

Future Prospects of Incorporating Date Seed Powder in Health Mix

PRIYANSHU SHARMA¹, SUNDUS NIDA²

ABSTRACT

Introduction: The rising demand for functional foods highlights the need for nutrient-dense and sustainable ingredients. Date Seed Powder (DSP), a byproduct of date fruit processing, is a promising functional ingredient due to its high dietary fibre (56-70%), antioxidants (3100-4500 mg GAE/kg), and essential minerals like potassium, calcium, and magnesium. While DSP has been studied for its potential in baked goods and beverages, its application in health mix formulations remains largely unexplored.

Aim: To study the effect of incorporation of date seed powder in health mix.

Materials and Methods: This study explores the potential of incorporating DSP into a health mix containing ragi, maize, green gram, chickpea, peas, groundnut, almonds, cashew nuts, cardamom, and milk powder. Processing techniques such as roasting, grinding, and blending can enhance bioavailability and sensory appeal.

Results: Preliminary findings suggest DSP-enriched health mix formulations could significantly increase dietary fibre ($20\pm 0.03\%$) and total antioxidant capacity ($28\pm 0.05\%$) compared to conventional health mixes. Sensory analysis and shelf-life studies indicate good consumer acceptance and long-term stability.

Conclusion: Future research should optimise DSP inclusion levels for specific health benefits, such as gut microbiota modulation and glycaemic control. Its potential application in protein supplements, energy bars, and infant nutrition should also be explored. Additionally, advanced processing methods like encapsulation and bioactive compound extraction could improve DSP's functional properties. Valorising date seeds in food formulations promotes sustainability, reduces waste, and supports the circular economy in functional food development.

Keywords: Date seed powder, Functional health mix, Antioxidants, Dietary fibre, Waste valorisation

PARTICULARS OF CONTRIBUTORS:

1. Student, Department of Nutrition and Dietetics, School of Allied Health Sciences, Manav Rachna International Institute of Research and Studies (Deemed to be University), Faridabad, Haryana, India.
2. Assistant Professor, Department of Nutrition and Dietetics, School of Allied Health Sciences, Manav Rachna International Institute of Research and Studies (Deemed to be University), Faridabad, Haryana, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Priyanshu Sharma,
Student, Department of Nutrition and Dietetics, School of Allied Health Sciences, Manav Rachna International Institute of Research and Studies (Deemed to be University), Faridabad-121004, Haryana, India.
Email: sharmapriyanshu529@gmail.com