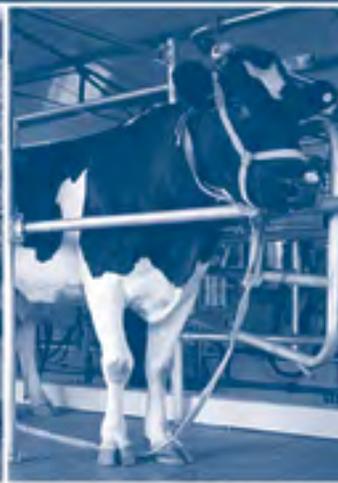




FARM SAFETY GUIDE



Some hard numbers

Fatal farming injuries in Canada (1990-2000)*

Courtesy: Canadian Agriculture Safety Association (CASA).

CAUSE OF FATALITY	0-14 years	15-59 years	60+ years	TOTAL
Rollovers (mainly tractors)	20	142	108	270
Runovers	42	36	61	139
Entanglements	6	73	30	109
Traffic on public roads (collision)	3	73	18	94
Falling material/bales	6	52	37	95
Animal related	11	25	36	72
Crushings between objects	10	44	31	85
Falls	36	56	61	153
Electrocutions	2	17	1	20
Others: towing, fires, trench collapse, drowning, etc.	35	146	55	236
Unknown	0	2	2	4
Total	171	666	440	1,277

*Machinery is involved in 70% of farming fatalities

Decrease these numbers by preparing your safety plan

A safety plan is an investment in your farming operation. By using this audit and then completing the Farm Safety Plan pages found at the end of this booklet, you can control hazards and make your farm a safer and more effective operation.

Having a safe operation helps you meet three objectives:

- Ethical: it's the right thing to do
- Legal: it helps you meet your legal obligations
- Financial: it can decrease the costs of injuries, losses and insurance premiums

Complete your plan

1. Inspect your farm using this Farm Safety Audit. Try to have two people inspecting, since a pair of experienced eyes and a pair of inexperienced eyes will see different hazards.
2. Evaluate each item and set the priorities using the table below.
3. Transfer items onto the safety plan in order of priority.
4. Determine the most effective corrective actions to be taken.
5. Set deadlines for completing the corrective actions.
6. Evaluate the costs of the corrective actions.
7. Implement the corrective actions and verify that they have not created another hazard.
8. Repeat these inspections on a monthly basis to assess your progress and to identify any new problems. Ongoing inspections should be completed monthly and a thorough audit should be done yearly.

Establish priorities

Use the following table to help you determine your priorities. Start by correcting the highest risk issues first.

LIKELY OUTCOME	Occurs daily	Occurs weekly	Occurs monthly	Occurs rarely
Potential fatality	High	High	High	High
Serious injury	High	High	Medium	Medium
Minor injury	Medium	Medium	Medium	Low
Property damage	Low	Low	Low	Low

Choose the best corrective actions

Type of control measure	Effectiveness of control measures	Explanation	Example
Eliminate	Most effective	Remove the hazard permanently	Throw out dangerous or broken ladders
Substitute		Replace the hazard with something that is not as dangerous	Use a different pesticide that is equally effective but less toxic
Engineering/Design		Redesign to reduce or isolate the worker from the hazard	Install guards on machinery
Controls/Work practices		Make and enforce rules about work practices	Check 360° before moving machinery
Protection/Personal Protective Equipment (PPE)	Least effective	Protect workers by enforcing the wearing of PPE	Use a mask, glasses, or gloves when exposed to chemicals

This document was created using information from the New Brunswick *Occupational Health and Safety Act* and Regulations. These are referenced as follows throughout this publication:

Reference Term	Legislation
<i>OHS Act</i>	New Brunswick <i>Occupational Health and Safety Act</i>
<i>G 91-191</i>	New Brunswick <i>General Regulation 91-191</i>
WHMIS	New Brunswick <i>Regulation 88-221</i>
First Aid	New Brunswick <i>Regulation 2004-130</i>
Working Alone	New Brunswick <i>Regulation 92-133</i>

Animal handling facilities

- Accidents involving animals can cause death or injury. These accidents account for up to 16% of non-fatal injuries and are the second most common cause of injuries, after machine repair and maintenance.¹
- The size and weight of livestock are the primary causes of injuries to humans. Victims may suffer crushing injuries to the head, torso or extremities when large animals fall on them, or they are caught between the animal and another object. Falls from animals also cause injury.
- Animals can be the source of infectious diseases, which they spread to their human caretakers. Prevent the transfer of infection by keeping animal facilities clean, testing and immunizing, and using sanitary practices in handling animals and their products.

DO YOU...	Yes	No	Correction date	Completed
Immunize pets and animals as required?	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure ventilation fans and vents are operative and in good condition?	<input type="checkbox"/>	<input type="checkbox"/>		
Keep heaters away from combustible materials?	<input type="checkbox"/>	<input type="checkbox"/>		
Sand icy areas in feedlots? G 91-191 102(8)	<input type="checkbox"/>	<input type="checkbox"/>		
Forbid anyone to excite, tease or abuse animals?	<input type="checkbox"/>	<input type="checkbox"/>		
Maintain adequate lighting to eliminate bright spots and shadows? G 91-191 26(1)	<input type="checkbox"/>	<input type="checkbox"/>		
Where possible, have cattle dehorned?	<input type="checkbox"/>	<input type="checkbox"/>		
Use special care in handling animals with newborn young?	<input type="checkbox"/>	<input type="checkbox"/>		
Make animals aware of your approach so as not to frighten them?	<input type="checkbox"/>	<input type="checkbox"/>		
Have an emergency escape route when working in close quarters with animals?	<input type="checkbox"/>	<input type="checkbox"/>		
Wear protective footwear and head protection when handling animals? G 91-191 40(2) & 41(2)	<input type="checkbox"/>	<input type="checkbox"/>		
Roughen steps and walkways in facilities to prevent slips and falls?	<input type="checkbox"/>	<input type="checkbox"/>		
Keep walkways and aisles free of obstacles such as debris, manure, and feed? G 91-191 15 & 16	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure outside ramps, steps and entrances are protected from rain or spilled liquids that could freeze? G 91-191 102(8)	<input type="checkbox"/>	<input type="checkbox"/>		
Keep animal drugs and barn chemicals in a secure area in the original containers? WHMIS Regulation	<input type="checkbox"/>	<input type="checkbox"/>		
Maintain pens, gates and fences in good condition, without protrusions?	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure restraining chutes are designed safely, and that they are in good condition (without protrusions) and securely anchored to prevent tipping or slipping?	<input type="checkbox"/>	<input type="checkbox"/>		
Train employees properly in animal handling?	<input type="checkbox"/>	<input type="checkbox"/>		



