

Effect of defatted soybean flour on physico-chemical, mineral and sensory quality attributes of *Chapati*

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SUMMARY :

Present work have been undertaken to formulate and evaluate the qualities of defatted soybean flour based *Chapati*. The *Chapati* is made up of blending of wheat flour and different proportion of defatted soybean flour. Four treatments were used with sample code T₀, T₁, T₂ and T₃ i.e. 0, 20, 30 and 40 per cent substitution of defatted soybean flour. The prepared *Chapati* was evaluated for its sensory acceptability using 9 point hedonic scale. It was found that treatment T₂ containing 30 per cent defatted soybean flour got the highest score as compared to other treatments. Hence, this proportion of flours was used for further study. Physical analysis of *Chapati* revealed that weight of sample T₀, T₁, T₂ and T₃ was observed 38.4, 40.6, 41.7 and 42.9 g, respectively. Thicknesses of *Chapaties* were also increased from 2.3 to 2.8 mm with increasing levels of defatted soybean flour with decrease in diameter from 19 to 17.5 cm. Ash contents of sample T₀, T₁, T₂ and T₃ were 1.38, 2.32, 2.72 and 3.14 per cent, respectively. The fat contents of sample T₀, T₁, T₂ and T₃ were 1.90, 2.66, 3.12 and 3.53 per cent, respectively. The protein contents of sample T₀, T₁, T₂ and T₃ were 10.06, 19.68, 23.62 and 27.56 per cent, respectively. The fibre contents of sample T₀, T₁, T₂ and T₃ were 1.50, 2.35, 2.60 and 2.85 per cent, respectively. The carbohydrate content of sample T₀, T₁, T₂ and T₃ were 56.94, 43.03, 36.88 and 30.76 per cent, respectively. The calcium, phosphorus, manganese, iron and zinc contents of control sample were 48.67, 349.22, 2.71, 7.77 and 2.23 mg/100 g, respectively. The calcium, phosphorus, manganese, iron and zinc contents of sample (T₂) were 109.36, 443.20, 2.77, 15.6 and 1.99 mg/100 g, respectively. It was concluded that the *Chapati* sample T₂ containing 70 per cent whole wheat flour and 30 per cent defatted soybean flour was most desirable in terms of sensory and nutritional quality profile.

KEY WORDS : Defatted soybean flour, Wheat flour, Protein, Minerals

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