

Increased risk of ergot in 2014 cereal crops used for pig feed

Veterinary surgeons attending pigs should be vigilant for signs of ergotism following recent alerts to cereal growers to monitor their crops following high levels of ergot being found in heavily infested blackgrass areas. Ergots are elongated black structures resembling mouse faeces and are a fungus (*Claviceps* species) which replaces the ovary of the grass or cereal seed and is illustrated in figures 1 and 2. When broken open, the ergot is white in the middle. It is alkaloids in the ergot that cause toxicity, the most severe signs being due to vasoconstriction (particularly in the extremities) which eventually result in gangrene. There are no precise safe limits of ergot within feedstuffs because alkaloid type and content can vary markedly.

Feed compounders should be aware of the problem and reject cereals containing above a threshold number of ergots in a sample. It is worth reminding pig producers who are home-mixing feed to inspect for ergot and ensure they do not put their pigs at risk of toxicity. The presence of ergots does not represent a general mycotoxin problem as a different fungal contamination is responsible.

Figure 1 – ergot contamination on blackgrass



Figure 2 – ergots showing scale for size



Clinical signs in pigs may include non-specific signs such as feed refusal, poor food conversion and lethargy, and then signs due to vasoconstriction such as:

- Slow onset, progressive lameness unresponsive to treatment
- Gangrene develops later in the course of the disease and results in hoof necrosis and sloughing
- Tail and ear necrosis
- Agalactia and increased piglet mortality may occur due to restricted blood flow particularly to the developing gilt mammary gland

In the early stages, necrosis at affected sites can be mistaken for trauma or infection and cold weather exacerbates the clinical signs by increasing the vasoconstriction.

Suspect outbreaks represent potential food safety incidents and voluntary restriction is prudent to protect the food chain - exposed pigs should not be sent to slaughter for 28 days after withdrawal of the contaminated feed.

If there are classic clinical signs, these are diagnostic and detection of ergots confirms the diagnosis. In compound feed, ergots will not be visible and testing representative feed samples may be appropriate. The efficacy of mycotoxin binders for ergot is uncertain and avoiding inclusion in the first place is the priority.