¹ Pabwa, P., Zasada, M., "Results of a Survey on Farm Accidents in Saskatchewan", McDuffie HH, Dosman JA, Semchuk K, Olenchok S, Senthilselvan A (eds), *Human Sustainability in Agriculture: Health, Safety, Environment*, Lewis Publishers, Chelsea Michigan, 1994.

Power take off (PTO)

- On a PTO driveline with a 10cm circumference operating at 540 rpm, an entire arm or leg can wrap around the driveline in just one second. At 1,000 rpm, it only takes half a second. Most PTO entanglements occur at the connecting points between the PTO and the tractor, or between the PTO and the attached implement when protective shields have been removed or damaged.
- Entanglements also occur at the point where the intermediate shaft of the PTO telescopes.
- PTO entanglements usually cause severe, disabling injuries or death.

DO YOU...	Yes	No	Correction date	Completed
Ensure all PTOs have shields and guards in place? <i>G 91-191 224(b) & 242(1)</i>	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure safety decals are in place?	<input type="checkbox"/>	<input type="checkbox"/>		
Always avoid stepping over the PTO shaft?	<input type="checkbox"/>	<input type="checkbox"/>		
Replace worn or defective parts as soon as possible? <i>G 91-191 235(1) & 236</i>	<input type="checkbox"/>	<input type="checkbox"/>		
Mount a master shield on the tractor, where your PTO meets the tractor? <i>G 91-191 224(b) & 242(1)</i>	<input type="checkbox"/>	<input type="checkbox"/>		
Check shields on PTOs periodically to ensure they rotate freely? NOTE: CHECK ONLY WITH POWER OFF	<input type="checkbox"/>	<input type="checkbox"/>		
Disengage the PTO, shut off the engine and remove the keys before leaving the tractor seat? <i>G 91-191 228</i>	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure clothing is close-fitting, long hair is covered, and no dangling items such as laces or jewelry are exposed when working with PTO-driven equipment? <i>G 91-191 241(2)</i>	<input type="checkbox"/>	<input type="checkbox"/>		



Farmyard, fields, and lanes

- It is difficult, if not impossible, to see or hear children while running farm machinery. Children need designated play areas on the farm away from machinery and traffic. Tragically, many serious and fatal injuries to farm children occur when they are run over by farm equipment.
- In a survey of non-fatal farm injuries, approximately 40% occurred in the farmyard.¹
- Eliminating hazards in the farmyard will make your farm a safer place to live and work for you, your family, and visitors.

DO YOU...	Yes	No	Correction date	Completed
Maintain sidewalks and walkways in good repair? G 91-191 102(1)	<input type="checkbox"/>	<input type="checkbox"/>		
Put away lawn and garden tools after use?	<input type="checkbox"/>	<input type="checkbox"/>		
Have an assigned, fenced play area for children?	<input type="checkbox"/>	<input type="checkbox"/>		
Forbid children to play where farm machinery or tractors are working or stored?	<input type="checkbox"/>	<input type="checkbox"/>		
Provide protection from the danger of openings such as uncovered water tanks, wells, and cisterns? G 91-191 111(1)(b)	<input type="checkbox"/>	<input type="checkbox"/>		
Keep children away from open water sources such as dugouts and ponds?	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure all gates (yard and field) are wide enough for machinery and trucks to enter and exit easily, and that there is sufficient turning area for machinery along ditches and embankments? G 91-191 230	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure workers are aware of overhead power lines when moving tall equipment, such as ladders? G 91-191 371	<input type="checkbox"/>	<input type="checkbox"/>		
Remove all obstacles that can be snow covered from the yard and work areas before winter?	<input type="checkbox"/>	<input type="checkbox"/>		
Clear the yard of debris such as dead vegetation, waste, and mislaid tools? G 91-191 15	<input type="checkbox"/>	<input type="checkbox"/>		
Kill or remove hazardous plants such as poison ivy from the farmyard?	<input type="checkbox"/>	<input type="checkbox"/>		
Check the yard for nests of stinging insects, and take appropriate action for their removal?	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure clotheslines are high enough for pedestrians to walk under?	<input type="checkbox"/>	<input type="checkbox"/>		
Inspect trees after storms and in the spring for broken limbs that could come down?	<input type="checkbox"/>	<input type="checkbox"/>		
Keep equipment off of steep slopes where stability can be uncertain? G 91-191 228	<input type="checkbox"/>	<input type="checkbox"/>		
Repair and fill washouts so vehicles won't get stuck?	<input type="checkbox"/>	<input type="checkbox"/>		
Trim low tree branches that could hit equipment?	<input type="checkbox"/>	<input type="checkbox"/>		
Require machine operators to stop before crossing railway lines on your farm?	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure underground utilities, such as gas lines and power lines, that cross your farm are well marked?	<input type="checkbox"/>	<input type="checkbox"/>		
Maintain roads in good condition, free of ruts and bumps or stones?	<input type="checkbox"/>	<input type="checkbox"/>		
Mark laneways before winter snows to indicate ditches for snow removal?	<input type="checkbox"/>	<input type="checkbox"/>		

¹ Pabwa, P., Zasada, M., "Results of a Survey on Farm Accidents in Saskatchewan", McDuffie HH, Dosman JA, Semchuk K, Olenchock S, Senthilselvan A (eds), *Human Sustainability in Agriculture: Health, Safety, Environment*, Lewis Publishers, Chelsea Michigan, 1994.

