

**NOTE:** The numbering of the *Workers Compensation Act* has changed, effective April 6, 2020. See [worksafebc.com/wca2019](https://www.worksafebc.com/wca2019).

# Health and Safety for Dairy Farms



AgSafe

WORK SAFE BC

## About WorkSafeBC

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At WorkSafeBC, we're dedicated to promoting safe and healthy workplaces across B.C. We partner with workers and employers to save lives and prevent injury, disease, and disability. When work-related injuries or diseases occur, we provide compensation and support injured workers in their recovery, rehabilitation, and safe return to work. We also provide no-fault insurance and work diligently to sustain our workers' compensation system for today and future generations. We're honoured to serve the workers and employers in our province.

## WorkSafeBC Prevention Information Line

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The WorkSafeBC Prevention Information Line can answer your questions about workplace health and safety, worker and employer responsibilities, and reporting a workplace incident. The Prevention Information Line accepts anonymous calls.

Phone 604.276.3100 in the Lower Mainland, or call 1.888.621.7233 (621.SAFE) toll-free in Canada.

To report after-hours and weekend incidents and emergencies, call 604.273.7711 in the Lower Mainland, or call 1.866.922.4357 (WCB.HELP) toll-free in British Columbia.

## About AgSafe

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AgSafe (formerly known as FARSHA) promotes safety and health in B.C. farming through ongoing activities around the province and through the development of commodity specific practical tools such as safety programs, training courses, and workplace reviews. AgSafe has published educational materials on a wide variety of topics and operates a website ([agsafebc.ca](http://agsafebc.ca)) and extensive lending library.

AgSafe was launched in 1993 at the initiative of the Workers' Compensation Board of BC (now WorkSafeBC), the BC Federation of Agriculture (now the BC Agriculture Council), and the Canadian Farmworkers' Union. AgSafe's work is funded by a levy on the assessments paid to WorkSafeBC by the registered farm employers in B.C. Therefore, AgSafe's services are provided free of any additional charge to employers and workers in B.C. agriculture. AgSafe is independent of WorkSafeBC and plays no role in WorkSafeBC's regulatory enforcement, collection of insurance assessments, or the provision of workers' compensation services.

# Health and Safety for Dairy Farms



**WORK SAFE BC**

## WorkSafeBC publications

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Many publications are available on the WorkSafeBC website. The Occupational Health and Safety Regulation and associated policies and guidelines, as well as excerpts and summaries of the *Workers Compensation Act*, are also available on [worksafebc.com](http://worksafebc.com).

Some publications are also available for purchase in print:

Phone: 604.232.9704

Toll-free phone: 1.866.319.9704

Fax: 604.232.9703

Toll-free fax: 1.888.232.9714

Online ordering: [worksafebcstore.com](http://worksafebcstore.com)

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# Introduction

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## Dairy farm injury rate

During the five-year period from 2010 to 2014, the dairy farm subsector had an average injury rate of 2.1. The average rate for all B.C. industries combined was 2.3. During this period, there were 69 serious injuries related to dairy farming and 5 fatalities.

Health and safety is good business. Making a commitment to health and safety is one of the best ways for you to protect the employees and equipment at your dairy farm. Such a commitment can help you:

- Create a better work environment
- Boost morale
- Help retain good workers
- Increase worker participation in decision making
- Improve productivity

A dairy farm can easily be considered one of the most hazardous places to work in British Columbia. Potential hazards can result from the relationship between the home and the dairy farm workplace, the diversity of tasks and working conditions, and the machines, facilities, and livestock that are unique to dairy farms. A proactive approach to safety is essential.

An accident on your dairy farm can have a tremendous impact on your workers and family members, in terms of pain and suffering, disability, and stress. Losses or changes caused by an accident can even prevent the dairy farm from functioning properly.

Accidents can be financially devastating. Direct costs can include increased insurance premiums and fines. Indirect costs can include damage to property, the cost of finding and training temporary employees, and service interruptions leading to loss of customers.

## This guide does not replace the Occupational Health and Safety Regulation.

This guide is meant to give you a basic understanding of your health and safety requirements, but you should also refer to the Regulation to be sure you are meeting your legal responsibilities for workplace health and safety. For a searchable version of the Regulation and its accompanying Guidelines, go to [worksafebc.com](http://worksafebc.com) and click “Law & Policy.” The Regulation and Guidelines are also available as a mobile app for Android, Apple, and Blackberry devices.

# About this guide

## Note

This guide is meant as a general resource only. Not all workplace hazards are covered in these pages.

## Who should use this guide

This guide is intended for dairy farm owners and employers.

## Purpose of this guide

This guide contains health and safety information for dairy farms, including information on:

- Specific hazards faced by dairy farm workers
- How to eliminate these hazards or minimize their impact
- How to develop specific procedures for doing tasks safely
- How to deal with workplace accidents and injuries

## How this guide is organized

This booklet contains information that will help you develop an effective health and safety program for your dairy farm. Throughout this booklet you will find references that you can use for more information. For a list of other useful resources available from WorkSafeBC, see pages 46–48.

Reference	What does it refer to?	Where do I look for more information?
Publication or video	Health and safety guide, booklet, poster, or video	<a href="https://www.worksafebc.com">Worksafebc.com</a> — Click “Forms & Resources”
Regulation	Occupational Health and Safety Regulation	<a href="https://www.worksafebc.com">Worksafebc.com</a>
Website	Online information or tool	Follow the link specified
Forms and checklists	Sample materials you can adapt for your health and safety program	See the WorkSafeBC publication <i>Forms and Checklists for Dairy Farms</i>
Tip	Suggestion to help you improve health and safety in your workplace	—

# Responsibilities

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Everyone has a role to play when it comes to health and safety.

## Employers and managers

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- Ensure the health and safety of your workers.
- Correct any workplace conditions that are hazardous to the health and safety of your workers.
- Inform your workers about any remaining hazards.
- Make copies of the *Workers Compensation Act* and the Regulation available to workers.
- Ensure that your workers comply with the requirements of the Regulation and the Act.
- Ensure that your workers know their rights and responsibilities under the Regulation and that they comply with them.
- Establish a health and safety program.
- Investigate accidents and other incidents, such as near misses.
- Provide and maintain protective devices, equipment, and clothing. Ensure that workers use them.
- Provide your workers with education, supervision, and training specific to your dairy farm. This should include a safety orientation that is specific to the worksite and documented.
- Consult and cooperate with your joint health and safety committee (or worker health and safety representative).
- Cooperate with WorkSafeBC and its officers.

## Supervisors

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- Ensure the health and safety of workers under your direct supervision.
- Know the requirements of the Regulation that apply to the work you are supervising.
- Ensure that workers under your direct supervision are informed about all hazards on the dairy farm and that they comply with the Regulation.
- Consult and cooperate with the joint health and safety committee (or worker health and safety representative).
- Cooperate with WorkSafeBC and its officers.

## Due diligence

*Due diligence* means taking all reasonable care to protect the well-being of employees (if you are an owner or employer) and co-workers (if you are a worker). To meet the standard of due diligence, you must take all reasonable precautions in the circumstances to carry out your work and your health and safety responsibilities.

Employers can demonstrate due diligence by implementing a health and safety program, and by ensuring their workers are oriented, trained, and supervised by a qualified person. Workers can demonstrate due diligence by following the requirements of that program — for example, using safe work procedures and wearing personal protective equipment (PPE). Demonstrating due diligence will help ensure your safety and the safety of those around you. Due diligence can also be used as a defence against monetary penalties or prosecution when requirements have allegedly been violated.

## Workers

### Note

Visitors, contractors, and service providers must know and comply with the health and safety program that the dairy farm has in place.

- Take reasonable care to protect your health and safety and that of other persons who may be affected by your actions.
- Comply with the Regulation and other legal requirements.
- Follow established safe work procedures.
- Use any required personal protective equipment (PPE).
- Refrain from horseplay or similar conduct, which may endanger others.
- Don't work if you are impaired (e.g., by drugs or alcohol).
- Report accidents and other incidents, such as near misses, to your supervisor.
- Report to your supervisor or employer any of the following:
  - A hazard that might endanger others
  - A problem with protective equipment or clothing
  - A violation of the Regulation or other legal requirements
- Cooperate with your joint health and safety committee (or worker health and safety representative).
- Cooperate with WorkSafeBC and its officers.

## Refuse and report unsafe work

Workers have the right to refuse unsafe work. In fact, workers must not carry out (or cause to be carried out) any task that they have reasonable cause to believe would create a hazard to the health and safety of anyone.

When a worker discovers an unsafe condition or believes that he or she is expected to perform an unsafe act, the worker must immediately report it to the supervisor or employer. The supervisor or employer who receives the report must immediately investigate the matter. If there is an unsafe condition, it must be corrected without delay.

Sometimes the supervisor or employer may not agree that the task is dangerous. In this case, sections 3.12 and 3.13 of the Regulation list the steps to be followed.

Workers must not be disciplined for refusing to perform tasks that they have reasonable cause to believe are dangerous. The worker may be assigned other work at no loss in pay while the reported unsafe condition is being investigated.



# Part 1: Employer guide to health and safety programs

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# Health and safety programs

## Resources

### Regulation

Sections 3.1 to 3.4,  
Occupational Health  
and Safety Programs

### Publication

*How to Implement a  
Formal Occupational  
Health and Safety  
Program*

### Forms and checklists

- Health and Safety Program for Dairy Farms
- Annual Review of Health and Safety Program

Health and safety is a legal requirement. All businesses, including dairy farms, must have a health and safety program to prevent workplace injury and disease. Health and safety programs must meet certain standards, depending on the number of workers on the worksite, and you must exercise due diligence in taking steps to meet those standards.

This publication focuses on the components of an effective health and safety program, regardless of the size of your operation. The scope of your program depends on the hazards on your dairy farm. Generally, a smaller operation can state its health and safety policy and describe its program in a few pages.

For a “Health and Safety Program for Dairy Farms” that you can use as a starting point for your own program, see the WorkSafeBC publication *Forms and Checklists for Dairy Farms*. Don’t just copy the sample though — your health and safety program should be unique and specific to your dairy farm.

## Components of an effective health and safety program

This part describes the essential components that should be included in an effective health and safety program. They include the following:

- **Health and safety policy** — a brief statement (typically about a page) of the employer’s commitment to the program, the aims of the program, and the responsibilities of the employer, supervisors, and workers.
- **Hazard identification and risk control** — Determine which hazards are present on your farm and take steps to eliminate or minimize them.
- **Safe work procedures** — Describe in writing how to carry out specific tasks safely.
- **Orientation, education, training, and supervision** — Prepare workers for the job, and make sure they continue to work safely. This is particularly important for young workers and new workers.
- **Safety inspections** — Identify workplace hazards so you can eliminate or control them.
- **Incident investigation** — Find out why an accident or injury occurred so you can correct the causes.

- **Health and safety meetings** — Communicate with workers and supervisors, and raise any concerns about health and safety.
- **Records and statistics** — Maintain documentation to help identify recurring problems and ensure that hazardous conditions are corrected.
- **First aid** — Determine what level of first aid is required for your dairy farm. Make sure everyone knows how to deal with injuries on the job.
- **Emergency response plan** — Develop and implement a plan for responding to workplace emergencies, such as fires, explosions, chemical spills, or natural disasters.
- **Personal protective equipment (PPE)** — Make sure appropriate PPE is available to all workers who need it and that workers are trained in its use. PPE is discussed in more detail in the crew talk on pages 80–83.

### Less formal programs

#### Note

A formal program may be required for operations with fewer than 20 workers if a WorkSafeBC officer deems it necessary. Regardless of the size of an operation, the basic duties specified in the Act and the Regulation will still apply. Each contractor’s site organization and procedures should support the prime contractor’s system, not replace it.

Employers with fewer than 20 workers require a less formal program that is based on regular monthly meetings with workers to discuss health and safety matters. Employers must do the following:

- Ensure that meetings focus on correcting unsafe conditions and practices, and make health and safety a priority in the workplace.
- Keep records of the meetings, who attended, and the topics discussed.
- Ensure that workers receive an orientation as well as ongoing instruction, training, and supervision. Workers should receive all the information necessary to work safely.

### Annual program review

Once you have developed processes for worker health and safety, it’s important to review them at least once a year to make sure they continue to address current concerns effectively. For a sample “Annual Review of Health and Safety Program” that you can use as a starting point, see the WorkSafeBC publication *Forms and Checklists for Dairy Farms*.

# Hazard identification and risk control

## Definitions

### **Hazard**

A thing or condition that may expose a person to a risk of injury or occupational disease.

### **Risk**

The probability that someone could be harmed as a result of the hazard.

There are many potential workplace hazards on dairy farms, depending on the types of work being performed. Examples of hazards include pesticides, electricity, machinery, confined spaces, handling livestock, and working from ladders.

Identifying and controlling hazards is essential for keeping your workers safe from injury. Follow these four steps:

1. Identify the hazard.
2. Assess the risks.
3. Control the hazard.
4. Monitor and review the control measures.

## 1. Identify the hazard

What are the hazards in your workplace? Hazards can be identified through:

- Observation
- Inspection
- Testing
- Communication and consultation with staff
- Review of injury statistics and incident investigations



Identifying potential hazards during safety inspections helps prevent injuries and other accidents.

## 2. Assess the risks

Once you've identified hazards, the next step is to assess the risks associated with them. A risk assessment will help you prioritize hazards so you know which ones should be dealt with immediately and which ones can be dealt with later. When assessing risks, try to determine how likely an incident is and how serious it would be.

### A. Determine the likelihood of an incident

How likely is it that the hazardous condition or situation will result in an incident?

- Very likely — Could happen frequently
- Likely — Could happen occasionally
- Unlikely — Could happen, but rarely
- Very unlikely — Could happen, but probably never will

Consider the following:

- Frequency (number of times) of a work activity when working near a hazard
- Severity (degree of impact) of an undesirable event, such as an injury or equipment damage or loss
- Probability (likelihood) of an incident occurring
- Number of people exposed and the duration of exposure
- Training, skills, and experience of workers performing the task
- Presence or absence of qualified supervision
- Position of the hazard relative to operators and other hazards
- Worker characteristics, such as age, vision, and hearing

#### Note

Don't underestimate "moderate" consequences. They could be important — give them urgent attention.

### B. Determine the potential consequences of an incident

If an incident occurs, how serious will it be?

