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## **KNOW WHAT CAUSES FARMER'S LUNG**

Farmers account for more than 30 percent of adults disabled by respiratory illness. Yet, a large percentage of farmers are nonsmokers. If smoking is not to blame for these ailments, then what is? The answer is "Farmer's Lung."

Farmer's Lung is initially an allergy caused by dust from moldy grain, hay, or straw. Everyone involved in farming and grain handling needs to be concerned about this disease. In early stages, it can seem like nothing worse than a nagging winter cold. If ignored, the allergic reaction can cause permanent lung damage.

Recently, a farmer near DeWitt told me he experienced another bout of fever, etc., this Fall during early harvest. The symptoms has plagued him on and off for about ten years. He thinks an initial contact with a moldy bin of milo is what started his problems. His doctor confirmed last week that he has a disease called Farmer's Lung.

He knows there are other people who complain of some of these cold or flu-like symptoms. The key to these people is prevention of the exposure. If you have Farmer's Lung symptoms, the best advice is you need to go to the doctor right away. Symptoms include a sudden illness that develops a few hours after you breathed in grain dust or moldy crop material, a chronic cough and general feeling of tiredness or depression. The farmer in DeWitt also mentioned a fever.

Farmers will develop specific symptoms of Farmer's Lung based on the amount of dust and spores to which they have been exposed or the intensity of their body's reaction to the dust and mold spores. Farmers are also likely to develop an increased sensitivity to mold exposure over time and will have more severe reactions with lighter exposures. In all cases, each additional exposure will aggravate the problem.

Early diagnosis is crucial if lasting damage is to be prevented. Because Farmer's Lung is characterized by cold or flu-like symptoms, early detection is difficult. Many victims won't even bother to visit a doctor despite persistent symptoms. When they do, the exposure to moldy crop material is rarely mentioned to the physician. This can be disastrous, because each exposure increases the damage. The facts of the matter are farmers who don't seek medical help could saddle their families with an invalid.

Mold spores attach themselves to airborne dust particles when farmers move or work with hay, grain, or silage materials in which mold spores have grown. As a result, farmers inhale both dust particles and mold spores. In fact, a farmer can inhale up to 750,000 of these spores per minute. The body has natural defense mechanisms (such as coughing and sneezing) that help prevent dust and other particles from entering the lungs. However, mold spores can often bypass these defenses because of their small size and overwhelming numbers. Mold spores move into, accumulate, and settle into the lower lungs. Since most gas exchange takes place in the lower lungs, toxins produced by the spores travel through the bloodstream with the oxygen. The body's reaction to the toxins causes permanent scarring of the lung tissue, which affects the lungs' ability



to transfer oxygen into the bloodstream. Each exposure to mold spores increases the damage. The body's last defense against these spores is to develop an allergic reaction that causes cold- or pneumonia-like symptoms.

Delaying medical treatment for Farmer's Lung often worsens the situation. Permanent damage has often occurred by the time a farmer sees a doctor. In some cases scar tissue (pulmonary fibrosis) has already developed, which further interferes with normal lung function.

The term pulmonary fibrosis is very close to my heart this year because that is what killed my father, a farmer near Nemaha. When the scar tissue forms, the tissue becomes thicker causing an irreversible loss of the tissue's ability to transfer oxygen into the bloodstream. Shortness of breath and a dry hacking cough, fatigue, weakness and discomfort in the chest occur. The extent of fibrosis will not show up on an x-ray but is revealed on a CAT scan.

Knowledge about Farmer's Lung, going to the doctor and prevention including wearing a good dust mask is the key. For more information go to: [www.ext.vt.edu/pubs/bse/442-602/442-602.html](http://www.ext.vt.edu/pubs/bse/442-602/442-602.html)

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