

Dominica Banana Industry

Submitted by

Mandi Vest

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Abstract

The banana industry of Dominica has seen many hardships in the past few decades though it started off as a profitable system. The production process is very involved and requires a large amount of labor and time. Many adversities have lead to a fall in production and profits. There may be no hope for the industry to bounce back unless changes are made.

Introduction

As the plane landed three weeks ago, I gazed out my window and the first thing I noticed were the slopes covered in banana plants. In Dominica, the banana has been the life-blood of the economy for over 40 years. The people have depended on this monoculture for most of their exports. Agriculturalists agree that depending on a monoculture is risky, but Dominica has learned this lesson the hard way.

Methods

Statistical information from the Dominica Banana Marketing Corporation (DBMC) and the Dominica Central Statistics Office was obtained. Observations of farming methods and shipping and handling were taken. Three books were used as references. The following people who have been involved in the Dominica banana industry were interviewed:

Julian Elwin

Economist; has worked for the DBMC since 1986; now handles the DBMC website

Michael Didier

Agricultural Extensionist; worked for the Ministry of Agriculture; was Chief Extension Officer for the DBMC; then Operations Manager; then General Manager until 1996

David Lloyd

In charge of Organic Development at the DBMC

Results

The banana originated in the Indo-Malaysian region. It is an herbaceous perennial with its stem made of many overlapping leaf bases (Evans, 1997).

According to Michael Didier, the Robusta and Giant Cavendish varieties are the ones used as exports now in Dominica. The names given to certain varieties may vary from country to country.

The industry began to grow in 1931 when AC Shillingford and Company started making shipments of Dominican bananas to England. In 1934, the United Fruit Company and the Canadian Banana Company started buying bananas of the Gros Michel variety from Dominica under the condition that a producers association would be formed to organize the industry. Thus, the Dominica Banana Growers Association was formed. During WWII the industry slowed, but afterward the island began producing the Robusta and Lacatan varieties, which were more resistant to Panama's disease.

Antilles Products Ltd. formed in 1949 with their head office in Dominica. They bought Dominican bananas by weight at \$0.04/lb. In 1954, Antilles Products sold out to Geest Industries Ltd., and the British government signed long term contracts to buy bananas from the Caribbean islands, after which the industry flourished. Bananas can be harvested throughout the year, which has provided a regular cash income to the farmers. "Green gold" was the phrase used to describe the banana. But, as with other crops Dominicans have depended on before the banana, successive problems have lead to a sharp decline in production (Honychurch, 1995).

In the 1960s bananas comprised almost 80% of Dominican exports. Bananas are still the major export for the island but are on a rapid decline (Honychurch 1995:208). Figures 1 and 2 show how the amount of producers and the level of production have dropped from 1990 to 2000.

