



The Effect of High Potassium Gifts to Bananas on the Resistance to Yellow Sigatoka Disease

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Yellow Sigatoka (*Mycosphaerella musicola*) is a serious disease in bananas in Suriname. Potassium thickens walls which restricts penetration of pathogen hyphae, as a result of which plants could stay healthier in infested regions. We established in a field trial the effect of a normal potassium level and 2 higher potassium levels (500,700 and 900 kg K₂O/ha respectively) on the level of resistance to *M. musicola*. The fertilizer gifts were splitted into 3 partial gifts: A basis gift in the planting holes of NPKMg; a 2nd and 3rd gift of NKMg after 2 months and 4 months respectively. In these gifts the amounts of K and Mg varied per treatment simultaneously to cope with the K/Mg antagonism in the uptake by plant roots. Meristem tissue culture plants were planted in a randomized complete block design with 3 repetitions. A month and a half and 2,5 months after planting, all the plants were sprayed with a spore solution of *M. musicola* (400 cfu/ml). Every 2 weeks the number of infected leaves and the percentage of discoloration of the total leaf surface are determined to measure the level of infection of the plants. The trial is on going and no consistent results were collected so far. On basis of an earlier trial we expect to find significant effects.

Key words: *Yellow Sigatoka, Potassium, Disease Resistance*