

## Moldy Corn Creates Respiratory Health Hazard

Anyone harvesting, drying or handling moldy corn should use respiratory protection, according to Ken Hellevang, agricultural engineer with the North Dakota State University Extension Service.

The body has natural defense mechanisms, such as coughing and sneezing, that help prevent dust and other particles from entering the lungs. However, the microscopic spores that molds produce often can bypass these defenses because of their small size and overwhelming numbers.

Mold spores move into, accumulate and settle into the lower lungs. When airborne mold spores are present in large numbers, they can cause allergic reactions, asthma episodes in those with asthma and other problems for people. In addition, certain types of molds can produce toxins, called mycotoxins, which the mold uses to inhibit or prevent the growth of other organisms. These mycotoxins increase the potential for health hazards from exposure to mold spores.

Allergic reactions may be the most common health problem of mold exposure, Hellevang says. Typical symptoms reported alone or in combination include respiratory problems, such as wheezing and difficulty breathing; nasal and sinus congestion; burning eyes; watery, reddened, blurry vision; light sensitivity; dry, hacking cough; sore throat; nose and throat irritation; shortness of breath; and skin irritation.

In very rare cases, severe symptoms, such as central nervous system problems (constant headaches, memory problems and mood changes); aches and pains; and/or possible fever, may develop. People's sensitivity varies based on the amount and type of mold.

The type of respiratory protection a person needs will depend on the amount of exposure. The minimum recommended protection for mold spores is wearing an N-95-rated face mask. The mask will have two straps to hold it firmly to the face and a metal strip over the nose to create a tight seal. Some masks have a valve that enables easier breathing for extended wear.

A nuisance-dust mask with a single strap will not provide the needed protection because the mold spores will pass through the mask, Hellevang says.