

Apinun Jindaniradool 2013: Good Quality Forage Utilisation on Compensatory Growth of Anglo-Nubian Crossbred Goats. Master of Science (Animal Science), Major Field: Animal Science, Department of Animal Science. Thesis Advisor: Associate Professor Somkiert Prasanpanich, Ph.D. 79 pages.

This study was aimed to investigate the effect of good quality forage utilisation on compensatory growth, blood biochemical changes and feed cost of 20 Anglo-Nubian crossbred goats, aged 7-9 months with an initial weight of 20.46 ± 1.58 kg/kid under Completely Randomized Design of 5 treatments with 4 animals each where animals in Group 1 (Control) were fed according to NRC (1981) and the other 4 Groups were fed at maintenance (M), 15% (-15%M), 30% (-30%M) and 45% (-45%M) lower the maintenance levels of NRC (1981). The entire experimental duration was 150 days of 2 periods, viz. the restriction period for 60 days and the re-alimentation for 90 days. The results indicated that animals under the -15%M group had the highest compensatory index of 86.11% with 62.4%, 56.22% and 45.55% in the M, -30%M, -45%M, respectively. After feed restriction, all restricted animals were fed a good quality forage with some meal concentrate during the re-alimentation as the Control affecting similar growth rate at the end of the study. However, the feed restricted goats had highly significant weight lost ($P < 0.0001$) than of the Control. In contrast, they had significant weight gain ($P < 0.05$) during the feed re-alimentation than of the Control. Moreover, the concentrations of T_3 , BHB and NEFA were highly significant lower ($P < 0.0001$) during the feed restriction and significant higher ($P < 0.05$) during the feed re-alimentation than of the Control. The entire feed cost of 150 days in the Control was non-significantly higher than the others but the net income in all treatments were also not significantly different.

Student's signature

Thesis Advisor's signature