originated in Ecuador, and made its way to Central America, where it has appeared in Panama and Nicaragua also.
The fungus attacks the fruit pod at any stage in its development. At the beginning of the 20th century, the plague threatened to destroy the Ecuadoran economy and it is a major problem there to this day. Experiments in Ecuador Efforts to eradicate the fungus have had little success over the years. Biological control using bacteria is the current technique of interest.

In Ecuador, the army, in cooperation with Nestle R&D S.A. has experimented with certain antagonistic bacteria. Three were evaluated in 2001, Pseudomonas putida, Pseudomonas cepacia, and Bacillus subtilius, and outcome data indicated that Bacillus subtilius and Pseudomonas cepacia both reduced moniliasis 62% and 55%, respectively. It was hoped that an effective fungicide or protocol would develop in short order from that research, but nothing helpful has yet reached Honduras.

The plague came to Honduras originally from Nicaragua in early 2000, seriously damaging plantings in Cuaimas, Yoro, considered the principal growing area in Honduras. Contamination rapidly spread through the area and then on to Cuyamel, Cortes, San Juan Pueblo, and La Masica, Atlantida.

**Germans working on a cure**

In neighboring Nicaragua, meanwhile, the search goes on for a remedy. The German nongovernmental organization Pro Mundo Humano has been working for some years on the problem there. Pro Mundo representative in Nicaragua, Hans-Wilhelm Grebe, said that studies have shown that at least 300,000 ha could support cocoa cultivation, but only 7,000 ha are actually producing because of the fungus, which has been detected throughout the country.

Pro Mundo has recommended drastic action. "What they have suggested is that those finca owners who have non-commercial cocoa destroy it, because it contributes to the development of a disease in a crop with an excellent European market," said Luis Osorio, secretary general of the Agricultural and Forestry Ministry (Mag-For). Osorio is seeking a governmental decree to fight the disease. "This is still in process. The legal advisors of Mag-For, together with the food safety organization Sanidad Vegetal, are preparing some method to advance the battle against this disease," he said. During the next couple of weeks they will examine the possibility of legislation to support the effort. The point of the legislation is for the government to be able to order the destruction of affected plantings.

Enrique Rios, president of the cooperative Cacaonica said that cattle ranchers have parcels of untended cocoa that contribute to the propagation of the fungus, and "that is a tremendous focus of the infection that affects us." Complicating the problem, the land under cultivation that the cooperative and the government want to save is organic, and marketed as such, so the use of agrochemicals is prohibited. Only natural methods can be used. These could include biological control methods like those tried in Ecuador, or cultivation methods that would entail the regulation of sun and shade to inhibit the fungus.

Agronomist Miguel Malespin said that moniliasis can destroy an entire plantation in six months, because wind can spread the fungus several kilometers at a time. "It is so aggressive that, according to experts, in one square centimeter there are between four and 44 million spores." He said the main medication is common quicklime and copper sulfate.
Like the Hondurans, Nicaraguans are watching the price of cocoa products climb, and are eager for a solution. "We need government help," said Rios, "here we have export channels, we have the market, we are in compliance with quality standards. What's lacking is more producers and more production." He was speaking of the organic cocoa cooperative's location in Waslala, located in the buffer zone of the Bosawas Biosphere.

The biosphere was declared a reserve in 1997 by UNESCO, after recognizing it as the largest intact tropical cloud forest under conservation in Central America. That fact alone ought to be sufficient to awaken government interest in helping the growers [whose organic cultivation methods minimize damage to the biosphere], said Rios. The growers used to get help from the Instituto de Desarrollo Rural (IDR), but that aid has diminished over time. "Since then, we haven't gotten any help from the government. We have even been asking for credit for the commercialization of cocoa. We have received approval for a loan from the European Union, which is in a bank, but in that bank they put us through a lot of financial hoops that we find almost impossible to comply with, so we can't get that credit."

The community of cocoa producers has a potential gold mine with a high-value crop, uniquely suited to being grown in proximity to the reserve, thanks to organic cocoa designation requirements, but devastated by a fungus that also thrives in that environment. Yet the growers are without the means, institutional or financial, to solve the fungus problem and make some real money.

The irony is not lost on Juan Sebastian Chamorro, coordinator of the Sistema de Inversiones Publicas de la Secretaria de Coordinacion y Estrategias de la Presidencia de la Republica (SNIP), the president of the republic's public investment strategies entity. "What we have seen," he said, "is that with almost no help, [cocoa] is an area that keeps growing a lot, and the market outlook is good." Chamorro is recommending that producers get involved with SNIP in order to become eligible for Inter American Development Bank (IDB) funds.

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