

Farmer information sheet – Digital Dermatitis

Digital dermatitis was first reported in the UK in 1985. It can affect any breed or age group, but incidence in beef cattle appears to be minimal. Prevalence is highest in **fall and winter** and lowest if animals are pastured.

Digital Dermatitis is highly **contagious** and can spread rapidly from newly acquired animals. It can also be introduced by any mechanical vector for example boots or hoof trimming instruments.

It is thought that there is a multi-factorial aetiology. *Dichelobacter Nodosus* is likely to be implicated. Other bacteria that are involved are *Fusobacterium* spp, *Campylobacter* spp, *Spirochetes*.

Digital Dermatitis is an erosive and proliferative infection of the epidermis. **Two main types of lesions** are seen. The first type is **erosive/reactive**, the second is **proliferative or wart like**. The two forms likely represent different stages of the disease process.

Small, early lesions are clearly separated from surrounding healthy skin and develop into a round or oval lesion. The surface of the lesion may be flat or concave, raw moist and red, yellow or gray with a finely tufted or granular surface.

As it develops, the lesion is often referred to as **‘strawberry like’** and may be surrounded by a **‘halo’** of white tissue. Mature lesions are usually raised by as much as 2-4 centimetres with the surface covered by gray, brown or black hair – like papillary growths.

Most lesions are found proximal to the skin-horn junction in the **flexor region of the interdigital space**. Less typically, lesions can be seen around the dew claws as well as on the dorsal surface of the foot. One or both hind feet are most commonly involved, although both hind and fore feet can be affected.

Heel warts can cause severe pain, reduced milk yield, reduced fertility and increased culling rate. The cost of lameness in a dairy herd is about 98 pounds per cow in a herd with 20 percent infection rate for treatment and lost production.

Like mastitis, digital dermatitis needs a dual approach: **treatment of clinical cases** and continuous **preventative foot bathing**. To treat clinical cases, the affected foot, especially the interdigital area, should be thoroughly cleansed to remove the prolific population of spirochetes. The foot should also be treated with a bandage foot wrap and /or antibiotic treatment for at least three days. Alternatively spray the lesion with Provita Combat, which has a film forming component to encapsulate the lesion.

Like teat dipping in mastitis, foot bathing should be used in a **regular manner** and should be done **as often as possible**, the more often you use a foot bath, the more successful you will be at controlling foot infections.

Ideally use a **prewash bath**. It will help clean the feet and allow have an increased maximum number of cow passes. Footbaths need to be calibrated correctly. An average foot bath contains about two hundred litres but each should be calibrated correctly to avoid under or overestimation. The footbath should be filled to a level of 6-8 inches to allow splashout in use and to ensure that the fill level is always about 5 inches.

All cows should be foot bathed, **including dry cows and heifers**. Around calving it has been shown that cows’ soles are thinner due to reduced horn growth and increased wear due to increased standing on hard surfaces. There is also an increased movement of the pedal bone inside the hoof due to the periparturient rise in the hormone relaxine and immunosuppression. When these animals are introduced back into the herd, they can be a source of infection

Care needs to be taken to **reduce slurry levels, feed animals correctly and ensure good housing**.

HOFSURE ENDURANCE

Provita has been manufacturing and selling concentrated foot bathing preparations since 1995. The second-generation product Hoofsure Endurance was launched in the UK in 2000. Hoofsure Endurance was developed as an alternative to formaldehyde and copper sulphate.

A recent trial carried out by Queens University Belfast where footbath products were tested in both clean and dirty conditions, showed that Provita Hoofsure Endurance exceeded the European standard for efficacy even in dirty conditions. Formaldehyde and Copper sulphate were shown to have 99.99 per cent less activity than Hoofsure Endurance.

- Five different active ingredients: potent blend of organic acids, tea tree oil and wetting agents
- Kills bacteria that can cause foot infections within 1 second
- Conditions the hoof to be tougher and stronger, but not brittle
- Continued activity after the solution has dried on the hoof
- Highly concentrated
- Works in heavily soiled foot bathing conditions
- Non- toxic
- Biodegradable
- Antibiotic free



