

# Session (9) :

## Meat Production

# Effect of Gum Arabic (Acacia Senegal) Powder Coating and Sun Drying Period on the Proximate Analysis and Colour of Dehydrated Camel Meat

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## ABSTRACT

This study was conducted to evaluate the effect of gum Arabic (Acacia Senegal) powder coating level (GAL) and sun drying period (DP) on chemical composition and colour of dry camel meat. Ten Kg camel round cut were prepared into thin strips, 1x1x10 cm, divided into 3 groups with 4 replicates. The Gum Arabic was blended to smooth powder, GAL (0% controls, 5% and 10%) and 3 drying periods (0 fresh, 48 and 96 hours) were studied. Chemical composition and objective color were determined. Data were analyzed as 3× 3 factorial designs using SPSS version 11.5 computer program. The results revealed that the interaction between the GAL and the DP was significant ( $P < 0.05$ ) in the moisture content and lightness ( $L^*$ ) color. Increasing both GAL and DP resulted in a significant reduction of the moisture content and lightness color ( $L^*$ ). The 10% GAL dried for 96hrs presented the lowest moisture (10.48), the protein and ash contents of the 5% and the control were not significantly different. The 10% GAL coating gave the highest protein (58.29%) and ash (4.01) and the lowest fat (2.72) percentages. Increasing the DP to 96 hrs resulted in a significantly lowest percentage of moisture (10.82) and highest protein (77.43), fat (4.35) and ash (5.01). Increasing the GAL resulted in a non-significant ( $p > 0.05$ ) increase of redness ( $a^*$ ) and decreased yellowness ( $b^*$ ). The study concluded that Gum Arabic powder as natural edible coating improved the nutritional value and appearance, of sun dried camel meat.

**Keywords:** *camel meat, gum Arabic, dry period*