LIVEWEIGHT RESPONSE OF CATTLE GRAZING SPEARGRASS: EFFECTS OF SUPPLEMENTS

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The growth of cattle grazing speargrass (Heteropogon contortus) in S.E. Queensland is limited in winter by the poor quality of the available pasture. These studies describe supplementary feeding practices aimed at overcoming the low productivity in winter-.

Two year old Hereford cattle (Group A) grazing speargrass between June and November had access to (i) an area of Leucaena leucocephala (L) and molasses/urea block (M/U) + 300 g fishmeal (DBP) head/day, or (ii) M/U only. In the same period yearling cattle (Group B) were grazed on native pasture (NP) or given access to M/U, L, or M/U + L. These treatments were repeated in winter/spring 1978 and autumn 1979; but, in autumn M/U block was replaced by 500 g (PS) = 80% cottonseed meal + 20% meatmeal and a variable amount of M/U.

In yearling cattle M/U supplements reduced liveweight loss and L resulted in a liveweight gain (Table 1), but L + DBP increased production substantially. This' response was affected by poor herbage growth in spring 1977 and poor acceptance of the supplements in 1979.

TABLE 1 Seasonal average daily response to supplement (kg/head) by Hereford cattle grazing speargrass pasture

Supplement	Winter 77	(87d)	Spring 78	(70d)	Autumn 79	(96d)*
Group	A	B	A	B	B	
Age of cattle (months)	9	21	12	24	30	
NP	-0.230[a]		-0.105[b]		0.139	
M/U	-0.158[a]	0.032[b]	0.023[a]	0.028		
MU + DBP + M/U		0.388[a]		0.186		
L	0.099[b]		0.023[a]		0.255	
L + M/U	0.194[c]		0.005[a]			
PS					0.158	
L + PS					0.253	

*Means in a column with the same superscript (a-c) are not significantly (P>0.05) different.

Winter 1977 was cold and a drought developed in spring. Response to L + DBP + M/U supplement in winter by 2 years old cattle was significantly greater than response to M/U supplement. In the subsequent dry sping when expected to fatten, and accepting 300 g fishmeal/day, the average daily gain was halved but pasture and leucaena growth was low. The weight gains of consumers of fish meal supplement (0.5 kg/head/d) was 0.3 kg and in non-consumers 0.09 kg/d.

The result suggests that under grazing conditions the supply of a protein meal increases growth rate and that the presence of a legume increases this further. The response however can be markedly affected by poor season or under some circumstances by poor acceptance of the supplement.

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