

KEY WORDS: Gambel oak (Quercus gambelii), diets, production, forage, nutrition.

115 THE EFFECT OF INCREASING DIETARY CRUDE PROTEIN IN THE CONCENTRATES ON HAY INTAKE, DIGESTIBILITY, RATE OF PASSAGE AND MILK PRODUCTION BY SAANEN GOATS

M. S. Badamana, J. D. Sutton, E. Owen

The Animal & Grasslands Research Institute, Shinfield, Reading RG29AQ, England

Twenty-seven Saanen goats in their second or later lactation were offered 1.5 Kg hay (98g crude protein (CP)/Kg dry matter (DM)) and concentrates (152 g CP/Kg DM) increasing from 0.15 Kg/day 6 weeks before to 0.70 Kg/day 2 weeks after kidding. Week 2 was used for covariance. At week 3 of lactation all the goats were offered hay ad libitum and 1 Kg concentrates containing 117 (LP), 152 (MP) or 185 (HP)g CP/Kg DM daily to week 15. During weeks 4 - 15 hay intake and milk yield were highest in the HP group ($P < 0.05$). With increasing protein in the concentrates, hay DM intake was 1.20, 1.19 and 1.37 (± 0.42) Kg/day and there were linear increases in milk yield (3.04, 3.21 and 3.36 (± 0.08) Kg/day, $P < 0.01$) and milk solids-not-fat yield (227, 243 and 252 (± 7.6 g/d), $P < 0.05$). There was no significant effect on milk composition or on fat yield. Linear increases in digestibility measured with seven goats per treatment after week 15 were found for organic matter, acid detergent fibre and total N. The rate of passage of Yb-labelled hay was unaffected by the treatments.

KEY WORDS: Goats, protein, hay intake, milk production, digestion.

116 RESPONSE OF DAIRY PURPOSE AND MEAT TYPE KIDS TO DIFFERENT MANAGEMENT STRATEGIES

C. A. Zometa, W. C. da Silva, M. Shelton, W. H. Sousa and E. A. P. Figueiredo

EPACE, Quixada Brazil; SR-CRSP, Texas A & M University, USA; EMBRAPA/CNPC Brazil; Heifer Project International, P. O. Box 808, Little Rock, AR 72203 USA

Thirty-nine Alpine and 15 Caninde male goats were grouped into three management intensities: T1=Intensive, no grazing plus a complete feed ad libitum; T2=Semi-Intensive, 6 hours grazing plus a supplement offered at night, and T3=Extensive or traditional, 12 hour grazing plus a supplement at night. Grazing was kept at 0.81 animal/ha in groups of 18 per treatment. The purpose of this study was to compare the performance of dairy type and native goats managed at different intensities. Animals remained

in the experiment for 113 days and were slaughtered at the average age of $12 + 0.5$ months. Average Initial weights (kg), were $T1=19.1 \pm 1.4$; $T2=19.2 \pm 0.3$; and $T3=19.9 \pm 0.05$. Average final weights were $T1=24.6 \pm 0.73$; $T2=23.6 \pm 3.3$; and $T3=19.9 \pm 0.05$. Average daily gains (g/day) differed between treatments ($P < .05$), and between breeds ($P < .01$), $T1$: Alpines 32.1 vs. Caninde 65.39; $T2=56.3$ vs. 20.62 and $T3=60.0$ vs. 32.4, respectively. Carcass yields (%), between breeds differed ($P < .05$), in $T1=$ Alpines 38.4 vs. Caninde 36.9; $T2=$ Alpines 40.7 vs. Caninde 38.9. There were no significant differences between breeds on $T3$, which had higher average carcass yields (40.1%). Results indicate that dairy purpose kids perform similarly to meat type kids and that the former can be raised satisfactorily under extensive conditions. In this study, goats allowed to graze for 12 hours per day performed superior to those with more restricted grazing.

KEY WORDS: Dairy goats, meat goats, management systems.

117 PERFORMANCE OF NATIVE MEAT PURPOSE KIDS AND LAMBS MAINTAINED IN CONFINEMENT DURING THE DRY SEASON. I. FEEDING OF PANASCO HAY (ARISTIDA SETIFOLIA), TREATED WITH NaOH

L. R. T. Melo, C. A. Zometa, F. H. Machado, A. A. O. Fernandes and M. Shelton

EPACE, Quixada Brazil; SR-CRSP, Texas A & M University, USA; Heifer Project International, P. O. Box 808, Little Rock, AR 72203 USA

Panasco (Aristida setifolia), is a widespread invading grass species following brush removal in Northeastern Brazil. Animals will eat it only as a last resource for survival as the dry season progresses. The purpose of this study was to evaluate the effects of feeding Panasco under controlled conditions and by affecting its composition through treatment with sodium hydroxide. The forage was cut and allowed to dry before treatment. Forty Sem Raca Definida kids and Morada Nova lambs were distributed in 4 treatment groups. Treatment 1 ($T1$), non-treated Panasco; $T2$, 2% NaOH treated Panasco; $T3$, 4% NaOH treated Panasco and $T4$, 6% NaOH treated Panasco. Kids received 250 g/day of an energy-protein supplement, and lambs 300 g/day of the same supplement, which provided approximately 50% of their maintenance nutrient requirements. Average initial weights (kg), for goats were: 11.46, 12.28, 11.50 and 12.26 for $T1$, $T2$, $T3$ and $T4$ respectively; and for sheep were 15.72, 16.32, 14.20 and 14.42 in the same order. Average daily body weight change (ADBW) for goats and sheep were positive in $T1$ (4.9 and 20.0 g/day) and negative for goats on $T2$, $T3$ and $T4$ (-3.7, -5.4 and -11.0 g/day) respectively. ADBW of sheep were positive although declining in all other treatments (13.6, 10.4 and 18.9 g/day, for $T2$, $T3$ and $T4$ respectively). No health problems were observed except for minor mouth irritations caused by the sharp seeds of Panasco. Carcass yields %s were higher ($P < .05$) for sheep in all treatments, but