



EMERGENCY MANAGEMENT GUIDE for BC SMALL MIXED FARMS

Prepared for the
BC Ministry of Agriculture

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The materials prepared in this binder are not meant to take the place of any requirements set out in industry Biosecurity, On-Farm Food Safety, Animal Care or Animal Welfare programs.

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Introduction

Emergencies can be devastating to a farming operation. This Emergency Management Guide provides a resource for small mixed farmers in British Columbia to prepare for the worst while striving for the best. It provides information on various natural and human-caused threats to any operation, as well as an opportunity for you to tailor responses that your farm could follow in the event of an emergency.



While most producers instinctively know what to do without opening a manual, documenting the actions needed to protect your farm is valuable for two reasons:

- A Farm Emergency Guide helps inform others how best to assist when needed, including family members, farm staff, neighbours, and first responders.
- An Emergency Guide adapted specifically for your farm demonstrates the "due diligence" you have taken in managing your farm risks.

This Guide has two divisions. The first offers general information, consisting of an Introduction, Key Messages, and an explanation of Core Concepts related to emergency management. In this portion of the Guide, you will find information on basic farm preparedness, insurance, response agency roles, mapping, animal sheltering and relocation, carcass disposal, and livestock wellness after a disaster.



The second division contains a template that you can use to create your Farm Emergency Plan. It contains fill-ins or checkmark statements with three sections. The first section summarizes your farm's information, emergency contacts, and farm maps.

The second section also contains mitigation, preparedness, and response checklists addressing topics such as sound agriculture business management and farm safety, general farm emergency preparedness, livestock preparedness, and livestock sheltering or relocation options during a response.

The final section of your Farm Emergency Plan addresses eight hazards that may impact your operation. The hazards are separated by tabs, containing preparedness and response action checklists that you can adapt to best fit your farm situation. This will allow you to assemble specific "action items" as needed.

The Guide is designed to be placed in a three-ring binder so you can easily compile and adapt your Farm Emergency Plan. Updates and other materials can be added, or sections can be adapted for use in other farm manuals such as WorkSafe BC.

This format invites you to record your own plans for managing emergencies before, during, and after events occur. The goal is to have a Farm Emergency Plan that is simple enough for any family member or farm employee to understand and use.



Hard-copies of this Emergency Management Guide are available through your nearest Ministry of Agriculture office. Electronic copies can be found at the Ministry of Agriculture's emergency planning page:

<https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/business-market-development/emergency-management>



The BC Ministry of Agriculture and other sponsors encourage you to use this Emergency Management Guide to help you prepare for and minimize the impact of threats to your home and small farm, as well as protect your family, employees, and livestock.

Key Messages

- 1 Farmers are ultimately responsible for taking action to protect livestock and employees under their care and control.
- 2 Preparation of a Farm Emergency Plan shows due diligence on the part of the farmer.
- 3 Farmers must ensure they have appropriate insurance coverage for their buildings, equipment, livestock, and crops.
- 4 Family members and employees should be made aware of the Farm Emergency Plan so they can respond appropriately during any emergency.
- 5 The farmer's first point of contact during an emergency should be the Emergency Program Coordinator in the regional district or municipality of residence.



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Core Concepts

An emergency is an event, outside the scope of normal farm operations that requires prompt action. Farmers and their family members may need to quickly coordinate resources to protect the health, safety and welfare of the people and animals, to limit the damage to property and the environment, and to manage the risk of animals or products that may leave the farm.

This Emergency Guide addresses some common hazards that might impact B.C.'s small mixed farmers. The focus is on widespread emergencies, but completing a Farm Emergency Plan will help you prepare for emergencies specific to your operation.

Emergency Management Phases

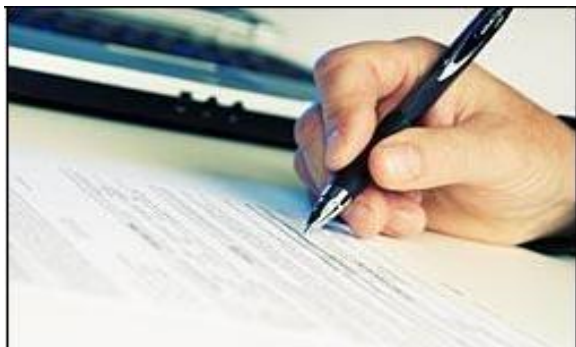
The ultimate purpose of emergency management is to save lives, preserve the environment and protect property and the economy. Emergency management is comprised of four interdependent components:

- Prevention and Mitigation - to eliminate or reduce the risks of an emergency before it occurs in order to protect lives, property, the environment, and reduce economic disruption.
- Preparedness - to be ready to respond to an emergency and manage disaster consequences through steps taken prior to an event, such as developing plans, agreements, and training.
- Emergency Response - to act immediately before, during or after an emergency to manage its consequences
- Disaster Recovery - to repair or restore conditions to an acceptable level after a disaster. There is a strong relationship between sustainable recovery and mitigation of future disasters.

These four components may be undertaken sequentially or concurrently, but they are not independent of each other.

Prevention and Mitigation

Insurance / Risk Management



The consequences of a major emergency on an individual farm may be catastrophic. Some impacts cannot be prevented regardless of preparedness. Therefore, insurance plays an important role in protecting you from low-probability, high-consequence disasters such as floods, wildfires, or animal diseases.

Farmers in B.C. have access to several approaches to managing their financial risks, as noted below. Refer to the specific links for program information. However, government assistance is limited.

Commercial Insurance

Private insurance is generally available to cover livestock losses from emergencies, such as those addressed by this Guide. Coverage may include losses due to livestock injuries or mortalities, temporary livestock relocation, and infrastructure losses (i.e., barns and equipment).

As an important step in managing risk, producers in B.C. should understand what is covered under their insurance policies and what may be excluded. For example, are your losses covered if livestock are harmed indirectly in a natural disaster, such as through drinking contaminated water? Talk with your insurance broker or agent.



Several commercial insurers offer animal mortality coverage for broad perils such as accident, injury, sickness, disease, and theft. Some companies offer limited coverage for animal mortalities caused by fire, lightning, windstorm, hail, collision or upset while in transit, accidental shooting, drowning, or theft.

The Insurance Bureau of Canada can help farmers find available coverage for business losses through private insurance programs. Its member companies represent 90% of the property and casualty insurance market in Canada. Their website: <http://www.ibc.ca/on/>

Federal/Provincial Risk Management Programs

The federal and provincial governments provide a suite of cost-shared risk management products designed to support the productivity, profitability, and competitiveness of the

agricultural sector in the province. The programs are AgriStability, AgriRecovery, and AgrilInvest. More information on these programs is available at:

<https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/programs>

These programs are generally available for B.C. farm operations that must meet minimum requirement which include but are not limited to farm classification under B.C. Assessment Regulations. Your most recent assessment notice of farm classification may be found at:

<https://www.bcassessment.ca/>

Emergency Preparedness

Preparedness refers to the readiness to respond to an emergency through measures taken prior to an event. Preparedness includes identifying numerous groups from the public sector that may assist in the response, such as:

- Fire Department
- Police Department
- Local Government, i.e., municipalities and regional districts in B.C.
- BC Ministry of Agriculture (AGRI)
- Emergency Management BC (EMBC)
- BC Ministry of Environment (MOE)
- Canadian Food Inspection Agency (CFIA)

In British Columbia, government and private emergency agencies are focused on human lives. Animal welfare in a disaster is the responsibility of the producers. Although some assistance may be available, farmers are responsible for the care of their livestock.

Integrated Response Model

Emergencies are typically managed from the ground up, initially relying on citizens and the private sector until their capacities are exceeded, after which local and provincial authorities are involved until they are overcome, at which point federal government becomes involved.

Specific organizations may have legislated authority from the outset, depending on the emergency. For example, the Canadian Food Inspection Agency has legislated responsibility for responding to certain animal diseases.

The following diagram illustrates an overview of assistance available in an emergency response, beginning with the producer.



Emergency Response

An emergency may demand more resources than you have available. The response time for a disaster may be extremely limited as there may be very little advance warning. Livestock well-being may require a preplanned decision related to your response in certain emergency situations. In some situations, a decision must be made whether to relocate your animals or shelter them in place. Sheltering in place means the livestock remain on the farm, and are either confined to an available shelter or to a location away from the hazard.



Shelter in Place

Sheltering livestock in place is common if the emergency allows the farm personnel and family to remain at the farm during the event. Some hazards, such as flood or barn fire, require the animals to relocate to a safer area on the farm grounds or nearby, such as pastures, alternate barns, or temporary holding areas. This is sometimes referred to as 'on-site' livestock relocation.

Livestock Relocation

Severe emergency events may force you, your family, and farm personnel to evacuate. This may require the relocation of livestock to safer areas, such as another farm location, auction mart, fairgrounds, etc.



During an event, Emergency Management B.C. and the BC Ministry of Agriculture have developed a policy to support livestock relocation under specific conditions. Agricultural business operators who need assistance should contact their local authority Emergency Operations Centre (EOC).

During a large emergency response, people are a higher priority than farm operations and livestock. Accordingly, any decision to evacuate should be made so that the livestock relocation can proceed without interfering in the movement of people and emergency services.

