

Monensin reduces consumption of urea supplement blocks

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Introduction

Monensin has been demonstrated to reduce the intake of self fed energy supplements (Muller et al. 1986). In contrast to self fed energy supplements, which are often fed to growing cattle, dry season breeder supplements in northern Australia are typically urea based and targeted at maintaining body condition. Desired intakes are 0.1 - 0.2 kg/day and the regulation of supplement intake is an important cost and management consideration for graziers. The objective of this study was to determine the effect of including monensin on the supplement intake of cows consuming a high urea block.

Methods

Sixty one *Bos indicus* cows were allocated on the basis of parity and pregnancy status to either of two supplement treatments and grazed in a common buffel grass (*Cenchrus ciliaris*) paddock at Fletcherview, Charters Towers, between September and December 2009. Cows accessed a single watering point via entry and exit spear gates. A remote automated drafting unit (CAWD Engineering Pty. Ltd.) was located at the exit spear to draft cows into the treatment supplement yards consisting of molten, high urea blocks (Rumevite[®] 30% Urea + P; R30U) either with, or without monensin. Mean monensin concentration in blocks was 896 ± 4.9 mg/kg (as fed). On 3 occasions, treatment blocks were replaced with lithium spiked blocks and blood samples collected 24 hours after initial access to provide an estimate of daily individual and group block intakes.

Results and Discussion

There were effects of treatment and time, but no interaction, on supplement block intake. Cows with access to monensin blocks had lower supplement intakes compared to control cows at all measurement intervals (Table 1). Supplement intake at first sampling was lower than at the second and third sampling (P<0.001). The lower supplement intake at first sampling was attributed largely to a chance rainfall event 7 days prior to sampling. There was no evidence of correlation between measurements from the same animal. Pregnancy status had no effect on supplement intake. The addition of monensin to dry season supplements may aid in regulating supplement intakes.

Table 1. Mean lithium labelled block intake (g/head.day) for cows supplemented with R30U with or without monensin on 3 occasions during the late dry season.

| Treatment | Time 1 | Time 2 | Time 3 |
|-----------------|-------------------|--------------------|-------------------|
| R30U | 58.0 ^A | 105.8 ^A | 78.8 ^A |
| R30U + monensin | 30.7 ^B | 86.7 ^B | 68.4 ^B |

Within columns, means with different superscript letters are significantly different (P<0.05).

References

Muller RD, Potter EL, Wray MI, Richardson LF, Grueter HP (1986) Administration of monensin in self fed (salt limiting) dry supplements or on an alternate day feeding schedule. *Journal of Animal Science* 62, 593-600.

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