Estimation of milk production of goats affected by number of offspring

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SUMMARY

The goat sector is the smallest among the domestic animals sectors in Hungary. The estimated total population is approximately 30 thousand does. The majority of that is local goat with a low milk production.

In the study of Mourad (1992) the percentage of twins was higher than singles or triplets, and the first two months of lactation was affected significantly by litter size. Does which gave birth to multiple kids produced significantly more milk over lactation compared to those ones that produced singles (Goonewardene et al., 1999).

In this study the effect of number of offspring on milk production was investigated using 58 kids of 30 Hungarian Milking goats from one private farm in Hungary. To compare the weaning weight and the age of female (n=30) and male kids (n=28), as well as the single (n=8), twin (n=32) and triple offspring (n=18), multivariate analysis of variance (MANOVA) was applied on probability level P≤0.05.

The average prolificacy was 2.17 offspring per kidding. According to sex, the males had higher weaning weight (11.12±2.22 kg), which were statistically different from the females (9.90±2.16 kg). The weaning weights of single offspring (12.48±1.32 kg) were statistically different from the twins (10.42±2.11 kg) and triplets (9.73±2.40), however, the weaning age of triples (53.50±2.43 days) were significantly higher than the others (single: 40.00±9.10; twin: 45.06±9.85 days). The male kids had higher weight in all group (single, twin, triple) than that of females without significant differences, but the differences between the weaning weight of single and triple females, as well as the single and triple males were significant. The measured milking period started with 1.8-2.4 litre/day and finished with 0.6-0.9 litre/day. Does having twins reached the highest daily yield in whole milking period, but with strongly decreasing production. The peak yield of does having singles was between 81-110th days, while the decreasing tendency of daily milk quantity of does having triples was similar those ones with singles. Significant differences among the does grouped by number of kids were observed between does having singles and twin or triples in the first period (51-80th days) of lactation.

REFERENCES