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Quality attributes of cakes incorported wheat with legumes flour

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Background: legumes flours, due to their amino acid and fibre content are ideal ingredients for improving the nutritional value of bread and bakery products.

Objective: This study the influence of the partial replacement of wheat flour by legumes flours (chickpea, lentil and white bean) the study was to investigate the effects of wheat flour substitution with legume flour in cake in terms of the sensory and nutrition properties of the prepared cake samples were evaluated. Cake samples were prepared from (a) Control (100% wheat flour), Chickpea (b) (wheatflour 80% + chickpeaflour 20%), (c) (wheatflour 80% + Chickpeaflour 40%), Lentil (d) (wheat flour 80% + Lentil flour 20%), (e) (wheat flour 80% + Lentil flour 20%), White beans (f) (wheat flour 80% + white beans 20%) and (g) (wheat flour 80% + white beans 20%). The sensory and quality attributes of the seven types of cakes were evaluated. Result showed all products were found to be acceptable as recorded the panelist in terms of color, odor, texture, taste, and over acceptability. The study showed an increase in amino acids composition of the cake as compared to the control. In addition, the high trend in the essential amino acid increased in samples cake prepared from wheat with legumes in 20% compared with the wheat control.

Conclusions: From the present investigated work, it can be concluded that replacement of wheat flour with chickpea, lentil and white beans flour at (20-40%) can be followed without any adverse effect on sensory characteristics of cake. Legumes flour supplementation significantly caused improvement in cake's composition of amino acid score. It can be recommended that the technology of using composite flour should be encouraged among food industries to make economic use of local raw material and produce high quality food products such as cake particularly for the populations of development nations.

Biography

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