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Biography

Akanksha Yadav, (M.Sc., Ph.D.) is an Associate Professor and Head of the Department (HOD) of Nutrition & Dietetics in the School of Allied Health Sciences at SGT University, Gurugram, Haryana. She brings over 16 years of extensive experience in the fields of Nutrition, Dietetics, and Healthcare, encompassing both academic and professional practice. A distinguished academician and researcher, she has made significant contributions to her discipline. Her scholarly output includes 4 patents, 5 copyrights, 25 research papers, 2 books, and 7 book chapters, reflecting her strong commitment to research, innovation, and knowledge dissemination.

Functional and Nutritional Potential of Makhana (Euryale ferox Salisb): A Scientific Review

Abstract:

Makhana seeds have gained global recognition as a nutrient-dense superfood with remarkable nutritional and therapeutic benefits. Makhana is rich in bioactive compounds such as polyphenols, alkaloids, phenols, terpenoids, and glycosides. It is an excellent source of macronutrients, micronutrients, and phytochemicals while being low in sodium, saturated fats, and cholesterol. Additionally, its high mineral and amino acid content further enhances its nutritional profile. The unique functional properties of makhana contribute to a wide range of health benefits, making it particularly suitable for individuals dealing with obesity, hypertension, and cholesterol issue and health benefits include its cardio-protective effects, anti-diabetic properties, immuno-stimulant capabilities, anti-ageing properties, and anti-depressant and antioxidant properties. These seeds offer a solution to micronutrient deficiencies, lifestyle diseases, and the aging process, making them highly appealing to health-conscious consumers. Makhana's versatile qualities make it an ideal raw material for the development of innovative, healthy value-added food products. These products can improve the physicochemical, functional, and sensory attributes of various food items. To promote societal health, there is a pressing need to scientifically innovate and adapt to regional nutritious cuisines, using makhana as a cornerstone ingredient.