

Research Notes

ARM & HAMMER



Prevalence of clostridial challenges on California 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 in California's South Valley to assess the prevalence and distribution of clostridial challenges on California dairies.

Fecal samples were collected from a representative number of cows across all stages of production from each farm. 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 83.6% in cows
- Total clostridia levels ranged from <10 cfu/g to 10,000,000 cfu/g (Fig. 1)
- *C. perfringens* levels ranged from <10 cfu/g to 10,000,000 cfu/g (Fig. 2)

FIGURE 1: Total clostridia levels in California cow fecal samples

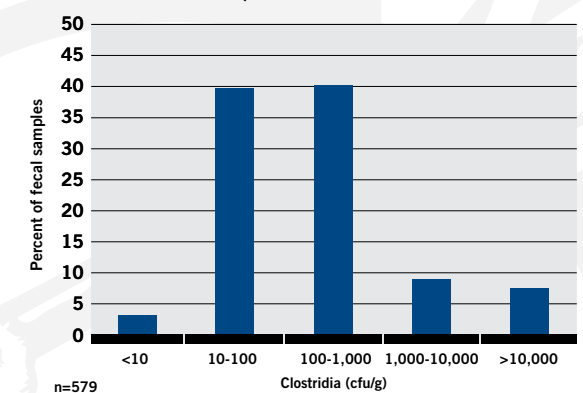
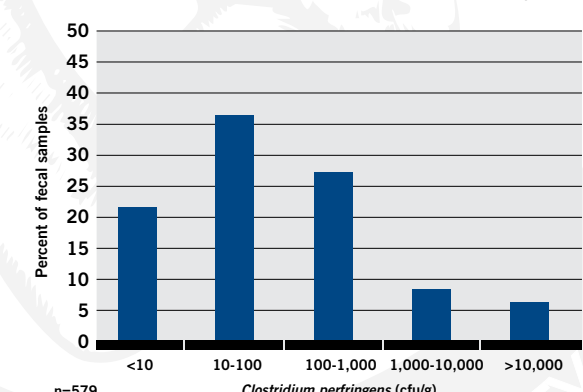


FIGURE 2: Distribution of *Clostridium perfringens* counts in California cow fecal samples



¹ Data on file, 2018.

