African Horticulture Studies (Agri/Plant Science)

Reduction Strategies for Minimising Food Loss and Waste in South African Supply Chains

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Abstract

Food loss and waste are significant issues in South African supply chains, impacting both economic efficiency and environmental sustainability. A mixed-methods approach combining quantitative data analysis and qualitative interviews was employed to assess current practices and propose improvements. Analysis revealed that a reduction in post-harvest losses by 15% could significantly impact overall waste levels within the supply chain, highlighting specific themes such as improved storage technologies and better distribution logistics. The study underscores the importance of adopting multifaceted strategies to reduce food loss and waste effectively. Implementing advanced preservation techniques alongside optimised supply chain management practices is recommended for sustainable outcomes. The empirical specification follows $Y = \beta_{0+\beta}^{\rightarrow} p\, X + varepsilon$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *African agriculture, supply chain management, food security, waste minimization, loss reduction, biophysical economics, sustainable intensification*

ABSTRACT-ONLY PUBLICATION

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