HOOFOSS

Granda Team
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NUTRIL.HUB
advanced farm monitoring

SKIN PROTECTION IN THE HOOF REGION

Introduction

Digital Dermatitis is a disease that causes painful lesions, generally on the heels of the rear feet.

It is a major cause of lameness in dairy cows and a significant problem for the dairy industry, causing reduced animal welfare and economic loss.

An average of 20-30% of all cows has Digital Dermatitis, but may be as high as 80% in a herd. Usually the same cows experience several cases of Digital Dermatitis, and others never have had a single case.

The risk of developing Digital Dermatitis in the 2nd lactation increases from 7% to 33%, if the cow had Digital Dermatitis in the 1st lactation.

Level of Digital Dermatitis in high yield milk productions is around 20-30%.

Slurry increases the risk of hoof infections

In high-yield milk productions, cows and heifers are exposed to high levels of skin-damaging waste products found in slurry. The waste products include ammonia, hydrogen sulphide, and moisture.

Healthy and intact skin in the hoof region is very resistant to bacterial infections, but prolonged contact to waste products from the hoof environment weakens the skin and significantly increases the risk of hoof infection.

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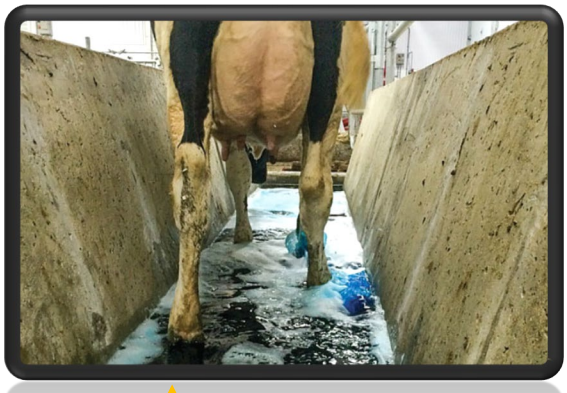
Elimination of bacteria is not the right approach

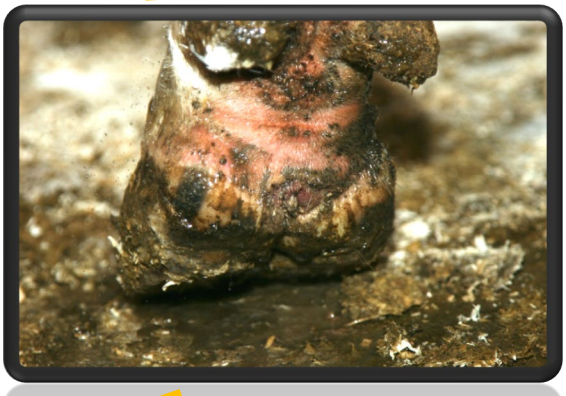
Disinfectants or antibiotics are not suitable for hoof treatment in a polluted hoof environment with excessive levels of bacteria. After such treatments, bacteria will be reduced, but as soon as the cows and heifers reenter the barn, the hoof region will once again be exposed to an overload of bacteria and waste products.

The intense use of formalin, copper sulphate and other biocides have not been able to prevent Digital Dermatitis.

It suggests that another approach is needed in order to lower Digital Dermatitis.



Disinfectants kills many of the bacteria in the Digital Dermatitis wound.



After treatment with disinfectant, the DD wound will most likely become polluted with manure again. This will inactive the disinfectant and ad new bacteria to the wound.

The Digital Dermatitis wound may be clean and well treated after hoof bathing or spray, but the wound is still open and sensitive to new infection.

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Another approach is needed in order to lower Digital Dermatitis

Ammonia and moisture increase the risk of infection.

Bacteria in the hoof environment produce excessive amounts of ammonia, which is highly corrosive to the skin surrounding the hooves. This can lead to a breakdown of skin and increased risk of hoof infections.

Ammonia increases the pH-value on the surface of the skin, compromising the pH sensitive skin defence system.

