

RESUMEN DEL SEGUNDO SEMINARIO INTERNACIONAL DE SANIDAD AGROPECUARIA (SISA)

**Effect of phytohormones in banana resistance to black leaf streak disease**

**Efecto de fitohormonas sobre la resistencia del banano al rayado negro de la hoja**

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Bananas and plantains (*Musa* spp.) are the fourth most important crop in the world after rice, wheat, and maize. Several biotic and abiotic stresses hamper banana production. One of the most important biotic stresses is Black leaf streak disease (BLSD) or Black Sigatoka leaf spot, caused by the fungal pathogen *Mycosphaerella fijiensis* Morelet. BLSD causes significant reductions in leaf area, yield losses between 20 to 100% in the absence of fungicides, and premature ripening, a serious defect in exported fruit. Plants respond to biotic and abiotic stresses with a multitude of responses for the adaptation to the new conditions. Phytohormones are early signals mediating plant changes. The aim of this research was to study the possible protective effect of seven phytohormones on banana against infection by *M. fijiensis*. Two month old plants of Grande naine were sprayed with hormone solution in seven treatments and inoculated with the mycelial suspension. The experiment included the respective controls. Each week the starting point of the symptoms and progress of the disease on leaves +1 and +2 were recorded during 80 days post inoculation. Results revealed three hormones with positive effect on banana resistance to *M. fijiensis*. A hormone had a negative effect on banana resistance. The results contribute to knowledge of *M. fijiensis*-banana interaction and the genetic improvement of the crop.