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بسم الله الرحمن الرحيم

مركز الشبكات وتكنولوجيا المعلومات

قسم التوثيق الإلكتروني



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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
على هذه الأقراص المدمجة قد أعدت دون أية تغييرات



**PROPERTIES OF BAKERY PRODUCTS
SUPPLEMENTED WITH VARIOUS
PROTEINS**

By

ENSAF OSAMA BESHIR DARWISH

B.Sc. Agric. Sci. (Food Technology), Fac.of Agric., Cairo University, 2010

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Approval Sheet

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ABSTRACT

**Properties of bakery products supplemented :Ensaf Osama Beshir
with various proteins. Unpublished M.Sc. Thesis, Department of
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This study aimed to improve the nutritional value , rheological and sensory properties of bakery products by supplementing wheat flour with different levels of lupin flour and /or whey protein concentrate for and puff pastry as a functional producing a semi hard sweet biscuit products. Protein and other investigated contents (except carbohydrate) were raised gradually by raising replacing percentage, Sensory evaluation recommended that treatment (4) which replaced wheat flour with (15% lupin flour + 7% whey protein) in biscuit had highest score in color parameter, crust appearance, texture and aroma. Sample (4) had highest taste score comparing to control, but samples (5,6) (which reached 70% replacing percentage) showed lowest score for taste. Treatment (5) which (replaced wheat flour with 10 % lupin flour + 10% whey protein concentrate) showed the highest score in sensory evaluation of puff pastry after control sample. Amino acids profile showed raising in TEAA, TNEAA content with the highest replacing percentage in both of biscuit and puff pastry.

Results assured the possibility of using either sweet lupin flour and / or whey protein concentrate as supplementants for producing both of two functional foods (semi – hard sweet biscuit and puff pastry) contained various levels of either plant or animal protein in order to minimize the production costs in addition to rise the nutritional value of these new bakery products.

Keywords: Sweet lupin, Whey protein concentrate, Biscuit, Puff pastry, Chemical composition and Amino acids profile.

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