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Review grain bin safety rules before harvest

Source: Karen Funkenbusch, 573-882-2731

COLUMBIA, Mo. –University of Missouri Extension rural safety and health specialist Karen Funkenbusch said now is a good time to review safety precautions for grain bins with farm workers and family members.

Grain bin entrapments are sad reminders that grain storage can be deadly. It takes only five seconds for a person to be caught in flowing grain, and less than 20 seconds to be sucked into the center of the grain, which acts much like quicksand, Funkenbusch said. A child can be buried in far less time.

Grain's weight and other properties make it difficult to get out of a bin without assistance, she said. Grain resists the force a rescuer uses to remove the victim. It takes more than 325 pounds of force to raise a 165-pound mannequin covered in corn, she said.

Farmers who have worked around grain bins all of their lives might think this won't happen to them. But the U.S. Occupational Safety and Health Administration reports that at least 26 U.S. workers were killed in grain engulfments in 2010, the highest on record. Since then, OSHA has inspected numerous bins and is committed to changing the "it won't happen to me" mindset, Funkenbusch said.

All augers and grain-moving equipment should be turned off before anyone enters a bin. Farmers and their employees should never "walk down" grain from the bin's sides to make it flow, or walk on crusted or bridged grain, which can collapse under a person's weight. If there is crusted or bridged grain, workers should use a tool to probe the surface from outside the bin.

Funkenbusch advises grain producers to design and install reclaim systems that allow access to the grain without having to enter the bins.

She also recommends larger service tunnels, at least 7 feet high and with good lighting and drainage. Install larger outside access doors, not a simple 24-inch round opening in the side of

the bin. Larger access doors should be at least 3 feet by 3 feet, with a platform and handrails installed.

Moist grain can form toxic gases and fumes. Bins should be checked for these gases before entering.

Farm families should discuss safety measures with all members, and children should never be near a grain bin. Sadly, many grain bin accidents involve multiple fatalities because of failed rescue attempts.

Grain handlers, bin manufacturers, safety experts and others have formed a national Grain Entrapment Prevention Initiative, which emphasizes six points in bin safety:

1. Develop a “zero entry” mentality. Stay out of the bin.
2. If you must enter, do not go alone.
3. Provide hands-on training for the entrant and observer.
4. Follow an entry permit.
5. Shut down and lockout.
6. Use a secure body harness lifeline.

For more information, contact Funkenbusch at 800-995-8503.

Photos available for this release:

Link: http://extension.missouri.edu/NewsAdmin/Photos/2013/grain_bin_1.jpg

Cutline: Bonnie Becker, 11, learned how difficult it is to free someone who is trapped in a grain bin at an exhibit at the Missouri State Fair.

Credit: Photo by Emily Kaiser

Link: http://extension.missouri.edu/NewsAdmin/Photos/2013/TugOWar_GraphOfLoad.jpg

Cutline: It takes more than 325 pounds of force to extract a 165-pound person from grain in a corn bin.

Credit: Courtesy of Charles V. Schwab, Iowa State University

Link: http://extension.missouri.edu/NewsAdmin/Photos/2013/Color_2013_Logo.jpg

Cutline: Logo for 2013 National Farm Safety & Health Week