



FALL FROM HEIGHTS

RISK ZONES

- Bins & storage structures
- Roof edges
- Fragile roofs
- Haylofts
- Ladders
- Work platforms

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- Scaffolds
- Tractors
- Tandem axle trucks
- Other equipment
- Any area with unguarded edges

HAZARDOUS ACTS

- X Not wearing fall protection
- X Not using three points of contact
- X Wearing slippery footwear
- X Using damaged ladders or platforms

WHAT CAN RESULT

• Broken bones • Head injuries • Brain injuries • Spinal injuries • Internal injuries • Psychological trauma • Death

In 2019 the No. 1 injury in agriculture in Alberta causing lost time was falls (Workers Compensation Board of Alberta)

- Install guard rails around elevated areas, focusing on the highest risk and most accessed areas first
- Inspect ladders, scaffolds and work platforms prior to use
- Inspect fall protection equipment before use
- ✓ Use tool belts and hoist larger tools and equipment to the work area
- ✓ 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 ladder or tie it to the structure as appropriate

- ✓ Wear non-slip footwear and ensure the soles are free of mud or snow
- Maintain 3 points of contact when climbing ladders and equipment
- Keep walking areas and work platforms free of tools, clutter and cords

ASK YOURSELF

- How can I eliminate the need to work from a height?
- Can some or all the work be done at ground level?
- Am I trained in the use and care of fall protection equipment?



FALL FROM HEIGHTS





RISK ZONES

- Bins
- Silos

Pits

- Storage buildings
- Barns
- Digesters
- Chemical Storage areas

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- Holding tanks
- Wells
- Root cellars

HAZARDOUS CONDITIONS

- X Areas where mould is present
- X Areas where dried feces are airborne
- X Areas where decomposing plant matter or manure can produce dangerous gases
- X Any area with exposure to welding gases

- X Areas where mists, residue, etc. from hazardous chemicals are present
- X Confined spaces where rusting metal or bacteria/ fungi growth has used all of the available oxygen
- X Areas where exhaust/incomplete combustion of fuels results in a build up of carbon monoxide

- Acute & chronic respiratory diseases Asphyxiation
- Poisoning Viral & bacterial infections Brain damage
- Organ damage Cancer Nervous system damage
- Birth defects Fires or explosions Death

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 (CO)	No	No
Hydrogen Sulfide (H2S)	No	Only at small concentrations; high levels deaden the sense of smell instantly
Hantavirus	No	No

DO

- Identify the type(s) of hazards present, such as: poisonous gases, chemical fumes or mists, dusts, moulds, viruses, bacteria, oxygen deficiency
- Use respiratory protective equipment as needed
- ✓ Use gas detection equipment and monitor the air quality
- Ensure workers wearing respiratory protective equipment are properly trained and fit tested for the mask(s) they will be using

- ✓ Work with at least one other person
- ✓ Follow your farm's confined space code of practice and procedures
- When working with chemicals, read the safety data sheet (SDS) and review the recommended PPE and handling methods.

ASK YOURSELF

• Is there exhaust equipment or ventilation in place? Is it turned on and working well?

- Is entry or working in this space necessary?
- Am I using the right type of respiratory protective equipment?
- Am I trained and competent in the use and care of this equipment?
- If using respiratory protective equipment, am I clean shaven (for men)? Have I been fit tested in the last two years?

AIR QUALITY





RISK ZONES

- Public Roads
- Farmyards

- Fields
- Private Roads

HAZARDOUS ACTS

- X Driving too close to ditches or embankments
- X Driving on terrain with unexpected mounds or dips
- X Travelling with heavy loads on a font-end loader
- X Pulling heavy loads that are hitched higher than the drawbar

- X Turning on a steep slope
- X Overloading the drawbar
- X Driving too fast into curves and when turning or when pulling rear mounted equipment
- X Pulling a load that is not balanced or not properly secured

WHAT CAN RESULT

- Broken bones
- Fractures
- Internal injuries
- Spinal injuries
- Compartment syndrome

