Farming Dust Meeting Kit

What’s At Stake

Exposure to grain dust, molds, pollen, animal dander, soil dust, welding fumes, and diesel exhaust can lead to serious respiratory problems. Although they are less toxic than some chemicals, dusts are suspended in the air and can easily enter the lungs and cause damage.

Processes that create grain dust include:

- harvesting grain and transferring grain from combines into trailers;
- cleaning, dressing and drying grain;
- moving grain about in a grain store;
- transferring grain in or out of grain stores or terminals;
- milling and mixing dry grain;
- feeding dry milled grain;
- maintenance of plant and equipment;
- cleaning of buildings, vehicles, plant and equipment using compressed air.

What’s the Danger

RESPIRATORY ISSUES FOR WORKERS

Respiratory disease (a disease affecting our lungs and breathing tubes) is a major occupational health risk. Studies have shown that workers exposures to grain dust is substantial.

Workers with occupational respiratory disease may develop permanent breathing problems, becoming disabled, and unable to work.

When you breathe in farm dust, the particles can lodge in your lungs and cause health effects. The smaller the dust particle, the deeper it can penetrate into your lung tissue. If you smoke or have an existing respiratory illness, you may be more susceptible to dust exposures. Short-term health effects may include sneezing, coughing, and difficulty breathing.

Long-term, chronic effects from dust exposure may include lung congestion, chronic bronchitis, pneumonia, and different dust sensitivities and allergies. Chronic dust exposure can lead to serious respiratory diseases such as asthma, emphysema, and farmer’s lung.

HOW TO PROTECT YOURSELF

Best Farm Dust Practices

Identification

To reduce your exposure to farm dusts, survey your work area and tasks to determine what jobs and activities you do and which areas you work in that create dust. Once you have identified these areas and tasks, look at ways to reduce the dust exposures.

Respiratory Protection Program

Before you use respiratory protection, have a respiratory protection program in place that includes medical evaluation and respirator fit testing. Use and maintain your respirators properly according to your respiratory protection plan and manufacturer's recommendations to reduce your exposures to farming dust.

Control Measures

When avoidance to grain dust is not possible, to the following:

- change processes and activities to reduce grain dust at source.
- segregate processes from exposed workers.
- enclosure of the process.
- local exhaust ventilation (LEV).
- good general ventilation.
- Organise work to minimise the number of people exposed and the duration, frequency and level of exposure;
- proper handling of materials.
- good maintenance of plant and equipment.
- good housekeeping (don't use a brush or compressed air, and never use compressed air to remove dust from clothing).
- inform and train employees on the use of control measures.

HOW TO CHOOSE A RESPIRATOR

Testing and approval: All respirators used in farming activities should be approved by the National Institute of Occupational Safety and Health (NIOSH).

Proper use: Many problems result from using an inappropriate respirator. For example, dust masks will not reduce chemical vapors. A respirator approved for use with chemicals may not filter dust.

Always use a respirator appropriate for the task: The specific contaminant for which the respirator is approved will be written on the cartridge filter or instructions with the respirator.

Proper rating: As part of the testing process, a respirator is assigned a "protection factor," or PF rating, which indicates how well the respirator can perform its job. For farming activities, always use a respirator with a PF rating of 10 or above.

Proper size and fit: The respirator must form a good seal with the wearer's face so that the respirator can function properly. Dust that slips through a poor seal goes directly to the lungs.

Respirators are available in various sizes and designs to fit most faces: Eyeglasses, clothing, and facial hair such as beards or sideburns, can interfere with the seal. All respirators must be "fit tested" by safety professionals.

Cost: Respirators can be either disposable or non-disposable. Disposable respirators are inexpensive and can be discarded when dirty or when the job is finished.

The wearer’s physical condition: The wearer of an air-purifying respirator must be in good physical condition. Since air is drawn through a filtering mechanism, breathing becomes more difficult, and can cause stress for people with medical problems.

FINAL WORD

Respirators can prevent these types of respiratory ailments related to production agriculture – but only if you wear one! Make sure you choose the right type of respirator for the hazard(s) you will encounter. Before long, wearing a respirator will become a habit.