

**6. STUDIES ON FACTORS AFFECTING PERFORMANCE OF DAIRY GOATS AND ON SOCIO-ECONOMIC ASPECTS OF DAIRY GOAT PRODUCTION IN TCHENZEMA AND DAREDA WARDS IN TANZANIA.**

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This study was carried out to evaluate performance of dairy goats and to assess socio-economic aspects of introducing dairy goats in Tchenzema and Dareda wards in Tanzania. Data were obtained from performance records covering 6 years (1988 - 1993). Growth and lactation performance traits were analysed by General Linear model (GLM) procedures. Information from interviews was summarized as percentages and frequency distributions. Overall weights at birth, weaning, 6 and 9 months were  $2.62 \pm 0.03$ ,  $11.11 \pm 0.15$ ,  $14.70 \pm 0.29$  and  $17.02 \pm 0.53$ kg, respectively. Mean pre and post weaning growth rates were  $92.16 \pm 2.10$  and  $76.07 \pm 5.69$  g/day, respectively. At birth males were heavier than females (2.68 vs 2.53 kg) and single born kids outweighed multiple kids (2.64 vs 2.57 kg). Similarly, pre weaning growth rates were greater (98.68 vs 90.04 g/day) in males than in females. Kids born as single grew faster (104 vs 85 g/day) than multiples. Kids with 87 - 94% Norwegian blood had heavier birth weights and grew faster at pre weaning compared to kids with other genetic groups. Effects of year and farmer were significant for most growth related traits. Average age at first kidding, kidding interval and dry period were  $527.08 \pm 20.97$ ,  $338.45 \pm 9.88$  and  $127.00 \pm 9.08$  days, respectively. farmer, genetic group, type of birth and year had no effect ( $P > 0.05$ ) on these parameters except for year effect on dry period. Parity had significant effect on kidding interval ( $P < 0.05$ ) which tended to decrease with increasing age. Average daily yield, lactation yield and lactation length of Norwegian goats and their crosses in Tchenzema were  $0.87 \pm 0.01$ ,  $141.02 \pm 8.04$  litres and  $258.31 \pm 5.69$  days,

respectively. Type of kidding, genetic group, parity and month of the year had significant effect on daily yield. Only year of kidding was an important source of variation on lactation yield and lactation length. Average daily yield, lactation yield and lactation length of Toggenburg goats in Dareda were  $1.80 \pm 0.13$ ,  $215.00 \pm 19$  litres and  $126 \pm 52$  days, respectively. Mortality rates among Norwegian goats and their crosses in Tchenzema ranged from 6.5% to 27% and was only affected by genetic group ( $P < 0.05$ ) and year ( $P < 0.05$ ). Mortality rate of Toggenburgs in Dareda ranged from 6% to 13%. In Tchenzema animal ownership was based on household while in Dareda animals were owned by women. Areas under fodder production were small (4 and 10% of total farm areas) in both wards. In both locations women and children contributed more labour to goat husbandry activities than men (61 vs 39% and 88 vs 12%). Milk for home consumption was 1.8 and 1.7 liters and about 40% of the total farm income came from dairy goat enterprise. Availability of drugs and forage were major problems in dairy goat production. A notable feature of the study was the promising performance of the dairy goats in the two wards. Proper grass/legume combinations and fodder storage, development of record keeping system and detailed study on the socio-economic aspects of the projects were recommended.