

NADIS disease bulletins are written specifically for farmers, to increase awareness of prevalent conditions and promote disease prevention and control, in order to benefit animal health and welfare. Farmers are advised to discuss their individual farm circumstances with their veterinary surgeon.

Lameness of the Foot

Lameness occurs in pigs either as a result of pain or physical deformity. The pain can arise either as a result of injury (damage) or infection but in the case of foot lameness, both may be involved.

The foot of the pig, as with other ungulates (cattle and sheep) is encased in horn and the whole of the weight of the animal is taken effectively on tip toes. In an adult animal, the pressure on each individual hoof (claw) can be very high.

The horn of the hoof is continually growing in just the same way as our fingernails. Growth occurs at the coronary band (the equivalent of our nail bed) and pushes the hoof down with the base gradually worn away. Whilst many micronutrients may be involved in satisfactory horn growth, it is the physical insult to which the horn is subjected that is most likely to lead to problems.

In old confinement systems, there was a tendency for horn to be very hard and brittle but with very little exercise, there was minimal wearing down of the claw. Overgrowth of horn was common producing deformed feet and altered stance, putting high levels of strain on the joints, particularly of the back leg. Splitting of the horn could occur, causing pain and allowing secondary infection to gain access. However, at least in these circumstances there was little difference between dry sow and farrowing floor effects and sows, albeit with deformed claws could cope reasonably well on slats in farrowing houses.

Tearing off at the claw also occurs, particularly on concrete slats leaving an incredibly painful, sensitive tissue in contact with the floor.

Now that most sows are kept on straw based accommodation, horn tends to be softer – in the same way that our fingernails soften in the bath. Where sows are moved into – particularly – slatted farrowing accommodation they can be very uncomfortable and the sow may be reluctant to stand and eat or drink.

The fact that loose housed sows tend to have their feet bathed in faeces most of the time means that where splits and cracks do occur in the horn, infection can easily penetrate and produce the typical bush foot.

In a similar way, outdoor sows and boars on muddy ground through early winter tend to have soft horn on their claws and any change in circumstances, such as frozen ground, can be very uncomfortable. This may have important implications for service behaviour.

Control

Where pigs have soft horn that is liable to bruising, splitting and infection, this must be regarded as a “system failure” and the overall nature of the accommodation may require review. More frequent scraping or mucking out of dung passages may well be needed

to allow sows to spend more time in dry conditions. Drainage of liquid in dunging channels can help, although submerged drains (e.g. porcupipe) do have a tendency to block when exposed to sow faeces.

Some producers have tried running sows through foot baths on a daily basis to harden the horn – usually using copper sulphate or formalin, in a mirror image of a technique used for dairy cows. This does tend to make the horn too brittle with the added complication of sows trying to drink it! In general, this is not recommended.

Where cracking of the horn is a common problem, supplementing diets with biotin and zinc may help, although as with most micronutrients, it is a case of if deficient, supplements will help but if levels are adequate, additional supply does very little. (The classic biotin deficient animal will actually show horizontal cracks in the horn rather than the more common vertical sand cracks).

Treatments

Once infection has gained access into the hoof, it tends to become trapped and lead to abscessation that eventually breaks out to the coronary band. This condition is intensely painful. Drainage of the pus is essential but difficult; if the condition is spotted before pus builds up or after drainage is established, prolonged treatment e.g. with Lincomycin, can be highly effective. However, if pus is trapped within the claw, treatment is rarely successful and culling will usually result. On farm euthanasia is obviously needed for these animals that cannot bare weight on all 4 legs.

DO NOT FORGET Foot lameness affecting more than one leg is a typical sign of Foot and Mouth Disease in the pig.

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