

## **Preparation of Functional Food in Combination of Tartary Buckwheat and Bean Flour Mixes by Hot Melt Extrusion Process**

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The aim of this study was to prepare a new functional food with enriched bioactive compound by the combination of Tartary buckwheat and bean flour mixes. Two types of bean such as: black bean and white bean with the ratio of 5, 10, 15 % were used to develop a food formulation. The solid formulation of functional food was prepared by the hot melt extrusion process (HME) at the temperature of 60, 90, 120°C. Total phenolic content (TPC), total flavonoid (TF) and DPPH were analysed of the prepared food by the use of spectrophotometer. Results demonstrated that TPC (254 mg/g), TF (18.22 mg/g) and DPPH (88%) were significantly increased in the recipe of 10% black bean and 90% Tartary buckwheat mixes among the formulation at 90 °C. As therefore, it is concluded that the optimum ratio of bean and Tartary buckwheat flour mixes should be considered for the preparation of high quality functional food.

**Key words:** Tartary buckwheat, Bean flour, Hot melt extrusion, Functional food, Phenolic compound