

## Comparative Effects of Bovatec® and Rumensin® on Performance of Growing Cattle Fed High-Roughage Rations

### Summary

Results of twelve trials show that Bovatec (lasalocid) produced these improvements in performance of growing cattle fed high-roughage rations compared to Rumensin:

- increased average daily gain by 4.4%;
- improved feed conversion by 6.2%

### Introduction

Many cattle feeders feed high-roughage rations for a period of time to light-weight cattle. This allows the animals to utilize roughages produced on the farm and to increase in frame size before they are fed a high-grain finishing ration.

Bovatec is a feed additive that increases average daily gain and improves feed conversion in growing and finishing cattle. Bovatec improves performance by enhancing the efficiency of energy utilization. It enables growing

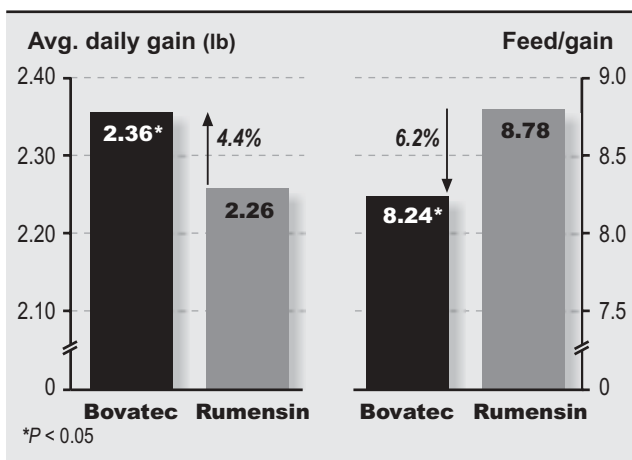
cattle to use the low-energy content of high-roughage rations and finishing cattle to use the high-energy content of high-grain rations more efficiently, reducing cost of gain.

Cattle adapt quickly and easily to Bovatec. They start consuming Bovatec-medicated feed immediately after ration adaptation. In addition, Bovatec has a wide margin of safety in cattle.

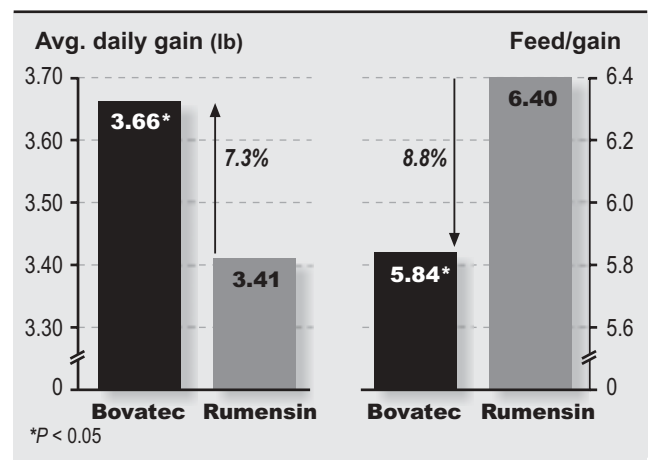
This Technical Bulletin compares the effects of (Bovatec and Rumensin on performance of growing cattle fed high-roughage rations in twelve trials.

In addition, trial data on adaptation of cattle to Bovatec and Rumensin and observations of the safety of Bovatec in cattle are also included.

**FIGURE 1:** Comparative effects of Bovatec and Rumensin on performance of growing cattle fed high-roughage rations; pooled summary of twelve trials.



**FIGURE 2:** Comparative adaptation of cattle to Bovatec or Rumensin during first 28 days; pooled summary of twelve trials.



## Results of Trials Comparing Bovatec to Rumensin in High-Roughage Rations

Each trial is described in Table 1. The duration of the trials averaged 103 days, and cattle starting weights averaged 535 lb. Bovatec and Rumensin were fed either at 30 g/ton (15 mg/lb) of feed or at 150 to 300 mg/head/day. Silage or haylage was fed as the roughage source in eleven trials, and cottonseed hulls were fed in the twelfth trial. Grain sources included corn, sorghum or barley. Whole, cracked or steam-flaked processed grains were used.

Results of each trial are shown in Table 2, and a pooled summary of the results appears in Figure 1. The pooled summary shows that Bovatec increased average daily

gain by 4.4% ( $P < 0.05$ ) and improved feed conversion by 6.2% ( $P < 0.05$ ) over Rumensin in growing cattle fed high-roughage rations. Bovatec produced improvements in performance over Rumensin when fed on either a “g/ton” or “mg/head/day” basis.

