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COMMUNITY-BASED ECOLOGICAL SURVEILLANCE FOR SUSTAINABLE MANAGEMENT OF EMERGING CROP PESTS IN SAVANNA AGROECOSYSTEMS

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This original abstract presents an ecological surveillance framework integrating agricultural extension, participatory monitoring, habitat assessment, field diagnostics and integrated pest management to improve early detection of invasive pests while reducing unnecessary pesticide use.

Multi-season field observations and comparative analyses demonstrated improved pest detection, greater conservation of beneficial organisms, enhanced farmer decision-making and reduced crop damage.

The findings indicate that extension-driven ecological surveillance offers a practical, scalable and environmentally sustainable strategy for strengthening plant protection under changing climatic conditions.

Keywords: plant protection; ecological surveillance; integrated pest management; agricultural extension; sustainable agriculture.

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