General farm buildings, workshops and special structures

- Fatalities have occurred in farm buildings when farmers have been accidentally submerged in grain bins and suffocated. Asphyxia has also occurred when farmers have been overcome by carbon monoxide fumes in poorly ventilated shops or by exposure to toxic gases found in confined spaces such as manure pits, septic tanks or silos.
- Up to 24% of non-fatal farm injuries occur in farm buildings.¹
- Good housekeeping, and proper cautionary signage and maintenance practices can reduce accidents caused by slips and falls.
- Farmers have high rates of occupation-related lung diseases such as chronic bronchitis, occupational asthma and Farmers Lung. You can prevent these lung diseases by using appropriate personal protective equipment, such as respirators.

DO YOU...	Yes	No	Correction date	Completed
Keep buildings and work areas free of litter and debris? G 91-191 15 and 16 / 101(1)	<input type="checkbox"/>	<input type="checkbox"/>		
Keep floors dry at all times, and wipe up spills immediately? G 91-191 15	<input type="checkbox"/>	<input type="checkbox"/>		
Repair defects in concrete floors?	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure large doors open smoothly?	<input type="checkbox"/>	<input type="checkbox"/>		
Remove keys from stored machinery? G 91-191 228	<input type="checkbox"/>	<input type="checkbox"/>		
Remove nails from used lumber before stacking?	<input type="checkbox"/>	<input type="checkbox"/>		
Clear any obstructions from walkways, aisles and traffic areas? G 91-191 16	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure there is ample walking space between stored machines?	<input type="checkbox"/>	<input type="checkbox"/>		
Maintain adequate lighting in work and travel areas? G 91-191 26(1)	<input type="checkbox"/>	<input type="checkbox"/>		
Keep stairs in good condition and equip them with handrails? G 91-191 115	<input type="checkbox"/>	<input type="checkbox"/>		
Keep stairs clear of obstacles on steps and landings? G 91-191 15	<input type="checkbox"/>	<input type="checkbox"/>		
Repair broken, damaged, or rotten floorboards?	<input type="checkbox"/>	<input type="checkbox"/>		
Protect floor openings so people do not fall through them? G 91-191 111	<input type="checkbox"/>	<input type="checkbox"/>		
Avoid storing flammable liquids in barns or other structures? WHMIS Regulation	<input type="checkbox"/>	<input type="checkbox"/>		
Properly stack stored materials, and organize them to prevent falling? G 91-191 57(d)	<input type="checkbox"/>	<input type="checkbox"/>		
Remove protrusions such as nails from walls, railings, or other surfaces, to prevent contact?	<input type="checkbox"/>	<input type="checkbox"/>		
Keep your tractor and other fuel burning equipment in an outbuilding separate from the barn or other buildings?	<input type="checkbox"/>	<input type="checkbox"/>		
Maintain permanent ladders in good condition and inspect them regularly? G 91-191 121(1)	<input type="checkbox"/>	<input type="checkbox"/>		
Mark low ceilings and beams clearly with signs or fluorescent materials to prevent collision?	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure the structural integrity of buildings? G 91-191 101(1)	<input type="checkbox"/>	<input type="checkbox"/>		

(continued)

DO YOU ...	Yes	No	Correction date	Completed
Make suitable receptacles available for oily rags and used oil?	<input type="checkbox"/>	<input type="checkbox"/>		
Have a stocked first aid kit available? First Aid Regulation	<input type="checkbox"/>	<input type="checkbox"/>		
Keep benches tidy and drawers shut?	<input type="checkbox"/>	<input type="checkbox"/>		
Have at least two exits available?	<input type="checkbox"/>	<input type="checkbox"/>		
Use appropriate extension cords, only for temporary work?	<input type="checkbox"/>	<input type="checkbox"/>		
Use extension cords with GFCIs (ground fault circuit interruptors) in moist conditions?	<input type="checkbox"/>	<input type="checkbox"/>		
Shield portable lights properly to prevent breakage?	<input type="checkbox"/>	<input type="checkbox"/>		
Post warning signs to warn of silo gas or oxygen deficiency?	<input type="checkbox"/>	<input type="checkbox"/>		
Post safety decals where a hazard may be created by chemical storage or by other potential risk?	<input type="checkbox"/>	<input type="checkbox"/>		
Secure entrances to silos and grain bins against entry by children?	<input type="checkbox"/>	<input type="checkbox"/>		
Make workers aware of the hazards of flowing grain entrapment and crusted grains? G 91-191 263(1)(f) and (g)	<input type="checkbox"/>	<input type="checkbox"/>		
Require that power be locked out so unloading mechanisms cannot start by accident? G 91-191 263(1)(g)	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure all shields and guards are in place on unloading mechanisms? G 91-191 242(1)	<input type="checkbox"/>	<input type="checkbox"/>		
Keep your silo free of cracks and structural problems, such as corrosion?	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure all electrical outlets in the shop are properly grounded with GFCIs?	<input type="checkbox"/>	<input type="checkbox"/>		
Have personal protective equipment such as goggles, face shields and hard hats available? G 91-191 38	<input type="checkbox"/>	<input type="checkbox"/>		
Always avoid entering a manure pit for any reason?	<input type="checkbox"/>	<input type="checkbox"/>		
Use dust respirators when handling mouldy hay and grains, or when grain dust is present? G 91-191 38	<input type="checkbox"/>	<input type="checkbox"/>		
Use appropriate self-contained breathing equipment when entering a silo where gas may be present, or where an oxygen deficiency may exist? G 91-191 45	<input type="checkbox"/>	<input type="checkbox"/>		
Shut off all power to the leveling augers and unloading auger, and make sure that moving parts have stopped rotating before entering a grain tank? G 91-191 239(4)	<input type="checkbox"/>	<input type="checkbox"/>		



¹ Pabwa, P., Zasada, M., "Results of a Survey on Farm Accidents in Saskatchewan", McDuffie HH, Dosman JA, Semchuk K, Olenchok S, Senthilselvan A (eds), *Human Sustainability in Agriculture: Health, Safety, Environment*, Lewis Publishers, Chelsea Michigan, 1994.

