



Weaning Weight Comparison of Vision® 7 and Ultrabac® 7 in a Wyoming Beef Herd

Summary

Beef calves were segregated by sex, paired by birth dates and randomly assigned within pairs to treatment groups. The calves were processed on the same day of branding prior to turning the herd to summer range. Treatment groups compared Vision® 7 (2mL) and Ultrabac® 7 (5mL). Combined evaluation of heifers and steers favored the Vision 7 vaccinates by a mean of 14 lbs. (P=0.05).

Introduction

Cow/calf producers in the United States routinely vaccinate their calf crop for clostridial diseases prior to turning their herds to summer range. And we have good evidence that the 5mL multivalent clostridial products are more reactive than the 2mL Vision products as evidenced by injection-site studies and increased haptoglobin levels resulting in soreness, lameness, depressed food consumption and injection-site knots. This trial was designed to measure weaning-weight differences between Vision and a more reactive 5mL product in order to determine if there is an economic advantage that would induce producers to change products.

Materials and Methods

The trial was conducted at the Bath Ranch in south central Wyoming. The native pastures on this ranch are all above 8,000 feet in altitude. Because of the altitude, native forages are categorized as cold weather grass, with June and western wheat predominating.

The cow herd is composed of Angus, Angus x Hereford and Brangus genetics. These cows are bred to Red Angus and Gelbvieh bulls. Scheduled calving begins in mid-February and processing prior to moving to summer pasture was accomplished on May 1. Branding, castration, dehorning, implantation of steer calves and vaccination of all calves were uniformly done.

Paired comparisons were made by sex, utilizing sequential birth dates as the criteria. Paired individuals received either Vision 7 or Ultrabac® 7, and these pairs were maintained throughout the study. Immediately prior to weaning, the calves were individually weighed, the 205-day weights determined and adjusted for age of dam. Statistical analysis using a paired t-test was used to evaluate the difference in steers, heifers and the combined groups.

Results

From the 43 steer pairs, the mean difference in adjusted weaning weight favored Vision 7 by 7.2 lbs. ($P>0.20$). Larger numbers would be required for a test of significance when the mean difference is 7.2 lbs. Forty-five pairs of heifers were maintained throughout the study and evaluated at weaning. The heifers displayed

a dramatic difference of 20.6 lbs. ($P<0.05$). Because the difference between the Ultrabac® 7 and Vision 7 vaccinates was so dramatic, there was a statistically significant difference. Combining the steer and heifer data provided an evaluation of 88 pairs for analysis and a 14-lb. advantage for Vision 7 ($P=0.05$).

Summary

Group	Treatment	Weaning Weight	205 Adj. Weight	t-value
Heifers	Vision 7	574.9	576.8	
	Ultrabac® 7	555.3	556.2	
	difference	19.6	20.6	2.14
Steers	Vision 7	610.9	589.5	
	Ultrabac® 7	600.8	582.3	
	difference	10.1	7.2	0.70
Combined	Vision 7	592.7	583.0	
	Ultrabac® 7	577.6	569.0	
	difference	15.1	14.0	1.96

This comparative trial displays a distinct, economically significant advantage in the Vision-vaccinated calves. One dose of a reactive multivalent clostridial product administered at branding can have a detrimental impact on weaning weights of ranch calves. This loss is unnecessary in light of the favorable results seen with Vision in this trial.