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The Effect of Fortification Some of Buffalo Meat Products by Baladi Rose Petals on Nutritive Value and Blood Lipids Profile

BY

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A THESIS

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عَالِي كِتَابِهِ



*Dedicate this thesis to
the spirit of my godfather*

Professor

Mohammed Kamal Youssef

The God have mercy on him and placed

him into his havens...



Aknowledaement



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List of Abbreviations

ALT: Aspartate amino transferase.

AST: Alanine amino transferase.

BBF : Black eye bean flour .

BRPP: *Baladi Rose* petals powder.

BHA: Butylated hydroxy toluene

BHT: Butylated hydroxy anisole

CKD: Chronic kidney disease.

CLA: Conjugated linoleic acid.

CVD: Cardiovascular disease.

FRAP: Ferric – reducing antioxidant power.

HDL: High – density lipoprotein.

LDL: Low– density lipoprotein.

MUFAs: Mono unsaturated fatty acids.

MCs: Mesangial cells.

PUFAs: Poly unsaturated fatty acids.

ROS: Reactive oxygen species.

SFAs: Saturated fatty acids.

TC: Total cholesterol.

TG: Triglyceride.

TFs: Total flavonoids.

TEAC: Trolox–equivalent antioxidant capacity.

TDF: Total dairy fiber.

UFAs: Unsaturated fatty acids.

VSMCs: Vascular smooth muscle cells.

WHC: Water holding capacity.

Abstract

Buffalo meat is an excellent source of special nutrients. It contains 18-24% protein. It has low cholesterol and triglycerides.

BRPP are ornamental horticultural commodities of high economic value as cut flowers and flower oil raw materials used in the perfume industry. Likewise **BRPP** can also be used for tea, jelly and jam as a valuable healthful functional food due to their nutrients they contain (Youssef and Mousa., 2012).

The present study was ncarried out to investigate about nutritive values in buffalo meat, **BRPP** and fortified buffalo meat products with different per cent of **BRPP** and their effect of improvement blood lipid profile.

In chemical composition both buffalo meat and buffalo meat products had the highest percentage of protein .in **BRPP**, highly per cent of chemical composition was carbohydrates then crude fibers.

This study has shown, as well as previous studies that a higher percentage of saturated fat from unsaturated fat in buffalo meat unlike the meat products (meatballs 20%, meatballs 10%, luncheon 10% & luncheon 20%) .The **BRPP** had highly per cent of Arachidic acid, Stearic acid , Linoleic acid and Palmitic acid).

In buffalo meat and meat products (luncheon 10% ,luncheon 20% ,Meatballs 10% & Meatballs 20%) major amino acids were (Lysine, Glutamic acid, Glycine and Aspartic acid) respectively, major amino acids in **BRPP** were (Lysine ,Aspartic acid and Glutamic acid) respectively.