DUSTS & MOLDS

COMMONLY ASKED QUESTIONS

Breathing. It's something that most of us don't even think about. But many farm and ranch workers don't breathe easily any more because their lungs have been damaged by dusts and molds.

National Farm Medicine Center

WHY SHOULD I BE CONCERNED ABOUT DUSTS AND MOLDS?

Tiny dust particles and mold spores can be inhaled into the lungs. Dusts that come from a living source ("organic dusts") such as hair, bedding, hay, grain, silage, and dried urine and feces are most dangerous. In the natural process of decomposition, molds break down plant materials, producing spores and in bacterial cases endotoxin causing inflammation of lung tissue. These tiny particles become airborne and are easily inhaled. Farm workers can be exposed to large amounts of dusts and molds in their everyday activities. Some of these substances can cause severe respiratory problems, both immediate and long term.

WHAT IS FARMER'S LUNG DISEASE?

It is a type of hypersensitivity pneumonitis caused by an allergic reaction to molds found in spoiled grain or forage products. Only some people are prone to develop this sensitivity. Repeated exposure to high levels of dust can result in sensitization. Symptoms include chills, fever, cough, chest congestion, fatigue, and shortness of breath. These symptoms can appear from four to twelve hours after exposure, and can last from one to seven days. Since the sufferer has a sensitivity to the molds, each subsequent exposure becomes more severe and lasts longer. Over time, affected persons can also develop weight loss.

WHAT IS ORGANIC DUST TOXIC SYNDROME (ODTS) ?

Organic dust toxic syndrome is a condition caused by a reaction to inhaling a large "dose" of molds from spoiling grain and forage products. Symptoms include cough, fever, chills, body aches, and fatigue. These symptoms appear from four to twelve hours after exposure to high levels of organic dusts and molds, and can last for one to seven days.

WHAT IS THE DIFFERENCE BETWEEN FARMER'S LUNG DISEASE AND ODTS?

Both conditions produce almost identical symptoms. Blood tests and chest x-rays are required to diagnose correctly. Farmer's lung disease develops because of an allergic response, and only those susceptible will react (5 – 8% of those exposed). ODTS can happen to anyone exposed to high levels of organic dust. Many times people with ODTS mistake it for the flu. Farmer's lung disease, and perhaps repeated episodes of ODTS, can cause lung tissue damage.

HOW CAN I AVOID BEING EXPOSED TO DUSTS AND MOLDS?

Dusts and molds are almost impossible to avoid if you work in agriculture. But you can limit your exposure by taking these general measures. Think about how they apply in your setting.

- Prevent dusts and molds from forming, e.g. drying feeds and cleaning animal areas regularly.
- Prevent dusts and molds from becoming airborne, e.g. adding oils to feeds, wetting down bedding before chopping or spreading, and wetting grain storage areas prior to clean out.
- Prevent inhalation, e.g. use an appropriate personal respirator such as a National Institute for Occupational Safety and Health (NIOSH) approved 2-strap N-95 respirator rather than a 1-strap nuisance dusk mask as a barrier between the particles and your lungs.

WHAT OTHER ILLNESSES CAN DEVELOP FROM DUST AND MOLD EXPOSURE?

Allergic reactions to certain organic particles such as storage mites and cotton dust can range from a runny nose to asthmatic symptoms, depending upon storage conditions and the individual worker's sensitivity.

Chronic bronchitis is a problem for some agricultural workers, especially those who work without respirators in livestock confinement settings. Smoking can multiply the effects of dusts and increase the risk of developing chronic bronchitis.

Inhalation of inorganic dust, such as the quartz dust common in California agriculture, can also lead to decreased breathing capacity over time (restrictive lung disease).

These diseases are not very common, but workers in certain agricultural settings are at increased risk.

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The National Farm Medicine Center is a program of Marshfield Clinic Research Foundation, a division of Marshfield Clinic, Marshfield, Wisconsin

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