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Grain processing in general and Rice Technology in specific

Abstract:

Production of cereals in World is around 2846 million tonnes (MT) and India produces around 280 MT as on 2023-24. 750 MT of paddy is produced in World and India produces around 304 MT (22-23). From this, ~10% (30 MT) goes for the production of rice products like rice flakes, expanded rice and popped rice which are generally prepared or manufactured in small scale industries. Around 135 MT produced is used for production of raw rice and balance (135 MT) is used for the production of parboiled rice. World rice have been classified into 8 groups based on some of their physico-chemical properties like amylose content, gelatinization temp., alkali score, pasting behavior or viscographic parameters, cooking behavior etc. Importance of brown rice and Tiny rice mill will be highlighted. Medicinal rice Njawara, a pigmented variety, having high nutrients, its various physicochemical properties, protein and lipid profile in comparison with non-medicinal rice will be touched upon. Preparation of pregelatinized starches will be informed. Usage of cereals, millets, legumes in the preparation of multi grain ready to cook (RTC) and ready to eat (RTE) products will also be touched upon. Making of dhal from whole pulses and their technologies which are generally followed all over the world, in some parts of Asia will also be focused upon. Millet technology in brief, maize grits manufacture and products from maize, in addition manufacture of starch from tapioca, which is generally used for the manufacture of Sago will also be touched upon.

Biography

After retiring from CSIR-CFTRI as Chief Scientist during 2013, worked as an Emeritus Medical Scientist (ICMR) at the University of Mysore and worked as a Professor, under DBT sponsored Food Science Project, Gauhati, Gauhati University. Published 85 research papers, inventor of several technology processes, one Patent was commercialized to 30 industries. Handled several National & International projects. Guided around 100 B.Tech M.Sc, M.Tech students for their Dissertation and Investigation problems and produced 8 Ph.D candidates, including guiding INSA, African countries, candidates.