



Prince Edward Island Farm Safety Code of Practice



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Prince Edward Island Farm Safety

CODE OF PRACTICE

Disclaimer: The information in this manual is intended to provide farm owners and managers with an overview of occupational health and safety requirements in the province of Prince Edward Island. The manual refers to the Occupational Health and Safety Act and various regulations made under the Act. Although every attempt is made to ensure that the information provided is accurate, the manual is not intended to be comprehensive and is not intended to serve as legal advice. The document is prepared for convenience purposes. The information contained in the manual is current as of December 1, 2006 and does not reflect any changes to the Occupational Health and Safety Act and regulations after that date.

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INTRODUCTION

Factors beyond the control of most farmers have radically altered the face of Prince Edward Island farming over the last few decades. Crop handling costs, equipment prices, and the development of corporate farms challenge the survival of the family run farm. The necessity to run the farm as a competitive business is part of this challenge.

From time to time, as a farmer, you will probably hire others to help run your farm operation. The farm is no longer just a “family farm”. It is a business enterprise involving “employer-worker” relationships. As the employer, you are responsible to ensure the health and safety of all people working on your farm. Just as you need to know crop management, you also need to know what is required by Prince Edward Island’s occupational health and safety legislation. The legislation can be used as a farm management tool which can help you farm more safely and more profitably.

Injuries in Agriculture

All farms have dangerous machinery and work situations. People of all ages, who work and live on farms, are at risk of injury. Children are especially vulnerable to hazards on farms because it is their home, as well as, a place of work. Young, inexperienced workers are at a higher risk for injuries than older experienced workers. Performance changes which occur with aging can result in reduced balance and reaction time, vision and hearing impairment. These and other changes affect the aging farmer’s ability to work safely.

Working alone and time pressure also increase the risk of injury. When these injuries occur, especially at critical farming times, they can reduce farm revenues. Losing a limb and the resulting loss of productive work time can devastate both the short and the long-term profitability of a farm operation.

As of January 1, 2007, the Occupational Health and Safety Act will apply to all workplaces, including farms. The purpose of the Farm Safety Code of Practice is to provide some tools that can help you manage health and safety on your farm and meet your legal obligations. This guide will explain how you can develop and maintain a healthy and safe farm workplace for your workers, your family and yourself.

What is the Farm Safety Code of Practice?

The Farm Safety Code of Practice is not law. It is a tool which can be used to provide practical guidance or recommendations which are meant to help a farm employer meet the requirements of the Occupational Health and Safety Act. However, in cases where a prosecution has resulted from a breach of the Occupational Health and Safety Act, the Farm Safety Code of Practice may be used as evidence of correct procedure. For more information, refer to the Occupational Health and Safety Act (The Act), Section 34.

The OHS Act states employers are to ensure machinery, equipment and materials in safe condition (Section 12). Therefore, the employer is obligated to take measures to eliminate the hazard in order to prevent the recurrence of an accident.

Farm Health and Safety is Everyone’s Responsibility

The Occupational Health and Safety Act makes self-employed farmers, farm managers, employers, workers and contractors all responsible for safety in the farm workplace. Each person working on the farm is responsible, to the extent of their authority, for the health and safety of everyone on the farm. This is referred to as the "internal responsibility system."

General Obligations of Employers and Workers

Employers

Section 12 of the Occupational Health and Safety Act lists the duties and responsibilities for employers. These general duties state that employers are responsible to take every reasonable precaution to protect the health and safety of any person on or near the workplace. Examples of employer duties are :

- ∄ Provide and maintain machinery, equipment and materials in a safe condition
- ∄ Provide adequate information, instruction and training to enable workers to work safely
- ∄ Ensure workers are adequately supervised
- ∄ Ensure workers are familiar with the health and safety hazards of the farm task at hand
- ∄ Ensure workers are familiar with the proper use of all devices, equipment and clothing required for their protection, and
- ∄ Consult with workers on health and safety matters

Employers must make the following items available to workers at the workplace and post in a prominent place:

- ∄ A current copy of the Act
- ∄ Information and reports issued by the Farm Safety Specialist/Occupational Health and Safety Officer
- ∄ Relevant Code of Practice

Workers

Workers (including dependent contractors), while they are at work, must take reasonable care to protect their own safety and health, as well as that of others on or near the farm operation. Examples of workers' duties are:

- € To co-operate with their employer and use protective devices, equipment and clothing required by the employer
- € To consult and cooperate with the employer and other workers on workplace health and safety issues
- € To co-operate with any Occupational Health and Safety officials
- € To comply with the Occupational Health and Safety Act
- € To report any potential workplace hazards or dangers to a supervisor

Workers Have Three Basic Rights That Help Them Carry Out Their Responsibilities for Safety:

The Right to Know

Workers have the *right to know* about the hazards of their jobs. They should know how to recognize and deal with those hazards so they won't cause injury or health problems to themselves or to others in the workplace.

The Right to Participate

Workers have the *right to participate* in health and safety in the workplace. Employers should consult with them on matters that affect worker's safety.

Right to Refuse Work

Workers have the right to *refuse to do work* which they have reasonable grounds to believe would endanger their health or safety, or another person's health or safety. If a worker refuses to work, he or she must immediately report to a supervisor. **Further information on the procedure to take place where a worker refuses to work and information on how the worker is to be reassigned to other work can be found in the Occupational Health and Safety Act, Sections 28, 29 and 30.**

Owners

Where a farmer owns land but does not operate the farm, she/he still has specific duties in the context of occupational health and safety. The farmer-owner must take every reasonable precaution to ensure the land that is being used is maintained in a manner that ensures the health and safety of persons on or near the farm. If the owner has any information that may be necessary to identify or eliminate hazards on the property, he or she must provide that information to the employer. Information on owner's duties can be found in the Occupational Health and Safety Act, Section 18.

Self-Employed Persons

A self-employed person working on a farm is required to take the same precautions that a worker would take to protect themselves and others who may be affected by their activities. Self-employed persons are also required to cooperate with an employer or anyone else engaged in occupational health and safety activities on the farm. Further information on the duties of self-employed persons can be found in the Occupational Health and Safety Act, Section 17.

Suppliers

A supplier is any person who manufactures, supplies, sells, leases, distributes or installs tools, equipment, machinery, devices or biological, chemical or physical agents. Suppliers are responsible to ensure that anything they supply is in safe condition and properly labeled. Further information on supplier's duties can be found in the Occupational Health and Safety Act, Section 15.

Farm Safety Specialist & OHS Officers

Farm Safety Specialist/OHS Officers are appointed by the Workers Compensation Board. The Farm Safety Specialist's responsibilities include the development and delivery of Health and Safety education programs to the Island farm sector, conducting workplace inspections, investigating injury and fatal accidents and reports of violations to the Occupational Health and Safety Act or Smoke Free Places Act. Education sessions on the Occupational Health and Safety Act and Farm Safety Code of Practice are available to all farm employers at no cost.

When conducting farm inspections, the Farm Safety Specialist must be aware of bio-security between farms and within farms, and must follow general disinfection programs accordingly.

The Farm Safety Specialist has a number of powers to ensure compliance with the Occupational Health and Safety Act and the Smoke Free Places Act. For example, the Farm Safety Specialist can inspect a farm at any reasonable hour of the day or night. Further information on inspections and the powers of an officer can be found in the Occupational Health and Safety Act, Section 7.

Specific Requirements of the Act**Employer with 5 To 19 Workers**

If an employer has at least five regularly employed workers but less than twenty, the employer needs an **Occupational Health and Safety Policy** and a **Health & Safety Representative**.

Occupational Health & Safety Policy

An employer, who has five or more regularly employed persons, requires a written Occupational Health and Safety Policy. The policy must be reviewed annually. Information on content and how it should be prepared can be found in the Occupational Health and Safety Act, Section 24. A sample policy is included in Appendix A.

Health and Safety Representative

In every workplace that has five or more regularly employed persons (but less than twenty), the workers shall select a health and safety representative from among the workers at the workplace. The purpose of a Health and Safety Representative is to direct attention to safety issues and facilitate communication between the owner, supervisor or manager, and the workers to find a solution on safety concerns. This will help reduce losses resulting from accidents and occupational illness. Information on the responsibilities of the Representative and the employer can be found in the Occupational Health and Safety Act, Section 26.6.

Employer with More Than 20 Workers

If an employer has more than twenty regularly employed workers, the employer needs, in addition to an **Occupational Health and Safety Policy**, a **Joint Occupational Health & Safety Committee** and an **Occupational Health and Safety Program**.

Joint Occupational Health and Safety Committee

Every workplace that has twenty or more regularly employed persons requires at least one Joint Occupational Health and Safety (JOSH) Committee. The employer is responsible to ensure that the JOSH committee is established and to ensure the information on the JOSH committee is made available to the workers. Where a farmer has more than one farm site, a JOSH committee is only required for the individual sites that have twenty or more workers. The JOSH committee's role is to monitor the effectiveness of the workplace Occupational Health and Safety Program. Further information on how the JOSH committee is to be created and how it will function can be found in the Occupational Health and Safety Act, Section 25.

