

II YEAR - SEMESTER – III
KAKATIYA UNIVERSITY – WARANGAL - TELANGANA
Under Graduate Courses (Under CBCS 2025-26 onwards)
PAPER-III: **Post-harvest technology of field crops**

UNIT I Vegetables

Composition, Classification, Nutritive Value, Changes during cooking, storage, factors affecting storage and post-harvest losses. Canning and blanching of fruits and vegetables Preparation and preservation of seasonal pickles, tomato ketchup and chutneys.

Fruits

Composition, Classification, Nutritive Value, Post harvest Changes and Storage, ripening of fruits, enzymatic browning. Processing and preservation of fruit products- jam, jelly, marmalade, nectar, cordial, squashes.

UNIT II: CEREALS AND MILLETS

Rice-Types, structure, chemical composition, Nutritive Value, milling-parboiling, ageing, processed food products of rice.

Wheat-Types, structure, composition, Nutritive value, milling of wheat, milling types, milling of wheat in to different types of flours, processed wheat products.

Millets- Ragi, Jowar, Bajra- structure, chemical composition, processed millet products and health benefits.

UNIT III: PULSES & LEGUMES

Composition, Nutritive Value, Processing of Pulses and Legumes-milling of pulses by traditional and commercial methods-dry milling of pulses, milling of pulses by CFTRI method.

Toxic constituents of pulses -Trypsin Inhibitors, Lathyrogens, Favism, Haemagglutinins, Cyanogenic Glycoside, Saponins and Goitrogens. Methods to eliminate toxic constituents.

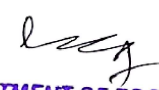
UNIT IV: NUTS & OILSEEDS

Nuts & Oilseeds – Composition and Nutritive Value, Processing of groundnut & sunflower seeds in to edible oils, Hydrogenation of oils, Rancidity of Oils- Definition, Types and prevention. Anti-oxidants used to extend shelf life of oils, adulteration of different oils and methods used to determine adulteration

REFERENCES

1. Bennion, M and Scheule, B. (2014). Introductory Foods. Pearson education.
2. Manay, N.S and Shadaksharaswamy, M. (2001). Food Facts and Principles. New Age International Publishers.
3. Srilakshmi, B. (2007). Food Science. NewAge International.
4. Subbulakshmi, G. (2001). Food Science and Preservation. New Age International (P) Ltd.


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