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Reactions of pineapple cultivars to pineapple heart rot disease in central Uganda

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ABSTRACT

Pineapple (*Ananas comosus* (L.) Merr.) is an important fruit crop in Uganda ranking third as a major fruit crop after banana and citrus globally. However, pineapple production in Uganda is threatened by the recent outbreaks of pineapple heart rot disease (PHRD). Pineapple heart rot disease is the most widespread and devastating disease of pineapple in Uganda and can cause tremendous yield loss. Information on the sources of resistance is still scanty in Uganda. Additionally, no study has been done in Uganda which point out whether variety influences disease severity. Therefore, the objective of this study was to assess the reaction of pineapple cultivars to pineapple heart rot disease in central Uganda. Five cultivars of healthy pineapple suckers were planted in the field in a randomized complete block design (RCBD) to screen for resistance to PHRD. No significant ($p > 0.05$) difference in PHRD incidence was recorded in week two and week 4 of the experiment. However, there was significant difference ($p < 0.001$) in incidence of PHRD from week 6 up to week 12 of the experiment. Additionally, PHRD severity varied significantly ($p < 0.001$) from week 6 up to week 12. Cultivar Smooth Cayenne recorded low severity and is therefore promising. All the five pineapple cultivars were susceptible to PHRD though with varying levels of incidence and severity. Therefore, there is need for additional studies to establish the suitability of Smooth Cayenne as a source of parental donor in breeding for resistance to PHRD.