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## Effect Seasons on Fatty Acids Composition of Desert Camel Meat (*Camelus dromedarius*)

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### Abstract

The present work was designed to study the effect of slaughter season on fatty acids composition of the desert camel *Longissimus thoracis* muscle. Desert camel calves (n=30) were fattened by local camel herders in Sudan and slaughtered in different seasons of the year: winter, summer and autumn, ten camels each. The results showed that the average of total lipids was 11.7 g/ 100g fresh muscle. No differences among seasons were observed in fatty acids composition. Slaughter season did not influence Myristic acid (14:0) which was 5.2% (average of three seasons). Camel LT muscle contained 52.2% SFA, 35.8% MUFA, 11.6 PUFA and 0.5% CLA, respectively. The total MUFA was high in summer season compared to other seasons. Similar results were obtained, the ratio of 18:2 n-6/ 18:3 n<sup>-3</sup>, n-6/ n<sup>-3</sup> as well as UFA/ SFA were significantly influenced by slaughter season ( $p < 0.05$ ). The concentration of conjugated linoleic acid trans11, cis9 18:2 (CLA) was 0.5%, however no differences among seasons were observed. CLA content and the percentages of trans11, cis 9 18:2 isomer are relatively high. Slaughter season significantly affected the n-6/ n<sup>-3</sup> ratio of camel LT muscle ( $p < 0.05$ ). This ratio was within the recommended values for the human diet which indicated that camel LT muscle has a high nutritional value throughout the year. The predominant fatty acids in camel LT muscle were Palmitic acid (16:0) and stearic acid (18:0) as saturated fatty acids (SFA), 18:1Δ9+10 cis and 18:1Δ11 cis as monounsaturated fatty acids (MUFA) and LA; 18:2n-6 as polyunsaturated fatty acids (PUFA) indicating the high quality of fatty acids.

**Keywords:** Desert camel, fatty acids, lipids, slaughter season