



ROHINI

COLLEGE OF ENGINEERING AND TECHNOLOGY

Approved by AICTE and affiliated to Anna University, (An ISO Certified Institution)

Accredited by NAAC with A+ Grade

DEPARTMENT OF AGRICULTURAL ENGINEERING

AI3601 POST- HARVEST TECHNOLOGY

Dr. A. ARUL MARCEL MOSHI,
ASSOCIATE PROFESSOR / MECH.



UNIT I: FUNDAMENTALS OF POST HARVESTING

CO1: To understand the importance of post-harvest processing and determine moisture content of products.

Introduction to Post-Harvest Technology

Definition of 'Post-Harvest Technology':

Post-harvest technology involves the application of scientific and technical principles to the handling, storage, processing, and transportation of agricultural products after they have been harvested.

Scope of Post-Harvest Technology:

The scope of post-harvest technology extends across various stages in the supply chain, including:

- Harvesting
- Cleaning
- Sorting
- Packaging
- Storage
- Transportation
- Processing of agricultural products

Importance of Post-Harvest Technology:

Efficient post-harvest practices are crucial to:

- Minimize losses
- Maintain product quality
- Reduce waste
- Ensure a stable and safe food supply
- It plays a vital role in enhancing the overall productivity and profitability of the agricultural sector.

Objectives of Post-Harvest Technology

1. To minimize the losses:

- One of the primary objectives is to minimize post-harvest losses by employing proper handling, storage, and processing techniques.
- This is essential for both economic and food security reasons.



2. To preserve quality:

- Post-harvest technology aims to preserve the nutritional quality, flavor, and appearance of agricultural products.
- This involves controlling factors such as temperature, humidity, and handling practices to prevent deterioration.



3. To extend the shelf-life:

- Technology has been developed to extend the shelf life of perishable products, reducing spoilage and waste.
- This is achieved through techniques like refrigeration, controlled atmosphere storage, and appropriate packaging.



4. To ensure the safety:

- Post-harvest practices include measures to ensure the safety of the harvested products, addressing issues related to contamination, pests, and diseases.
- This is crucial for consumer health and compliance with food safety regulations.



5. To enhance the marketability:

- By maintaining the quality and appearance of agricultural products, post-harvest technology contributes to their marketability.
- This, in turn, benefits the farmers and stakeholders in the supply chain.



6. To optimize the processing:

- For certain crops, post-harvest technology involves processing steps such as drying, milling, or canning to add value to the products and make them suitable for various markets.



7. To facilitate transportation:

- Efficient post-harvest practices ensure that agricultural products can be transported over long distances without significant quality degradation.
- This is especially important for global trade and distribution.



8. To improve the economic returns:

- By reducing losses and enhancing product quality, post-harvest technology contributes to improved economic returns for farmers and other stakeholders in the agricultural value chain.

