LIFE SAVING OPPORTUNITIES

agsafeab.ca

The sad reality is that most farm incidents can be prevented.

One easy way to stay safe is to ask yourself:

What can go wrong?

How bad it could be?

What can I do to work more safely?

This booklet is a simple guide to help you think about safety and make better choices when working on the farm.

Take the free FARMERS CARE Program online!

After you complete all 4 levels, you can order a sign to put up on your farm to show your commitment to health and safety.

HELPFUL TERMS

Competent person: A person who has the right training, experience, and attitude to do a job safely either on their own or with little help from someone who is very competent.

Hazard: Something that could cause damage or harm to someone or something on your farm.

Hazard control: Doing something to stop or reduce the chance of someone getting hurt, sick, or something getting damaged.

Hazardous act/behaviour: A way of making decisions and doing things that could hurt someone or cause damage.

Hazardous condition: A condition (the way something is) or situation (what is happening at a point in time) that could hurt someone or cause damage.

Hazardous energy: Any kind of power—like electricity, moving parts, pressure, heat, or chemicals—that can hurt people or damage things.

Incident: An unexpected or unplanned event that could hurt a person, animal, the environment, or damage property.

Kinetic energy: The energy something has because it is moving.

PPE: Personal Protective Equipment, commonly called PPE, is gear worn by people to help them stay safe and avoid getting hurt. Examples include earmuffs, chemical aprons, and respirators.

Potential energy: Energy that has been stored.

Risk: The chance or likelihood of injury, damage or loss. What can result from a hazard, hazardous condition, or hazardous act/behaviour, such as an injury or illness.

WHMIS: The Workplace Hazardous Materials Information System is a system that helps workers know which products are dangerous, how it can hurt them, and how to work with the products safely.

Zero energy: Zero energy means that all forms of energy have been removed from a machine or system and ensures there cannot be an accidental release of energy.

94%

According to Canadian Agriculture Injury Reporting, 94% of the people who died on Canadian farms between 2011 and 2020 were doing farm work when the incident happened.

FARMERSCARE

SLIPS, TRIPS & FALLS

F FALLS

Did you know?

67% *of falls result from slips & trips on the same level?* *(CCOHS, 2023)*

Hazardous Conditions/Situations

- Icy, wet or oily surfaces
- Loose or curled rugs/mats
- Uneven or rutted ground
- Hoses & cords on walkways
- Footwear that doesn't have enough grip
- Footwear that has too much grip
- Scattered tools, hoses, or garbage on the floor/ground
- Walking areas where the ground goes up or down (i.e., changes in elevation)
- Changes in the walking surface (e.g., an area with lots of traction to an area with little traction)
- Uneven & damaged flooring (e.g., nails sticking up)
- Carrying something that blocks your view
- Areas with poor lighting/poor visibility

Hazardous Acts/Behaviours

- ✕ Rushing/moving too quickly for the conditions
- ✕ Lack of awareness (e.g., looking at phone and not where you are going)
- ✕ Not wearing appropriate footwear
- ✕ Leaving shoelaces untied
- ✕ Not cleaning up spills, hoses, or other clutter
- ✕ Uneven or unequal stair steps

Risks

- Ankle, wrist & finger fractures
- Back, arm, & leg sprains and strains
- Dislocated shoulders and knees
- Cuts & bruises
- Concussions or worse
- Falling onto or into something harmful

Do

- ✓ Wear the right type of non-slip footwear for the work & conditions
- ✓ Keep walkings area free of spills, water, and ice
- ✓ Keeps cords and hoses off walkways where possible; use cable channels if available
- ✓ Practice good housekeeping (e.g., keep walking areas clean & free from clutter or obstructions)
- ✓ Ensure work & walking areas have good lighting
- ✓ Keep walking areas in good condition (e.g., secure loose boards or rugs)
- ✓ Don't rush & stay aware of your surroundings
- ✓ Ensure lighting is good or use a flashlight
- ✓ Make sure you can see where you are going!

In 2023, 24% of injuries in the Ag Sector were the result of a slip, trip, or fall.

(Government of Alberta, 2025, p.1)

FALLS FROM HEIGHT

*While the term **FALL FROM HEIGHT** is commonly used, it is best to think about these types of falls as being from a higher level to lower level, even if the difference between the two levels is small.*

Hazardous Conditions/Situations

- Stairs, mezzanines & haylofts without railing
- Working at heights in bad weather (e.g., rain, wind, snow)
- Damaged ladders, platforms, or equipment
- Scissor lifts & boom lifts sitting on soft, uneven, or unstable surfaces
- Uneven or poorly sized stairs
- Moving items into a hayloft

Hazardous Acts/Behaviours

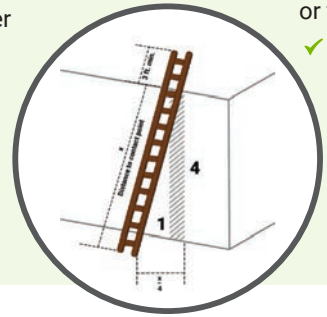
- ✕ Climbing feed bins & storage structures without fall protection
- ✕ Placing a ladder on a soft, uneven or unstable surface
- ✕ Climbing on anything not meant to be climbed
- ✕ Not wearing fall protection when working at heights
- ✕ Leaning & reaching off ladders or equipment
- ✕ Walking on damaged roofs or work & access platforms
- ✕ Not using 3 points of contact while climbing
- ✕ Climbing with tools or other items in your hands

Risks

- Broken bones
- Head injuries
- Brain injuries
- Internal injuries
- Spinal injuries & paralyzation
- Mental trauma
- Death

Do

- ✓ Keep 3 points of contact, even when climbing into tractors and other equipment
- ✓ Inspect ladders, scaffolds, work platforms & equipment prior to use
- ✓ Use tool belts and hoist larger items to the work area
- ✓ Install guard rails around elevated areas
- ✓ Follow the 4:1 rule (one foot back from the wall for every four feet of rise) when using ladders



- ✓ Ensure extension ladders are locked and extended at least three feet above the contact point/roof line
- ✓ Have someone hold the base of the ladder or tie the ladder off properly
- ✓ Wear non-slip footwear & ensure the soles are free of mud or snow
- ✓ Ensure work & access platforms are in good condition
- ✓ Keep walking areas and work platforms free of tools, clutter and cords

FARMERSCARE

AIR QUALITY

RESPIRATORY HAZARDS *are tiny particles and substances in the air that, when breathed in, can hurt your lungs, make you sick, cause serious diseases and in some cases, even death.*

RESPIRATORY HAZARDS

Hazardous Conditions/Situations

- Areas where mould is present (e.g., mouldy hay in a barn)
- Areas where dried feces are airborne
- Areas where someone is welding
- Areas where mists, residue, etc. from hazardous chemicals are present (e.g. spray painting)
- Areas where exhaust is present or may build up (e.g., vehicles idling in a building)
- Fields that are being sprayed
- Tractors & grain trucks with poor ventilation systems (e.g., no filters) or keeping windows open during harvest allowing dust particles in
- Smokey conditions (e.g., wildfire smoke)
- Using harsh cleaners in an enclosed areas
- Anywhere chemical mists, fumes & vapours may be present (e.g., from cleaning products, paint, etc.)
- Areas with pollen or animal dander (e.g., fields & barns)
- Airborne dusts (e.g., feed, wood, fertilizer, etc.)
- Recently filled silage pits or bunkers

Hazardous Acts/Behaviours

- ✕ Not maintaining or using ventilation systems
- ✕ Not using the right type of respirator, the right way
- ✕ Not maintaining vehicles & equipment
- ✕ Spraying a field on a windy day
- ✕ Not staying out of at-risk areas or sending someone with asthma or a severe allergy to work in one of these areas
- ✕ Not taking steps to keep people out of at-risk areas (e.g., locked doors, signage, etc.)