Occupational Health and Safety Program

A safety program is required for any employer with 20 or more regularly employed workers regardless of the number of work places they are employed in. Safety programs are developed by the employer or a designated person. Further information on occupational health & safety programs can be found in the Occupational Health and Safety Act, Section 23.

Reporting of Accidents by Employers

All accidents must be reported in which a worker is critically injured in a manner which:

- ∄ Causes a fatality
- ∄ Places a life in jeopardy
- ∄ Produces unconsciousness
- ∄ Results in substantial loss of blood
- ∄ Involves the fracture or amputation of an arm, leg, hand or foot
- ∄ Causes burns to a major portion of the body or
- ∄ Causes the loss of sight in one eye

Employers shall ensure that all critical injuries are immediately reported to the Director of Occupational Health and Safety and to the JOSH committee or Health and Safety Representative in the workplace within 24 hours of the accident.

It is an offense to disturb the scene of an accident except to attend to injured workers or to prevent further injury or damage to property until Occupational Health and Safety has investigated the accident.

All accidental explosions, regardless of injuries, must be reported in writing to the Director of Occupational Health and Safety within 24 hours.

**The 24 hour emergency response number is 628-7513.
An officer is always on call to respond to an accident.**

List of Chemicals and Pesticides - OHS Act Requirement

Farmers must prepare a list of all chemical substances in the workplace which may be a hazard to the health or safety of workers. The list must include the chemical trade name, address of the supplier and manufacturer, chemical composition and common or generic name, toxic effects of exposure, protective measures to be used and emergency measures to be used to deal with exposure. The list must be available to all workers. Information on chemicals can be found in the Occupational Health and Safety Act, Section 32.

Developing a Health and Safety Plan

A safe farm is created when everyone takes a role in managing health and safety issues. A good safety management program can help avoid farm accidents that are costly, time consuming and stressful for everyone involved.

A health and safety plan should be developed to prove that every reasonable step was taken to prevent an accident from occurring. Health and safety plans can be used to prove due diligence in legal matters. *Due diligence* means anyone with responsibilities for health and safety takes all reasonable steps to prevent accidents or injuries from occurring.

A good health and safety plan should include:

1. Hazard Identification
2. Prepare and enforce safe work procedures
3. Train workers in appropriate safe work procedures
4. Monitor workers for safe work procedures and correct unsafe behavior
5. Have a progressive disciplinary policy to ensure compliance with safety policies
6. Document the steps of the health and safety plan as proof of due diligence

When developing a farm health and safety plan, one place to begin is to assess the safety issues on the farm. Basic ways to assess farm safety are; to conduct informal inspections of the various work areas and tasks (Refer to Farm Safety Checklist), discuss safety concerns with workers and others who may frequent the workplace and consult information on safe industry standards.

Identify Hazards and the Associated Risks

The process of identifying hazards and assessing the associated risks is called a hazard control system. A hazard control system should examine job tasks that involve critical hazards, which are the hazards that could cause physical harm. The following information on a hazard control system will assist you in identifying the hazards and putting procedures in place to deal with the associated risks on your farm.

A hazard is any situation, activity, procedure, piece of equipment/machinery or animal that may cause injury or harm to a person.

Hazards can exist in many areas on the farm. These areas are:

- € Work environments (light, noise, rain, heat, sun)
- € Substances (chemicals, manure, fuels, dust)
- € Workplace layout (work space, confined space)
- € Work organization (unnecessary handling)
- € Machinery and equipment
- € Farm animals
- € Heights (silos and lofts)
- € Electricity
- € Gases (silos, manure pits, exhaust fumes)
- € Working Alone or in Isolated Places

The following steps are a practical and effective way of controlling hazards:

Step 1: Identify the Hazard

All farm tasks, equipment and substances should be examined. When listing hazards use:

- ∄ Information from past accidents, near accidents and other experiences
- ∄ Information from your family, workers, neighbors
- ∄ Product literature and information from suppliers
- ∄ Consult best industry practices
- ∄ Use your sense of sight, smell, touch and hearing to identify hazards
- ∄ Closely examine areas or activities where children or visitors may be present

Step 2: Assess the Risk

Risk is the chance that an existing hazard may actually cause harm or injury.

Risk assessment mainly depends on two factors

- ∄ The *likelihood* of an incident - Is it likely or unlikely to occur?
- ∄ The *severity* of the incident - Could it cause death, serious injury, or minor injury?

To assess the risk of a hazard hurting someone, ask questions like:

- ∄ How many people come in contact with the hazard?
- ∄ How often?
- ∄ How seriously could someone be harmed?
- ∄ How quickly could a dangerous situation come up if something goes wrong?

This will help you to decide which hazards should be taken care of immediately. Also, you can use this information to help you decide what to inspect, when to carry them out and how often.

The risk also depends on factors such as the physical and mental abilities of the individual (e.g. young operator), the weather and terrain (e.g. mud on a wet road), how the equipment is used (e.g. working on uneven or hilly terrain) and the knowledge and skills of those performing the work.

Step 3: Eliminate or Control the Hazard

There are several ways to control a hazard. Pick the way(s) that is reasonable and practical for the circumstances you face.

1. **Eliminate** hazards posed by equipment, animals, and the environment if at all possible. You could, for example, get rid of a faulty machine, sell a bull that is difficult to handle, put hilly terrain into pastureland rather than cultivate it.
2. **Substitute** something safer by using a different machine, material or work practice that poses less risk to perform the same task. For example, you could substitute a safer chemical for a hazardous chemical, or always use your safest tractor (a tractor equipped with rollover protection) in steep terrain to minimize the risk of a rollover.

3. **Use engineering/design controls** when it's not possible to eliminate hazards or substitute safer materials or machinery. Engineered controls are PTO and auger guards, rollover protective structures (ROPS) and brake locks. Design controls that isolate the worker/family from the hazard including childproof locks on pesticide sheds, fenced safe play areas away from the immediate work environment and locating grain bins away from electrical lines.
4. **Protect the workers** if other controls are inadequate. Protect workers through training, supervision, and personal protective equipment (PPE). For example, you should supervise new workers until you're sure they are competent to deal with hazardous situations. Use and provide proper clothes and respirator protection for handling dangerous chemicals or biohazards. Ensure someone at the worksite is trained to provide first aid.

The most desirable step in making a farm environment safe is to eliminate the hazard. To adequately control hazards in many situations, however, several different types of controls may be needed.

Hierarchy of Controls		
Order of Importance	Eliminate	Remove hazard at source e.g. Cull a cross bull
	Substitute with less hazardous risk	Use other procedures or equipment e.g. Select a new bull considering temperament
	Engineering Controls /Safe Work Procedures that reduce the risk	Modify, repair work procedure e.g. Use approved livestock handling equipment
	Personal Protective Equipment (PPE)	Wear hearing protection, masks, goggles, gloves, etc. e.g. Provide Safety footwear
	Implement/monitor controls	Use Safety Management Tools e.g. Monthly inspection checklists

Figure 3.1 Hierarchies of Controls

First Aid training and emergency preparedness provide inexpensive insurance for you, your family and your workers. It has been well documented that workers trained in First Aid are less likely to have accidents and suffer injuries.

General Precautions

1. Ensure that the recommended number of workers hold valid emergency, standard, or advanced First Aid certificates from recognized training agencies
2. Keep a record of all injuries - even minor ones, and note any First Aid care that was given
3. Ensure that First Aid service is accessible to all workers during all working hours
4. Ensure that transportation is available at all times to transport an injured worker
5. Ensure workers understand the need for First Aid kits; that the kit is adequate for the number of workers and located in the current work area

First Aid Training

There are various levels of training and supplies required depending on the number of workers on the farm.

Number of Workers	Level of Training
2-19 Workers	At least one worker with a valid Emergency First Aid Certificate.
20-99 Workers	At least one person with a valid Standard First Aid Certificate.
More than 100 Workers	At least one person with a valid Advanced First Aid Certificate

Emergency Preparedness

Being prepared for an emergency situation can be relatively inexpensive but can be worth a fortune when an emergency occurs.

- ⊘ Consider all possible emergency scenarios, the likelihood of the scenario and the potential consequences which may occur on your operation.
- ⊘ Try to prioritize the scenarios and then address those with the greatest likelihood or worst outcomes first.
- ⊘ Think in terms of the different seasons and the activities that would normally be taking place on your farm at that time for example, flood waters are rare in December, but not uncommon in April.

