

Should we trim heifers pre-calving?

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Introduction

Functional foot trimming of dairy cows at dry-off to prevent claw lesions during the subsequent lactation is extensively practiced on most modern dairy operations. With increasing frequency, the feet of first-calf heifers are also trimmed in an attempt to achieve adequate conformation of the hoof to accommodate periparturient metabolic changes, minimize the consequences of transitioning to new time budgets, and, sometimes, to adapt to different walking surfaces. Although it is assumed that trimming the feet of heifers prior to calving follows a one-fits-all rule, research on the impact of this practice is lacking. The objective of this study was to evaluate the effect that trimming the feet of first-calf heifers prior to parturition has on the incidence of claw lesions during the first lactation.

Materials and Methods

On a commercial dairy herd, 549 heifers were randomly assigned to have their feet trimmed or not trimmed 1 month prior to their estimated calving date. Heifers in both groups passed through the trimming chute; however, functional trimming was only performed on heifers assigned to the trimmed group. Digital dermatitis lesions were treated topically in all heifers before the pre-calving trim visit. Hoof measurements were obtained before and after trimming in a subset of 130 heifers to evaluate conformational changes to the hoof caused by the trimming. During the first lactation, the feet of all study heifers were evaluated at the routinely scheduled “mid-“ and “late-lactation” trims, as well as at any time lameness was detected. Lesions were recorded

chute-side by use of the electronic ABC lesion recording system. Daily milk weights and health events were also recorded for all study heifers.

Results

For heifers that were trimmed prior to calving, data indicated that only the amount of sole removed at the axial aspect of the lateral toe was significantly modified; otherwise, the total lateral and medial toe length, toe angle, heel height, and dorsal wall length remained unchanged. During the first lactation, 9% of heifers in both the trimmed and not-trimmed groups had at least 1 hoof lesion identified; however, the type of first non-infectious lesion identified differed between the 2 groups. In the not-trimmed group, 7.2% and 2% had sole bruising or hemorrhaging and thin soles, respectively, whereas in the trimmed group 3.5% and 4.9% had sole bruising or hemorrhaging and thin soles, respectively. Mean milk production and number of cows culled did not differ significantly between the 2 groups. (Statistical analysis of the complete dataset will be completed and presented at the conference in September).

Significance

Preliminary results of this study indicated that trimming the feet of heifers prior to calving could prevent some claw lesions during the first lactation; however, the type of trimming and the specific characteristics of the farm would need to be taken into account to obtain the expected results and avoid undesirable consequences.