Risks

- Asthma
- Chronic Obstructive Pulmonary Disease (COPD)
- Viral & bacterial infections
- Inflammation of air passages
- Farmers Lung (Extrinsic Allergic Alveolitis or Hyper-sensitivity Pneumonitis)
- Cardiovascular problems (heart & blood vessel issues)
- Silo Filler's Disease
- Toxic Organic Dust Syndrome (TODS or Grain Fever)
- Certain cancers (e.g., lung cancer)

Do

- ✓ Identify the hazards of an area before work begins, such as chemical fumes or mists, dusts, moulds, viruses, bacteria, etc. and find ways to make them less harmful
- ✓ Use the right type of respiratory protective equipment the right way
- ✓ When working with chemicals, read the safety data sheet (SDS) and review the recommended PPE and handling methods
- ✓ Ensure exhaust equipment or ventilation is in place, turned on and working well

HAZARDOUS ATMOSPHERES

Hazardous Conditions/Situations

- Root cellars with poor ventilation and/or rotting vegetables
- Manure pits, especially during agitation
- Areas where decomposing plant matter or manure can produce dangerous gases
- Enclosed areas where fine dusts or dangerous fumes and vapours can build up
- Improperly stored chemicals (e.g., bleach and ammonia stored together)
- Confined spaces where rusting metal or bacteria/fungi growth has used all the available oxygen
- Improperly stored gases (e.g., welding gases not secured in a cart and could tip over, releasing the gas inside)
- Poorly maintained furnaces

A hazardous atmosphere means the air in a place could be very dangerous.

It might have things like flammable or explosive gases, flammable or explosive dusts, poisonous chemicals, or not enough oxygen, all of which can make people very sick or even cause death.

Risks

- Asphyxiation
- Poisoning
- Organ damage
- Brain damage
- Nervous system damage
- Cancers
- Birth defects
- Burns from fires or explosions
- Death

Hazardous Acts/Behaviours

- ✕ Entering a manure pit to perform repairs without testing the atmosphere first
- ✕ Allowing fine dust to build up in feed storage areas
- ✕ Not having carbon monoxide detectors in buildings with furnaces
- ✕ Running vehicles or equipment while they are in an enclosed shop or barn
- ✕ Using a generator or gas heater in an enclosed area
- ✕ Going near a silage pit or bunker that is recently filled and/or has a yellow/brown cloud around it
- ✕ Not using a gas monitor to test at risk areas before entering (e.g., re-entering a barn after whole barn gassing)
- ✕ Working in a high-risk area without a working, tested gas monitor

Do

- ✓ Identify the types of hazards before entering the areas such as poisonous gases, explosive environments, areas with oxygen deficiency, etc.
- ✓ Use gas detection equipment to test the atmosphere before going into an area & continue to monitor the air quality while in it
- ✓ When working with chemicals, read the safety data sheet (SDS) and review the recommended PPE and handling methods.
- ✓ Use the right type of respiratory protective equipment the right way
- ✓ Ask yourself, is entry or working in this space necessary?
- ✓ Follow your farm's confined space program & procedures

YOU CAN'T RELY ON YOUR SENSES TO IDENTIFY A HAZARDOUS ATMOSPHERE!

HAZARD	CAN YOU SEE IT	CAN YOU SMELL IT?
Low Oxygen/No Oxygen	No	No
Too Much Oxygen	No	No
Carbon Monoxide	No	No
Ammonia	No	Not if you have been exposed to it often & lost your sensitivity to it
Hydrogen Sulfide (H_2S)	No	Only at very small concentrations; high levels deaden the sense of smell instantly

FARMERSCARE

ROLL OVERS / RUN OVERS

A ROLL OVER *is when a vehicle or piece of equipment rolls over, for example, it can roll sideways or backwards.*

ROLL OVERS

Hazardous Conditions/Situations

- Soft road conditions & soft shoulders
- Embankments & steep terrain
- Travelling on public roads, particularly with oversize equipment/loads and where roads have little to no shoulder
- Inexperienced drivers
- Driving too fast for the conditions
- Improperly loaded trailers & wagons

Risks

- Broken bones
- Cuts
- Fractures
- Nerve injuries
- Internal injuries
- Mental trauma
- Spinal injuries
- Death
- Crush injuries

Hazardous Acts/Behaviours

- ✕ Driving too close to ditches or embankments
- ✕ Driving on terrain with unexpected mounds or dips
- ✕ Travelling with heavy loads held high on a font-end loader
- ✕ Pulling heavy loads that are hitched higher than the drawbar
- ✕ Turning sharply on a steep slope
- ✕ Overloading the drawbar
- ✕ Driving too fast into curves and when turning or pulling rear-mounted equipment
- ✕ Pulling a load that is not balanced or not properly secured
- ✕ Travelling with totes or tanks that are partially filled with fluid

Roll overs & run overs continue to be the leading causes of fatalities on farms!

Do

- ✓ Ensure you are trained & competent to operate the equipment
- ✓ Avoid driving too close to an incline, ditch or embankment
- ✓ Keep the load as low as safely possible when using a front-end loader
- ✓ Drive forward down steep slopes and back the equipment up steep slopes
- ✓ Install Roll Over Protection Structures (ROPS) on tractors, loaders and similar equipment without one
- ✓ Install roll bars or crush protection devices (CPDs) on ATVs, where appropriate
- ✓ Flag or rope off hazardous areas
- ✓ Always wear your seatbelt to prevent from being thrown under what you are operating in the event of a roll over (if there is a cab or ROPS in place)
- ✓ Widen the wheelbase of on your tractor, where appropriate
- ✓ Consider an ATV with a wider wheelbase or one with dual wheels on your next purchase
- ✓ Ensure the load you are towing is balanced & properly secured
- ✓ Walk the terrain in advance to identify potential hazards

RUN OVERS

Hazardous Conditions/Situations

- Farmyards or driveways with a lot of vehicle & equipment traffic
- Poorly maintained vehicles & equipment (e.g., a windshield that is hard to see out of or faulty brakes)
- Unsupervised children playing in areas where work is taking place
- Not having established routes of travel
- Hitching trailers & wagons
- Driving too quickly (e.g., rushing to get the crop off before a storm)

Risks

- Broken bones
- Cuts
- Fractures
- Nerve injuries
- Internal injuries
- Mental trauma
- Spinal injuries
- Death
- Crush injuries

Hazardous Acts/Behaviours

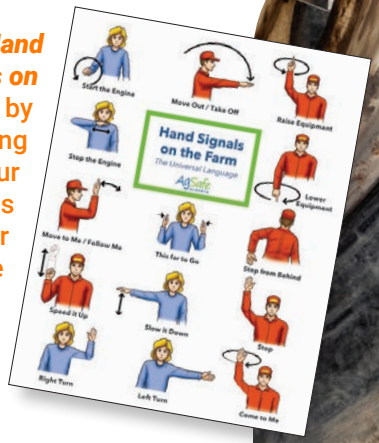
- ✕ Extra riders on a tractor or ATV
- ✕ People riding on a wagon, trailer deck, or in a truck box
- ✕ Climbing on or off a tractor that has not fully stopped
- ✕ Starting a piece of equipment from the ground or pass starting it
- ✕ Approaching moving equipment without the operator's knowledge
- ✕ Not chocking wheels on equipment being repaired or when loading & unloading
- ✕ Driving too quickly in farmyards or on driveways
- ✕ Not using proper hand signals or radios to communicate with drivers/equipment operators

Do

- ✓ Follow the one seat = one rider rule
- ✓ Don't allow people to ride in dangerous areas (e.g., wagons, trailer decks, truck boxes, etc.)
- ✓ Have supervised, fenced play areas to prevent children from running onto roads
- ✓ Use trained spotters when backing up
- ✓ Use radios to avoid approaching equipment
- ✓ Train everyone to use the ASSE Hand Signals
- ✓ Only start equipment while sitting in the operator's seat
- ✓ Always chock and block the wheels when working on vehicles & equipment

A RUN OVER *is when a vehicle, tractor, or other type of powered mobile equipment runs over a person in its path of travel.*

Get our ***Hand Signals on the Farm*** by downloading it from our Resources Page or visiting the AgSafe Alberta Store!