Useful items for Emergencies:

- ⊘ Posted civic address and emergency phone numbers
- ⊘ First aid supplies and handbook, blankets
- ⊘ Flashlight, a portable radio, spare batteries, candles, matches and mobile telephone
- ⊘ Food that requires little or no cooking and no refrigeration
- ⊘ Drinking water stored in sterile, sealed plastic
- ⊘ Camp stove, hand tools, ropes, wire, shovels, sleeping bags, kerosene lamp
- ⊘ Standby generator, fuel, ample feed for livestock and pets (ensure the generator is properly connected according to the electrical code)

Personal Protective Equipment (PPE) is worn to protect farm workers from injury. The Occupational Health and Safety Act require workers to wear personal protective equipment based on the hazards that they are exposed to. Employers must also ensure that workers are trained in the proper use and care of PPE and that the worker wears the equipment properly.

It is the responsibility of the employer to:

- 1) Either provide the necessary equipment; or,
- 2) Have workers provide any necessary equipment themselves as a condition of employment.

Types of Personal Protective Equipment

Please consult the label or material safety data sheets (MSDS) for information regarding personal protective equipment to be worn when handling chemicals or pesticides. Suppliers of chemicals or pesticides should be able to provide current labels or MSDS sheets.

Head Protection - Tasks where there is a risk of falling objects or working on/under equipment could result in a head injury. Wear head protection, such as safety hats.

Eye/Face Protection - Welding, grinding, pesticide mixing are examples of tasks where eye or face injury may result. Safety glasses, goggles or face shield should be worn depending on the task.

Foot Protection - Working around animals, heavy objects, in the woods, farm chemicals could result in foot injuries. Wear footwear such as steel toed boots when working with heavy objects or animals; use rubber or neoprene boots when using farm chemicals, leather footwear will absorb the chemical. Use chainsaw safety boots when working in the woods.

Hand Protection - Tasks where there is a danger of cuts, scrapes, bruises or chemical contact, use the appropriate gloves for the task. When working with chemicals use a chemical resistant glove or the type of glove recommended by the label/MSDS sheets. Use gloves when handling infected animals.

Lung Protection - Silos gases, grain bins, manure storage, chemical application could all result in lung damage. The respiratory equipment used should match the hazard present. For example; use dust masks in dusty situations such as confinement barns or grain storage; use a respirator with chemical control cartridge mask as required by label instructions when dealing with pesticides; self contained breathing apparatus where manure or silo gases are present. Ensure that workers know how to use, clean, maintain and are “fit tested” for the approved respirator equipment.

Hearing Protection - Noise that exceeds **85 decibels**. The rule of thumb is that if you can't hear another person speaking when standing at arms length from them, ear protection should be worn. Hearing protection requirements are determined by the sound level and the time exposed to the noise. The damage resulting from over exposure may not be noticed as the effects may not be experienced until later in life. Damage from noise exposure is not reversible so wear appropriately rated hearing protection suited for the tasks being performed. Refer to Table 5.1 for examples of decibel levels.

Decibel levels of some common activities	Decibels
ordinary conversation	60
passenger car	70
ventilation fans	65-77
very busy traffic	80
farm tractor (at operator's position)	80-110
12 hp gas engine (driving auger)	100
Chainsaw	115
Forestry equipment	105-120
Swine barn at feeding	120-133

Table 4.1 Decibel levels of some common activities (Source Centre for Agricultural Medicine, 1997)

Machines; no farm can function without them. They save valuable time and are essential to agricultural productivity. They also represent an ever-present danger to the people who operate them. There are a host of hazards that makes agricultural machinery the leading cause of injury and death on farms.

Safe machinery operation primarily depends on how you operate the machine. Machines are inanimate objects; they cannot think, reason, or adapt to meet the needs of people. The responsibility for machinery safety rests with you. Just as we are told to drive defensively when operating an automobile, machine operators should always be thinking ahead and anticipating potential hazards.

When examining machinery and workshop areas take notice of the common hazards associated with the equipment and tools on farms. Train your workers to use extra caution when working with identified hazardous areas of equipment.

Common Hazards Associated with Machinery:

1. **Pinch points** are areas where two or more parts move together with at least one part moving in a circle. The areas where drive belts contact pulleys or sprockets mesh with chains are prime examples of pinch points.
2. **Crush points** are hazards involving two components moving toward each other. Examples of crush-point hazards are the raising and lowering equipment with a three-point hitch, components that are moved by hydraulic cylinders and the areas between the tractor and machinery when hitching or turning.
3. **Wrap (entanglement) point** hazards pertain to any exposed rotating component. Wrap-point hazards include any type of rotating shaft or driveline. PTO drivelines are prime examples of wrapping or entanglement hazards.
4. **Pull-in point** hazards involve mechanisms designed to take in crops or other materials for processing. They include combine headers, windrow pickups, forage chopper headers, and grinders.
5. **Shear and cutting point** hazards are areas where two parts move across one another or one moves across a stationary object. Windrower cutter bars and grain augers are examples of cutting and shear points.
6. **Thrown objects** present another type of machine hazard. Metal, glass, wire, sticks, or other materials may be picked up by a machine and propelled with extreme force. Rotary mowers are good examples of machines capable of throwing objects.
7. **Burn point** hazards are associated with tractors and self-propelled and pull-type machinery. Hot mufflers, engine blocks, pipes, and hot fluids are examples of burn points.
8. **Stored energy hazards** are present in pressurized systems such as hydraulics, compressed air, and springs. The sudden or unsuspected pressurization or depressurization of these systems can result in crushing and other types of accidents, depending on the use of the system. High-pressure leaks are also forms of stored energy hazards.

Machinery Maintenance

Repairs and maintenance to farm machinery, equipment and associated workshop tasks are necessary to ensure optimum machinery performance and efficiency; however these tasks are among the most frequent causes of farm injuries. Numerous accidents occur because operators attempt to make repairs or adjustments while a machine was running. Others have been injured or killed by being crushed when equipment fell while they were working underneath it.

Take the time to identify potential hazards and develop safe procedures for workshop tasks, paying particular attention to the training and supervision of young and inexperienced workers.

General Safety Precaution:

Develop safe procedures for working around all machinery; begin by putting the following guidelines in place:

- ⊘ Read and follow all safety procedures in the manufacturer's manual.
- ⊘ Turn off the machine and take the key before making any repairs or adjustments.
- ⊘ Block raised hydraulic equipment. Do not depend on hydraulic systems to keep the implement or attachment in a raised position.
- ⊘ Ensure adequate working space for the job
- ⊘ Provide and use appropriate personal protective equipment
- ⊘ Check to ensure there is sufficient lighting and ventilation
- ⊘ Keep walkways and exits clear
- ⊘ Maintain required fire fighting and first aid equipment in the work area.
- ⊘ Ensure fuel, compressed air, electrical or other services are safely installed and maintained.
- ⊘ Modify machinery considered hazardous or remove it from service if it can not be made safe to operate.
- ⊘ Ensure guarding is safely replaced after maintenance jobs are completed.
- ⊘ Have guards designed and fitted for older machinery and newly purchased used machinery.

Guarding & Warning Signs

Modern farm machinery is factory equipped with a variety of safety features, including guards, shields, and warning signs designed to reduce injuries. Needless injuries and deaths occur because safety guards are removed, broken, or torn off during operation. Take the time to inspect your machinery for missing or damaged safety guards and warning signs. If guards or warning signs are missing or damaged, repair or replace them before using the machine.

A **guard** may be any shield, cover, casing, or physical or electronic barrier, intended to prevent contact between a hazardous machine part and any part of a person or a person's clothing. **All moving parts of machinery should be guarded.** Manufacturers of new machinery and equipment are legally required to ensure dangerous parts are safely guarded so that operators and others are protected from injury.

General Safety Precautions

Ensure machinery guards

- ∄ are maintained to manufacturer's specification
- ∄ are not removed until the machine is stopped and isolated with a tagged lock-out switch, and all sources neutralized, e.g. pressure in the hydraulic, or low pressure gas (LPG) line
- ∄ are always in place on dangerous parts of machinery
- ∄ are conveniently placed so that users, operators and service and maintenance people are less likely to remove them permanently
- ∄ are strong and durable enough for the machine part they cover
- ∄ protect users, operators and bystanders against burns caused by hot parts

Power Take Off (PTO) Drivelines

Power takeoff drivelines (shafts) are among the oldest and most common machinery hazards. Exposed bolts, universal joints, burrs, or other projections on rotating components can grab clothing, resulting in instant entanglement. Do your part to reduce PTO injuries and deaths:

- ∄ Ensure PTO drivelines are fully shielded.
- ∄ Never attempt to step over rotating PTO drivelines, no matter how slowly they may be turning.
- ∄ Never attempt to operate tractor controls from the rear of the tractor.
- ∄ Never wear loose, baggy clothing around PTO drivelines.
- ∄ Keep long hair pulled back to avoid entanglement.
- ∄ Stay well clear of rotating PTO drivelines.

