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SOUTH DAKOTA STATE UNIVERSITY

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Mycotoxins and swine: Producers can test to make sure mold does not affect their pigs

BROOKINGS, S.D. – Statewide reports of moldy corn could have a significant impact on pork producers.

South Dakota Cooperative Extension Swine Specialist Bob Thaler reminds producers that mold itself does not cause problems for livestock.

“It’s the mycotoxins that molds can produce that cause problems,” Thaler said. “But not all mycotoxins cause problems for all livestock. The ones we need to watch for in swine are aflatoxin, zearalenone, DON or vomitoxin, fumonosins, and T2.”

Thaler said the weather conditions of summer and fall 2009 make DON and zearalenone the most likely problems for swine producers.

“We do have some good news, in that surrounding states are seeing high levels of DON in their corn, but we haven’t seen very much in South Dakota,” said Thaler. “While the black/gray mold we see on corn does not produce mycotoxins that are a problem to livestock, we could still see pockets of “bad” mycotoxins in the state, depending on the weather conditions.”

Pork producers need to keep a very close eye on the quality of corn they are buying or harvest from their fields, in part because some mycotoxins affect livestock gradually or in subtle ways.

“Vomitoxin does not cause health or reproductive problems, but when the total concentration in the diet reaches 1 part per million (ppm), pigs will eat less feed,” Thaler said. “This decrease in feed intake will result in slower gains, but not death.”

In contrast, Thaler said the mycotoxin Zearalenone has estrogen-like effects that tend to cause problems in the breeding herd.

“There are some commercial products available that bind aflatoxin, but they are not very effective in tying up DON or zearalenone,” said Thaler. “Therefore, if a producer wants to use DON or zearalenone-contaminated grain, they’ll need to blend it with “clean” grain to keep those levels in the complete feed below 1 ppm.”

Thaler gave the example of a corn diet that contains 2 ppm DON and it is included in the diet at 25 percent of the total ration. “The final diet should only contain one-half of 1 ppm DON if the other ingredients are clean, because at this level, pig performance will not be affected,” Thaler said.

It is essential to know exactly how much mycotoxin is in the grain for any ratio formula to work, Thaler said.

“We recommend producers take samples from several different locations in the bin or load, and then send them to a certified lab for analysis,” said Thaler. “Your county Extension educator can provide more information about proper sampling and where to send it. Once you get the results back, blend the contaminated grain with clean grain to keep the mycotoxin level of the total ration below 1 ppm.”

For more information, call Thaler at (605) 688-5435 or ask for information at your county Extension office.

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