Electrical safety

- Contact with overhead power lines causes many electrocutions and electrical injuries on farms. Faulty shop tools and extension cords can also cause injuries.
- Electricity can cause severe injuries from burns at the entry and exit points of the current, or death by stopping the heart.
- Faulty electrical wiring is a source of fires in farm buildings and machinery. All equipment and electrical installations must be properly grounded and should be inspected regularly.
- NEVER attempt to move, repair, or measure power lines yourself. ALWAYS contact your local power supplier for assistance. To contact your local district office, check the listing in your telephone directory.

DO YOU...	Yes	No	Correction date	Completed
Take notice when livestock act wary or refuse to drink?	<input type="checkbox"/>	<input type="checkbox"/>		
Always use the correct size fuses or breakers in circuits?	<input type="checkbox"/>	<input type="checkbox"/>		
Label fuses, circuit breakers and switches properly to prevent confusion in an emergency? G 91-191 287(5)(f)	<input type="checkbox"/>	<input type="checkbox"/>		
Discuss the various types of insulation in buildings with your insurance company?	<input type="checkbox"/>	<input type="checkbox"/>		
Maintain power lines, poles and other electrical hardware coming into the farm in good repair?	<input type="checkbox"/>	<input type="checkbox"/>		
Trim trees well away from conductors in case of storms?	<input type="checkbox"/>	<input type="checkbox"/>		
When possible have overhead lines relocated underground to avoid contact with high vehicles in the farmyard?	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure your TV antenna or satellite dish is far from wires in case it falls during a storm?	<input type="checkbox"/>	<input type="checkbox"/>		
Protect bare light bulbs from being hit by objects and machines, or splashed with liquid?	<input type="checkbox"/>	<input type="checkbox"/>		
Have warning systems to indicate when vital equipment has failed?	<input type="checkbox"/>	<input type="checkbox"/>		
Always check for underground wiring before digging? G 91-191 180(1)	<input type="checkbox"/>	<input type="checkbox"/>		
Have enough outlets to eliminate the continued use of extension cords? NOTE: USE HEAVY-DUTY, APPROPRIATE EXTENSION CORDS ONLY WHEN NECESSARY, AND WITH GFCI IN MOIST CONDITIONS.	<input type="checkbox"/>	<input type="checkbox"/>		
Replace any extension cords that are damaged, frayed or taped.	<input type="checkbox"/>	<input type="checkbox"/>		
Unplug tools and equipment that are not being used?	<input type="checkbox"/>	<input type="checkbox"/>		
Weatherproof outside outlets and install them with GFCIs?	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure your tools and appliances carry a Canadian Standards Association (CSA) certification?	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure all outlets have three-pronged receptacles to provide proper grounding of electrical tools and appliances? G 91-191 83	<input type="checkbox"/>	<input type="checkbox"/>		
Always locate buildings, bale stacks, and other flammable structures away from power lines and underground electrical lines?	<input type="checkbox"/>	<input type="checkbox"/>		
Always visually check for overhead power lines and maintain a clearance of at least three metres when moving high equipment? G 91-191 371(1)	<input type="checkbox"/>	<input type="checkbox"/>		
If you have a back up power source, ensure that it is properly integrated into the existing system?	<input type="checkbox"/>	<input type="checkbox"/>		
Shut off power and use lockout procedures when repairing/maintaining electrical components.	<input type="checkbox"/>	<input type="checkbox"/>		

Fire prevention

- Fires and explosions are common accidents on farms. They are caused by many things, including: fuels, welding, faulty electrical wiring, and overheated machine parts.
- Burns can result in death or serious injuries that are often painful and disabling, requiring lengthy treatment and rehabilitation.
- Since many farms are remote, emergency personnel often take longer to arrive, causing farm fires to become very involved and result in devastating damage to buildings, animals, property and equipment. This is why fire prevention on farms is so important.

DO YOU...	Yes	No	Correction date	Completed
Protect light bulbs and heat lamps with wire guards?	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure doors and gate latches are easy to open?	<input type="checkbox"/>	<input type="checkbox"/>		
Equip livestock buildings with at least two exits for animals?	<input type="checkbox"/>	<input type="checkbox"/>		
Keep chimneys and heater pipes clean and in good condition?	<input type="checkbox"/>	<input type="checkbox"/>		
Obtain an outdoor burning permit when required?	<input type="checkbox"/>	<input type="checkbox"/>		
Regularly dispose of garbage and other combustibles? G 91-191 17	<input type="checkbox"/>	<input type="checkbox"/>		
Inspect fire extinguishers regularly?	<input type="checkbox"/>	<input type="checkbox"/>		
Periodically review how to operate fire extinguishers and discuss emergency plans with your family?	<input type="checkbox"/>	<input type="checkbox"/>		
Keep appropriate fire extinguishers strategically located for easy access in case of fire?	<input type="checkbox"/>	<input type="checkbox"/>		
Check lightning rods for proper installation and grounding?	<input type="checkbox"/>	<input type="checkbox"/>		
Place NO SMOKING signs prominently in hazardous areas?	<input type="checkbox"/>	<input type="checkbox"/>		
Repair or replace faulty wiring and electrical equipment immediately? G 91-191 287(2)	<input type="checkbox"/>	<input type="checkbox"/>		
Store flammable liquids properly, away from any ignition sources? WHMIS Regulation	<input type="checkbox"/>	<input type="checkbox"/>		
Store matches and lighters safely and out of reach of children?	<input type="checkbox"/>	<input type="checkbox"/>		
Have a cistern or pond that can be quickly and easily accessed in all kinds of weather?	<input type="checkbox"/>	<input type="checkbox"/>		
Display fire department numbers and farm location prominently by all phones?	<input type="checkbox"/>	<input type="checkbox"/>		
Take extreme care to eliminate all possibility of igniting combustible materials when welding? G 91-191 275(1)	<input type="checkbox"/>	<input type="checkbox"/>		
Turn off engines and take extreme care when fuelling equipment, to prevent ignition of fumes by hot machinery parts, cigarettes or other possible sources of ignition? G 91-191 228(d)	<input type="checkbox"/>	<input type="checkbox"/>		
Check roofs for leaks where hay or straw is stored? NOTE: EXCESSIVELY WET OR POORLY DRIED HAY OR STRAW CAN LEAD TO SPONTANEOUS COMBUSTION	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure the emergency tube is located on a nearby telephone pole for fire fighters to pick up?	<input type="checkbox"/>	<input type="checkbox"/>		