Hand and Power Tools

General Precautions

- ∄ Use the correct tool for the job.
- ∄ Keep tools in good condition. Handles should be tight and free from defect. Cutting tools should be kept sharp. Wedges and punches should be free from "mushroom heads".
- ∄ Use and maintain power tools according to their instructions.
- ∄ Make sure power tools are properly grounded or are double insulated. Never cut the three-prong plug off or use a two prong adapter.
- ∄ Switch off and unplug power tools before changing blades or servicing and repairing.
- ∄ Wear clothing with no strings or loose ends to catch on things.
- ∄ Wear appropriate personal protective equipment (PPE), such as glasses, goggles, dust masks, face shields, hearing protection, etc.
- ∄ Keep bystanders at a safe distance.
- ∄ Keep all guards and shields in place. Learn to use a "push stick" with table saws.
- ∄ Unplug and put tools away after use. Consider locking out power tools to prevent others from using them without permission, especially young children.

Blocking is mandatory on all loadable, free wheeling farm equipment.

Tractor Maintenance

Regular maintenance of farm tractors can prevent hazardous incidents in the field and in the work shop; however, it is well documented that individuals can be killed or seriously injured while performing simple maintenance tasks and repairs to farm tractors.

When planning tractor maintenance;

- ⊘ Check that the right equipment is available for the work being completed.
- ⊘ Ensure workers are experienced and trained to do the task.
- ⊘ Ensure workers are knowledgeable in safe procedures.
- ⊘ Ensure workers are aware of the dangers in performing maintenance work in the field.
- ⊘ Prevent accidental start-up.

General Precautions

The following general precautions can help reduce the risk of accidents during maintenance procedures.

- ⊘ Routinely check brakes, clutches and drives, according to the manual
- ⊘ Ensure steering, exhaust system and brakes are in top condition
- ⊘ Stop the motor before refueling, servicing or greasing
- ⊘ Never remove or replace belts while pulleys are under power
- ⊘ Keep steps and working platforms free of grease and oil to avoid slips and falls
- ⊘ If the engine overheats, allow time for it to cool off before removing the radiator cap

Operating a Tractor

Constant vigilance is required when operating or working with tractors and other mechanized equipment.

Hazardous areas include:

- ⊘ moving mechanical parts;
- ⊘ raised hydraulic cylinders,
- ⊘ climatic conditions,
- ⊘ uneven terrain, and
- ⊘ by-standers

A key procedure for preventing tractor accidents is operator training and the establishment of safe procedures for tasks such as hitching external equipment.

Children on or visiting farms are often at risk of being injured by machinery. Minimize the risks, teach your children about safety on the farm and restrict them from areas where moving machinery is present and operating.

General Precautions

Read and follow all safety procedures in the manufacturer's manual.

Following are a number of suggestions for improving tractor operator safety:

- ∕ Ensure an approved cab or roll-over protective structure (ROPS) is installed
- ∕ Install and use a seatbelt on tractors with ROPS
- ∕ If there is a risk from falling objects, install a fall-on protective structure (FOPS)
- ∕ Keep all guards in place, including the power take-off (PTO)
- ∕ Wear hearing protection, and remember, not all tractor cabs are sound proof
- ∕ Follow safe maintenance and jacking procedures
- ∕ Ensure the operator is properly trained for each type of tractor work
- ∕ Always mount and dismount on a tractor's left side-to avoid controls, where possible
- ∕ Adjust the seat so all controls are safely and comfortably within reach
- ∕ Operate the self-starter from the operator position only

When Driving the Tractor

- ∕ Drive at speeds slow enough to retain control over unexpected events
- ∕ Seat belt use is recommended
- ∕ Reduce speed before turning or applying brakes
- ∕ Watch out for ditches, logs, rocks, depressions and embankments
- ∕ On steep slopes, without a trailed implement, reverse up the slope for greater safety
- ∕ Engage the clutch gently at all times, especially when going uphill or towing
- ∕ Descend slopes cautiously in low gear, using the motor as a brake
- ∕ Never mount or dismount from a moving tractor
- ∕ Ensure the park brake is on and operating effectively before dismounting
- ∕ Take short breaks regularly when working long hours
- ∕ Never attach implements unless the PTO shaft is guarded

When Towing Implements

- ∕ Ensure all guards on towed implements are in place before operating
- ∕ Fit attachments according to the manufacturer's instructions
- ∕ Always attach implements to the draw bar or to the mounting points provided by the manufacturer
- ∕ Regularly check safety pins on towed lift-wing or folding implements, to ensure they are not worn
- ∕ Never hitch above the centre line of the rear axle, around the axle housing or to the top link pin
- ∕ Never adjust or work on implements while they are in motion
- ∕ When parking, always lower the three point hitch and towed implement
- ∕ When connecting or removing an implement, position yourself to avoid a crushing hazard.

Most injuries or deaths are caused by rider inexperience, lack of protective equipment and hazardous driving. Most injuries and deaths involve the bike rolling over the rider. People between age 10 and 24 years are most likely to get hurt or killed riding an ATV.

For more information on age requirements and restrictions, please refer to the *Off-Highway Vehicle Act Regulations*.

Major Causes of Injury and Death:

- ⊘ ATV is carrying a passenger.
- ⊘ Legs or loose clothing get caught in the ATV or by other obstacles.
- ⊘ ATV rolls over due to steep incline or hits an obstacle.
- ⊘ Rider is hit by a low hanging obstacle, such as a tree limb.
- ⊘ Unevenly distributed or poorly secured load tips the ATV when in motion
- ⊘ The rider is unfamiliar with the controls or doesn't know how to ride the ATV properly, for example, they are not aware of the need to shift body weight to maintain the bike's centre of gravity.
- ⊘ The rider is driving recklessly, such as trying to perform stunts.
- ⊘ The ATV is poorly maintained, leading to mechanical failure of vital safety equipment such as brakes.

Safety Suggestions: The ATV

- ⊘ Use the ATV strictly according to the manufacturer's instructions.
- ⊘ Leave all safety guards in place.
- ⊘ If your ATV needs accessories, make sure to use the manufacturer's equipment or their recommendations.
- ⊘ Fit accessories properly. Don't 'customize' the fit or you may compromise the ATV's stability.
- ⊘ Strictly observe the load ratings.
- ⊘ Keep the ATV in good mechanical repair.
- ⊘ Perform a safety check each time before you ride.

Safety Suggestions: The Rider

- ⊘ Treat the ATV as piece of work machinery, not as a recreational vehicle.
- ⊘ Only trained people should ride the ATV.
- ⊘ Caution children about the dangers and make sure they keep well clear of the ATV at all times.
- ⊘ Never allow passengers on the ATV unless the ATV is designed for a passenger. A person on the back limits the rider's ability to shift weight appropriately.

- ⊘ Always wear appropriate protective gear. For example: Approved helmet with a visor, boots, gloves, pants and long-sleeved shirt.
- ⊘ Ride at an appropriate speed at all times.
- ⊘ Slow down before turning a corner or braking.

Safety Suggestions: Terrain

- ⊘ Whenever possible, ride on familiar paths.
- ⊘ Assess the terrain carefully before choosing to ride on it. Steep slopes, particularly if the dirt is loose or wet, can cause the ATV to roll over.
- ⊘ Watch the ground ahead for potential hazards.
- ⊘ If you're not confident that you can negotiate a particular stretch of terrain, don't attempt it, go another way or turn around.

Make sure you and every other person who will be operating the ATV is properly trained.

Farm chemicals can cause injury or harm if used improperly. Chemicals include: pesticides; sanitation and various other products used in barns, workshops or in the fields. Certification and/or licensing by Prince Edward Island Department of the Environment, Energy and Forestry is required by anyone who purchases and applies agricultural pesticides.

Read and follow pesticide labels and material safety data sheets (MSDS) supplied by the manufacturer for information on hazards, the requirements for personal protective equipment, storage and disposal for each chemical. Ensure chemicals are stored in a locked, well lit and well ventilated area, separate from other chemicals that may cause them to react dangerously. Be aware that solvents in some chemical concentrates can escape as harmful vapors unless containers are well sealed.

General Precautions

Following are some ways of improving safety in the storage and disposal of farm chemicals.

- ⊘ Consider training any worker who has any contact with hazardous materials (chemicals, cleaners, pesticides, fuels) in the WHMIS system and have Material Safety Data Sheets readily available
- ⊘ Ensure that all pesticide applicators are certified/licensed in accordance with *Pesticides Control Act*
- ⊘ Post warning signs and emergency numbers on pesticide storage
- ⊘ Read the label for directions on pests controlled rates, use, storage and disposal
- ⊘ Store the chemicals in the original containers with labels intact and replace lost or damaged labels with other identification
- ⊘ Store respirators, and other protective clothing and equipment, safely away from chemicals
- ⊘ Keep pesticide storage area locked and used for no other purpose
- ⊘ Ensure absorbent materials are located close by to clean up any spills. These may include kitty litter, absorbent pillows, lime and/or sand
- ⊘ Never store chemicals in food or drink containers
- ⊘ Locate storage area as far away as possible from humans and livestock to prevent accidental poisoning

Disposal of Pesticide Containers

- ⊘ Triple or jet rinse empty containers to remove all traces of the chemical
- ⊘ Where possible, return containers to the manufacturer or supplier, or call the P.E.I. Department of Environment, Energy and Forestry for information on approved disposal methods
- ⊘ Material Safety Data Sheets may provide disposal information

Transporting of Pesticides

- ⊘ Do not leave chemicals unattended during transport
- ⊘ Secure hazardous substances on the vehicle so they can't move or fall off
- ⊘ Keep a record of the chemicals you are carrying
- ⊘ Carry suitable personal protective equipment, including respiratory equipment if necessary

The best way to prevent pesticide mishaps is to ensure that you and all your workers are certified under the *Prince Edward Island Pesticides Control Act*.

