



Your Personal Farm Safety Audit

A checklist safety management tool

*Reduce the risk of accidental loss in your farm operation
by applying these simple management practices.*

MODULE 2 • DRIVELINE SAFETY

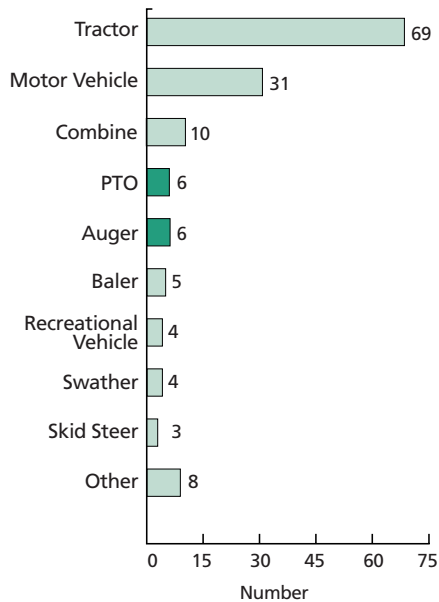


Farm Safety Audit: Driveline Safety Module

The Farm Safety Audit is a management tool that can minimize the risk of work-related death or injury on your farm and maximize your productivity and profitability. This module addresses the hazards of power take offs (PTOs) and augers.

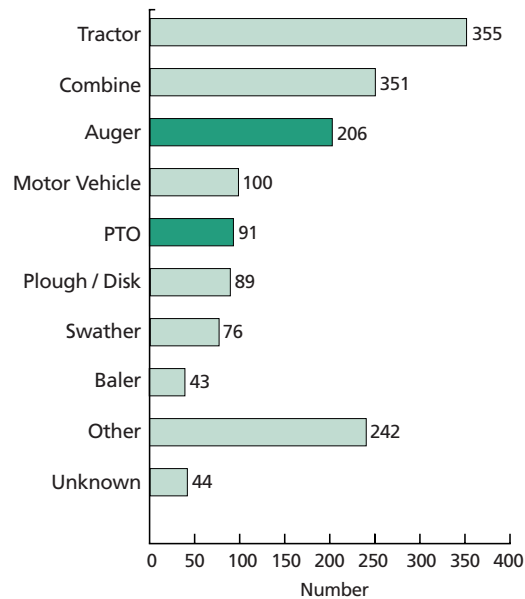
Fatal farm injuries in Saskatchewan by machinery type,

April 1990 – March 2000 (146 cases)



Hospitalized farm injuries in Saskatchewan by machinery type,

April 1990 – March 2000 (1,497 cases)



AUDIT HOW-TO . . . one step at a time

STEP
1

Inspect your equipment and operating techniques and identify hazards

- Use the checklists to assist you during your inspection.
- Enlist an outside pair of eyes or another family member to help recognize hazards.
- Complete the **white section** of the checklist during your inspection and the **green section** after your inspection.

STEP
2

Classify hazards and assess risk

- When you have completed your inspection, fill out the **green section** of the checklist. Where you have checked YES on a checklist, no further action is required.
- Where you have checked NO, rate the priority for action of the hazard as HIGH, MODERATE or LOW based on the following table. This step helps you spend ten dollars worth of energy on a ten dollar problem, and not on a ten cent problem.
- Indicate what action is required to eliminate or reduce the hazard, and its estimated cost in dollars or time. You now have a work sheet.

Priority for Action Table

What is the likely outcome?	How often am I or other people exposed to the hazard?			
	Daily	Weekly	Monthly	Rarely
Death or permanent disability	HIGH	HIGH	HIGH	HIGH
Temporary disability	HIGH	HIGH	MODERATE	MODERATE
Minor (first aid) injury	HIGH	MODERATE	LOW	LOW

HIGH

The danger is too great to ignore. Immediate action is required. Consider discontinuing operation until correction completed.

MODERATE

Risk is serious. Prompt attention is required.