- Lacerations
- Nerve injuries
- Psychological trauma
- Death

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- ✓ Avoid driving too close to an incline, ditch or embankment
- ✓ Slow down for curves when turning and when pulling rear mounted equipment
- ✓ 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

- ✓ 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)
- ✓ Install roll bars or crush protection devices (CPDs) on ATVs, where appropriate
- ✓ Consider an ATV with a wider wheel-base or one with dual wheels on your next purchase

ASK YOURSELF

- What is the condition of the ground I will be driving on?
- Am I trained and competent to operate this equipment?
- Is the load too heavy or too high for the drawbar?
- Is the wheel/tread setting wide enough on the tractor?
- Is the vehicle or equipment that I am towing with suitable for what I am towing?
 - Is the load I am towing balanced and properly secured?

ROLL OVERS



RISK ZONES

- Public roads
- Highways
- Private roads

Farmyards

Fields

HAZARDOUS ACTS

- X Operating equipment while fatigued
- X Using a cell phone while driving
- X Speeding
- X Driving under the influence of drugs or alcohol
- X Not wearing a seat belt
- X Driving aggressively
- X Travelling in poor weather and road conditions
- X Tailgating
- ${f X}$ Driving in areas where animals may come onto the road

- Broken bones
- Head injuries
- Brain injuries
- Spinal injuries
- Internal injuries
- Lacerations
- Psychological trauma
- Death

- Always wear your seatbelt
- ✓ Follow speed limits, traffic laws and drive defensively
- ✓ Follow the manufacturers recommended operating speeds, especially when towing trailers and equipment
- ✓ Avoid talking on cell phones or using other devices while driving
- ✓ Adjust speed to weather and road conditions
- Perform a walk around/ visual inspection prior to operating any vehicle to ensure it is in good condition and that there are no children or animals in harms way

the state of the

 Reduce your speed and watch for ruts, sticks, branches, stumps, etc. when travelling off road

ASK YOURSELF

- Am I alert and capable of operating the vehicle safely?
- When was the last time my vehicle was inspected?
- Are my tires in good condition and properly inflated?
- Are my tires "aged out" or do they have less than 1.6 mm of tread?

- If road conditions are poor, can travel be postponed?
- Are there any loose items in the cab or cargo area of the vehicle which could cause injury in the event of a sudden stop or collision?
- Am I travelling at a time of day when wildlife will likely to be out, such as dusk or dawn?

MOTOR VEHICLES



RISK ZONES

- Farmyards
- Shops
- Equipment

- Machinery
- Buildings / structures

ENERGY TYPES

- Electrical
- Hydraulic
- Pneumatic

- Chemical
- Thermal
- Radiation

- Gravitational
- Mechanical

HAZARDOUS ACTS

- X Not de-energizing or locking out circuits or systems prior to performing repairs or maintenance
- X Making adjustments or repairs to tools or machines without disengaging the power
- X Not blocking all parts with the potential to move before working on or under them
- X Not relieving pressure from hydraulic lines before starting work
- X Leaving tractor forks/ buckets raised after use

- Electrocution
- Amputation
- Death
- Lacerations
- Internal Injuries
- Compartment syndrome
- Chemical injuries ranging from acute to chronic and mild to severe

- Entrapment
- Crush injuries
- Burns
- Broken bones
- Spinal injuries
- Nerve injuries



- ✓ Inform all affected individuals of the equipment you are locking out and if it is for repair or maintenance reasons
- ✓ Confirm that all energy sources are isolated, locked and tagged out of service
- ✓ Verify there is zero energy in equipment and test for residual or stored energy
- ✓ Follow all Lock Out Tag Out procedures
- ✓ De-energize, lock out and tag out all energy sources yourself
- Block equipment/machinery against motion after it has been locked out and tagged out
- ✓ Relieve hydraulic and pneumatic pressure after equipment has been locked out and before performing maintenance
- ✔ Replace all guards before returning the equipment to service

ASK YOURSELF

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

Lock Out Tag Out (LOTO) Saves Lives

Lock Out Tag Out refers to practices and procedures that protect workers from the unexpected energization or start up of machinery and equipment, or the release of hazardous energy during repair or maintenance. Lock out devices hold energy-isolation devices in a safe or "off" position and must only be removed by the person who applied them. Tag out devices are warning devices that an authorized employee fastens to energy-isolating devices to warn others not to re-energize the machine or equipment.

