

Gendered perception of change in prevalence of pests and management in Zimbabwe smallholder irrigation schemes

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Abstract

A better understanding of gendered perception on the prevalence and management of pests in irrigated agriculture in the context of a changing climate can help recommend more gender-sensitive policies, particularly in smallholder farming systems. Limited studies have been conducted to assess gender differences in perception of the prevalence and management of pests among smallholder irrigation schemes especially in Zimbabwe. This study is the first one to assess gendered perceptions on the change in prevalence and management of pests in Exchange, Insukamini, and Ruchanyu irrigation schemes in Zimbabwe. Semi-structured questionnaires were administered using face-to-face interviews with participants. Data from focus group discussions and key informant interviews were used for validating data from questionnaire interviews. Mann-Whitney U test was employed to assess perception on the prevalence of pests between male and female farmers. Findings from this study depict that the females perceived a higher prevalence of bollworms (*Helicoverpa armigera*) ($P \leq 0.01$), fall armyworms (*Spodoptera frugiperda*) ($P \leq 0.01$), red spider mites (*Tetranychus urticae*) ($P \leq 0.01$), and maize grain weevils (*Sitophilus zeamais*) ($P \leq 0.01$) than males, while males perceive a higher prevalence of termites (*Isoptera*) ($P \leq 0.01$) and cutworms (*Noctuidae*) ($P \leq 0.01$) than females. Both male and female farmers perceived a greater increase in prevalence of aphids (*Aphidoidea*). Here, we show that farmers' perceptions of changes in pest prevalence and pest management strategies differ by gender. Gender perception on change in prevalence of pests can be a valuable resource for the sustainable development of smallholder irrigation farming system and scientific research.