

Research Notes

ARM & HAMMER



Prevalence of clostridial challenges on Idaho dairies.

BACKGROUND

Clostridia are normal inhabitants of the soil and intestinal tracts of dairy cows and calves. Many species are also commonly found in haylage, corn silage, straw, manure, colostrum and bedding.

More than 100 species of *Clostridium* are recognized, some of which are known to cause enteric disease in animals, including necrotic enteritis, hemorrhagic bowel syndrome and abomasal disease. Other *Clostridium* species produce high levels of acetone, butanol and butyric acid, which can negatively affect rumen function.

TRIAL OVERVIEW

A survey¹ was conducted across 10 dairy farms to assess the prevalence and distribution of clostridial challenges on Idaho dairies.

Fecal samples were collected from a representative number of cows across all stages of production from each farm and from calves if raised on the dairy. Feed components from each farm were also collected.

Samples were shipped to the Arm & Hammer Animal and Food Production lab for assessment, and *C. perfringens* and total clostridial counts were measured.

RESULTS

- Among animals sampled, *C. perfringens* prevalence was measured at 79.6% in cows and 88.3% in calves
- The average *C. perfringens* prevalence across all animals sampled was 80.6%
- Total clostridia levels ranged from <10 cfu/g to 6,200,000 cfu/g in cows
- *C. perfringens* levels ranged from <10 cfu/g to 6,200,000 cfu/g in cows (Fig. 1)
- Total clostridia levels ranged from <10 cfu/g to 10,000,000 cfu/g in calves
- *C. perfringens* levels ranged from <10 cfu/g to 6,000,000 cfu/g in calves (Fig. 2)

FIGURE 1: Distribution of *Clostridium perfringens* counts in Idaho cow fecal samples

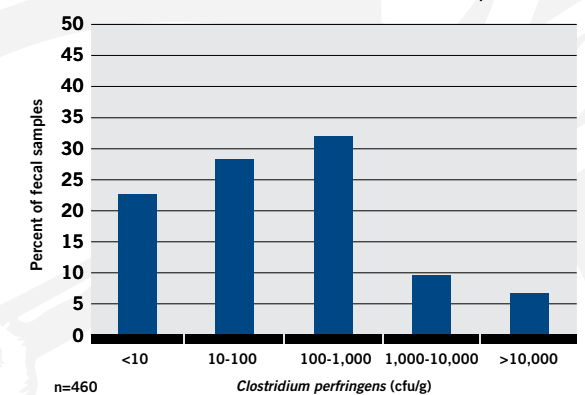
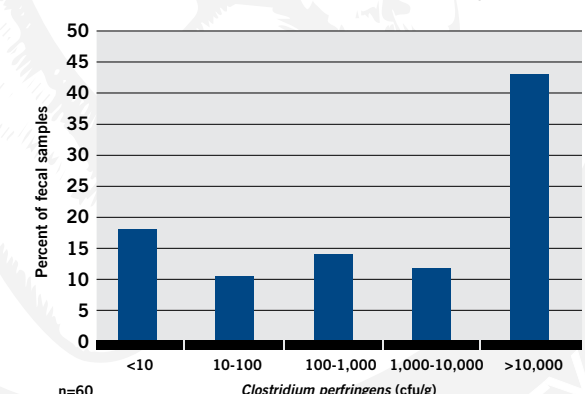


FIGURE 2: Distribution of *Clostridium perfringens* counts in Idaho calf fecal samples



1 Data on file, 2018.



© 2018 Church & Dwight Co., Inc. ARM & HAMMER and the ARM & HAMMER logo are trademarks of Church & Dwight Co., Inc. MIC3109-0518