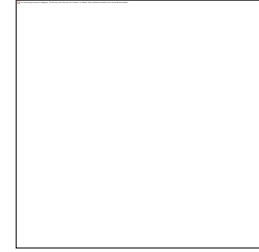


Stored Grain

***Claviceps* spp.: Ergot and Ergotism**

Barry J. Jacobsen, Robert W. Coppock, and Michelle Mostrom



Ergot toxicity, caused by the fungus *Claviceps purpurea*, differs from other mycotoxicoses, in that the mycotoxins are present in the developing and mature sclerotia. The mycotoxicosis occurs when the ergot sclerotia (fungal tissue) are consumed. Ergot poisoning in grazing animals typically occurs where headed grasses are grazed, sometimes selectively, following favorable conditions for infection by the *Claviceps* sp. The mature, dry ergot sclerotia are brittle and break during grain handling. The broken sclerotia are found in screenings. A large amount of mycotoxins (ergot alkaloids) are found in the ergot sclerotia (ergot bodies). These include a variety of ergopeptine and clavine alkaloids that when consumed regularly in small amounts result in a complex of signs collectively called ergotism. Ergotism is characterized by skin necrosis, necrosis of the ears, poor hair condition, gangrene or loss of extremities, lameness, agalactia and poor performance. Clinical manifestations will vary depending on the mixture of ergot alkaloids found in the sclerotia. In the USA, wheat of any class having more than 0.05% ergot by weight is declared ergoty and cannot be sold for human consumption. Levels of >0.1% ergot in complete feeds may have adverse effects on livestock performance.

Risk factors increase during damp, cool weather. The ergot fungus infects the flowers of cereals and many grasses when flowering occurs during predominantly cool, moist weather. Infected florets show characteristic black, spur-like sclerotia that replace the seed. Cattle can be attracted to seeds infected with *Claviceps* spp. in the honeydew stage of the infection.

Categories: Stored Grain, Fungi, *Claviceps* spp., Ergot and Ergotism

Date: 11/11/2007