

Research Summaries 1

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Preliminary Report on the Incidence of Laboratory-confirmed Clinical Salmonellosis in Northeast USA Dairy Herds

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Introduction

Salmonellosis in dairy cattle ranges from subclinical infections to serious illness. Many studies have assessed fecal shedding. The objective of our study was to determine the incidence of clinical salmonellosis in dairy animals in the northeastern United States.

Materials and Methods

Veterinary clinics were enrolled in the study between February and September of 2004. Veterinarians enrolled farms in the study by submitting a one-page survey, including numbers of cattle in the herd. In this ongoing study, enrolled farms reporting a suspected case of salmonellosis receive free testing at the Animal Health Diagnostic Center. Farms are contacted periodically to update cow numbers during the study.

Results

To date, the study monitored 830 herds with 334,488 cattle enrolled by 34 veterinary clinics. Veteri-

narians submitted samples from 987 cows, 128 heifers from weaning to calving age and 597 pre-weaned heifer calves. The percentages culture-positive for salmonella were 32.1% for cows, 5.5% for heifers and 14.9% for calves, and the animal-level incidence rates were 2.5, 0.07 and 9.2 cases per 1000 animal-years, respectively. The herd-level incidence of clinical salmonellosis was 14.1 positive herds per 100 herd-years. Eighteen of the 73 herds with a positive culture accounted for 80% of the laboratory-confirmed cases of salmonellosis.

Significance

Fecal shedding studies show salmonella can be isolated on most dairy farms if enough samples are collected. In contrast, about 14% of herds per year had at least one clinically affected animal. Despite overall low animal-level incidence, a few herds had large numbers of animals affected.