Storage Regulations

All chemicals must be stored in accordance with the *Prince Edward Island Pesticides Control Act*.

Refer to MSDS sheets or pesticide labels for important information on chemical use, storage and disposal.

No one can predict animal behavior. Injuries related to livestock handling are common occurrences and can be related to a number of factors:

1. Animal behavior and temperament
2. Handler training and safe work practices
3. Facilities and equipment for handling the animals
4. Transmittable diseases

Consider the Animal

Some procedures in the handling of animals are the same regardless of animal:

- ∅ Animals may be more unpredictable during cold, windy weather
- ∅ Hazards vary according to the age, sex, breed, weight, temperament and training of animals
- ∅ Be aware that most animals are more aggressive during mating season
- ∅ Mothers are protective; don't come between them and their offspring
- ∅ Be aware that isolated animals become stressed more easily
- ∅ Be aware of an animal's flight zone and use it to your advantage
- ∅ Avoid rough handling
- ∅ Do not tease or provoke
- ∅ Avoid loud shouts or noises that could startle an animal
- ∅ Match your handling skill to the temperament and size of the animal

The Handler

The most common physical hazards livestock handlers are exposed to include; kicks, crushes, slips / falls and abrasions / punctures. These hazards can be controlled by good facility maintenance, training and use of personal protective equipment. Use of safety footwear with appropriate soles, leather gloves and clothing that is not overly loose which could get easily snagged is important. Handling methods vary greatly for types of livestock; however there are some generally accepted rules for all animals:

- ∅ Be calm and deliberate; most animals respond to routine
- ∅ Be patient, never prod an animal when it has nowhere to go
- ∅ Always provide yourself with an escape route when working with an animal in close quarters
- ∅ Approach animals quietly, and make sure they are aware of your presence
- ∅ Avoid sudden movement and loud noises when working with livestock
- ∅ Prepare and communicate safe work practices
- ∅ Wear appropriate personal protective clothing

Facilities and Equipment

Poor facilities and equipment can cause injuries to animals and the handler. Prior to construction or renovation of a livestock facility, considerable planning should be done. Yards and sheds should be strong enough and of a size to match the class of livestock handled

- ⊘ Good yard design will assist the flow of animals
- ⊘ Keep facilities in good repair and free from protruding rails, bolts, wire etc.
- ⊘ When animals need restraining, use approved restraining devices
- ⊘ Try to maintain yards in non-slippery condition
- ⊘ Animals move easier from dark to light areas
- ⊘ All restraining equipment should be checked regularly for wear or damage
- ⊘ Portable handling equipment should be securely anchored before use

Transmittable Diseases in Livestock

Remember that animals can carry diseases that are transferable to humans. If the disease is present, treat affected animals appropriately and vaccinate to prevent further occurrence. Proper animal handling and good personal hygiene and prompt veterinary and medical attention will minimize adverse effects.

Exposure to veterinary medicines and animal blood and body fluids may have a health impact on livestock handlers. Carefully follow administration directions and take great care to avoid needle sticks or direct personal contact with the drugs or animal body fluids.

Personal hygiene is an important factor when dealing with diseased livestock; always wash well with water, soap and antiseptic after handling livestock.

Confined Spaces on Farms

Confined spaces are common on agricultural operations. Access to confined spaces is usually restricted. Often, there is only one way in and one way out, through a small opening. Natural ventilation is usually poor. Hazards associated with these types of structures include: insufficient oxygen; toxic gas; explosive atmospheres; unguarded machinery and electrical devices; entrapment or burial in grain bins or silage; and falls from heights.

When a confined space accident occurs, assess the hazards before rescuing the victim. Many hazards present in confined spaces are quite deadly; there is little a rescuer can do without placing their own life in danger.

Common examples of confined spaces are:

- ∅ Silos
- ∅ grain bins
- ∅ manure pits or tanks - both underground and open
- ∅ deep trenches
- ∅ well shafts
- ∅ septic systems

Confined spaces can be deadly. If the air in the space is not tested before entry, you could be overcome by fumes and pass out or die due to lack of oxygen, toxic gases, or an inability to escape quickly enough. Multiple deaths often occur when one person enters the space, is overcome, and others try unsuccessfully to save the first person.

Preventative Safety Measures for Confined Spaces:

1. Conduct a walk-through of your operation, and closely evaluate each work area. Look not only for the obvious (such as deep trenches and pits), but also the less obvious (such as underground tanks). Consider any specialized machinery used in and around these facilities, especially material handling equipment, which can grab limbs and clothing unless adequately guarded, equipment powered by electricity and PTO driven equipment.
2. Post warning signs on or next to all confined spaces. These signs should be sturdy, weatherproof, and display such wording as, "DANGER! CONFINED SPACE, DO NOT ENTER". Regularly inspect all warning signs to make sure they are clean, readable, and have not been tampered with.
3. Be sure that all openings to confined spaces are appropriately covered or blocked off. For example, openings to manure pits should be covered with substantial metal grill covers or gates. These provide natural ventilation, and help prevent accidental falls or unauthorized entry.
4. Provide fall protection or fall arrest equipment at tower silos. If a fall arrest system is used it must incorporate a properly adjusted full body harness and lanyards.
5. If workers are not required to enter a confined space, lock the opening to prevent entry.
6. Institute a system for warning visitors, family members, and workers about the dangers of confined spaces. For visitors, this could be as simple as designating someone to tell them where the confined spaces are located and what the warning signs look like, and instructing the visitors to STAY OUT!
7. Have a written confined space entry procedure; including a notification process when entering a confined space, emergency procedure to be followed in the event of an accident or emergency and

consider the resources required for rescuing someone who may become trapped in a confined space.

8. Train all workers who may need to enter a confined space on the dangers associated with silo gas, loose grain and manure gases.

Basic Guidelines for Confined Space Entry

1. Test the atmosphere for oxygen, and for levels of toxic and explosive gases.
2. If a dangerous atmosphere exists, you must wear a self-contained breathing apparatus. Ventilate the area as thoroughly as possible.
3. All mechanical and electrical equipment must be locked out.
4. Use the "buddy" system and wear a lifeline. Sufficient equipment and manpower must be available. A third person should be on hand to summon assistance, if needed.
5. Establish how you will be communicating before entering the confined space. The meaning of verbal signals, hand gestures, or tugging line signals must be understood by the people on the outside.
6. Never re-enter a confined space without retesting and venting the area.

A self-contained breathing apparatus is needed to enter areas where oxygen is deficient or where there are toxic gases.

Whether you are dealing with a grain bin, manure pit, or other confined space, the most important safety instruction you can give family members, visitors, and untrained workers is to **STAY OUT!**

NEVER WORK ALONE IN A CONFINED SPACE SUCH AS A SILO, GRAIN TANK OR MANURE PIT.

MANURE PITS/TANKS

Manure Gases

A liquid manure holding system can contain many gases. These gases are formed as the manure rots. The gases are trapped in small bubbles and are released when the manure is agitated or pumped.

Hydrogen Sulphide (H₂S) - H₂S is often called manure gas. It is by far the deadliest of the manure pit gases. It is a clear, colorless gas. You can sometimes smell its "rotten egg odor". But, NEVER rely on the odor or lack of odor to warn you. In high concentrations of H₂S, the olfactory nerves in your nose are temporarily paralyzed and you are unable to smell the rotten egg odor.

Breathing low amounts of H₂S can result in nausea, coughing, headache, dizziness and eye irritation. When people or livestock breathe high amounts of H₂S (greater than 1000 parts per million), breathing stops at once. Once breathing stops, death will occur in minutes unless rescue is prompt.

H₂S gas is heavier than air. It tends to "pool" near the ground. If you enter a building where there are many dead mice, cats or livestock immediately suspect H₂S gas poisoning and leave.

Carbon Dioxide (CO₂) - CO₂ is a gas that is produced by all living things, including manure bacteria. In manure pits, the CO₂ produced by the bacteria may displace the oxygen. CO₂ is also heavier than air. It is usually found at the surface of the manure.

Ammonia (NH₃) - NH₃ is colorless and lighter than air. It is easy to detect because of its sharp odor. High amounts of NH₃ can cause harsh coughing, severe irritation of the throat, eyes, and lungs. If the amounts are high enough, suffocation may result.

