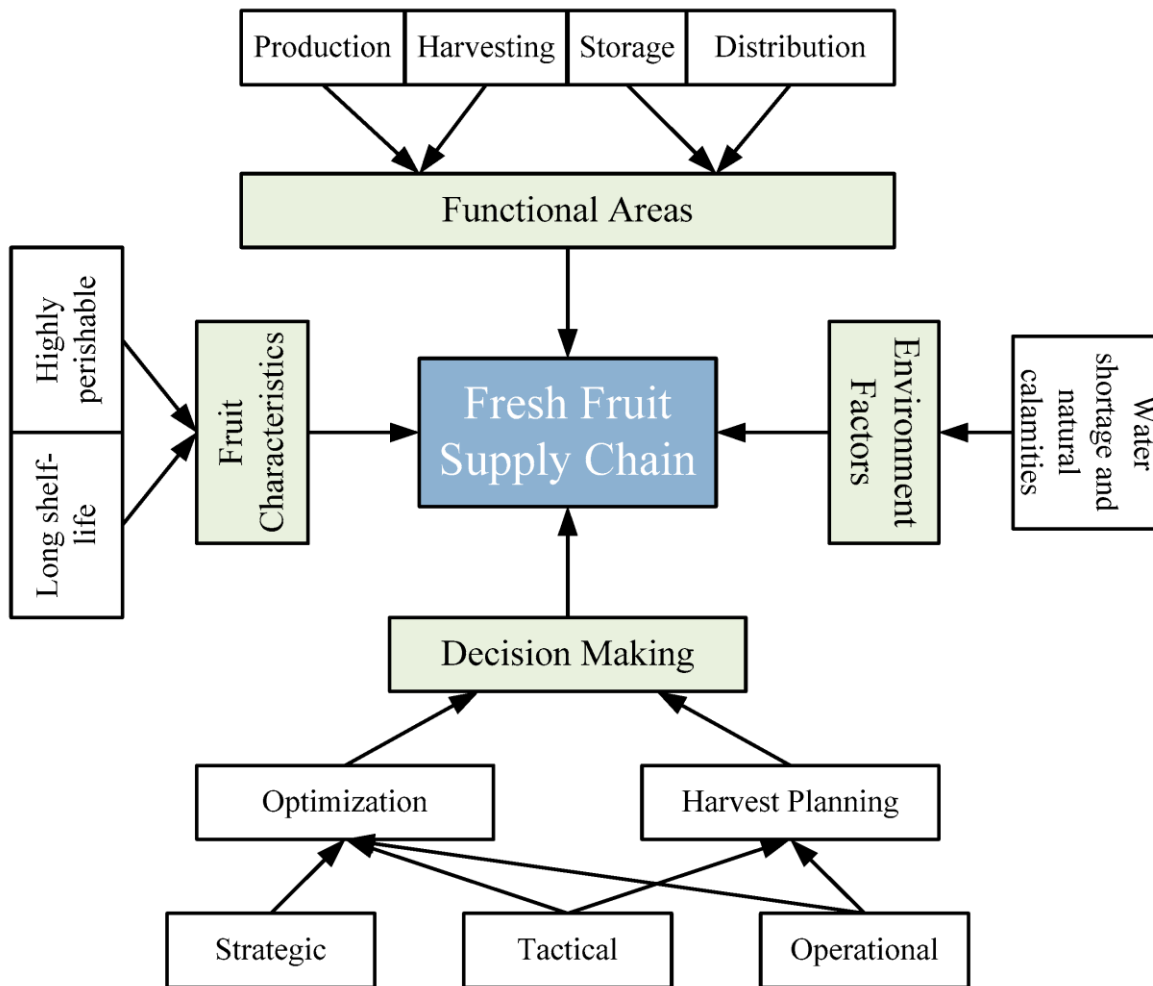




Unit I – Topic 5

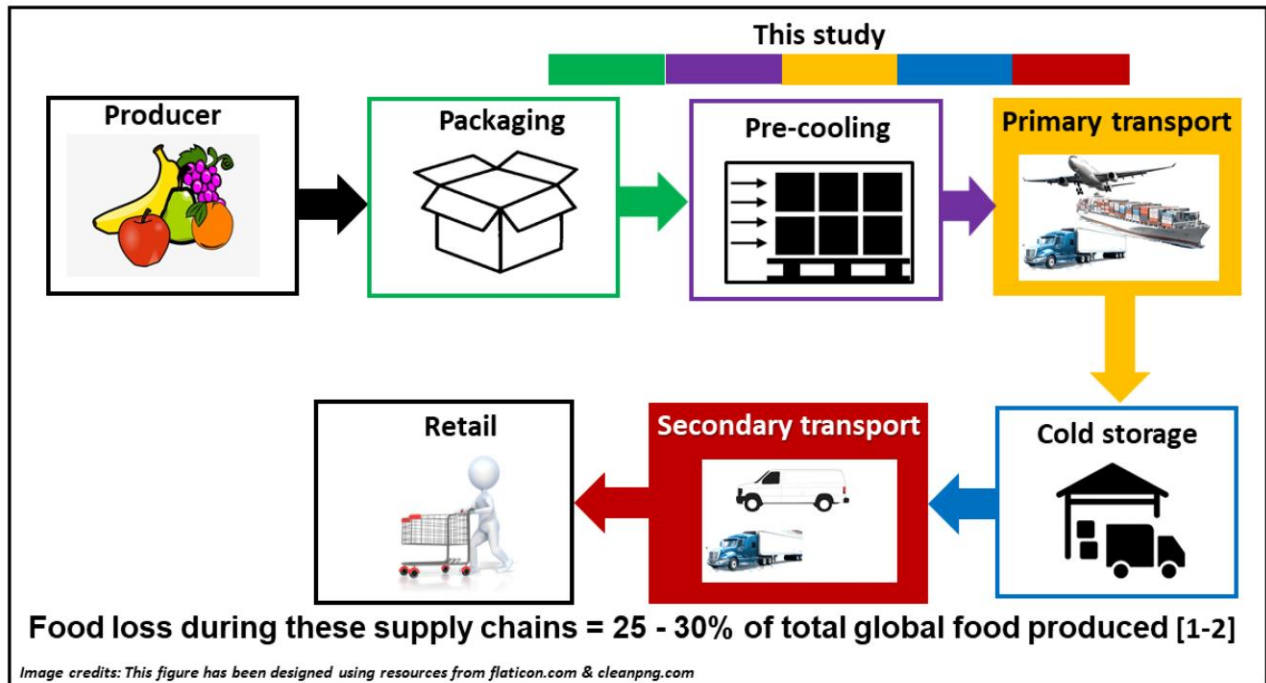
Supply chain of fresh fruits and vegetables.

The supply chain of fresh fruits and vegetables involves a series of interconnected steps that bring produce from farms to consumers. Each stage in the supply chain plays a crucial role in ensuring the quality, safety, and timely delivery of fresh produce. Here is an overview of the typical supply chain for fresh fruits and vegetables:





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1. Farming:

- **Growing:** Farmers cultivate fruits and vegetables in fields or greenhouses, ensuring proper care, irrigation, and pest control.
- **Harvesting:** When the produce reaches maturity, it is harvested by hand or using machinery. The timing of harvesting is crucial to ensure optimal flavor and nutritional content.

2. Processing and Packing:

- **Sorting and Grading:** Fruits and vegetables are sorted based on size, ripeness, and quality. Grading ensures consistency in the product.
- **Washing and Cleaning:** Produce undergoes cleaning processes to remove dirt, debris, and any contaminants.
- **Packaging:** After cleaning, fruits and vegetables are packaged in containers that protect them during transportation and storage. Packaging also includes labeling with information such as origin, expiration date, and nutritional facts.

3. Distribution:

- **Storage:** Packed produce is stored in warehouses or cold storage facilities to maintain freshness.