REMOTE WORKING ALONE

RISK ZONES

- Anytime/anywhere someone is working alone and without readily available assistance in case of an injury, illness or emergency
- In fields or on remote roads travelling alone
- In isolated structures or farmyards away from others

HAZARDOUS CONDITIONS

- X Events requiring immediate assistance from other individuals or emergency services (Police/Fire/EMS)
- X Vehicle, ATV or equipment incidents
- X Medical events
- X Animal attacks
- X Vehicle fires
- X Violent people

WHAT CAN RESULT

- Permanent damage to various body parts or systems
- Loss of limbs Death

MANAGING THE RISK OF WORKING ALONE

HIGH RISK: Working alone without a means of emergency communication or working alone emergency procedure

MEDIUM RISK: Working alone, but having a means of emergency communication and a working alone emergency procedure

LOW RISK: Working alone, but staying in the same general areas as others and maintaining constant communication

GOLDEN HOUR: The first hour after a traumatic injury occurs. This is considered the most critical time period following an injury where if emergency treatment is received, it is more likely to lead to a successful outcome.

- ✓ Have a means of reliable communication readily available
- Communicate any changes to work plans or locations
- Ensure there is a plan is in place and someone is designated to assist in case of an emergency or missed check-in
- \checkmark Wait for assistance if the task is high risk

ASK YOURSELF

- Am I performing high-risk work?
- Can I wait until someone is able to accompany me/help me perform the task?
- What is my plan if something goes wrong?
- How long will it take for help to arrive?
- Do I have a first aid kit available if I need it?



According to Canadian Agricultural Injury Reporting (CAIR)

60%

of farm fatalities are owner-operator

15% are children of the owner-operator

12% are a hired worker 8%

are a relative of the owner-operator



are the spouse of the owner-operator

2% are visitors 50%+

of these farm incidents occur when the victim is working alone.

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

REMOTE WORK/WORKING ALONE



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WHERE

- Public roads
- Highways
- Private roads

- Farmyards
- Fields

HAZARDOUS CONDITIONS

- X Unsecured loads
- X Unbalanced loads
- X Improperly secured load
- X Damaged chains or straps

WHAT CAN RESULT

- Broken bones
- Spinal injuries
- Lacerations
- Internal injuries
- Compartment Syndrome
- Nerve injuries
- Psychological trauma
 Death
- Lost load striking person or vehicle
- Shifting or falling load causing vehicle rollover

? DID YOU KNOW

Load securement legislation applies to farmers using public roads, for example, when hauling hay bales. For information on requirements, refer to the appropriate sections of the Traffic Safety Act. It is important to note that the Traffic Safety Act and regulations may change from year to year, so review it frequently. Community Peace Officers who enforce the Traffic Safety Act can be valuable resources if you are unclear on how the Act or regulations apply to farmers.



- Use the right type and amount of securement equipment
- ✓ Only use tiedowns that are marked with the Working Load Limit
- Pre-inspect tiedowns for damage or defects and remove faulty straps
- Protect your straps with softeners or corner protectors
- ✓ 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

ASK YOURSELF

- Am I trained and competent in load securement?
- Do I know the laws, bylaws and regulations that apply to me while travelling on public roads?
- Is the working load limit of my equipment suitable for this load?

Farm vehicles are not exempt from safety! 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.