Methane (CH₄) - Methane is colorless, lighter than air and odorless. It is extremely flammable and explodes easily. A spark or lighted match dropped into a manure tank or pit can have deadly results. Methane is more likely to be found during warm weather (greater than 35C). It can also displace oxygen and cause suffocation.

Manure Pit and Tank Accident Prevention

Liquid manure pits are the most hazardous confined spaces found on farms. The hazards include the creation and release of toxic gases, moist conditions which increase the potential for electric shock and can cause slippery surfaces. Powered and mobile machinery for pumping and agitating manure pose an entanglement hazard, and the depth of the pit is a drowning hazard for both humans and livestock.

When working in manure storage facilities, always assume dangerous gases are present.

Follow these safety precautions to minimize the danger of confined space:

- ⊘ Warning signs should be posted at all entrances
- ⊘ Test the level of oxygen and hydrogen sulfide before entering. Wear a supplied air respirator if oxygen levels are below the safe concentration or gases are present at toxic levels
- ⊘ Provide additional forced ventilation. Force air into the pit
- ⊘ Monitor conditions while working
- ⊘ Always have a helper and a mechanical lift device available when mixing or pumping manure. Tie a lifeline to anyone going into the pit or tank. Make sure he/she is wearing a self-contained breathing apparatus. A particle respirator is not acceptable
- ⊘ Provide a clear escape path
- ⊘ If the pit is located under a building, evacuate all the people and livestock, if possible, while the work is going on
- ⊘ Never allow the pit to become too full. Leave room for gas to collect
- ⊘ Mix below the surface of the liquid manure. This decreases the amount of gas released
- ⊘ Keep fire away. Methane gas is a byproduct of manure degradation, and it is flammable
- ⊘ Know first aid. Someone on the site should be trained in CPR and first aid measures. If a worker feels faint or dizzy, get him/her to fresh air immediately. Be prepared to administer artificial respiration
- ⊘ When exposed to high concentrations of manure gas, a person becomes unconscious after a breath or two and dies within seconds. There is little a rescuer can do to help. Entering the manure storage area without a self-contained breathing apparatus and rescue line is suicide. If the storage has an automatic ventilation system that you can turn on within a few seconds, turn it on.
Immediately activate 911.

When working alone always let someone know how long you should be and where you will be working. A cell phone or 2-way radio should be carried in case help is needed.

SILOS

Silo Gas

Nitrogen dioxide (NO₂) is commonly called silo gas. It is **DEADLY**. This gas is produced during the first three weeks of the ensiling process; therefore, risk of exposure to silo gas is greatest during the first three weeks after the silo has been filled.

Silo gas appears as a yellowish-brown haze and has a bleach-like odor. But, often **NO ODOR** is present. NO₂ is heavier than air. It can sometimes be seen around cracks and openings such as the feed room doors on the silo. NO₂ may also give the silage an unusual bright yellow or orange color.

Prompt medical attention for anyone exposed is vital. NO₂ can kill in seconds. When NO₂ enters the lungs it combines with moisture and turns into nitric acid. Nitric acid destroys the blood vessels in the lungs and causes massive internal bleeding. Death follows quickly.

Advise Medical First Responders of the circumstances and the hazards and prepare to assist them to make a rescue.

Accident Preventions in Silos

- ⊘ Post a "Silo Gas" warning sign in a conspicuous location near the silo. Declare silo areas as "off limits" to children and visitors during the 3-week period after filling.
- ⊘ If you must enter a silo during the most dangerous period (first three weeks), wear a self-contained breathing apparatus and a life line. Always use the buddy system. Be sure that your helper has the proper mechanical devices to lift you out. It is not often that one person can pull another out of a silo without the aid of a mechanical lift.
- ⊘ Never enter a silo during filling. Adjust the distributor to spread silage properly.
- ⊘ Contact your local fire department or other emergency service to determine if pressure-demand Self Contained Breathing Apparatus is available to deal with an emergency. Provide information to the fire department about your silo and all other confined spaces on a regular basis.
- ⊘ Provide feed room ventilation to remove silo gas that may 'spill' down the chute or be blown out by the unloader. If such ventilation is not available, keep the feed room door tightly sealed to prevent contamination of the stable area.
- ⊘ Always ventilate the silo head space thoroughly prior to entry.

Note: If the depth of settled silage is more than 5m from the top of the silo, attach a piece of flexible tube to the blower pipe to direct the air flow down to the surface. Leave the chute doors closed and the roof vent open to ensure that deadly gases will be expelled into the atmosphere, and not simply forced down into the feed room.

Agriculture and Agri-Food Canada recommends a minimum forage blower ventilation period of 30 minutes for silos up to 7.2 meters in diameter. Larger structures and deeper head spaces may require more ventilation time for safe entry. Always wear head and eye protection and keep the blower running while anyone is in the silo.

- ⊘ A top unloader can ventilate a silo quite effectively. However, if an equipment failure occurs in a recently filled silo, it is safest to assume that some toxic gas may have accumulated. Re-ventilate with the forage blower and drop pipe before attempting entry.
- ⊘ Anyone who experiences the slightest throat irritation while in the vicinity of a recently-filled silo should leave the area and get into the fresh air as quickly as possible.
- ⊘ If someone has collapsed while working inside a silo, start ventilating with the forage blower immediately; a fresh air supply is crucial. **DO NOT ATTEMPT RESCUE UNLESS YOU HAVE SELF-CONTAINED BREATHING APPARATUS OR UNTIL THE SPACE HAS BEEN VENTILATED FOR AT LEAST 30 MINUTES.**

GRAIN BINS

Precautions for Grain Bins

- ⊘ Don't enter a grain bin unless you have to
- ⊘ If you must enter a grain bin, have someone standing by outside in case of difficulties
- ⊘ Never enter a grain bin without locking out the power source to the auger and ensuring no one can start filling or emptying the bin while you are inside
- ⊘ Stay on the ladder above the level of compacted or bridged grain while dislodging it. Wear a full body harness and attach a lanyard to the ladder above your head

Emergency Procedures for Grain Tanks

- ⊘ If trapped by grain do not panic - the grain will pack tighter. Shield your face and chest with arms and clothing to create space for breathing
- ⊘ Plan for escape before entering. Always have a person watch from the outside. The watcher should have clear instructions what to do in an emergency. The first instruction must be: "Don't follow me in" followed by "Call 911 and get help here if I get trapped"
- ⊘ Only one person on standby cannot pull you out without entering; they must call for help. Only then may someone else enter, wearing a self contained breathing apparatus and a life-line. One or more people outside can help to pull you out
- ⊘ If someone else is trapped in a grain bin, empty the bin by opening any side outlet, then cut flaps in the cone or walls all around the base using power tools

Harvesting often consists of the most hazardous farm jobs. These jobs usually involve inexperienced, part-time labor, long hours and extreme weather conditions. Combined, these factors mean an increased risk of accidents during harvesting operations.

General Principles for Safe Harvesting:

- ⊘ Develop a “safety first” attitude. Follow safe work practices all the time and set a good example for others.
- ⊘ Be physically and mentally fit before operating equipment. Fatigue, stress and worry can distract from safely operating equipment. Take frequent breaks.
- ⊘ Pay attention to all safety information. Read operator’s manual and warning decals.
- ⊘ Inspect the equipment and correct any hazards before operating.
- ⊘ Identify hazardous areas on equipment and make sure you stay away from moving parts. Beware of pinch points, cut points, wrap points, crush points, and thrown objects.
- ⊘ Make sure operators are properly trained and physically capable of the harvesting task.
- ⊘ Shut down equipment, turn off the engine, remove key and wait for moving parts to stop before dismounting equipment.
- ⊘ Chock wheels on loaded free wheeling equipment.

Transporting Equipment Hazards:

- ⊘ Install slow moving vehicle signs and lights or reflectors.
- ⊘ Use four way flashers when hauling equipment on public roads.
- ⊘ Never permit extra riders on equipment.
- ⊘ Ensure vehicles are not loaded beyond their capacity and the loads are adequately secured.
- ⊘ Remember heavy loads may affect stopping and starting distances.

Overhead Power Lines

If it is necessary to operate equipment in any location where overhead lines are present, consider the following points:

- ⊘ Be aware of overhead power lines. It is imperative that minimum approach distances to overhead power lines be maintained.
- ⊘ Inspect farm equipment for operating height and be sure to include extensions or any objects that may add to the overall height.
- ⊘ Ensure that equipment such as grain augers are put in the lowered position prior to moving under power lines.
- ⊘ **Call an electrical utility representative** if you intend to operate any mobile equipment or machinery that exceeds (or with extensions could exceed) 4.15M (13.5 feet) when overhead lines are present. Never attempt to measure line heights yourself. Utility representatives can safely determine the height of power lines and recommend steps to be taken.
- ⊘ Remember that snow build up on the ground, snow and ice loading on overhead lines, warm summer weather or other activities such as backfilling may cause a reduction in the distance between the lines and the top of any equipment operating below.

