African Poultry Veterinary Science

Improving Post-Harvest Handling to Minimise Losses in Fruits and Vegetables of Côte d'Ivoire: A Comparative Study

Kouadio Yves Kouassi[1], **Djoco Pierre Dossouégou**[1,2]

[1] Côte d'Ivoire Centre for Environmental Management

[2] Department of Soil Science, Côte d'Ivoire Council for Scientific and Industrial Research

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Correspondence: kkouassi@gmail.com

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Author notes

Kouadio Yves Kouassi is affiliated with Côte d'Ivoire Centre for Environmental Management and focuses on Agriculture research in Africa.

Djoco Pierre Dossouégou is affiliated with Côte d'Ivoire Centre for Environmental Management and focuses on Agriculture research in Africa.

Abstract

Fruits and vegetables in Côte d'Ivoire face significant losses post-harvest due to inadequate handling practices. A comparative study involving three main interventions: refrigerated storage, controlled atmosphere packaging, and improved transportation routes. Data collected through surveys and field observations over a period of six months in two regions of Côte d'Ivoire. - Refrigerated storage significantly reduced fruit loss by approximately 35% compared to non-refrigerated conditions. - Controlled atmosphere packaging showed an average reduction of 20% in vegetable losses, with higher reductions observed for leafy greens (18%) versus root vegetables (14%). - Improved transportation routes led to a 10% increase in overall post-harvest survival rates. The study demonstrated that combining refrigerated storage and improved transportation routes provided the most effective loss reduction strategy, with an average of 30% decrease in losses across all tested fruits and vegetables. Implement a comprehensive package of interventions including refrigerated storage facilities, controlled atmosphere packaging for leafy greens, and enhanced road networks to minimise post-harvest losses effectively. The empirical specification follows $Y = \beta_{0+\beta}^{\rightarrow} p\, X + varepsilon$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *African Geography, Post-Harvest Handling, Cold Chain Management, Food Loss Reduction, Value Addition Strategies, Preservation Techniques, Supply Chain Optimization*

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

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