- Extreme — Death or permanent disability
- Major — Serious bodily injury
- Moderate — Medical treatment and time away from work may be required
- Minor — First aid, but no time off work

Consider the following:

- The potential for a chain reaction (where a hazard develops into a more dangerous situation)
- Proximity of workers to the hazard
- Quantity of a chemical being used
- Size of equipment, forces, and energy level
- Emergency response preparedness

### **C. Assign a risk rating to the hazard**

Once you've determined the likelihood and consequences of a potential incident, use the "Risk Assessment Rating Matrix" (see page 13) to assign a risk rating to the hazard. Cross-reference the appropriate "Likelihood" row with the "Consequences" column to produce a number from one to seven. One is the highest degree of risk and seven the lowest.

Then, refer to the box below the matrix to determine whether the hazard has a high, moderate, or low level of risk. Each risk level has a corresponding recommended action.

Before using the matrix, make sure you've done a thorough assessment to ensure that you understand all aspects of the hazard, including all tasks and work associated with the hazard. If you're considering more than one hazard, the matrix rating system will help you prioritize the hazards.

Once you've established the risk level, enter it in the "Risk" column of the "Risk Assessment Worksheet" (see page 17).

## Risk assessment rating matrix

	Consequences			
	<b>Extreme</b> Death or permanent disability	<b>Major</b> Serious bodily injury	<b>Moderate</b> Medical treatment and time away from work may be required*	<b>Minor</b> First aid, no lost time
<b>Likelihood</b>				
<b>Very likely</b> Could happen frequently	1	2	3	4
<b>Likely</b> Could happen occasionally	2	3	4	5
<b>Unlikely</b> Could happen, but rare	3	4	5	6
<b>Very unlikely</b> Could happen, but likely never will	4	5	6	7

\* Don't underestimate "moderate" consequences. They could be very important — give them serious consideration.

Score	Rating	Action
1, 2, 3	High	Do something about this hazard immediately.
4, 5	Moderate	Do something about this hazard as soon as possible.
6, 7	Low	This hazard may not need immediate attention.

### 3. Control the hazard

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Once you've identified a hazard and assessed the risks associated with it, you need to find ways to control the hazard. The best form of control is to eliminate the hazard entirely, if possible. If that is unrealistic, minimize risks as much as possible by using other control measures.

#### Hierarchy of control

Some types of controls are more effective than others, although it may not always be practicable to use the more effective solution. Whenever possible, though, you must implement controls in the following order:

- A. Eliminate the hazard or substitute a safer alternative
- B. Engineering controls
- C. Administrative controls
- D. PPE

You may need to use a combination of strategies to achieve the best protection — for example, a tractor cab (engineering control) and hearing protection (PPE) to minimize noise exposure.

#### A. Elimination or substitution

Whenever possible, eliminate the hazard so there's no risk of injury. Consider the following:

- Is the task necessary to begin with?
- Can you remove the hazardous part of the task?
- Can the task be done in such a way that no workers are exposed to the hazard?

If you can't eliminate the hazard, substitute a safer material or process. Consider the following:

- Can you use a different machine or tool?
- Can you use a less-hazardous material or chemical?
- Can you use or develop alternative work practices?

#### B. Engineering controls

If you can't eliminate a hazard, it may be possible to reduce the risk by designing equipment safeguards. Engineering controls deal with the hazard right at the source by adding safety features to machinery or by redesigning a system or task.

A familiar example of an engineering control for a long-standing hazard is the use of a rollover protective structure (ROPS). Control measures that are built in by design are reliable and their success does not depend on individual judgment, training, or decision making.

### C. Administrative controls

Where engineering controls aren't possible, such as when using older equipment that best suits the task, consider administrative controls. These involve the use of policies or written safe work procedures to minimize exposure to a hazard. Administrative controls include reducing exposure time, and training and educating workers. As an employer, you may decide to adopt a company policy that requires everyone to follow specific procedures to reduce the risk of injury. Supervising workers is essential for administrative controls.

There are a few downsides to administrative controls:

- Workers may not understand the seriousness of a hazard or they may underestimate the risk.
- Workers may not remember all the steps of a procedure.
- Workers may feel pressure to cut corners.

You must be especially vigilant with administrative controls to ensure that worker exposure to the hazard is effectively controlled.

### D. Personal protective equipment

PPE should only be used as a last resort, when it's not possible to reduce risk any other way. Alternatively, it can be used in addition to another control. The use of PPE means the hazard still remains and the risk cannot be reduced at its source.

Workers who use PPE must understand the hazards and accept the importance of using PPE consistently and correctly. PPE must also be chosen, used, and maintained correctly. Workers must be trained in its use and care.

### Choosing the right control for each hazard

In many cases, controls are already built in by design (for example, most tractor cabs have ROPS), so there's not much more for the employer to do. However, in some situations, you will need to choose a control that is appropriate for the situation. Whenever this is the case, you are required to follow the hierarchy of controls and adopt the most effective method possible under the circumstances.

A control is considered appropriate if it:

- Is tailored to the hazard and risk level in a given situation
- Meets the intent of the law
- Is practicable for the workplace, given its size and resources

For example, when considering the use of formalin for foot bathing cows, follow the hierarchy of controls:

1. Elimination or substitution — Is there an alternative product that is less hazardous?
2. Engineering controls — Can you prevent worker exposure to formalin by installing an automated formalin dispenser and foot bathing system?
3. Administrative controls — If the previous controls are not feasible, can you train and instruct workers to follow a written safe work procedure to prevent formalin exposure?
4. PPE — Ensure that workers are provided with necessary PPE as specified in the product's safety data sheet (SDS).

#### 4. Monitor and review the control measures

Determine whether your controls have been implemented as planned:

- Are controls in place?
- Are they being used?
- Are they being used correctly?

Determine whether chosen controls are working:

- Have changes had the expected result?
- Has exposure to the identified hazards been eliminated or adequately reduced?

Determine whether there are any new problems. Implemented controls should not introduce new problems or worsen existing problems.

## Risk assessment worksheet

Company:

Workplace Location:

Prepared by:

Date:

Task	Hazard	Risk level	Control measures

# Safe work procedures

## Regulation

- Section 4.13(3), Risk assessment
- Section 4.21, Procedures for checking well-being of worker
- Section 10.4, Lockout procedures
- Section 9.10, Procedures (confined spaces)

Some high-risk tasks require written safe work procedures that workers can use to eliminate or minimize the risks. A written safe work procedure provides workers with a step-by-step approach that takes into account the tasks that are specific to the job being performed.

As an owner or an employer, you are responsible for ensuring that workers are trained in safe work procedures and that they understand their training. It's also important for you to ensure that workers are supervised and monitored on an ongoing basis to make sure that they are following procedures and working according to their training.

For their part, workers are responsible for following safe work procedures.

Supervisors and managers will find safe work procedures useful for training workers.

## What types of tasks require written safe work procedures?

In many cases, the Regulation specifies the types of tasks that require procedures. In the dairy farming industry, this likely includes first aid, lockout, person-check procedures for working alone, confined space entry, and emergency rescue and evacuation.

Generally speaking, safe work procedures are written for:

- High-risk tasks specified in the Regulation
- Complicated tasks, so important steps don't get missed
- Frequently performed tasks
- Some less-routine tasks, to remind workers of the hazards and how to control the risks

Not all tasks require a written procedure; it may be adequate to address safety issues verbally when training workers. To decide whether or not a written procedure is required, consider the following:

- How severe would the consequences of an accident be?
- How often is the task done?
- How complex is the task?

## Note

Written safe work procedures must specify any required PPE and when it must be used.

## How to develop a written safe work procedure

When developing a written safe work procedure, follow these five basic steps:

1. Determine the overall task for which the safe work procedure is needed.
2. Break down the task into its basic steps.
3. Identify the hazards associated with each step.
4. Identify the actions needed to minimize the risks to workers from these hazards.
5. Prepare a list of the actions that workers must do when performing the task.

Post the procedures prominently at the locations where the tasks are performed or next to the equipment used for the tasks.

### Sample: Developing a procedure for work near a power take-off (PTO)

The following sample explains how to develop a written safe work procedure for work near the power take-off (PTO) of a tractor. The PTO is a stub shaft that transfers mechanical power from the tractor to various implements used around the dairy farm.

#### Step 1: Determine the overall task for which the safe work procedure is needed

Working around tractors and farm implements is a common task for dairy farm workers. Working near a tractor PTO requires a safe work procedure because the driveline is a mechanical wrap point and can cause entanglement, one of the most common hazards on a dairy farm. The fast-spinning external shaft of the PTO can entangle clothing or body parts, resulting in serious injuries or even death. Operating a PTO may involve a number of different tasks, so the safe work procedure needs to describe safety solutions for each of those tasks.

#### Step 2: Break down the task into its basic steps

Here are some common examples of actions that could result in serious injury:

- Approaching the PTO at the rear of the tractor to inspect it or to connect other machinery or equipment
- Switching drivelines for different types of machine connections

- When moving around the tractor or implement, getting close to the PTO as a quicker, easier pathway despite the risks involved
- Performing maintenance on components of the PTO or near the PTO

### Step 3: Identify the hazards associated with each step

- Physical contact with the PTO or connecting shaft could cause entanglement of clothing, hair, or jewellery.
- Irregularities, protuberances, or loose fittings on the spinning shaft could strike workers.
- In many situations, the PTO and connecting shaft are partially guarded (over the straight part of the shaft). However, universal joints, the PTO connection, and the implement connection are dangerous wrap hazard points.

#### Note

Steps 4 and 5 provide the basis of a written safe work procedure for working near the PTO of a tractor.

### Step 4: Identify the actions needed to minimize the risks to workers from these hazards

- Train all workers who operate tractors with PTO units and ensure they are familiar with all machine operations and controls.
- Shield or guard all components of the PTO unit.
- Inspect driveline guards to ensure they have not become stuck to the shaft.
- Walk around the tractor or machinery instead of stepping over a rotating shaft.
- Use the driveline recommended for your machine.
- Never switch a driveline from one machine to another.
- Be sure the PTO driveline is securely locked onto the tractor PTO.
- Wear appropriate PPE.

Reduce abuse of the PTO shaft by following these guidelines:

- Avoid tight turns that pinch rotating shafts between the tractor and machine.
- Keep excessive telescoping to a minimum.
- Increase power to the shaft gradually.
- Avoid over-tightening of slip clutches on PTO-driven machinery.

### Step 5: Prepare a list of the actions that workers must do when performing the task

- Stop the tractor engine and disengage the PTO when working on the machine.
- Ensure all guards are maintained and in place.
- Don't use the space where the PTO is engaged between the tractor and the implement as a pathway or shortcut to get around the equipment.

- Tell workers about the hazards of the PTO.
- Keep children away from all turning points of the machine and PTO.

Use the following PPE:

- A hat or other item, such as a bandana, to secure long hair
- Close-fitting clothing to prevent entanglement
- Good-quality gloves
- Approved eye and hearing protection

#### Note

Don't use the machine unless you have been instructed in its safe use and operation.

### Sample safe work procedure for a PTO

The following is a sample safe work procedure for working on or near the PTO of a tractor. This sample was developed by the South Australian Department of Education and Children's Services and is used with their permission.

#### Personal protective equipment

- Foot protection
- Gloves
- Eye and hearing protection
- Sunscreen
- Close-fitting clothing, including a hat or some other means to secure long hair

#### Pre-operational safety checks

- Locate and ensure you are familiar with all machine operations and controls.
- Ensure all shields and guards are fitted, secure, and functional.
- Before installing or using PTO-powered equipment, read the operator's manual and review the safety labels attached to the equipment. If labels are missing, ensure new labels are fixed to the PTO before using it.
- Use only implements that meet the specifications listed in the equipment operator's manual.
- Before attaching PTO-powered equipment, confirm that the tractor drawbar is adjusted to the length specified in the driven machine's manual.

### Operational safety checks

- Start the engine only from the operator's seat. Never start the engine while standing on the ground.
- Before starting the engine, ensure all levers are in neutral positions, the parking brake is engaged, and the clutch and PTO are disengaged.
- Ensure the clutch pedal is fully depressed to stop tractor movement and any PTO-driven equipment movement before shifting the PTO gearshift lever.
- Operate the PTO from the lower speed unless the operator's manual specifically says the higher speed is safe.
- When operating stationary PTO-powered equipment, always apply the tractor parking brake, place chocks behind and in front of rear wheels, and stay clear of all rotating parts.
- Keep all bystanders away from PTO-powered equipment.
- Always walk around operating equipment.

### Ending operations and cleaning up

- When shutting down, disengage the PTO, shut off the tractor engine, and remove the keys and take them with you before leaving the tractor seat. Keep control of the keys so the equipment cannot be inadvertently started by someone else.
- Keep warning labels clean and free from obstructing material. Replace damaged or missing labels with new labels available from the equipment supplier.
- Wait until all moving components have completely stopped before getting off the tractor or connecting, disconnecting, adjusting, cleaning, or servicing any PTO equipment.
- Keep the work area safe, clean, and tidy.

### Potential hazards

- Hair, clothing, or jewellery getting caught in moving machine parts
- Noise exposure

### Don't

- Don't use faulty equipment. Immediately report suspect machinery.
- Don't wear loose or bulky clothing around the PTO or other moving parts.
- Never step onto or across a PTO shaft or driveline.

## Functions and tasks applicable to dairy farming

Here are some examples of general functions that are normally performed on dairy farms. The following list may not include every activity that occurs in dairy farming.

### 1. Equipment handling

#### A. Tractor safety

- Maintenance
- Run over prevention
- Rollover prevention
- Power takeoff protection
- Safe use on highways
- Lockout

#### B. Skid-steer loader safety

- Maintenance
- Machine safeguarding
- Rollover prevention
- Lockout

#### C. Silage equipment safety

- Maintenance
- Loading and unloading
- Machine safeguarding
- Lockout

#### D. Front-end loaders

#### E. All-terrain vehicles

- Maintenance
- Operator qualifications

#### F. Hand signals for machinery operation

### 2. Worksite hazards

#### A. Confined spaces (A written safe work procedure is required if a confined space entry requirement has been identified.)