As a reminder, the evacuation process for people consists of three phases:

- **Evacuation Alert:** Be ready to leave on short notice. If you leave before or during this alert, it's called a voluntary evacuation. The Alert phase is the best time to relocate livestock, when roads are not needed to move people to safety.
- **Evacuation Order:** You are at risk. Leave the area immediately. Local police or RCMP will enforce evacuation orders.
- **Evacuation Rescinded:** All is currently safe. You can return home. Stay tuned for other possible evacuation orders or alerts.

Disaster Recovery

Disasters cause damage that can overwhelm individuals, communities and regions. During such events, casualties can include transportation, communications, emotions and thinking. When dealing with livestock after emergencies, it is critical to re-establish priorities. The first concern should be your personal safety and welfare, and this includes your psychological wellness. Consider reaching out to your spouse, friend, counselor, or mental health professional to share your emotions as you deal with the farm loss. This is followed by the safety and welfare of other people, and finally animals and property. If you are safe and thinking straight, you can do more to benefit your livestock.

The first step in caring for livestock is to locate, control and provide for those animals. Locating animals may be challenging because normal access routes may not be available. Your local emergency manager or law enforcement officer may be able to assist.

As you re-enter your farm after a disaster, remember that hazards may still be present (i.e., sinkholes after a wildfire; mud bogs after a flood). Leave a copy of your search plan with local authorities and family members. Travel slowly, be alert for hazards, and do not enter unsecured areas. Bring identification and ownership documents to recover your livestock. Emergency responders may discover animals, so check with authorities to see if your livestock has already been recovered.

Recovery steps following a disaster to your farm may include the following:

- Examining animals closely; contact your veterinary if you observe injuries or signs of illness.
- Surveying damage to barns and other structures; assess stability and safety.
- Returning animals only after the threat has passed, and safety has been assured.
- Releasing animals in a safe and



enclosed area until they are familiar with surroundings.

- Providing non-contaminated feed, hay, and water.
- Keeping animals away from water that may contain harmful bacteria or chemicals.
- Ongoing monitoring of animals for illness.

Livestock Sensitivity

Animals, like people, are emotionally affected by disasters. The impacts of disaster may disorient and temporarily alter the behavioral state of livestock. When you locate your animals, realize that they may be upset, confused and agitated. They need help finding their normal behavioral pattern. Some techniques to consider are:

- Handle livestock quietly, calmly and in a manner they are familiar.
- Wear clothing and use vehicles that are familiar to them.
- If possible, keep or reunite familiar animal groups with each other.
- As soon as possible, place them in familiar settings or one which is quiet and calm.
- Soft music and familiar sounds may help calm livestock.
- If possible, clean the animals (i.e., wipe out their eyes, mouths, and nostrils).
- If possible, move animals away from the residue of the disaster.
- Treat wounds of injured animals so their comfort level improves.



Feed, Safety and Shelter



Animals and livestock often relate security to the familiarity of their surroundings. In some cases, you may be able to return them to familiar surroundings and enhance their recovery. Unfortunately, a disaster often impacts the familiar surroundings altering the landscape's character, feel, smell, look and layout. To enhance the animal's comfort level, find another place with similar characteristics. Move the livestock there until you can remedy the damage. A calm and quiet shelter serves both physical and emotional needs for livestock.

Feed and water are a big part in livestock disaster recovery. In addition to the health and nutrient aspects of appropriate feed and water, livestock can become very selective if their feed and water do not smell and taste familiar. Livestock nervousness is usually greater during and after disasters.

Animal Carcass Disposal

Emergencies that affect livestock in British Columbia can result in the need to dispose of animal carcasses and associated tissues. Flooding, wildfires, severe weather, disease, etc. require livestock disposal options, such as composting, rendering, incineration, or burial. The disposal method will depend on the hazard, your farm's location, and other circumstances.

Available farm animal disposal options differ throughout the province. In the Lower Mainland, deadstock collectors may remove and dispose of carcasses. Your municipal or regional district Emergency Program Coordinator should also be aware of your carcass disposal options.



Consult with the BC Ministry of Agriculture and your local authority for livestock disposal options on your farm.

Mortality caused by federally or provincially “reportable diseases” differs from other farm animal deaths. If you suspect a disease, contact your veterinarian, the CFIA, or the BC Ministry of Agriculture immediately. Disposal options are further detailed within the "Animal Disease" tab of this Guide. Additional information on Agricultural Waste Management is available at the Ministry of Environment website.

Mitigation in Recovery

Recovery after an emergency is an excellent opportunity to consider measures to mitigate against future disasters.

Examples might include relocating structures to higher ground in a flood-prone area, and rebuilding in a cleared section and with flame-resistant materials in a wildfire-prone area.



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Template Farm Emergency Plan

Emergency Plan for _____ Farm

Contact Information

Every emergency plan should include basic information about the operation to help outside organizations provide appropriate assistance. While there is no need to reproduce farm information located elsewhere, ensure that the following details are readily available.

Farm Name _____ **Premises ID** _____

Address _____

Directions _____

Office phone _____ Mobile _____ Email _____

Owner's Name _____

Address (if different from above) _____

Home phone _____ Mobile _____ Email _____

Manager's Name (if different from above) _____

Address _____

Home phone _____ Mobile _____ Email _____

How many individuals are normally on the farm? _____

Record here the names and phone numbers of family, staff, and tenants on the farm:

Other information

Emergency Contacts

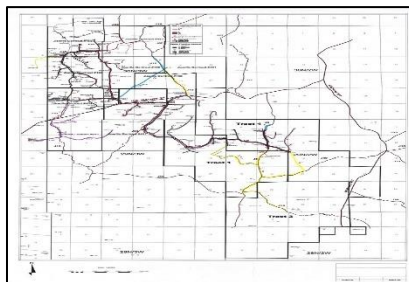
Contacting outside agencies and organizations for assistance is one of the most important actions when emergencies strike. Many farmers today carry important contact information on their mobile devices. A printed list of emergency contacts may allow family members or staff to make important contacts on behalf of the owner/ operator.

Organization	Name	Telephone
RCMP / Local Police		9-1-1
Ambulance		9-1-1
Fire / Rescue		9-1-1
Spill Reporting		1-800-663-3456
Poison Control		1-800-567-8911
Municipal or Regional District Office		
BC Min. of Agriculture AgriService BC		1-888-221-7141
Veterinarian (local)		
Veterinarian (provincial)		1-800-661-9903
Regional Agrologist		
Range Agrologist		
BC Min. of Environment, Local Office		
Emergency Program Coordinator (local)		
CFIA SRM 24/7 Hotline		866-788-8155
Feed Supplier		
Friend / Neighbour		
Friend / Neighbour		
Out-of-Province Contact		
Faith-Based Organization		
Fuel Dealer		
BC Pork		604-287-4647
BC Sheep Federation		250-963-7301
Horse Council of BC		604-856-4304
BC Cattlemen's Assoc.		250-573-3611
BC Poultry Assoc.		604-625-6400
BC Llama and Alpaca Assoc.		250 804 2611

Farm Map

A mental map may be all you require for day-to-day operations. However, dealing with actual emergencies often calls for assistance from others who may not share your knowledge of the farm.

Detailed maps are essential for engaging response agencies, such as the local fire department, flood response teams, or the BC Wildfire Services.



A map is also indispensable to plan for emergencies. It can show the relationship between potential hazards on your land, such as flooding, and your assets. Maps help you develop practical response steps, such as moving animals to high ground or areas of natural shelter.

It can be a challenge to prepare maps that are easily understood and can be readily shared with others, such as workers, neighbours, or first responders. Here are a few ideas:

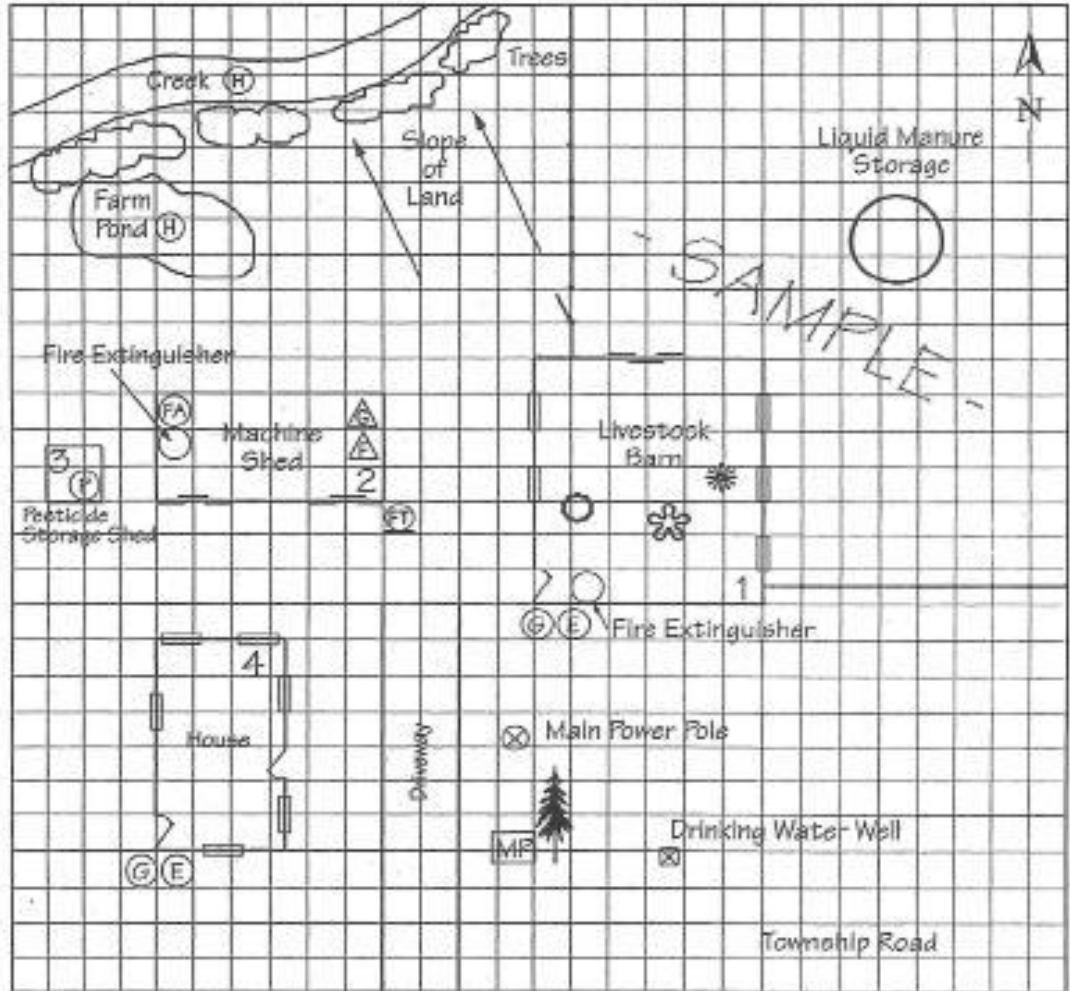
- **Existing Maps:** One simple way to include an existing map in your Emergency Management Guide is to photograph or scan it, and include a printed copy in this binder. For instance, if you participate in the Environmental Farm Plan Program, you may already have a map of your farm and operations, which you could add to your Emergency Plan.
- **Obtain a Map:** You may be able to obtain a map of your farm acreage from your marketing board, your local government office such as the municipality or regional district, or from a provincial agency.
- **Google Earth:** You may wish to create a new map using readily available resources, like Google Earth. Google Earth is a free, downloadable program that allows you to zoom in to each section of your farm and to tag, label, and draw a boundary around a piece of property. To download Google Earth, see:

www.google.com/earth/

DataBC: The provincial government offers a number of useful files that can be used with Google Earth. One service is the DataBC site. It can show with accuracy the boundaries of your private, rented, or leased land. Note that this feature is only available in Google Earth, not Google Maps. The DataBC site can be accessed at:

www.data.gov.bc.ca/

Sample
Farm
Map



Approximate Scale: 1/4 in. = 10 ft.

Legend (sample)

- Property boundaries (owned; leased)
- Structures (i.e., house, sheds, storage buildings and yards, barns, with exits)
- Roads and farm access points; railways
- Watercourses (ponds, streams, wetland, with flood boundaries)
- Utility lines and shut-off points (i.e., electricity, pipelines, oil or gas, water)
- Water wells
- High risk areas (fuel storage, pesticide storage, manure storage)
- Safety and response equipment (fire extinguishers, spill and response kits)
- Slope of land
- North Arrow
- Scale

General Emergency Management Considerations

The following four components contribute to an effective emergency management plan on your farm. Check any actions that apply. This checklist is not exhaustive, and you will think of other actions specific to your farm operation.

Prevention and Mitigation

Hazard mitigation is any action taken to eliminate or reduce the long-term risk to life and property from natural or technological hazards.

The farm and buildings should be surveyed to determine mitigation procedures based on the hazard risk. Some examples of hazard mitigation include:



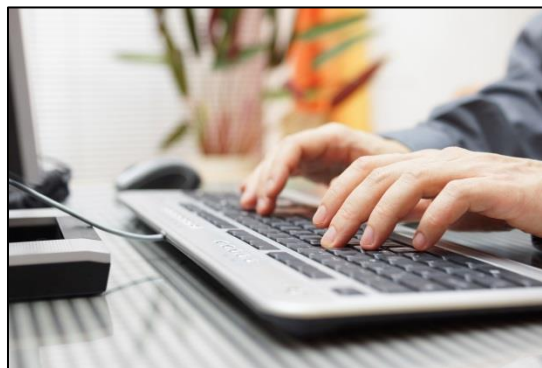
- Farm structures should comply with the National Farm Building Code of Canada.
- Barns and buildings subject to the National Building Code should be rebuilt or repaired to that standard.
- Farm buildings are constructed or moved to high ground as protection against flooding.
- Homes and barns are equipped with straps or ground anchors to withstand severe winds.
- Glass windows and doors are replaced or boarded with sturdy material.
- Trash piles and burial sites are kept tidy or moved to where they present no hazard.
- Toxic chemicals, such as pesticides and herbicides, are stored in secured areas.

Mitigation may be farm- and hazard-specific. For example, flood mitigation on your farm might include the following actions.

- Dig channels and place absorptive vegetation to redirect and avoid standing water.
- Adhere to building setbacks to avoid the water's edge.
- Construct levees or permanent barriers to control flooding.
- Drain ponds that could cause flooding and keep them below critical levels.
- Drainage furrows are kept sodded.
- Other ideas on your farm:

Business Management

Running your farm business means expecting the unexpected. However, when events out of the ordinary occur, the resulting damage to your business can be catastrophic if you don't have a plan in place. Emergencies can result from natural hazards (i.e., fires, floods, disease) or be human-induced (i.e., information loss or identity theft).



While we can't control the weather or stop other people's actions, we can take steps to minimize farm business risks. Three suggestions are:

- Farm Facility Security Measures
- Farm Information Security Measures
- Appropriate Insurance

Farm Facility Security Measures

The degree of security for facilities will depend on the location of your farm and your level of comfort. Check the following physical security measures in place for your farm.

- I have a fence around the property.
- I have security gates at all access points.
- I have motion lights around the yard/buildings.
- I have a security alarm for the office.
- I have locks on office and barn doors.
- Other: _____

Farm Information Security Measures

Organizing your office and proper filing of paper, electronic files, and reports can minimize time spent looking for information before, during and/or after an emergency. Checkmark the farm measures in place:



- I have surge protection for all my computers.
- I regularly back up files to an external drive or use online storage.
- Historical paper production records are secured in a safe place.
- I keep original or important papers in a fireproof safe or safety deposit box.
- Computer passwords are accessible to family and staff who might need them.

Appropriate Insurance

While no one likes to pay insurance premiums, it is a comfort to know that all will not be lost in a single incident. A farm business must weigh the risks and benefits of commercial insurance. Indicate by checkmark the following insurance provisions in place for your farm.

- I meet regularly with my insurance provider to discuss my farm's insurance options.
- I have sufficient insurance for my present farm operation.
- I have recorded the process for notifying my insurance representative of a loss event.

Farm Safety

An effective health and safety program can protect your family, farm workers and workplace from preventable injury and damage. Reduced worker injuries and equipment damages keeps your staff on the job, and avoids unnecessary costs to the business. AgSafe offers numerous farm health and safety resources at: www.agsafebc.ca. Also see the "Hazardous Material" tab of this Guide.

Checkmark the following safety measures in place at your farm:

- Family and employees work in accordance with the Regulations for Occupational Health and Safety in Agriculture (WorkSafeBC).
- At all times, appropriate safety measures are used.
- Only qualified personnel are allowed to operate machinery or equipment.
- Chemicals are only handled by someone who is properly trained and/or under the direction of someone who is trained.
- Extra riders are not permitted on motorized equipment.
- "Horseplay" is not allowed in work areas.
- Alcohol or drug use is not allowed during work hours.
- Appropriate personal protective equipment is available and worn.
- All injury and property damage accidents are reported promptly.
- Family and employees use safety apparatus and protection required for farm equipment.
- Workers follow instructions, do not take chances, and ask if they are unsure of a task.
- All unsafe conditions or hazards are reported to me or the farm manager.



Emergency Preparedness

General Farm Emergency Planning

Preparing for an emergency saves time and can reduce damage to your farm. Check the items that are in place for your farm:

- I have information on hazards affecting the farm:
 - Disasters that are most likely to affect my farm
 - Areas of the farm that are most vulnerable
- I know the warning signals for my area and will stay alert for emergency broadcasts.
 - BC Emergency Alerting System on radio or TV
 - Weather radio alerts
 - Other news sources - radio, television, internet
- I have stockpiled supplies for protection, including:
 - Sandbags and plastic sheeting in case of flood
 - Lumber and plywood to protect windows
 - Extra fuel for tractors and vehicles
 - Fire extinguishers in barns and vehicles
- I have identified protected areas (e.g., higher elevation for flood, open fields for wildfire) where I can move:
 - Livestock
 - Equipment
 - Feed, grain, pesticides, herbicides
- I have made a safe environment for my livestock:
 - Assess the stability and safety of barns and other structures.
 - Remove dead trees or other debris around animal facilities.
 - Remove or secure any loose items, such as lumber or feed troughs.
 - Assure wiring for heat lamps or other electric equipment is safe and away from flammable materials.
- I have prepared family and employees, including:
 - Put together an emergency supply kit for my family.
 - Keep them informed of the farm emergency plan, and review with them regularly.
 - Establish a phone tree with contact information for all employees.
 - Establish an out-of-area contact.
- I have a list of contacts that may be able to assist in an emergency, including:
 - Businesses that provide farm services
 - Agriculture associations active in the region
 - Neighbours

Quick Disaster Readiness Checklist

- ✓ Herd health and vaccinations up-to-date
- ✓ Animal identification complete
- ✓ Health papers secure
- ✓ Herd prioritized for relocation
- ✓ Records stored in safe location
- ✓ Livestock relocation plan
- ✓ Cash available for emergency purchases (credit cards may not work)
- ✓ Animal feed for 1-2 weeks
- ✓ Emergency equipment and first aid supplies stored
- ✓ Partner with other owners/ranches arranged
- ✓ Plans coordinated with local authority and agricultural groups.