FARMERSCARE

MACHINERY / MOTOR VEHICLES

MACHINERY *can present many different types of hazards that may not come to mind until after something serious has happened. Hazards can range from things like poorly maintained equipment to other drivers on the same roads we are moving machinery on.*

MACHINERY

Hazardous Conditions/Situations

- Machines with damaged or missing guards
- Moving large, slow machines on public roads, especially during busy times
- Moving machines without the proper lighting, reflectors & signage
- Operators who lack training and experience
- Other drivers who are speeding/driving aggressively/distracted driving
- Poorly maintained machinery

Risks

- Disability (i.e., a condition that may stop you from doing something)
- Scalping or degloving injuries (i.e., the skin of the head or body part is removed)
- Crush injuries & broken bones
- Entanglement (i.e., a body part gets caught in something)
- Mental trauma
- Hearing loss
- Amputation (i.e., a part of the body is lost)
- Death

Hazardous Acts/Behaviours

- ✕ Using machines that should be taken out of service
- ✕ Operating machines while distracted (e.g., on the phone)
- ✕ Working around machines with loose long hair, dangling jewelry, loose clothing, etc.
- ✕ Operating machines without the proper training
- ✕ Not wearing the required PPE (e.g., hearing protection)
- ✕ Wearing the wrong type of PPE
- ✕ Not locking out machines prior to working on them
- ✕ Operating machinery while fatigued
- ✕ Operating machinery while under the effects of medications/drugs/alcohol

Do

- ✓ Perform regular maintenance
- ✓ Pre-inspect machines before use
- ✓ Always ensure guards are in place & in good condition
- ✓ Only use machines you are trained, skilled & able to use
- ✓ Wear properly fitted clothing
- ✓ Ensure machines have clean & visible Slow Moving Vehicle (SMV) Signs
- ✓ Keep long hair secured
- ✓ Use pilot vehicles & a-frame signs for machine moves
- ✓ Wear the right PPE for the job or task
- ✓ Ensure machines are visible; this includes proper lighting, reflectors & signage
- ✓ Perform walk arounds / visual inspections prior to operating any machine to ensure it is in good condition and that there are no children or animals in harm's way

For tips on moving farm equipment safely, check out the Government of Alberta's guide called Safe Transportation of Farm Equipment in Alberta.

MOTOR VEHICLES

Hazardous Conditions/Situations

- Poor driving conditions (e.g., icy roads, snowstorms, strong winds, heavy fog, etc.)
- Wildlife on or beside roadways, particularly at dusk or dawn
- Poorly maintained vehicles
- Other drivers who are speeding/driving aggressively/ distracted driving
- Drivers who lack training and experience
- Towing an improperly loaded trailer
- Vehicle cabs or truck boxes with loose cargo that could cause injury in the event of a sudden stop or collision

Hazardous Acts/Behaviours

- ✕ Operating a vehicle with out the right experience for the vehicle and conditions
- ✕ Speeding
- ✕ Operating vehicles while under the effects of medications/drugs/alcohol
- ✕ Operating vehicles while fatigued
- ✕ Distracted driving (e.g., on the phone, reaching for something, etc.)
- ✕ Not wearing a seatbelt while in a vehicle
- ✕ Driving aggressively
- ✕ Travelling when the roads are in poor condition when it is not necessary

Risks

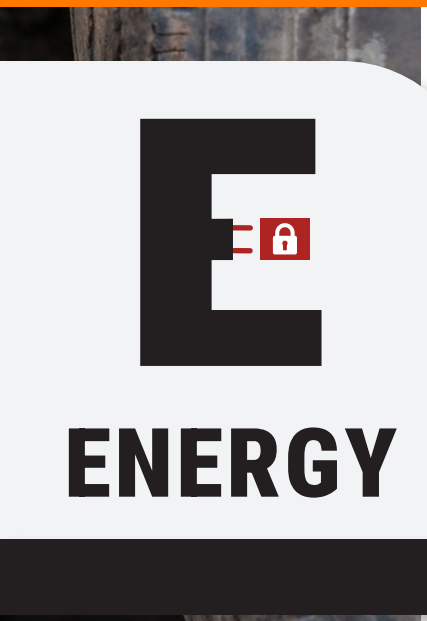
- Disability (i.e., a condition that may stop you from doing something)
- Broken bones
- Head injuries
- Spinal injuries
- Internal injuries
- Cuts
- Mental trauma
- Crush injuries
- Death

Do

- ✓ Always wear your seatbelt
- ✓ Avoid talking on cell phones or using other devices while driving
- ✓ Reduce your speed and watch for ruts, sticks, branches, stumps, etc. when travelling off road
- ✓ Perform walk arounds/visual inspections prior to operating any vehicle to ensure it is in good condition and that there are no children or animals in harm's way
- ✓ Follow speed limits, traffic laws and drive defensively
- ✓ Follow the manufacturers recommended operating speeds, especially when towing trailers and equipment
- ✓ If weather or road conditions are poor, decide if the trip is truly necessary and if not, stay home!
- ✓ Adjust speed to weather and road conditions

MOTOR VEHICLES *are essential to farmers and their families, but they are also one of the most dangerous things used by the farm — in most cases, we have just become blind to the hazards and risks.*

FARMERSCARE



E ENERGY

LOCKS, BLOCKS & CHOCKS

Lock Out

Lock Out is a procedure, or step by step way of doing something, that is followed to prevent the release of hazardous energy that could injure someone. Lock Out is commonly thought of as placing a lock on a machine or energy isolating device, but it could be locking the keys to a piece of equipment you will be working on in a secure box, so that nothing is turned on or energized by accident.

Blocking

Blocking uses materials like wood (e.g., 6x6 wooden blocks) or metal to prevent a piece of equipment (and/or part of it) from moving during a repair or maintenance. For example, if the loader arms of a tractor needed to be raised in order to access a part, blocking would be placed under each of the arms to ensure they can't fall unexpectedly.

Chocking

Chocking is a way to secure the wheels of a vehicle, tractor, trailer, or other piece of equipment to prevent it from moving when being repaired, serviced, loaded, unloaded, or parked. Chocks can be made of heavy wooden blocks or from materials such as rubber, aluminum, steel, or polyurethane when purchased from a store.

TAG OUT

Tag out involves attaching a tag or other type of label that lists such information as:

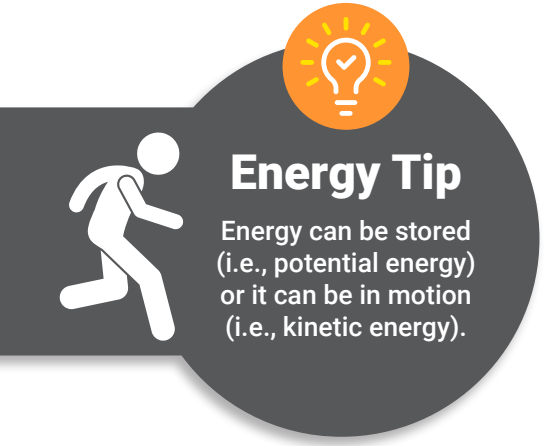
- The reason why lock out/tag out is required, such as for maintenance or repair.
- The time and date that the lock and tag were put in place.
- The name of the person who attached the lock and tag.

The tag is used along with a lock — which is where the term Lock Out / Tag Out (LOTO) comes from. Both the lock and tag can only be removed by the person who put them there. This makes sure no one can start the machine, equipment, or process without that person knowing, which helps keep them safe.

ENERGY ISOLATION

Energy Types

- Electrical
- Hydraulic
- Pneumatic
- Chemical
- Thermal
- Radiation
- Gravitational
- Mechanical



Energy Tip

Energy can be stored (i.e., potential energy) or it can be in motion (i.e., kinetic energy).