General farm machinery safety

- Balers, especially round balers, can cause serious injuries when the operator attempts to adjust or unplug the machine while the power is engaged. This is because the pickup and belts cannot be shielded, making them very dangerous. As a result, the operator's limbs may become entangled in the mechanism, causing severe lacerations, amputations or death.
- When handling bales with machinery, secure loads with proper tie-down straps. The large round bales weigh between 350 and 700 kg, and may fall if handling devices are improperly designed or applied. This can crush the machine operator or any bystanders, causing serious spinal injuries or death.
- Most incidents with portable augers involve entanglement of the hands or feet, and occur when a piece of loose clothing, glove, tie string or shoelace is caught in the flighting. This can also happen when an operator attempts to unplug the auger while it is running, resulting in severe lacerations or amputations. Drive belts and winch handles can also cause injury.

FARM TRACTOR SAFETY

- Tractors are the most common piece of machinery involved in farm accidents. Many victims are run over when they fall from a tractor, or are crushed during a tractor rollover accident.
- Rollovers account for about half of all fatal tractor accidents, and are responsible for many disabling injuries and considerable property damage. Approximately 85% of tractor upsets are side rollovers, 14% are rear overturns, and 1% are front overturns. Most overturn fatalities occur when tractors are not equipped with rollover protective structures (ROPs), or the operators are not wearing seatbelts.
- A rear overturn occurs in 1.5 seconds, while the average reaction time in an adult is 3/4 of a second.

COMBINE

- Large combines have two exposed augers in the grain tank. If the operator enters the grain tank while the combine is running, injuries will occur when they come in contact with the leveling auger, or if they slip into the unloading auger mechanism.
- Most combine accidents involve entanglement in parts of the equipment, such as the drive belts or chains. In every entanglement there will be stored energy in the system, which may result in an explosive release of this energy when chains or belts are cut. This sudden release of energy could cause further injury to the victim or rescuer.
- Reels, pickups, cutting equipment and straw choppers do not have shields – the only safe practice is to turn off the power before servicing, unplugging or repairing.
- In a combine, an overturn may occur when the grain tank is filled or the operator loses control next to a very steep, deep embankment. Because combine cabs do not have ROPs, resulting injuries may be serious.

DO YOU...	Yes	No	Correction date	Completed
Have all shields and guards in place? G 91-191 224(b) and 242(1)	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure key warning decals on the machinery are readable?	<input type="checkbox"/>	<input type="checkbox"/>		
Enforce the rule, "ONE SEAT, ONE RIDER."	<input type="checkbox"/>	<input type="checkbox"/>		
Keep the SMV (slow moving vehicle) sign clean, with good reflective qualities and use it only for moving equipment on roads? G 91-191 228(a)	<input type="checkbox"/>	<input type="checkbox"/>		
Have an SMV sign installed at the proper height on the rear of the equipment?	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure you are positively certain of the location of bystanders and other objects before operating farm machinery?	<input type="checkbox"/>	<input type="checkbox"/>		
Turn off the power before adjusting or servicing the equipment? G 91-191 239(4)	<input type="checkbox"/>	<input type="checkbox"/>		
Require operators to always wear hearing protection if the equipment does not have a soundproof cab? G 91-191 32	<input type="checkbox"/>	<input type="checkbox"/>		
Maintain steps and walkways in good condition, and ensure they are slip resistant and free of mud, tools or debris that could cause slips?	<input type="checkbox"/>	<input type="checkbox"/>		
ALWAYS use header blocks when working around the head of the engine?	<input type="checkbox"/>	<input type="checkbox"/>		
Read the operator's manual for your equipment, and follow the operating, maintenance and safety recommendations? OHS Act 9(2)(a)	<input type="checkbox"/>	<input type="checkbox"/>		
Keep equipment clean from accumulated dust and chaff to eliminate a fire hazard.	<input type="checkbox"/>	<input type="checkbox"/>		

(continued)

