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**Abstract**

A study was conducted to investigate the effect of age and body condition on slaughter yield characteristics of Issa-Somali camels. One-hundred and forty camels were divided into 3 age groups: group 1 (6-10 years), group 2 (11-17 years), and group 3 ( 18 years). Each age group was then divided into a further three sub-groups according to the body condition score (BCS) of camels. These sub-groups were poor, medium, and good. Age, BCS, live weight (LW), and weight of carcass and non-carcass components were determined by dentition, notations on fat status, linear body measurements, and weighing using a hanging scale, respectively. The mean slaughter LW was 334.7 kg. The weight of hot carcass (HCW), edible non-carcass product yield (ENPY), inedible non-carcass product yield (INPY), total consumable product yield (TCPY), and total slaughter weight (TSW) were 186.4, 28.9, 110.7, 215.3, and 326.0 kg, respectively. The dressing-out percentage was 55.5% implying camels as producers of high proportion of meat under extensive management. The LW, HCW, ENPY, INPY, TCPY, and TSW significantly (P<0.05) increased with increasing age and improving BCS. The forequarter (29.1%) was heavier than hindquarter (22.7% of TSW) due to the presence of a hump and neck. The variation was however insignificant (P>0.05). Heart and lung were not affected (P>0.05) by age and BCS. The yield components significantly and positively correlated with each other and to LW. Thoracic girth was the most reliable predictor of LW and yield components in regression equations. Camels of 11-17 year-old from medium body condition had the optimum slaughter characteristics compared to other groups. Options should be sought to utilize and add value to INPY that comprised 33.1% of LW of camel.

**Keywords**: carcass yield, consumable product, dressing-out percentage, non-carcass product, slaughter weigh