

EFFECTS OF FAT CONTAINING SUPPLEMENTS ON PERFORMANCE OF BEEF CATTLE FED  
MOLASSES BASED DIETS

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Molasses is the cheapest source of energy for supplementary feeding of cattle in the tropical regions of the world. However, supplements based on molasses with urea as a nitrogen source tend to produce low liveweight gains. The addition of locally available fat containing supplements will not only provide the necessary addition energy but also more protein.

*Bos indicus* crossbred steers were used in two pen studies to evaluate the effect of adding rice pollard or cotton oil to a supplement of molasses plus 8% urea (M8U) given with *ad libitum* native pasture hay (0.4% N). M4U was also offered with restricted hay (1 kg/d) and either rice pollard or whole cottonseed (WCS) was fed at various levels. The animals were fed daily for 63 days.

TABLE 1. Mean liveweight change and mean dry matter intake

Experiment 1	Initial liveweight (kg)	Liveweight change (kg/d)	Dry matter intake (kg/d)
M8U (hay <i>ad libitum</i> )	138	0.06	3.70
M8U+10% rice pollard	138	0.10	4.00
M8U+20% rice pollard	137	0.18	4.12
M8U+2% cotton oil	137	0.04	3.66
Experiment 2			
M8U (hay <i>ad libitum</i> )	173	0.09ab	5.21a
M4U (1 kg/d hay)	172	-0.10a	2.99b
M4U+250 g rice pollard	171	0.18bc	3.80bc
M4U+500 g rice pollard	172	0.27bc	3.79bc
M4U+1000 g rice pollard	172	0.34bc	4.04c
M4U+310 g whole cottonseed	170	0.16bc	3.77bc
M4U+620 g whole cottonseed	170	0.40c	4.28c

In both experiments the M8U supplement maintained liveweight. The addition of rice pollard to M8U increased liveweight gain (LWG) by up to 0.12 kg/d. When M4U was offered the addition of rice pollard or WCS significantly increased LWG by up to 0.5 kg/d ( $P < 0.05$ ). However the differences between levels of supplement were not significant. The response curve of LWG and supplement level indicated that only the addition of more WCS would increase LWG further. These results show that both rice pollard and WCS are valuable supplements to boost animal performance when molasses based diets are fed.

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