Abstract

A 2-year experiment on the effect of claw trimming on hoof health was performed in 77 Swedish dairy herds (3444 dairy cattle) selected on herd size, breed composition and membership in the official milk-recording scheme. In the autumn, cows within each herd were blocked according to breed, parity and stage of lactation and allocated to two treatments: autumn trimming (AT) or no autumn trimming (NAT). Outcome variables were claw measurements and prevalence of hoof lesions and lameness (measured at spring trimming) and the need for hoof treatments between scheduled trimmings. At spring trimming, NAT cows had longer and shallower claws than AT cows. The average net growth of the toe wall was greater for AT than for NAT cattle, with a marked variation between housing systems. Most hoof lesions present at AT had disappeared at the subsequent spring trimming. Controlled for clustering by herd-within-year and for the effects of individual-and herd level covariates, AT cattle at spring trimmings had significantly lower odds of lameness (OR = 0.66) and of haemorrhages of the sole or white-line (OR = 0.86), sole ulcer (OR = 0.59) and white-line fissure or double sole (OR = 0.71)—but not of moderate-to-severe heel-horn erosion or dermatitis (OR = 0.96). Acute hoof treatments between claw trimmings were more common in the NAT group (OR = 2.02).

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