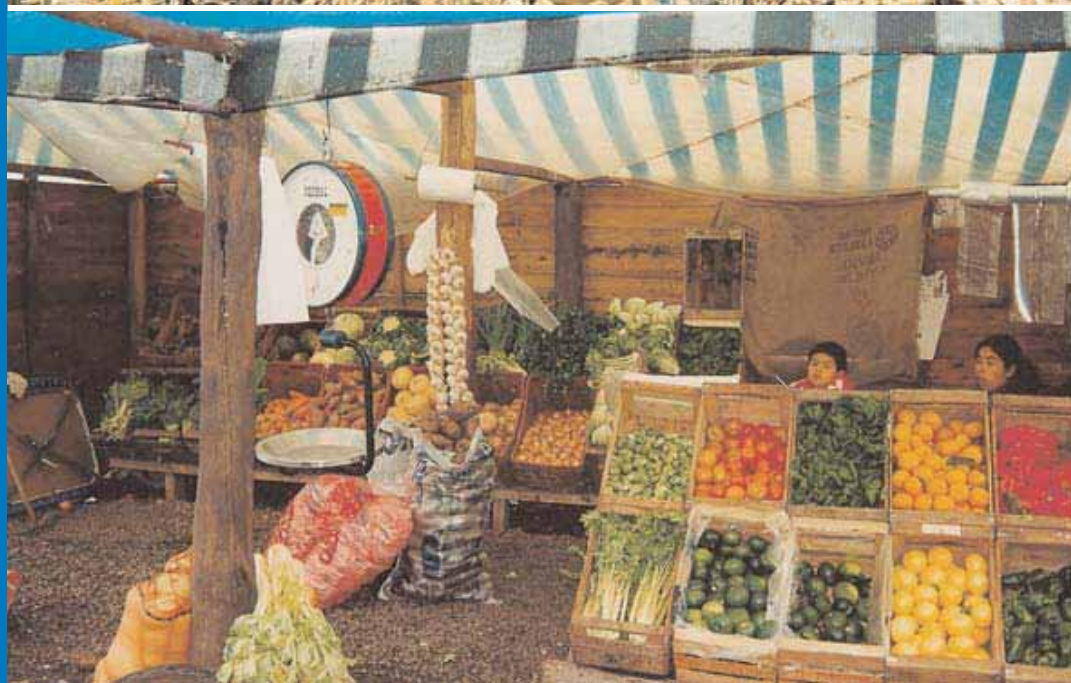


Manual for the preparation and sale of fruits and vegetables

From field to market



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Manual for the preparation and sale of fruits and vegetables

From field to market

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Preface

The production of fruits and vegetables in developing countries has considerably increased in recent years. However, an optimal use of these resources depends not only on the production increase in itself, but also on the improvement, in parallel, of associated infrastructure and postharvest operations of the produce, before it reaches the final consumer.

Value-adding technological and socio-economic aspects, such as employment generation and quality and safety of the final product, are critical for the efficient performance of the fruit and vegetable system.

Since trade in fruits and vegetables has reached record levels in both developed and developing countries for socio-economic, nutritional and cultural reasons among others, technological alternatives to facilitate and stimulate the development of the marketing of fruits and vegetables are required. This Manual for the preparation and sale of fruits and vegetables presents and clearly explains the main aspects to be taken into account when undertaking a commercial activity involving fruits and vegetables.

The manual contains basic and useful elements, with practical examples related to the harvesting, postharvest handling and marketing of fresh produce for the market including quality and safety aspects and produce storage. The annex includes formats of applicable regulations, based on the Codex Alimentarius, to ensure the quality and safety of the produce. In addition a glossary is provided allowing for the identification of a great variety of fruits and vegetables with large commercial potential.

Even though this manual adopts an approach based on the Latin American and the Caribbean experience, it can be used as a guide in any region or country where this experience is applicable.

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All photographs are by the author unless otherwise indicated.

Introduction

According to FAO estimates, in the year 2000 the population of Latin America and the Caribbean was around 518 million, which represented around 8 percent of the world's population. Approximately 80 percent of the population of the region lived in urban areas and 108 million farmers were responsible for meeting the food needs of the region. Estimates of fruit and vegetable production for the same year were around 32 and 93 million tonnes, respectively, representing 5 and 20 percent, respectively, of total world production. The fruit and vegetable sector is fragmented and comprises a large number of small-scale farmers. This group, including home gardeners, grow food for subsistence and do not figure in official statistics. The statistics highlighted above show the socio-economic importance of the agricultural sector.

Modernization in food production and supply systems has led to increased concentration in the food supply chain in many countries, with the rapid rise of supermarkets. The main beneficiaries have adapted by acquiring managerial skills, adopting new technology and making the necessary investments. This process has been gradual and has had an impact on many small-scale farmers. It has led to the current situation whereby high- and low-cost technology (or traditional) farming systems coexist. Suppliers in many current food distribution systems use high technology. On the other hand, there has been increased poverty and marginalization of many small-scale farmers.

Because large-scale farmers have easier access to technology, this manual focuses on small- and medium-scale farmers. It is hoped that it will help them to achieve: increased productivity; efficient use of limited resources available; lower production costs; reduced postharvest losses; increased competitiveness by adding value to production; and, more control over the final price.

In order to increase competitiveness, one of the main contributions and recurrent themes in this manual is the need for quality control. This is examined within the overall context of total quality management. In other words, a system of continuous improvement to satisfy the needs of consumers, well beyond their expectations. The underlying concept of this approach is that a quality product is achieved well before the seed is sown. However, for the purposes of this manual, harvesting is used as a starting point. It is based on the assumption that growing conditions are ideal for the crop.

In Chapter 1, harvest indexes are presented together with the handling conditions required to maintain quality.

Chapter 2 is mainly concerned with preparations for the fresh market within a pack-house environment. This is a key step to adding value while at the same time protecting the product. Since all harvested produce is not sold immediately, storage is an integral part of the handling process. Some of its benefits include extending the growing season and minimizing losses in quality.

An examination of the different types of storage systems including their advantages and disadvantages is undertaken in Chapter 3.

Chapter 4 examines the health and safety issues related to handling produce from the field to the consumer.

Quality issues concerning the consumer are discussed in Chapter 5.

Chapter 6 focuses on alternative systems of retailing fruits and vegetables that are most appropriate for the small-scale commercial farmer.

A glossary is provided because of the differences in terminology for fruits and vegetables in Latin America and Caribbean countries. The Spanish and English names are given together with the scientific name. Key topics are illustrated with photographs from different growing areas in the world, with particular attention to Latin America and the Caribbean. The tables and graphics presented help to describe and highlight the issues further.

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