Emergency Response

A major challenge during an emergency event is the well-being of livestock. Actions must be taken almost immediately to relocate animals or shelter-in-place. This decision should be made well ahead of time as part of the Farm Emergency Plan, and be based on the type of disaster, livestock, terrain of the farm, and the soundness of your available sheltering buildings.

Checkmark the items below in place for your farm. The checklist is not exhaustive. Also see “Structure Fire and Wildfire” hazard.

Sheltering-in-Place

Owners may believe their animals are safer inside barns, but in some circumstances, releasing livestock will allow animals to better protect themselves, assuming certain criteria are met:

- I have surveyed my property for the best location for animal sheltering.
- I have farm structures in which my livestock can be sheltered.
- My livestock will have access to adequate feed and water.
- My large animals may be better off in the pasture than in a structure or being relocated, if the area contains:
 - No exotic (non-native) trees, which uproot easily
 - No overhead power lines or poles
 - No debris or sources of blowing debris
 - No barbed wire fencing (woven wire fencing is best)
 - At least one acre in size (if <1 acre, blowing debris may injure your livestock).
- My pasture area does not meet these criteria, and I will relocate my animals. I will follow guidance provided below under "Livestock Relocation" below.
- I will work with the Emergency Coordinator in my local government or my Regional Agrologist if my animals cannot be relocated.
- I know how to reach my local government Emergency Coordinator in the event of an emergency.



Livestock Relocation

The emergency may require you to relocate your livestock to safer areas, such as another farm, auction mart, fairgrounds, etc. The procedure to relocate should be in place well in advance. Some basic relocation steps include:

- I have made contact with locations (pre-arranged) for safe sheltering of my farm animals, including facilities and responsible personnel.
- I have examined two relocation routes (pre-determined) from my farm and have decided which route is most suitable for relocation.
- I have made contact with transport haulers (pre-arranged) and established timeframe for my livestock relocation, if necessary.
- I have taken into account other transport delays while in transit and considered alternative feed, water, and shelter requirements.
- I have a Livestock Relocation Kit (pre-assembled) and will take it with me, or make sure it will be available at the relocation site. Note suggested Kit contents below.
- I will work with my Emergency Coordinator or livestock association to relocate my animals as soon as possible after the Evacuation Alert is given.

Livestock Relocation Kit

The kit should be kept in a central location, and checked regularly to ensure completeness and freshness of contents. The following are suggested core items; add items as necessary.

- Current list of all animal, (i.e. location; records of feeding, vaccinations, tests).
- Proof of ownership for all animals.
- Supplies for temporary ID of animals (i.e. plastic neckbands, permanent markers to label your animals with your name, address, and telephone number.
- Basic first aid kit.
- Handling equipment (i.e., halters, cages, appropriate tools).
- Water, feed, and buckets.
- Tools and supplies needed for sanitation.
- Emergency equipment (i.e. cell phone, flashlights, portable radios, batteries.)
- Other safety and emergency items for your vehicles and trailers.
- Food, water, and disaster supplies for your family.

Disaster Recovery

Several specific actions will assist a farm that is in recovery after a disaster strikes. Check the actions below you would like to accomplish in disaster recovery.

- I will ensure safety is established at all damaged facilities.
- I will take appropriate measures to prevent further damage.
- I will enact standard biosecurity procedures.
- I will inspect and analyze the extent of the damage to the farm facilities.
- I will make an assessment of all damages, and take photos and video recordings if possible.
- I will record the estimated loss values for insurance claim purposes.
- I will determine if the facility is safe for both livestock and employees.
- I will ensure site security.

Quick Facts – Livestock Care After a Disaster

- Both livestock and humans can become disoriented after a disaster.
- Make surroundings as familiar as possible to aid in livestock readjustment.
- Livestock management priorities should include getting stabilized.
- Post-disaster recovery should lead to pre-disaster mitigation.

Common Farm Hazards

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Structure Fire and Wildfire

Summary

Fires can be devastating to a farm. Within minutes, precious animals can be lost, as well as thousands of dollars in woodlots, forage, equipment and infrastructure. Although some structure fires are related to wildfires, the majority are not.



Structure Fires

All farm buildings, sheds, and residences are exposed to possible loss from fire. Farm structures usually contain plentiful materials to serve as fuel, and are typically well-ventilated. A heat source to

ignite a fire can take many forms: spontaneous combustion of bedding, litter, or hay; exposed wiring from carelessness or gnawing by a pest; unsecured heat appliance; engine exhaust spark; lightening; etc.

Almost all structure fires are preventable. Many common-sense protection and prevention techniques can reduce the risk of a structure fire.

Things to Know about Barn Fires

1. Never put personal safety in jeopardy to save an animal.
2. Panicked animals normally will not leave a barn on their own, because they do not fear fire.
3. Most animals are killed from smoke inhalation. Those who do survive rarely recover.
4. A structure can be completely engulfed in less than 6 minutes.
5. The vast majority of barn fires are preventable.

Wildfires

Wildfires can spread at an astonishing rate. In British Columbia, approximately half of the wildfires are caused by human activities and half occur naturally from lightning strikes. If your farm is anywhere near a wildland region, sooner or later you will likely face a wildfire.

Your first line of defense for any fire is knowing steps to minimize risks and reduce losses on your farm.

Smoke Inhalation

Smoke inhalation from either wildfire or structure fire causes immediate irritation to the lining of an animal's respiratory system. It only takes 3 to 4 minutes of the fire starting for a structure to fill with smoke. Damage can occur within a few minutes in areas of

high smoke concentrations, or within hours in low smoke concentration areas. Most livestock die from the smoke inhalation, not from the fire.



Tips about Livestock in a Structure Fire

Horses

- Horse barn fires are the most common of all fires on farms.
- Horses should be led from the left hand side. They are controlled easier if blindfolded.
- A towel under a halter works well to keep horses from running back into the barn.

Cattle

- Cattle are very difficult to remove from a burning barn. They will run back into a structure if not confined away from the fire.
- Try to move the animals in a group versus one at a time. Isolation greatly stresses the animals, and they will cooperate if moved together.
- Dairy animals should be relocated to a protected area if the fire occurs in winter, because they cannot withstand extreme weather.

Swine

- Pig barn fires are very challenging. If a large number of pigs are in a barn, they are almost impossible to evacuate.
- Pigs must be confined after removal from a barn. They will run back into a burning barn.
- If possible, try to separate all livestock types that have exited, especially pigs from other animals.

Poultry

- Birds are very difficult to move in a large structure fire. Large poultry barn fires can result in a high mortality rate.

Resources

Wildfire Loss Prevention

<https://www2.gov.bc.ca/gov/content/safety/wildfire-status/prevention>

Current Wildfire Situation

<https://www2.gov.bc.ca/gov/content/safety/wildfire-status>

Emergency Management BC

<http://www2.gov.bc.ca/gov/content/safety/emergency-preparedness-response-recovery/fire-safety/wildland-urban-interface-fire-information>

Wildfire Information:

1-888-3FOREST (1-888-336-7378)

FireSmart Manual

<http://www.bcwildfire.ca/Prevention/firesmart.htm>

Additional information to consider adding to this binder:

- Contact information for prearranged off-farm evacuation sites.
- Map of evacuation sites and routes that may be used for animal movement



Structure Fire and Wildfire

Emergency Plan for _____ Farm

Structure Fires

Preparation

My preparedness steps for structure fire include the following:

- I have prohibited smoking in and around the barns.
- I have inspected electrical systems regularly and correct problems.
- I remove accumulated dust from electrical fixtures, heaters, etc. on a regular basis.
- I have kept the number of appliances at a minimum in the barn.
- I have space heaters and heat lamps only for when someone is in the barn and am sure animals cannot reach them.
- I have installed portable fire extinguishers near the exits to all buildings and have them recharged when necessary.
- I have ensured that farm workers and family members know where extinguishers are located, as well as how and when to use them.

Response

My response steps for structure fire include the following:

- I will evacuate family, staff and visitors to agreed safe meeting place.
- I will notify the fire authority immediately.
- I will assess the fire. I will attempt to contain or extinguish a small fire only if this can be done safely.

Wildfires

Preparation

My preparedness steps for wildfire include the following:

- I have reviewed the wildfire history in my area, such as with neighbours, local emergency coordinator, forestry, etc.