High moisture levels hyperhydrate the surface of the skin and increase the permeability of bacteria.

Anaerobic bacteria release hydrogen sulphide, which breaks down oxygen and creates an oxygen-free zone on the surface of the skin surrounding the hooves.

Excessive moisture and slurry prevent oxygen from getting into contact with the surface of the skin in the hoof area.

Ammonia and moisture breaks down the natural skin barrier.

The water present in the skin cells comes out and is lost.

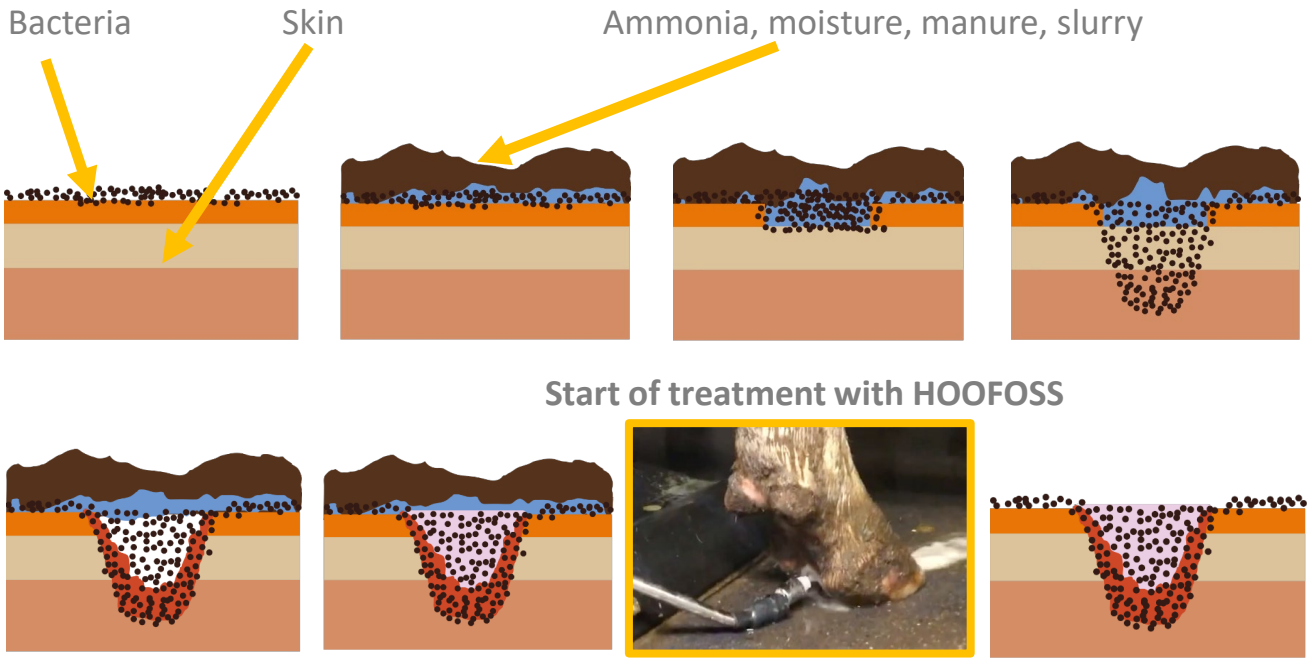
Water loss makes the skin cell shrink and gaps form between them.

Bacteria penetrate the skin and cause infection.

Ammonia accumulates in the hoof region, with very high readings over 150 ppm. This level is highly harmful to the skin.

