Short Communication

Some observations on carcass characteristics of imported Australian merino sheep.

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Desert sheep in the Sudan are the main source of mutton in the country. They are raised mainly under extensive nomadic conditions. Due to drought in the years 1984/87 Price of mutton has increased considerably to an extent that forced the government to import Australian Merino to control prices. This note reports some observations on carcass charactaistics of Australin Merino Sheep kept at Kuku Livestock Station at Khartoum North.

MATERIALS AND METHODS

Management

A small group of desert sheep (2 rams, 24 ewes and 9 lambs) is kept at Kuku Station **since 1983. In April 1983 Australian Merino (5 rams** and 80 ewes) were introduced at the station and **were kept into separate pens.**

Strong sanitary measures were taken to keep the animals comfort and healthy at Kuku Station. All animals were fed on the same

concentrate mixture (cotton seed cake 25%, Wheat-bran 25%, sorghum grains 25%, and groundnut hulls 25%), and are allowed to graze berseem *(Medicago Sativa)*. Water and Salt-licks were freely available. During the period of stay (15 months) of the Australian sheep at Kuku Station, four cases of abortions and ten deaths were recorded during the hot summer seasons. Nine Australian Lambs (6 males and 3 females) were born at the station and raised to Seven months of age. The Six male lambs thenafter were slaughtered at 35.0 kg liveweight and were subjected to carcass analysis. By July 1988 the Australian sheep were slaughtered as they developed signs of heat stress. Three of the Australian Merino ewes and three desert ewes were slaughtered and subjected to carcass analysis as shown in Table (1). The climaetological normals of Kuku area indicate that there are three seasons which could be described as follows:

Season	Mean temperature (degree C)	Relative Humidity %
Winter (Nov.-Feb.)	24.2	28.2
Early Summer (March-June)	31.2	20.0
Late Summer (July-Oct.)	31.0	41.5

RESULTS AND DISCUSSION

The hot and chilled dressing percentage of Australian lambs slaughtered at 35.0±1.0 kg, liveweight were 45.9% and 43.0% respectively. The proportion of tissues in the carcass were : muscles

64.6%, bone 21.8%, total fat 11.5% and connective tissues 2.1%,The results were not different from that reported by Mansour et al. (1988) and El Khidir (1989) for desert lambs of similar slaughter-weight. In this respect, they dressed less than 50% of their slaughter-weight and their carcasses contained high bone proportion and less or acceptable proportion of fat. The situation however, was found different in the case of mature animals.

The dressing percentage in Australian ewes exceeded 50% of the slaughter-weight (range 52.2% to 56.4%), and the fat proportion in the carcass, particularly the S/C fat was noticably high (see table 1). The back fat thickness was 30 mm. The higher proportion of fat in the Australian carcass led to a decrease in the proportion of bone (15.3%) and muscle (46.6%) tissues. The excessive deposition of S/C fat in the carcass of Australian sheep appears to be a breed characteristic, and this could explain their high dressing percentage. The results indicated in Table (1) generally coincide with the findings of Gaili (1979) comparing carcass composition of desert and some British Sheep Breeds. The skin with its fleece and the excessive S/C fat under the skin were disadvantage for raising Australian Merino Sheep in the hot climate. Moreover, meat with excessive fat is not best suited for marketing under the Sudan Conditions. Therefore, emphasis should be directed to improve local desert sheep for mutton production through better nutrition and management.

Table (1) Carcass Composition in Mature Australian and Desert Sheep (ewes).

	Australian ewes	Desert ewes	Significant
No. of animal	3	3	
Slaughter weight (kg)	62.300	59.680	
Hot dressing-percentage % (on slaughter weight basis)	54.0	47.3	*
Chilled dressing - percentage %	52.6	46.3	*
Muscles %	46.6	56.0	*
Bone %	15.3	20.6	*
S/C fat %	24.7	11.2	*
Int./must. fat %	11.8	10.5	NS
Connective tissue %	1.6	1.7	NS
The back fat thickness (mm)	30	4	

* = Significant at P 0.05.

NS = Not significant.

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