- Manure pit safety
- Milk tanks
- Pump houses
- Manholes
- Silos and feed bins

#### B. Manure management

- Manure off-gases

#### C. Irrigation

- Power line awareness
- Piping movement, pivots, high pressures, and installation practices
- Ground stability

#### D. Working alone (A written safe work procedure is required if a worker is working alone.)

- Night milking
- Fieldwork
- Calving assistance at night

### 3. Livestock handling and housing

#### A. General considerations

- Facilities and escape routes
- Animal health and hygiene
- Working safely with livestock (milking, feeding calves, artificial insemination, treatments, and calving assistance)
- Working safely with bulls

#### B. Dairy barn safety

- General housekeeping
- Hay and feed storage
- Chemical and medicine storage
- Dusts from livestock confinement
- Fire prevention

### 4. Wild animal engagement and awareness

- Preventive actions for bears, cougars, wolves, and snakes

# Orientation, education, training, and supervision

## Resources

### Regulation

- Sections 3.1 to 3.4, Occupational Health and Safety Programs
- Sections 3.22 to 3.25, Young or New Workers

### Publications

- *How to Implement a Formal Occupational Health and Safety Program*
- *3 Steps to Effective Worker Education and Training*

### Forms and checklists

New Worker  
Orientation Checklist

Your health and safety program should describe the type of education and training you'll provide for your workers and when you'll provide it. For example, workers should receive instruction in the safe work procedures that they must follow when performing hazardous tasks. Workers should also be trained in the use of emergency equipment and procedures specific to your dairy farm.

## Orientations and other education

Orientation is an important form of education because it provides an opportunity for you to establish health and safety guidelines *before* a worker starts at a new job or location, which will help prevent work-related accidents. Health and safety education should also be an ongoing process — provide instruction to your workers whenever there are changes in the workplace, such as a new work process or piece of equipment.

### What to include in an orientation

An orientation should include the following:

- Explain that workers should not perform any task that they are not trained to do safely.
- Encourage workers to ask questions whenever they are unsure of anything.
- Introduce workers to the worker health and safety representative (or a member of the joint health and safety committee).
- Educate workers about person-check procedures for when they are working alone or in isolation.
- Explain company safety rules.
- Explain company policies regarding discipline and drug and alcohol use.

In addition, inform workers of the following:

- Potential workplace hazards, such as pesticides and other hazardous products
- Worker responsibilities and restrictions
- How to report potential hazards and unsafe work conditions
- How to get first aid

- How to report injuries and other incidents
- Locations of emergency exits, fire extinguishers, and first aid kits
- Procedures for rescue and evacuation

## Tips

- Use existing safe work procedures for training. AgSafe has a number of dairy safe operating practices ([agsafebc.ca/tools/safe-operating-practices/](https://agsafebc.ca/tools/safe-operating-practices/)) that you can modify and use for your farm.
- If a written safe work procedure is available, provide a copy or tell workers where to find it.
- Tell workers where to get help in your absence.

## Training

All workers need supervised, hands-on training on how to perform their tasks safely *before* they start a job. The following three steps describe a general procedure that supervisors can follow when training new workers.



It's important to provide workers with hands-on training before they start work.

### 1. Prepare the worker

- Explain the job in detail, including any safety precautions or required PPE.
- Encourage the worker to ask questions. Take the time to answer them fully.

### 2. Train the worker

- Demonstrate and describe specific procedures, including all safety precautions.
- Go through procedures at normal speed, then at slow speed while the worker asks questions.

- Have the worker perform procedures until he or she can do them exactly as required.
- Answer any questions or repeat any key points that the worker may have missed.
- Keep written records of training. Document who was trained, when they were trained, and what the training included.

### 3. Check progress and observe the worker on the job

- Monitor the worker to ensure that he or she maintains safety standards.
- Make unscheduled checkup visits. As the worker progresses, make visits shorter and less frequent.
- Correct unsafe work habits.
- Reinforce and recognize good work habits.

#### Tip

Supervisors should periodically observe what workers are doing on the job and assess any risks resulting from their actions.

## Supervision

On a dairy farm, a supervisor can be either the employer or whoever is in charge of instructing workers in the employer's absence. Supervisors are responsible for ensuring the health and safety of any workers under their supervision. Supervision includes the following:

- Explain the hazards of the job.
- Instruct new workers in safe work procedures.
- Ensure that workers have been trained for the tasks assigned to them, including safety precautions and safe work procedures.
- Ensure that safety equipment and PPE is maintained in good working order.
- Ensure that all materials are stored and handled safely.
- Enforce health and safety requirements.
- Correct unsafe acts or conditions that you observe or that workers bring to your attention.
- Monitor worker performance and well-being.
- Maintain appropriate documentation for training and orientation, observations, monitoring, and corrective actions taken. Always keep a record of supervisory actions in a daybook on the farm so you can prove that your farm has appropriate supervision.
- Set a good example in areas such as following safe work procedures and using PPE.

#### Resource

##### Publication

*Managing Safety from the Supervisor's Perspective*

# Safety inspections

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Besides correcting any hazards that you observe from day to day, set aside time for regular workplace safety inspections, and control any hazards that you find during an inspection. It is far better, and less costly, to prevent accidents than to deal with their consequences.



Because safety inspections are preventive in nature, they are an important part of your overall health and safety program.

## When to inspect

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You need to inspect your workplace regularly (for example, monthly) to prevent unsafe working conditions from developing. You also need to inspect your workplace when you've added a new process or when there has been an accident. Inspection is an ongoing task because the workplace is always changing.

## Who should inspect

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Inspections should be conducted by a supervisor and a worker. If possible, the worker health and safety representative (or members of the joint health and safety committee) should be involved.

## Resources

### Forms and checklists

AgSafe sample inspection checklists ([agsafebc.ca/tools/checklists](https://agsafebc.ca/tools/checklists))

### Publication

*Safety Inspections Workbook*

## How to inspect

During an inspection, identify unsafe conditions and acts that may cause injury so you can take corrective measures. Follow these guidelines:

- Use an area checklist to ensure that your inspection is thorough and consistent with previous inspections. For example, have separate checklists for the milking barn, cow housing, calf area, and outdoor yards.
- Ask yourself what hazards are associated with the job you are observing or that would be performed in the work area.
- Observe how workers perform tasks. Do they follow safe work procedures and use PPE as required?
- Ask workers how they perform their tasks.
- Talk to workers about what they're doing. Ask about safety concerns.
- Record any unsafe actions or conditions that you observe.

While your first inspections may seem slow and difficult, over time inspections will become much easier and will make your health and safety program more effective.

## What to inspect

There are different ways of approaching safety inspections, depending on the objectives of your health and safety program. For example, you can focus on the most common tasks your workers perform or on a specific issue addressed by your program, such as ergonomics.

Here are some activities and situations that warrant inspection:

- Rarely performed, non-routine, and unusual work that presents an increased risk because workers may not be familiar with procedures
- Non-production activities, such as housekeeping (including dust control), maintenance, and equipment set-up
- Situations that may involve slipping, tripping, or falling hazards, or overhead hazards such as falling objects
- Lifting situations posing a risk of back and muscle injuries
- Repetitive-motion tasks, such as spreading, bedding, or feeding
- Work involving tractor implements or machinery attachments

Check whether safe work procedures are being followed. For example, do workers:

- Lock out equipment during maintenance?
- Use gloves for loading and unloading?
- Use safe lifting procedures?
- Know the procedures for working alone?

For a list of suggested inspection topics, see page 30.

## After the inspection

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Follow these guidelines:

- Remedy serious hazards or unsafe work practices immediately. For example, if a tire has a bulging sidewall, change the tire or wheel before driving any further.
- Prioritize other, less serious hazards, and assign someone to remedy each one.
- Follow up on any actions that will take time to complete (e.g., purchasing new equipment).
- Communicate your findings and plans to workers.

## Inspection topics

Topic	Things to consider
Environment	Dust, gases, noise, temperature, ventilation, lighting
Floors	Slipping and tripping hazards, cluttered aisles
Building	Windows, doors, floors, stairs, roofs, walls, elevators, fire exits, docks, ramps
Containers	Scrap bins, disposal receptacles, barrels, carboys, gas cylinders, solvent cans
Electrical	Switches, cables, outlets, grounding, extension cables, ground fault circuit interrupters (GFCIs)
Fire protection	Fire extinguishers, hoses, hydrants, sprinkler systems
Hand tools	Wrenches, screwdrivers, power tools, hydraulic tools, explosive actuated tools, pressurized tools
Hazardous products	Flammables, explosives, acids, corrosives, toxic chemicals
Materials handling	Conveyors, cranes, hoists, hoppers, manual lifting, forklifts
Pressurized equipment	Boilers, vats, tanks, piping, hoses, couplings, valves, cylinders
Production equipment	Mills, cutters, drills, presses, lathes, saws
Powered equipment	Engines, electrical motors, compressor equipment
Storage facilities	Racks, bins, shelves, cabinets, closets, yards, floors, lockers, store rooms, mechanical rooms, flammable substances cabinets
Walkways and roads	Aisles, ramps, docks, vehicle ways, catwalks, tunnels
PPE	Safety glasses, respirators, gas masks, gloves, anti-slip boots
Protective guards	Gear covers, pulleys, belts, screens, workstations, railings, drives, chains
Devices	Valves, emergency devices, warning system limit switches, mirrors, sirens, signage, cover plates, lighting systems, interlocks, local exhaust systems
Controls	Start-up switches, steering mechanisms, speed controls, manipulating controls
Lifting devices	Handles, eyebolts, lifting lugs, hooks, chains, ropes, slings
Hygiene and first aid	Drinking fountains, washrooms, safety showers, eyewash facilities, toilets, fountains, first aid supplies
Offices	Workstations, chairs, computer equipment, ventilation, floors, stairs, equipment, emergency equipment, storage cupboards, filing cabinets

# Incident investigation

## Resource

### Video

*Incident Investigation Reporting*

Incident investigations help determine the causes of an incident so you can take steps to ensure that the same incident will not happen again.

## What is an *incident*?

An *incident* is an accident or other occurrence that resulted in or had the potential for causing a death, injury, occupational disease, or damage to equipment or property. Incidents include:

- Accidents in which a worker is injured or killed
- Accidents in which no one is hurt but equipment or property is damaged
- Near misses

The terms *incident* and *accident* are often used interchangeably, but the preferred term is *incident* because it includes near misses as well as accidents.

## What is a *near miss*?

A *near miss* is an incident in which there is no injury or damage but that could have resulted in an injury or death, or damage to equipment or property. Near misses may indicate hazardous conditions or acts that need to be corrected.

## What incidents do I have to investigate on my dairy operation?

Employers are required to immediately investigate any incident that involves the following:

1. Serious injury to or death of a worker
2. A major structural failure or collapse of a building, bridge, tower, crane, hoist, temporary construction support system, or excavation.
3. A major release of a hazardous substance
4. Fire or explosion with potential for serious injury
5. Minor injury or no injury but had potential for causing serious injury
6. Injury requiring medical treatment beyond first aid

If the incident is not one of the types listed above (for example, it was a minor incident and there was no risk of serious injury), you are not required to investigate it.

## Note

For the first four types of incidents, you must also notify WorkSafeBC immediately. Call toll-free 1.888.621.7233. After hours call 1.866.922.4357.

## Participants

Everyone has a role to play. Workers must report incidents to their supervisors. Owners, employers, managers, or supervisors must initiate an incident investigation immediately and complete a preliminary report within 48 hours. If possible, investigations should include at least one employer representative and one worker representative.

## Examples of incidents requiring investigation

Consider the following examples, which may resemble cases that you would need to investigate:

- Struck by an animal, such as a cow or bull
- Struck by equipment, such as a tractor or skid-steer loader
- Falls from the same level or elevation

What recommendations would you make to prevent these types of accidents?

## Goals

As much as possible, an investigation must:

- Determine the causes of the incident
- Identify any unsafe conditions, acts, or procedures that contributed to the incident
- Find ways to prevent similar incidents

## How to conduct an investigation

Interview witnesses and the people involved in the incident even if they weren't present at the incident. For example, it may be appropriate to interview a supervisor who gave instructions at the start of the shift or a trainer who previously instructed the workers involved.

### Questions to ask

The investigation should answer the following questions:

- Who was involved or injured?
- Where did the incident happen?
- When did it occur?
- What were the causes?
- Why was an unsafe act or condition allowed?
- How can similar incidents be prevented?

### Factors to consider

Usually there are several factors that cause or contribute to an incident. Try to identify as many as possible. Consider the following factors when investigating an incident:

- Unsafe or defective equipment
- Unsafe environment or conditions
- Poor housekeeping
- Physical hazards

- Poor planning
- Poor instruction
- Unsafe work practices
- Unusual or unfamiliar work conditions
- Personal factors

## Reporting incidents and injuries to WorkSafeBC

Depending on the incident, you may be required to complete up to four separate reports using the WorkSafeBC Employer Incident Investigation Report (EIIR) template. Each report represents the status of the investigation at a specific point in the investigation process.

Report type	When
Preliminary investigation	Complete within 48 hours
Interim corrective action	As soon as possible
Full investigation	Complete within 30 days
Full corrective action	As soon as possible

### Resources

#### Regulation

Sections 172 to 177 of the *Workers Compensation Act*.

#### Forms and checklists

[Employer Incident Investigation Report \(EIIR\)](#) — go to [worksafebc.com](http://worksafebc.com) and click Forms & Resources

#### Publication

*Guide to Completing an Employer Incident Investigation Report (EIIR)*

Employers must submit copies of the reports to the company's joint health and safety committee or worker health and safety representative, as applicable.

For more information on the EIIR process, see *WorkSafeBC's Guide to Completing an Employer Incident Investigation Report (EIIR)*.

## Initiating a claim

Employers must report any of the following incidents to WorkSafeBC within three days to initiate a claim:

- A worker is injured and loses consciousness.
- A worker is sent for medical treatment by a first aid attendant or supervisor.
- A worker has an injury or disease that needs medical treatment.
- A worker states that he or she is going to get medical treatment or has already received medical treatment for an injury or disease.
- A worker is (or claims to be) unable to do his or her job because of any injury or disease.
- An artificial limb, eyeglasses, dentures, or hearing aid is broken in an incident.

# Health and safety meetings

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Good communication among employers, supervisors, and workers on health and safety issues is vital for the success of a workplace health and safety program. Hold regular monthly meetings with workers to discuss health and safety matters. Focus your meetings on identifying and correcting hazardous conditions or tasks, and making health and safety a priority on your dairy farm. Keep a record of each meeting, including what was discussed and who attended. Post meeting minutes for everyone to read.

