

# Lesion Specific Lameness Incidence on Three California Dairies During 2007

**S.L. Berry, DVM, MPVM<sup>1</sup>; J.M. Pinos-Rodriguez, DVM, PhD<sup>2</sup>; P.H. Robinson, PhD<sup>1</sup>; C.B. Tucker, PhD<sup>1</sup>**

<sup>1</sup>*Department of Animal Science, University of California, Davis, CA*

<sup>2</sup>*Universidad Autónoma de San Luis Potosí, San Luis Potosí, Mexico*

## Introduction

Lameness is one of the three most common reasons given for prematurely culling dairy cows. Incidence surveys in the literature have found lameness incidence rates from 7 to 70% in commercial herds of dairy cows. Many dairy producers are not aware of their lameness incidence rates and do not keep records that are conducive to managerial or statistical analysis.

## Materials and Methods

Data from three well-managed dairies in the central valley of California were collected during 2007. All three dairies were serviced by the same hoof trimmer, who was on each dairy weekly. The standard hoof care program for all dairies was to trim all dry cows, heifers that have long claws or were clinically lame, and lame cows during lactation as needed. Trimming records and a copy of the computerized herd records (Dairy Comp 305) were retrieved from each dairy monthly. The three herds had an average of 1696 (Dairy D), 1464 (Dairy F) and 1558 (Dairy W) lactating cows during 2007. The average rolling herd average milk production for the dairies was 24,775 (Dairy D), 26,810 (Dairy F), and 25,046/lb (Dairy W). All herds were within 10 miles of each other. Two of the herds had similar freestall facilities with milking parlors (F & W) and one of the herds (D) milked cows on three separate facilities in older flat barns, and had a mixture of freestalls and loose housing in dirt pens with shade.

## Results

The incidence of lameness was 36.6% (D), 36.8% (F) and 56.2% (W). Claw horn lesions were the most

prevalent lesion type on dairies F (16.7%) and W (25.2%), while digital dermatitis was the most prevalent on dairy D (16.4%). Approximately 80% of claw horn lesions were white line disease, sole ulcers and sole abscesses on all dairies. Dairies F and W had approximately 10% of the lactating cows presented to the hoof trimmer for lameness with no lesions found, while dairy D had 3.6%. Digital dermatitis incidence was 16.4% (D), 0.3% (F) and 12.8% (W).

## Significance

There was no obvious seasonal pattern in lameness incidence on the dairies. Dairy D, the older dairy with cows milked on three separate properties, had the lowest incidence of lameness (35.6%) with digital dermatitis comprising the majority of lesions (16.4%). Dairy F also had lower incidence of lameness (36.8%) but only had 0.3% incidence of digital dermatitis. Dairy W had the most intensive foot bath program with cows using a foot bath (alternating CuSO<sub>4</sub> and ZnSO<sub>4</sub>) three times per day, seven days per week, while dairy W only used a foot bath a total of three times per week. Dairy W had the highest incidence of lameness (56.2%) and claw horn lesions (25.2%) of the three dairies, which may have been due to a combination of compromised cow comfort, feeding management and hoof hygiene. These results provide insight into the types of hoof health issues in California. Further analysis will allow us to examine differences in hoof health associated with routine trimming (dry cows and heifers) compared to treatment of clinical lameness.