- **Transportation:** Refrigerated trucks, ships, or airplanes are used to transport the packaged fruits and vegetables to distribution centers or retailers. Maintaining controlled temperatures during transportation is crucial to preserving quality.
- **Distribution Centers:** These facilities act as hubs where produce is received, stored, and then distributed to retailers or directly to consumers.

4. Retail:

- **Supermarkets and Grocery Stores:** Fruits and vegetables are displayed in the



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produce section of retail stores. Retailers often use refrigerated displays to maintain freshness.

- Farmers' Markets: Some produce is sold directly by farmers to consumers at local farmers' markets.

5. Consumption:

- End Consumers: Consumers purchase fresh fruits and vegetables for consumption either in stores, online, or at farmers' markets.

6. Waste Management:

- Surplus and Spoilage: Addressing surplus or spoilage is an essential part of the supply chain. Unsalable produce may be donated, used for animal feed, or sent to composting facilities.

7. Regulatory Compliance and Quality Control:

- Inspection: Regulatory bodies may conduct inspections to ensure that fruits and vegetables meet safety and quality standards.
- Traceability: Implementing traceability systems helps identify the source of any issues related to contamination or quality, enabling quick response and recalls if necessary.

Throughout the supply chain, technology is increasingly playing a role in improving efficiency, traceability, and sustainability. Additionally, efforts are being made to reduce food waste and enhance overall sustainability in the production and distribution of fresh produce.