## Adaptation of Feedlot Cattle to Bovatec or Rumensin

A pooled summary of the results of twelve trials show that cattle fed Bovatec at 30 g/ton joined weight 7.3% faster ( $P < 0.05$ ) and converted feed 8.8% more efficiently ( $P < 0.05$ ) than those receiving Rumensin of 30 g/ton (Figure 2).

**TABLE 1.** Description of twelve trials comparing effects of Bovatec and Rumensin on performance of growing cattle fed high-roughage rations.

Location	Sex	Initial weight (lb)	Final weight (lb)	Days on feed	No. of pens/treat.	No. of cattle/pen	Use Level		Major ration ingredients
							Bovatec	Rumensin	
Colorado	Steers	495	705	91	4	8	30 g/ton	30 g/ton	Corn, 25%; corn silage, 65%
Colorado	Steers/Heifers	425	700	112	2 steers 2 heifers	8	30 g/ton	30 g/ton	Corn, 17%; corn silage, 67%
Florida	Steers	650	875	112	4	8	30 g/ton	30 g/ton	Corn, 18%; corn silage, 73%
Idaho	Steers	620	775	91	4	8	30 g/ton	30 g/ton	Barley, 34%; alfalfa, 23%; corn silage, 40%
Illinois	Steers	550	765	82	4	10	200 mg/head/day	150 mg/head/day	Corn, 20%; corn silage, 78%
Illinois	Steers	500	700	82	6	8	150 mg/head/day	150 mg/head/day	Corn, 20%; corn silage, 80%
Kansas	Steers	570	920	127	2	12	30 g/ton	30 g/ton	Sorghum, 30%; sorghum silage, 64%
Kansas	Steers	580	895	131	2	10	30 g/ton	30 g/ton	Sorghum, 12%; sorghum silage, 82%
Kansas	Steers	545	755	97	2	10	300 mg/head/day	300 mg/head/day	Sorghum, 10%; sorghum silage, 84%
Kentucky	Steers	460	765	112	4	2	30 g/ton	30 g/ton	Corn, 58%; cottonseed hulls, 30%
Kentucky	Steers/Heifers	415	570	112	4	9	200 mg/head/day	200 mg/head/day	Corn, 40%; fescue haylage, 31%; corn silage, 27%
S. Dakota	Steers	605	800	91	4	8	30 g/ton	30 g/ton	Corn, 30%; alfalfa-brome haylage, 60%

**TABLE 2.** Results of twelve trials comparing effects of Bovatec and Rumensin on performance of growing cattle fed high-roughage rations.

Location	Average daily gain (lb)			Average daily feed intake (lb)		Feed conversion (lb feed / lb gain)		
	Bovatec	Rumensin	Bovatec difference vs Rumensin	Bovatec	Rumensin	Bovatec	Rumensin	Bovatec difference vs Rumensin
Colorado	2.43	2.43	0.0%	18.34	20.29	7.59	8.32	+ 8.8%
Colorado	2.54	2.42	+5.0%	19.00	18.39	7.53	7.70	+ 2.2%
Florida	2.14	1.98	+8.1%	20.92	20.68	9.89	10.38	+ 4.7%
Idaho	1.80	1.66	+8.4%	19.30	20.39	10.78	12.36	+ 12.8%
Illinois	2.81	2.60	+8.1%	20.96	23.14	7.46	8.23	+ 9.4%
Illinois	2.38	2.45	-2.9%	16.42	17.21	6.92	7.03	+ 1.6%
Kansas	2.88	2.73	+5.5%	21.77	21.51	7.57	7.91	+ 4.3%
Kansas	2.50	2.53	-1.2%	18.99	19.92	7.63	7.87	+ 3.0%
Kansas	2.21	2.27	-2.6%	20.34	20.83	9.30	9.29	- 0.1%
Kentucky	2.78	2.69	+3.3%	20.51	22.94	7.38	8.53	+ 13.5%
Kentucky	1.59	1.39	+14.4%	10.64	10.01	6.69	7.20	+ 7.1%
S. Dakota	2.26	1.98	+14.1%	22.91	20.92	10.17	10.60	+ 4.1%

### Bovatec Safety in Cattle

Feedlot trial observations attest to the wide margin of safety of Bovatec in cattle. Bovatec was fed to cattle at levels of up to 150 g/ton, which is five times the highest recommended level of 30 g/ton, for 252 days. Only slight diarrhea was observed at 150 g/ton for 3 days (Table 3).

**TABLE 3.** Summary of Bovatec safety data from 252-day feedlot trial.

Bovatec (g/ton)	Observations of beef cattle
30	No clinical signs
60	No clinical signs
150	Slight diarrhea for 3 days starting on day 4



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