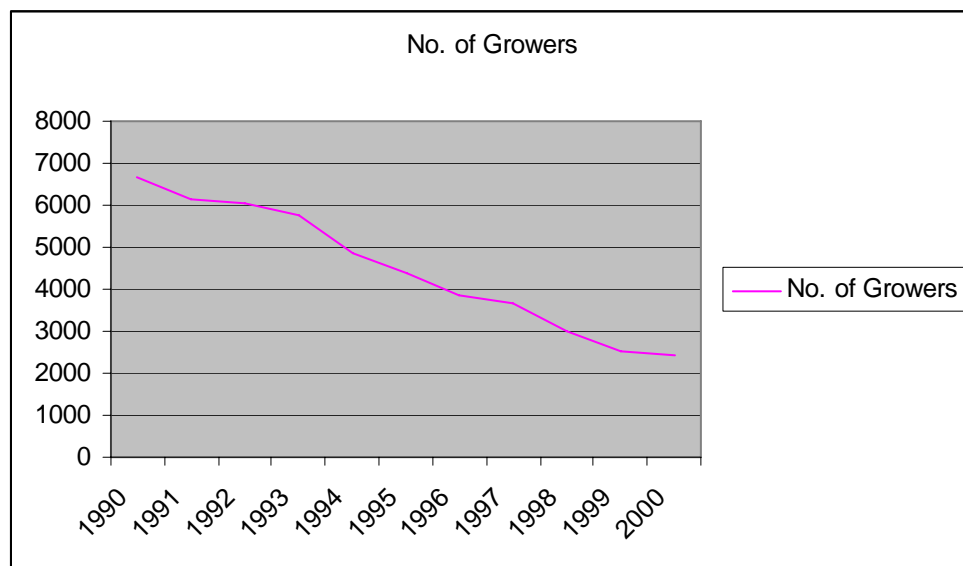


Fig. 1 Commercial banana growers of Dominica, 1990-2000

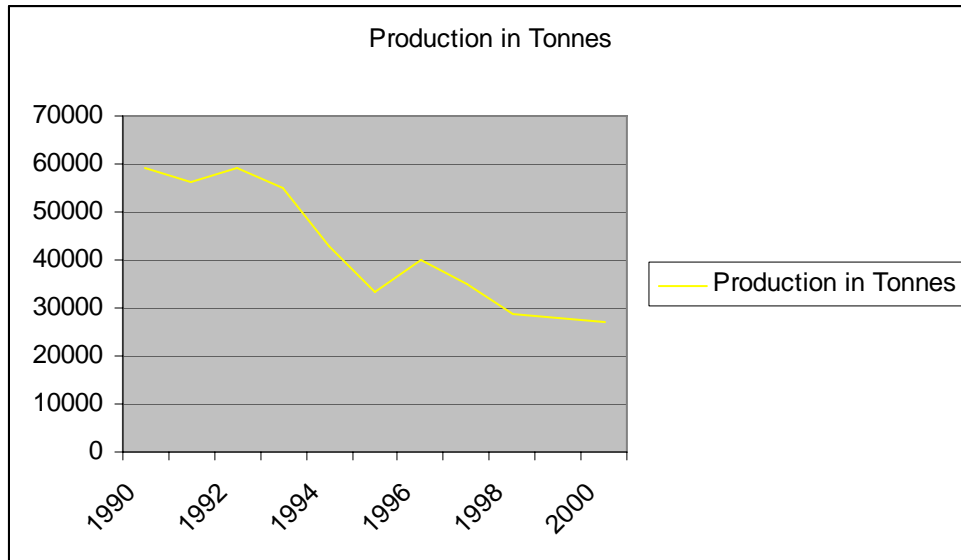


Fig. 2 Banana production in Dominica, 1990-2000

Some of the adversities that the banana industry in Dominica has faced include disease, pests, hurricanes, competition with larger countries, and an uncertain market (Honychurch 1995). In the late 1970s, a series of hurricanes destroyed many farms. After each hurricane, the farmers may try to recover their fields just to be hit by another hurricane the next year. Elwin explains that hurricanes combined with increasing quality standards have been very frustrating to growers. But probably the most frustrating part of the industry has been the uncertain market prices.

Dominica has depended on the British company Geest as their primary market source. For many years, the island flourished through this market, but after England joined the European Economic Community two systems of banana trade collided, which had adverse affects for small islands. The larger countries produce higher quantities of bananas, therefore their production costs are reduced and they can sell at lower prices. These countries are called the Dollar banana growers (Just Green Bananas, 1994).

From 1974-83, Michael Didier, working for the Ministry of Agriculture, was a technical official for a project meant to resuscitate the industry. Through the years Dominica's banana industry has tried to stay alive through changing production standards to increase yield and quality. But, adding new technologies to an island like Dominica that only has small-scale farms is not feasible or profitable.

David Lloyd explained some aspects of the processes done in the fields. The bundle of bananas that hangs from the plant is called a bunch, which breaks up into 7-15 hands depending on the yield. The banana plants are planted in a mat, which is a like a family of about three plants. Each stool matures at different times. The mother matures first and produces the first bunch, while the daughter plant continues to grow. The infant stool is the shortest and won't mature until the other two plants have finished. Once the mother has finished her bunch, she dies and the daughter can begin growing a bunch. This process works to ensure

that the plant that is producing the bunch is gaining most of the nutrients and using the greatest amount of sunlight for photosynthesis. This is how the farmers maintain a continuous crop. If fields are managed well, farmers don't really have to replant. Didier claims that fields are replanted every 3-7 years on average in Dominica.

Growing bananas is a very involved process. It includes the use of many chemicals. Nematodes have been a major problem in Dominica and the nematocide Nemagon is used as a granular form applied to the soil, according to Julian Elwin. Heptachlor has been used to treat plants for the banana weevil. Yellow sygotoka is a fungus that has caused leaf spot disease, which reduces the amount of photosynthesis for the plant resulting in yield loss. Lloyd says that Imazelil has been used to treat for leaf spot. Herbicides for weed control and chemical fertilizers have been imported as well. At a certain stage of development of the bunch, farmers cover them with a blue bag that has been treated with insecticide to control thrips. The blue bag also causes the fruit to mature ten days faster because of increased temperature and humidity. Another problem has been post-harvest disease. After cutting the bunch from the crown a fungus comes in and causes crown rot. Therefore, before farmers box their bananas, they dip them in fungicide. The cost of importing all of these chemicals has caused profit reduction as well as cost to the environment and danger to the growers.

Another concern of farmers is timing when to cut the bananas from the plant to take to market. Didier says that if the bananas are picked too late the bananas ripen on the ship, a condition called ship ripe. The DBMC started the tagging system to ensure that farmers were picking their bunches at the optimum time. Different colored ribbons are tied to plants according to their maturity level. A calendar was made that specifies which color should be cut during a certain week. Another part of the process is picking the flowers off of the individual bananas. This also must be done at a certain time. The color-coding system assists with timing of picking the flowers off as well as when to cut down a bunch. Some plants are short enough that harvesters can stand on the ground to cut a bunch. But the taller plants must be climbed or reached by a ladder.