Hazardous Conditions/Situations

- A parked wagon without wheel chocks
- A tractor parked with the loader bucket raised & without blocking under the arms
- Not creating & using a Lock Out / Tag Out program specific to your farm

Hazardous Acts/Behaviours

- ✕ Not de-energizing or locking out circuits or systems prior to performing repairs or maintenance
- ✕ Performing repairs on a vehicle or piece of equipment without wheel chocks
- ✕ Not relieving pressure from hydraulic or pneumatic lines before starting work
- ✕ Ignoring and/or removing locks & tags
- ✕ Repairing a tool, machine, or vehicle while it is running/has power to it
- ✕ Repairing a tool, machine, or vehicle while it could be accidently turned on by someone else

Do

- ✓ Inform all affected individuals of the equipment you are locking out and if it is for repair or maintenance reasons
- ✓ Relieve hydraulic and pneumatic pressure after equipment has been locked out and before performing maintenance
- ✓ De-energize, lock out, tag out & check all energy sources yourself (don't rely on others to do it)
- ✓ Use locks, blocks & chocks before performing repairs or maintenance
- ✓ Block all parts with the potential to move before working on or under them
- ✓ Check that the energy has been isolated and/or there is zero energy before starting work
- ✓ Create & follow your farm's Lock Out / Tag Out program

0 **ZERO ENERGY** *means that all forms of energy have been removed from a machine or system and ensures there cannot be an accidental release of energy.*

Risks

- Electrocution
- Entrapment (i.e., the body or a part of the body is caught or trapped by something in a dangerous space)
- Crush injuries & broken bones
- Cuts
- Tissue injuries
- Amputation (i.e., a part of the body is lost)
- Entanglement (i.e., a body part gets caught in something)
- Nerve injuries
- Chemical injuries
- Burns

Ask Yourself

- Am I trained and competent to perform this task?
- Have I identified all of the energy sources?
- Am I trained in my farm's Lock Out / Tag Out procedures and in the tasks that I am going to perform?
- If I restart the equipment now, am I certain all of the guards are securely in place, and everyone is in a safe location?

R

REMOTE WORK / WORKING ALONE

REMOTE WORK

Remote work is a term for working away from the main location, such as the farmyard; for example, checking cattle on a grazing lease would be a type of remote work. Remote work can also refer to working somewhere far away from the nearest town, hospital, and police station . . . which means if help is needed, it will take time to get whether you have to wait for it to arrive or you take someone to get the help they need (e.g., transport them to hospital yourself).

WORKING ALONE

Working alone is a term for performing work where help is not immediately available if you become injured or some other type of emergency happens. If someone cannot see or hear you, you are working alone. For example, if you are fixing a piece of equipment in the shop by yourself, or travelling a long distance alone in a vehicle, you would be considered to be working alone.

Hazardous Conditions/Situations

- Someone with a serious medical condition working remotely or alone (e.g., at risk of a serious allergic reaction or medical event such as a heart attack)
- Thieves and/or violent people in the area (e.g., at risk of a confrontation, being left without transportation, injury, etc.)
- Poorly maintained vehicles or equipment
- Performing high-risk work remotely and/or alone
- Poor or no cellular service
- Equipment, vehicle or ATV incidents
- Aggressive/fearful/defensive livestock or wildlife

Hazardous Acts/Behaviours

- ✕ Not having a working alone plan in place with regular check-ins & someone designated to assist in case of an emergency or missed check-in
- ✕ Not having a plan in place to transport a sick or injured person to the nearest open emergency room
- ✕ Working remotely or alone without a tested and proven form of communication
- ✕ Missing scheduled check-ins
- ✕ Not updating anyone when you change locations
- ✕ Not having first aid training, first aid kits and other items that would be needed in an emergency

Risks

- Serious medical events (e.g., serious allergic reaction or heart attack)
- Encounters with violent people, especially those involving physical encounters or weapons
- Motor vehicle incidents (e.g., roll overs, run overs, collisions, etc.)
- Equipment or machine incidents (e.g., involving entrapments, entanglement, roll overs, run overs, fires, etc.)
- Animal attacks

Do

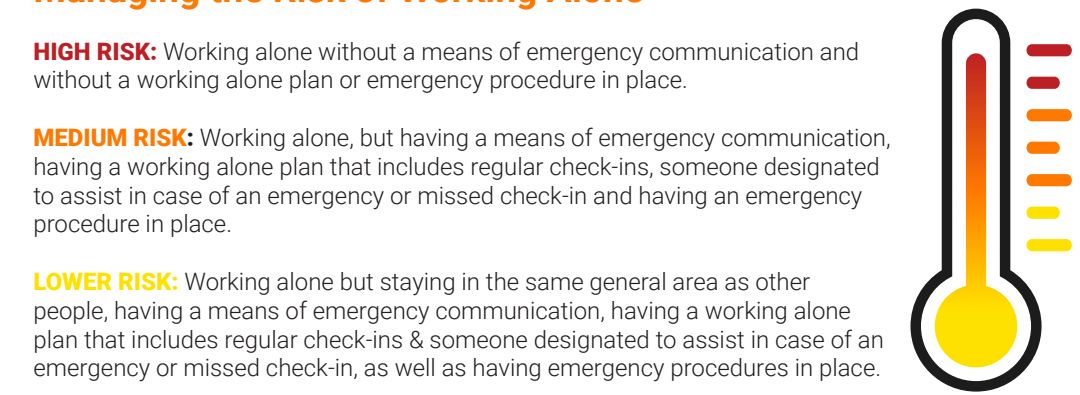
- ✓ Have a working alone plan in place with regular check-ins & someone designated to assist in case of an emergency or missed check-in
- ✓ Have a means of reliable communication readily available
- ✓ Communicate any changes to work plans or locations
- ✓ Wait for assistance if the task is high risk
- ✓ Have a plan in place to transport someone to the nearest open emergency room in the event of an incident
- ✓ Know your location and identify multiple ways to get help to you

Managing the Risk of Working Alone

HIGH RISK: Working alone without a means of emergency communication and without a working alone plan or emergency procedure in place.

MEDIUM RISK: Working alone, but having a means of emergency communication, having a working alone plan that includes regular check-ins, someone designated to assist in case of an emergency or missed check-in and having an emergency procedure in place.

LOWER RISK: Working alone but staying in the same general area as other people, having a means of emergency communication, having a working alone plan that includes regular check-ins & someone designated to assist in case of an emergency or missed check-in, as well as having emergency procedures in place.



How are you managing the risk of working remotely/working alone?

Working remotely or working alone isn't always risky — but it can be, depending on the situation

Where the work happens, what kind of task it is, who is performing the work (e.g., someone with a serious medical condition or allergy) and what could go wrong in an emergency all affect how safe it is. That's why it's important to perform a hazard and risk assessment for each situation and then taking the necessary measures to make it safe.

The Golden Hour

The Golden Hour is the first hour after someone gets seriously hurt. If a badly injured person gets emergency medical help during that time, they have a better chance of surviving and recovering.

FARMERSCARE

SECURE LOADS

A SECURE LOAD *means that cargo (a load being transported) is tied down or packed properly so it doesn't move, fall, or spill while the vehicle or piece of equipment is moving. This is important because it helps keep the driver, passengers, and others safe.*

Hazardous Conditions/Situations

- Loads that are not tied down
- Loads that are not tied down properly
- Loads that are not properly balanced
- Straps positioned in a way that they become damaged or worn during travel

Do

- ✓ Get proper training in load securement
- ✓ Use the right type & amount of securement equipment in the right places
- ✓ Only use tiedowns that are marked with the Working Load Limit
- ✓ Pre-inspect straps and chains for damage or defects and remove faulty straps
- ✓ Protect straps with softeners or corner protectors
- ✓ Use the blocks and braces the right way & in the right places
- ✓ Follow applicable traffic safety and load securement laws and regulations
- ✓ Perform periodic inspections during transit to inspect and adjust cargo or load securement devices as necessary
- ✓ Ensure the load you are hauling cannot leak, spill, blow off, fall from, fall through or shift in a way that may affect the stability or travel of the vehicle.

