

Sweetpotato is a major food security crop grown in Kenya. Its production is however limited due to high prevalence of pests and diseases among other factors. Cultural control appears to be the most promising strategy in curbing this problem. However, the recommended cultural control practices are based on farming practices in Asia and United States of America that may not be appropriate for subsistence farmers found in Kenya. This study sought to establish farmers' knowledge on sweetpotato pests and their practices in the management of these pests in Southwestern Kenya; taking into account the socialcultural, socialeconomic and biophysical factors affecting sweetpotato production. It also sought to establish the effects of soil ammendments on the diversity and abundance of soil-dwelling predatory arthropods which could be effective in the management of sweetpotato pests. Farmer based data was obtained using a semi structured questionnaire administered to a total of seventy five farmers. An experimental plot was set up in Rongo District with four treatments in four replications to establish the effects of soil ammendments included animal based manure, plant based manure, inorganic fertiliizer and control. The outcome of the study indicated that farmers had limited knowledge on sweetpotato pests and did not carry out any methods of control against them. Sweetpotato production was basically left to women and the crop came second to maize. The major constraints to production included moles, hippos, hard labour, insect pest and diseases, costly transport, low selling prices and lack of storage mechanisms. Shannon Weiner diversity and species richness and evenness revealed that the greatest diversity and abundance of predatory arthropod species occurred in the control plot where no ammendments was used. The control plot also recorded the highest percentage of both marketable and undamaged tubers through not significantly so. The least diversity and abundance of species was recorded in ammendments with animal based manure whereas the least percentage of both marketable and undamaged tubers was recorded in ammendment with inorganic fertilizer. This may imply that no ammendments were actually required to enhance the diversity and abundance of ground dwelling predatory arthropods. Berger-parker dominance index indicated that species were more dominant in the ammendments with inorganic fertilizer whereas Sorensen's similarity index revealed that the greatest similarity of species occured between the ammendments with plant based and animal based manure. The efficacy of the predatory arthropods in the management in enhancing the crop's resistance to sweetpotato pests could also not be ascertained within the scope of this study.