



Bovine Digital Dermatitis BDD (Infectious Lameness)

Farmer advice package

Neil Chesterton

Description

- Digital dermatitis is a skin disease of cattle, which usually affects the skin on the bulbs of the heel. Digital dermatitis is thought to be an infection caused by bacteria because of its prompt response to topical antibiotics.
- In countries with housed cows it is common and is associated with poor hygiene, high stocking density, insufficient cubicles and in large herds. However, BDD is now increasingly being noticed in New Zealand.
- Cattle with digital dermatitis may show signs of lameness when standing or when moving. The most commonly seen presentation is the standing animal that flicks its foot repeatedly for no obvious reason. However, a very high proportion of cattle with digital dermatitis may show no signs of lameness.

Appearance: A typical case of digital dermatitis goes through a number of stages.

- The early lesion is seen as a moist, light grey brown, exuding area with matted hair at the back of the foot.
- It has a characteristic foul odour.
- Cleaning the area reveals a red raw granulating area, severely painful to the touch, but with no swelling in the adjacent tissue.
- Active Digital dermatitis lesions are very painful, and the majority of cows with digital dermatitis will withdraw the foot rapidly if pressure is applied to the affected area (such as water pressure from a hose).
- Neglected lesions develop more chronic stages of the disease with erosion and under running of the heel horn.
- Eventually the lesion may appear to heal naturally or shrink to a very small scar, but may still be a source of infection.
- Most common on the skin of rear feet, midline just above the bulb of the heel.



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**OFFICE: 18 Dudley Road Lower
RD 6 Inglewood 4386
NEW ZEALAND**

**PHONE : +646 7568914
MOBILE: +6427 2217712
EMAIL: chesterton@lamecow.co.nz**

- Classical digital dermatitis is fairly easy to diagnose if you have seen it before. If you have not seen it before and if you suspect BDD it is advisable to call your vet to verify your diagnosis by taking a sample and having the laboratory confirm it.

Where it is commonly found

- Most common on the skin of rear feet, midline just above the bulb of the heel.
- BDD can also be found between the digits or in the area of the coronary band. Overseas it is also known to affect other foot lesions such as sole ulcers, white line disease and interdigital growths, causing considerable pain.

Treating Bovine Digital Dermatitis (BDD)

- The affected area is cleaned with water and dried and an antibiotic spray is applied. Let the spray dry for 10 – 15 seconds and then apply again. Lower the foot and then let the cow stand for 10 – 15 minutes on clean concrete.



Control of Bovine Digital Dermatitis (BDD)

- In infected herds, severe outbreaks can be prevented with regular hygiene in all facilities and regular foot-bathing of all stock. Good hygiene needs to be maintained.
- Ongoing control is by use of footbaths with antiseptic solutions on a regular basis.



Prevention

The cause is multi-factorial but prevention must concentrate on hygiene and biosecurity. BDD is usually introduced by buying in infected cows and then spreading from cow to cow where foot hygiene is poor. Muddy entrances and exits, feed pads and housing systems have all been implicated.

If a herd has no cases it is essential that no animal is brought in from infected herds. Be careful with cleanliness of foot paring equipment that might have been used on infected herds (vets' and foot trimmers' equipment).

Checking your herd

In NZ this infection has been identified in recent years in isolated animals, and now is beginning to appear as multiple cases within herds. It is advisable if you find a case on your farm to have the entire herd checked.

It is advisable to screen your herd at least twice a year. You can do this yourself or ask your veterinarian to help.

For a video on screening go to www.lamecow.co.nz

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General advice to Farmers

If on screening there are no BDD lesions found:

- Realize that BDD is present in many herds in New Zealand
- You should seriously consider quarantining your herd to keep it free of this highly infectious disease.
- The most likely ways BDD could enter your herd are:
 1. Buying in infected cows or heifers
 2. Introducing an infected bull
 3. Running your dry cows with other infected herds out grazing
 4. Running your heifers tighter with other infected animals out grazing
 5. Vets or hoof trimmers using dirty equipment or borrowed farmers foot equipment from a previous farm infected with BDD
- To ensure that your herd remains free of the disease you should do two things:
 1. Screen your herd at least once each season (see www.lamecow.co.nz for a video on the simple method used)
 2. Build a foot bath at the exit to your shed and foot bath occasionally – maybe twice a month as a precaution. (see www.lamecow.co.nz for a cheap effective footbath design.)
- It is really important to take this disease seriously because once the disease establishes itself in a herd it seems impossible to eradicate.
- If a suspicious lesion turns up, ask your vet to send a sample to the laboratory to confirm a diagnosis.

If BDD-like lesions are found we advise:

- Record the number of every cow with a lesion for future reference.
- First confirm that it is BDD by sending a sample to the laboratory – note don't treat the lesion before taking a sample.
- If the lesion is positive:
 1. Treat every case with topical antibiotic after lifting the foot.
 2. Build a well designed footbath at the shed exit area and start regular foot bathing of the whole herd to prevent spread of the disease.
 3. A repeat screening to check the efficacy of the foot bathing after 6 weeks of bathing.
 4. Identify areas of poor hygiene where the infection may be being spread from cow to cow – eg dirty entrances, dirty exits, dirty feed pads.
 5. Be aware that infected cows can spread the disease to other herds by sale of milking cows, by mixing at grazing, during transport with others.
 6. Your hoof knives must be cleaned between cows because they can carry the bacteria from cow to cow.
 7. Quarantine your herd to reduce the chance of introducing different strains of the disease from other farms and so causing the mild form of the disease to become more serious.
 8. Screen your herd at least twice a year to help you find new cases and to fine tune your control.

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