



Q&A Fact Sheet 2010 Iowa Harvest Exposure to Mold and Dust in Grain

Grain dust is always a health concern for Iowa's farmers and those working in the grain industry. However, because of extensive flooding this year the 2010 crop affected by floodwaters may cause even more health concerns (for both human and animal exposures) due to mold and other potential contaminants. Following are answers to the most common questions about these exposures:

Can farmers use grain that was impacted by the flooding this year?

No, flood soaked grain is considered adulterated and cannot be used for feed or food. This includes use at an ethanol plant, as the distillers grains from ethanol production are used as feed.

How should farmers handle flood damaged grain?

It is important that grain contaminated by flood waters be destroyed and not blended with undamaged grain. All grain mixed with the flood damaged grain will also be considered contaminated and must also be destroyed. Disking or plowing the contaminated field is probably the best means of destruction. Combining the grain and then destroying it is NOT recommended as it would likely generate mold dust in the air.

What about fields where the flood waters were not contaminated?

All the uncontrolled flood waters that were found in the Iowa in 2010 are considered contaminated. In the rare situation where the water flooding the field was not contaminated, the grain may be reconditioned with the written consent of FDA.

What are the most common health concerns?

- Grain dust contains more than just plant material and dirt. It can also contain molds and spores, insect parts and debris, bacteria, chemicals, or plant toxins.
- Exposure to low levels of grain dust during normal working conditions often causes reactions that are a nuisance, such as a cough, sore throat, nose and eye irritation, or feeling stuffed up or congested.
- Exposures to moldy and dusty grain, especially large exposures, are linked to two specific medical conditions with similar symptoms
 1. Farmer's Lung or Hypersensitivity Pneumonitis (FHP) – a fairly uncommon condition (1 in 20 farmers) caused by a delayed allergic reaction to the dust. Repeated exposures can lead to permanent lung damage or limitations to work. A medical provider should be consulted.
 2. Organic Dust Toxic Syndrome (ODTS) – a more common toxic response to dust, molds, bacteria, or toxins in the grain dust. Recovery is usually in a few days, but a medical provider should be consulted.

Why does this year's crop present more of a risk?

Because of extensive flooding this year, many fields (including the grain) were submerged for many days. This saturation of the grain has led to extensive amounts of mold growth that has adulterated the crop to make it unsuitable for any use. In addition to the mold growth, flood waters contain other contaminants such as petroleum products, industrial chemicals, and raw sewage that may have come into contact with the grain. These factors place the farmer at a higher than normal risk when harvesting grain from fields that were submerged in flood waters.

What are the symptoms I should watch for?

Common symptoms include cough, headache, chest tightness, muscle aches, fever, or generally not feeling well. If any of these symptoms are experienced, you should visit your medical provider.

What should I do to protect myself when destroying this crop?

- Avoid direct exposures to dust whenever possible.
- You should use a NIOSH-approved and certified "N-95" respirator that fits you properly when working in extremely dusty conditions. ONLY do so if you are healthy and do not have health concerns with your heart and lungs. Consult your medical provider before using a respirator. N-95 respirators must be used only with a clean shaven face to ensure proper fit.
- People with chronic respiratory health issues should avoid dust exposure.
- If you have been exposed to large amounts of dust and you begin to feel ill, you should contact your medical provider for a proper medical evaluation.