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Strengthening participatory approaches for expanding and deepening learning about farmer preferences: Insights from farmer-managed seed systems in Malawi

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Abstract

In sub Saharan Africa, top down outreach initiatives including extension demonstration gardens, on community land, working through community leaders, or with model farmers have not been effective approaches to increase adoption of improved varieties of neglected and under utilised crops in complex contexts where smallholder farmers' preferences are highly diverse. This study employed a Participatory Action Research (PAR) approach to map and identify farmer-preferred traits for Bambara nut and finger millet to understand how Malawian farmers' preferences and adoption to identify key varieties. The research was conducted over three rainfed agricultural seasons (2021–2023), engaged 150 farmers (57 % female and 43 % male) across five agro-ecological zones. Farmers evaluated 18 genotypes of the 2 crops at key growth stages (pre-planting, germination, vegetative and maturity). Panel data were collected using mixed methods that included individual interviews, focus group discussions, and observations of participants. We found that farmer varietal preferences exhibited spatial variability across geographic locations characterised by socio-economic and biophysical conditions. Moreover, these preferences were dynamic, shifting across seasons and crop growth stages, and inconsistently expressed between stated and actual choices of preferred Bambara groundnut and finger millet traits. These inconsistent patterns raise important questions about the effectiveness of farmer centered breeding programmes that rely on participatory methods to engage farmers in decisions about which neglected and underutilised crop varieties should be integrated into farmer managed seed systems. There is a need to integrate PAR processes and principles into research and extension initiatives, despite the challenges the approach poses. The goals are to strengthen farmer managed seed systems and improve access to quality farmer preferred seed varieties of neglected and underutilised crop species in the diverse and complex contexts of sub Saharan Africa. The presentation will share the challenges when using participatory variety selection with small holder farmers to identify key crop preferences.

Keywords: Adoption, Bambara groundnut, Farmer-managed seed systems, Finger millet, keywords: Neglected and Underutilised Species (NUS), Malawi. , Participatory Action Research

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