

February 2021

“Grain Bin Business”

Before the grass turns green and planters start to roll in the field, many bushels of grain from the 2020 harvest will be moved from farm storage to the elevator, and with this work comes great risk. Most farmers know grain bins can be extremely dangerous, but it can be easy to forget the safety basics. Also, the risk is greater if someone who is inexperienced is working in them or children are playing in or near them.

There have been over 1,100 grain entrapments since the 1960s,” said Salah Issa, assistant professor of agricultural and industrial safety and health at the University of Illinois. In 2019, there were only 4 reported in Illinois. The fatality rate over the last five years has declined from 67% to 42% which is great but 42% is still far too many.

While entrapments often are the focus of grain safety discussion, it is important to note that entanglements and falls are also of concern.

People can become caught or trapped in grain in three ways: the collapse of bridged grain, the collapse of a vertical wall of grain and entrapment in flowing grain. Moving or flowing grain is involved in all three. People who work with grain – loading it, unloading it, and moving it from bin to bin – need to know about the hazards of flowing grain and how to prevent grain entrapment.

Remember, just because it has been done many years the same way, doesn’t mean it will be safe this time.

Here are a few tips to help keep you safe.

Tips:

- Label grain bins to warn of entrapment hazards.
- Lock entrances to grain-handling areas to keep bystanders and children out.
- Install ladders inside bins.
- Do not enter grain bins being loaded or unloaded. Flowing grain can trap and suffocate you in seconds.
- If it is necessary to enter a bin, shut off and lock out power before entering. Use a safety harness and safety lifeline. Have a “buddy” outside the bin constantly monitoring the situation.
- Wear respirators when working in and around grain-handling areas. Large amounts of dust and molds could be present and are extremely dangerous. *Note: A one-strap dust mask is not sufficient, and if the mask black, it needs to be replaced.*

Only use respirators that:

- have two straps N95
- fit your face tightly, without gaps around the nose, cheeks and chin
- are appropriate for the task
- are approved by the National Institute of Occupational Safety and Health (NIOSH)
- Wear approved hearing protection when working around noisy equipment, aeration fans, dryers, etc.
- Be very cautious of grain that may have gone out of condition. Crusted grain may have cavities beneath the surface that can collapse, leading to entrapment and suffocation.
- Keep bystanders and children away from grain bins and grain-handling equipment.

Ask yourself these questions before you start handling grain:

- Are ladders in good condition?
- Are the rungs on the ladder or steps clear of ice, and am I wearing the appropriate shoes for the best traction?
- Is the power locked out with a padlock and key?
- Is electrical equipment safe?

- Are overhead power lines nearby?
- Are guards and shields in place?

These are just a few suggestions to keep you and your family safe from grain bin incidents. Think Safe, Be Safe.

This message is brought to you by the Center for Rural Health and Farm Safety at Carle Foundation Hospital. For more information, please visit us at carle.org/farmsafety, email us at farmsafety@carle.com or call (217) 365-7961.

Additional Information:

Grain Handling Safety Coalition: includes information on training, use of a lifeline as well as information about youth around grain. Visit: grainsafety.org

How does it happen?



You can't save yourself

How fast does it happen?

What does it take to pull out a 165 lb. person?

