

EFFECT OF ADDING A YEAST PRODUCT TO PROTEIN PLUS ENERGY SUPPLEMENTS FOR BEEF CATTLE FED A LOW QUALITY ROUGHAGE DIET

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Probiotic feed additives based on yeasts have been demonstrated to increase fibre digestion and improve liveweight gain (LWG) with temperate feed resources (Williams *et al.* 1990). These additives may have potential to enhance performance of cattle eating high fibre tropical pastures.

Brahman crossbred weaner steers (178 kg liveweight) were fed native pasture hay (0.4% N 45% DMD) *ad libitum* during a 42 day pen feeding experiment. All cattle received 0.65 kg/day of a mixture of urea, cottonseed meal and crushed sorghum in the ratio 1:8:4 to provide additional energy and protein. Graded levels of a yeast product based on *Saccaromyces cerevosiae* (YEASACC®) were added to the supplement to give amounts of 0, 5, 10 and 15 g/day.

Table 1. The effect of adding graded levels of a yeast product to a protein, energy supplement fed to steers in pens for 42 days

Treatment	Intake of yeast product	LWG	Hay intake
Protein mix (PM) ^A	0	0.06	3.2
PM+YEA5	5	0.04	3.3
PM+YEA10	10	0.02	3.5
PM+YEA15	15	0.12	3.6
SEM		0.05	0.11

^A Protein mix is urea, cottonseed meal and crushed sorghum (1:8:4).

The steers fed the protein mix gained 0.06 kg/day. There was no LWG response at the 5 and 10 g/day addition of YEASACC while at 15 g/day addition the steers gained 0.12 kg/day. Hay intake increased as more YEASACC was fed with an increase of 10% at the 15 g/day level of inclusion. The improved growth rate at the highest level of YEASACC is partly accounted for by the increased intake of hay. However, an improvement in fibre digestion is likely to have accounted for the other part of the gain.

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WILLIAMS, P.E.V., WALKER, A. and MACRAE, J.C. (1990). *Proc. Nutr. Soc.* 49: 128A.

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