AKEY Inc.
A Leader in Nutrition Solutions

Beef Briefs

The Value of Additives and Feeding Programs for Feeder Cattle

The costs and range of returns for selected additives and management strategies can be found in Table 1. In choosing additives and programs, first look for ones that show a high probability of showing a response, and then look for a low cost.

Table 1. Cost and Returns of Selected Additives or Management Strategies for Feeder Cattle

Option	Item Cost	Total Cost/Hd	Total Return/Hd
Agrado	$.011 x 180 days	$1.98	$8.58-14.16
Yeast	$.012 x 180 days	$2.16	$0-5.58
10 mg/lb Aureo	$.50 x 5 days	$2.50	$6.23-25.58
Tylan	$.014 x 180 days	$2.52	$5.23-14.16
Ionophore	$.017 x 180 days	$3.06	$16.74-22.32
Receiving Diet	$.25 x 14 days	$3.50	$9.58-36.74
Microbial	$.02 x 180 days	$3.60	$0-5.58
2% more CP	$.063 x 180 days	$11.34	$0-16.74
Preconditioning	$.02 x 700 lb	$14.00	$15.16-63.48

Antibiotic Additives

Aureomycin/CTC, Terramycin (TM), Deccox (decoquinate), amprolium, Rumensin (monensin), Bovatec (lasalocid), and Gainpro (bambermycins) are the common antibiotic additives used for feeder cattle. The most cost effective use of CTC (10 mg per lb of body weight for 5 days) and TM (10 mg per lb of body weight for 7 to 14 days) are in the receiving period to reduce respiratory sickness.

Deccox and amprolium are effective drugs to prevent and treat coccidiosis, respectively. Both have their place in a receiving program. The ionophores Rumensin and Bovatec can also be used to prevent coccidiosis. Amprolium (454 mg per 100 lb of body weight for 5 days) is the only approved feed grade treatment of cocciodiosis.

Rumensin and Bovatec are two of the more cost-effective additives on the market today. Each costs approximately $3 per head to feed for the entire finishing period (approximately 180 days). Each return $8 to $20 per head through improved efficiency of gain. Table 2 shows a conservative model reflecting the value of Rumensin fed in a finishing program.

Table 2. Effects of Rumensin on Performance & Profit*

Item	Control	Rumensin
Days on feed	173	164
Daily gain, lb	3.47	3.66
Feed/Gain	6.41	6.00
DM Intake, lb/day	22.23	21.94
DM Intake, Total, lb	3846	3598
Costs, $/head		
Feed	155.15	148.16
Yardage	25.95	24.60
Interest	23.90	22.51
Processing	10.00	10.00
Medicine	5.00	5.00
Total	220.00	210.27
Profit, $/ hd	86.06	95.79

*Modelled in Akey Brill Beef Program. Purchase=650 lb at $.75/lb; Sell = 1250 lb at $.65/lb.

Microbials

Yeast and other direct-fed microbial products are also popular products to use in feeder cattle diets; however, their advantages are less clear than with antibiotics. They have a role in the receiving period to promote intake and

rumen function. Certainly this short-term feeding period has little risk (less than $.30 per head), since the investment is only for a few days. However, it is still unclear as to whether there is a production benefit from these products for the entire feeding period. Here the investment would be similar to feeding an ionophore, but potential return could be from nothing to less than $10 per head.

Receiving and Pre-conditioning Programs

Various additives can be part of feeding programs for cattle. The more profitable programs are receiving programs which focus on the first 4 to 14 days cattle are in the feedyard, and preconditioning programs that focus on the 28 to 56 days prior to entering the feedyard. Both programs are highly recommended and profitable; however, receiving programs are totally controlled by the feeder and preconditioning programs are not.

Receiving programs should combine a well-balanced diet that is high in protein, energy, trace minerals, vitamins, and low in starch. The recommended medication program is 10 mg of CTC per lb of body weight for 5 days. Yeast and/or other direct fed microbials should be used in the receiving period. The receiving program should also be fed in a controlled manner to prevent over-consumption and combined with a controlled step-up program to add grain into the diet over the first 20 to 30 days on feed. Refer to the *Beef Briefs* entitled *"Guidelines for Feeding New Feeder Cattle"* for more information on receiving programs.

The preconditioning program is best exemplified with the long-running Texas A&M Ranch to Rail Program. This program, year after year, has collected data reflecting improved profitability from reduced sickness and improved performance from preconditioned cattle. The only flaw in preconditioned cattle is knowing <u>if</u> the cattle have been completely preconditioned (vaccinated, weaned, started on feed, and medicated prior to shipment).

Implants and Elevated Protein

Implant programs will not be discussed here, but are discussed in a another *Beef Briefs* entitled *"Implants for Beef Cattle"*. Implants are very profitable and should be planned carefully based on the genetics of cattle, days on feed, and market desired. A few years ago, people began feeding 13 to 14% protein diets to finishing cattle partially in response to using higher potency implants. This could be considered an additive since there is not a nutritional requirement for diets this high in protein when cattle are over 800 lb, unless the intake is unusually low. Based on controlled research, there is typically no response to over-feeding protein; however, some nutritional advisors believe it reduces acidosis and promotes slight improvements in carcass traits and intake. Because protein is more expensive than energy from grains, it can be quite an added expense (approximately $10 per head for 180 day on-feed) and is not recommended.