Mycotoxins

FACT SHEET swine

What are mycotoxins?

Mycotoxins are toxic metabolites produced by fungi (moulds) which grow on animal feeds including corn and corn by-products such as DDGS or corn gluten meal and soyabean meal. Hundreds of mycotoxins have been identified and one mould species can produce many different types.

Negative effects of mycotoxins in pigs

Chronic exposure: Quite often problems are due to low levels of mycotoxins and may include increased morbidity, decreased feed intake and increased incidence of feed refusal, reduced weight gain and feed conversion efficiency. In sows lower fertility rate is a common symptom. In boars mycotoxins impair semen quality and quantity.

Acute exposure: Consumption of high levels of mycotoxins may give rise to symptoms including diarrhoea, vomiting, tail and ear necrosis, rectal and vaginal prolapses, fatty liver syndrome, abortions and many others.

Diagnosis of mycotoxin issues

Symptoms are often either sub-clinical or are non-specific and easily confused with other diseases. Deterioration in performance is frequently an indicator that mycotoxins are implicated. Feed can be tested for mycotoxins but the accuracy of sampling and the cost of routine testing limit its practicality at farm level.

Mycotoxin threat to swine?

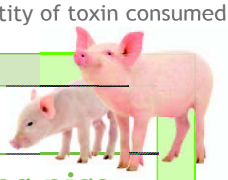
Swine production has improved with the introduction of new technologies and modern management practices. Technical change and vertical integration in the swine industry have resulted in large-scale specialized producers capable of controlling genetics and formulation of feed. It is known that pigs and especially sows and gilts are highly susceptible to mycotoxins, which greatly impair their health and productivity. Symptoms can vary between clinical and sub-clinical, depending on the quantity of toxin consumed.

Sows
Gilts

Common symptoms:

- Irregular, absent heat signs
- False heats
- Increased interval between weaning and effective artificial insemination
- Increased number of returns to service
- Returns without prior visible heats
- Vulva oedema
- Rectal and vaginal prolapses
- Lower fertility rate
- Embryonic mortality
- Abortions
- Small litter size
- Normal gradual increase of milk production stops
- Enlargement of the mammary gland of gilts and boars
- Loss of appetite
- Reduced response to vaccination and medication

Piglets
Weaning pigs



Common symptoms:

- Smaller size at birth
- Increased number of weak piglets in litter
- Higher number of piglets with splay-legs
- Oedema and reddened teats
- Reddened and swollen vulva
- Malformations
- Tail necrosis
- Digestive problems
- Higher mortality

Fattening pigs

Common symptoms:

- Drop in feed consumption, increased feed refusal and vomiting
- Deterioration in FCR
- Reduced weight gain
- Rectal prolapse
- Increased water consumption
- Increased urination frequency, wet bedding
- Restlessness, nervousness
- Digestive problems, diarrhoea

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