Hazardous Acts/Behaviours

- ✗ Not checking loads & securement devices periodically during travel
- ✗ Having an untrained person tie loads down
- ✗ Not pre-inspecting tie downs for damage or defects
- ✗ Using damaged straps or chains

Risks

- Lost load striking a person or vehicle
- Shifting or falling load causing a vehicle/ equipment to roll over
- Broken bones
- Internal injuries
- Spinal injuries
- Disability (i.e., a condition that may stop you from doing something)
- Mental trauma
- Crush injuries
- Death

Did you know?

For information on load securement requirements relating to farms, refer to the appropriate sections of the Traffic Safety Act. The Traffic Safety Act and regulations may change from year to year, so review it regularly.

Community Peace Officers who enforce the Traffic Safety Act in your county can be valuable sources of information!

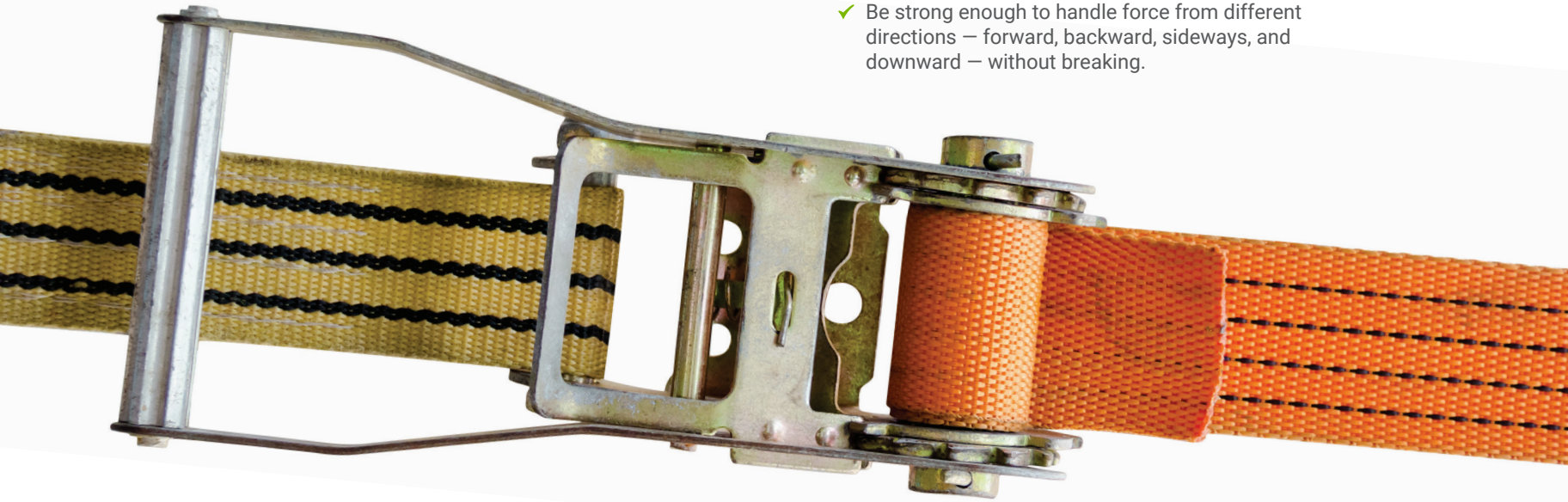
Working Load Limits

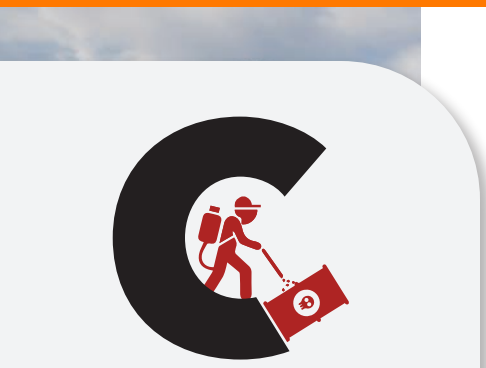
Tie-downs and load securement devices must be strong enough to do the job safely. Companies that make these devices test them to see how much force they can handle before breaking. The maximum weight or force that they can handle under normal use is called the working load limit (WLL). When you use more than one load securement device, you can add up their working load limits to see how much they can hold.

Load Securement Devices 101

Load securement devices must:

- ✓ Be in good working condition
- ✓ Be used the right way on the right cargo type
- ✓ Have no damage or weaknesses (e.g., signs of wear, cuts, cracks or knots)
- ✓ Be secured in a way that they won't loosen or unfasten during travel
- ✓ Be strong enough to handle force from different directions — forward, backward, sideways, and downward — without breaking.





CHEMICALS

All farms use **CHEMICALS** *and hazardous products — even hydrogen peroxide has very real hazards. A chemical is the name given to a substance or a mixture of substances, and there are many different types of chemicals with different types of hazards that you might encounter on the farm.*

CHEMICALS

Hazardous Conditions/Situations

- Disorganized, poorly kept chemical storage areas
- Unlabelled chemicals containers
- Disorganized, poorly kept veterinary drug storage areas
- Storing incompatible chemicals together
- Chemical spills or leaks
- Untrained people working with chemicals, such as pesticides, veterinary drugs, solvents, etc.

Risks

- Chemical burns
- Eye and tissue irritation
- Heavy metal poisoning
- Blindness
- Cancer
- Brain damage
- Disfigurement
- Nerve damage
- Respiratory diseases/ illnesses
- Mental trauma
- Death

Hazardous Acts/Behaviours

- ✕ Using chemicals without WHMIS and farm specific chemical safety training
- ✕ Storing chemicals in beverage containers or other improper containers
- ✕ Not using the right PPE for the task, the right way
- ✕ Using chemicals in an enclosed or poorly ventilated area
- ✕ Not handling chemicals or veterinary drugs properly
- ✕ Not having safety data sheets or product inserts readily available to the people working on the farm

Did you know?

On January 4, 2023, there were amendments to the Hazardous Products Regulations in Canada. These changes were made to further align with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

A three year transition period, ending on December 14, 2025, was put in place to allow suppliers, employers, and workers time to adjust to these changes.

Do

- ✓ Ensure everyone on your farm is trained in WHMIS and knows how to work safely with them
- ✓ Keep all products properly labelled and in appropriate containers
- ✓ Refer to the product label & safety data sheet
- ✓ Store all products in a safe location using suitable containers and away from incompatible substances
- ✓ Have current Safety Data Sheets readily accessible to all workers
- ✓ Always wear the correct type(s) of PPE

ROUTES OF ENTRY

How chemicals get in our bodies

Skin or eye contact

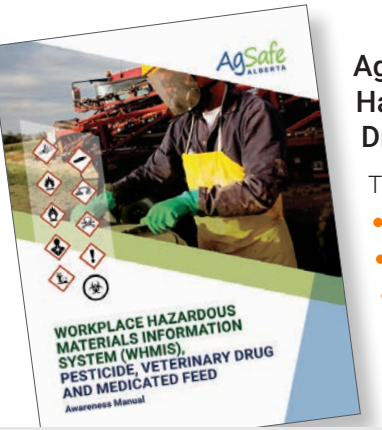
Swallowed (eat or drink it)

Inhalation (breathing)

Injection

WHAT IS IN A SAFETY DATA SHEET?

A Safety Data Sheet, or SDS, provides you with essential information on the product you are handling, such as: the hazards or the product, how to safely handle and store the product and what to do in an emergency.



AgSafe Alberta has released an updated and improved Workplace Hazardous Materials Information System (WHMIS), Pesticide, Veterinary Drug and Medicated Feed Awareness Course and supporting manual.