Bring to each meeting:

- Your latest inspection report
- Any incident reports completed during the past month
- Any new safe work procedures
- The minutes for last month's meeting

For small dairy farms with fewer than 20 workers, a tailgate safety meeting is essential at the beginning of each week or before working on or near a high-hazard, high-risk activity. Include the items from the list above in your tailgate meetings.



Regular monthly health and safety meetings provide an opportunity to discuss potential hazards and what workers can do to control them.

## Resources

### Forms and checklists

Monthly Health and Safety Meeting Record

### Publication

*Joint Occupational Health and Safety Committee Foundation Workbook*

## Joint health and safety committees

Joint health and safety committees help create safer work environments by recommending ways to improve workplace health and safety and promoting compliance with the Regulation and the Act.

Dairy farms that regularly employ 20 or more workers must establish and maintain a joint health and safety committee. (*Regularly employed* means employed for at least one month, whether full-time or part-time.) The committee must include at least four members — usually two employer representatives and two worker representatives — and must have monthly meetings. The committee is responsible for advising the employer on significant proposed equipment and machinery changes that may affect worker health and safety.

## Worker health and safety representatives

Workplaces that regularly employ more than 9 and fewer than 20 workers are usually required to have at least one worker health and safety representative rather than a joint health and safety committee. These representatives act as advisors and work cooperatively with employers and workers to identify and resolve workplace health and safety issues. During health and safety meetings, the representative should raise any issues that workers have mentioned since the last meeting.

# Records and statistics

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Maintain records and statistics for the following:

- Health and safety program reviews can help you track the progress of your program.
- Worker orientation records can help ensure that workers are getting the education and training they need.
- Inspection reports can provide historical information about hazards you have encountered and how you dealt with them.
- Monthly meeting records can help monitor how promptly and how well “action items” have been carried out.
- Incident investigation reports can clarify which hazards have caused incidents and how you controlled them.
- First aid records can provide injury statistics that will help prioritize health and safety efforts.

For samples of the documents listed above, see the WorkSafeBC publication [\*Forms and Checklists for Dairy Farms\*](#).

Statistics that may be of value include the following:

- Number of incidents and injuries each year
- Number of workdays lost each year
- Cost to your business from workplace injuries each year

# First aid

**Regulation**

Sections 3.14 to 3.21, Occupational First Aid

The Guidelines for Part 3 contain more information on first aid requirements, such as contents of first aid kits, types of first aid attendants, and facilities.

All workplaces must meet the first aid requirements in Part 3 of the Regulation. Effective first aid treatment can reduce the severity of work-related injuries. This will help minimize the financial costs associated with extensive medical treatment or the need to replace employees who are unable to work. All dairy farms must keep a first aid kit on site. Most dairy farms will also need a first aid attendant. The type of kit and the need for a first aid attendant depends on three factors:

- The hazard rating for your business (dairy farming is currently classified as high risk)
- The number of workers
- The travel time to the nearest hospital.

To determine your first aid requirements, use the following tables. First aid requirements are based on the number of workers per shift, so the requirements may vary depending on the shift. Every employer must maintain records of all workplace injuries or diseases.

## First aid requirements for dairy farming (a high-risk industry)

### 20 minutes or less surface travel time to hospital

Number of workers per shift	Supplies, equipment, and facility	Level of first aid certificate for attendant	Transportation
1	Personal first aid kit	N/A	Transportation at employer's expense
2-15	Level 1 first aid kit	Level 1	Transportation at employer's expense
16-30	Level 2 first aid kit Dressing station	Level 2	Transportation at employer's expense

### More than 20 minutes surface travel time to hospital

Number of workers per shift	Supplies, equipment, and facility	Level of first aid certificate for attendant	Transportation
1	Personal first aid kit	N/A	Transportation at employer's expense
2-5	Level 1 first aid kit	Level 1	Transportation at employer's expense
6-10	Level 1 first aid kit ETV equipment	Level 1 with Transportation Endorsement	ETV (Emergency Transportation Vehicle)
11-30	Level 3 first aid kit Dressing station ETV equipment	Level 3	ETV (Emergency Transportation Vehicle)

### First aid kits and attendants

Follow these requirements:

- Ensure that every worker is aware of first aid kit locations and how to call the first aid attendant (if one is required in your workplace).
- Post signs indicating how to access first aid.
- If a first aid attendant is required, that attendant must hold a valid first aid certificate of the level necessary for the dairy farm.
- Train backup first aid attendants. Ensure that enough workers are trained for this responsibility to cover vacations and other absences.

## Resources

### Forms and checklists

- Level 1 First Aid Kit
- Level 2 First Aid Kit
- First Aid Record

### Website

Report injuries and other incidents by filing first aid reports and incident investigation reports online at [worksafebc.com](http://worksafebc.com).

## Transportation of injured workers

As an employer, you are responsible for the cost of transporting an injured worker from the workplace to the nearest source of medical treatment. Your operation needs written procedures for transporting injured workers. Post these procedures in your workplace. These procedures should include:

- Who to call for transportation
- How to call for transportation
- Prearranged routes in and out of the workplace and to the hospital

Employers are required to keep health and safety records and statistics on file. Examples of documentation include training activities, first aid treatments, and incident investigations.

Written records and statistics can help:

- Identify trends for unsafe conditions or work practices so you can take steps to correct these potential hazards
- Provide material for education and training
- Provide documentation in case a WorkSafeBC officer requests it, or if an incident occurs and you need to prove that you did all you could reasonably do to prevent it (otherwise known as due diligence)

# Emergency response plan

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## Website

### **Provincial Emergency Program**

For more information on emergency planning and preparedness, visit [www2.gov.](http://www2.gov.bc.ca/gov/content/safety/emergency-preparedness-response-recovery)

[bc.ca/gov/content/safety/emergency-preparedness-response-recovery.](http://bc.ca/gov/content/safety/emergency-preparedness-response-recovery)

Dairy farm operations should be prepared to respond to emergencies, such as fires, explosions, chemical spills, or natural disasters. If an emergency occurs, you or your workers will need to make quick decisions to minimize injuries and damage. These decisions are easier if you have already developed an emergency response plan.

## How to develop and implement a plan

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Follow these guidelines:

1. List all possible events (e.g., serious injuries, fires, explosions, or natural disasters).
2. Identify the major consequences associated with each event (e.g., casualties, equipment damage, or facility damage).
3. Determine the necessary measures to deal with those consequences (e.g., first aid, notification of medical authorities, rescue, firefighting, or equipment evacuation).
4. Determine what resources will be required (e.g., medical supplies or rescue equipment).
5. Store emergency equipment where it will be accessible in an emergency.
6. Ensure that workers are trained in emergency procedures and know where equipment is stored.
7. Hold periodic drills to ensure that employees will be ready to act if an emergency occurs.
8. Communicate the plan to everyone involved.

# Questions and answers

## Note

If you do hire any employees, including temporary help, you will likely need to register with WorkSafeBC.

## Resources

### Website

To find out more about registration requirements or to register online, visit [worksafebc.com](http://worksafebc.com). You can also report injuries and other incidents at [worksafebc.com](http://worksafebc.com).

### Publications

For more information on young workers:

- [3 Steps to Effective Worker Education and Training](#)
- [Protecting Young Workers: Focus Report](#)

## Common questions from employers

***I operate a small dairy farm. Do I need to register with WorkSafeBC?***

Probably. Most operators in B.C. are required to register with WorkSafeBC and pay assessments (insurance premiums). For more information on registration or assessments, call the Employer Service Centre at 604.244.6181 in the Lower Mainland or 1.888.922.2768 toll-free in B.C.

***Do I have to register if I am a sole proprietor of a dairy farm (the business is run by me, or me and my spouse, without employees)?***

No. Sole proprietors and their spouses are not considered employers and are not automatically covered for compensation benefits. You can, however, apply for Personal Optional Protection for yourself and on behalf of your spouse. This optional insurance will cover lost salary and medical expenses in cases of work-related injury or disease. For more information on voluntary coverage, call the Employer Service Centre at 604.244.6181 or 1.888.922.2768.

***Do I have to pay WorkSafeBC premiums if my teenage children work for me in the business?***

Yes. Children of the employer are considered workers and are automatically covered if there is an employment relationship.

***We've never had an accident at our workplace. Do we still need to set up a health and safety program?***

Yes. All B.C. workplaces are required to have a health and safety program. A health and safety program will help you maintain an excellent safety record.

***I recently hired a subcontractor. Am I responsible for the subcontractor's health and safety?***

Yes. Employers hiring contractors or subcontractors should check with WorkSafeBC to determine their obligations regarding health and safety matters. It's also a good idea to check with WorkSafeBC to make sure the contractors or subcontractors you hire are registered with WorkSafeBC. If they aren't, your company could be liable for their insurance premiums if there's an injury or accident. A clearance letter will tell you whether a business, contractor, or subcontractor is registered with WorkSafeBC and up-to-date on their payments. To get a clearance letter, visit [worksafebc.com](http://worksafebc.com), call 604.244.6380 or 1.888.922.2768 toll-free, or fax 604.244.6390.

***Can I pay the medical cost of an employee's injury to prevent increased WorkSafeBC premiums?***

No. All work-related injuries must be reported to WorkSafeBC.

***I only have a staff of two. Should we still hold monthly health and safety meetings, or can we meet less often?***

Yes, you still need to hold regular monthly meetings so workers have an opportunity to discuss health and safety matters, and to correct unsafe conditions or procedures. As an employer, you must also keep records of the meetings and the matters discussed. For a sample "Monthly Health and Safety Meeting Record," see the WorkSafeBC publication Forms and Checklists for Dairy Farms.

***Can I or my employees smoke at work?***

The owner or employer must control the exposure of workers to environmental tobacco smoke by prohibiting smoking in the workplace or restricting smoking to a designated smoking area. For more information, see sections 4.81 to 4.83 of the Regulation.

## Common questions from workers

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***I only work part-time. Am I entitled to benefits if I get hurt on the job?***

Yes. All workers, including young and part-time workers, are entitled to workers' compensation benefits in the event of a work-related injury or illness.

***My job requires me to lift and move heavy objects. What is the maximum allowable lifting weight?***

There is no specific maximum allowable lifting weight. However, if you are required to lift heavy materials, your employer must ensure that you can do so safely. This includes training you in proper lifting techniques and providing dollies or carts if necessary.

***My supervisor or employer has asked me to perform a task I believe is dangerous. What can I do?***

Workers have the right to refuse work they have reasonable cause to believe is dangerous to their health. The first thing you should do is tell your supervisor or employer that you think the task is dangerous. Together, you may be able to find a safe solution. If the two of you cannot find a solution, continue the discussion with a worker health and safety representative (or another worker selected by you if there is no representative). If a solution still cannot be found, you and your employer can call the WorkSafeBC Prevention Information Line at 604.276.3100 in the Lower Mainland, or 1.888.621.7233 (621.SAFE) toll-free in B.C.

*I often work alone. What do I do if I'm injured?*

Your employer must have a written procedure and safeguards for working alone. Your supervisor must review these procedures with you as part of your training. These safe work procedures should be included in the health and safety program for your workplace.

# Employers' Advisers

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The Employers' Advisers Office is a branch of the B.C. Ministry of Labour and Citizens' Services, independent of WorkSafeBC. Employers' advisers are funded by the WorkSafeBC premiums collected from employers. At no additional cost, advisers provide impartial advice, assistance, representation, and training to employers about workers' compensation legislation, decisions, appeals, and policies.

Employers' advisers have a right to access WorkSafeBC information on your behalf, but they cannot file reports for you. Employers' advisers also conduct educational seminars for employers on topics such as health and safety requirements, claims management, disability management, and assessments.

You can visit the Employers' Advisers website at [www.labour.gov.bc.ca/eao/](http://www.labour.gov.bc.ca/eao/) or contact a regional office for help. You can now reach all Employers' Advisers regional offices using the following numbers:

- Phone: 604.713.0303 in the Lower Mainland
- Toll-free: 1.800.925.2233 in Canada
- Toll-free fax: 1.855.664.7993 in Canada

# AgSafe resources

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AgSafe offers various health and safety resources related to dairy farms and other agriculture operations. Some of these resources are available online for download and others are printed publications that you can order from AgSafe.

Contact AgSafe for more information on the following resources:

- Sample inspection form for dairy farms
- Safe work procedure template for dairy farms
- Sample orientation checklist for new workers

You can also talk to an AgSafe regional safety consultant if you need information on training for powered equipment or help developing an emergency plan for your farm.

## AgSafe contact information

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Toll-free: 1.877.533.1789

Web: [www.agsafebc.ca](http://www.agsafebc.ca)

Email: [contact@agsafebc.ca](mailto:contact@agsafebc.ca)

# WorkSafeBC resources

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## Worksafebc.com

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WorkSafeBC provides a number of services and materials that will help you meet your health and safety requirements. Visit [worksafebc.com](https://www.worksafebc.com) and either click Forms & Resources or try searching for the topic or title you're looking for.

The rest of this section describes some key WorkSafeBC publications you may find useful for improving health and safety on your dairy farm.

## Health and safety programs

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- *How to Implement a Formal Occupational Health and Safety Program*  
Provides more detailed information on how to develop and maintain an effective health and safety program.
- *Safety on the Job Is Everyone's Business*  
Three-page brochure describes the responsibilities of employers, supervisors, and workers.
- *3 Steps to Effective Worker Education and Training*  
Explains steps for providing education and training to new workers and young workers.
- *Forms and Checklists for Dairy Farms*  
Collects sample forms and checklists that you can use to develop, implement, and maintain a health and safety program for your dairy operation.

## Registration

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- *Small Business Primer: A Guide to WorkSafeBC*  
Provides basic information on registering with WorkSafeBC, paying premiums, preventing injuries, investigating incidents, and reporting claims.

## Prevention

- *Back Talk: An Owner's Manual for Backs*  
Describes common back injuries and how to avoid them.
- *Understanding the Risks of Musculoskeletal Injury (MSI): An Educational Guide for Workers on Sprains, Strains, and Other MSIs*  
Describes the signs and symptoms of MSI and how to identify MSI risk factors.
- *Preventing Musculoskeletal Injury (MSI): A Guide for Employers and Joint Committees*  
Provides information on preventing MSI and investigating MSIs.
- *Lockout*  
Describes what lockout is, when it is required, and how to do it.
- *WHMIS 2015 at Work*  
Describes WHMIS, its requirements, and how to implement WHMIS in your workplace.

