

## ABSTRACT

An Agricultural Diversification Model  
for the Windward Islands

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The Windward Islands have traditionally depended on the foreign exchange earnings of monocrops like bananas which have succeeded under preferential arrangements in the UK market, much to the neglect of other agricultural enterprises. However, the unification of the European market has provoked concern over the possible open competition between "sterling" bananas of the ACP countries and "dollar" bananas of Latin America. In light of the vulnerability of the Windwards' banana industry to the vagaries of the European/international market, a more balanced approach to economic stability should be pursued through agricultural diversification.

In the study, a linear programming model was developed for the Windward Islands to determine whether banana production can remain competitive with other agricultural activities as international market prices are reduced. The agricultural diversification model could be adapted and applied to any of the Windward Islands to predict optimal enterprise mixes for the maximization of earnings in the agricultural sector.

Data were collected from Dominica for large and small farms to demonstrate the utility of the model. Simulations were executed by reducing the prices of bananas while increasing production of alternative agricultural enterprises on banana cultivated land.

The results indicated that while alternative enterprises were to be expanded, bananas should be produced once the prices exceeded cost of production. Thus,

the Windward Islands should try to maintain their three percent share of the international banana trade by increasing efficiency and productivity (yield per hectare). This will also have the distinct advantage of providing additional land for the production of alternative enterprises as land which was previously under banana cultivation would become available for agricultural diversification.

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