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Effects of banana weevil damage on plant growth and yield of East African *Musa* genotypes

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Abstract

Banana weevil is a serious pest of banana, an important staple and food crop in the east African region. An experiment was conducted at the Makerere University Research Institute Kabanyolo, Uganda to establish the impact of weevil infestation on *Musa* spp. growth traits during the first crop cycle. Eight *Musa* spp. genotypes comprising five East African highland bananas (AAA-EA group; *Mpologoma*, *Lwadungu*, *Nakitembe*, *Mbwazirume* and *Kibuzi)*; the dessert banana *Sukali Ndiizi* (AAB); plantain *Gonja* (AAB) and the beer banana *Kayinja* (ABB) were assessed at bunch maturity. Weevil build-up and damage to the banana corms during the first crop cycle was low, presenting an average cross-sectional corm damage of 1.2%. Consequently, hardly any significant negative effects

on yield and growth traits were observed. The results suggest that it takes several ratoon cycles for a detrimentally high weevil population density to build-up, sufficient to cause substantial reduction of plant growth and yield.

Keywords: *Cosmopolites sordidus*, *Musa* spp., root system, yield.