

# Swine Management News

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## FEED GRAIN CONCERNS

Every so often unusual environmental conditions occur that have an effect on our crops. Occasionally, these conditions are detrimental to plants or the grain they produce.

This year conditions have favored the growth on wheat of a fungus called Fusarium, which causes the disease known as scab. Scab in wheat is usually observable as a bleaching of the wheat heads either the entire head or just part of it.

What does this have to do with swine? The problem is when the grain is used for hog feed. Fusarium fungus produces mycotoxins, which have a negative impact on animal health. Grain from infected fields may be less palatable to livestock than unaffected grain. Mycotoxins also can induce muscle spasms and vomiting in non-ruminating animals.

The mycotoxin in question is zearalenone and can be produced on many different crops including corn, wheat, sorghum, barley, and oats. Growth of the fungus can occur in the field or in storage, but conditions for growth are optimum at temperatures of 20-25 degrees Celsius and moisture greater than 23 percent (45 percent is optimal).

Production of zearalenone by the fungus is stimulated when the moisture in the grain is high and environmental temperatures drop to about 15 degrees c. In other words, our warm days have helped the Fusarium become established, and the cool nights have encour-

aged the mycotoxin zearalenone to be produced by the fungus.

One of the effects of zearalenone in swine is the swelling of the vulva and mammary glands in prepubertal gilts. In young male pigs, feminization can occur, including shrinking of the testicles and swelling of the prepuce and mammary glands. High levels of zearalenone in sows can cause infertility, constant estrus, reduced litter size and, occasionally, small or malformed pigs. In the boar, no detrimental reproductive effects have been observed.

Another mycotoxin that can be produced by Fusarium species and that can cause injurious effects in swine is deoxynivalenol. With this mycotoxin, also known as vomitoxin, vomiting and feed refusal is common. As little as 10 parts per million of this mycotoxin will result in feed refusal in swine and a subsequent reduction in growth rate.

Other mycotoxins, if present in large enough quantities, can affect livestock.

Take care to determine the quality of the feedstuffs you use. If conditions warrant it, test feeds for the presence of mycotoxins. These tests can be expensive to run and several labs are required to quantify mycotoxin levels.

On the preventative side, work to ensure that the grains and commercial feeds you use are handled properly. Avoid getting dry feeds/grains wet, because moisture is necessary for the fungus to proliferate. When handling grains and mixed feeds, watch for areas of

mold or spoilage. Always remove spoiled feed, since the concentration of both the fungus and mycotoxins may be far greater in spoiled areas than others when compared to the rest of the feed.

Unfortunately, removal of spoiled feed may not protect animals from the mycotoxins these compounds are not readily visible. The only way to be sure is to test the feedstuffs.

Probably the single most important thing you can do as a hog producer is to watch your livestock carefully and monitor their

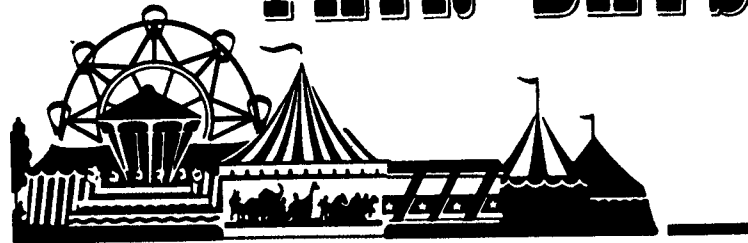
performance. If you notice unusual symptoms in your animals or a decrease in performance, including fluctuations in feed intake, feed efficiency or growth rate, consider the presence of mycotoxins as a probable cause. Then contact your local extension office, feed dealer, veterinarian, or feed lab and find out how to test for the presence of these compounds in your feed.

Hog producers who keep good records to monitor the growth rate, feed efficiency, and feed intake of their hogs are ahead of the game.

These performance traits can be used as tools to evaluate new rations, feed additives, and genetics as well as problems in herd health or feeding program.

So this year, be on the lookout for changes in the performance of your livestock, especially if you are feeding wheat as a part of swine diets. And remember, if current environmental conditions persist, similar fungus organisms can also grow on other types of feed grains, which could result in similar mycotoxin problems.

## FAIR DAYS



### Denver Fair

When you think of fall, what comes to mind? Changing of temperatures? Changing color of leaves? Children going back to school? Harvest time?

Along with the harvesting of one's summer labor of love (whether it be in a small garden or in a field) comes the satisfaction

of a job well done.

You can win a ribbon to add to that feeling of satisfaction at the Denver Community Fair, September 15-19. The fair will be held in the Denver Memorial Park, on Main Street, Denver.

The fairgrounds are located about two miles from exit 21 of the Pennsylvania Turnpike. For

specific directions, call the Denver Borough office, 8 a.m. to 5 p.m., (215)267-2831 or (215)267-4072 (and leave a message).

Exhibits will be received on the fairgrounds in the Denver Memorial Park on Monday, September 14, from 6 p.m. to 9 p.m. The exhibits should be taken to the upper level of the park.

Exhibitors must register their name, address, and phone number. The exhibit number can be picked up at either the entrance of the Recreation Center (which will house arts and crafts, photography, needlework, baked goods, and canned goods).

Exhibits and premiums may be picked up Saturday, September 19 at 9 p.m. No early removals will be allowed.

There are best-of-show trophies awarded in both adult and youth divisions for arts, crafts, photography, needlecraft, and elementary art. Call (215)267-5351 for exhibit information.

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