EFFECT OF FEEDING AMAFERM® EXTRACT ON MILK PRODUCTION AND RUMEN PARAMETERS

G. E. Higginbotham, J. E. P. Santos, S. O. Juchem, E. J. DePeters

Feeding 5 g/h/d AMAFERM to early lactation cows on a high-concentrate diet did not have a significant effect on milk yield or milk components, except for decreased milk protein concentration and yield. AMAFERM did not affect rumen parameters or the serum concentration of urea nitrogen.

SUMMARY

DOSE OF AMAFERM USED
5 g per head, per day

Feeding 5 g/h/d AMAFERM to early lactation multiparous Holstein cows had no significant effect on lactation performance and rumen and blood parameters in this study.

PROTOCOL

Type of Animals/Experimental Units

- Multiparous early lactation Holstein cows, averaging 86 DIM and 2.9 lactation

Number of Animals/Experimental Units

- 282

Trial Design

- Crossover design, two 30-day treatment periods

Treatments

- Control
- 5 g/h/d AMAFERM

DISCUSSION OF RESULTS

Diet Information

- 14.6% alfalfa hay, 7.2% alfalfa silage, 16.8% corn silage, 56.8% concentrate mix, 4.6% mineral supplement

Data Collection

- Milk yield, milk components, SCC, blood urea N, rumen fluid for pH, VFA and NH3-N analysis
- Milk yield and 3.5% FCM were not different between the two treatments (Table 1)
- Feeding 5 g/h/d AMAFERM had no effect on concentration and yield of milk fat
- Concentrations of lactose and SNF were similar between the two treatments
- Cows fed AMAFERM had lower milk protein concentration, which resulted in a lower milk protein yield (Table 1)
- Blood urea N, rumen pH and rumen concentrations of VFA and NH3-N were similar between the treatments (Table 2)

Table 1
Effect of feeding AMAFERM on the lactation performance of dairy cows

	Treatment	
	Control	AMAFERM
Milk yield, kg/d	47.6	46.8
3.5% FCM, kg/d	44.0	44.1
Milk fat %	3.16	3.19
Milk fat yield, kg/d	1.50	1.48
Milk protein %[a]	3.14	3.06
Milk protein yield,[a] kg/d	1.50	1.43
Linear SCC	3.29	3.11

[a] $P < 0.01$

Table 2
Effect of feeding AMAFERM on rumen and blood parameters of dairy cows

	Treatment	
	Control	AMAFERM
Total VFA, mmol	126.9	124.4
Acetic	77.6	76.4
Propionic	32.6	31.9
Butyric	13.4	12.8
Acetic/Propionic	2.43	2.43
Blood urea N, mg/dl	20.6	20.6
Rumen pH	5.85	6.02
Rumen NH3-N, mg/dl	16.38	15.85

BIOZYME INCORPORATED
6010 Stockyards Expy I St. Joseph, MO 64504 USA
Tel: 816-238-3326 I Fax: 816-238-7549
support@biozymeinc.com I www.biozymeinc.com