

**SAFETY AND QUALITY OF
FRESH FRUIT AND
VEGETABLES:**

***A TRAINING MANUAL
FOR TRAINERS***



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BACKGROUND

In recent years, agricultural exports to developed country markets have emerged as a potentially major source of export growth for many developing countries. Exploiting this potential, however, poses many challenges. The capacity of developing country exporters to enter these markets depends critically on their ability to meet stringent food safety standards imposed by developed countries. Not only are these standards stringent, but they are increasingly demanding. They now go well beyond traditional quality standards, as suppliers must pay close attention to the responsible use of agrochemicals, energy, water and waste, as well as social and environmental impact. These standards are significantly higher than those prevailing in developing countries, they are subject to frequent changes and are, ultimately, often difficult and costly to meet.

It is anticipated that improving the ability of developing countries to meet food quality and safety standards for horticulture products will facilitate greater international market access, reduce the impact of price competition, stimulate investment and mitigate risk, leading to increased exports. This increase in exports will stimulate commercial production and thus encourage employment creation and increased productivity, benefiting the poor through higher incomes and more jobs.

In July 2005, UNCTAD completed the first phase of a Sanitary and Phytosanitary (SPS) project in three selected African LDCs (Guinea, Mozambique and Tanzania). To enhance the gains of this project in the countries selected, the Standards Trade Development Facility (STDF) provided funds to UNCTAD to design a technical assistance follow-up project in Guinea based on the findings of UNCTAD's study on *Agrifood Safety and SPS Compliance* and on recommendations stemming from the national workshop, which took place in July 2005 in Guinea. The overall objective of the project aims to develop a safety control system for horticultural exports (fruit and vegetables) in Guinea. In particular, the project is intended to (i) improve the capacity of

Guinean producers' associations and export associations to comply with SPS and agri-food safety standards to facilitate exports; (ii) encourage the application of internationally recognized standards by ensuring capacity-building for public and private organizations and; (iii) develop information sharing on standards. The overall strategy used is to work with the horticultural value chain in Guinea (producers, exporters, traders, service providers, public and private technicians, etc.) and to seek EurepGap certification.

In the context of the project, UNCTAD initiated plans to develop four national training workshops for Guinean public and private stakeholders on quality assurance and safety of fresh produce. The participants at these training workshops repeatedly emphasized the critical need for more training opportunities and greater availability of training materials on safety and quality of fresh fruits and vegetables.

ABOUT THIS MANUAL

The objective of this manual is to provide uniform, broad-based scientific and practical information on the safe production, handling, storage and transport of fresh produce. This manual:

- (i) Provides a teaching tool to train trainers who will be conducting courses to facilitate the safe production, handling, storage and transport of horticultural exports produced in developing countries exporting to developed country markets and elsewhere;
- (ii) Serves as a resource for trainers preparing and conducting courses to assist those in the produce industry in identifying and implementing appropriate measures to minimize the risk of microbial contamination while reducing other hazards (chemical and physical) and maintaining market quality.

The material in this manual is guidance and not regulation and should be applied as appropriate and feasible to individual fruit and vegetable operations.

USE OF THIS MANUAL

The information presented includes:

Principles – science-based information regarding elements of produce safety and quality.

Topics included are:

- Introduction to food safety and quality
- Food safety of fresh fruits and vegetables
- Good agricultural practices (GAPs)
- Good manufacturing practices (GMPs)
- Principles and practices of food safety management
- Food laws and food safety regulations

Additional Resources – include relevant reference documents and web information on issues addressed by this manual.

Users of this manual are reminded of the following important considerations in applying its recommendations:

- (i) The manual focuses on risk reduction, not risk elimination. Current technologies cannot eliminate all potential food safety hazards associated with fresh produce that will be eaten raw;
- (ii) This training manual provides broad, scientifically based principles. Trainers should encourage operators to use the information to help assess microbiological advances that expand understanding of those factors associated with identifying and

reducing microbial food safety hazards. Awareness of these advances will allow updating of the recommendations and information contained in this manual as appropriate to keep the content current.

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