If you see a power line that has been damaged or has fallen down, keep clear and notify the local electric utility

General Precautions

The following suggestions will help minimize or eliminate the risk of electric shock.

- ⊘ LOCK OUT main switches and place locks and tags on them before working on power circuits so that no one else may use them while you are working. Before closing a switch, make certain other workers are clear of circuits.
- ⊘ Consider every circuit to be live, use proper instrument for testing circuits.
- ⊘ Strictly observe the applicable rules under the Canadian Electrical Code.
- ⊘ Use warning signs and block off dangerous areas.
- ⊘ Ensure wiring, equipment, leads and plugs are kept in good repair with the proper guards and covering.

A Major Source of Farm Electrical Injuries and Fatalities Include:

- ⊘ Contacting overhead power lines with equipment such as high-dumps and portable augers. Remember electricity can jump, so be sure to contact your local electric utility to find out the minimum approach distance to ensure your safety.
- ⊘ Contacts with buried cables during trenching, digging of fence post holes, and general construction and excavation.
- ⊘ Poor location and condition of wiring, electrical cords and electrical devices such as motors.

What do you do if you come in contact with outdoor power lines?

If equipment does come in contact with electrical lines remain calm and assess the situation. It is always best to stay in or on the equipment. If the equipment is still functional try and move away from the power line to a safe distance of at least 50 feet. Have someone call the local electric utility and warn others to remain clear as the ground may be energized. If you try to step off the equipment while it is energized you will provide a path to ground and will be electrocuted. Stay in/on the equipment until a representative from the electric utility tells you it is safe. Any equipment involved in an accidental electrical contact must be thoroughly inspected prior to going back into service. There may be damage to tires, hoses, hydraulics or other components of the equipment.

Improve Farm Electrical Safety with the Following Strategies:

- ⊘ Use electrical devices designed for outdoor use.
- ⊘ Use a GFI (ground fault interrupter) outlet for portable electrical equipment outside.
- ⊘ Ensure that extension cords and devices are grounded and in good condition.
- ⊘ Locate switches and outlets away from flammable materials.
- ⊘ Look for shorting or sparking of fittings or equipment.
- ⊘ Avoid the use of electrical equipment in wet conditions.

Fall Protection is recommended when a person is working in an area 3 meters (10 feet) or more above the nearest permanent safe working surface, any open-top tank, pit or vat or above any surface or thing that could cause injury upon contact.

This would include areas such as building roofs, silos, grain bins, hay mows, manure pits, and irrigation ponds.

General Precautions

If the hazard of a fall exists, protect yourself and your workers. Following are some examples where you can make changes to improve your farm safety program with respect to fall protection:

- ∄ When climbing a fixed vertical ladder (tower silo, grain tank) have trained people use a fall arrest system which includes an anchor point or rail, a lanyard and a full body harness.
- ∄ Install guardrails around uncovered openings in floors, landings, platforms and other areas where other hazards exist.
- ∄ Ensure that all silo and bin ladders are safely and firmly attached, and are strong enough to carry the expected loads.
- ∄ Ensure that the bottom end of silo ladders is high enough off the ground to be inaccessible to children.
- ∄ Good housekeeping will prevent most trips and slips.
- ∄ Wear shoes or boots with slip-resistant soles and heels

If a Fall Occurs:

- ∄ Employers should have an appropriate emergency response plan. Worker should be trained to call 911 and to not move an injured worker unless the worker is in danger.
- ∄ Field crews should be provided portable communication devices to use in emergencies.

When Working on Ladders:

- ∄ Use the “four –to –one –rule” for straight ladders. Setting the ladder base one foot from a wall or building for each four feet in height.
- ∄ Three-point contact should always be maintained when climbing ladders. i.e. Two feet and one hand always on rungs; two feet plus a safety harness attached to a secured point to prevent free fall.
- ∄ Avoid over reaching. Keep your belt buckle between the ladder side rails.
- ∄ Do not put one foot on the ladder and the other on an adjacent surface or object
- ∄ Avoid jumping down
- ∄ Avoid climbing ladders in wet, muddy or icy conditions
- ∄ If the ground is soft or uneven, place the ladder on a sturdy wooden slab large enough to give ample support.
- ∄ Be aware of power lines
- ∄ Avoid working in high places in adverse weather conditions or when you are ill, tired or taking strong medications.

Fires and explosions are fairly common accidents on farms. Due to the remote location, farm fires often become very involved, resulting in devastating damage to buildings, property and equipment. The human costs of fire can be death or serious injury.

The best risk management strategy to deal with fire is **prevention**. Teamwork, planning and communication are vital to the safety of people fighting fires. The 911 system now covers all parts of rural Prince Edward Island.

Post your civic address by each telephone.

Carefully examine the farm workplaces for these common fire hazards:

- ⊘ faulty electrical wiring
- ⊘ malfunctioning electrical equipment
- ⊘ improper use or storage of flammable materials
- ⊘ spontaneous combustion in stored forage
- ⊘ farm machinery (sparks from exhaust and welding, defects in ignition system, overheated engines)
- ⊘ smoking around flammable materials (hay, bedding, fuel)
- ⊘ open fires
- ⊘ hot parts of equipment which may have contact with combustible material

Fire Prevention is Key

Closely inspect work areas for potential fire hazards. Focus on what could cause a fire. The following are general guidelines for fire prevention:

- ⊘ Prohibit smoking in or around the barn. A discarded cigarette can ignite dry bedding or hay in seconds.
- ⊘ Keep machinery properly lubricated and adjusted to minimize friction.
- ⊘ Avoid overloading electrical circuits.
- ⊘ Monitor electrical systems regularly and immediately correct any problems. Rodents can chew on electrical wiring and cause damage that can quickly become a fire hazard.
- ⊘ If an electrical product fails to work, makes unusual noises, has a burnt smell or sparks, unplug it immediately.
- ⊘ Special care should be taken around flammable liquids. Flammable liquids should be stored in labeled containers

Be Prepared for a Fire

- ⊘ Mount fire extinguishers in all buildings, especially at main entrances. Make sure they are current and that your family and workers know how to use them.
- ⊘ Keep aisles, stall doors, and barn doors free of debris and equipment.
- ⊘ Have a planned evacuation route for every area of your farm, and familiarize all family members and workers with your evacuation plans.
- ⊘ Be sure your address and the entrance to your farm are clearly visible from the main road.

Train all workers on how to properly use fire extinguishers.

DRAFT OCCUPATIONAL HEALTH AND SAFETY POLICY

This policy will apply to _____ at all locations.
(Name of Firm)

P O L I C Y

_____ will make every effort to provide a healthy and safe work environment. All supervisors and workers must be dedicated to reducing the risk of injury and illness. As the employer, _____ is ultimately responsible for the health and safety of all workers.

Supervisors will be held accountable for the health and safety of workers under their supervision. Supervisors are also responsible to ensure that machinery and equipment are safe, and that workers follow established safe work practices and procedures.

Workers must protect their own health and safety and that of others by following the law, and the farm's safe work practices and procedures. It is in everyone's best interest to consider the health and safety involved in every activity. Commitment to health and safety must be demonstrated at every level of this company.

Signed

Date

HOW TO USE THE FARM SAFETY CHECKLIST WORKSHEETS

The check list worksheets have been designed to enable farm operators and managers to monitor key safety issues on a regular basis and to inform workers of possible hazards.

The worksheets have been designed to cover areas common to most farms in Prince Edward Island; however, blank charts have been included to allow for areas that are not specifically listed and/or areas that may be of specific concern to you and your workers. Carefully reading the Prince Edward Island Farm Safety Code of Practice will assist you in identifying the areas with which you should be most concerned.

First Aid, Personal and Protective Equipment (see Sections 3, 4 and 14 in manual)

Date inspected: Inspected by:	OK	NO	If No, document any deficiencies/irregularities and note any remedial actions and date taken
FIRST AID AND EMERGENCY RESPONSE			
Is the farm civic address and emergency phone numbers posted in prominent places (e.g. by telephones and in main work areas)?			
Is your civic address and farm entrance clearly visible from the road?			
Are first aid kits within easy access to workers and are sufficiently stocked?			
Does the proper number of workers hold valid first aid certificates from a recognized training agency?			
PERSONAL PROTECTIVE EQUIPMENT (PPE)			
Is properly maintained personal protective equipment available for all hazards present on the farm?			
Have all workers been instructed to use appropriate personal protective equipment at all times?			
Is personal protective equipment (including gloves, goggles, respirators and aprons) always used by farm worker when applying or handling farm chemicals?			
Is hearing protection used when operating noisy machinery and power tools?			
Do farm machinery operators wear clothing which is tight-fitting and not torn or ragged when working near machinery?			

