

AMFT24 FRUITS AND VEGETABLE PROCESSING TECHNOLOGY

UNIT-1 BASIC AGRICULTURAL ASPECTS OF VEGETABLES AND FRUITS

- 1.1 Ability to identify all commercially important fruits and vegetables with their names in important Indian languages, important regions, season, Morphology, structure and composition of fruit and vegetable.
- 1.2 Production and processing scenario of fruits and vegetable: India and World.
- 1.3 Scope of Fruit and Vegetable Preservation Industry in India.
- 1.4 Present status, constraints and prospectus.

UNIT-2 FRESH FRUITS AND VEGETABLES

- 2.1 Physical, Textural characteristics, structure and composition.
- 2.2 Maturity standards; Importance, methods of Maturity determinations maturity indices for selected fruits and vegetables.
- 2.3 Harvesting of important fruits and vegetables.
- 2.4 Fruit ripening chemical changes, regulations, methods.
- 2.5 Storage practices: Control atmospheric, Bead atmosphere, hypotactic storage, cool store, Zero emerge cool chamber, stores striation.
- 2.6 Commodity pre-treatment- chemicals, wax coating, prepackaging, phytonutrients in fruits and vegetables grading, cleaning, Physiological post-harvest diseases chilling injury and disease.
- 2.7 Handling and packaging of fruits and vegetables

UNIT-3 FREEZING & DEHYDRATION OF FRUITS AND VEGETABLES

- 3.1 General preprocessing, different freezing methods and equipments, problems associated with specific fruits and vegetables;
- 3.2 Dehydration- General preprocessing, different methods of drying including sun, tray, spray drying and low temperature, osmotic dehydration and other modern methods;
- 3.3 Indian Food Regulation and Quality assurance.

UNIT-4 CANNING, PUREES AND JUICES

- 4.1 Canning- General preprocessing, specific or salient points in fruits and vegetables like- Blanching, exhausting, processing conditions;
- 4.2 Indian Food Regulation and Quality assurance Fruit Juice/ pulp/ Nectar/Drinks, concentrates- General and specific processing, different packing including aseptic.
- 4.3 Indian Food Regulation and Quality assurance Vegetable Purees/pastes- General and specific processing, different packing including aseptic.
- 4.4 Indian Food Regulation and Quality assurance

UNIT-5 FRUIT AND VEGETABLE PRODUCTS

- 5.1 Ready to eat fruit and vegetable products, Jams/Marmalades, Squashes/cordials, Ketchup/sauces, Chutneys, Fruit Bar, Soup powders, Candied Fruits, Natural colors,
- 5.2 Fruit and Vegetable Fibers- General and specific processing, different packing including aseptic, Dried Onion, Powder.
- 5.3 Garlic: Dried Garlic, Powder, Oil. Potato: Wafer; starch, Papad, Carrot: Preserve, candy, Pickle, Jam.
- 5.4 Cauliflower and cabbage: Dried cauliflower and cabbage, Sauerkraut, Pickle Leafy vegetables; Dried Leafy Vegetables. (Spinach, Fenugreek, Coriander leaves, Curry leaves).
- 5.5 Bitter gourd: Pickle, Dried bitter gourd. Indian Food Regulation and Quality assurance

References Books

- 1 Fellows, P J. "Food Processing Technology: Principles and Practice". 2nd Edition, CRC/Woodhead, 1997.
- 2 Salunke, D. K and S. S Kadam "Hand Book of Fruit Science and Technology: Production, Composition, Storage and Processing". Marcel Dekker, 1995.
- 3 Sivasankar, B. "Food Processing & Preservation", Prentice Hall of India, 2002.

