

A GUIDE TO THE PROTEIN REQUIREMENTS OF RIDING HORSES

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In recent years there has been an upsurge in interest in horses kept for recreational riding but published reports of the protein requirements of these animals are limited to the National Research Council (1978).

It was the aim of this study to provide additional information on the dry matter and crude protein intakes of riding horses given light work under saddle.

The individual owners of 18 horses stabled at the College co-operated by providing feed samples and the weights of oaten hay, oaten grain and 16% crude protein supplement with which they fed their horses daily for maintenance and an equitation training programme of three hours walking and trotting per week. The horses were Thoroughbreds, Quarter Horses and part Arabian. Feed samples were dried and analysed for nitrogen by a Kjeldahl procedure and intakes of dry matter and crude protein were recorded. To assess whether the rations were providing for maintenance and work, liveweights were recorded at the beginning and end of a forty day feeding period. Results are shown in Table 1.

Table 1 The daily dry matter, protein intakes and % protein in diets of 18 riding horses with liveweights recorded at the beginning and the end of a 40 day period

	Dry matter intake (kg)	Crude protein intake (g)	Percentage protein in diets	Initial weight (kg)	Final weight (kg)
Mean	8.6	1005.4	11.5	509.6	510.7
S.D.	3.1	410.0	1.3	58.2	55.9

The variations in intake which are shown in Table 1 were presumably due to the variations in the liveweights of the horses and the weights of the riders. This highlights the fact that horse feeders vary in their estimates of how much dry matter and protein a horse needs. It has been suggested by NRC (1978) that maintenance rations for horses should contain 8.5% crude protein and that there be little or no increase in crude protein concentration when the horse is fed a working ration. This recommendation contrasts with the report of Bourke (1968) who indicated that horses in fast work required rations containing 12.3% crude protein. However, at the much lower levels of work in this study, horses maintained their liveweights on rations containing 11.5% crude protein.

The similar mean initial and final liveweights shown in Table 1 indicate that the rations fed by their owners provided for the maintenance and activity of the horses in this study.

BOURKE, J.M. (1968) Aust. Vet. J. **44**:241.

NATIONAL RESEARCH COUNCIL (1978). "Nutrient Requirements of Domestic Animals.No.6. Nutrient Requirements of Horses" 4th ed. (National Academy of Sciences, Washington)

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