This new course:

- Is quicker & easier to complete.
- Gives you immediate access to your Certificate of Completion inside the course itself!
- Reflects changes to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

Visit the Courses page of our website, agsafeab.ca, to take it today!

Golden Rules of Chemicals, Pesticides & Veterinary Drugs

These rules apply to every potentially hazardous product that you have on your farm, whether it is a cleaning product, a pesticide, or a veterinary drug. Being familiar with the product, its hazards, and controlling these hazards appropriately is key to staying safe and healthy.

It is also important to know that the ingredients of a product that you have used for years can change (and in turn, so can the hazards of that product) without you realizing it, which makes it even more important to read the label and safety data sheet regularly:

1. **BEFORE BUYING the product.**
2. **BEFORE USING the product.**
3. **BEFORE STORING the product.**
4. **BEFORE DISPOSING of the product.**

FARMERSCARE

ANIMALS

Hazardous Conditions/Situations

- Getting too close to animals or not leaving yourself an exit route
- Working with animals alone
- Slippery or uneven terrain that could cause you to lose your footing among the animals
- Poor lighting or shadows in livestock handling areas
- Exposure to zoonotic diseases
- Excited or fearful animals
- Loud, sudden noises

Hazardous Acts/Behaviours

- ✕ Not being familiar with the behaviour of the animal you are working with
- ✕ Loosing your temper when working with livestock
- ✕ Placing yourself in a position to be bitten, head butted, or kicked
- ✕ Getting too close to an animal in an excited, fearful, or maternal state

Risks

- Bites
- Blunt trauma injuries (e.g., from being kicked, stepped on, pinned, etc.)
- Stings
- Allergic reactions
- Infections (e.g., from bites or scratches)
- Diseases/illnesses
- Fractured bones
- Death
- Crush injuries

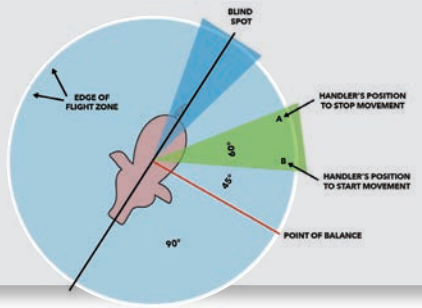
Do

- ✓ Check handling areas for sharp edges, slippery floors, poor lighting or damaged gates prior to starting work
- ✓ Ensure pens, panels and gates are in good condition before working with animals
- ✓ Approach animals slowly and calmly while keeping a safe distance
- ✓ Always have an escape route planned when working in animal enclosures
- ✓ Develop and follow a biosecurity program and procedures when appropriate
- ✓ Practice good hygiene during and after handling livestock
- ✓ Wear the appropriate PPE (e.g., steel toe boots, beekeeper's suite, etc.)

What is an animal's flight zone?

The flight zone is the distance around an animal that it will keep in order to feel safe from predators and potential danger.

A person entering this area might cause the animal to become scared, reactive and try to escape.



Animal Safety Basics

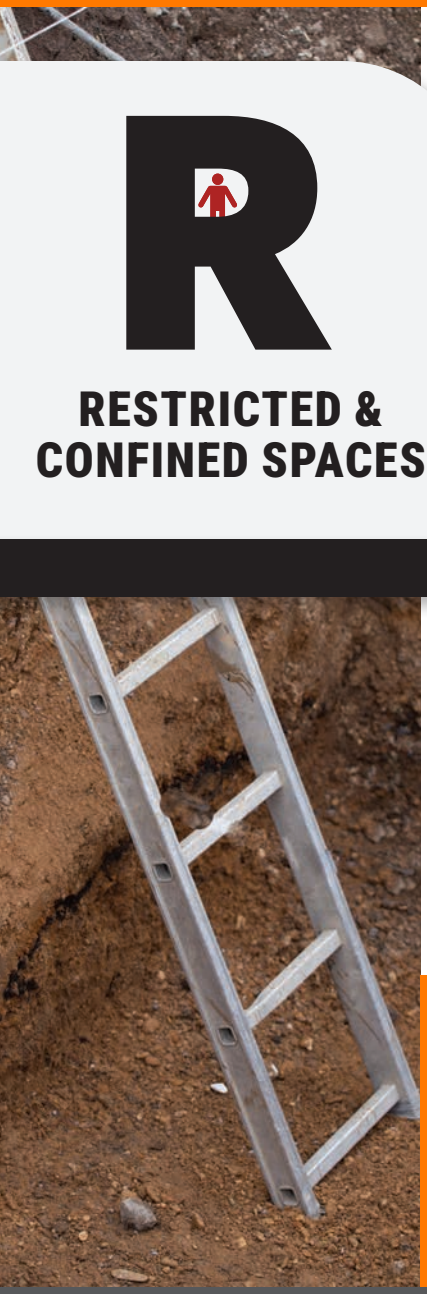
Animal handling safety starts with knowing that animal's typical behaviour. Slow and deliberate movements are generally best. Be mindful of avoiding blind spots and kick zones. Animal behaviour can be unpredictable, so it is important to stay alert. Use extra caution when handling animals that are injured, sick or are new mothers.

Calm animals are safer animals

It does not take long for an animal to become excited and at least 20 to 30 minutes for it to calm back down. While every effort to keep animals quiet during handling should be made, we can recognize things do not always go as intended. If necessary, take an early lunch break so that both two and four legged parties get a chance to destress and calm down. Remember that trying to push through it for the sake of the clock can be dangerous, ineffective, and frustrating.

Did you know?

Cattle, hogs, and sheep can balk at shadows due to their poor depth perception. This is why handling areas should minimize sharp shadows where possible.



R

RESTRICTED & CONFINED SPACES

RESTRICTED & CONFINED SPACES

Before you can identify these spaces, you will need to understand what they are.

Restricted Space

A restricted space is a work area that:

- Is not meant to have someone in it all of the time or even very often.
- Would be big enough to enter and difficult to get in or out of.
- Would not have any other hazards or have the hazards properly controlled.

(Occupational Health and Safety Code, Statutes of Alberta 2025, s.1)

Think of a space with a small entry way or with obstructions that would make entering it, leaving it, and/or moving around inside of it hard.

An example of a restricted space may be the attic of a house, where the access ladder and hatch would make it difficult to go into and leave the space but would pose no other threat to someone's health or safety while being in it.

Confined Space

A confined space is a restricted space which is hazardous, or may become hazardous, to a person entering it because of:

- An atmosphere that has too little or too much oxygen, is flammable, explosive or toxic (e.g., silo gases in a silage bunker).
- A condition or changing set of events that may cause illness or injury (e.g., someone is inside a grain bin and someone outside turns on the auger).
- The potential for an activity to produce dangerous or harmful results in the space (e.g., using a harsh cleaning product in the confined space may allow toxic fumes to build up).
- The basic characteristics of an activity that can produce dangerous or harmful results in the space (e.g., welding in a confined space).

(Occupational Health and Safety Code, Statutes of Alberta 2025, s.1)

RESTRICTED SPACE + **EXISTING OR POTENTIAL HAZARD** = **CONFINED SPACE**

A report published by Purdue University's Agricultural Safety and Health Program entitled *2022 Summary of U.S. Agricultural Confined Space-Related Injuries and Fatalities* found:

- There were at least 83 confined space incidents and 22 of which were fatal; their findings show that confined space incidents had increased 40.7% since 2021.
- 42 of the incidents were grain related, which represents the highest number of incidents in over a decade.
- The remaining incidents involved livestock waste handling, entanglements, falls, and grain dust explosions or fires.

