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Evaluating health of macropropagated banana seedlings

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ABSTRACT

Objective of study: Banana (Musa spp.) is one of the most important food and cash crops in parts of Kenya. The crop provides food security, nutrition and income for many smallholder farmers. Bananas can be eaten fresh, cooked or processed into numerous value added products, depending on the variety. Despite the importance of the crop, it faces major production challenges including scarcity of high quality seedlings, insect pests and diseases. Naturally produced suckers are more likely to carry pests and diseases leading to reduced productivity and shortened lifetime of new plantations. Demand for disease free high quality planting materials has been on the increase. To address this demand macropropagation has been introduced as an alternative seedling production technology. The technology requires little capital and skill to implement, and can therefore be promoted to small scale seedling entrepreneurs and farmers.

However, some aspects of the technology require further research to ensure quality of seedlings. This study is being carried out to establish the effectiveness of macropropagation technology to produce disease free banana seedlings. *Methodology*: The study will commence with a survey to

identify the key diseases and insect pests of bananas in Eastern and Central Kenya. Macropropagation nurseries for research will be established at Kenyatta University. Pests and pathogens will be isolated from banana corms and their importance in health of seedlings determined through pathogenicity tests. *Expected outputs*: The information obtained through the study will contribute to improvement of the macropropagation protocol to ensure the propagated seedlings are free from pests and pathogens.