

# Treatment for Bovine Respiratory Disease in U.S. Feedlots

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## Introduction

Bovine respiratory disease complex (BRD) is the leading cause of morbidity and mortality in U.S. feedlots. It is generally accepted that BRD results from an interaction of stressors, animal susceptibility and pathogens. Viral respiratory pathogens are believed to be primary invaders that allow bacterial colonization of the lower respiratory tract (LRT) which leads to bronchopneumonia. Prompt treatment of BRD-affected calves early in the course of disease with an appropriate antimicrobial appears to be the best strategy to effect a cure. Delayed or inappropriate treatment often leads to treatment failure, chronic disease, or death.

## Materials and Methods

In the fall of 1999, the USDA's National Animal Health Monitoring System (NAHMS) conducted a study of feedlots with 1,000-head or greater capacity within the 12 leading cattle feeding states.<sup>a</sup> These feedlots represented 84.9% of United States feedlots in 1999 with 1,000-head or more capacity and contained 96.1% of the US feedlot cattle inventory on January 1, 2000 in feedlots with 1,000-head or more capacity. Feedlots were categorized as small (1,000 to 7,999-head capacity) or large (7,999-head capacity or more). Producers were asked questions related BRD and included numbers of animals developing disease and treatments typically administered.

## Results and Conclusions

Most small feedlots (96.7%) and all large feedlots had at least one animal develop BRD during the year ending June 30, 1999. Bovine respiratory disease affected almost five times as many placements as the next most commonly reported disease, acute interstitial pneumonia (AIP). Overall, producers reported that 14.4% of all placements developed BRD while at feedlots. Practically all feedlots included an injectable antibiotic as part of the initial therapeutic regimen for BRD. The most commonly used antimicrobials for the initial treatment of respiratory disease were tilmicosin, florfenicol and tetracyclines. Greater than 25% of large feedlots also used a respiratory vaccine, a non-steroidal anti-inflammatory drug (NSAID), an antihistamine, oral electrolytes fluids or drenches, or a corticosteroid in the initial BRD treatment regimen. Greater than a 25% of small feedlots used a NSAID, probiotic paste, vitamin B injection, an antihistamine, a respiratory vaccine, or an oral antimicrobial in addition to an injectable antimicrobial. Approximately 56% of feedlots used three or fewer product types, and 80.7% of feedlots used five product types or fewer as part of the initial treatment of BRD. The greatest proportion of feedlots (22.2%) used two product types. The regimen cost (medicine, syringes, and needles etc.) to treat one animal for BRD increased as the number of product types included in the regimen increased. The mean cost for feedlots using one, two and six compounds were \$7.89, \$10.99 and \$15.57, respectively.

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