- I have identified and maintain the equipment (i.e., harrow, plow, water truck, tools) needed to fight an approaching grassfire or wildfire.
- I clear vegetation and wood debris within 10 metres of any farm structure on a regular basis.
- I reduce vegetation and wood debris within 30 metres of farm structures by thinning and pruning on a regular basis.
- I have stored hay away from roads or fences, and encircled bale stacks with bare or fuel-reduced area.
- I have identified water sources useful for fire suppression.
- I ensure hay is dry before storing, including storing hay outside the barn in a dry, covered area, if possible.

Response

My response steps for wildfire include the following:

Option 1: I am prepared and able to Shelter in Place

- I have consulted with local authorities at the EOC and structural fire protection specialists from the fire-fighting agency, and they are supportive of my decision to Shelter in Place.
- My animals are contained in a building that provides sufficient protection to Shelter in Place AND
- I have arranged for sprinklers and supplemental power for sprinkling equipment so that fire-fighting personnel may easily turn it on, if I have evacuated.

Option 2: I am prepared to move my animals to a safe on-farm location.

- I have a site on my farm where animals will be safely away from the wildfire (i.e. irrigated field, field with fire breaks).
- Animals have access to food sources, clean water, and ample living area.
- I have sufficient time, personnel, and equipment to relocate my animals to this area.

Option 3: I am prepared to relocate my animals to an off-farm location.

- I have located and prearranged off-farm relocation sites.
- I can determine routes to these locations, considering alternate routes.
- I can arrange for trucks, trailers, drivers, and handlers, if necessary.
- I can arrange for feed, water, and veterinary care at the site.

Common Livestock Behavior near Fires

- Livestock may become nervous, panicked, disoriented, and unpredictable near fire.
- Livestock may wander into hot ashes and cinders left by burned grass or bush. They may become confused on a direction of escape and burn hooves or feet beyond recovery.

- Option 4: I am prepared to free my animals to fend for themselves. (Note: Option of last resort normally only used during an urgent evacuation).**
 - The RCMP or Fire Fighting personnel have ordered an immediate tactical evacuation, OR,
 - I have consulted with local authorities and they are supportive of my decision to free my livestock because Options 1 or 2 are no longer tenable, and I am faced with constraints that make it impossible to safely move livestock into a safer area.
 - I will open gates and/or cut fences to allow my animals to attempt to avoid the wildfire.
 - I have my proof of ownership paperwork in order and in a safe place.
 - I am aware that firefighters may open gates and cut fence lines.
 - I have determined that there is no danger to people or vehicular traffic from freeing my animals.

Notes

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KEY MESSAGES

1. Unconfined animals can usually take care of them-selves during a flood.
2. The farmer's goal is to keep livestock high and dry.
3. Your local Emergency Coordinator can provide up-to-date flood information and forecasts.

Summary

Floods can impact both animal and human health. Producers can plan more effectively after assessing the flood risk on various parts of the operation. In B.C., flooding is most common during freshet, when snowmelt and seasonal rains are common.

Response options for flooding will depend on several factors, such as river or stream levels, winter snow load, ground conditions, and current and forecasted precipitation. Response options will also depend upon local topography, farm location, and livestock distribution within the farm.

Resources

River Forecast Centre

<https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/drought-flooding-dikes-dams/river-forecast-centre>

Emergency Management BC

<http://www2.gov.bc.ca/gov/content/safety/emergency-preparedness-response-recovery>

Freshet and Flood Preparedness

<https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/business-market-development/emergency-management/freshet-and-flood>

Floodplain Maps

Floodplain maps are available for your area at the BC Ministry of Environment website:

<https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/drought-flooding-dikes-dams/integrated-flood-hazard-management/flood-hazard-land-use-management/floodplain-mapping>

Additional information to consider adding to this binder:

- Ministry of Environment floodplain map.
- Map of locations where stock can be moved, on-site and/or off-site, including evacuation routes.

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Flooding

Emergency Plan for _____ Farm

Preparation

My preparedness steps for flooding include the following:

- I have reviewed flooding potential in my area with my municipal or regional district Emergency Program office.
- I have investigated and identified alternative livestock accommodation on higher ground.
- I have identified livestock haulers that could assist in livestock movement on short notice, if applicable.
- I have considered shipping animals that are approaching market weight.
- I have identified high ground to move equipment (i.e., motors, tractor, tools, etc.).
- I have identified high ground to move pesticides, fertilizer or other chemicals.
- I have ability to shut off electrical power to areas where flooding is imminent.
- I have adequate feed, bedding material, medications, etc. on hand on the portion of the farm above the flood plain, if applicable.
- I have ensured generator(s) are operational and extra fuel is on hand in the event of a power outage.
- I have ensured wellheads are protected, if applicable.



Response

My response steps during flooding include staying informed by:

- Listening to the radio or television for situation developments and relocation instructions.
- Knowing which local stations report flood levels and warnings.
- Following evacuation orders, and ensuring my family's safety first.

If I must evacuate and have time to move animals, I will decide upon the following options:

Common Flooding Terms

High Streamflow Advisory: River levels are rising or expected to rise rapidly, but no major flooding is expected. Minor flooding is possible.

Flood Watch: River levels are rising and will approach or may exceed the banks. Flooding of areas adjacent to affected rivers may occur.

Flood Warning: River levels have exceeded the top of the bank or will exceed it imminently. Flooding will occur in areas near affected rivers.

- ❑ **Option 1: Moving my animals to a safe on-farm location is the best option because:**
 - ❑ I have a site on my farm where animals will be safely away from the flood (i.e., high ground).
 - ❑ Animals have access to food sources, clean water, and ample living area.
 - ❑ I have sufficient time, personnel, and equipment to relocate my animals to this area.
- ❑ **Option 2: Relocating my animals to off-farm location is the best option because:**
 - ❑ I have located and prearranged off-farm relocation sites.
 - ❑ I can determine routes to these locations, considering alternate routes.
 - ❑ I can arrange for trucks, trailers, drivers, and handlers, if necessary.
 - ❑ I can arrange for feed, water, and veterinary care at the site.
- ❑ **Option 3: Freeing my animals is the best option because:**
 - ❑ I am unable to move livestock into pre-determined safe area. I will open gates and/or cut fences to allow my animals to avoid the flood.
 - ❑ I determine that there is no reasonable danger to people or vehicular traffic from freeing my animals.
 - ❑ I am contacting local authorities of my decision to free my livestock and am aware that responders may open gates and cut fence lines.

Notes



Animal Disease

Summary

Some farm disease threats are of special significance because they are highly contagious, spread rapidly, and cause severe animal illness and often death. Some of these diseases may also pose a risk to human health. In Canada, they are often called foreign animal diseases (FADs).

The effect on livestock producers can be devastating and result in loss of public confidence, restrictions on movement, and the disruption of trade. Animal disease outbreaks can cost British Columbian livestock producers millions of dollars. Even an outbreak in another province or country can impact the supply chain within B.C.



How Animal Disease Spreads

Direct contact: Entry of disease agent into open wounds, mucous membranes, or skin; may occur by contact with blood, saliva, nose-to-nose contact, rubbing, or biting from an infected animal.

Mechanical transfer: Transfer by inanimate objects (e.g., vehicle, clothing, footwear).

Aerosol: Infectious droplets passed through the air from one animal to another.

Ingestion: Consumption of disease agent in contaminated feed or water or by licking or chewing contaminated objects.

Vector-borne: Spread by insects, rodents, birds (i.e., flies, starlings, mites, rats).

Disease Definitions

High Consequence Farm Animal Disease – A disease that poses a significant threat to animal agriculture in Canada for several reasons: It spreads rapidly and infects a large number of animals; has a high economic impact; negatively impacts domestic and/or international trade; results in severe disease or death in most infected animals; can infect multiple species; is difficult to detect; cannot be prevented through vaccination; and/or, can infect and cause disease in humans.

Emerging Disease – A disease that is relatively new, has increased in occurrence, or has spread to new locations or species. Avian Influenza is an example.

“Exotic” or Foreign Animal Disease – A disease not currently found in Canada, but is present in other parts of the world, thereby making it a potential biological threat to Canadian farms. Examples include Foot-and-Mouth Disease, Classical Swine Fever, and Rift Valley Fever.

Mass Carcass Disposal Options in B.C.

A distinction must be made between common livestock mortality and animal death caused by federally or provincially reportable diseases, because different regulations apply. Carcasses resulting from certain animal diseases cannot be disposed of indiscriminately. Suitable disposal methods depend on the specific disease, your location, and other circumstances.

Common options are composting, rendering, incineration, or burial. Burial of animal carcasses and waste material in an emergency is not an option in some locations in B.C., including some areas of the Lower Mainland and the flood plains of Southern Vancouver Island.

Contact your veterinarian, the CFIA, or the BC Ministry of Agriculture immediately if you suspect an animal disease.

