



EFFECTS OF GAINPRO (BAMBERMYCINS) AND AMAFERM® (ASPERGILLUS ORYZAE) FED TO GROWING HEIFER CALVES IN NORTH DAKOTA

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Heifers fed AMAFERM showed increased ADG and improved feed efficiency on a high forage diet.

SUMMARY

DOSE OF AMAFERM USED

2 g per head, per day

Weight gain during the first 28 days, total weight gain and total ADG were increased by AMAFERM, without increasing DMI, which resulted in a 6% improvement in feed efficiency.

VALUE

The performance benefits in this study indicated that AMAFERM has a positive effect on heifer growth and feed efficiency when fed with a high-forage growing diet.

PROTOCOL

Type of Animals/Experimental Units

- Charolais crossbred heifers

Number of Animals/Experimental Units

- 84, with a pen of 7 heifers as the experimental unit for DMI and feed efficiency (BW and ADG were measured on and individual heifer basis)

PROTOCOL (CONTINUED)

Trial Design

- Randomized complete block design

Treatments

1. No Gainpro + no AMAFERM, Control
2. 20 mg/d Gainpro
3. 2 g/d AMAFERM
4. 20 mg/d Gainpro + 2 g/d AMAFERM

Diet Information

- **High forage grower diet:** 38.3% corn silage, 24.8% oat hay, 30.5% barley, 5.5% protein supplement, 0.64% mineral/vitamin mix and 0.32% trace mineral salt across all 4 treatments

Data Collection

- Body weight on days -1, 0, 29, 56, 84 and 85
- Feed intake

DISCUSSION OF RESULTS

- AMAFERM had no effect on DMI compared with the Control ($P > 0.16$), however, DMI was lower ($P < 0.05$) when AMAFERM and Gainpro were fed together, compared with either AMAFERM or Gainpro fed alone (15.56 vs. 15.78 and 15.95 lb/d, respectively)
- Heifers fed AMAFERM had greater weight gain (92 vs. 70 lbs, $P < 0.03$) than Controls during the first 28 days (Table 1)
- Feeding AMAFERM improved total ADG by 5.1% (2.27 vs. 2.16 lbs/d, $P < 0.02$) and improved feed conversion by 6% (6.92 vs. 7.36 lb/gain, $P < 0.03$), compared with the Control
- Heifers fed both AMAFERM and Gainpro had the highest average daily gain and were the most efficient in feed conversion ($P < 0.10$), which indicated their effects were additive (data not shown)



<i>Table 1</i> <i>Influence of AMAFERM on gain (lb.) and feed efficiency of heifers fed forage-based diets.</i>	Control		AMA FERM	
	Ending Weight	753 ^b	762 ^a	
Gain, day 0-28	70 ^b	92 ^a		
Total Gain	182 ^b	191 ^a		
Total ADG	2.16 ^b	2.27 ^a		
Feed efficiency, lb/gain	7.36 ^a	6.92 ^b		

^{a, b} Significantly different at $P < 0.10$

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