

## Potential of bakery products as functional foods

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Functional foods have one or more physiological benefits and reduce the risk of chronic diseases beyond providing basic nutrition to human beings. So far functional food ingredients have been brought to the consumers mainly through dairy or confectionery products. This is one of the reasons of higher cost of functional foods than their conventional counterparts and therefore, they remain a part of daily diet of only economically sound consumers. On the other hand, bakery products are still relatively underdeveloped or ignored sector for delivering the functional food components to consumers. Bakery products can provide ideal matrix by which functionality can be transferred to the consumer in economically and practically feasible way. Bakery products are cereal-based and cereals are the cheapest source of hunger satisfaction and nutrition for poor people who are most vulnerable to nutrients deficiency. On an average, cereals provide 52% of caloric intake globally. For Asians, cereal and cereal based products fulfill 60-75% of the caloric intake. Bakery products include breads, biscuits, cookies, rusks, buns, cakes, pastries, pizza, croissant, butterfly buns and muffins etc. Encouraging trends in consumption of these bakery products by population of lower, middle and high income groups in both, urban and rural areas indicate vast scope for consideration of development of functional bakery products through fortification, enrichment, reformulation/alteration and enhancement. However, development of bakery products as functional foods that will guarantee product quality (sensory and storageability) and high bioavailability in spite of their being subjected to high temperatures during baking are technological and scientific challenges.

## Biography

S.C. Jain completed Doctorate Degree in Dairy Technology from National Dairy Research Institute, Karnal, and Post Doctoral in Dairy Technology as DANIDA Research Scholar in Royal University of Agriculture and Veterinary Sciences, Copenhagen, Denmark. He has to his credit more than 125 research and technical publications on subjects under food science and technology in journals of repute and technical presentations in several national and international conferences. Dr. S.C. Jain has a long experience of 50 years in research, teaching, extension, food industry, research management, biotech industry consultancy and institution building as Professor, ADG, DDG, Technical Advisor and Senior Vice President at University level, ICAR, HQ at national level and in Industry. Dr. Jain acted as expert member on several high powered committees constituted by the Govt. of India in education and research and also on several national bodies like NPC, BIS, APEDA, ASRB, UGC, UPSC and Ministry of HRD, GOI. He also acted as member of Boards of Management of several agricultural universities and also acted as ICAR nominee in Planning Commission. Dr. Jain is a widely traveled person, having visited around 22 countries and also acted as leader / member of five Government of India Delegations to identify areas of co-operation in agriculture and also for evaluation of research and development project in Australia. Presently, he is the Director, Amity Institute of Food Technology and Senior Research Coordinator, Amity Science Technology & Innovation Foundation. He is deeply involved in establishing infrastructure to run B. Tech. (Food Tech.), M. Tech. (Food Tech.) & Ph.D (Food Tech.) programmes and guiding research in different areas under the Domain of Food Science and Technology. Dr. S.C. Jain is a Member of Association of Food Scientists and Technologists (India), All India Food Processor's Association and life Member of Dairy Technology Society of India.

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