## Claims

- *Claims Review and Appeal Guide for Employers*  
Describes appeal procedures and rules governing payment of a claim during the employer's appeal process.
- *Claims Review and Appeal Guide for Workers and Dependents*  
Describes the rights and obligations of claimants who wish to appeal the decision of a WorkSafeBC claims adjudicator.

### WorkSafeBC Prevention Information Line

The Prevention Information Line can answer your questions about health and safety, including responsibilities, first aid, reporting incidents, and finding an officer in your area. Anonymous calls are accepted. Call 604.276.3100 in the Lower Mainland or 1.888.621.SAFE (7233) toll-free. For after-hours and weekend incidents and emergencies, call 604.273.7711 in the Lower Mainland or 1.866.WCB.HELP (922.4357) toll-free.



# Part 2: Crew safety talks

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# Ergonomics — Repetitive strain

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## Regulation

Sections 4.46–4.53,  
Ergonomics (MSI)  
Requirements

Repetitive tasks and working for long periods in one position are major sources of overuse injuries and musculoskeletal injuries (MSIs) for dairy workers. These injuries can affect your quality of life for weeks, months, or even years, preventing you from working and doing many things you enjoy.

## Common hazards

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- Repetitive tasks such as milking, stall preparation, calf feeding, and artificial insemination, which can result in tendinitis or carpal tunnel syndrome, especially if awkward postures are required to perform the tasks
- Poor workstation design — for example, a milking parlour with cow platform heights that require awkward postures such as back bending or prolonged stationary standing positions to perform tasks, leading to back or neck strains; or designs that require excessive overhead reaching, which can lead to shoulder and neck problems

## Incident example

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A dairy technician was cleaning the calves' bedding, which required her to shovel, lift, turn, and carry the bedding. She did this activity repeatedly for a couple of hours. Several hours later, she began to have low back pain. By the next day, the pain was much worse.

## Safety tips

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- Select and adjust equipment to fit your body and work style.
- Take 10- to 15-second micro-breaks throughout the day.
- Change tasks or how you perform tasks to give your body a break—for example, during a milking shift, trade off with workers who are bringing cows to the collection yard or feeding calves.

## Responsibilities

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### Employers

- Assess the workplace for potential hazards that could lead to MSIs or overuse injuries.
- Eliminate or minimize the risk of MSI by modifying workstations, varying worker tasks, and introducing stretching breaks.
- Provide instruction in recognizing the early signs and symptoms of MSI, and training for preventing MSI.
- Provide adequate supervision at all times (before, during, and after training).

### Workers

- Follow safe work procedures.
- Vary your position and tasks. Take assigned breaks.
- Report early signs and symptoms of MSI to your supervisor or employer.

## Resources

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Go to [worksafebc.com](http://worksafebc.com) for the following resources and many other publications and videos:

- *Understanding the Risks of Musculoskeletal Injury: An Educational Guide for Workers on Sprains, Strains and Other MSIs*
- *Back Talk: An Owner's Manual for Backs*
- *Does Your Back Hurt? A Guide to Preventing Low Back Pain*
- *Ergonomics Commentary 1 – Back Belts*
- “Stretching in new ways to reduce MSIs.” *WorkSafe Magazine*, vol. 2, no. 6, November/December 2001

For more information, go to [worksafebc.com](http://worksafebc.com) and search for “ergonomics.”

# Ergonomics — Lifting

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## Regulation

Sections 4.46–4.53,  
Ergonomics (MSI)  
Requirements

Improper handling and lifting of heavy, bulky, or awkwardly shaped objects can cause strains, sprains, neck injuries, back injuries, and hernias for dairy workers. Any of these injuries can affect your quality of life for weeks, months, or even years, preventing you from working or doing many things you enjoy.

## Common hazards

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- Lifting heavy equipment, bags, odd-shaped loads, or animals, resulting in shoulder or wrist sprains or back strains
- Carrying awkward or heavy animals, resulting in back pain

## Incident examples

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- A worker was using a pitchfork to move a big pile of hay for some cows. The worker injured his left shoulder when he used an awkward posture to lift the hay to spread it out.
- A farm helper suffered a rotator cuff injury while bringing cows to the milking area. The ground was slippery and mucky, and a cow fell. The cow could not get up, so the worker helped it by pushing as it struggled to get up. After about 30 seconds, the cow got up with the worker's help. However, the worker felt severe pain in his right shoulder as he was pushing the cow.
- A worker twisted his right knee while lifting a manure spreader door with three co-workers. The door weighed approximately 136 kg (300 lb.). As they were lifting it, the worker's right foot slipped on the gravel, and he fell to the ground. He felt immediate pain in his right knee, and the next morning he couldn't move it.

## Safety tips

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- Assess whether you will need help from another person or whether you will need a calf transport dolly or hoist to move heavy or awkward objects.
- Get close to the object. Avoid reaching.
- Bend at your hips and knees.
- Lift smoothly and slowly, keeping the object close to your body. Remember to breathe.
- Pivot by moving your feet instead of twisting your back.

- When carrying large items, be sure you can see where you are going.
- When storing equipment or supplies, place the heaviest items between knee and chest levels.

### Note

Engineering solutions such as lifting devices should be considered before any other measures.

## Responsibilities

### Employers

- Provide assistive devices such as calf transport dollies or hoists if necessary, and make sure they are maintained in good condition.
- Train workers in safe lifting techniques.
- Provide adequate supervision at all times (before, during, and after training).

### Workers

- Get help or use an assistive device to lift or move equipment and supplies if necessary.
- Follow safe work procedures.
- Report early signs and symptoms of musculoskeletal injury (MSI) to your supervisor or employer.

## Resources

Go to [worksafebc.com](http://worksafebc.com) for the following resources and many other publications and videos:

- [Lift/Lower Calculator](#)
- [Back Talk: An Owner's Manual for Backs](#)
- [Does Your Back Hurt? A Guide to Preventing Low Back Pain](#)
- [Ergonomics Commentary 1 – Back Belts](#)

For more information, go to [worksafebc.com](http://worksafebc.com) and search for “ergonomics.”

# Ergonomics — Pushing and pulling

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## Regulation

Sections 4.46–4.53,  
Ergonomics (MSI)  
Requirements

Using excessive force while pushing or pulling can result in musculoskeletal injuries (MSIs) in dairy workers. These injuries usually affect the arms, shoulders, or back. They can result from a single incident (for example, pulling a pallet or pushing a heavy wheelbarrow or animal) or from repetitive tasks over a long period of time.

## Common hazards

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- Pushing or pulling heavy loads, resulting in shoulder or arm strain
- Dragging loads over rough floors or terrain, resulting in back strain

## Safety tips

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- Use a dolly or handcart to move heavy loads.
- Maintain the wheels on carts in good working order.
- Reduce the weight or size of the load.
- Push rather than pull whenever possible.
- Keep floors or the ground free of debris if possible.
- Use appropriate footwear to avoid slipping or skidding while pushing or pulling.

## Responsibilities

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### Employers

- Provide assistive devices such as dollies or handcarts with handles, and ensure that they are maintained in good working order.
- Change the layout of the workplace if necessary, to minimize the distances that objects need to be pushed or pulled.
- Train workers to use proper body mechanics for pushing and pulling.
- Provide adequate supervision at all times (before, during, and after training).

### Workers

- Get help or use an assistive device to lift or move equipment and supplies if necessary.
- Follow safe work procedures.
- Report early signs and symptoms of MSI to your supervisor or employer.

## Resources

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Go to [worksafebc.com](http://worksafebc.com) for the following resources and many other publications and videos:

- *Push/Pull/Carry Calculator*
- *Understanding the Risks of Musculoskeletal Injury: An Educational Guide for Workers on Sprains, Strains, and Other MSIs*
- *Back Talk: An Owner's Manual for Backs*
- *Does Your Back Hurt? A Guide to Preventing Low Back Pain*
- *Ergonomics Commentary 1 – Back Belts*

For more information, go to [worksafebc.com](http://worksafebc.com) and search for “ergonomics.”

# Slips, trips, and falls

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Uneven ground, debris, tools, wet grass, and barn floors are all potential causes of slips, trips, and falls for dairy workers. When work areas are not kept clean, the risk of slips, trips, and falls increases. These types of accidents are especially dangerous for dairy workers because of the risk of falling while working alone with animals and machinery.

## Common hazards

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- Uneven or slippery surfaces
- Forgotten tools, hoses, cables, and debris
- Wet and slippery barn floors
- Getting on and off equipment
- Loading and unloading equipment and materials

## Incident examples

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- A herdsman was walking from a milking parlour to an adjacent barn when he stepped on a wet sheet of plywood. His leg slipped out from underneath him, and his right knee buckled as he fell.
- A farm labourer injured her right shoulder while pushing open a heavy gate so a tractor could get through. Her foot slipped, and she fell forward while hanging onto the gate, straining her shoulder.

## Safety tips

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### Before you start

- Clean up debris.
- Wear non-slip footwear that fits well.
- Check worksites for uneven and slippery ground, ponds and puddles, and trenches or embankments.
- Plan for safe unloading of equipment, materials, and animals.
- Ensure suitable lighting in milking barns and cow housing areas.

### While working

- Don't carry more than you can safely handle.
- Be sure you can see where you are going when carrying large items.
- Slow down and move deliberately over slippery or uneven ground.

## Finishing up

- Clean mud, ice, and grease from equipment such as all-terrain vehicles (ATVs).
- Clean and put away all tools and equipment in safe storage locations.

## Responsibilities

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### Employers

- Train workers about the hazards that can cause slips, trips, and falls, including uneven or slippery surfaces, forgotten tools, debris, and equipment and vehicles.
- Train workers in how to clean up debris and navigate safely on uneven ground.
- Provide adequate supervision at all times (before, during, and after training).
- Develop and enforce a footwear policy.
- Ensure that workers are wearing appropriate, non-slip footwear.
- Provide adequate lighting in the workplace.

### Workers

- Wear non-slip footwear.
- Follow safe work procedures.
- Identify and report any slip, trip, or fall hazards. Remove hazards where possible.

## Resources

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“Prevention of Slips, Trips and Falls”

[www.ccohs.ca/oshanswers/safety\\_haz/falls.html](http://www.ccohs.ca/oshanswers/safety_haz/falls.html)

For more information, go to [worksafebc.com](http://worksafebc.com) and search for “slips trips and falls.”

# Mobile equipment

## Regulation

Sections 16.21–16.28,  
Guards

Sections 16.29–16.31,  
Seat Requirements  
and Rider Restrictions

Sections 16.32–16.33,  
Seat Belts

Sections 16.34–16.46,  
Operating  
Requirements

Mobile equipment that may be used on dairy farms includes skid-steer loaders, tractors, and all-terrain vehicles (ATVs). These machines can tip very easily. Workers must be well trained before operating them.

## Common hazards

- Tractor or skid-steer loaders overturning, resulting in crush injuries to the operator
- Tractor or skid-steer loaders striking other workers, resulting in injuries or death
- Hydraulic failure in tractors or skid-steer loaders, resulting in a part such as a bucket falling and striking a worker
- Catching an article of clothing in the tractor's power take-off (PTO) unit or shaft, resulting in severe lacerations, broken bones, amputation, or death

## Note

This crew talk is intended as a reminder for workers who have already been trained in the safe operation of mobile equipment.

## Safety tips

### Before starting

- Wear close-fitting clothes that are not frayed. Tuck in shirts and tie back long hair.
- Complete a pre-use inspection of the tractor or skid-steer loader at least once a day, before use.
- Do a quick check of hazards in the surrounding area (for example, slick or unstable ground, bystanders, or clutter).
- Maintain guards on power take-off units.
- If the machine is equipped with a rollover protective structure, securely fasten your seat belt.
- Don't start the engine while standing beside the machine.
- Before starting the engine, make sure no one else is near the machine.
- Operate controls from the machine seat only.
- Don't let anyone ride with you unless there is a second seat.



If a machine is equipped with a rollover protective structure, make sure your seat belt is securely fastened.

### The load

- Don't overload the machine.
- Don't overfill the bucket.
- Hitch trailers to drawbars and manufacturer-recommended hitch points only.
- Move only when you are sure that the load is stable.

### Driving

- Drive at a speed that allows safe stopping.
- Engage the clutch slowly and smoothly. Don't pop the clutch.
- Drive with the bucket or other attachments in the lowest position.
- Don't drive so fast that the wheels bounce. This is dangerous and may cause the machine to tip over.
- Avoid sharp turns, even at low speeds.
- Maintain a safe distance from the edges of ramps, docks, and loading platforms.
- Take extra care when working or turning on a ramp or uneven or sloping ground.
- Try to stay away from ditches, holes, embankments, and steep slopes.
- Drive up and down slopes rather than across them.
- Drive forward in low gear when going down an incline. Try to back up when climbing up an incline.
- Keep the tractor wheels spread wide whenever possible to reduce the risk of overturning.

- Slow down and sound the horn if your vision is obstructed.
- Stop when anyone crosses your route of travel. Lower the load to the ground and wait until the way is clear.
- Go around obstacles rather than over them.
- Don't jump from a moving tractor.
- Before getting out of the machine, lower the bucket, turn off the engine, shift the transmission to Park, and engage the parking brake.

## Responsibilities

### Employers

- Maintain and repair mobile equipment.
- Ensure that mobile equipment has rollover protective structures.
- Ensure that workers are trained by a qualified supervisor or instructor and that they have demonstrated to the qualified person competency in operating the machine. Contact AgSafe ([www.agsafebc.ca/contact-us/](http://www.agsafebc.ca/contact-us/)) for information on safety training for mobile equipment.
- Provide adequate supervision at all times (before, during, and after training).

### Workers

- Know how to operate the machine safely.
- Follow safe work procedures.
- Ensure that a mechanical check of the machine has been completed before using it.

## Resources

### WorkSafeBC resources

Go to [worksafebc.com](http://worksafebc.com) for the following resources and many other publications and videos:

- *Tractor Accident Investigation* (slide show)
- *Tractor Rollovers* (video)
- Hazard Alert posters

### AgSafe resources

Go to [www.agsafebc.ca/tools/publications](http://www.agsafebc.ca/tools/publications) for the following resources on the safe operation of mobile equipment:

- *Agricultural Equipment Safety* (BK7)
- *Your Tractor: Stay on Top of It* (BK11)
- *ATV Safety for Agriculture Workers* (BK26)
- *ATV Safety in Agricultural Work* (BK49)

- *Safe Tractor Operation in Agricultural Work* (BK53)
- Safe operating practices that you can modify for your needs ([www.agsafebc.ca/tools/safe-operating-practices/](http://www.agsafebc.ca/tools/safe-operating-practices/))

### AgSafe training

AgSafe also provides a range of training for mobile equipment, such as tractors, skid-steer loaders, and forklifts. For more information, go to [www.agsafebc.ca/training](http://www.agsafebc.ca/training) or contact an AgSafe regional safety consultant (see “AgSafe Resources,” page 45).

