





**Some notes on the performance of Sudan Nubian and exotic goats in Sudan.**

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In 1976 three exotic pure breeds Sannen, Toggenburg and Anglo-Nubian were imported in the Sudan for improving milk and meat production through crossbreeding with Local Nubian goat and multiplication of the pure breeds. Some performance studies on the exotic goat in Sudan were reported by Sulieman and El Shafie (1984) and Khalaffalla and El Shafie (1988) In these notes the lactation length, lactation milk yield and kidding interval of the exotic breeds and indigenous goat were reported.

Data taken from the records of the goat kept at Kuku research station for the period 1976 to 1979 were used in the study. Each breed was kept into a separate well shaded pen and all animals were fed *ad lib* on the same diet (green forages and a concentrate mixture composed of 25% cotton seed cake, 25% wheat-bran and 50% sorghum grains). Water and salt-licks were available all the time. For accurate measurement of the lactation milk yield, kids were separated from the does one week after birth (i.e. after consuming all their colostrum) and were artificially reared.

## RESULTS AND. DISCUSSION

### *Lactation Length and Lactation milk yield*

The lactation length and milk yield of the Sudan Nubian goats were less than in the temperate breeds (Table 1); and were within the range reported for local goats in other tropics by Devendra and Burns (1970) and by El Naeem (1979) and Kudouda (1985) in Sudan. In the present

**Table (1) Lactation Milk yield and lactation length in local and exotic goats.**

Breed	No. of records	Milk Yield (liter) mean $\pm$ SD	Lactation length (day) mean $\pm$ SD
S annen	13	249.3 $\pm$ 86 (a)	253 $\pm$ 56 (a)
Toggenburg	13	244.3 $\pm$ 80 (a)	20w71 (b)
Anglo-Nubian	69	162.4 $\pm$ 73 (b)	173.5 $\pm$ 49 (c)
Local Nubian	31	71.8 $\pm$ 40 (c)	121 $\pm$ 47 (d)
SE of mean		5.7	4.0

Means in the same column followed by the same superscript are not significantly different ( $P>0.05$ ).

investigation the Swiss dairy breeds Sannen and Toggenburg surpassed the Anglo-Nubian breed in lactation milk yield and length.

*The kidding interval*

As can be seen in Table (2), the kidding interval was significantly ( $P < 0.05$ ) shorter in Sudan Nubian goat than exotic goats. Similar short kidding interval were reported for indigenous goats by Wilson 1976, El Naeem 1979 and Kudouda 1985. It is also evident in Table (2) when a

**Table (2) Kidding Interval (day) in local and exotic goats.**

Breed	No. of records	Kidding Interval Range	Interval (day) Mean $\pm$ S.D.
Sannen	10	172-407	346 $\pm$ 68 (a)
Toggenburg	7	171-388	326 $\pm$ 76(a)
Anglo-Nubian	59	170-483	303 $\pm$ 79 (a)
Local Nubian	55	154-322	240 $\pm$ 49 (b)
SE of mean			4.1

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Means of the same superscript are not significantly different ( $P > 0.05$ )

gestation period of five months was allowed, the service period was short in indigenous goat and **considerably long in the exotic** goat exceeding three months. Similar results indicated that **the reproductive** and productive performance of temperate breeds were greatly affected under tropical prevailing environments (Devendra 1962, Devendra and Burns 1970). In such situations improvement of local goat could be achieved by adequate feeding, breeding and management of the selected animals. It could also be achieved through crossbreeding with exotic pure goat. The little available information from eleven 50% crossbred goat (Local bred to Anglo-Nubian) in these flocks showed that the lactation milk yield and lactation length of crossbred does were (143.4±93 litres and 142±43 days) reasonably higher than their contemporary local goat. Moreover, the average daily milk yield of the 50% crossbred was nearly equating that attained by the temperate breeds (1.0 litre) and which was also higher than that of the indigenous goat (0.6 litre) in this investigation.

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