

A Framework for Multidimensional Management of Invasive Alien Insect Pests in Sub-Saharan Africa

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Abstract

Invasive alien insect pests pose a significant threat to achieving sustainable food systems in sub-Saharan Africa, where reliance on synthetic pesticides has led to unsustainable practices due to high costs and health and environmental risks. This article presents a multidimensional framework for managing invasive alien insect pests in sub-Saharan Africa, specifically directed at researchers, policymakers, non-governmental organisations and other institutions responsible for invasive pest management as well as extension services for farmers. Invasive pests, such as the Oriental fruit fly and the fall armyworm, and a highly damaging native species for comparison are central to the framework. The framework considers the environmental, socio-economic, and regulatory dimensions of pest management decisions. It reviews different control strategies used against invasive alien pests, highlighting their limitations and environmental impacts. By considering farmer characteristics, institutional support, market demands, and regulatory policies, the article emphasises the need for integrated pest management approaches. The aim is to contribute to the development of sustainable, effective pest management strategies that will ensure long-term agricultural productivity and food security in sub-Saharan Africa.