### Other resources

*Using Tractors Safely: A Step-by-Step Guide*

[www.hse.gov.uk/pubns/indg185.pdf](http://www.hse.gov.uk/pubns/indg185.pdf)

*Safe Use of All-Terrain Vehicles (ATVs) in Agriculture and Forestry*  
(information sheet)

[www.hse.gov.uk/pubns/ais33.pdf](http://www.hse.gov.uk/pubns/ais33.pdf)

*Skid-Steer Loader Safety*

<http://nasdonline.org/20/d001638/skid-steer-loader-safety.html>

# Powered equipment

## Regulation

Part 7: Noise, Vibration, Radiation and Temperature

Part 8: Personal Protective Clothing and Equipment

Part 12: Tools, Machinery and Equipment

The use of powered equipment such as electric lime applicators and pressure washers can result in cuts, slips and falls, or musculoskeletal injuries (MSIs).

## Common hazards

- Workshop power tools and mixing drills, resulting in cuts and serious injuries
- Slips and falls on wet surfaces
- Debris dislodged by pressure washers or lime thrown by electric applicators, striking a worker's eyes
- Debris and chemicals causing eye injuries
- Losing control of the pressure washing jetting gun
- Repetitive use, lifting and carrying, or working in awkward positions, resulting in overexertion injuries
- Noise exposure, resulting in hearing impairment
- Carbon monoxide build-up resulting from the use of gasoline-powered equipment inside milking barns and other buildings

## Incident example

A farm worker suffered a burn injury while pressure washing a large piece of farm equipment. The pressure washer was equipped with a burner to heat up the water before it went through the hose and then out the wand. The worker was standing on the farm equipment to wash the top of it. He misjudged the distance and ended up pointing the wand toward his right foot. The piping hot water burned a hole through his right boot and the top of his right foot.

## Safety tips

- Always follow manufacturers' safe operating procedures for power equipment.
- Inspect equipment before use, and replace any damaged parts.
- Clear the work area of clutter and debris before starting work.
- Maintain good balance and footing while operating the equipment.
- Don't leave equipment running unattended.
- Use the following PPE as necessary:
  - Gloves appropriate for the task
  - Eye and face protection

- Hearing protection
- Safety footwear

### Workshop power tools

- Turn off and lock out power tools when you are finished using them.
- Always follow manufacturers' operating procedures.
- Maintain a safe distance from other people.
- Use power tools on a suitable work platform with adequate lighting appropriate to the task.
- Never operate power tools without training and adequate supervision.

### Pressure washers

- Wear safety goggles and slip-resistant footwear.
- Never point the nozzle at anyone, even if the water is turned off.
- Use both hands to operate the pressure washer. Maintain a body position that gives you the greatest control over it.
- Don't use a pressure washer while standing on a ladder.
- Don't let pressure washer spray come in contact with electrical devices or wiring.

## Responsibilities

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### Employers

- Maintain and repair powered equipment.
- Train workers in the safe use of powered equipment before use.
- Show workers how to hold, use, and store powered equipment.
- Show workers how safety features such as guards work, and instruct them not to remove any of these features.
- Show workers how to lock out the equipment before clearing jams or performing repairs or maintenance.
- Remind workers of the appropriate PPE they are required to wear.
- Provide adequate supervision at all times (before, during, and after training).

### Workers

- Follow safe work procedures.
- Wear appropriate PPE.
- Inspect powered equipment, and report any defects or necessary repairs.

## Resources

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Go to [worksafebc.com](https://worksafebc.com) for the following resource and many other publications and videos:

- [\*High Pressure Washing: Safe Work Practices\*](#)

# Equipment maintenance and fuelling

## Regulation

Part 10:  
De-energization and  
Lockout

Injuries can occur during maintenance of mobile or powered equipment. If equipment starts up unexpectedly during repairs or maintenance, workers may get caught in it, resulting in severed fingers, crushed limbs, or death. If electrical equipment is not de-energized and locked out, there is a risk of electrical shocks, burns, or electrocution. When equipment is being fuelled, there is a risk of fire, explosion, or exposure to gasoline or diesel fuel.

## Common hazards

- Maintaining or adjusting the power take-off (PTO) on powered equipment
- Working under hydraulically elevated machine components, resulting in crushing injuries

## Safety tips

### Locking out equipment

- De-energize (for example, by switching off and unplugging) and lock out equipment before doing cleanup, maintenance, or repairs.
- Follow the specific written lockout procedure for the equipment you will be working on. Each piece of equipment should have its own written lockout procedure.



Always de-energize and lock out equipment before doing any cleanup, maintenance, or repairs.

Follow these five basic steps for lockout:

1. Identify the machinery or equipment that needs to be locked out.
2. Shut off the machinery or equipment. Make sure that all moving parts have come to a complete stop.
3. Identify and deactivate the main energy-isolating device for each energy source.
4. Apply a personal lock to each energy-isolating device for each energy source. Ensure that all parts and attachments are secured against inadvertent movement.
5. Make sure all workers are in the clear and no hazard will be created if the lockout is not effective, and then test the lockout. After testing the “start” button, remember to hit the “stop” button again, or reset the equipment to “off.”

### Fuelling equipment

- Store fuel in a safe, secure location with the appropriate warning signage in place.
- Use only approved fuel containers. Protect them from impacts and other damage.
- Make sure there is a fire extinguisher nearby. Make sure it is rated for gasoline fires.
- To avoid carbon monoxide poisoning, don't run an engine inside an enclosed area.
- Turn off the equipment and let it cool before fuelling.
- Use gloves while fuelling. If you get gasoline on your skin, wash immediately with soap and water.
- Don't smoke or operate electrical tools while fuelling equipment.

## Responsibilities

### Employers

#### *Locking out equipment*

- Establish a lockout system for the worksite.
- Provide workers with written lockout procedures.
- Ensure that each worker has sufficient personal locks to perform the required lockout procedures and that each lock is marked or tagged to identify the worker who applies it. Don't use combination locks.
- Train workers in lockout procedures.

### ***Fuelling equipment***

- Provide proper facilities for fuel storage.
- If propane fuel is used, ensure that workers are trained in changing propane cylinders.
- Provide adequate supervision at all times (before, during, and after training).

### **Workers**

#### ***Locking out equipment***

- Follow safe work procedures.
- Place a personal lock before beginning work and remove it after completing the work.
- Keep control of the keys to personal locks during the work.

### **AgSafe training**

AgSafe offers a training program called “Equipment Lockout.” For more information, contact an AgSafe regional safety consultant (see “AgSafe Resources,” page 45).

#### ***Fuelling equipment***

- Wear appropriate PPE when fuelling equipment.

### **Resources**

Go to [worksafebc.com](http://worksafebc.com) for the following resources and many other publications and videos:

- [Lockout](#)
- [Health and Safety for Small-and Medium-Sized Wineries](#)
- [“Locking out permanently connected or hard-wired equipment” \(Toolbox Meeting Guide\)](#)
- [Lockout: A Guide to Safe Work Practices \(video\)](#)

# Manual and electric hand tools

## Regulation

Part 12: Tools,  
Machinery and  
Equipment

Manual tools, such as box cutting knives or hoof pare knives, and electric tools, such as tail-hair clippers, are often sources of cuts and overuse injuries.

## Common hazards

- Cuts from blades
- Catching fingers, clothing, or jewellery in pinch points
- Repetitive use, resulting in overexertion injuries

## Incident examples

- A mechanic suffered an eye injury while trying to repair a head locker that had come loose. He was drilling a screw into it, when the drill bit broke and struck his left eye.
- A worker was trimming a cow hoof in the chute when the cow kicked. The knife slipped and cut the worker's left hand.
- A worker suffered an eye injury when he lifted his welding shield and a piece of slag got into his left eye. He immediately developed redness and soreness in his left eye, but thought it was on top, outside the eyeball, so he continued working. Eventually, the worker was sent to hospital, where doctors had to freeze the area to remove the slag.

## Safety tips

- Choose tools that fit your hands and work style, and that work comfortably for you.
- Ensure that tools are properly sharpened.
- Use the following PPE as necessary:
  - Gloves appropriate for the task
  - Eye protection
  - Hearing protection

## Knives

- Use the right knife for the job, and make sure it is sharp.
- Use a knife with a locking blade, whenever possible, not a penknife that can close on your fingers.
- Always cut away from yourself.

- Store knives separately from other tools. Use a holster where possible.
- Cut on a flat surface or cutting board.
- Never use a knife for anything other than cutting.
- Hold the knife in your stronger hand.
- Always ensure the animal is properly restrained and you have help, as necessary.
- When cleaning a knife, direct the edge away from you, and wipe the cloth on the dull edge of the blade.
- Protect your hands by wearing well-fitting gloves with a good grip.

### Electric-powered hand tools

- Use both hands to hold and guide the tool.
- Use a ground fault circuit interrupter (GFCI).
- Use a cord that is rated for the tool you are using and the distance from the power outlet (longer distances require a higher rating).
- Keep the cord behind you to avoid snipping it or tripping on it.

## Responsibilities

### Employers

- Maintain and repair electric-powered hand tools.
- Train workers in the safe use of hand tools before use.
- Show workers how to hold, use, and store hand tools.
- Show workers how the safety features (for example, guards, shields, and automatic releases) work. Instruct them not to remove any of these features.
- Show workers how to lock out the equipment before clearing any jams or performing repairs or maintenance.
- Remind workers of the appropriate PPE they are required to wear.
- Provide adequate supervision at all times (before, during, and after training).

### Workers

- Follow safe work procedures.
- Wear appropriate PPE.
- Inspect hand tools and report any defects or repairs needed.
- Store power cords properly.

## Resources

Go to [worksafebc.com](https://worksafebc.com) for the following resource and many other publications and videos:

- [“Power tools and cords”](#) (Toolbox Meeting Guide)

# Fall protection

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## Regulation

### Part 11: Fall Protection

Dairy workers may be required to work at elevations where there is a risk of injury from a fall (for example, when cleaning and repairing barn gutters or working on top of silage bunkers or hay). Workers must be protected against falls from elevations of 1.2 m (4 ft.) or more. This may involve restricting access to the area or installing guardrails.

Part 11 of the Regulation specifies an exception to the above requirements when workers are engaged in construction, demolition, renovation, or modification activities. In these situations, workers must be protected by a fall protection system if there is a risk of a fall from 3 m (10 ft.) or more, or where a fall from less than 3 m (10 ft.) would involve a risk of injury greater than that of an impact on a flat surface.

Fall protection must also be implemented according to the following hierarchy, where practicable:

1. Guardrails
2. Fall restraint
3. Fall arrest
4. A work procedure acceptable to WorkSafeBC (procedures are listed in the Part 11 guidelines)

Workers must always be trained and instructed in the fall protection system to be used and any applicable procedures. When using a work procedure or working at heights of 7.5 m (25 ft.) or more, a written fall protection plan must also be developed and available on the worksite.

## Common hazards

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- Falls from ladders
- Falls from scaffolding
- Falls from roofs

## Incident examples

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- A farmhand was about 3 m (10 ft.) up in a hay loft dragging bales of hay to the edge of the loft and tipping them down to the ground. The bales weighed more than 45 kg (100 lb.) each. The worker had a bale of hay at the edge of the loft when the string

broke, causing the worker to lose his balance. He fell off the loft and landed on the cement floor below on both heels. The worker broke one heel and sustained soft tissue injuries to both feet.

- An equipment operator was on a wooden ladder cleaning a trailer when the ladder broke and he fell to the ground, twisting his left ankle.
- A worker was standing on a scaffold putting a barrier up. He was pulling the scaffold along by the trusses. The wheels on the back side of the scaffold got stuck on the curb. The worker lost his balance and fell 2 m (6 ft.) down to the cement curb. He landed on his right side, breaking multiple ribs and fracturing his right clavicle.

### Safety tips

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- If you could fall from a height of 1.2 m (4 ft.) or more make sure your employer has provided a fall protection plan and appropriate fall protection before you start work. For construction, demolition, renovation, or modification activities, these requirements apply at heights of 3 m (10 ft.) or more.
- Guardrails should be installed whenever possible.
- If guardrails are not practicable, the employer needs to implement a fall restraint system such as work positioning devices that prevent workers from travelling to the edge of the building or structure.
- If a fall restraint system is not practicable, the employer needs to implement a fall arrest system. Fall arrest systems stop workers in mid-fall, preventing them from hitting the surface below. Examples include safety nets and full-body harnesses attached by lifelines to secure anchors.
- Never wear a safety belt in a fall arrest situation (to stop your fall after you have already fallen). If you fall into a safety belt, you could still suffer severe back and abdominal injuries. Use a safety belt only as a fall restraint measure (to prevent a fall).
- Wear your personal fall protection according to the manufacturer's instructions.
- Inspect your personal fall protection before each use. If it is damaged or worn, have it repaired or replaced. Never use fall protection equipment after it has arrested a fall.

## Cleaning dairy barn gutters

- Avoid working at height if possible (for example, use a mechanical cleaning system from ground level).
- If you have to work at height, use a work platform such as a boom lift rather than working from a ladder.
- Make sure no work is being done under a roof that is being cleaned from above.
- Wear snug-fitting clothing and slip-resistant footwear.
- Never walk the length of a gutter without using a system of fall protection.
- Take only essential tools and equipment onto the barn roof.

## Responsibilities

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### Employers

- Provide fall protection equipment that complies with the requirements of the Regulation. Ensure that the equipment is inspected, maintained, and repaired according to the manufacturer's instructions.
- Develop and implement a written fall protection plan if workers could fall from a height of 7.5 m (25 ft.) or more, or if work procedures are being used. Make sure the plan is available at the workplace.
- Train workers in the safe use of fall protection and the various types of fall restraint and protection.
- Ensure that fall protection equipment is adequately anchored (for example, on a mobile elevated work platform).
- Show workers how to inspect and put on personal fall protection.
- Show workers how to install fall restraint systems.
- Ensure that workers are trained and instructed in the fall protection systems and equipment being used.
- Provide adequate supervision at all times (before, during, and after training).

