

SEASONAL DEPRESSION OF VOLUNTARY FEED INTAKE IN AUSTRALIAN CASHMERE BUCKS

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Seasonal variation in voluntary feed intake (VFI) and growth rate of housed young male and female Australian cashmere goats has been reported by Ash (1986). In this paper we report a clear seasonal depression in VFI and live weight (LW) in housed mature Australian bucks involved in a long term reproductive study.

Between July 1988 and October 1989 two groups of six three year old Australian cashmere bucks were housed individually in pens at Wollongbar (29°S). One group of bucks was fed pelleted lucerne (L), the other coarsely hammermilled Pangola grass (*Digitaria decumbens*) hay (P). Feed was offered *ad libitum* and refusals were removed weekly for calculation of weekly dry matter intake (DMI). The L and P diets each came in 4 batches, with mean (\pm s.e.m.) crude protein contents of $17.6 \pm 0.7\%$ and $6.5 \pm 0.4\%$ respectively. Mean apparent organic matter digestibilities of $59.6 \pm 0.6\%$ and $56.1 \pm 0.6\%$ respectively were obtained in a single digestibility trial in November. Weekly LW and DMI data was meaned within months for each animal and analysed using analysis of variance with repeated measures.

For both LW and DMI there were highly significant ($P < 0.001$) effects of treatment and month, and also a significant interaction. DMI diverged rapidly over the first 3 months before converging to a common level in December. Both treatments then declined to a minimum in April before rising again to a peak in September. Over the seven month period December to June, DMI did not differ between treatments but there was a significant effect of month. LW peaked initially in January and February then declined to a minimum in May and June for the two groups respectively, before rising again until the end of the experiment. The amplitude of the LW and VFI variations was greater for the bucks on a high plane of nutrition, as was suggested by the data of Ash (1986).

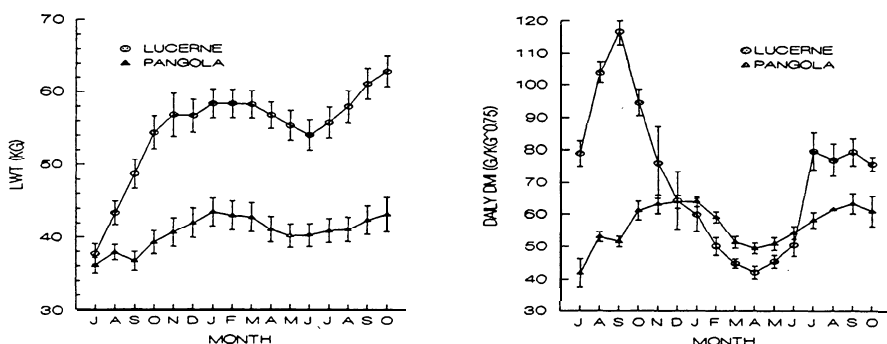


Fig. 1. Live weight and daily dry matter intake (\pm s.e.m.) of housed Australian cashmere bucks offered pelleted lucerne (●) or pangola grass hay (▲) *ad libitum*

These data support the finding of Ash (1986) that Cashmere goats exhibit cyclic variations in VFI with a marked depression of intake occurring in autumn and early winter. The cause of this depression could not be ascertained, but photoperiod and endocrine events associated with the rut are probably involved.

ASH, A.J. (1986). Ph.D Thesis, University of Queensland.

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