The production process has been forced to change with advancing technologies and in order to alleviate problems. The consumers demand bananas with little or no bruising, so the packaging process must be done in a very meticulous manner. At first, farmers just brought "naked" bananas to the harbor to be shipped out. Then small boxing plants were built throughout the island, but these weren't very accessible for the growers. Plus, farmers had to carry the bananas and with all the handling came bruises and sticky ooze. The next development was to wrap the bananas in a blanket of cotton. This process was much too expensive for Dominica. The idea to package the bananas at the field was the next step. Growers kept boxes underneath trees and would box the bananas as soon as they were cut. This proved to be a bad idea when the boxes got wet from the rain. The next and most recent advancement has been the shed semi-wet packaging system. There are sheds all over the island of Dominica that were built as part of the aid program that Michael Didier was

instrumental in. These are the workstations of the banana farmers. After the farmer cuts the bunch, he or she carries it to the shed where the bananas will be separated into hands. Then the farmer dips the hands into Alum to reduce the latex oozing problem and dips them into a fungicide to control crown rot. The hands are stacked into the well-lined boxes in a particular manner. Bananas that are too curved are not packaged because they do not fit appropriately. The way the fruit is packed is very important because it ensures that the bananas will get to the market with little or no bruising.

The farmers could take the bananas to the harbor at Portsmouth or Roseau in the past, but now Roseau has the only harbor that ships out the crop. Every Friday, farmers load the boxed bananas in the back of their small trucks and take them to the port at Roseau. The trucks line up at a gate where a man checks papers. Then they enter the harbor and line up to a truck scale. Once the trucks have been weighed, the farmers back up to a warehouse. Workers stand by and wait to unload the trucks. Each box of bananas is weighed and must be within a certain amount. An inspector opens each box and examines the bananas to ensure they are in the correct amount and packed appropriately. After quality control approves the bananas, they are stacked on forklifts and taken to the banana boat. The farmers take their papers to the DBMC to the cashier's office to receive their pay.

Julian Elwin showed me the DBMC website, which is used as a marketing and monitoring tool. It shows the layout of all the farm plots on the island. Click on a plot and see information about that farm. Certified farmers keep records as to what chemicals they apply and their husbandry practices then supply this information to the DBMC. These farmers have been educated in the appropriate practice methods. A certain amount of hygiene goes into the production of the crop. Inspectors go into the fields on occasion to check sheds for cleanliness.

Michael Didier says that Dominica made a very serious mistake by monocropping, that Dominica must bring in alternate crops and practice rotation. He is not too optimistic about the banana industry's hope for survival, claiming that everything is against us: there is a lack of labor and it is too hard to change with so many farmers on the island. One may ask why diversification hasn't been enforced with all the troubles that the banana has had. Change in Dominica can't happen overnight with the number of farmers on small farms scattered about the island. Julian Elwin says that a task force was organized to try to encourage farmers to diversify, but was not effective enough to instill new practices. Some diversification has occurred though and may gradually increase in time.

There may be hope for an organic banana industry though. David Lloyd is in charge of organic development at the DBMC. He says that there are six experimental farms using organic practices right now. British supermarkets have been speaking to him about buying these bananas. But, farmers must be certified by the Soil Association of the United Kingdom. Lloyd says that commercial organics is difficult, but the market is there and the prices are 30-40% higher. He believes that the idea of organic farming makes sense for Dominica, because it is "the Nature Island" of the Caribbean.

Discussion

From the information gathered, it seems that the Dominican banana industry is very complicated. The production process requires hard work from the farmers. They must attend to the fields very regularly, applying chemicals on occasion, removing weeds if necessary, picking flowers from the bananas, or cutting down the bunch at the right time. Also, the growers must package the bananas appropriately to avoid damaged products reaching the markets. Others that work in the industry at the DBMC or at the harbor also have stressful jobs. They try to improve the quality and production so that the farmers receive the highest possible prices. The market prices are too low for banana farming to be profitable for small farmers. The process of change is a slow process with so many farmers all over the island. Some have lost hope for the banana industry, but there may be hope for organic development.

Conclusion

“After God is the Land,” is a phrase that Dominicans live by. Every islander is ultimately reliant on the viability of agricultural production (Honychurch, 1995). On paper, it may appear like the problems have easy solutions. But, when it comes down to the reality of the situation in Dominica, people have a system that worked for a long time and has become a huge part of the island’s culture. Atherton Martin, former Minister of Agriculture in Dominica, said in a speech he gave to a group of students that you can talk to anyone in Dominica about bananas because everyone is involved: the bankers, politicians, growers, and merchants. One thing that is inevitable is change but history shows that with adversity comes creativity. I am hopeful that Dominica will rebound with the assistance of innovative solutions and hopefully environmentally friendly strategies that synchronize with the country’s theme of being “the Nature Island.”

Acknowledgements

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Works Cited

Evans, Peter G.H. and Arlington James. Dominica Nature Island of the Caribbean: Agriculture and the Environment. Faygate Printing, Sussex, 1997.

Honychurch, Lennox. The Dominica Story: A History of the Island. MacMillan Education Ltd.: London, 1995.

Just Green Bananas! Farmers' Link; Norwich, England, 1994.