

**OC: 148****Attitudes of farmers, veterinarians and claw trimmers towards painful interventions in the area of the feet of dairy cattle in Switzerland**

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**Objectives:** The majority of lameness-causing problems are located in the area of the feet. As cow-level prevalence of lameness is 15% in Switzerland (Becker et al., 2011, unpublished data), painful surgical interventions on the feet of cows have to be performed regularly. The administration of local anesthesia is required in cases involving the pododerma, according to Swiss legislation on animal welfare, but anesthesia is usually not performed due to various reasons. Furthermore, most of these interventions are performed by farmers and claw trimmers instead of veterinarians. The objective of this study was to approach this problem in Switzerland, assessing attitudes of farmers, veterinarians and claw trimmers towards painful interventions in the area of the feet of dairy cows.

**Materials and Methods:** Attitudes of 77 farmers and 32 claw trimmers towards painful interventions in the area of the feet were assessed during structured personal interviews, 137 bovine veterinarians completed an equivalent online survey.

**Results:** The knowledge of the statutory provision of Switzerland that anesthesia has to be administered in any case of painful intervention, was low among farmers and veterinarians. About three out of four veterinarians, but less than 50% of farmers and claw trimmers considered local anesthesia during the excision of a sole ulcer involving the pododerma as useful. 65% of the veterinarians performed local anesthesia for the painful excision of a sole ulcer in at least 50% of cases, one out of four in less than 25% of the cases. Pain during this intervention without anesthesia was often considered to be low by farmers and claw trimmers.

**Conclusions:** Information about the need and usefulness of anesthesia for treatment of painful interventions in the area of the foot in dairy cattle has to be spread and propagated among involved professionals to improve animal welfare and productivity in dairy farms. We found signs of underestimation of pain and deficient pain management. Furthermore, it was the general opinion that local anesthesia during painful interventions in the area of feet of dairy cattle was neither necessary nor useful.

**OC: 149****Does hoof trimming affect locomotion of the cows?**

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**Objectives:** Hoof trimming, bedding, foot bathing, feeding and overall management may be considered as main factors in health of the cattle hooves. Hoof trimming result in proper weight bearing surfaces, however, it has been proven that hoof trimming can increase locomotion score that may be a result of over trimming or making new weight bearing surfaces. Locomotion scoring known as a method for assessing walks of the cows that could be a reflection of sound hooves and locomotion system.

**Materials and Methods:** This current study was done to evaluate impact of hoof trimming on locomotion score (LS) in a dairy farm consist of 1000 milking cows with average production of 37 lit/day during a 9 month period. All cows scored with a five point scale scoring system on monthly basis as scores one and two considered as sound and three, four and five considered as lame cows. In according to the results data from 2192 cows were recorded and the scores analyzed base on hoof trimming.

**Results:** The average LS before (1.48) and after (1.45) trimming didn't show any significant changes. In 1762 sound cows, 87.45% and 89.9% didn't show any changes in next score in trimmed and untrimmed cows respectively. The average of 10.1%, 9.1% of sound cows change to score three, 1.8% and 3% change to score 4 and 0.65% and 0.7% change to score five in trimmed and untrimmed cows respectively. In lame cows following hoof trimming 48.6% and 48.8% show decrease, 43% and 41.2% didn't show any change and 8.4% and 5.3% show increase in their scores in trimmed

and untrimmed cows respectively.

**Conclusions:** Results indicate that increase of LS following hoof trimming occurs more frequently in sound cows. Result of current study is in agree with the previous reports concerning risk of increasing LS and possibly lameness following hoof trimming.

**OC: 150****Subclinical laminitis in dairy cattle – Thermographic examination of the claw and relations to energy metabolism**

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**Objectives:** The subclinical laminitis represents an important factor regarding animal welfare and economy of high producing dairy cows. In the present study the influence of negative energy balance after calving and the resulting fat mobilisation syndrome on the development of laminitis-like changes of the claws should be investigated. Furthermore it should be researched to what extent the thermographic examination of the claws after calving, is able to give information about the status of inflammation of the corium and according to this it can be used as diagnostic instrument for early detection of subclinical laminitis.

**Materials and Methods:** The claws of 123 cows and heifers were investigated in the first week after calving as well as after the second month of lactation for the presence of lameness and, after the performance of claw trimming, for signs of subclinical laminitis. Additionally were analysed by thermography of the ground contact area. To define the influence of the metabolism on the development of laminitis measurements of backfat thickness, as well as blood samples for determination of FFA, BHB and.

**Results:** During the evaluation of lameness and laminitis signs, a significant increase of the latter after the second month of lactation was pointed out. In contrast the lameness incidence decreased slightly. Rubber floorings had overall a positive effect on the laminitis development. Cows in first lactation showed clearly severe laminitis-like changes (haemorrhaged, yellowish horn, soft horn) than older animals. The laminitis-like changes appeared particularly on the lateral claws of the hindlimbs in all probands. The thermography showed serious differences between the claws of the front- and hindlimbs as well as between lateral and medial claws. The hindclaws were clearly warmer than the frontclaws ( $p < 0,0001$ ). The distribution of laminitis-like changes was consistent with the pattern of the temperature distribution over the main claws, there could no clear correlation be found between the claw temperature after calving and the visible laminitis signs eight weeks later. Between the dimension of backfat thickness, the concentrations of FFA-, BHB- and glucose and the development of subclinical laminitis no convincing correlations resulted. Rather underconditioned animals tended to be affected by claw disorders.

**Conclusions:** The temperature distribution upon the ground contact area of the claw was consistent with the distribution pattern of laminitis-like changes. Thermography was not suited for early detection of subclinical laminitis. The temperatures between front- and hindclaws as well as between lateral and medial claws differed clearly. A direct influence of the fat mobilisation syndrome on the claws could not be found in the present studies.

**OC: 151****Evaluation of the therapeutic use of a serpens species bacterin in a dairy herd with a high prevalence of digital dermatitis**

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**Objectives:** Digital dermatitis is a major cause of lameness in many dairy herds, and can have negative effects on milk production, reproductive efficiency and cow welfare. Most treatment and control strategies have focused on local topical application of antimicrobials for affected individuals or high-risk groups. Recurrence rates are high, signaling the need to explore alternative methods for treatment and prevention. The purpose of this study was to evaluate the therapeutic use of a Serpens species bacterin in a dairy herd known to have a significant prevalence of lameness due to digital dermatitis.

**Materials and Methods:** Seventy-seven mature lactating Holstein cows