

Health Concerns from Grain Dusts: Assistive Technology Tool

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Dust exposure in agriculture is inevitable. Breathing in grain dust can affect the health and overall comfort for farmers and others who work in the grain industry. Exposures can occur in the combine, in bins, while unloading, during drying or processing, and while grinding/mixing grain and other feed products.

Most people will have some reaction to dusty conditions during grain harvest. Often, this will be a nuisance reaction or irritation, but in some cases, more problematic health problems are possible. At low dust levels that may be encountered during harvest, developing a cough might be common. Other symptoms may include chest tightness and/or wheezing; slightly sore/irritated throat; nasal and eye irritation; and feelings of being stuffed up and congested.

Chronic and acute bronchitis can also be common among those who handle grain; the main passages in the lungs get inflamed. Grain dust can also be a problem for those with asthma.

Since 1991, AgrAbility of Wisconsin has been promoting success in agriculture for farmers and their families living with a farm injury, disability, or limitation. It has created a significant impact on Wisconsin agriculture by assisting over 3,000 farmers and farm families who have been able to continue farming or return to the farm worksite through AgrAbility intervention. A strong partnership between Easter Seals and UW-Extension has been key to making Wisconsin's project one of the most successful in the country.

We serve all different types of farmers and farms. Our USDA grant-funded program is free to everyone. However, farmers need to contact us (608.262.9336; agrability@wisc.edu). Easily enroll in our program by phone or on our website, agrability.bse.wisc.edu. It takes 5-10 minutes. Once enrolled, you will receive a phone call from a caseworker, and a farm visit with a rural rehab specialist will be scheduled. Our specialist will watch the type of daily tasks you do, give you ideas of how to make them easier with your disability, share ways to find monetary funds if needed, and provide assistive technology ideas and modifications to help you maintain independence and a productive lifestyle.

Grain farmers don't typically wear disposable filtration masks because they are cumbersome and uncomfortable. One assistive technology solution would be the RZ Mask; it's an affordable product designed for comfort while providing needed filtration. It features dual exhalation valves allowing expelled air to escape and removes moisture. They are ideal for all climates and can be used all day. There are two types: Neoprene made for cold weather and Mesh made for warm weather. Other features include adjustable nose clip ensuring a proper seal, and high-flow filters creating nearly a zero air obstruction. These masks are a great assistive technology tool for harvest season when grain dust is more persistent. To learn more about RZ Masks or to order your own, visit their website at rzmask.com.

Feel free to visit the AgrAbility website (agrability.bse.wisc.edu) to learn more and view additional assistive technology examples.

Shutske, J., Esker, P., & Kirkhorn, S. (n.d.). Human Health Concerns from Grain Dusts and Molds During Harvest. Retrieved September 26, 2019, from <https://fyi.extension.wisc.edu/agsafety/confined-spaces/grain-storage-and-handling/human-health-concerns-from-grain-dusts-and-molds-during-harvest/>.

RZ Mask. (n.d.). RZ Reusable Air Filtration Masks 888.777.9422. Retrieved from <http://www.rzmask.com/>.

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