Resources

CFIA Reportable Diseases

<http://www.inspection.gc.ca/animals/terrestrial-animals/diseases/reportable/eng/1303768471142/1303768544412>

College of Veterinarians of BC

<http://www.cvbc.ca/CVBC2/About/CVBC2/About.aspx?hkey=3d82745b-3b66-4dde-893a-630ad9c097be>

BC Environmental Farm Plan Program

<https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/programs/environmental-farm-plan>

Information to consider adding to this binder:

- Factsheets for acceptable livestock carcass disposal options

Specified Risk Material

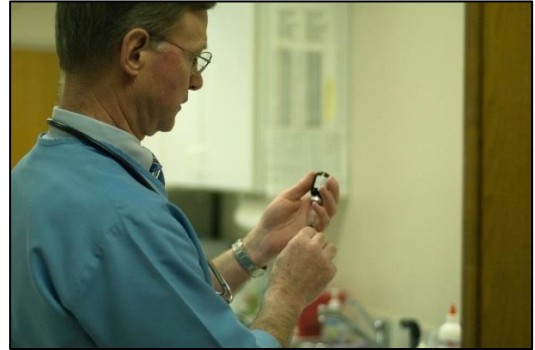
Cattle carcasses contain Specified Risk Material (SRM) and have the potential to carry an animal disease, unless select central nervous and digestive system organs have been removed. The CFIA requires two SRM permits: a transport permit to move carcasses off the farm; and a disposal permit, unless the disposal site has a special license. A SRM permit is not required if carcasses remain on the farm. Further details are available at the SRM hotline: 1-866-788-8155.

Animal Disease

Emergency Plan for _____ Farm

Prevention and Biosecurity

- I isolate new introductions or returning animals.
- I monitor my animals for illness, including:
 - Observing animals daily for signs of sickness.
 - Identifying sick animals should be as soon as possible.
 - Contacting my veterinarian immediately.
- I implement strict biosecurity measures on my farm, including:
 - Restricting access to my property and my livestock.
 - Only allowing essential workers and vehicles on the premises.
 - Prohibiting visitors near animals unless absolutely necessary.
 - Ensuring that I, all personnel, and allowed visitors have clean footwear (disposable boots), clothes (coveralls), or other protective clothing.
- I clean and disinfect, including:
 - Cleaning and disinfecting clothes, shoes, equipment, vehicles and hands after contact with animals.
 - Cleaning and disinfecting premises and equipment regularly.
 - Not sharing equipment unless items have been cleaned and disinfected.



Response

- I will contact my local veterinarian; alternates are the Provincial Animal Health Center or CFIA District Office.
- I will isolate animals and will not move any livestock, materials, or equipment off the farm.
- I will cooperate with veterinarians and officials, and follow guidance to prevent disease spread.
- I will monitor the animals for signs of illness, and report any observations to my veterinarian or the Animal Health Center.
- I will obtain disposal guidance from my veterinarian, the CFIA or the Ministry of Agriculture.



Carcass Disposal

Disposal options will depend on specific conditions of the farm at the time of emergency. The Ministry of Agriculture may have updated information from GIS mapping as to disposal suitability in the region. Before initiating any carcass disposal activity, be sure to get authorization and meet compliance requirements. Your municipal or regional district Emergency Program Coordinator or the Ministry of Agriculture can provide guidance.

Preparation

My preparedness steps for livestock and waste tissue disposal include the following:

- I have a plan for dealing with livestock mortality.
- I have consulted with my veterinarian or the Ministry of Agriculture to identify appropriate disposal locations.
- I have consulted with my veterinarian to determine if my disposal plan can include burial, composting, or rendering.
- I have reviewed my disposal plan with a representative, such as Regional Agrologist, to confirm appropriate composting or burial options and locations.
- I have the contact information for my veterinarian in the event of a disease, or suspicion of a disease.



Response

My response steps for livestock disposal include the following:

- I will consult with my veterinarian and the Ministry of Agriculture before any disposal activity if a disease is suspected or confirmed.
- I will ensure my livestock disposal method complies with appropriate local government bylaws, provincial and federal regulations.
- I will record deaths, numbers, disposal location, disposal method, and other details.

Notes

Extreme Weather and Temperature

Summary

Extreme temperatures include severe winter weather, high temperatures, and possible drought. These conditions contribute to extra stress on livestock and increase the need for sheltering, food, and water. Extreme weather events (e.g. storms, high winds, heat, lack of rainfall) may also result in subsequent emergencies, such as fires, flash floods, and utility outages.

Extreme Heat

Extreme heat can be hazardous to your livestock, horses, and poultry. Most livestock cool themselves through panting and water evaporation from the skin. Water sources are often limited during the precise time when animal water needs increase. Reduced production and heat-related illnesses can occur. Protect your animals during extreme heat situations.

Extreme Heat Key Messages

- Extreme heat is generally more stressful to farm animals than extreme cold.
- Animals will require more water during extreme heat / drought conditions - up to twice the normal.
- Livestock should have access to natural or man-made areas that provide heat relief.

Drought Key Messages

- Drought is a slow-onset emergency that can be highly destructive to your farm.
- Dry conditions can lead to undrinkable or toxic water sources. Consider water quality testing.
- Drought may result in increased grazing by livestock on toxic plants. Provide adequate forage or supplemental feed.

Drought

The impact of drought on livestock can be devastating. It may or may not accompany excessive heat. Limited water supplies occur during a time when the water needs are increased. Feed availability can also become limited. Planning ahead can help protect the health and well-being of your livestock.

Extreme Cold / Winter Conditions

Extremities of both young and old animals are subject to freezing during temperature drops. Dehydration is a threat because animals cannot consume enough snow to satisfy their water requirement. Young animals are at greater risk since they are smaller, have less strength, bury into snow more easily, and are less resistant to cold. They should be moved into shelters.

Extreme Cold Key Messages

- Winter wind is usually a greater stress factor than cold temperatures.
- Livestock dehydration is often a more important hazard than cold temperatures. Animals cannot drink snow.
- Animals require additional feed to meet increased energy requirements.

Resources

BC Ministry of Environment - Drought Info

<https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/drought-flooding-dikes-dams/drought-information>

Government of Canada

<http://www.getprepared.gc.ca/index-en.aspx>

Additional information to consider adding to this binder:

- Plans for water, sheltering, and feeding during extreme temperatures

Extreme Weather and Temperature

Emergency Plan for _____ Farm

Extreme Heat / Drought

Preparation

My preparedness steps for extreme heat include:

I have cool housing or shaded areas available.

- Provide adequate shade, using trees, buildings or sunshades.
- Ensure building roofs are high enough to allow for air movement.

I have assured access to water.

- Ensure animals always have access to cool, clean water.
- Check the water delivery system periodically for proper functioning.
- Shade above ground water lines or tanks to keep water cool.
- Provide additional watering tanks; if possible do in advance so animals can become accustomed to new water sources.

I have adequate ventilation.

- Install fans; open windows or roof ventilation to increase air movement in buildings.
- Cut tall vegetation 50 m back from perimeter of holding pens.
- Consider building earth mounds to minimize bunching of animals.
- Increase floor space per animal or reduce the number of animals in an area.

I have prepared for possible power outages.

- Recognize that overloaded energy use due to high temperatures can result in outages.

Response

My response steps for incidents of extreme heat/drought include the following:

I will provide cool, clean water.

- Check water delivery systems periodically for plugs or other problems.
- Monitor the water temperature and keep it cool. If possible, keep in a shaded area.

I will keep animals cool.

- Spray with oscillating sprinklers; water can have a cooling effect for animals.

Heat Stress

Signs of heat stress:

- Increased respiration rate or panting excessive salivation
- Elevation of head to make it easier to breathe
- Open mouth breathing

If I see signs of heat stress, I will:

- Contact my local veterinarian immediately.
- Move animals to the shade.
- Offer plenty of cool, clean water.
- Spray animals with cool water, especially on legs and feet, or stand them in water.
- Increase air movement around animals.

- Run water on the ground to keep hooves cooled.
- Run water across roofs of buildings where animals are housed to cool the area.

I will control biting insects:

- Recognize that livestock may increase their activity to avoid insects and risk overheating.
- Reduce insect breeding areas by:
 - Removing weeds/brush
 - Removing standing pools of water or mud
 - Removing manure

I will feed later in the day:

- Shift feeding to evening after peak temperatures.
- Cover feed bunks to prevent spoilage from sun's heat.

I will limit the handling of my animals:

- Processing or working animals can elevate body temperature. Avoid handling mid-day.
- If animal must be handled, work them early morning (<8-10AM), in a shaded area.
- Ship animals at night or early morning.
- Cool animals after exercise with sprays of water.
- Monitor animals for signs of dehydration and heat stress in the barn and during transport.

Extreme Cold / Winter Conditions

Preparation

For general preparation, I have:

- Arranged for feed supplies and alternate routes in case of road closures.
- Identified alternate sources of fuel.
- Identified water supplies during freezing temperatures.
- Installed alternative heat source, if required (see Utility Outage section).
- Planned for personal needs (i.e., stored food) during prolonged road closures.

For Outdoor Shelter preparation, I have:

- Determined which animals can remain outside.
- Determined locations where animals can be naturally sheltered.
- Protected water systems against freezing temps.
- Arranged for shelter or windbreak areas for animals if necessary, such as:
 - Shallow open front sheds
 - Constructed windbreaks
 - Portable wind drift fencing
 - Wagons or bales placed to block wind

For Indoor Shelter preparation, I have:

- Identified animals that should be indoors.
- Identified buildings that could be used, including:
 - Winterized buildings
 - Roofs sufficient for snow load
 - Shutters, doors, windows to keep out cold and wind.
 - Heat lamps, space heaters, etc. that can be safely placed
 - Sufficient floor space for livestock
 - Additional bedding
 - Adequate, unobstructed ventilation

Response

My response steps for incidents of extreme cold and winter weather include:

- Move selected animals indoors according to plan.
- Move livestock to pre-identified outdoor areas of shelter, if required.
- Move animals from known avalanche run-out zones.

