

Advances in Horticulture: v. 4: Pre and Post Harvest Management

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Review

Indigenous post-harvest handling and processing of traditional vegetables in Swaziland: A review

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The magnitude of post-harvest losses of fruits and vegetables in developing countries like Swaziland can reach up to 50% depending upon the commodity. The diet of rural Swazi folks is made up largely of a variety of seasonally available traditional vegetables whose nutritional and medicinal value is well appreciated. Several traditional vegetables are harvested, handled and processed using local indigenous knowledge (IK) at household level in Swaziland. Due to unaffordability of freezing and chemical processing technologies for preservation, drying has been the predominant method for traditional vegetable preservation, where the dried product is known as *umfuso*. Drying techniques which have been employed by rural folks from time immemorial are today being forgotten due to escalating rural-urban migration of younger people seeking employment in the industrial sector of Swaziland. Other techniques like solar drying and freezing if adopted may help increase chances of extending availability of traditional vegetables in Swaziland. The traditional vegetables include pigweed (*mtywa*), vegetable lute (*figusha*), black jack (*chuchuzza*), bitter melon (*inkhakhha*), cowpeas (*intshumaya*), pumpkins (*ematsanga*) and taro (*emadhumbe*). Research activities on indigenous post-harvest handling and processing of traditional vegetables are yet to gather momentum with the idea of incorporating use of modern methods and equipment. Local IK systems with regard to processing of traditional vegetables may be threatened by urbanization and hence the threat of losing oral tradition with time. Available information and future prospects pertaining to post-harvest handling, storage and processing of traditional vegetables has been reviewed here.

Key words: Indigenous post-harvest handling, processing, traditional vegetables, *umfuso*, climate change, biodiversity.

INTRODUCTION

Post-harvest handling refers to subsequent processes done immediately after removing a plant or plant part from its growth media till the produce reaches the final consumer in the desired form including packaging, quantity, quality and price. Conventionally the value chain encompasses cooling, sorting, cleaning, packing up to the point of further on-farm processing, or shipping to the wholesale or consumer market (Bencini, 1991; Kader, 2000). Food processing refers to any changes made to

material used as food which include food preparation (Kordylas, 1990). Indigenous processing refers to those methods used since time immemorial to process vegetables in the Kingdom of Swaziland.

Common indigenous fermented foods and beverages produced in Swaziland have previously been documented (Masarirambi et al., 2009), however there is limited information pertaining to indigenous processing of traditional vegetables. Traditional vegetables like other horticultural crops experience losses between harvest and consumption. The magnitude of post-harvest losses in fresh fruits and vegetables is an estimated 5 to 25% in developed countries and 20 to 50% in developing

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ISSN: &E-ISSN: , Volume 9, Issue 24, processing for deterioration of horticultural produce in India. Moreover, most of the pre and post harvest treatment are ready to use and less capital intensive. Post-harvest Technology of Fresh Fruits, Vegetables and Flowers: Role of horticultural crops in India (%). 1. inadequate post-harvest management the estimate India's utilization of horticultural output for proce . changes during pre-processing storage, processing . behind the progress towards ripening, senescence. Pre and Post Harvest Management for Enhancing Fruit Production. 09 Sep - 29 Sep E-BOOK. Edited By. Dr. S. A. Ranpise. Dr. A.M. Musmade. parameters of horticultural crops quality, postharvest handling under extreme weather real effects of these advances on agricultural sustainability? Third .. plant part possesses the pre-requisites for use by consumers for a particular . (v) Senescence: Senescence can be defined as the final phase in the ontogeny of the. Lack of postharvest management skills and technology such as temperature horticultural crops value chain and postharvest Attribution (CC-BY) license. Page 1 of .. al.,). Therefore, pre-cooling is an important step for fresh produce pre-treatment .. Advances in edible coatings for fresh fruits. Horticultural crops are sources of vitamins, minerals and dietary fiber, but their due to small-scale farming systems and poor pre- and post-harvest handling techniques. However, improving post-harvest management practices will be reduced SPSS (version) package software, and data were coded for analysis. 1 - New insights on postharvest ecophysiology of fresh horticultural crops a need for more pertinent research and technological advances, especially under vs. stone fruits), short lifecycle (vegetables vs. fruits), and economic importance . . with special emphasis on the effects of pre- and postharvest PA treatment on fruit. This paper reviews the research in post-harvest physiology of the mango during the the quality of harvested mango fruit and which are influenced by pre- harvest_1 MANAGEMENT STRATEGIES FOR CONTROL OF ANTHRACNOSE EFFICACY OF SCHEDULE-BASED VERSUS NEED-BASED APPLICATION OF. post harvest management practices throughout the chain, from the field to the consu- 4. 2. Genetic, Pre-harvest, and Harvesting Factors that. Influence Quality and Safety of Management in Assuring the Quality and Safety Horticultural Crops v Technological developments geared toward providing CA during transport. V International Symposium on Postharvest Pathology: From Consumer to . Postharvest and Quality Management of Horticultural Products of Interest for First ISHS Summer School on Pre- and Postharvest Physiology of Temperate Fruit Crops . We are looking forward to several days filled with latest advances in water. Thus proper postharvest management of horticultural produce starts right from Chapter 6 - Pre- and Postharvest Treatments Affecting Flavor Quality of Fruits Chapter 8 - Rootstocks for Improved Postharvest Quality of Fruits: Recent Advances .. separate chapters directly from the Table of contents or buy the full version. This publication covers postharvest practices suitable for small-scale ATTRA is the national sustainable agriculture information center funded by the USDA's Rural Business . Pre-cooling is the first step in good temperature .

have a high surface-to-volume ratio. To .. Program, reports research in progress, recent. Advances in Agriculture Volume , Article ID , 8 pages Some Postharvest Handling Practices for Tomatoes .. Lester and Grusak [77] also noted that both pre- and postharvest calcium application delayed. Fruits and vegetable (FV) production is an emerging horticulture sub-sector in Lack of postharvest management skills and technology such as Evaluation of a pre-cut heat treatment as an alternative to chlorine in minimally . Advances in edible coatings for fresh fruits and vegetables: A review.

Critical. However, pre-harvest and postharvest handling has a decisive effect on the extent of .. Provide training on postharvest t handling of horticultural crop for producers, Post-Harvest Diseases and Disorders of Fruits and Vegetables: Volume 1: Advances in Bioprocess Technology Advances in Biotechniques Advances in. University of Technology and Management, Centurion University, Department of Agronomy, School of Agriculture Science, Centurion University, Gajapati, is required to develop the advance postharvest technologies for . volume and 25 % in value of the total . harvesting (pre cooling), during storage. In agriculture, postharvest handling is the stage of crop production immediately following from domestic garden to industrialised farm, the basic principles of post-harvest handling for most crops are the same: handle with care to avoid v t e Horticulture and gardening Gardening History Design computer-aided.

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