

**Technical note:**

**Studies on the effect of black sigatoka  
(*Mycosphaerella fijiensis* Morelet) on  
sustainability of *musa* production in  
Barinas, Venezuela**

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**Abstract**

With the objective of diagnosing the state of *Musa* (banana and plantain) production under the effects of black sigatoka disease (*Mycosphaerella fijiensis* Morelet) and to evaluate the effect of the disease on the sustainability of these crop in Barinas, this research was conducted. The data was collected over the period 1995 to 1999 and a questionnaire was used to collect information about the socio-economic situation of farmers, technical and economical aspects of the crop, and the management of the black sigatoka disease. A random sample was drawn of 129 plantain farmers (*Musa AAB subgroup Plantain cv. Horn*) in Sucre county and 35 banana farmers (*Musa AAA subgroup Cavendish, cv. Grant dwarf*) in Obispo county. To evaluate the sustainability of the productive system the resilience approach was utilized. The production of *Musaceous* was located at the subsistence farmer strata, where the production normally operated with little land, labor, capital and information. The farm units were oriented towards production and consumption without significant economic returns. The farmers applied little technology, and the majority of them did not utilize the recommended technology, and have low productivity levels. From the socioeconomic, educational and sanitary point of view, there are strong obstacles that affect the well-being of the community. The presence of the black sigatoka disease has a negative impact on the sustainability of the crop since it requires permanent management practices and costly chemical control. The sustainability of the crop is threatened. It was concluded that sustainability could be accomplished through the integration of farmers, extension agents, researchers, universities and government agencies in the planning and implementation of programs directed towards training farmers to utilize integrated disease management, to improve communities living standards, and to utilize disease-resistant strains of musaceous.

**Key Word:** *Musa*, sustainability, farming system, black sigatoka, Barinas

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