

Grazing behaviour of race horses on perennial ryegrass

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It has been reported in south east Queensland (1) that grazing times of at least 17 hours were required to satisfy the nutritional requirements of horses grazing pastures containing both tropical and temperate pasture species. Since horses reared in New Zealand graze predominantly perennial ryegrass. (*Lolium perenne*. L.), this study was conducted to determine the grazing behaviour and nutritional status of horses and the quality of perennial ryegrass available for grazing.

Methods

Following a preliminary grazing period of 28 days, observations on grazing behaviour were conducted over a seven day period on five adult horses. Live weights and body condition on a score of 1 (thin) to 5 (fat) were recorded as a guide to the nutritional status of the animals. Pasture samples were collected for analysis of nutrient content and determination of feed availability.

Results

Table 1. Time budget of horses grazing perennial ryegrass.

Activity	Grazing	Standing	Lying	Grooming	Defaecating/urinating
Mean (hrs)	17.27	4.66	0.81	0.71	0.10
s.e.	0.30	0.34	0.29	0.25	0.02

The horses spent protracted periods of grazing (17.27 h), standing (4.66 h) and shorter periods on other activities on a pasture which was available at 2968 kg/ha. Its nutrient content was organic matter 90.4%, nitrogen 2.3% and neutral detergent fibre 49.4%. On this pasture horses maintained live weight at 534 kg (s.e. 22.7) and a moderate condition score of 3 was observed.

Discussion

Despite cold, windy conditions and the absence of rugging, the live weight and condition score of the horses demonstrated the adequacy of perennial ryegrass pasture containing 14.3% protein and dry matter available at 2968 kg ha when grazed for extended periods. This study also confirmed other reports (1) that horses spend about 17 hours grazing each day. This has been described (2) as an evolutionary acquired time required for eating. These results have application to the nutritional and behavioural management of stabled performance horses whom it has been reported (2) may consume their daily ration of concentrates in less than 4 hours.

References

1. Gallagher, J.R. and McMeniman, N.P. 1989 In: Recent Advances in animal nutrition in Australia. (Ed D. Farrell).
2. Kiley-Worthington, M. 1987. The behaviour of horses. (Allen and Co., London).