

Dust and Moldy Hay Can Cause Health Problems¹

Prepared by Jill Shelley and Michael Dennis²

On a warm Kansas spring day Trent Hill uncapped his concrete silo and began feeding the silage to his cattle. Removing the silage created large clouds of dusts. About eight hours later the farmer experienced flu-like symptoms -- coughing, fever, chills, muscle pain and general discomfort. On the same day a nearby neighbor broke open about two dozen bales of dusty hay inside his dairy barn. About six hours later he experienced severe flu-like symptoms.

Even though these two farmers both breathed in moldy dusts and had flu-like symptoms, they did not have the same illness. Hill had a toxic reaction known as Organic Dust Toxic Syndrome. The symptoms completely disappeared in a few days and there were no lasting effects. His neighbor, because he had become sensitized to molds, had Farmers Lung. Unless he avoids moldy dusts, particularly those from moldy hay, he risks developing permanent lung damage.

Other potential sources of dust particles include, grain handling, feed handling and processing and livestock confinement units. According to Al Heber, an agricultural engineer who specializes in air quality control, the effects of dust on worker health are dependent upon the number, size and composition of dust particles.

During a study conducted for the National Pork Producers Council Heber found swine dusts caused delayed fever, chills and muscle aches and pains in people exposed to excessive amounts of organic dusts. "One out of 10 agriculture workers experience these symptoms, but most of them treat it as the flu," Heber said.

Heber recommends the following to help air quality . . . especially for swine producers.

1. Increase ventilation airflow. Consider ventilation rates to remove particles without wasting heat. In heated buildings for smaller pigs, air-to-air heat exchangers may increase the minimum winter ventilation rate without higher energy bills.
2. Improve air circulation. Make sure that the distribution inlets are managed and operated properly to avoid dead spots.
3. Use feed additives. Adding tallow or soybean oil to swine finishing feed to reduce its dustiness makes good sense.
4. Keep the facilities clean. Sweep or power wash occasionally to remove the buildup of dry material on the floor and other surfaces.
5. Isolate your lungs from dust with a mask appropriate for the job you are doing. Make sure the mask is comfortable and easy to maintain but does not restrict breathing.

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