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 Cleaning and disinfecting animal

equipment

handling areas

• Areas for sanitizing



CHEMICAL EXPOSURE

WHERE

- Chemical storage cabinets
- Shops
- Herbicide/pesticide/ fungicide handling areas
- Fuel storage tanks

HAZARDOUS ACTS

- X Improperly preparing pesticides, herbicides & fungicide applications
- X Cleaning equipment without personal protective equipment (PPE)

HAZARDOUS CONDITIONS

- X Leaking containers
- X Using chemicals without WHMIS 2015 and farm specific chemical safety training
- X Improper storage, such as storing incompatible products together

X Spilling fuels or solvents

X Using chemicals in an

enclosed or poorly ventilated area

X Improperly handling

veterinary chemicals

X Incorrect handling or use of disinfectants

- Chemical burns
- Heavy metal poisoning
- Cancer
- Disfigurement
- Nerve damage
- Acute or chronic respiratory diseases /illness
- Psychological trauma

- Eye and tissue irritation
- Blindness
- Brain damage
- Death



- Ensure everyone on your farm is trained in WHMIS 2015 and familiar with the products they will be handling
- Keep all products properly labeled
- Have current Safety Data Sheets readily accessible to all workers
- ✓ Store all products in a safe location using suitable containers and away from incompatible substances
- Always wear the correct type(s) of personal protective equipment (PPE)

ASK YOURSELF

- Where is the nearest spill containment tray or spill kit?
- Where is the nearest fire extinguisher and is it the correct type?
- Where is the nearest first aid kit and eyewash bottle?
- Am I trained and competent to work with this product?

ROUTES OF ENTRY

How chemicals get in our bodies



Skin or eye contact



Swallowed (eat or drink it)







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 of the product, how to safely handle and store the product and what to do in an emergency.



VISIT **AGSAFEAB.CA** FOR WHMIS 2015 TRAINING AND OTHER LEARNING OPPORTUNITIES!







WHERE

- Barns
- Pastures

- Pens
- Animal handling areas

HAZARDOUS CONDITIONS

- X Getting too close to animals or not leaving yourself an exit route
- X Handling areas with sharp edges or damaged gates
- X Slippery or uneven terrain
- X Working with animals alone
- X Workers who are unfamiliar with the livestock type and behaviour

WHAT CAN RESULT

- Exposure to Zoonotic Disease
- Infections from bites
- Fractured bones
- Blunt trauma injuries (i.e., from being kicked or stepped on, pinned, etc.)
- Crush injuries
- Death

What is an animal's flight zone?

It 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.



- Check handling areas for sharp edges, slippery floors, poor lighting or damaged gates prior to starting work
- ✓ Use sorting sticks, paddles and livestock boards to create distance between yourself and the animal(s)
- ✓ Approach animals slowly and calmly while keeping a safe distance
- ✔ Always have an escape route planned
- ✓ Avoid working alone with animals wherever possible

 Practice good hygiene during and after handling livestock

ASK YOURSELF

- Am I trained to recognize the behaviours of this specific livestock and what certain actions mean?
- Can I recognize signs of stress, fear and aggression in the livestock?
- Are the people I am working with trained to handle this type of livestock?

Animal Safety Basics

Animal handling safety starts with knowing that animals 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.





RESTRICTED/

CONFINED

SPACE

WHERE

- Bins
- Pits
- Wells
- Root cellars
- Silos
- Tanks
- Sea cans
- Cisterns

HAZARDOUS CONDITIONS

- X Areas with decomposing plant matter or manure producing dangerous gases
- X Exposure to mists while spraying chemicals
- X Confined spaces in which rusting metals use up the oxygen
- X Areas where exhaust fumes can enter the space
- X Spaces where welding gases are created or where hot work is performed
- X Staff members working alone or working without a rescue plan

- Medical event inside
- Fires
- Brain damage
- Heart damage
- Entanglement
- Hearing loss
- Falls

- Asphyxiation
- Explosions
- Lung damage
- Entrapment
- Electric shock
- Drowning



- Isolate all energy sources and test for zero energy
- Test and monitor the atmosphere
- Use a permit system
- Have a rescue plan in place
- Pre-inspect and wear all personal protection equipment (PPE), such as respiratory protective equipment and rescue harnesses
- Have someone outside the space who is trained and competent to take action in the event of an emergency
- ✓ Think of the Alberta Occupational Health and Safety Code, Part 5, Confined Spaces as best practice for confined space safety

ASK YOURSELF

- Am I trained and competent to enter this space and perform the work required?
- Does the person assisting me outside the space know what to do if something goes wrong?
- Does my farm have a confined space code of practice? If so, do I know it?