LOW

Minor danger. Attention is indicated. Always look for ways to improve safety.

STEP
3

Take corrective action – the most important step in the audit

- Based on priorities you established in Step 2, decide what corrective actions you can take now, and what actions will require more planning and/or budget.
- Make a commitment by selecting a target date for the completion of each corrective action.
- When older equipment does not meet the checklist's "Physical Conditions," it is doubly important to follow the recommended "Safe Work Practices."

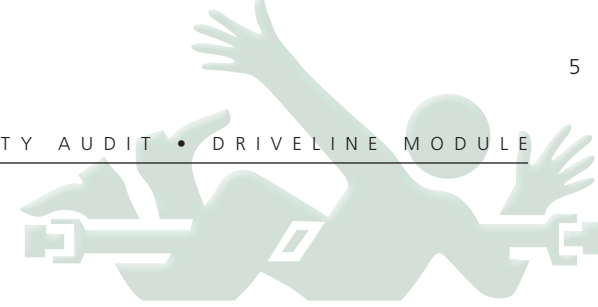
STEP
4

Continue to monitor safety

- Make safety auditing a regular part of your farm management practices.
- Assess the effectiveness of actions you have implemented.
- Remember, there are no short cuts to safety.

Power Take Off (PTO) Safety

In Saskatchewan, PTO injuries occur most frequently in winter. Likely factors are the increased use of PTO driven equipment such as feed mills and the wearing of bulky, loose-fitting clothing at this time of year.



Y	N	Physical Condition	Priority for Action HIGH/MED/LOW	What action is required	Cost	Target Date
<input type="checkbox"/>	<input type="checkbox"/>	Is the master shield in place where the PTO meets the tractor?				
<input type="checkbox"/>	<input type="checkbox"/>	Does the PTO have a shaft and U-joint guard?				
<input type="checkbox"/>	<input type="checkbox"/>	Does the PTO shaft guard spin freely? (NB: Check only with power off.)				
<input type="checkbox"/>	<input type="checkbox"/>	Is a stub shaft shield available and in use when the PTO is not in operation?				
<input type="checkbox"/>	<input type="checkbox"/>	Is the implement shield in place?				
<input type="checkbox"/>	<input type="checkbox"/>	Are hazard warning decals in place?				
Y	N	Safe Work Practice				
<input type="checkbox"/>	<input type="checkbox"/>	Do you wear close-fitting clothing and keep boot laces tucked away when working with PTO-driven equipment?				
<input type="checkbox"/>	<input type="checkbox"/>	Do you remove jewelry (rings, watches, bracelets, neck chains) when operating PTO-driven equipment?				
<input type="checkbox"/>	<input type="checkbox"/>	Do all operators keep long hair tied back or under a cap?				
<input type="checkbox"/>	<input type="checkbox"/>	Do you perform a pre-operation safety inspection before using the PTO?				
<input type="checkbox"/>	<input type="checkbox"/>	Do you stop the PTO when dismounting the tractor?				
<input type="checkbox"/>	<input type="checkbox"/>	Do you wait for all moving parts to come to a complete stop before getting close, particularly if you have to remove protective devices?				
<input type="checkbox"/>	<input type="checkbox"/>	When operating stationary PTO-powered equipment, do you stay safely away from unshielded moving parts, at a distance at least equal to your height in case you stumble?				
<input type="checkbox"/>	<input type="checkbox"/>	Do you never step over, lean across or crawl under a rotating PTO shaft?				
<input type="checkbox"/>	<input type="checkbox"/>	Do you position the tractor drawbar properly for each implement in order to prevent driveline stress and separation?				
<input type="checkbox"/>	<input type="checkbox"/>	Do you train and supervise other workers, including family members, on safe operating procedures for PTOs?				
<input type="checkbox"/>	<input type="checkbox"/>	Do you keep children and observers out of the danger zone?				
<input type="checkbox"/>	<input type="checkbox"/>	Do you repair or replace worn or missing parts as soon as possible?				
<input type="checkbox"/>	<input type="checkbox"/>	Do you use replacement parts recommended by the manufacturer?				

