

COPRA MEAL AS AN ALTERNATIVE PROTEIN SOURCE FOR SURVIVAL SUPPLEMENTS

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Cottonseed meal is widely used in the northern beef industry as a protein source for dry season feeding. There are occasions when availability is limited and price is high. An alternative meal, copra meal, is available from nearby countries, such as Papua New Guinea. This paper compares the 2 meals either as separate supplements or in a mixed feed for cattle during the tropical dry season.

Growth rates of penned, 166 kg weaner steers (Brahman crossbred), offered a basal diet of native pasture hay (0.4% N 45% DMD) *ad libitum*, were compared when fed a supplement of 0.5 kg/day of either cottonseed meal or copra meal over a 72 day period (experiment 1). A grazing study used younger weaners, weighing between 70 and 164 kg, and these animals grazed green native pastures. Supplements were fed at the rate of 1 kg/day for 100 days. One group received a mixture of 63% crushed sorghum, 15% cottonseed meal plus 10% rice pollard, 1% urea, minerals and vitamins and the other group received 48% crushed sorghum and 30% copra meal plus the other ingredients (experiment 2). The larger proportion of copra meal was to ensure the 2 mixtures were of equal N content.

Table 1. A comparison of cottonseed meal and copra meal as supplements for young cattle

	Treatment		SEM
	Cottonseed meal	Copra meal	
<i>Experiment 1 (72 days) Pens</i>			
LWG ^A (kg/day)	0.17	0.16	0.03
Hay intake (kg/day)	3.2	3.0	0.15
	Cottonseed meal	Copra meal	
<i>Experiment 2 (100 days) Pasture</i>			
LWG (kg/day)	0.10	0.11	0.04

^ALWG - Liveweight gain..

There was no significant difference in either experiment in liveweight gain when copra meal was substituted for cottonseed meal. Feed intake was comparable in the pen study.

The pen study showed that copra meal is equally effective as cottonseed meal as a straight dry season supplement. This is despite the lower N content which may be partly balanced by the higher fat content of copra meal. The grazing study found that copra meal when substituted for sorghum and cottonseed meal was equally effective. Thus copra meal is a viable alternative to cottonseed meal as a dry season supplement. Its incorporation in mixed rations may however be less cost effective because of the higher cost of copra meal relative to grain.

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