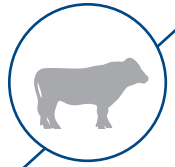


Research Notes B-87

Arm & Hammer Animal Nutrition



CELMANAX supplementation helped improve growth performance and efficiency in finishing steers on a commercial feedlot.

STUDY OVERVIEW

- This commercial trial was conducted to determine the effect of feeding CELMANAX™ on intake, feed conversion and weight gain in finishing feedlot cattle.
- 2,657 Angus-cross steers were randomly assigned to one of 12 pens with approximately 221 steers/pen and 6 pens/treatment. Treatments were as follows:
 - Control: high-moisture, corn-based finishing diet (Table 1)
 - CELMANAX: Finishing diet supplemented with 28 grams of CELMANAX
- A standard high-moisture corn-based finishing diet supplemented with Rumensin® was fed.

TABLE 1		Finishing Diet Composition, % (DM Basis)	
Item	Control	CELMANAX	
HM Corn 28%	54.7	54.6	
Potato Waste	11.7	11.6	
Steam-flaked Corn	10.2	10.2	
Dry Hay	10.2	10.2	
TM Molasses	4.1	4.1	
Wet Distillers Grains	3.3	3.2	
Canola Meal	2.9	2.9	
Buffer	1.5	1.5	
Soybean Meal 44%	1.0	1.0	
Urea	0.5	0.5	
CELMANAX	0.0	0.3	

RESULTS

- After the first 28 days, CELMANAX supplementation increased average daily gain (ADG) in each measurement interval, resulting in a 13.2% ($P < 0.01$) overall advantage across the entire treatment period (Fig. 1).
- From day 154 through finishing, dry matter intake (DMI) was lower for steers supplemented with CELMANAX (Fig. 2).

FIGURE 1: Average Daily Gain

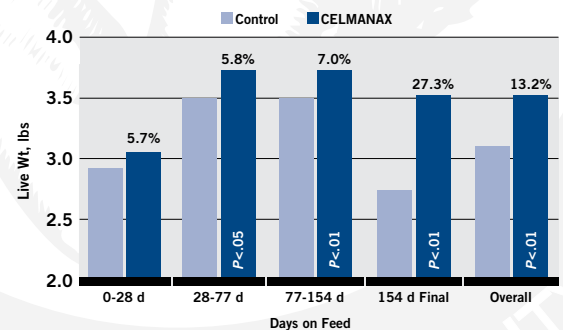
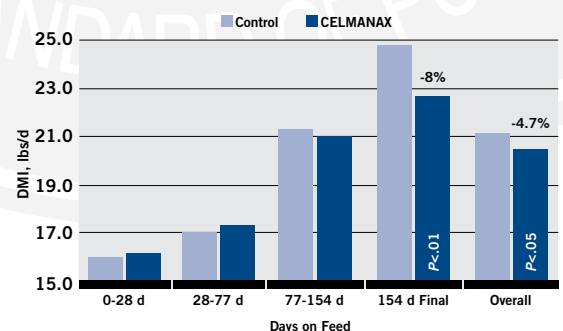


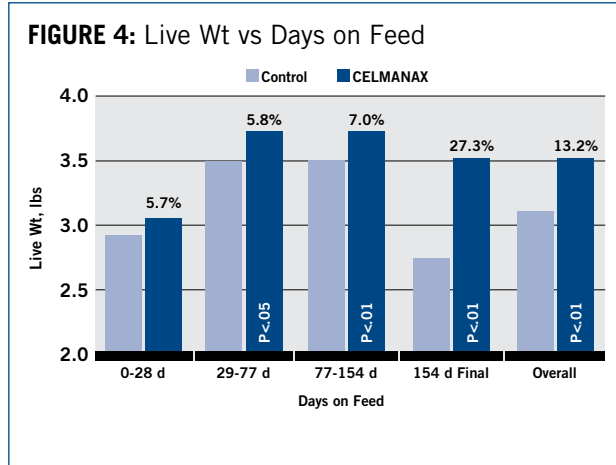
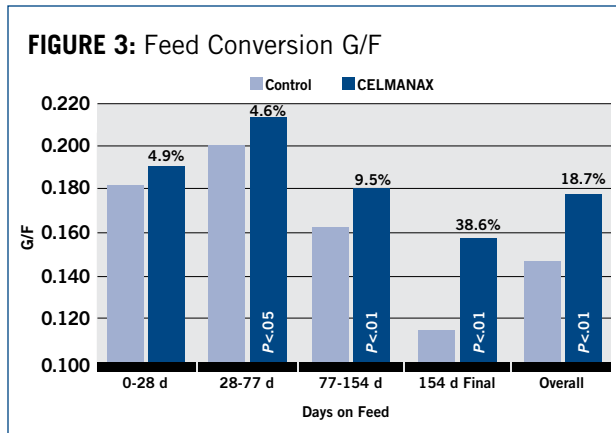
FIGURE 2: Dry Matter Intake



- Gain efficiency improved in all measurement intervals, resulting in an 18.7% overall advantage ($P<0.01$) in gain efficiency for supplemented cattle (Fig. 3).
- Improvements in gain led steers supplemented with CELMANAX™ to reach finishing weight nearly 14 days sooner than the control group and hold a 50.7 lb. numerical advantage at harvest (Fig. 4).

CONCLUSIONS

- Supplementation of finishing feedlot cattle with CELMANAX led to improvements in gain and efficiency during the latter part of the finishing period.
- The improved performance and reduction in feed costs in this study contributed to a more profitable feedlot program.



ECONOMIC BENEFIT WORKSHEET

STUDY DATES		START	FINISH
		MAY 2012	JAN 2013
DAYS ON FEED		242	
NO. CATTLE/TMT		1323	
BEEF PRICE \$/LB		\$1.28	
PERFORMANCE		CONTROL	CELMANAX
DAYS ON FEED		242	228
INITIAL WT, LBS.		423.5	423.1
FINAL WT, LBS.		1191.7	1242.0
GAIN, LBS.		768.2	818.9
DIFFERENCE, LBS.			50.7
DIET		CONTROL	CELMANAX
AVG. DMI, LBS/D		21.30	20.30
TOTAL DIET COSTS, \$/HD		\$479.38	\$439.70
PROFIT			
PERFORMANCE PROFIT, \$/HD			\$64.90
14-D DIET ADVANTAGE, \$/HD (FEED NOT FED)			\$39.68
GROSS PROFIT, \$/HD			\$104.58
COST			
CELMANAX COST, \$/HD			\$12.10
TOTAL			\$12.10
NET PROFIT, \$/HD			\$92.48
ROI			8.64 TO 1



Animal Nutrition

