

# Safety first during harvest

You have a huge amount of work to get done in a small amount of time. You have to get the harvest in — it's your family's livelihood. That urgency is probably what causes more accidents and damage during harvest than at any other time of the year. And some of these incidents can be life-altering.

## Step 1: Get organized

### Before harvest begins, take a few steps to prepare and avoid losing the use of equipment for harvesting, grain handling or grain drying

Collect owners and operators manuals for all your harvesting equipment

Review the operational information and maintenance schedules to determine specific calibrations or preventive maintenance needs before harvest

Make sure regularly scheduled equipment maintenance is being completed throughout harvest season by creating a maintenance / servicing checklist

Perform operational checks on fans, augers, conveyors and other mechanical equipment before harvest begins

Find and organize parts, tools and equipment needed to facilitate servicing, maintenance or repairs to all equipment

Consider the purchase of spare parts or additional maintenance / servicing tools for critical equipment

### Complete a basic safety walk-around of your grain facilities

Look for slip, trip and fall hazards such as loose ladders, platforms, handrails and steps

Remove protruding objects that could cause injury in a trip or fall

Remove debris, weeds or other obstructions that can cause injury or impede work

Check for loose or missing safety covers and access panels on equipment and structures

Inspect and test LP or natural gas lines, connections or fittings

Install warning signs and safety locks, and have a first aid kit at each grain site

### Complete a facilities electric check

Electrical boxes and connections should be weathertight, watertight and properly grounded

Make sure there is no open conduit or exposed wiring

Panels and switches should be operationally checked and repaired or replaced before harvest

Make sure overhead wiring is part of your pre-harvest electrical inspection and safety program

Take 10 minutes to consider these important tips that may help your harvest go off without a hitch.

### **Take time to educate or train workers and family members on the safe operation of harvest equipment**

Ensure that they know when to stop doing something to prevent injury or equipment damage

If new or substitute equipment has been installed, refresh training and operational understanding

Restrict access to anyone visiting your grain handling and storage location, especially to young children

### **Step 2: Save time by being efficient**

With the continued increase in per-acre yield, it's more important than ever to get the most efficiency out of your grain handling and storage resources. Here are a few things to consider:

#### **Check the condition of your grain receiving equipment**

Ensure that augers are in very good working condition, including the auger flighting; flighting that is "saw-toothed" costs you efficiency while moving grain and can cause kernel damage, exposing crops to mold and micro-organisms while in storage

Inspect the cups, belt and drive pulley on bucket elevators for wear and replace damaged or worn components

Check bucket elevator operation so that the belt runs straight and true within the casing

Make sure the discharge baffle is not worn out or out of adjustment so any grain backflow is prevented

Ensure that the elevator boot section is clean and free of debris

#### **Maintain the space under your bin aeration floor, another area that requires regular inspection and cleaning**

Remove dust and debris from your aeration system and the surrounding space

Check your bin roof vents for rust, damage, bird nests, and areas where potential moisture could enter

Check any permanently installed bin reclaim augers or conveying equipment for sound operation and any damage to the flighting

Check the condition of any floor gates and sumps to make sure they are clear of any debris and open easily for the efficient removal of grain

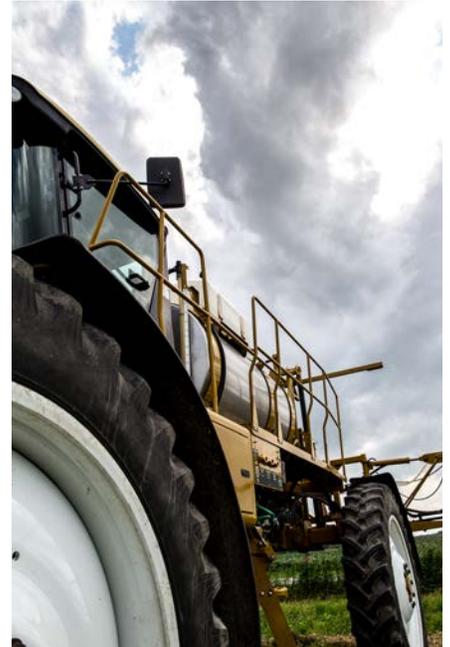
#### **Service your dryer; any loss of efficiency with your dryer can cost you additional days and weeks of extra time in the field**

