Effect of wheat flour Substitution with Soya Protein Product on Quality Properties of Biscuits

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Abstract

This research aims at the study of the wheat flour substitution with 3, 6, 9, 12 and 15% of Soya protein product on the chemical composition of the mix of ingredients used in the making of biscuits. Furthermore, the research also studies the flakiness of such biscuits in addition to the quality and sensory properties.

The findings indicate that there is a significant increase of the protein in proportion to the substitution estimated at 8.20 and 41.60%. Besides, there has occurred a significant increase in the content of ash in proportion to the substitution estimated at 19.7 and 102.6%. There also has been a decrease in fat in proportion to the increase of the rate of Substitution which is put at 1.52 and 6.57%. A decrease in the content of carbohydrates is also viewed in proportion to the rate of substitution; this rate is estimated to be between 1.32 and 6.75% in addition to a decrease in flakiness of biscuits proportionate with an increase of the rate of substitution which amounts to 0% and 1.33 Cms whereas the percentage amounts to 15% and 1.00 Cms.

As for the sensory evaluation, the has been a 3% substitution estimated at 83.7% in comparison with a 0% substitution which reaches up to 84.0%. The treatment 6%, however, has attained 77.9%.

Al together it is concluded that the treatment 3 and 6% is the best of all treatments. This is, however, due to the fact that the nutrition value as well as the quality and sensory properties of biscuits which are taken into account in the final evaluation.