

A year-round strategy for managing grain



As you know, grain-related accidents can happen when you least expect it – and can be highly disruptive to your business. That’s why being prepared is so important. This document was created to help you shape a strategy for how to best manage grain year-round, which will help minimize grain-related accidents and help improve your bottom line.

Pre-harvest

Preparation is the first step in effectively managing grain. Set aside time before harvest to plan for the upcoming season and identify areas of your operation that may need attention.

Address the following areas prior to harvest:

- Check fields to map out and maximize crop readiness
- Identify fields or areas of fields where molds or toxins may develop
- Make all necessary grain bin repairs

Evaluate the following equipment for needed repairs:

- Aeration fans and exhaust vents
- Bin floors (check for holes, blocked sumps, slide gate operation, etc.)
- Unload augers
- Spreaders, if equipped
- Stirators, if equipped
- Electrical function
- Roofs and side walls (check for leaks or other damage)
- Bearings (check for lubrication)

Harvest

Although weather conditions and other factors can make it challenging, proper grain management during the harvest season can help ensure that your grain is in the best condition possible for market.

Help improve worker safety.

High-moisture grain can create problems — such as poor grain flow and equipment malfunction — that cause workers to enter grain bins. Maintaining high-quality grain can help minimize these issues and improve safety by keeping workers out of grain bins.

Sample grain.

Sampling loads of grain can provide helpful information about your grain's moisture content. Grain moisture content and temperature prior to storage affect its storage life.

Just one load of wet grain can become the source of out-of-condition grain that creates issues such as a plugged sump. Have a drying plan in place if you're equipped with a grain dryer. When in doubt, sell the grain to avoid the issues that may arise from storing it.

Post-harvest

Grain management still plays an important role after harvest is complete.

Monitor stored grain.

Use caution and follow industry best practices when entering grain bins to collect samples. Due to the potential of bridging grain, the bin should not be entered after the first load of grain is removed.

Check stored grain on an established frequency (preferably weekly), monitoring temperature cables and using stirrators if available. Sample grains using the smell test. When necessary, run aeration fans to maintain proper moisture levels and reduce the temperature for long-term storage.

Constant grain monitoring can help you catch issues early on, before they become large problems. This can help reduce financial losses and help improve the safety of your workers.

Collect grain samples to assess:

- Moisture level
- Grading
- Fines removal
- Potential molds or toxins

Take additional samples if molds or toxins are found. Do not rely on samples from combine equipment only. These results detail moisture content and yield, but typically do not provide enough information regarding foreign matter or visible mold.

If necessary for grain grading, retain samples of grain loads and take them to calibrated equipment and grain graders.

Track loads of grain.

Be sure to track individual loads of grain so you know what is in each grain bin. This can also assist in identifying areas you should monitor for hot spots during long-term storage.

Core grain bins.

When filling grain bins, fines and foreign matter accumulate in the center of the bin. This reduces aeration flow and can cause grain in the center of the bin to go out-of-condition. To address this problem, grain bins should be cored (grain removed from the center of the bin) to help improve aeration. The deflection cone should be one-third of the bin diameter. If time allows, this could be done during the harvest season.

Help us save lives.

Learn more about grain management, grain quality and safe-work practices and procedures at grainbinsafetyweek.com.