



Animal Health

Ergot and Cattle Health

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Ergot is associated with the fungus, *Claviceps* sp., which infects a variety of grasses, notably the cereal grains. Ergot bodies are the black-purple bodies (similar in appearance to rat droppings) that form in place of a seed in grass heads. See Figure 1. (Grasses take up the mold spores from the soil and are transported to the seed heads. Ergot bodies develop and drop to the ground for the next generation.) These bodies contain a number of alkaloids, referred to as ergot alkaloids, that affect blood vessels, the nervous system, and other organ systems.

Ergot alkaloids are the same toxic agents found in endophyte-infected fescue.

What does this do to cattle?

- Some of these alkaloids are capable of constricting blood vessels. The result is dry gangrene of the extremities: feet, tail, and ear edges.
- Lameness is generally the first sign, along with swelling around the fetlock area. Back legs are usually first affected. Swelling and pain becomes severe followed by sloughing of skin and eventually the foot is sloughed above the hooves. This disease has been called “fescue foot.” (Figure 2.)
- Fescue foot is more common during winter, most likely because low temperatures contribute to decreased blood circulation.
- Decreased milk production (due to inhibition of prolactin) is common. This can occur with no evidence of foot involvement.
- Reproduction (particularly conception) is impaired; with severe involvement, calving can be impaired.
- With milder cases, the loss of switch hair from the tail and, perhaps, the edges of ears can occur.
- Though more associated with fescue, these alkaloids disturb the animal’s heat regulation that is associated with the “summer slump” syndrome.

Prevention:

- Clip pastures to restrict grazing of grass heads.
- Clipping fescue pastures is especially important since the endophyte-infected grass also contains some of the same alkaloids.
- Ergot bodies and toxins survive baling and ensiling. If baled with grass heads, collect chaff by shaking hay into a plastic bag and look for the ergot bodies. If present, feed sparingly (if at all). Avoid feeding contaminated hay during the winter.
- Providing shade during summer and supplementing some grain, especially during breeding, seems to reduce effects somewhat.
- Ammoniation of contaminated hay has been found to reduce toxic effects; as yet, the degree of success with this on ergot-contaminated forages has not been determined.

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Figure 1. Several different grass varieties infected with black ergot bodies.



Figure 2. This calf was one of several with sloughed hooves. They were fed large round bales of brome grass infected with ergot.

