

# Corn Growers – Don't Let Aflatoxin Ruin Your 2008 Corn Harvest

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Corn harvest will begin in the upper Mississippi delta region by late August, and I want to warn corn farmers to take precautions to avoid aflatoxin. Farmers in this region have not had serious problems with aflatoxin since 1998, but the problem could occur again.

Here is the situation. The problem occurs when a mold called *Aspergillus flavus* produces this toxin as it grows on corn kernels that have stress cracks due to drought and/or damage due to ear worm feeding. The cracks and ear worm feeding sites provide the mold access to the starch inside the kernel. The mold feeds on this starch and produces the toxin. Aflatoxin is a poison to humans and animals, and grain buyers will reject truck loads of corn containing 20 parts per billion or more aflatoxin.

This mold can grow on corn kernels in the field, and it grows rapidly on kernels in storage. The mold prefers to grow on wet (18-20 percent moisture) corn kernels at around 85° F. To reduce the risk of aflatoxin, farmers should dry freshly harvested corn to 15 percent moisture within 24 hours of harvest.

I suggest that farmers first harvest some corn in the corners of center pivot irrigated fields or harvest some of their dryland corn and have it tested for aflatoxin. If it is not contaminated with aflatoxin then the rest of the irrigated corn will probably not be contaminated.

Corn farmers that irrigated their corn this year and planted Bt varieties will experience fewer problems with aflatoxin than others. This is because the kernels from irrigated corn will have fewer stress cracks due to drought and will have less injury from ear worm. Bt varieties are not resistant to ear worm but will experience less ear worm feeding injury.

Again, corn farmers should beware of this problem and always dry their corn to 15 percent moisture within 24 hours of harvest.

Following these suggested procedures will give corn farmers a better chance of producing aflatoxin-free corn during 2008. For more information, you may call me at 573-379-5431 or visit the web at <http://aes.missouri.edu/delta/croppest/afla-corn.stm>. Δ

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