

EFFECTS OF BREED AND TYPE OF MUSCLE ON COMPOSITION, QUALITY AND TEXTURE TRAITS OF DROMEDARY CAMEL (*Camelus dromedarius*) MEAT

Gamaleldin M. Suliman, Abdullah N. Al-Owaimer,
Elsayed O. S. Hussein and Salah A. Almaiman¹

Department of Animal Production, ¹Department of Food Science and Nutrition,
King Saud University, P.O Box 2460, 11451 Riyadh, Saudi Arabia

ABSTRACT

This study was designed to evaluate the effects of breed and type of muscle on composition, quality characteristics and texture indices of one-humped camel meat. Two muscles; *Longissimus dorsi* (*LD*) and *Semimembranosus* (*SM*) were taken from 16 one-humped camels of 2 breeds; Najdi and Somali. The results showed that moisture and crude fat contents of muscles were significantly ($P < 0.05$) different between the 2 breeds. Shearing force was also significantly ($P < 0.05$) different between the treated camel groups. The *LD* muscle for both breeds was tenderer than their counterparts *SM* muscles. The *SM* muscle of the Somali breed showed the highest myofibril fragmentation index (MFI) value. The *LD* and *SM* muscles for Najdi breed showed the least MFI values. Cooking loss (CL) and water-holding capacity (WHC) were significantly ($P < 0.05$) different between the muscles of the 2 breeds. Coinciding with its cooking loss value, the *LD* muscle of Najdi breed had the lowest value of WHC. Moreover, it was more red in colour than that of Somali, while the *SM* muscle of Najdi tended to be lighter than that of Somali. The breeds also showed significant ($P < 0.05$) differences in texture profile parameters. It is concluded that meats from camels of both breeds Najdi and Somali differ in fat content and quality characteristics. Generally, meats of Najdi breed tended to be more tender and juicier than Somali breed which was leaner than Najdi breed.

Key words: Camel meat, longissimus dorsi, najdi, semimembranosus, somali