FARM SAFETY CHECKLIST

APPENDIX B

Machinery (see Section 5)

Date inspected: Inspected by:	OK	NO	If No, document any deficiencies/irregularities and note any remedial actions and date taken
Are shields and guards in place and in proper working order on all powered equipment?			
Do all PTO's have suitable shields and guards in place?			
Are key warning decals on all machinery readable?			
Are shields and guards in place on all belts, pulleys and chain drives on feed grinding and handling equipment?			
Are all rotating augers, belts, pulleys and chains on loading and unloading machinery shielded?			
Are all loading troughs on augers, elevators and conveyors covered with a guard or grating?			
Is equipment used on the highway properly equipped with slow-moving vehicle signs?			
Have children been cautioned to stay away from areas where moving machinery is present and operating?			
Do farm workers always check to ensure children and animals are not close by before starting up farm machinery and equipment?			
Implements are lowered when equipment is parked?			
Are manufacturer's recommendations for adding front-end weights always followed when using rear mounted implements on tractors?			
Do equipment operators know how to stabilize a piece of farm equipment using jacks and blocks before repairing or servicing the equipment?			
Is hydraulic equipment blocked before maintenance and repairs are started?			
Other:			

Tool Safety (see Section 5 in manual)

Date inspected: Inspected by:	OK	NO	If No, document any deficiencies/irregularities and note any remedial actions and date taken
Is access to and from work spaces free of obstructions?			
Are all hand and power tools in proper working order and equipped with proper shields and guards?			
Are all stationary power tools grounded and all portable power tools either double insulated or of the three-wire grounded type?			
Are portable power tools always disconnected when not in use?			
Are all stationary tools such as grinders and saws properly shielded and the shields always in place when in use?			
Are hand tools (especially cutting tools like saws, axes and knives) properly stored so they cannot fall or be brushed against accidentally?			
Are all hand-tools (such as axes, picks and sledgehammers) in good condition such that, for example, they have tight-fitting and splinter free handles?			
Is your welding area well-ventilated?			
Are work areas well lit?			
Other:			

FARM SAFETY CHECKLIST

APPENDIX B

Tractors (see Section 6)

Date inspected: Inspected by:	OK	NO	If No, document any deficiencies/irregularities and note any remedial actions and date taken
Are farm equipment instructional manuals readily available to operators?			
Are ROPS (roll-over protective structures) and seat belt systems properly installed on all tractors and in working condition?			
Are all tractors and self-propelled machines equipped with a dry chemical fire extinguisher?			
Are farm tractors and other self propelled vehicles always kept in good working order (e.g. periodic brake adjustments, properly inflated tires, hydraulic hoses kept in good condition etc.)?			
Are braking and lighting systems on all powered mobile equipment in proper working order?			
Is the power turned off before machinery is adjusted, repaired or unclogged?			
Are drawbar loads always hitched to a drawbar rather than to the tractor's axle, frame or raised three-point hitch?			
Are doors and windows in buildings always open when vehicles or equipment with internal combustion engines are started or run indoors?			

All Terrain Vehicles (see Section 7)

Date inspected:	OK	NO	If No, document any deficiencies/irregularities and note any remedial actions and date taken
Inspected by:			
Are all safety guards in place and in good condition?			
Is the ATV is good mechanical repair?			
Is the operator trained in operating the ATV?			
Does the operator have and wear the proper safety gear? Ex. Helmet, gloves, boots, long shirt and pants			
Is the operator familiar with the terrain and associated hazards?			
Other:			

Farm Chemicals (see Section 8 in manual)

Date inspected:	OK	NO	If No, document any deficiencies/irregularities and note any remedial actions and date taken
Inspected by:			
Are the Material Safety Data Sheets (MSDS) or labels readily available to workers?			
Pesticide applicators certified in accordance with the Pesticide Control Act?			
Is there a list of all chemicals available to workers?			
Are the containers triple rinsed and returned to the dealership?			
Are containers secured during transport?			
Are all pesticides stored in a marked and secure location as required under Prince Edward Island Pesticide Control Act?			
Are signs posted next to all chemical storage areas to warn of the potential hazards inside?			
Are chemicals always stored in their original containers with the labels clearly intact?			
Is your chemical mixing area either outside or in an open, well-ventilated area?			
Are non-compatible chemicals in storage always physically isolated from one another?			
Other:			

FARM SAFETY CHECKLIST

APPENDIX B

Livestock Handling (see Section 9 in manual)

Date inspected: Inspected by:	OK	NO	If No, document any deficiencies/irregularities and note any remedial actions and date taken
Are pens, gates, fences, and restraining devices in proper repair?			
Have workers been instructed in the proper handling of animals?			
Are animal drugs stored in a secure area in their original containers?			
Are ventilation fans and vents in confinement housing in good working condition?			
Are single wire gates clearly visible?			
Are all heat lamps for farrowing and brooding well supported and at least 2 ft away from combustible materials?			
Are electrical stock water heaters grounded?			
Other:			

Silos, Bins, and Manure Storage Areas (see Section 10 in manual)

Date inspected: Inspected by:	OK	NO	If No, document any deficiencies/irregularities and note any remedial actions and date taken
Are warning signs posted around silos, grain bins and manure storages?			
Are workers informed on the dangers of silo and manure gases?			
Are doors and gates to hazardous areas (such as silo entrances, manure storage areas, and animal quarters) kept closed and secured at all times?			
Are manure pits and lagoons guarded by grates, covers or fencing that are sturdy and of adequate size to prevent access?			
Openings of confined spaces covered or locked to prevent accidental or unauthorized entry?			
Are guards around moving parts of silos, bins, and manure storage areas in proper repair?			
Are signs warning that grain or silage storage machinery may begin automatically posted at all locations?			
Can the power to each grain or silo structure be locked out so the unloading mechanism cannot be started when someone is working inside the bin?			
Are written procedures for entering confined spaces properly posted and available to all workers?			
Are all ladders on silos and bins in proper repair?			
Other:			

FARM SAFETY CHECKLIST

APPENDIX B

Electrical Safety (see Section 12)

Date inspected: Inspected by:	OK	NO	If No, document any deficiencies/irregularities and note any remedial actions and date taken
Are main switches de-energized/locked out before work is started on power circuits?			
Are the applicable rules under the Canadian Electrical Code followed?			
Are overhead wires in the farm yard and near to field entrances high enough to adequately clear machinery?			
Are workers aware of the procedure in case of accidental contact with power lines?			
Are all wiring, power cords, plugs and switches in farm buildings and around the farm kept in good condition?			
Does the electrical system have ample capacity to handle all loads?			
Are all electrical circuits equipped with the proper size fuses or circuit breakers?			
Do all main power switches controlling electrically-operated farm equipment have a lock out device to prevent accidental starting of equipment while servicing?			
Are all light bulbs in livestock or storage buildings shielded or protected from breakage?			
Are electrical outlets in buildings with high moisture content or where water is sprayed periodically moisture proof?			
Are ground fault circuit interrupters installed and used to prevent electrical shock in all damp work areas (such as milking parlors, milk houses and animal confinements)?			
Others:			

Fall Prevention (see Section 13)

Date inspected: Inspected by:	OK	NO	If No, document any deficiencies/irregularities and note any remedial actions and date taken
Are all openings through floors protected by guard rails or covered?			
Are all steps and stairs kept free of objects and substances that would make them slippery and cause falls?			
Are all steps, ladders and platforms on farm equipment kept clear of mud and other material which may cause slipping or falling?			
Are stairways, ramps and catwalks in good repair and equipped with guardrails where applicable?			
Are all materials stacked and stored safely (For example: not stacking materials in high piles that may fall on people)?			
Are all ladders used on the farm kept in good condition (ensuring there are no cracks or faults, replace worn and damaged rungs or side-rails)?			
Are potentially slippery surfaces, such as milking parlor steps and walkways, roughened to prevent slips and falls?			
At heights above 10ft, are there fall arrest or restraint equipment worn?			

FARM SAFETY CHECKLIST

APPENDIX B

Fire Prevention (see Section 14)

Date inspected: Inspected by:	OK	NO	If No, document any deficiencies/irregularities and note any remedial actions and date taken
Are fire extinguishers or other fire fighting equipment in good working order and placed in each farm building?			
Are workers trained to use fire extinguishers?			
Are building entranceways and passages always kept clear of stored material or trash that may catch fire, cause falls or fall on workers?			
Are all heaters installed away from combustible materials and (for those that are fuel-burning) properly vented to prevent carbon monoxide leakage?			
Aisles, doorways and area around electrical boxes free of debris and equipment?			
Are flammable liquids labeled and stored properly?			
Are "No Smoking" signs posted in all fuel storage and handling areas and other places where combustible materials are located?			

Child Safety on Farms

Date inspected: Inspected by:	OK	NO	If No, document any deficiencies/irregularities and note any remedial actions and date taken
Is there a safe play area for children?			
Are the operators of equipment trained to check for children before starting and moving equipment?			
Are ladders, machinery components etc. out of reach of children?			
Are children taught how to handle animals?			
Is the pesticide storage locked?			
Assess if the child is physically and mentally capable of assigned tasks?			
Other:			