(Cheng, Yuan-Hsin et al, 2023, p.1)

Examples of Confined Spaces in Agriculture

- Steel bins, regardless of size
- Tanks & Silos
- Open grain piles
- Dump pits, silage pits
- Bunkers
- Grain driers
- Ponds, lagoons, open pits
- Sump/pump pits
- Forage & silage dump wagons
- Manure/biodigesters
- Grain trucks, wagons & auger carts
- Grinder/mixer machines
- Tub grinders
- Manure tanks & spreaders
- Septic tanks
- Bale chambers
- Trenches
- Tunnels (e.g., conveyor tunnel)
- Bulk liquid storage tanks
- Pump sheds
- Root cellars
- Culverts
- Drainage ditches
- Dugouts
- Grain storage building & structures
- Sumps & tunnels under storage facilities
- Above & below ground storage pits & tanks

Why Confined Spaces are More Dangerous

- ✕ There's no room for mistakes — missing a hazard or not dealing with it properly can lead to serious injury or even death
- ✕ It's harder to escape or be rescued if something goes wrong
- ✕ Air might not move well & natural airflow may not be enough to keep the space safe
- ✕ Conditions can change quickly, especially if there's not enough fresh air or the space is very small
- ✕ Things happening outside the space can affect what's going on inside
- ✕ The work being done inside can create new dangers that weren't there before
- ✕ It can be hard to talk between people inside and outside the space, which can lead to mistakes or accidents

The type of training, equipment, and even rescue needed will depend on the hazards of the confined space. Careful and thoughtful identification of the hazards and hazard controls needed must occur.

To get a better understanding of this, download AgSafe Alberta's Confined Space Awareness Manual and take the free online Confined Space Awareness Course.

Do

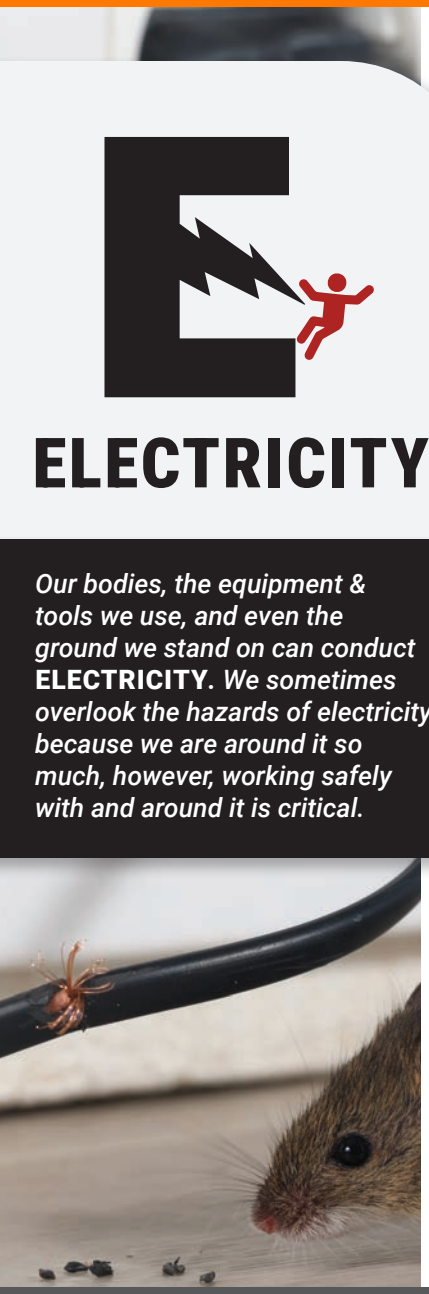
- ✓ Identify the restricted & confined spaces on your farm
- ✓ Prevent people from going into confined & restricted spaced (e.g., locks, fences, signs, etc.)
- ✓ Identify the existing & potential hazards of these spaces and control them (e.g., add ventilation, LOTO, etc.)
- ✓ Ensure everyone who will have a role related to a confined space (e.g., working in it, attendant, rescuers, etc.) is trained and competent
- ✓ When a hazardous atmosphere is or may be present, always test the atmosphere before entry and monitor it if working in it
- ✓ Ensure the right PPE is available & used
- ✓ Ensure the right rescue equipment is in place and ready for use
- ✓ Ensure a rescue plan is in place before entry

The hazardous conditions, situations, acts, behaviours and risks of these spaces are too numerous to list, as each space can be uniquely different.

The National Institute of Occupational Safety and Health (NIOSH) investigated many confined space fatalities and found three common factors in each incident:

1. The lack of recognition of confined spaces (not enough hazard identification)
2. The lack of testing, evaluation, and monitoring (not enough hazard assessment & control)
3. The lack of a well-planned rescue

(National Institute for Occupational Safety and Health (NIOSH), 1986)



ELECTRICITY

Our bodies, the equipment & tools we use, and even the ground we stand on can conduct **ELECTRICITY.** *We sometimes overlook the hazards of electricity because we are around it so much, however, working safely with and around it is critical.*

ELECTRICITY

Hazardous Conditions/Situations

- Live powerlines on the ground
- A live powerline contacting a vehicle or piece of equipment you are in
- Electrical outlets in damp areas, especially if they are not a Ground Fault Circuit Interrupter (GFCI) outlet and protected by a cover
- Electrical outlets or light switches that are damaged (e.g., missing the cover) or show signs of burns (e.g., brown or black discoloration)
- Poorly maintained electrical equipment (e.g., power washer)

Hazardous Acts/Behaviours

- ✕ Digging without contacting Utility Safety Partners first
- ✕ Performing repairs on live equipment or machines
- ✕ Not following safe limit of approach distances when working around powerlines
- ✕ Working with electrical tools in wet conditions
- ✕ Using damaged tools
- ✕ Using damaged extension cords
- ✕ Continuing to use a tool or piece of equipment that is giving you small electric shocks

Risks

- Electrocution
- Electric shocks
- Burns
- Falls
- Cardiac arrest
- Nerve damage
- Tissue damage
- Amputation
- Death
- Mental trauma

