

THE EFFECT OF SEASON ON DIGESTIBILITY AND CHEMICAL  
COMPOSITION OF SOME TROPICAL BROWSE PLANTS

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In many tropical areas, the existence of a long dry season often seriously decreases the nutritive value of pastures to a point where grazing animals lose weight. One possible way to improve the performance of the animals during the dry season is to make better use of browse plants, some of which are known to be of high nutritive value.

Nylon bag dry matter digestibility (NBDMD) and chemical composition measurements have been made to evaluate the nutritive value of 28 tropical browse species (described in Bamualim *et al.* 1980) during both dry (June 1979 and August 1980) and wet (February 1980) seasons. The results are presented in Table 1.

TABLE 1 Mean values (g/100 g) for NBDMD, NDF, N, P and S of browse leaf samples collected in different periods of the year. Data for spear grass are added for comparison (Khumnualthong 1973)

	NBDMD	NDF	N	P	S
Samples collected in:					
June 1979	51.1	33.2	2.3	0.19	0.14
February 1980	53.3	36.0	3.0	0.26	0.13
August 1980	49.2	34.8	2.5	0.22	0.13
Significance level	**	***	***	***	NS
LSD (P = 0.05)	0.78	0.23	0.03	0.004	0.03
Spear grass (August)	34.5	76.3	0.4	0.04	0.07

The mean values for NBDMD did not vary appreciably between seasons but were much higher than reported values for spear grass during the dry season, indicating that some of these browse species could provide supplementary energy when used in conjunction with native pasture. The relatively higher N and mineral levels observed in the leaves of browse than spear grass suggest that these browse plants should be valuable supplements to low quality forage and can augment the declining quality of pasture forage during the dry season.

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