

Extrusion Technology 3(2-1)

Theory

Extrusion: introduction, importance, types, functions, applications. Dry extruders: principles, applications, advantages, disadvantages. Interrupted flight extruders/expanders: principles, applications, advantages, disadvantages. Single screw extruders: principles, applications, advantages, disadvantages. Twin screw extruders: principles, applications advantages. Preconditioners: characteristics, effect on extrusion. Changes in food during extrusion: effect on starch, proteins, fats, dietary fiber, vitamins. Applications in industry: textured vegetable protein, breakfast cereals, direct expanded and third generation snacks.

Practical

Quality assessment of raw materials. Preparatory operations of raw material. Preparation of textured vegetable proteins, breakfast cereals, flavor coated snacks, third generation snacks. Effect of variation of ingredients, screw speed, temperature, etc. on the quality of end product.

Books Recommended

1. Riaz, M.N (ed). 2003. Extruders in food applications. Technomic Pub. Co. Inc., Lancaster, Pennsylvania, USA.
2. Guy, R. 2001. Extrusion cooking technology and applications. Woodhead Publishing Ltd., Abington, Cambridge, UK.

Website: www.foodscienceuniverse.com