Do

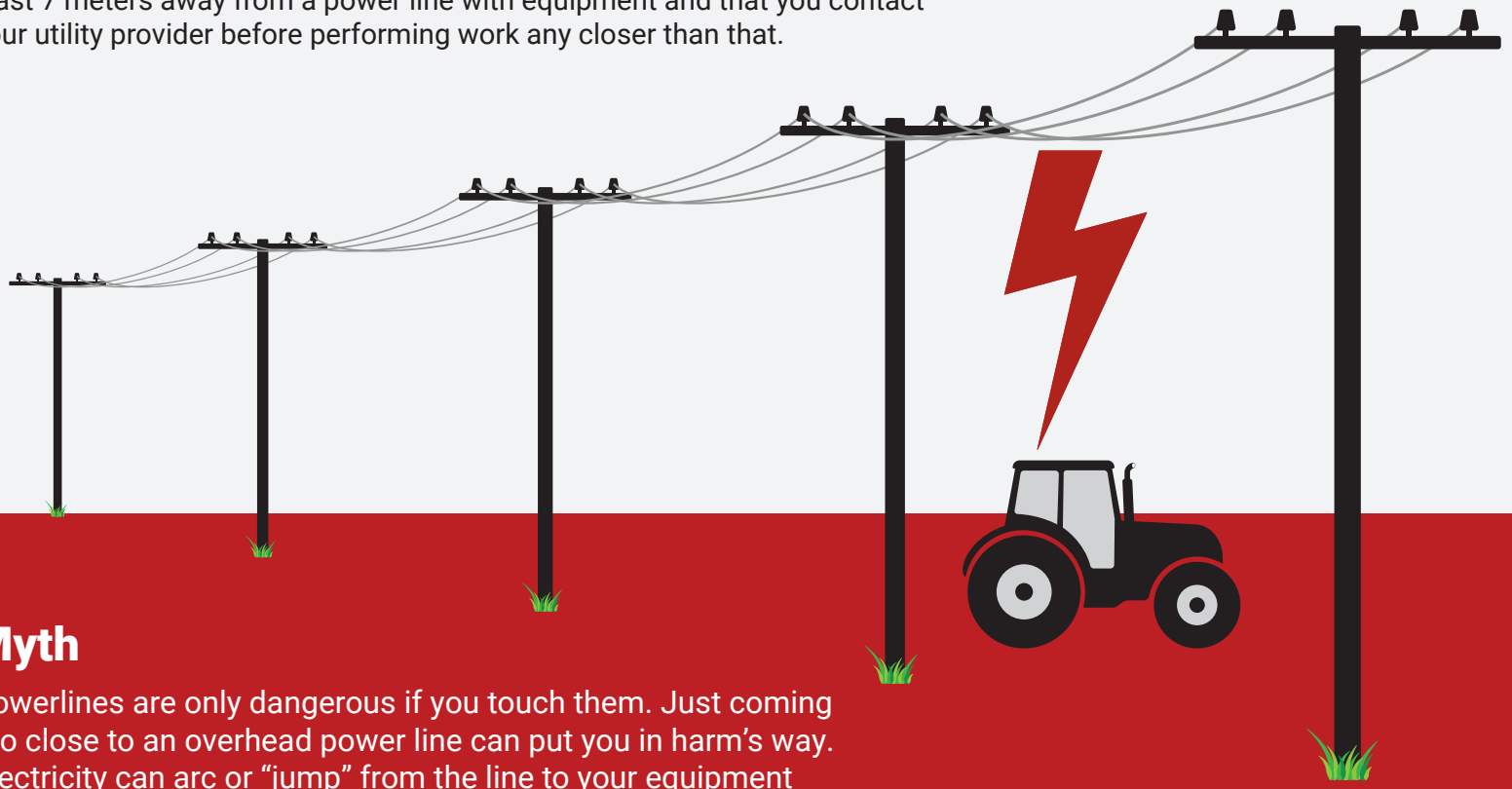
- ✓ Know the height of your equipment when working around powerlines
- ✓ Keep equipment at minimum seven metres away from powerlines
- ✓ Contact your utility provider or Utility Safety Partners before digging
- ✓ Follow Lock Out / Tag Out procedures
- ✓ Install and check Ground Fault Circuit Interrupter (GFCI) receptacles in damp areas or near water sources and check their function regularly
- ✓ Pre-inspect tools and cords before use
- ✓ Contact your utility provider well in advance of work that is required to be done was they may need to measure the voltage of the line or assist with high load moves, such as grain bins
- ✓ Walk the area near powerlines that your utility provider has previously authorized you to move equipment under, keeping in mind the ground can heave (e.g., frost heave), overhead powerlines can sag in the heat and newer equipment is often larger than older equipment
- ✓ Don't perform work for which you are not trained and competent (e.g., performing electrical repairs)
- ✓ Maintain three feet of clearance in front of all electrical panels

According to Fortis Alberta, most electrical safety incidents occur on farms.

(Fortis Alberta, n.d.)

What is an Arc Flash?

Arc flashes are electrical explosions that occur when an electric current flows through an air gap between conductors. Arc flashes are unpredictable, very bright, very hot, very loud and can kill you. This is why it is critical to stay at least 7 meters away from a power line with equipment and that you contact your utility provider before performing work any closer than that.



Myth

Powerlines are only dangerous if you touch them. Just coming too close to an overhead power line can put you in harm's way. Electricity can arc or "jump" from the line to your equipment or any other conductive object.

THE F·A·R·M·E·R·S C·A·R·E PROGRAM

Unexpected things can happen to even the most experienced farmers.

That's where the free F·A·R·M·E·R·S C·A·R·E program steps in. It's a simple, effective and interactive tool to help you improve farm safety in practical ways, with no previous safety knowledge or experience required.

Complete all four levels and order a sign to show your farm's commitment to health and safety!

Online Courses

WHMIS, Pesticide, Veterinary Drug & Medicated Feed Awareness Course

Hazardous products can be serious, but they can also be prevented. By learning about the dangers of the products you use, you can take steps to protect yourself and others.

This course helps farmers and farm workers understand and protect themselves from the dangers related to hazardous products, pesticides, veterinary drugs and medicated feed. It also meets the requirements for general WHMIS training and follows the Canadian Centre for Occupational Health and Safety (CCOHS) WHMIS program.

Respiratory Protective Equipment Awareness Course

Respirators can help protect people from respiratory and atmospheric hazards, but only if the proper steps are taken first and the right type of respirator is used by someone who is both trained and competent.

This course is designed to help anyone living or working on an agricultural operation better understand agricultural respiratory and atmospheric hazards, as well as respiratory protective equipment and its safe use.

Confined Space Awareness Course

Confined spaces and confined space incidents occur in all industries, including farming.

This course will teach you what restricted and confined spaces are, as well as help you learn how to identity these spaces on your farm and the hazards of them. It will also introduce you to some of the ways that the hazards of these spaces can be controlled before someone enters. This course is agriculture specific, uses plain language wherever possible and provides practical examples relating to farming.

Effective Health & Safety Representative Awareness Training

Farms and ranches in Alberta with five to 19 regularly employed workers are required by occupational health and safety legislation to have a health and safety representative trained and in place.

This course meets the general training requirements for this position and will also benefit operations that may not be required to have a health and safety representative but recognize the benefits of having one in place.

FarmSafe Plan Learning Program

This self-paced program was designed with family farms and farm employers in mind. It teaches health and safety fundamentals and helps you apply this information in a way that meets your farm's specific health and safety goals — whether that's making the farm a safer place to live and work, meeting industry standards for sustainability, or following Alberta's occupational health and safety laws.

This program will benefit owner/operators, farm managers, colony leadership, agricultural health and safety practitioners, supervisors and anyone else who wants to better understand farm safety and how it applies to Alberta farms and ranches.

Effective Health & Safety Committee Awareness Training

Farms and ranches in Alberta with 20 or more regularly employed workers are required by occupational health and safety legislation to have a health and safety committee trained and in place.

This course meets the general training requirements for committee members and will benefit operations that may not be required to have a health and safety committee but recognize the benefits of having one.

Explore more on our website!

AgSafe Alberta offers these courses and much more to support your safety and success. Visit **agsafeab.ca** to start a course or browse everything we have to offer!

Sources

Government of Alberta. (2025, June). ***Alberta Traffic Collision Statistics 2023***. Retrieved 2025, September 12 from https://open.alberta.ca/dataset/25020446-adfb-4b57-9aaa-751d13dab72d/resource/3c0e3c0c-a3f4-4fd8-8e37-f71b99d3fc1b/download/tec-alberta-collision-statistics-2023.pdf

Occupational Health and Safety Code, Statutes of Alberta. (2025). Retrieved 2025, September 10 from https://kings-printer.alberta.ca/documents/OHS/OHSCode_March_31,_2025_(rep_s850)_only.pdf

Fortis Alberta. (n.d.). Infographic: Farm Safety. Retrieved 2025, September 8 from https://www.fortisalberta.com/ResourcePackages/FortisAlberta/assets/dist/infographics/FAB_IG_FarmSafety.jpg

National Institute for Occupational Safety and Health (NIOSH). (1986, January). ***Preventing Occupational Fatalities in Confined Spaces.*** Retrieved 2025, September 5 from https://www.cdc.gov/niosh/docs/86-110/default.html

Cheng, Yan-Shin, et al. (2023, May). 2022 Summary of ***U.S. Agricultural Confined Space-Related Injuries and Fatalities.*** Retrieved 2025, September 11 from https://www.purdue.edu/engineering/abe/agconfinespaces/wp-content/uploads/2023/06/2022-Summary-of-US-Ag-Confined-Space-5-26-23.pdf

AgSafe ALBERTA

is a farmer-led, non-profit organization.

That's right, AgSafe Alberta is **NOT** a government organization. We are supported by numerous agricultural groups, and our Board of Directors is made up of farmers just like you.

Visit our website and check out who is on our board of directors, what agricultural groups they represent, and the many ways that AgSafe Alberta is supporting farms and ranches of all types and sizes!

agsafeab.ca