Scientists at DBT’s CIAB developed debittered kinnow pulp and pomace rich vermicelli

A group of researchers at DBT’s Center of Innovative and Applied Bioprocessing (CIAB), Mohali has developed debittered kinnow by-product rich vermicelli. The valorisation (value addition) of the kinnow industry by-products such as pulp residue and pomace, which otherwise a waste and creates environmental pollution. The kinnow industry by-products were debittered by using chemo-enzymatic processing to produce the dietary fibre rich debittered products.

Further dietary fiber enriched vermicelli has been developed from wheat flour supplemented with debittered kinnow industry by-products. Functional, cooking and textural properties of both supplemented and control vermicelli were evaluated. Vermicelli with 15% debittered kinnow pulp residue and pomace showed better results with minimum cooking loss (18.5, 20.0%) and higher swelling index (2.06, 1.87). Firmness and fracturability of vermicelli supplemented debittered pulp residue (10.0 and 21.5) and pomace (16.7 and 16.1) was higher as compared to the control sample (6.1 and 2.1). Further, total phenolic content, DPPH activity and water absorption capacity of vermicelli got increased with addition of debittered kinnow pulp and pomace. Utilization of debittered kinnow pulp and pomace in vermicelli provide dual benefits i.e., production of healthy food products and solving solid waste disposal problems. Work was led by Dr. Meena Krishania Choudhary and co-workers, and was published in Journal of Food Science and Technology.

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