



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*



CARIBBEAN

FOOD

CROPS SOCIETY

27

Twenty Seventh
Annual Meeting 1991

DOMINICA

Vol. XXVII

BANANA PRODUCTION AND MARKETING IN DOMINICA

A. George

Manager

**Dominica Banana Marketing Corporation
Roseau, Commonwealth of Dominica**

ABSTRACT

This paper is a brief treatise on the banana production concerns of the Dominica Banana Marketing Corporation and the production policies and measures being undertaken to obtain a high sustainable output in the near future within the framework of a more crop diversified agricultural production base.

INTRODUCTION

The Dominica Banana Marketing Corporation is presently addressing the problem of how to raise the productivity of banana production and market a more consistent high quality fruit on a sustainable basis. The Corporation has set an export target, based on a recent study, of 100,000 tons per annum to be attained within a period of two years. In conjunction, they are trying to develop a core of growers to produce bananas at a level of not less than ten tons per acre per annum.

In 1988, banana exports reached an all time high of 72,824 tons. This accounted for \$103,000 in revenue and 68 per cent of the total foreign exchange. In 1989, hurricane Hugo interrupted production in September, resulting in a decline in exports of 50,696 tons for that year, and 58,040 tons in 1990. This year banana exports are expected to be over 60,000 tons. In recent years, average yield per acre has also increased slightly to about 6 tons per acre. The task ahead is, therefore, a formidable one at a time of rising labour costs and labour shortages, increased market competition, and, at a time when there signs of soil declining soil fertility on an appreciable number of banana farms.

The theme of this 27th Annual Meeting of the CPCS, "New Directions in Sustainable Agriculture," is most timely and fitting, as it is quite clear to us in the Corporation that steps must be taken to develop a more sustainable agriculture, especially in banana production for the immediate future.

PRESENT "STATE OF HEALTH" OF BANANA PRODUCTION

In 1990 the Corporation's farm register stood at 6,696 active growers with a total of approximately 12,500 acres. Presently there are concerns about declines in soil productivity on a significant number of banana farms. This has been manifested in grower complaints about the quality of the fertilizer that is available to them and complaints of bunches becoming smaller and smaller. This concern has been borne out to a similar extent by the results of the soil and leaf analyses by WINBAN R&D in recent years plus field observations by technicians. It is apparent that soil erosion has been severe in many banana catchment areas, and in the drier production

areas the loss of topsoil has led to increased water stress of banana stems during the dry season. The latest results from 122 plant and soil samples indicated high variability in both soil and plant nutrient status. It appears that soil acidity is on the increase and it is the major cause for the poor nutritional status of bananas on many farms and the need for more frequent applications of fertilizers.

This present state of affairs is an indication that a more sustainable approach to production is necessary. Over the years, monocropping practices, indiscriminate planting without regard to land capability for banana cropping on a sustained basis, and extensive systems of production are some of the reasons for the present production problems now facing the industry.

PRE-REQUISITES FOR A MORE SUSTAINABLE BANANA PRODUCTION SYSTEM

From the standpoint of the Corporation, there appears to be four major conditions that have to be met to obtain a more sustainable system of banana production and effective crop diversification. These are:

- * Banana farms on suitable soil types for banana production should be fully exploited agriculturally to attain the highest yield potential that the soil type and climate will allow. There should be supplementary irrigation where feasible. Areas of production that are marginal for banana production should be phased out by means of a planned crop diversification programme.
- * The present cropping systems of bananas should be more effectively managed and intensified. Consolidation of productive acreages with a view to increasing yields per acre is preferred to increasing acreage.
- * There must be land improvement programmes in the areas of:
 - land drainage, where necessary;
 - soil conservation measures implemented on all hilly slopes;
 - farm and field operations should be better organized and have greater accessibility by the farmers;
 - supplementary irrigation, where feasible;
 - use of appropriate farm machinery for land preparation and inter-row cultivation.
- * There should be more effective and judicious use of chemical inputs and integrated management of pest and disease control.

NEW DIRECTIONS BEING PURSUED BY THE CORPORATION TOWARDS THIS END--A MORE SUSTAINABLE PRODUCTION

- * Registration of a core of relatively more productive farmers on suitable soil types for banana production to be the focus of an extension programme stressing application of improved harvesting and packaging technology.

- * The Corporation must redirect the extension component of its Replanting Programme to develop farm management plans and processes, intensify the field culture of bananas with a single follower pruning regime, and promote rotational field replanting to sustain a continuous high farm output and to obtain peak productions during the summer months of the year when the market is more lucrative and banana prices are generally higher. In 1990, 63 and 37 per cent of dominica's banana production was attained during the Summer and Winter months, respectively.
- * Development among the core growers of a Premium Quality Pack that will allow top quality fruit to be clustered, sorted, and labelled for direct supply to retail outlets utilizing the new mini-wet pack system and small private boxing plants must be implemented.
- * The Corporation will collaborate with the Ministry of Agriculture to replace bananas in marginal acres with more suitable crops from the diversification programme.
- * The Corporation has introduced the ICI integrated weed control programme and stocks Gramocil, Reglone, Talent, and Round-Up for broad spectrum of weed control.
- * Agricultural lime is being made available for more efficient incorporation into the soil at the time of planting. Trials are underway to investigate further the utilization of lime in banana production to raise nutrient status in the root zone of the banana plant. The practice of rotational replanting will facilitate such a practice.
- * Fertilizers are now being applied more frequently, now at two months and monthly in the wetter areas. The techniques of soil and leaf sampling are to be stepped-up and broaden in scope.
- * Research is being conducted in leafspot control to reduce the required number of spraying cycles. Climatological stations are being used to forecast the best time to spray and the frequency of spraying cycles to reduce cost and environmental impact.
- * For borer control, Primicid is applied in accordance with population surveys of the borer.
- * Research work in the soil placement method of fertilizing bananas is continuing.
- * Growers have been able to utilize their excess cash for inputs for farm land improvement measures, especially for land drainage.
- * The use of vetiver hedgerows as a soil conservation measure in bananas is to be tested on a farm demonstration by the Corporation. There is a growing interest in the tropical and semi-tropical world in the use of vetiver hedgerows as a major soil conservation measure that can replace some engineering systems.

- * The Corporation is participating in the monitoring of pesticide residues in soil, water, and, eventually, plant tissues that has been started by the Caribbean Environmental Health Institute.

CONCLUSIONS

Farmers are understanding and implementing intensive field production methods for bananas. This is evidenced by the growing number of farmers who are presently obtaining over ten tons per acre.

Development of the mini-wet pack system of central packing appears very promising.

There is a need, however, for greater assistance for farm improvement projects such as land drainage, soil conservation measures, farm organization, and field accessibility plus supplementary irrigation where feasible. Close collaboration is necessary between Research and Extension agencies for the development of national land use plans and crop diversification programmes. Farm management training for progressive farmers should also be a priority.

FUTURE COSIDERATIONS

- * There should be an exploration of a single Extension Service in Dominica with all related organizations subscribed to an annual subvention to maintain a high level of service to all farmers in Dominica.
- * There is a need to look into the possibilities of DBMC's capacity to extend service to the marketing of other major export crops.
- * There should be a harmonization of a pricing structure for payment to banana growers in the Windwards.
- * Payments to Island Associations should be on the basis of quality acting.
- * There should be emphasis on the production of a premium box of bananas which can move from the farm to the ripening room and directly to the supermarkets or from the farm and directly to the green handlers in the UK.
- * Upward integration is necessary in the banana market chain.
- * Reduction of the costs of production and improved efficiency in the banana industry are to everyone's advantage.