VI- SUMMARY

Data for this work were collected during the period 1978-1980, inclusive on the Zariebi goat flock raised on the Research Farm of Al-Azhar University at Nasr City, Cairo. Effects of some environmental factors on body weight at different ages from birth up to 26 weeks and milk production traits (milk yield, fat yield and lactation period) were investigated. Results obtained can be summarized as follows:

Body weight and its changes:

1) The average body weight of Zariebi kids was 1.83 ± 0.07 kg at birth and 10.12±0.63 kg at weaning at 17 weeks (119 days) of age. Body weight of the young increased progressively with advance of age and attained 12.06 kg at 26 weeks. The average daily gain was 64.75 ± 5.75 gm from birth to 17 weeks (weaning) and 29.81 ± 6.46 gm from 17 to 26 weeks.

2) Body weight varied with year of birth significantly ($P < 0.01$) at birth and weekly up to 13 weeks but without significant differences at the subsequent ages studied up to 26 weeks.

3) At most ages studied, kids born in autumn and winter season were lighter in weight than those born in spring and summer seasons, the differences were significant ($P < 0.5$) at most ages studied and increased as the age of kids advanced.

4) Males were heavier than females from birth to 26 weeks of age, but the differences were not significant.

5) Type-of-birth effects were in favour of singles at birth and at the subsequent ages up to 15 weeks, but did not show any consistent trend thereafter. Differences in body weight due to type of birth were highly significant ($P < 0.01$) at birth and at few pre-weaning ages only.

6) Differences in body weight due to age of dam were mostly slight and non-significant.

7) Body weight varied with parity but did not show significant differences except at 16, 18, 22 and 26 weeks of age ($P < 0.05$).

Milk production traits:

1) Weekly milk and fat yields were the highest at the 1st week of lactation and fluctuated thereafter but showed a general decrease as lactation continued till the last week.

2) The average milk yield produced by goats of this study during a lactation period that averaged 13.12 ± 1.74 weeks was found to be 55.47 ± 9.86 kg. The mean fat yield per lactation was 2.36± 0.43 kg.

3) Year of kidding did not show significant effects on lactation period, total milk and fat yields.

4) Lactation length and total milk and fat yields per lactation increased significantly ($P < 0.05$ or < 0.01) for does kidded in autumn and winter than for those kidded in spring and summer.

5) Lactation length and total milk and fat yields per lactation were more for does rearing 2 or 3 kids than for does rearing only one kid, the differences were not significant.

6) Lactation length and milk and fat yields per lactation were not significantly affected by either parity or age of dam.

7) Lactation period and total milk and fat yield per lactation increased with the increase of weight of doe, the differences were significant ($P < 0.05$) for lactation length and milk yield only.