

Grain dust might be common on farms, but respiratory problems don't have to be

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It's harvest season, and that means that two things are common sights on farms across the country: combines and grain dust.

But just because grain dust is a regular occurrence on many farms doesn't mean you should ignore it. In fact, grain dust can wreak significant havoc and long-lasting damage on your lungs with repeated exposure.

So, if you've been thinking that a persistent cough is just a normal side effect of working around grain, you should probably re-evaluate your exposure and protection. Understanding the health risks of grain dust and what you can do to mitigate and control risks will help protect your own well-being and that of your workers, family, and entire farm operation.

Farmer's Lung

Do an online search for 'grain dust health risks,' and you'll inevitably find a lot of results about Farmer's Lung.

Farmer's Lung, which has the technical name *extrinsic allergic alveolitis*, is an allergic disease often caused by breathing in dust from mouldy crops. While mouldy hay is the main catalyst for a reaction, dust from any mouldy crop – grain, corn, etc. – can lead to Farmer's Lung.

What does a Farmer's Lung reaction look like? In acute cases, which are the easiest to notice, the sufferer has an intense attack approximately four to eight hours after inhaling a large amount of dust from mouldy crops. The symptoms of an acute attack include shortness of breath, dry and irritating cough, sudden general feeling of sickness, fever and chills, rapid heart rate, and rapid breathing. While the symptoms, which are sometimes mistaken with pneumonia, usually subside after 12 hours, severe attacks can last up to 12 weeks. In less serious cases, a person will experience symptoms similar to a chest cold, including coughing, shortness of breath, mild fever and occasional chills, general sick feeling, aches and pains in muscles/joints, and a loss of appetite and weight loss. Chronic cases of Farmer's Lung develop after multiple acute attacks over several years and can cause permanent lung damage.

According to the Canadian Centre for Occupational Health and Safety, it's estimated that Farmer's Lung occurs in about 2-10% of farm workers and is more common in regions with wet weather at harvest time. If you live in one of those regions, keep in

mind that the incident rate of Farmer's Lung is highest in late winter or early spring when stored grain or hay is used to feed livestock.

Other Health Risks

Of course, Farmer's Lung isn't the only health risk for farmers who handle grain. Working around grain dust can lead to another respiratory affliction known as Toxic Organic Dust Syndrome (TODS) or Grain Fever. The symptoms of TODS are similar to those of an acute Farmer's Lung attack, with the respiratory system affected by dust, bacteria, and endotoxins in grain dust. Most people with TODS recover in a few days. And while permanent lung damage isn't likely with a single exposure, repeated episodes of TODS could lead to Farmer's Lung.

What's more, chronic and acute bronchitis can be common among those routinely exposed to grain dust. Plus, grain dust can cause significant problems for people with asthma.

Mitigating Risks

While avoiding grain dust altogether is the best defence, that just isn't possible on most farms. But there are still ways to reduce your exposure. Whether or not you've had respiratory problems from grain dust exposure, prevention is key to mitigating the potential for long-term health risks. Here are some ways to help control your risk:

- Ensure buildings with large amounts of dusty material are properly ventilated.
- Ensure grain and other crops are dried at harvest before storage.
- Identify any existing mould risks across the farm operation.
- Don't use compressed air for cleaning.
- When cleaning out grain bins or other dusty areas, wet them first before sweeping.
- Mechanize the handling of hay or feed as much as possible.
- Have approved respirators available for all workers and ensure they are tested for a proper fit.
- Provide training on respirator use, including when and how to wear them and how to maintain the respirator.

For employers, it's also important to organize work to minimize the number of people exposed to grain dust at any given time, as well as the duration, frequency, and exposure level.

Grain dust might be a regular occurrence on farms, but that doesn't mean respiratory problems should be. If you suspect you may have Farmer's Lung or another respiratory affliction, talk to your doctor as soon as possible and then take steps to control your occupational exposure. Taking the time to be proactive in identifying and controlling dust hazards will go a long way in benefitting your farm and your health.

About the BeGrainSafe Program

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