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Capacity building of smallholder farmers on postharvest management of grain crops using SuperGrainBags in Malawi

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ABSTRACT

Grain storage losses contribute significantly towards household food insecurity in sub-Saharan Africa (SSA), where production is smallholder farmer dominated. Farmers have been reliant on synthetic pesticides for grain protection against storage pests. Limited efficacy and health risks associated with synthetic pesticide use have led to increased awareness and adoption of pesticide-free options like hermetic storage. Knowledge gaps on proper use of hermetic storage options exist among users. Training of users on recommended hermetic storage practices is essential for optimum performance which enable users to fully enjoy benefits associated with the technology. However, hermetic storage alone cannot be a complete postharvest loss reduction solution because poor pre-storage crop handling can lead to enhanced bio-deterioration during storage. It is in this regard that GrainPro conducted crop postharvest management training in Malawi to equip smallholder farmers with relevant skills and knowledge. The training focused on recommended practices for the various postharvest stages. The storage training was centred on the use of SuperGrainBags (SGBs), one of GrainPro Inc's hermetic storage products. There were three phases; Phase I involved training of representatives from 54 farmer organisations (training for trainers) (n = 104), Phase II was a community-based training where the trainees from Phase I were assisted to train fellow farmers in their respective communities (n = 2094) and Phase III which involved setting up demonstration learning centres in selected 10 farmer organisations (n = 301) to test performance of SGBs in comparison to conventional synthetic pesticides. The farmers appreciated the training and were satisfied with the field performance of the SGBs. The paper shared findings from the initiative which highlighted socioeconomic factors affecting adoption of postharvest technologies by smallholder farmers and potential solutions.

Keywords: Household food security, Smallholder farmers, Hermetic storage, Postharvest loss reduction, Learning centres