

(AG502) Development of Processed Products and Equipments	L	T	P	To	C
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Unit 1

Applications of unit operations to the food industry, analytical processing concepts with regards to mass and energy balances, equipment involved in the commercially important food processing methods and unit operations; value addition to cereals like rice, wheat etc.

Unit II

Parboiling of rice, quality of processed products of rice & wheat. Processing of pulses, extruded food product, fermented food product, frozen and dried product, technology of meat, fish and poultry products, technology of milk and milk products.

Unit III

Technology of oilseeds and fat products, snack foods, Fruits and vegetable products: candy, nutraceuticals, food product development trends, food additives and labeling.

Unit IV

Process equipment for thermal processing-evaporation, dehydration, drying, blanching, pasteurization, distillation; mechanical separation-filtration, sieving, centrifugation, sedimentation;

Unit V

Mechanical handling-conveying and elevation; size reduction and classification-mixing; kneading, blending and emulsification.

TEXT BOOKS:

1. Carl.W. Hall. (1988). *Processing Equipments for Agrl.Products*. McGraw Hill Pub.Co.
2. Girdhari Lal, G.S. Siddappa & G.L. Tandon . (1998). *Preservation of Fruits and Vegetables*. ICAR, New Delhi.
3. Gould, G. (1989). *Mechanism of action of Food Preservation Procedures*. Elsevier applied Science.
4. Kent, N.L. (1975). *Technology of Cereals*. Oxford Pergamom.

REFERENCE BOOKS:

1. Kessle, H.G. *Food Engineering and Dairy Technology*. U.A. Kessler Freising, Germany.
2. Matz,S.A. (1970). *Cereal Technology*. AVI Publishers.
3. Romeo,T, Toledo. (1996). *Fundamentals of Food Process Engineering*. CBS Pub. & Distributors, New Delhi.
4. Sukumar De. (1997). *Outlines of Dairy Technology*. Oxford University press, Delhi.