### Workers

- Inspect fall protection and restraint systems, and report any necessary defects or repairs. Don't use equipment that has defects or exceeds the manufacturer's rejection criteria.
- Follow safe work procedures.
- Wear appropriate PPE.

## AgSafe training

AgSafe offers a training program called “Fall Protection — Controlling the Hazards on a Farm.” For more information, contact an AgSafe regional safety consultant (see “AgSafe Resources,” page 45).

## Resources

Go to [worksafebc.com](http://worksafebc.com) for the following resources and many other publications and videos:

- [An Introduction to Personal Fall Protection Equipment](#)
- [Written Site-Specific Fall Protection Plan](#) (Toolbox Meeting Guide #06-48)
- [Fall Protection](#) (video)

For more information, go to [worksafebc.com](http://worksafebc.com) and search for “fall protection.”

# Working around electricity

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## Regulation

Part 19: Electrical Safety

Electricity is present in almost all workplaces. When handled improperly, it can injure or kill. Injuries can range from shock to severe burns and eye injuries. Injuries and fatalities can occur with accidents involving low voltages (750 V and lower) or high voltages.

## Common hazards

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- Electrical shocks that cause muscles to contract, preventing a worker from releasing the energized equipment
- Electrical arcs, resulting in severe burns
- Electrical current through the heart, resulting in irregular heartbeat or a heart attack

## Safety tips

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- Electrical equipment must be repaired only by qualified workers. Contact the BC Safety Authority.
- De-energize and lock out equipment before carrying out repair or maintenance work (see “Equipment Maintenance and Fuelling” on pages 64–66).
- Don’t use metal ladders, wire-reinforced wooden ladders, and other long tools or equipment such as scaffolding.
- Don’t leave extension cords unprotected on the ground, where they can be run over by equipment or become worn or damaged. Remove damaged cords from service and repair them properly — don’t use “pigtails” or electrical tape.
- When operating mobile equipment, make sure that no part of the equipment contacts an overhead power line. Part 19 of the Regulation specifies the limits of approach for working near electrical equipment and conductors.
- If you accidentally knock down a power line with a vehicle, stay in the vehicle if it is safe to do so. If you must abandon the vehicle and the power line is in contact with it, jump so that your entire body clears the vehicle and you land on your feet without stumbling. Don’t allow any part of your body to touch the vehicle while you are touching the ground.
- Don’t suspend irrigation pipes near power lines.

## Responsibilities

### Employers

- Develop and implement a written electrical safety plan for the workplace.
- Provide workers with education and training on working safely with electricity.
- Inform workers of potential electrical hazards before allowing them to work near energized electrical conductors or equipment.
- Ensure electrical fittings are suitable for a wet, outdoor environment.

### Workers

- Follow safe work procedures.
- Wear appropriate PPE.



When operating mobile equipment near power lines or electrical equipment, maintain the limits of approach specified in Part 19 of the Regulation.

## Resources

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Go to [worksafebc.com](http://worksafebc.com) for the following resources and many other publications and videos:

- [Working Safely Around Electricity](#)
- [“Overhead high-voltage electricity”](#) (Toolbox Meeting Guide)
- [“Locking out plugged-in electrical equipment”](#) (Toolbox Meeting Guide)
- [Electrical Safety](#) (web book)

For more information, go to [worksafebc.com](http://worksafebc.com) and search for “electricity.”

# Workplace Hazardous Materials Information System (WHMIS)

## Regulation

Sections 5.3–5.19,  
Workplace Hazardous  
Materials Information  
System (WHMIS)

Many chemicals used by dairy workers are hazardous substances or dangerous goods. For example, fertilizers, solvents, and cleaners may cause conditions ranging from minor skin irritation to serious injury or death.

All B.C. workplaces that use materials identified as hazardous by the Workplace Hazardous Materials Information System must follow WHMIS 2015 requirements. The system uses consistent labelling to help workers recognize hazardous products. The system and labels provide specific information on handling, storing, and disposing of hazardous products. Pesticides are controlled by other regulations such as the *Pesticide Control Act*.

If you have been trained properly, you should be able to answer these four questions:

1. What are the hazards of the product you are using?
2. How do you protect yourself?
3. What should you do in case of an emergency or spill?
4. Where can you get more information on the product?

## Common hazards

- Inhaling particulate matter (such as dust or mists)
- Burns from cleaning chemicals (such as phosphoric acid for cleaning the milking plant) or fertilizers and additives

## Safety tips

- Store hazardous products in a ventilated, locked area.
- Keep hazardous products away from food and drink.
- Read the labels and safety data sheets (SDSs) that accompany hazardous products.
- Use products only as directed, and follow safe work procedures. Pesticides must be applied by a certified applicator.
- Use the appropriate PPE (for example, gloves, goggles, and apron).
- Keep your hands away from your face and eyes.
- Make sure first aid is available.

## Responsibilities

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### Employers

- Maintain records and SDSs for hazardous products.
- Tell workers where they can find WHMIS information, emergency spill equipment, and emergency numbers.
- Train workers in the safe use of hazardous products. Ensure that they can answer the four WHMIS questions about each hazardous product used.
- Provide safe storage facilities and workplace labels for hazardous products.
- Remind workers of the appropriate PPE they are required to wear.
- Provide adequate supervision at all times (before, during, and after training).

### Workers

- Follow safe work procedures for handling and storing hazardous products.
- Wear appropriate PPE.
- Read and understand labels, and know the hazards of the products being used.

## Resources

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Go to [worksafebc.com](http://worksafebc.com) for the following resources and many other publications and videos:

- [\*Standard Practices for Pesticide Applicators\*](#)
- [\*WHMIS at Work\*](#)
  - [1988 program](#)
  - [2015 program](#)
- [Making WHMIS Work \(1988\) \(video\)](#)

For more information, go to [worksafebc.com](http://worksafebc.com) and search for “WHMIS.”

# Confined spaces

## Regulation

Part 9: Confined Spaces

A confined space is any partially enclosed space that is not intended for human occupancy and that has a restricted entrance or exit. Common confined spaces in dairy operations include wells, sumps, silos, manure storage, and milk tanks. Accidents in confined spaces may be rare, but they can result in severe injury or death.

## Common hazards

- Toxic gases, air contaminants, or lack of oxygen, resulting in hazardous atmospheres
- Flammable gases or vapours, resulting in fires or explosions
- Various physical hazards that result in workers being crushed, struck by falling objects, or buried in materials



Confined spaces should be marked with appropriate, visible signage warning workers of the hazard.

## Note

Safety in confined spaces is a complex topic. For more information, see the WorkSafeBC publication *Management of Confined Spaces in Agriculture: Dairy Farms*.

## Responsibilities

### Employers

- Identify all confined spaces at the worksite.
- Secure any access points to confined spaces, and ensure that there is signage to warn workers of the hazard.
- A qualified person must develop a written entry procedure for each confined space that could be entered on your farm.
- Ensure that there is proper training and equipment for all workers who need to enter a confined space.

### Resources

Go to [worksafebc.com](http://worksafebc.com) for the following resources and many other publications and videos:

- *Management of Confined Spaces in Agriculture: Dairy Farms*
- *Management of Confined Spaces in Agriculture: A Handbook for Workers*
- *Hazards of Confined Spaces*
- “Confined spaces can be deadly spaces” (Toolbox Meeting Guide)
- *Confined Spaces: Safe Yesterday, Deadly Today* (video)
- *Precious Time: The Cody McNolty Story* (video)

For more information, go to [worksafebc.com](http://worksafebc.com) and search for “confined spaces.”

### AgSafe training

AgSafe can help you identify and assess the confined space hazards on your dairy farm. AgSafe offers a training program called “Confined Space — Controlling the Hazards on a Farm.” For more information, contact an AgSafe regional safety consultant (see “AgSafe Resources,” page 45).

# Personal protective equipment (PPE)

## Regulation

Part 8: Personal Protective Clothing and Equipment

PPE should be the last line of defence. Before considering the use of PPE, first try to eliminate or minimize the risks through other means — for example, by using less hazardous chemicals or by modifying work processes or equipment. If PPE is required, employers must ensure that it is available to all workers who need it. Employers must also ensure that workers are trained in the use of any relevant PPE, and that they use it according to their training.

## Note

Certain tasks require the use of more than one type of PPE.

## Typical PPE used on dairy farms

Body part	Type of PPE	Uses
Eyes	Safety glasses	General eye protection
	Safety goggles and face shields	Working with chemicals that may splash or where flying debris could cause injury
Ears	Hearing protection	Working in noisy areas (for example, around equipment)
Hands	Work gloves	Working in storage areas, handling garbage, or landscaping
	Chemical-resistant gloves	Cleaning with or handling chemicals — check safety data sheets (SDSs) for specific glove requirements
	Cut-resistant gloves	Using chainsaws, handling glass, pruning, or cleaning equipment
Feet	Non-slip footwear	Working on wet or slippery surfaces
	Steel-toed boots	Operating mobile equipment and working in storage and warehouse areas
	Footwear with ankle support	Working outdoors

Body part	Type of PPE	Uses
Lungs	Respirators	Protection against gas and vapour contaminants, particulate contaminants, or oxygen deficiency
Legs	Cut-resistant leggings	Working with chainsaws
Body	Fall protection equipment	Working at heights
	Seat belts	In vehicles and farm equipment
	Coveralls and milking aprons	While in the barns and during milking or livestock handling tasks

Certain tasks require the use of more than one type of PPE. For example, workers may need to dilute concentrated, corrosive chemicals such as cleaning agents before using them. PPE for this task may include face and eye protection (face shields or goggles), as well as skin protection (gloves). For the exact type of PPE required, check the SDS for the chemical.

### Common hazards

- Inhaling toxic gases such as carbon monoxide, ammonia, hydrogen sulfide, and methane
- Inhaling particulate matter such as dust or spores
- Inhaling chemicals such as fertilizers and pesticides
- Burns from cleaning chemicals (such as caustic soda) or fertilizers
- Cuts from blades
- Uneven or slippery surfaces
- Noise from equipment such as string trimmers

### Safety tips

- Make sure your PPE fits properly and feels comfortable.
- Wear eye or face protection when working with hand or power tools, or if there's a danger that objects or liquids may strike or splash your face.

- Use the right kind of gloves, footwear, eye protection, and other PPE for the work you will be doing.
- Inspect PPE before use. Make sure it is in good condition and will provide the necessary protection.

## Responsibilities

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### Employers

- Develop and implement a PPE program for the workplace that includes written procedures for selecting, inspecting, using, cleaning, and maintaining the equipment.
- Conduct regular reviews of the PPE program.
- Provide workers with PPE required for the work that they are assigned.
- Conduct fit testing for respiratory protection.
- Train workers in the correct use and maintenance of equipment.

### Supervisors

- Ensure that appropriate PPE is available to workers.
- Ensure that workers wear PPE when required.
- Ensure that PPE is properly cleaned, inspected, maintained, and stored.

### Workers

- Use and care for PPE according to your training and instruction.
- Inspect PPE before use.
- Report any malfunction to the supervisor or employer.

## Resources

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For more information, go to [worksafebc.com](http://worksafebc.com) and search for “PPE.”

## Choosing appropriate footwear — Assess the hazards

Footwear must be chosen based on the hazards that are present. Assess the workplace and work activities for:

- Materials handled or used by workers
- Risk of objects falling onto or striking the feet
- Any material or equipment that might roll over the feet
- Any sharp or pointed objects that might cut the top of the feet
- Objects that may penetrate the bottoms or sides of the feet
- Possible exposure to corrosive or irritating substances
- Possible explosive atmospheres, including the risk of static electrical discharges
- Risk of damage to sensitive electronic components or equipment due to the discharge of static electricity
- Risk of coming into contact with energized conductors of low voltage (750 V or less)

Also, evaluate the risk of:

- Ankle injury from uneven walking surfaces or rough terrain
- Foot injury resulting from exposure to extreme hot or cold
- Slips and falls on slippery walking surfaces
- Exposure to water or other liquids that may penetrate the footwear
- Exposure to rotating or abrasive machinery (for example, chainsaws or grinders)

# Respirators

## Regulation

Sections 8.32–8.45,  
Respirators

A respirator is a protective device that covers the worker’s nose and mouth or the entire face and head to keep airborne contaminants out of the worker’s respiratory system and provide a safe air supply. Respiratory protection must be appropriate to the hazard.

Employers must supply workers with respirators approved by the U.S. National Institute for Occupational Safety and Health (NIOSH) or with respirators that have been accepted for use by WorkSafeBC. Single-strap dust masks are not NIOSH-approved and do not meet WorkSafeBC requirements for respiratory protection.

There are two basic types of respirators: air-purifying respirators and air-supplying respirators.

*Air-purifying respirators* clean the air before you breathe it in by means of filters (for particulate contaminants), chemical cartridges (for some gases and vapours), or a combination of filters and cartridges. Air-purifying respirators must only be used in places where there is enough oxygen.

*Air-supplying respirators* such as self-contained breathing apparatus supply clean air; they do not filter or clean the surrounding air. They are generally used to protect workers from high levels of contaminants or against highly toxic air contaminants. Workers need to be well trained to use air-supplying respirators safely.

## Common hazards

- Allergy-causing moulds in hay, silage, and grain dust, resulting in “farmer’s lung”
- Moulds in damp hay, straw, damp sawdust, and bedding materials
- Silage stored in silos, bunkers, or polytubes releasing silo gas that contains nitrogen dioxide and other related chemicals, resulting in lung damage or, in high concentrations, death
- Infected mouse droppings and urine that can cause hantavirus pulmonary syndrome

## Incident example

While spreading dolomite lime, a worker inhaled the dust, resulting in irritation to her lungs and breathing difficulty.

## Fit testing

Workers must be fit tested annually for any respirator that seals with the face. For more information about respirators, see the WorkSafeBC publication *Breathe Safer* or contact AgSafe (see “AgSafe Resources,” page 45).

## Safety tips

- Workers exposed to particulates, dusts, and mould should use a particulate-filtering respirator with a minimum rating of N95 or higher. These filters are available as N95 disposable respirators or can be part of a particulate cartridge on a full- or half-facepiece respirator.
- Workers exposed to chemical vapours should use suitable chemical/vapour filters as recommended in the manufacturer’s safety data sheet (SDS). These filters are used with a full- or half-facepiece respirator.

