



## Post Harvest System for Fruit and Vegetable Growers

C Sivananth<sup>1</sup>, SKanchana<sup>1</sup> and M Esakkimuthu<sup>2\*</sup>

<sup>1</sup>Tamil Nadu Agricultural University, Madurai, India

<sup>2</sup>Regional Agricultural Research Station, Pilicode, India

\*Corresponding Author: M Esakkimuthu, Regional Agricultural Research Station, Pilicode, India.

Received: March 25, 2019; Published: April 16, 2019

### Abstract

Major problem in Indian agriculture is marketing, transport and harvesting. And all farmers' most often reported the problem of lack technical guidance for post harvest handling of fruits and vegetables. In world, fruits and vegetables production India ranks second. India's agro climate ensures fresh horticulture produces.

**Keywords:** Produces; Marketing; Technical; Post Harvest; System

### Introduction

Fruits and vegetables are important components of a healthy diet, and their sufficient daily consumption could help to prevent major diseases, such as cardiovascular diseases and cancers. Approximately 16.0 million (1.0%) disability adjusted life years and 1.7 million (2.8%) of deaths are attributable to low fruit and vegetable consumption. Moreover, insufficient intake of fruit and vegetables is estimated to cause around 14% of gastrointestinal cancer deaths, about 11% of ischemic heart disease deaths and about 9% of stroke deaths globally. The WHO recommends a minimum of 400g of fruit and vegetables per day (excluding potatoes and other starchy tubers) for the prevention of chronic diseases such as heart disease, cancer, diabetes and obesity, as well as for the prevention and alleviation of several micronutrient deficiencies, especially in developing countries.

### Post harvest system in fruit and vegetable growers

Fruits and vegetables are the most perishable, nutritious, valuable agricultural produces. India's diverse agro climate ensures availability of all varieties of fresh fruits and vegetables. India ranks second in fruits and vegetables production in the world, after China. During 2011-12 India produced 76.424 million metric tonnes of fruits and 156.33 million metric tonnes of vegetables. Post harvest handling is the stage of crop production immediately following after harvest, including cooling, cleaning, grading, packing and marketing. Post harvest handling largely determines final quality, whether a crop is sold for fresh consumption, or used as an ingredient in a processed food product. Post harvest sector inclu-

des all points in the value chain from production in the field to the food being placed on a plate for consumption.

### Post harvest activities

The major post harvest activities includes, food crops harvesting, handling, storage, processing, packaging, transportation and marketing. Post harvest losses of both quantitative and qualitative losses of extremely variable magnitudes occurring at all stages in the post harvest handling. Post-harvest loss is a measurable quantitative and qualitative loss of a product at any moment during the postharvest chain and includes the change in the availability, edibility, wholesomeness or quality of the food that prevents its consumption. The quality and condition of produce sent to market and its subsequent selling price are directly affected by the care taken during harvesting and field handling. Even though, number of post harvest handling practices is being recommended to minimize the post harvest losses at field level the fruits and vegetables growers are not following the recommended practices. The post harvest loss can be preventing from the following extension activities.

### Marketing

#### Regulation of marketing:

The farmer's major problem during post harvest handling system is marketing. Marketing exhibits high influence in all stages of post harvest handling for example if the market price is low the farmer keep the produce unharvested in the field if the price is more than most of the farmer harvest the produce at immature stage all these are caused by unstable and unregulated marketing. Majority of the farmers facing the problem of exploitation by traders

and middle man, the farmers get low price for produce in seasons. Government should take necessary steps to limit the influence of traders and middle man in market which would help the farmers to get consistent price and people may access the produce at reasonable price. Apart, from this the implementation of stringent marketing rules and laws will protect the farmers and consumers from dominance of traders and middle man.

#### **Giving price fixation rights to farmers**

The price fixation by farmers will help the farmer to get income and it will facilitate the correct stage of harvesting and post harvest handling. The government may create grading chart for various fruits and vegetables based on the prescribed standards based on this chart the farmers may fix price for their produce. This will help to prevent exploitation by traders and middle man and help to regulate marketing.

#### **Controlling of commodity flow in full season time**

In full season time usually the price for commodity is low and the movement of produce is slow so it is important to divert the surplus produce to some other purpose such as processing and value addition and facilitate storage in cold storage godowns will helps to maintain market demand for produce and prevent the loss due to surplus production.

#### **Establishment of whole sale markets at crop intensive areas and retail shop at people intensive areas and formation of local markets;**

The result shows that the farmers demand for creating more marketing channels to promote selling. So the establishment of whole sale markets at crop intensive areas and retail outlets and local markets in appropriate areas will helps the farmers to get more profit and helps to choose the best marketing technique suitable for selling.

#### **Establishment of fruits and vegetables outlets by government**

The government should take necessary steps to create retail outlets for fruits and vegetables. The government may procure the produce directly from the farmers and sell it to consumers. It is the one of the possible way of controlling price fluctuation both at farmer level and consumer level.

#### **Extension and outreach activities**

Creating awareness, conducting training program and popularization of government schemes and policy's in post harvest technology

Many of the farmers did not were aware of correct methods and measures taken during post harvest handling and government

schemes and policies in post harvest technology so the farmers can be guided to contact the institutes, board and agencies like Central institute of post harvest engineering and technology, National Horticulture Board and other agencies involved in post harvest technology research and development to were aware of recent technologies and policy's in post harvest technology. It is essential to create awareness among the farmers in the above areas which helps to reduce the loss of fruits and vegetables.

#### **Establishment of strong network between farmers, scientists and extension workers**

Establishment of this network is essential to analyze and develop appropriate technology based on the needs and constraints of farmers. This network facilitates the farmers to easily get information from the scientists regarding recent technology and also applying the same at farm level through extension workers for the benefit of the farmers.

#### **Post harvest handling technical guidance to farmers**

Farmers reported that they lack in technical guidance in post harvest handling of fruits and vegetables so appropriate measures should be taken to overcome the problem. The government may instruct the authorities to give technical guidance regarding post harvest handling practices along with the normal crop production and management guidelines.

#### **Prevention of post harvest losses in post harvest handling of fruits and vegetables**

1. Giving of equal importance to post production operations that of crop production will prevent the loss and helps to achieve food security.
2. Framing of suitable schemes and policies based on the perceived needs, crop and farm profile of farmers.
3. Improve the nation economy, socio economic status of farmers, Nutritional and health status of people by increasing the availability through prevention of post harvest loss and proper post harvest handling practices of fruits and vegetables.
4. Establishment of strong network between scientists, farmers, extension workers and others who are all involved in post harvest handling and supply chain to tackle the problems in post harvest handling and development, transfer of suitable technology to overcome the problem.
5. Regulation of post harvest handling of fruits and vegetables. Identification of loss and implementation of corrective action in each step of post harvest handling. Reduction of technology gap in post harvest handling of fruits and vegetables.

## Conclusion

Farmers facing major problem in marketing followed by transport and harvesting and all the farmers reported the problem of lack technical guidance for post harvest handling of fruits and vegetables. The implementation of the above strategies in each level of post harvest handling system helps to increase the shelf life, prevention and reduction of post harvest losses of fruits and vegetables.

**Volume 3 Issue 5 May 2019**

**© All rights are reserved by M Esakkimuthu., *et al.***