DO YOU...	Yes	No	Correction date	Completed
Provide all operators on your farm with training on their equipment? OHS Act 9(2)(c)	<input type="checkbox"/>	<input type="checkbox"/>		
Regularly stop operation to service and inspect the equipment, chains, belts, wires and hydraulic hoses? NOTE: AVOID HYDRAULIC FLUID INJECTION INJURIES BY USING PAPER OR CARDBOARD TO DETECT LEAKS. DO NOT CHECK FOR LEAKS IN HYDRAULIC HOSES WITH YOUR HANDS. G 91-191 229(1)(c)	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure all machines are free of jagged metal or protrusions?	<input type="checkbox"/>	<input type="checkbox"/>		
Replace defective and worn parts as soon as possible? G 91-191 229(1)(a) and (b)	<input type="checkbox"/>	<input type="checkbox"/>		
Inspect tires regularly and keep them properly inflated?	<input type="checkbox"/>	<input type="checkbox"/>		
Block moveable components properly before repair or adjustment? G 91-191 229(2)	<input type="checkbox"/>	<input type="checkbox"/>		
Furnish any equipment that is likely to be towed on roadways with safety chains, safety hitch pins and reflection devices, and ensure these are used?	<input type="checkbox"/>	<input type="checkbox"/>		
Always store parked implements out of the transport position? NOTE: ALWAYS USE TRANSPORT POSITION WHEN TRAVELLING ON HIGHWAYS.	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure that when backing into an implement, you have the lower links tied together or apart as required so they do not have to be guided by hand?	<input type="checkbox"/>	<input type="checkbox"/>		
Always have the tractor stopped, transmission out of gear, and brake set when attaching (disconnecting) tractor links to (from) an implement?	<input type="checkbox"/>	<input type="checkbox"/>		
Equip tractors with rollover protective structures (ROPs) and working seatbelts? G 91-191 221(1)(a)	<input type="checkbox"/>	<input type="checkbox"/>		
Always wear working seatbelts with ROPs? G 91-191 221(1)(a)	<input type="checkbox"/>	<input type="checkbox"/>		
Keep a first aid kit mounted on the equipment?	<input type="checkbox"/>	<input type="checkbox"/>		
Adjust brakes regularly? G 91-191 224(c)	<input type="checkbox"/>	<input type="checkbox"/>		
Have a fire extinguisher located on the machinery?	<input type="checkbox"/>	<input type="checkbox"/>		
Remove keys from the machinery when not in use, to prevent theft or unauthorized use of the equipment? G 91-191 228	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure the exhaust system is in good condition and leak-free?	<input type="checkbox"/>	<input type="checkbox"/>		
Always steer clear of hazards such as ditches, steep hills and other areas where machinery can tip? G 91-191 230	<input type="checkbox"/>	<input type="checkbox"/>		
Lock brake pedals together before roadway travel?	<input type="checkbox"/>	<input type="checkbox"/>		
Always check clearances from overhead power lines when towing high or wide loads? G 91-191 371(1)	<input type="checkbox"/>	<input type="checkbox"/>		
Always hitch towed loads to the drawbar, and never higher?	<input type="checkbox"/>	<input type="checkbox"/>		
Always lower mounted equipment and front-end loaders before the operator leaves the machinery?	<input type="checkbox"/>	<input type="checkbox"/>		
Travel with the bucket lowered to avoid tipping sideways when using front-end loaders?	<input type="checkbox"/>	<input type="checkbox"/>		
Open doors and windows or start ventilation fans when operating machinery in buildings?	<input type="checkbox"/>	<input type="checkbox"/>		
Require that machine operators always do a pre-operational check, including a walk around the equipment to check lights, visibility, tires, and brakes? G 91-191 229.2(1) and (2)	<input type="checkbox"/>	<input type="checkbox"/>		

Lawn mower hazards

- Children playing or laying in tall grass cannot be seen by lawn mower operators.
- Severe lacerations and amputations result when the extremities of a bystander or the operator come into contact with the lawn mower blades.
- Debris left in the grass may be propelled at high speed by the lawn mower blades and come into contact with bystanders or the operator, causing serious injury.

DO YOU...	Yes	No	Correction date	Completed
Ensure the lawn mower has safety shields? <i>G 91-191 242</i>	<input type="checkbox"/>	<input type="checkbox"/>		
Store gasoline in a container that meets legislative requirements? WHMIS Regulation	<input type="checkbox"/>	<input type="checkbox"/>		
Work across the slope with a hand mower?	<input type="checkbox"/>	<input type="checkbox"/>		
Mow up and down the slope with a riding mower?	<input type="checkbox"/>	<input type="checkbox"/>		
Always look behind you before backing up a riding mower?	<input type="checkbox"/>	<input type="checkbox"/>		
Make sure you never pull a hand mower toward yourself?	<input type="checkbox"/>	<input type="checkbox"/>		
Insist everyone leave the area of grass you are mowing?	<input type="checkbox"/>	<input type="checkbox"/>		
Always wear hearing protection when operating power lawn equipment? <i>G 91-191 32</i>	<input type="checkbox"/>	<input type="checkbox"/>		
Always refill the lawn mower and other gas tanks outdoors?	<input type="checkbox"/>	<input type="checkbox"/>		
Always turn off the engine before refueling the gas tank? <i>G 91-191 235(1)</i>	<input type="checkbox"/>	<input type="checkbox"/>		
Always disconnect the spark plug wire before tipping the lawn mower up to do any servicing under the mower deck?	<input type="checkbox"/>	<input type="checkbox"/>		
Always turn the lawn mower off (or disengage the blade) before crossing gravel drives or walkways?	<input type="checkbox"/>	<input type="checkbox"/>		
Always wear heavy shoes when using the lawn mower? NOTE: PROTECTIVE CSA FOOTWEAR <i>G 91-191 41(2)</i>	<input type="checkbox"/>	<input type="checkbox"/>		
Keep good mufflers on all gasoline powered lawn mowers, leaf mulchers, or snow throwers?	<input type="checkbox"/>	<input type="checkbox"/>		
Always pick up trash and other debris before mowing?	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure safety decals are visible?	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure the safety handle is working properly so it shuts off the mower when released?	<input type="checkbox"/>	<input type="checkbox"/>		



Ladder safety and materials handling

- Overexertion and incorrect lifting techniques are common causes of back injuries in all industries, and farming is no exception.
- Injuries from falls account for up to 15% of non-fatal injuries.¹ Many of these incidents involve using ladders to access farm buildings or equipment.
- All items with an asterisk (*) are covered in *General Regulation 91-191* of the *OHS Act*, section 121 to 126.

