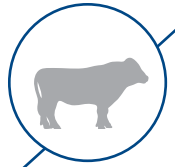


# Research Notes B-87

ARM & HAMMER



## 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

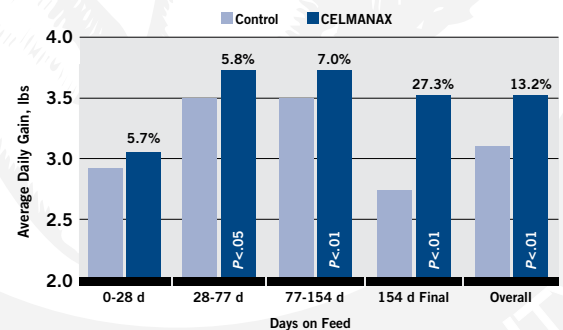
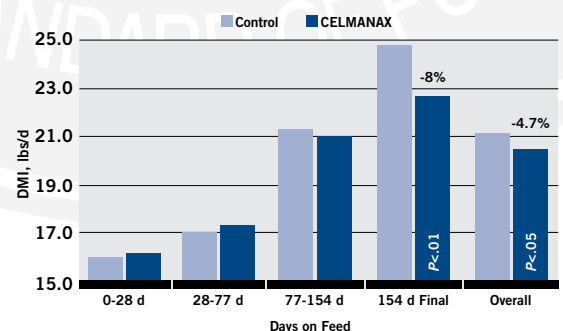


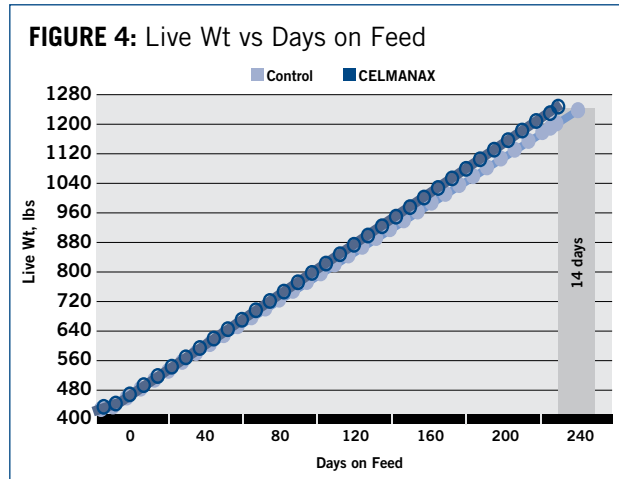
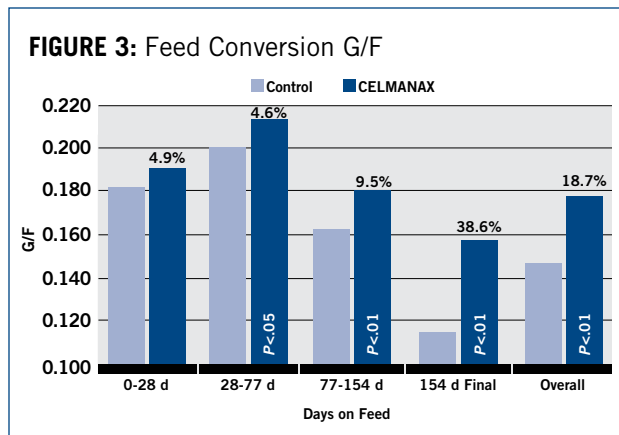
FIGURE 2: Dry Matter Intake



- 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.			<b>50.7</b>
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			<b>\$104.58</b>
COST			
CELMANAX COST, \$/HD			\$12.10
TOTAL			\$12.10
NET PROFIT, \$/HD			<b>\$92.48</b>
ROI			<b>8.64 TO 1</b>

