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Integrated Pest Management Strategies and Their Impact on Maize Yield in Central Mozambique: A Community-Supported Analysis

Francisca Mucave[1], **Manuel Machava**[2], **Dorcas Mutola**[3], **Nehemia Nhengo**[4,5]

[1] Department of Crop Sciences, Catholic University of Mozambique

[2] Department of Agricultural Economics, Pedagogical University of Mozambique (UP)

[3] Catholic University of Mozambique

[4] Department of Soil Science, Catholic University of Mozambique

[5] Pedagogical University of Mozambique (UP)

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Correspondence: fmucave@yahoo.com

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Author notes

Francisca Mucave is affiliated with Department of Crop Sciences, Catholic University of Mozambique and focuses on Agriculture research in Africa.

Manuel Machava is affiliated with Department of Agricultural Economics, Pedagogical University of Mozambique (UP) and focuses on Agriculture research in Africa.

Dorcas Mutola is affiliated with Catholic University of Mozambique and focuses on Agriculture research in Africa.

Nehemia Nhengo is affiliated with Department of Soil Science, Catholic University of Mozambique and focuses on Agriculture research in Africa.

Abstract

Integrated pest management (IPM) has shown promise in enhancing crop yields by reducing pesticide use while maintaining or increasing yield stability. A mixed-methods approach combining household surveys and field observations was employed to assess the impact of IPM interventions over two seasons. Community feedback indicated that IPM led to an average 15% increase in maize yield compared to conventional farming practices, with no significant loss of income due to reduced pest control costs. IPM strategies effectively improved maize yields without compromising farmers' economic viability, suggesting a sustainable approach for Central Mozambique's agricultural landscape. Communities should be actively involved in IPM planning and implementation to ensure long-term success and sustainability of the interventions. Integrated Pest Management, Maize Yield, Community Participation, Sustainability Analysis The empirical specification follows $Y = \beta_{0+\beta}^{\rightarrow} p\, X + varepsilon$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *Sub-Saharan, Agricultural-Extension, Sustainable-Policy, Micronutrient-Malnutrition, Predation-Control*