DO YOU...	Yes	No	Correction date	Completed
Maintain ropes on extension ladders in good condition? *	<input type="checkbox"/>	<input type="checkbox"/>		
Avoid work with ladders in windy or stormy conditions? *	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure metal ladders are free of damage such as weld cracks and missing rivets? *	<input type="checkbox"/>	<input type="checkbox"/>		
Maintain the feet of the ladder in good condition? *	<input type="checkbox"/>	<input type="checkbox"/>		
Store ladders where they cannot be damaged? *	<input type="checkbox"/>	<input type="checkbox"/>		
Always put a ladder on firm footing or compacted soil? *	<input type="checkbox"/>	<input type="checkbox"/>		
Place straight ladders at a four to one angle? *				
NOTE: THE BASE MUST BE SET ONE METRE OUT FOR EVERY FOUR METRES UP.	<input type="checkbox"/>	<input type="checkbox"/>		
Involve two people when moving or erecting long ladders? *	<input type="checkbox"/>	<input type="checkbox"/>		
Face the ladder when climbing up or down, or when working from the ladder? *	<input type="checkbox"/>	<input type="checkbox"/>		
Always keep the trunk of your body centered within the ladder rails when working from a ladder? *	<input type="checkbox"/>	<input type="checkbox"/>		
Coat wooden ladders with clear preservatives so that faults or cracks are visible? *	<input type="checkbox"/>	<input type="checkbox"/>		
Inspect ladders before each use, and replace or repair immediately if found faulty? *	<input type="checkbox"/>	<input type="checkbox"/>		
Replace any missing or damaged rungs on the ladder? *	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure the ladder extends at least one metre above the landing level while in use? *	<input type="checkbox"/>	<input type="checkbox"/>		
Clear obstruction or debris from areas around the top and bottom of the ladder? *	<input type="checkbox"/>	<input type="checkbox"/>		
Provide everyone on your farm with instruction on safe lifting techniques?	<input type="checkbox"/>	<input type="checkbox"/>		
Always follow the “bend your knees” rule?	<input type="checkbox"/>	<input type="checkbox"/>		
Wear appropriate protective equipment such as steel-toed boots and gloves when lifting and handling materials? G 91-191 38	<input type="checkbox"/>	<input type="checkbox"/>		
Use two people or mechanical means to move heavy loads?	<input type="checkbox"/>	<input type="checkbox"/>		
Check for a clear pathway before lifting and moving objects?	<input type="checkbox"/>	<input type="checkbox"/>		
Store heavy items between the knee and shoulder levels?	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure fixed ladders are sound and in good condition? *	<input type="checkbox"/>	<input type="checkbox"/>		
Have safety cages around ladders on silos? *	<input type="checkbox"/>	<input type="checkbox"/>		
Restrict access to permanently attached ladders by removing the bottom rungs or by attaching a secure block-off plate.	<input type="checkbox"/>	<input type="checkbox"/>		



¹ Pabwa, P., Zasada, M., “Results of a Survey on Farm Accidents in Saskatchewan”, McDuffie HH, Dosman JA, Semchuk K, Olenchok S, Senthilselvan A (eds), *Human Sustainability in Agriculture: Health, Safety, Environment*, Lewis Publishers, Chelsea Michigan, 1994.

Pesticide storage

- Pesticides including herbicides, insecticides, fungicides, and rodenticides are designed to control or kill specific pests. Pesticides can be absorbed into the human body through the skin, lungs, digestive system or eyes, and can affect your health. These can be acute (response to a single dose) or chronic (response to repeated exposures to small doses over a longer period of time). Accidental overexposure to pesticides can result in serious illness, and even death. Please refer to the *Applicator Core Training Manual*, available from the New Brunswick Department of Environment and Local Government for further information regarding pesticide toxicity, poisoning and spills.
- Courses on the safe handling, use and application of pesticides are offered in New Brunswick. For more information contact the Department of Environment and Local Government's Pesticide Unit at 1 800 561-4036. It is very IMPORTANT to have the proper training and experience, and pass testing for certification. You MUST have a proper certificate if using non-domestic pesticides. (A Pesticide Applicator Certificate is required to purchase or handle non-domestic pesticides.)
- Farmers in New Brunswick who apply non-domestic pesticides must be certified in accordance with the *Pesticide Control Act* and Regulation. For more information contact the Department of Environment and Local Government's Pesticide Unit at 1 800 561-4036.

DO YOU...	Yes	No	Correction date	Completed
Keep the pesticide storage area locked? (Ensure that pesticides are accessible to authorized/certified individuals only.)	<input type="checkbox"/>	<input type="checkbox"/>		
Use your pesticide storage area exclusively for the storage of pesticides?	<input type="checkbox"/>	<input type="checkbox"/>		
Store empty or partially empty pesticide containers in a secure area that is not accessible to children or animals?	<input type="checkbox"/>	<input type="checkbox"/>		
Triple-rinse, puncture plastic containers and/or decontaminate empty pesticide containers in accordance with the instructions provided by the manufacturer?	<input type="checkbox"/>	<input type="checkbox"/>		
Provide a well ventilated storage area with sufficient lighting?	<input type="checkbox"/>	<input type="checkbox"/>		
Post a chemical warning sign on all entrances to the storage area?	<input type="checkbox"/>	<input type="checkbox"/>		
Have adequate safety equipment such as respirators, unlined rubber gloves and boots (impermeable to pesticides), first aid supplies and fire extinguisher that meets national fire codes?	<input type="checkbox"/>	<input type="checkbox"/>		
Have access to an adequate source of water in the area adjacent to the storage facility?	<input type="checkbox"/>	<input type="checkbox"/>		
Advise the local fire department of the pesticides in storage?	<input type="checkbox"/>	<input type="checkbox"/>		
Keep the storage area free of floor drains and ensure sufficient (110%) containment?	<input type="checkbox"/>	<input type="checkbox"/>		
Use flooring that is readily cleanable? (Impermeable to pesticides)	<input type="checkbox"/>	<input type="checkbox"/>		
Keep a readily available source of absorbent material to soak up a spilled pesticide?	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure the flooring of the storage area is constructed so that it can contain spills?	<input type="checkbox"/>	<input type="checkbox"/>		
ALWAYS read the container label carefully before using a pesticide?	<input type="checkbox"/>	<input type="checkbox"/>		
Obtain the material safety data sheets (MSDSs) and ensure they are available for each chemical you use?	<input type="checkbox"/>	<input type="checkbox"/>		
Store pesticides in their original containers with a legible label?	<input type="checkbox"/>	<input type="checkbox"/>		
Inspect pesticide containers for leaks before handling them?	<input type="checkbox"/>	<input type="checkbox"/>		
Avoid handling pesticide containers roughly or carelessly?	<input type="checkbox"/>	<input type="checkbox"/>		
Know what to do if a leak or spill should occur?	<input type="checkbox"/>	<input type="checkbox"/>		
Inspect your vehicle for contamination after unloading?	<input type="checkbox"/>	<input type="checkbox"/>		
Make sure NEVER to store pesticides or empty pesticide containers anywhere near food or drink?	<input type="checkbox"/>	<input type="checkbox"/>		
Make sure NEVER to eat, drink or smoke in the pesticide work area?	<input type="checkbox"/>	<input type="checkbox"/>		