RESTRICTED SPACE	CONFINED SPACE
ls an enclosed or partially enclosed space,	Is a restricted space which may become
not designed or intended for continuous	hazardous to a worker entering it because of:
human occupancy that has a restricted,	(a) an atmosphere that is or may become
limited or impeded means of entry or exit	dangerous because of too much or too
because of its construction, such as an attic in	little oxygen
A restricted space would be difficult to get in or out of and have all other hazards eliminated or controlled in accordance with Part 2 Hazard Assessment, Elimination and Control of the Alberta Occupational Health and Safety Code.	(b) a condition or changing conditions within the space that may cause injury or illness(c) the possible or characteristic dangers of an activity which can create adverse or dangerous results

According to the National Institute for Occupational Health and Safety (NIOSH), 60% of confined space fatalities are "would be" rescuers.

RESTRICTED/CONFINED SPACE

WHERE/SOURCE

- Overhead powerlines
- Buried powerlines
- Damaged cords
- Farm buildings
- Automatic feeding systems
- Power outlets
- Machinery & equipment

HAZARDOUS ACTS

- X Digging without contacting Utility Safety Partners first
- X Performing repairs on live equipment or machines
- X Not following safe limit of approach distances when working around powerlines
- X Not following safe limit of approach distances
- X Using damaged cords or tools

WHAT CAN RESULT

- Cardiac arrest
- Nerve damage
- Burns
- Amputation
- Injuries following contact with electrical energy source
- Muscle damage
- Tissue damage
- Fall
- Death

Agriculture is one of Canada's three most hazardous industries.

43% of agricultural workers have reported direct hits or near misses with power lines. of agricultural workers have

Utility Safety Partners Power Line Safety utilitysafety.ca



- Know the height of your equipment when working around powerlines
- Stay 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

WHAT IS AN ARC FLASH?

- Maintain three feet of clearance in front of all electrical panels
- Walk the area near powerlines that your utility provider has previously authorized you to move equipment under, keeping in mind the ground can heave (i.e., frost heave), overhead powerlines can sag in the heat and newer equipment is often larger than older equipment
- Contact your utility provider well in advance of work that is required to be done as they may need to measure the voltage of the line or assist with high load moves, such as grain bins

ASK YOURSELF

- Am I trained in Lock Out Tag Out?
- Am I using electrical tools that have proper grounding protection?
- Are the outlets, switches and light fixtures on my farm rated for the environment (i.e., outdoor, weather, dust, damp, corrosive)?
- Are any panels, circuits or outlets overloaded?
- Do I know what to do if contact is made with a powerline or if I come across a line that is down?

ELECTROCUTION

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.

MTTH

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. What if you could make your farm safer in a way that was **easy and made sense** to you? Now you can.

The **F**·**A**·**R**·**M**·**E**·**R**·**S (C·A**·**R**·**E**) program is a simple, practical and free way that you can improve safety on your farm.



·M·E

Get started today at agsafeab.ca





Enroll in the **F·A·R·M·E·R·S C·A·R·E** program and start making your farm a safer place to live, work and grow up on today.

Visit agsafeab.ca to learn more. | 🖪 🖸 🎔

AGSAFE ALBERTA



No matter the size of your operation or where your farm is at with safety, **we are here to help you.**

AgSafe Alberta can:

- Answer your safety related questions
- Help you understand how legislation applies to your operation
- Provide incident assistance
- Have an advisor visit you on your farm
- Deliver courses and workshops on your farm or in your community

Do you have health and safety related questions or want to inquire about one of AgSafe Alberta's many services?

Call us at 1.833.924.7233 or email info@agsafeab.ca