



## CHEMICAL CHARACTERIZATION OF BISCUITS (COOKIES) AS FUNCTIONAL FOOD PRODUCT SUPPLEMENTED WITH QUINOA FLOUR

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**ABSTRACT**

In recent years, quinoa has gained renewed relevance as an alternative crop to cereals due to its excellent nutritional value. The aim of this work was to utilize quinoa seed flour as a substitute supplementation for wheat biscuits. The physicochemical properties of quinoa seed flour were studied. Wheat flour was substituted with 25, 50 and 75% of quinoa seed flour. The obtained results declared that the rheological characteristics of the mixtures dough were altered by increasing the ratio of quinoa seed flour. Substitution with 25 and 50% quinoa seed flour had the best results which were relatively close to that of the control sample. The physicochemical properties of biscuits enriched by quinoa seed flour that characterized by increasing density, texture, water-holding capacity and oil-holding capacity. The chemical composition of enriched biscuits, for moisture, ash, dietary fiber, protein and minerals content were increased while fat and available carbohydrate content lowered. Sensory evaluation showed that substitution with 25% and 50% quinoa seed flour had the best sensory characteristics, and increased its content of protein, fat, minerals and vitamins.

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