(continued)

DO YOU...	Yes	No	Correction date	Completed
Make sure NEVER to rub your eyes or touch your mouth while working with pesticides?	<input type="checkbox"/>	<input type="checkbox"/>		
Wear clean unlined rubber gloves and protective clothing when handling pesticides, and a respirator during the mixing and loading of pesticides or when directed on the label?	<input type="checkbox"/>	<input type="checkbox"/>		
ALWAYS decontaminate equipment in a safe and effective manner after using pesticides?	<input type="checkbox"/>	<input type="checkbox"/>		
Wash clothes with chemical residue on them separately from other clothes?	<input type="checkbox"/>	<input type="checkbox"/>		
Store separately all clothing and equipment used to spray pesticides?	<input type="checkbox"/>	<input type="checkbox"/>		
Inspect protective clothing and equipment, and replace faulty equipment such as gloves and respirators?	<input type="checkbox"/>	<input type="checkbox"/>		
Shower and change all clothing immediately after applying pesticides?	<input type="checkbox"/>	<input type="checkbox"/>		
Recognize and understand the meaning of the hazard and precautionary symbols and words on pesticide containers?	<input type="checkbox"/>	<input type="checkbox"/>		
Have a storage area separate from any other that may be used to store foodstuffs, feeds or any other material intended for consumption by humans or animals?	<input type="checkbox"/>	<input type="checkbox"/>		
Make sure to ALWAYS wash hands thoroughly before eating, drinking, smoking or using the toilet when working with pesticides?	<input type="checkbox"/>	<input type="checkbox"/>		
Have emergency numbers posted by the telephone (such as Department of Environment and Local Government, poison control centre, ambulance and local hospital)?	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure pesticide handlers have a pesticide applicator certificate in good standing?	<input type="checkbox"/>	<input type="checkbox"/>		



Transport vehicles

- Travelling too fast for road conditions causes many farm truck accidents. Travelling on uneven road surfaces with soft shoulders or ruts may cause loads to shift, leading to vehicle loss of control and rollover.
- In any vehicle, passengers who do not wear seatbelts risk serious injury in the event of a collision or rollover.
- Many farmers have been fatally injured while working beneath hoists that have failed when boxes are hoisted. If it is necessary to work beneath a hoisted truck box, even for a few minutes, make sure the hoist is securely blocked, making it impossible for the box to come down.

DO YOU...	Yes	No	Correction date	Completed
Always wear seatbelts on the roadways?	<input type="checkbox"/>	<input type="checkbox"/>		
Store hoist-equipped trucks with boxes down?	<input type="checkbox"/>	<input type="checkbox"/>		
Complete a vehicle check before going on public highways? NOTE: VEHICLE CHECK SHOULD INCLUDE TIRES, LIGHTING, AND SECURE LOADS.	<input type="checkbox"/>	<input type="checkbox"/>		
Remove keys from motorized equipment to prevent children from starting them?	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure clear vision in both directions when entering the public roadway from the farm drive?	<input type="checkbox"/>	<input type="checkbox"/>		
ALWAYS safely block and support the truck box when repairing the hoist? G 91-191 230.3(3)	<input type="checkbox"/>	<input type="checkbox"/>		
Inspect the mechanical conditions (including hoses, fittings, hinge pin, valve function, controls, and labels) of truck hoists regularly? NOTE: CHECK ONLY WITH BOX DOWN. G 91-191 230.21(2)(c)	<input type="checkbox"/>	<input type="checkbox"/>		
Place equipment in lock and transport position when travelling on public highways?	<input type="checkbox"/>	<input type="checkbox"/>		



Emergency preparedness safety

- In the event of a farm injury, a family member will most likely be the first person on the scene.
- Practising emergency procedures and discussing possible emotional reaction (fear, panic, crying) can prepare a person to better handle a real crisis situation.
- Because farm work is often isolated, there may be a long delay before an injured person is found. This delay means that more time will pass before first aid or medical treatment can be started, which can increase the likelihood that the injury will be disabling or fatal.
- Farm families can reduce the delay time with emergency communication plans and proper first aid techniques.

DO YOU...	Yes	No	Correction date	Completed
Have all adults trained in first aid and CPR? First Aid Regulation	<input type="checkbox"/>	<input type="checkbox"/>		
Know what to do for accidental poisonings?	<input type="checkbox"/>	<input type="checkbox"/>		
Check and replenish first aid kits periodically? First Aid Regulation	<input type="checkbox"/>	<input type="checkbox"/>		
Act on issued weather warnings?	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure all family members know how to call for emergency help?	<input type="checkbox"/>	<input type="checkbox"/>		
Post emergency numbers and a list of the closest health care and emergency services, as well as all farm location by all phones? First Aid Regulation	<input type="checkbox"/>	<input type="checkbox"/>		
Routinely check in with workers or family members by phone, visit, CB or radio? Working Alone Regulation	<input type="checkbox"/>	<input type="checkbox"/>		
Maintain first aid kits at home, in the workshop, on tractors and in vehicles? First Aid Regulation	<input type="checkbox"/>	<input type="checkbox"/>		
Ensure all family members know how to shut off every piece of machinery if someone is caught or pinned down?	<input type="checkbox"/>	<input type="checkbox"/>		
Have an updated emergency plan for different emergencies such as fires and floods, and ensure all employees and family members are aware of the plan?	<input type="checkbox"/>	<input type="checkbox"/>		
Train all employees about the safe way to work and regularly remind them of the importance of safety?	<input type="checkbox"/>	<input type="checkbox"/>		