Note: When older equipment does not meet the checklist's Physical Conditions, it is doubly important to follow the Safe Work Practices.

Auger Safety

Auger-related injuries result primarily from the following circumstances:

- Contact with exposed auger flighting
- Entanglement in belt drive or PTO
- Electrocutation when auger comes into contact with overhead power line
- Contact with spinning positioning crank

Y	N	Physical Condition	Priority for Action HIGH/MED/LOW	What action is required	Cost	Target Date
<input type="checkbox"/>	<input type="checkbox"/>	Does a cage-type shield cover all auger intakes?				
<input type="checkbox"/>	<input type="checkbox"/>	Are all shafts guarded properly?				
<input type="checkbox"/>	<input type="checkbox"/>	Do augers with gasoline engines have a clutch and starter?				
<input type="checkbox"/>	<input type="checkbox"/>	Do augers with electric motors have undamaged cords and connections?				
<input type="checkbox"/>	<input type="checkbox"/>	Are auger cables in good condition with no fraying?				
<input type="checkbox"/>	<input type="checkbox"/>	Is the auger's height-adjusting crank equipped with a safety clutch?				
<input type="checkbox"/>	<input type="checkbox"/>	Are there stops on the ends of the auger's track?				
<input type="checkbox"/>	<input type="checkbox"/>	Are the auger's hazard warning decals in place?				
<input type="checkbox"/>	<input type="checkbox"/>	Do areas where an auger is used have good lighting for night work?				
<input type="checkbox"/>	<input type="checkbox"/>	Have you enlarged the access holes of bins that do not accept augers with guards?				
Y	N	Safe Work Practice				
<input type="checkbox"/>	<input type="checkbox"/>	Do you wear close-fitting clothing and steel-toed boots with laces tucked away when working with augers?				
<input type="checkbox"/>	<input type="checkbox"/>	Do you perform a pre-operation auger safety inspection, checking fastener tightness, belts, chains, oil levels, the winch cable etc.?				
<input type="checkbox"/>	<input type="checkbox"/>	If a cable is frayed, do you determine the cause, correct it and replace it?				
<input type="checkbox"/>	<input type="checkbox"/>	Do you position the auger on level ground, block it in place, and ensure the area is free of debris or tools that could cause trips or falls?				
<input type="checkbox"/>	<input type="checkbox"/>	Do you shut off power to adjust, service, clean or unplug the auger?				
<input type="checkbox"/>	<input type="checkbox"/>	Do you make sure the hopper and auger are empty before stopping the equipment?				
<input type="checkbox"/>	<input type="checkbox"/>	When moving an auger without a handle, do you avoid grabbing it in the area of the flighting?				
<input type="checkbox"/>	<input type="checkbox"/>	Do you always transport portable augers in a lowered position, with safety locking devices in place?				
<input type="checkbox"/>	<input type="checkbox"/>	Do you allow ten feet of clearance between the auger and power lines to be sure electricity doesn't arc?				
<input type="checkbox"/>	<input type="checkbox"/>	Do you never raise an auger beyond the manufacturer's recommended height to avoid cable/winch failure or auger upset?				
<input type="checkbox"/>	<input type="checkbox"/>	Do you train and supervise other workers, including family members, in safe operating procedures for augers?				
<input type="checkbox"/>	<input type="checkbox"/>	Do you keep children and observers out of the danger zone?				

Note: When older equipment does not meet the checklist's Physical Conditions, it is doubly important to follow the Safe Work Practices.

Safety checks when using an auger-powered bin sweep

- Is the bin floor free of debris, protruding nails or other obstructions?
- Are auger and bin sweep, and bin sweep sections, hooked together properly?
- Are the bin sweep's hydraulic lines in good repair?
- Is the relief (shut-off) valve installed properly and operating?
- Do you maintain a safe distance from the rotating flighting?
- Is a flex pipe in place to carry exhaust outside the bin?

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