tween MH and MB as detected by IHC. There were strong positive (P <0.05) associations between IHC staining for MH and the occurrence of fibrino-necrotizing pneumonia, and IHC staining for MB and the occurrence of "mycoplasma-like" necrosis.

Significance

The preliminary results of this study demonstrate that several etiologic agents are involved in fatal BRD of feedlot cattle, with MH (peracute, acute, and subacute cases) and MB (chronic cases) identified in the vast majority of fatal BRD cases. In addition, preliminary results of this study identify some interesting associations between etiologic agents that warrant further investigation. More detailed/complex analyses and inclusion of IHC data for other agents such as *P. multocida* and *A. pyogenes* may improve interpretation of the preliminary results.

Effects of NPCoat Intranasal™ on Health and Productivity of Beef Cattle

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Introduction

Bovine respiratory disease (BRD) continues to plague the beef cattle industry. Despite the introduction of new antibiotics and vaccines, the incidence of BRD has continued to rise. Although appropriate preconditioning can greatly lower the incidence of BRD, most cattle are not preconditioned and the stresses of weaning, commingling, transportation and acclimation can easily cause treatment rates exceeding 50% or more. NPCoat Intranasal™ is a medical device based on antibodies processed from hen's eggs that provides a protective shield against viral, bacterial and mycoplasmal proliferation when sprayed into the nasopharyngeal cavity of cattle. This report details the effects of the application of NPCoat Intranasal™ on the incidence of morbidity and mortality related to BRD in southeastern calves shipped to a Colorado feedlot during January and February, 2005.

Materials and Methods

Between January 17 and February 17, 2005, 465 southeastern mixed bulls and steers weighing approximately 500 lb (227 kg) were received at a northern Colorado feedlot. At processing, cattle were randomized and divided into two groups. In addition to usual processing, group B received 1.5 ml/nostril of NPCoat Intranasal™[a] on days one and seven. Group A received an equal volume of placebo on the same schedule. Investigators, monitors and feedlot personnel were blinded to treatment identity. Number of head pulled/treated, number of head re-treated, total number of medical treatments, medical treatment costs, medical treatment rate percentage, medical re-treatment rate percentage, average number of treatments per head, respiratory removals, respiratory deaths, pen feed consumption and pen average daily gain were measured for the duration of the study.

Results and Discussion

The final data summary for this study is as follows:

Summary data through 56 days			
	A-placebo	B-NPCoat	A vs. B
No. head started	233	232	
No. head treated	148	135	8.5% higher
No. head retreated	93	74	20.1% higher
Total no. medical treatments	311	265	14.8% higher
Respiratory chronics	13	10	23.1% higher
Respiratory deaths	29	20	30.5% higher
Total deaths	31	20	37.5% higher

Parameter	Type of analysis	Using all data			Without block 1		
		A-placebo	B-NPCoat	P level	A-placebo	B-NPCoat	P level
Initial body wt (lb)	ANOVA	499	504	0.50	500	507	0.47
Final body wt (lb)	ANOVA	650	651	1.00	640	657	0.61
Average daily gain (lb)	ANOVA	2.8	2.8	0.90	2.7	2.9	0.80
Treatment cost per head ($)	ANOVA	17.10	14.90	0.65	17.80	14.50	0.59
Treatments for BRD (%)	Chi-square	62.7	57.3	0.24	64.1	55.6	0.55
Re-treatments for BRD (%)	Chi-square	39.9	31.9	0.07	39.5	28.6	0.03
No. treatments for BRD per head	Chi-square	1.3	1.2	1.00	1.4	1.1	0.51
Death loss from BRD (%)	Chi-square	12.4	8.6	0.23	14.1	7.6	0.04
Chronic rate from BRD (%)	Chi-square	5.6	4.3	0.53	5.9	4.9	0.65
Case fatality rate from BRD (%)	Chi-square	17.8	13.5	0.41	19.7	11.8	0.14
Total mortalities (%)	Chi-square	13.3	8.6	0.23	14.6	7.6	0.05

(a) BRD = bovine respiratory disease

(b) Percent mortality is defined as percentage of animals started on study that died.

(c) Case fatality rate is defined as percentage of animals that were treated for BRD that later died.

Significance

In an analysis of all data, retreatment (P = 0.07) rates tended to be lower in cattle treated with NPCoat Intranasal™.

Analysis of the data without block 1 resulted in an improved response from treatment with NPCoat Intranasal™. This group of animals may have been gathered at the salebarn for a longer period of time and handled differently at the feedyard than were the other four blocks of animals. Without block 1, calves treated with NPCoat Intranasal™ showed significant improvements in percent death loss from BRD (P = 0.04), percent total mortalities (P = 0.05) and percent retreatments for BRD (P = 0.03) and tended to show improvements in case fatality rate from BRD (P = 0.14).

In this study, it appeared that NPCoat Intranasal™ tended to be effective in reducing respiratory disease incidence and death loss when incorporated into the receiving program for feedlot calves.

Footnote

[a] Camas, Inc., 260 W. Derrynane St., Le Center, MN 56057.

Risk Analysis for Beef Cow-Calf Retained Ownership Decision Making: Utilization of Historical Performance Data

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Introduction

Cow-calf producers recognize the value of post-weaning performance information and have collected a large volume of data through alliances and university feed-out programs. These statistics are largely used to address and guide production decisions including ge-netic, health and management issues. Value Based Marketing (VBM) of fed cattle is increasingly popular, and individual animal value is determined based on specific carcass merits. This system of marketing increases income variability compared to traditional live-weight marketing of fed cattle. This research is designed to illustrate how feedlot and carcass performance infor-