For Emergency Feeding, I will:

- Ensure feed is available and accessible.
- Check that mechanical feeding equipment is functioning properly, if appropriate.

For Emergency Water, I will:

- Ensure water is available and accessible.
- Remove ice around waterers.
- Haul water to animals, if needed.

For Animal Welfare, I will:

- Monitor animals for signs of illness, dehydration, frostbite or hypothermia. Seek veterinary care, if needed.
- Address the needs of young animals first; older livestock will often follow due to both maternal and herd instincts.
- Record any animal deaths, and dispose properly of animal carcasses (see Animal Disease section.)
- Record losses and apply for insurance reimbursement, if eligible.

Notes

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Earthquake

Summary

The western portion of British Columbia contains an earthquake zone where more than 1,200 small earthquakes are recorded each year. There is a real risk that one of these could be "the big one." "It could happen at any time of the day or night; on a weekend or a workday, in any season and in any weather.

What to expect during an earthquake

Small or Moderate Earthquakes:

- These may last only a few seconds and represent no emergency risk.
- Minor rattling of objects may occur.
- You may feel a slight quiver under your feet.
- If you are close to the earthquake source, you may hear a loud bang followed by shaking.

Large Earthquakes:

- These events can last up to several minutes and constitute a natural disaster if the magnitude is sufficiently large.
- The ground or floor will move, perhaps violently, possibly making you feel dizzy and/or unable to walk.
- If you are far away from the source, you might see swaying buildings or hear a roaring sound.
- Furnishings and unsecured objects could fall over, slide across the floor, or be thrown with damaging force across the room.
- Windows may break, fire alarms/sprinkler systems may be activated, and the power may go off.



Resources

Government of Canada

<http://www.getprepared.gc.ca/>

Emergency Management BC

<https://www2.gov.bc.ca/gov/content/safety/emergency-preparedness-response-recovery/emergency-management-bc/provincial-emergency-planning>

Additional information to consider adding to this binder:

- Earthquake Response Plan
- Farm Map including earthquake (i.e., farm hazards, utility cutoffs, family assembly area)

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Earthquake

Emergency Plan for _____ Farm

Preparation

My preparedness steps for earthquake include the following:

- I have an earthquake response plan that includes family and employee safety, and contains information on farm readiness.
- I know the probability and expected intensity of an earthquake at my farm site.
- I know the stability of the soil throughout my farm (i.e., soft soils that are prone to liquefaction, subject to fault rupture).
- I know which of my farm structures are seismically sound and which are vulnerable.
- I am aware of secondary or complicating natural hazard exposure on my farm (i.e., landslides, rockfalls, flooding).
- I know where the vulnerable locations are in farm structure. (e.g., windows, heavy objects, tall storage that could tip).
- I have secured, strapped, or braced equipment, pumps, tanks, piping, cabinets, and storage racks, or relocated heavy items to lower shelving.
- I have basic emergency gear (i.e., sturdy shoes and protective clothing, axes, pry bars, chain saw, fire extinguishers, battery-operated radio, portable generator) stored in an accessible location.
- I know where shut-off valves are for natural gas, electrical power, water, etc. I have instructed all farm workers and family members in how to turn off these utilities.
- I have discussed farm and home earthquake insurance with my insurance provider.

A Sixth Sense

Certain farm animals can 'sense' upcoming seismic activity seconds before shaking starts. Have heightened awareness for an earthquake if, as a group, your livestock, pets or wildfowl exhibit unusual behavior.

Response

My response steps during an earthquake include the following:

- If I am outdoors, I will stay outside and away from buildings, trees, power lines, and other structures. I will drop to the ground and cover my head.
- If I am indoors, I will drop under something that is stable and solid, cover my head and torso, and hold onto the object that I am under.

- ❑ After the shaking has stopped, I will wait another minute. I will exit carefully and get away from buildings and tall structures.
- ❑ I will stay calm. I will treat injured persons - first myself, then others.
- ❑ I will put on sturdy shoes and protective clothing.
- ❑ I will check for utility failures and hazards (i.e., fires, gas leaks, downed power lines, chemical spills).
- ❑ If I smell natural gas or see damaged utility services, I will turn the appliance off at the source, if possible.
- ❑ I will suppress small fires if I have the proper extinguishers or water sources, if safe to do so. If I'm in doubt, I will call local fire department.
- ❑ If everyone is safe, I will call my out-of-town emergency contact to report family status.
- ❑ If I have nearby neighbours, I will check in and assist them as necessary.
- ❑ I will check my farm buildings for structural damage and hazards. (i.e., weakened walls, broken glass). I will enter only if safe.
- ❑ I will check my livestock, realizing that their behavior may be erratic.
- ❑ I will assess the feasibility to stay at the farm. If not, I will make plans for family members and livestock according to my emergency plan.



Notes

Hazardous Materials

Summary

Farmers may have to deal with hazardous materials accidentally spilled on or near their land, such as agri-chemicals, fertilizers, and petroleum products. Farm operators have a responsibility to protect the environment and the public, as well as their operations after a spill.

You must be aware of regulations that apply to safe farm operation and provide a safe workplace. Knowledge of a few basics can go a long way toward meeting these responsibilities.



Spill Reporting Requirements

Spill amounts above the following volumes must be reported to Emergency Management BC at 1-800-663-3456:

Material Spilled	Reportable Amounts
Fertilizer spills, granular or liquid	Greater than 50 kg or 50 L
Pesticide spills	Greater than 5 kg or 5 L
Petroleum spills	Greater than 100 L
Manure spills	Greater than 200 kg or 200 L

An on-farm **Spill Kit** should include the following items:

1. Personal Protective Equipment (chemical-resistant), i.e., gloves, footwear, apron, coveralls, eye protection, respirator
2. Containment "snakes" or "tubes" for liquids
3. Absorbent materials (i.e., absorbent clay, kitty litter, fine sand, sawdust, vermiculite)
4. Plastic cover for dry spills
5. Spray bottle filled with water to mist spills
6. "Caution tape" to isolate the area
7. Shovel, broom, and dustpan
8. Heavy duty disposal bags with ties
9. Duct tape
10. Sturdy plastic container and lid to store kit
11. A permanent marker to label contents



Off-farm Spills

Farmers may also be impacted by a spill of hazardous materials nearby. Most farms have highways, railways, or pipelines nearby. After a spill, local emergency response organizations will be helpful in identifying the materials involved and advise farmers on response actions, including possible evacuation.



Workplace Hazardous Materials Information System (WHMIS)

WHMIS is a Canada-wide system that has been developed to provide information about the safe handling and storage of hazardous materials.

WHMIS programs include appropriate product labeling and handling, worker education and training, procedures identified for safe handling, storage, disposal and emergency clean-up, and an annual program review.

Material Safety Data Sheets (MSDS) are information sheets that should be readily available for any controlled product used on the farm.

All farmers should take a WHMIS course and have a WHMIS program in place. More information can be found at www.agsafebc.ca/

Resources

AgSafe

<http://www.agsafebc.ca/>

Emergency Management BC

<http://www2.gov.bc.ca/gov/content/safety/emergency-preparedness-response-recovery>

WorkSafeBC

<http://www2.worksafebc.com/Portals/Agriculture/Home.asp>

BC Environmental Farm Plan Program

<https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/programs/environmental-farm-plan>

BC Ministry of Agriculture Manure Spreading Advisories

<http://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/agricultural-land-and-environment/soil-nutrients/nutrient-management/manure-spreading-advisories>

Additional information to consider adding to this binder:

- WHMIS and MSDS sheets place in accessible file, or in a separate binder.

Hazardous Materials Release

Emergency Plan for _____ Farm

Preparation

My preparedness steps for management of hazardous materials include the following:

- I have a list of the controlled products and hazardous materials on my farm.
- I know the packaging label information on proper use, handling, and actions in case of a spill.
- I have a copy of the Material Safety Data Sheets (MSDS) for all chemicals used, and I keep copies in an accessible location.
- I have noted locations for chemical storages, fuel tanks, fertilizer storage, etc. on a farm map.
- I have a Spill Kit and keep it in a location that is accessible by farm workers.
- My family and farm workers have been trained on the response procedures for a spill and know where spill kit is located.
- I have fire extinguishers in appropriate locations, easily accessible to all workers.
- I use appropriate containers to store my chemicals.
- After using application equipment, I ensure that valves are closed, hoses empty, and pumps are turned off.
- I keep my application equipment clean.
- I inspect equipment routinely in case of a leak.
- I keep a record of inspections and repairs.

Manure Storage and Handling

Manure is a valuable by-product of farm operations. Storage and handling of manure is essential, and pollution problems must be avoided. Some considerations are:

- Ensure storage is available to accommodate 6 months.
- Contain manure during transport to avoid spills.
- Ensure manure is not carried onto public roads by equipment tires.
- Establish buffers between manure handling and storage locations near and around watercourses.
- Have a manure spreading plan.
- Ensure application equipment is maintained.
- If possible, use air emission and odor-reduction application practices.