## Resources

Go to [worksafebc.com](http://worksafebc.com) for the following resource and many other publications and videos:

- [\*Breathe Safer: How to Use Respirators Safely and Start a Respirator Program\*](#)

For more information, go to [worksafebc.com](http://worksafebc.com) and search for “respiratory protection.”

# Zoonotic diseases

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*Zoonotic diseases* are diseases that are transmitted by animals and that affect humans. In B.C., zoonotic diseases that can affect dairy farm workers include the following:

- *Salmonella* — a gastrointestinal illness caused by oral contact with bacteria
- Cryptosporidiosis — a gastrointestinal illness caused by oral contact with micro-organisms in feces
- Leptospirosis — a potentially severe illness caused by contact with infected urine through broken skin or the mouth, nose, or other mucous membranes
- Q fever — a flu-like illness caused by inhaling coxiella bacteria
- Hantavirus pulmonary syndrome — a potentially severe lung disease caused by airborne contact with infected mouse droppings and urine
- Tetanus — a potentially severe illness that can occur when soil contaminated by animal feces gets into the bloodstream, such as through a cut

## Common hazards

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- Direct contact with infected animal blood, urine, or feces — either through splashes in the eyes, nose, or mouth, or through cracked skin or open cuts
- Inhaling contaminated dust or airborne micro-organisms
- Transmission from an infected animal through fly, mosquito, tick, or flea bites

## Signs and symptoms of illness

- Chronic coughing or difficult breathing
- Prolonged fever or night sweats
- Unexplained skin rashes or sores
- Prolonged intestinal problems

## Safety tips

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- Use a particulate-filtering N95 dust mask, at minimum, when sweeping loose dust and dirt.
- Always wear suitable gloves if your skin is chapped or cut.
- Change saturated or soiled clothing immediately.
- Wash hands frequently.

- Make sure you know where the nearest eyewash station is.
- Use a storage area outside the house for work clothes and gear.
- Launder work clothes separately from other clothing.
- If you have signs or symptoms of infection, get medical help immediately. Tell your doctor that you work on a dairy farm.

# Livestock handling

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## Incident examples

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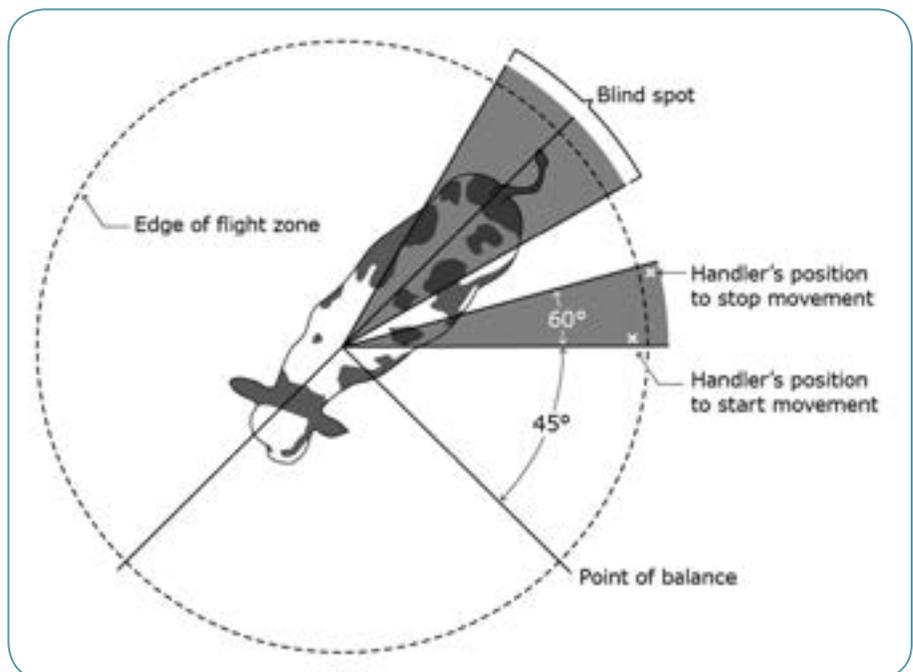
- A worker was in a barn sorting out the young cow stock. A bull came toward the worker and hit him in the chest several times with the front of its head, injuring the worker's lower ribs and abdomen.
- A worker was going into the heifer barn to get a cow. The cow head-butted the worker in the pelvic area three or four times, pushing her into a wall and cracking her pelvis.
- A worker was bringing in cows for milking. One of the cows charged the worker and struck him three times. The first hit sent the worker flying through the steel bars and into the next stall. The cow came around the bars as the worker was trying to get up and hit him again, sending the worker into the front of the stalls, where he hit the steel bars. The cow hit the worker a third time, sending him through the bars again and into the barn wall.

## General safety tips

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- Wear appropriate PPE, such as non-slip rubber boots, suitable clothing, gloves suitable for the task, and hearing protection. If working near chemicals, wear eye, face, and respiratory protection.
- Avoid unnecessary noise, such as clanging metal gates, running machinery, and whistling and yelling. Speak in a low, calm manner around livestock.
- Plan movement routes and prepare gates in advance.
- Avoid walking through the middle of a group of cattle in a holding pen. Consider alternative routes to avoid crushing injuries.
- Be aware of stress indicators in cattle. For example, tail swishing can indicate agitation and cattle isolated from a group can become aggressive. Exciting already fearful cattle can worsen an existing situation. Let excited or scared animals calm down before movement. This can easily take up to 20 minutes.
- Familiarize yourself with your farm's required livestock escape emergency measures.
- Consider carrying a stick when handling livestock in open spaces to use as defence if you're attacked.
- Avoid working alone, if possible. Make sure you know the check-in procedure for working alone or in isolation.

- Always plan an escape route before handling animals. Make sure you can maintain a safe distance between you and a bull. Consider using a tractor as a safe space when moving bulls.
- Minimize handling of bulls during the breeding season, if possible.
- Beware of a freshly calved cow's protective instinct for its calf.
- Avoid placing hands in pinch zones when treating, tagging, and checking cows in handling facilities.
- Familiarize yourself with the flight zone concept. Milking cows that are used to being moved generally tolerate closer human contact, while yearling heifers may need more personal space.
- Be aware of a cow's "kick zone." Cows have a large blind spot directly behind them and are prone to kicking when unaware of activity in their blind spot.



The flight zone is the area around an animal that, if entered by a person or another animal, will cause alarm and escape behaviour. Cows are prone to kicking when unaware of activity in their blind spot.

## Artificial insemination

### Common hazards

- Kicks
- Animal attacks
- Inappropriate handling facilities
- Liquid nitrogen frost burns to skin and eyes
- Nitrogen displacing oxygen, resulting in respiratory difficulty
- Zoonotic diseases

### Safety tips

- Workers should be trained to handle animals and demonstrate competency to a supervisor.
- Use suitable gloves and eye protection when handling liquid nitrogen.
- Workers who handle liquid nitrogen should have WHMIS 2015 training.

## Feeding colostrum to newborn calves

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### Common hazards

- Burns from hot water used for thawing frozen colostrum
- Zoonotic disease risks when handling animals and unpasteurized milk
- Bites from calf
- Prolonged awkward postures when feeding, resulting in back injuries

### Safety tips

- New workers should be trained in proper feeding technique to avoid bites.
- Ensure water in thaw baths is regulated by a suitable thermostat.
- Wear gloves when handling colostrum.
- Avoid prolonged awkward postures.

## Calving

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### Common hazards

- Animal attack
- Struck by guide gates of animal handling facility
- Slipping on amniotic fluid
- Zoonotic diseases
- Equipment failure under strain
- Cow entrapping a fallen worker
- Finger entrapment in ratchet of calving aid
- Working alone during nighttime calvings

### Safety tips

- Workers should be trained to understand animal handling and behaviour when calving.
- Make sure there are possible escape routes from the maternity pen.
- Get help from a co-worker whenever possible.

- Inspect calving aids for defects before using them.
- Make sure you have hand-washing facilities and PPE close to the calving area.

## Calf disbudding

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### Common hazards

- Calf kicks
- Finger entrapment and pinch injuries
- Needle-stick injuries
- Burns from electric or gas cauterizers
- Medicated aerosols splashing in eyes

### Safety tips

- Workers should be trained in the safe operation of handling apparatus.
- Make sure you know proper injection technique.
- Dispose of needles in containers intended for sharps.
- Wear heat-resistant work gloves.
- Use eye protection when working with antiseptic aerosol.
- Get help from a co-worker.
- Make sure there is a fire extinguisher nearby.

## Downer cow hoists

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### Common hazards

- Hazards when opening access gates to the cow area, such as pinching a finger in the latching system or a corroded gate falling on the worker
- Cow falling out of clamp and entrapping worker
- Pinch points (fingers and hands) while attaching hoist to front-end loader
- Working close to mobile equipment or tractor
- Working alone (avoid this)

### Safety tips

- Workers should be trained to use hoists, front-end loaders, and tractors safely.
- Inspect gates regularly, and repair them as necessary.
- Get help from a co-worker.
- Consider using an alternative lifting device, such as an inflatable cow support or a cow flotation tank.
- Inspect hoists before using them.

## Milking

### Common hazards

- Struck by animals
- Wet floors, resulting in slips, trips, and falls
- Worker entrapment in automatic gates and scrapers
- Cow kicks, particularly from non-identified fractious animals, fresh calved cows, and new milking cows (heifers)
- Zoonotic diseases
- Chemical or disinfectant splashes in eyes while teat dipping
- Tail swing injuries to eyes
- Musculoskeletal injuries (MSIs) from repetitive motions or awkward postures
- Working alone at night
- Stray electricity in milking barn
- Cleaning and sanitizing milking machine with detergents, resulting in chemical burns to eyes and skin or vapour inhalation
- Noise exposure



Workers must be properly trained in milking procedures and working with milking machines.

# Liquid manure

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## Common hazards

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- Agitating and handling manure, resulting in exposure to toxic gases, such as hydrogen sulfide, ammonia, carbon dioxide, and methane
- Injuries from equipment
- Drowning

## Safety tips

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- Wear a personal gas alarm while agitating manure.
- Ensure the ventilation system in the barn is working properly.
- Clear the area of all people and animals, and control access to the area during agitation.
- Avoid standing or stooping near the agitation point.
- Always stand upwind.
- Don't enter the barn after agitation until it is fully ventilated.
- Keep smoking and flames away.
- Ensure equipment is in good working order and PTO covers are in place on all handling equipment.
- Ensure guardrails are in place at access points.
- Don't enter manure tanks or other confined spaces.

# Footbaths

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## Common hazards

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- Chemical splashes to skin and eyes
- Products that can produce harmful vapours

## Incident example

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A worker was walking to a holding pen carrying two large buckets that contained a mixture of formaldehyde (37%) and methanol (14%). He tripped and dropped a bucket, and the chemical mixture splashed in his eyes.

## Safety tips

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### Note

You should try to substitute a less-hazardous product for formaldehyde.

- Workers should be trained in WHMIS, respirator fit testing, and the farm's policy on using formaldehyde, if applicable.
- Wear all the necessary PPE, including eye protection, chemical-resistant and slip-resistant footwear, gloves, protective clothing, and a NIOSH-approved respirator.
- Before using chemicals, read the mixing instructions and put on the appropriate PPE.
- Check for leaks in mixing equipment before using it.
- Make sure you know the locations of emergency eyewash facilities, first aid equipment, and emergency phone numbers.
- If you are working alone, make sure you know the check-in procedure for working alone or in isolation.
- Make sure the area is clear of workers who are not properly equipped with necessary PPE.
- Make sure there is sufficient ventilation in the mixing and foot bath areas.
- Make sure the work area is well lit.
- When mixing, add the chemical to the water, not the other way around.

# Animal medicines

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## Common hazards

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- Hypodermic needle-stick injuries
- Zoonotic diseases

## Incident example

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A milker was attempting to give a shot to a cow. The cow kicked the worker, and the needle pierced the worker's lung.

## Safety tips

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- Workers should be trained to use head halters, when appropriate.
- Workers should be trained to use handling equipment, such as head gates and cattle chutes.
- Use the proper injection technique, the right size of needle, and the appropriate cow restraint for the type of injection (IV, or SC and IM).
- Always use restraint and handling techniques for oral and intrauterine treatment.
- Dispose of used needles, containers, and unused medication in appropriate containers.
- Employers should ensure that handling facilities have been inspected to ensure safe operation.

## Resources

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“[Cattle Handling Competency](#)” checklist  
[www.agsafebc.ca](http://www.agsafebc.ca)

# Feed mixers

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## Common hazards

- Crush hazards while attaching a feeder to the tractor
- PTO and other moving components, resulting in entanglement injuries
- Noise, which can damage hearing
- Poor visibility, leading to accidents with bystanders
- Operator run over during loading and gate openings
- Tractor rollovers
- Flying debris from rotating shafts
- Pressurized hydraulic oil leaks



Feed mixers must be fitted with adequate safeguards that prevent access to hazardous points of operation.

## Incident example

A worker was mixing feed for dairy cattle. He fell into the feed mixer, and the rotating screw auger caused fatal injuries. The WorkSafeBC investigation determined the worker must have been standing in one of two places before he fell. He may have climbed up the mixer's ladder to an upper platform located about 1 m (3 ft.) below the mixer's opening. While standing on the platform, he may have lost his balance and fallen into the mixer. The second

possibility is that the worker climbed up into a tractor bucket positioned over the opening of the feed mixer. The bucket was half filled with a bale of hay wrapped in plastic, but only the top portion of the plastic had been removed. The worker may have been trying to remove the remaining plastic from underneath the hay when he lost his balance and fell into the operating feed mixer.

### Safety tips

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- Employers must ensure that feed mixers are fitted with adequate safeguards that prevent access to hazardous points of operation.
- Do not modify, remove, or replace safeguards.
- Follow written safe work procedures for operating and working around feed mixers. These procedures should include information on when and how to check on a worker who is working alone around a feed mixer.
- Follow the manufacturer's safety instructions for operating the feed mixer.
- Employers must provide workers with adequate supervision and training.
- Employers must take immediate disciplinary action when workers fail to follow safe work procedures.



## WorkSafeBC offices

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Visit our website at [worksafebc.com](http://worksafebc.com).

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### Head Office / Richmond

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#### Administration:

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