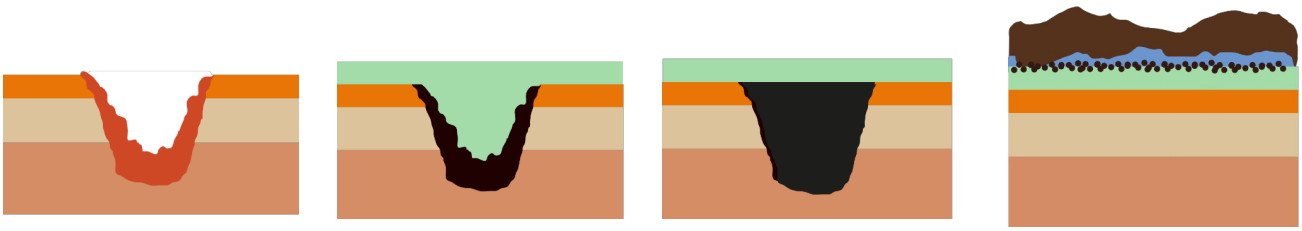
Granda Team solution: a new active skin protection agent specialised for use in the hoof region (HOOFOSS).

HooFoss adds a fully covering layer of active minerals to the problem area. Once formed, the mineral layer will bind hard for several days to intact and damaged skin. When cows and heifers return to the barn, the active mineral layer will support the skin and protect against damaging waste products. This relief will allow the skin to heal, without being exposed to the harmful hoof environment.
When used continuously, HooFoss will provide ongoing protection and significantly reduce hoof problems.



Hoofoss works in four steps:

1. Cleans the skin from skin-damaging components, such as manure and ammonia
2. Powerful drying and increased oxygenation of the problem area
3. Covers the problem area with a protective crust that supports skin healing
4. Forms a resistant mineral layer on the skin that protects the skin for several days



Hoofoss solution characteristics

Ready to use liquid

Application in spraying systems and hoof baths

Contains inorganic acidic minerals mainly based on aluminium, Iron and Zinc

Binds with high affinity on skin, wounds and hair for several days

Will treat acute and chronic Digital Dermatitis cases

Has a high prophylactic effect

Spraying HooFoss

The spraying method is the most effective and simple form of application, which ensures full contact to the hoof region. Spraying is easily combined with the daily work routines. HooFoss does not cause pain or distress in the animals. In the effort to reduce working time, we recommend spraying the rear legs only, since this is the location of the majority of hoof problems.

Packing sizes:
25 – 250 Kg

For use in milking parlours, rotary, head lock systems and other situations where spraying is feasible.

Use a knapsack sprayer made of durable plastic or stainless steel. For safety reasons, it is recommended to use a sprayer with a long telescopic lance in head lock systems, or similar.

Apply a concentrated solution twice per week.

Increase the application rate in case of severe problems.

IMPORTANT: Spray directly with powerful jet of HooFoss on the problem area and in the hoof cleft from a distance of approx. 2 cm. Rinse well through and make sure that HooFoss gets deep into the folds and fissures.

In hoof bath with specific mat

If spraying HooFoss is not possible, the product can also be used in hoof bath or with mat. It is, however, highly recommendable to spray HooFoss at least for a month, before starting up with hoof bath in order to ensure an controlled and optimal effect.

Hoofoss bath: 200 x 85 x 15 cm

Package size: 1300 Kg

MAT

Use HooFoss twice a week with a mat placed in a hoof bath or in a suitable container. Place the mat in the hoof bath on a completely flat surface and add 25-30 liters of HooFoss. For larger herds, add HooFoss for every 150-200 cows. Manure, mainly in the hoof area, can accumulate in the mat. If necessary, this can be removed during milking. After use, remove the mat from the hoof bath and wash it with water. (Note: do not use a high pressure jet). Release the liquid by walking on the mat several times. Let it dry.

Mat: 180 x 65 cm

IN GENERAL

Allow HooFoss to dry for a couple of minutes before letting the cows go back into contact with deep layers of manure / slurry / water. This can be achieved by keeping the exit corridor from the milking parlor clean.The action of the HooFoss is not inhibited by manure.After a couple of weeks of treatment, the problem areas will appear black, but they do not need to be removed. This is an indication of good effect, and the treatment must be continued.

Granda Team
AGRIBUSINESSOLUTIONS

Via P.Massia ,1
12038 Savigliano (CN)
Tel.0172.715908
info@grandazootecnici.it
www.grandazootecnici.it
www.farelatte.it