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# The Role of Irrigation in Banana Production in St. Vincent and the Grenadines

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## **Abstract**

*The changes in the international banana market regime and conditions have led to the steady decline of the banana industry in St. Vincent and the Grenadines (SVG). The Government of SVG, realising that irrigation coupled with good crop management will increase banana yields, invested EC \$27.52 M in irrigation infrastructure and installed, between 1997 and 2003, micro-irrigation systems on 1700 acres of farm lands on the eastern coast of St. Vincent. However, national banana production continued to fall from a peak of 79,561 tonnes in 1990 to 5,400 tonnes in 2010.*

*Even with the current cost of inputs, the National Irrigation Authority (NIA) contends that irrigated banana production is highly profitable and that the initial investment in a banana farm could be recovered within one year. In an effort to demonstrate this profitability to the farmers and senior Government officials and to spur investments, the NIA established, as a result demonstration, a 7-acre irrigated banana farm and monitored the actual cost and benefits of the farm.*

*This venture was based on the following observations: the average cost of production for a properly managed irrigated farm being EC \$10,000.00 per acre; the breakeven acreage for irrigated banana production to cover an annual opportunity income of EC \$36,000.00 being 2.9 acres; a properly managed seven-acre farm with a 8' x 6' banana planting density, a bunch to box ratio of 1:1 and a crop rate of 2.5 crops per year would generate yields of 16 tonnes per acre in the first year and 32 tonnes per acre in the second year.*

*Through January 01 to October 29, 2010 when the farm was ravaged by hurricane Tomas, the farm generated gross revenues of EC \$92,100.00, a cost of production of EC \$ 62,144.34, a yield of 15 tonnes per acre and a gross margin of 33 percent. The results are very encouraging. With further training of the workers and a subsequent improvement in supervision, crop management and a reduction in the field losses, the results would be much better.*

*At 32 tonnes per acre, the 1700 acre irrigation areas could potentially maintain national banana production at 54,000 tonnes per annum and generate revenues of EC 84 M per annum. For the farmers to achieve this level of production and revenues there is a need for capacity building focusing on training and improving access to lands and finance.*

Keywords: banana market, irrigation, plant density, crop management