

## QUALITY ATTRIBUTES OF MUSHROOM-BEEF PATTIES AS A FUNCTIONAL MEAT PRODUCT

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### Abstract

The aim of this work was a trial to prepare a non-traditional and functional mushroom-beef patty.

The effect of addition dried mushroom (4, 8 and 12%) to beef patties on quality attributes as chemical composition, physical, organoleptic properties and microbiological contamination of the product and during frozen storage at -18 to -20 °C for 6 months was studied.

Mushroom was dried and mushroom beef patties were prepared with different levels of mushroom (4, 8 and 12%). Gross chemical composition, physical properties, cooking loss and yield, microbial examination and organoleptic properties of prepared mushroom beef patties, as quality attributes of product, were determined by using the appropriate methods.

The results indicated that at zero time by increasing levels of addition dried mushroom, protein, fat and ash contents and WHC values were increased but, moisture; carbohydrates contents, pH value, tenderness, plasticity, cooking loss and Feder value were gradually decreased. Also, the total microbial counts of beef patties were increased. With regard to organoleptic properties, beef patties prepared with 8% dried mushroom had the best properties. As a result, to frozen storage, all mushroom-beef patties had increases in fat, ash and carbohydrate contents but they had decreases in moisture, protein contents, pH, tenderness, WHC, plasticity, cooking loss and Feder values. Feder value of all mushroom-beef patties at zero time and at the end of frozen storage were less than 4. Organoleptic properties and the total microbial count were decreased by increasing the period of frozen storage. Also, all mushroom-beef patties were free from yeast, moulds sporforming bacteria, *Coliform* group and *Salmonella* spp. at zero time, during and at the end of frozen storage.

**Keywords:** *Functional meat product, Beef patties, Mushroom.*