

## Crops

# Be safe and bin grain properly

## Key Points

- Out-of-condition grain is the root cause of many bin deaths.
- More people die in tractor overturns than bin entrapments.
- Never enter a grain bin with the unloading auger running.

By TOM J. BECHMAN

**T**HE best way to avoid grain bin entrapment and possible death is to correctly bin and store grain. Believe it or not, that advice comes from a farm safety specialist, not a grain handling expert.

"Many of the problems with people getting caught in grain and becoming entrapped trace back to out-of-condition grain," says Bill Field, Purdue University Extension safety specialist. "The most common scenario is for someone to climb into the bin with a long pole, trying to break up a clump of grain that's over the unloading well, clogging up the system. If it wasn't for out-of-condition grain in the first place, they wouldn't need to be in the bin.

"Many problems with crusted grain could be avoided if the grain was binned properly and then managed correctly while in storage," he notes. "If you put 19% grain out of the dryer into the bin hot and don't aerate it properly, then you're likely going to have problems down the road."

### Alternate approach

Field never recommends being inside a grain tank with the unloading auger running. In fact, if you're going inside alone to break up clogs, and there is no one outside, lock out the power source. That prevents someone else from turning on the auger, not knowing you're inside.



What Field suggests instead is climbing into the bin, with the electric supply locked out, and breaking up the crust, using a pole if necessary. Then climb back out and turn on the auger. It may take more than one trip to solve the clogging issue, he realizes, but it's the only safe way to operate.

The trend across the U.S. is toward fewer farm deaths in total, but more deaths due to grain bin entrapments. So while grain bin deaths still are a small percentage of total farm accidents, they're a growing concern. A sizable portion of the entrapment deaths over the past couple of years happened in commercial facilities, Field

## You are absolutely, positively right.

## You will never see a nematode in your corn field.

Nematodes can't be seen, but they feed on your corn's root system causing measureable damage to your yields—unless Avicta® Complete Corn puts a stop to it. Avicta Complete Corn is the only seed treatment that triple protects corn with a powerful nematicide, a trusted insecticide and the leading fungicide package, all in one complete combination. Go to [AvictaComplete.com/Corn](http://AvictaComplete.com/Corn) for tips on identifying nematodes and much more, or call 1-866-9AVICTA. Because what you can't see *can* hurt you.

©2009 Syngenta Crop Protection, Inc., P.O. Box 18300, Greensboro, NC 27419. Important: Always read and follow label instructions before buying or using Syngenta products. Avicta Duo Corn is a Restricted Use Pesticide. Avicta Complete Corn is a promotional combination of separately registered products: Apron XL, Avicta® Cruiser®, Dynasty®, Maxim® and the Syngenta logo are registered trademarks of a Syngenta Group Company. Syngenta Customer Center: 1-866-SYNGENT(A) (796-4368), [www.FarmAssist.com](http://www.FarmAssist.com) MW 15DT9052-D10 8/09

adds. Historically, most have happened on farms.

### In the spotlight

What is it about grain bin incidents that attracts the media? Because of media coverage, it seems like more people die in grain bins than anything else, but that isn't true. Tractor overturns still result in more deaths annually, Field notes.

"They're [entrapments] such traumatic events," he says. "That may be why there's such coverage. Plus, grain bin entrapments are nearly always fatal. With tractor overturns, there's a much better chance of surviving the accident."

Compare it to plane crashes. Statistics prove air travel is far safer than driving, but airplane crashes get big headlines.

Again, it's more dramatic; the chances of dying if you're in a doomed plane are much higher than if you're in an automobile crash.

Field suggests following safety procedures if you must enter a grain bin. Never enter a bin with the auger running. Still, accident prevention starts with binning grain properly in the first place.

## Ag engineers push for new bin standards

**I**F Bill Field and other safety specialists had their way, grain bin manufacturers would install shut-off switches for unloading equipment at each access point into the bin, not just near the unloading auger. And it wouldn't be an option — they would be required to do so.

The American Society of Agricultural and Biological Engineers sets standards for such things as safety in how various pieces of equipment are designed.

Equipment already exists, for example, that allows someone standing at the top of the bin to shut off the auger. That would prevent the flow of grain if a clog broke, and would prevent the person inside from being pulled under the grain surface.

"So far we haven't been successful in getting manufacturers to agree to make this a standard feature," Field says. "However, we'll keep trying. It would allow someone atop the bin to shut off power if the person inside was in trouble." Think of it as a spotter in a car race, with access to the driver via radio if he spots an upcoming issue.

Some companies offer devices that fit over the unloading wells in bins and act as clod busters, breaking up clumps of grain before they reach the unloading well. A few farmers have made their own devices. However, farmers tend to complain that these devices slow down the flow of grain.

Another option is to put more than one unloading well per bin, Field notes. Some larger commercial operations are building bins with multiple unloading wells. That way, if one plugs, they can pull out of another one.

"What you have to watch then is to make sure corn level inside doesn't become too uneven, and put too much pressure on bin walls," Field adds.

It's not only bin manufacturers that still need to learn about preventing and responding to grain entrapments, Field notes. Many volunteer fire departments and rescue crews still don't understand the dynamics of grain flow inside bins.