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Grain bin safety costs a little, saves a lot

Source: Karen Funkenbusch, 573-882-2731

COLUMBIA, Mo. – It costs less than \$500 to make it safer to enter farm grain bins, says a University of Missouri Extension rural safety and health specialist.

“You can’t afford not to follow safe procedures,” says Karen Funkenbusch as the harvest season approaches. While \$500 may sound like a lot, the savings are priceless, she says.

Entering grain bins is dangerous, and farm safety experts say grain producers should develop a “zero entry” mentality. “Stay out of the bin,” Funkenbusch says. “But if you must enter, do not go alone. Grain entrapment is one of the least understood hazards in today’s family farm operations.”

There are simple, inexpensive safety techniques that can help avoid grain bin fatalities.

First, turn off and disconnect or lock out all power equipment such as augers.

“With today’s high-capacity loading and unloading systems, people are helpless in flowing grain within seconds,” she said. The cost for a lockout kit to prevent this is about \$100. The savings are priceless.

“Entrapment by flowing grain can be prevented by restricting access to the grain. Use locks on bin doors and hatches to present unauthorized access,” she added. And adults should enforce a policy of not allowing riding or playing in grain wagons or other transport vehicles.

Second, use a body harness with an anchored lifeline when entering from a level at or above stored grain. The harness costs \$250 and 100 feet of rope costs about \$100. Savings are priceless.

“Research shows that rescuing someone from grain is not easy,” Funkenbusch says. “The force ranges from 325 pounds for an average 165-pound person buried in hip-deep grain, to more than 1,500 pounds to rescue the same person who’s 3 feet under the grain surface!”

Running fans to aerate grain before entering will help improve ventilation, at small cost per kilowatt-hour. “Never walk on or down the grain to make it flow,” she said. Grain may become crusted on top and might look stable, but the “bridge” might be formed over a large air pocket that will serve as a deadly tunnel in which a person can be sucked into and suffocated within seconds. It costs only seconds to think about safety. The cost for a few extra kilowatts is small; the savings are priceless.

“Have a trained observer outside the bin,” she said. This person can act as a contact with the person inside the bin and can call for help if needed. The cost, depending on the hourly wage, probably is less than \$10. Again, the savings are priceless.

“Confirm that all safety precautions are in place,” she said. “Always avoid entering a grain storage bin if at all possible, but if you must, follow safe procedures. You can’t afford not to,” Funkenbusch said.

What if there is an accident? Funkenbusch recommends the following:

- Shut off all unloading equipment.
- Call 911.
- Stop anyone from entering the scene until trained emergency personnel arrive.
- If the bin has an aeration blower, turn it on to increase the airflow through the bin to help the entrapped person breathe.
- Assemble equipment such as front-end loaders, shovels, plywood for cofferdams and portable augers for assistance with a rescue.
- If you should become trapped in a grain bin or silo, stay near the outer wall and keep moving. If necessary, you can walk until the bin is empty or the flow stops.

For more information, contact your MU Extension center or Funkenbusch at 800-995-8503. The MU Extension guide “Safe Storage and Handling of Grain” is available for free download at extension.missouri.edu/p/G1969.