Make sure the fill and discharge systems are in good condition

Check and clean the burner and igniter, look for plugged or rusted out openings, and repair or replace

Make sure there are no leaks in the gas lines that feed the burner

Run the fan to make sure it operates correctly and fix or replace any internal or external screens that show excessive wear, rust or damage



Take the time now to deal with your equipment and grain storage structures, and continue to monitor the efficiency of your equipment during harvest to save time and money.

### **Step 3: Know your crop and recognize risks**

#### **Get into your fields early and often to begin identifying the quantity and quality of your crop**

Scouting fields helps identify crops that should be harvested earlier or faster than others

Standability can be a significant problem if not identified and dealt with early with the proper crop protection products

Recognize that disease can be accelerated because of cool or damp conditions and that high winds will have the most severe effect on poorer stands

#### **Stay in touch with the local elevators for early grain marketing opportunities, especially opportunities to move high-moisture (25 to 30 percent) corn to grain terminals — without being discounted**

Local grain merchandisers may reduce their discounts when they need grain to fill their own delivery contracts or may be willing to adjust their discounts for early delivery

Remember, waiting too long to shell corn can cause excessive kernel damage and problems during storage

#### **Stay aware and informed about drying your corn**

Do not attempt to dry corn that you are not set up to dry

If you don't have the right equipment, move your high-moisture corn to a grain elevator or consider replacing your dryer

There is no need to create a huge bottleneck in your harvest by trying to dry excessively high-moisture corn when your equipment will not keep up with your combine

You will also save time and profitability if you don't end up with a bin full of moldy corn that could be docked even more

#### **More tips to help you reduce harvest time risk**

Check fields for areas of possible erosion or washouts, and map locations for those who may be operating harvest equipment

Evaluate field loss frequently, properly calibrating combines to keep corn kernel loss to 1% or less per acre

Drive fast enough to load your machine, but not so fast that you reduce separation efficiency

Always refuel your equipment after it has cooled, because fuel vapors can easily ignite on hot engines

Keep and maintain a suitable fire extinguisher, accessible from the ground, on each of your combines

Grease and complete routine maintenance in the morning when you are more focused on the task at hand



Get into your fields early and often to begin the process of identifying the quantity and quality of your crop.

Drive your combine only when you are alert, and schedule breaks to keep fresh  
Move combines from field to field during daylight  
Keep your distance from other vehicles and machines, and be aware of other equipment  
It is very important to blow dirt, chaff, leaves and other debris from the machine as often as possible  
Check bearings, shafts, belts and other moving parts for wrapped plant material

#### **Step 4: Stay safe on the roads**

Harvest season means more farm vehicles will be sharing the roadways with other vehicles, including combines, other harvesting equipment, and trucks and tractors transporting produce. Help ensure your safety on the roads by following these safety guidelines:

##### **Display the Slow Moving Vehicle (SMV) emblem on all off-road vehicles**

Make sure emblems are in good condition and properly mounted for visibility

##### **Use proper vehicle lighting**

Use flashers anytime you use public roads; the American Society of Agricultural Engineers (ASAE) recommends two flashing amber lights, mounted at least 42 inches high, in both the front and rear

##### **Comply with your state laws**

Most state laws require using headlights a half-hour before sunset until a half-hour after sunrise

Also use headlights whenever insufficient light or unfavorable weather conditions exist; the ASAE recommends two headlights on the front at the same level, positioned as far apart as possible, one rear left and rear right red taillight mounted as far apart as possible, and two red reflectors visible from the rear

##### **Inspect hitches to verify that they are sturdy and properly mounted before towing equipment or using wagons**

Always use safety chains if equipped

Have a successful and safe harvest season by taking the time to prepare, plan, observe and manage your operations, assets and the risks associated with them.