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Pest Status and Farmers' Pest Management Practices in Sweetpotato Cropping Systems of Uganda

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Abstract

Sweetpotato (*Ipomoea batatas* (L.) Lam.) is the third most important food crop in Uganda. Although it is considered a food security crop, its productivity is far below its potential. This study assessed the pest status and farmers' perception and management practices of the most economically important insect pests of sweetpotato, *i.e.* the sweetpotato weevils *Cylas puncticollis* Boheman and *C. brunneus* F. and the sweetpotato butterfly *Acraea acerata* Hew.

A total of 192 rural farm households of the districts Kabale, Kasese, Gulu, Masindi, Soroti and Wakiso were interviewed using a structured questionnaire. Additionally, the abundance, infestation rate and intensity of infestation of all three pests was assessed and the root yield loss caused by *Cylas* spp. quantified over two growing seasons in the districts of Kabale and Masindi.

Over 80 % of farmers grow sweetpotato for home consumption, emphasising its importance as a food security crop. *Cylas* spp. and *A. acerata* were ranked as the first (57 % of the households) and second (37 % of the households) most damaging insects to sweetpotato. The prevalence of *A. acerata* larvae was generally low (8–25 %) and its larvae caused very little defoliation (1–25 %). For *Cylas* spp., the abundance was relatively high (40–97 %), with a consequential high yield loss (37–51 %) of marketable root weight. Farmer management practices of *A. acerata* included use of chemical insecticides (24 % of households), ash application (3 %) and hand picking (2 %). However, 65 % and 87 % of the households did not apply any control measure for *A. acerata* and *Cylas* spp., respectively.

All pests are a big constraint to sweetpotato production in Uganda. Thus, appropriate integrated pest management (IPM) strategies must be designed, particularly for *Cylas* spp., if the food security and livelihoods of farmers who depend on this crop is to be improved.

Keywords: *Acraea acerata*, *Cylas* spp, farmers' perception, IPM, *Ipomoea batatas*, sweetpotato butterfly, sweetpotato weevil