Response

My response steps to a hazardous material spill include containing, controlling, and cleaning up, including:

- Approach a spill from a safe direction, upwind or upstream.
- Attempt to identify the type of product involved, if safe to do so.
- Avoid chemical spills that are reacting (i.e. hissing, bubbling, smoking, gassing, or burning).

- ❑ Call 9-1-1 if the spill is too big to control and clean up.
- ❑ Contact Emergency Management BC at 1-800-663-2345 if spill volume exceeds the reportable amounts.
- ❑ Move the Spill Kit to a safe location near spill.
- ❑ Put on Personal Protective Equipment: Gloves, footwear, apron, disposable coveralls, eye protection, and respirator.
- ❑ If possible, stop the spill from spreading. Take appropriate steps, such as:
 - ❑ Place leaking container in larger container.
 - ❑ Close valves, etc.
 - ❑ Use absorbent material, sandbags, or dig a trench to contain spills.
 - ❑ Use barriers to keep people and animals out.
 - ❑ Stay at the spill site until someone comes in relief.
- ❑ I will clean up the spill, including:
 - ❑ Spread absorbent material on the spill area, but avoid using sawdust. Strong oxidizing chemicals can combust and become a fire hazard.
 - ❑ Sweep and scoop all material; work from the outside toward the inside to reduce spread.
 - ❑ Scoop material into a drum or container lined with a heavy duty plastic bag. Repeat until the spill is soaked up.
 - ❑ Seal the bag. Double bag, label clearly, and dispose of properly.
 - ❑ For spills on soil, apply activated charcoal immediately for minor spills.
 - ❑ For larger spills, dispose of top 5-10 cm of soil; cover area with 5 cm of lime and fresh top soil.
 - ❑ Contact your municipality or regional district for information on safely disposing of contaminated material.

Spill Safety

- ❑ If my eyes have been contaminated, I will wash with running water at least 15 minutes.
- ❑ If others have been contaminated, I will help them wash first and will wash myself after.
- ❑ I will call 9-1-1 if anyone is incapacitated.

Notes

Utility Failure

Summary

Utility outages can result from a variety of events, such as severe weather, wildfire, or other hazards addressed in this Guide. Preparation and appropriate response will minimize the impact of prolonged outages, and can protect your equipment and your livestock.



Know Your Farm Equipment

Electricity: Much of the farm's equipment probably requires supplied electrical power. Power may be interrupted during conditions such as a heat wave or severe winter storm, when certain equipment is essential. A farm equipment list may help prioritize the off-and-on sequence of electrical appliances during an outage.

Farm Utilities

- Which critical equipment and facilities depend upon electrical power? Natural gas? Water?
- What if these utilities are unavailable?
- How long could you operate without the utility?
- Are backup measures possible?

Natural Gas: Natural gas does not have an odour, so a chemical that smells like rotten eggs is added as a safety measure. Natural gas leaks can then be detected in low concentrations. Be sensible about natural gas usage and always turn off gas appliances when the rotten egg odour is present. Make sure all rooms that use natural gas have adequate ventilation.

Water: Water is, of course, essential to survival. Following a disaster, clean drinking water for your farm animals may not be available. Your regular water source could be cut-off or compromised through contamination. Prepare yourself by considering an alternative water source that will meet the needs of your family and farm during an emergency.

Water Usage

About 20-30% of power costs on the farm are water-related – pumping water into storage, watering units, wash-downs, and effluent pumping.

Overflowing tanks and leaking water pipes add significantly to the farm's water bill.

Farmers should consider the length of time their operations can function without electricity, natural gas, or water. Backup measures will reduce the risk to your animals during these events. Consider showing the location of all essential equipment, utility shut-offs, tanks, and storage facilities on your Farm Map.

Resources

BC Hydro Power Outages Map

<https://www.bchydro.com/outages/orsMain.jsp>

Enbridge Gas Outage

<https://www.enbridgegas.com/contact-us/>

Fortis BC Power Outage

<http://fortisbc.com/Safety/EmergencyPreparedness/Pages/Power-outages.aspx>

Additional information to consider adding to this binder:

- List of equipment that should be turned off during an electrical storm or outage.
- Power back-up measures to provide water, heat, etc. for livestock

Utility Failure

Emergency Plan for _____ Farm

Electrical Power Outage

Preparation

I have prepared my farm for utility failure in the following ways:

- I have a backup generator and test it regularly.
- I keep sufficient fuel to run the generator for at least seven days.
- I have ensured electrical panels are well-marked and breakers can easily be turned off.
- I have tested the connection of my backup power with critical electrical equipment.
- I have installed protection devices for three-phase equipment and have written instructions on how to reset them.
- I have identified the equipment that should be turned off during a power outage and have recorded the sequence for turning on.
- I have determined emergency feeding procedures for use during a power failure.
- I have identified back up measures needed to provide heat for animals, if applicable.
- I keep battery-operated lights (flashlights, lanterns) easily accessible, and I have fresh batteries.
- My contact list includes emergency phone numbers, i.e., energy suppliers and electricians.
- I have ensured sensitive electronic equipment has surge protectors and/or battery back-ups.
- I back-up my computer files regularly.



Response

Procedures for responding to a power outage affecting my farm include the following:

- I will turn off sensitive and/or non-essential equipment asap.
- I will contact the power provider to set up re-connection as soon as possible.
- I will connect back-up generator(s) or other power source to critical equipment.
- I will ensure all animals have access to appropriate food and water.
- I will ensure alternate forms of barn heat or ventilation are in place, if applicable.

Natural Gas Leak

Preparation

I have prepared the farm for a possible natural gas leak or shut-down in the following ways:

- I have posted shut-off instructions near turn-off valves, and all workers have read them.
- Everyone on the farm knows the smell of natural gas.
- I have installed carbon monoxide alarms, as needed, and workers know the signs of carbon monoxide poisoning.
- Emergency phone numbers for utilities are posted in every farm building.



Response

My response to a natural gas leak or shut-down includes the following:

- I will act quickly and remain calm. I will not try to put out a natural gas fire myself.
- I will go outside. As I exit, I will leave open the door open and any windows that may already be opened.
- I will move away from the source of the leak at right angles to the prevailing wind.
- I will move my family and workers safely away from the building.
- Once away, I will call the gas company, 911 or my local fire department immediately.
- If I have knowledge of the source of the leak, I will meet emergency responders when they arrive on-site.
- I will not return inside until allowed by response personnel.

Precautions During a Natural Gas Leak

- Don't smoke; no lights or matches
- Don't start vehicles
- Don't create a spark from switches:
 - electronics
 - appliance
 - lights
 - motors

Water Supply Interruption

Preparation

In preparing for possible water supply interruption for the farm, I have completed the following tasks:

- I have looked at the history of water supply interruptions in my area to determine the water shortage risks that my farm may face.
- I have an alternative source of water to meet animal needs, such as surface water, downhill piping, or hauling water.
- I have an alternative power source to supply water in case of an outage.

- I have ways to increase my storage capacity as a buffer to a water supply interruption.
- I have tested the alternative water system for reliability, quality, and sufficiency.

Response

The following procedures will be followed in response to a water supply failure affecting the farm:

- I will contact my water supplier or utility provider asap to restore power supply.
- I will initiate my alternative water delivery method.
- I will monitor my livestock to assure the backup system provides adequate water quantity and quality.



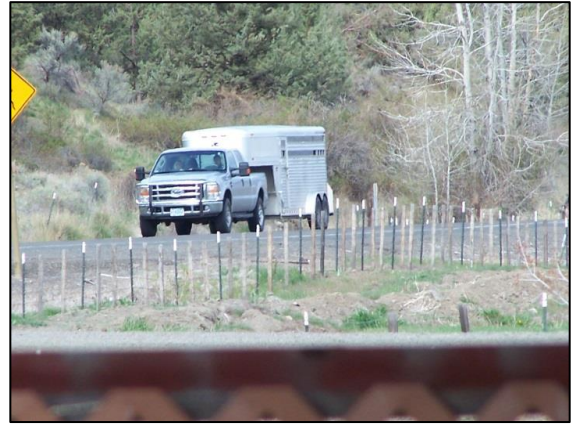
Notes

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Livestock Transport Accidents

Transporting farm animals presents several risks. Drivers should be aware of the risks and have a plan in place to deal with an accident. The welfare and safety of the farmer, first responders, handlers, and animals will improve dramatically by being prepared for an accident and understanding how to effectively respond.

Accidents involving animals can be very serious, especially if they are injured, scared, and released onto the roadway. A prepared driver will be able to respond effectively to a highway incident and lessen its economic and physical impact.



Some considerations while loading farm animals for transport are:

- Load the trailer so weight is equally distributed and low-centred.
- If you have a split load and drop off some animals at one stop, move the animals to redistribute the weight properly.
- To help prevent load shifting, do not take corners too fast.
- The centre of gravity for your livestock hauler may be different than other freight hauled commercially. Different trailer designs will also have different centres of gravity and will change in relation to the type of animal transported.

Animal Behavior in Highway Accidents

Each movement of farm animals differs because of the diverse risk factors involved. Some characteristics of livestock that might be transported are:

Cattle:

- Bulls and bison are extremely aggressive and can be very dangerous animals. Consider euthanizing these animals immediately if public safety is at risk.
- Cattle have extreme reach with their back legs and can strike behind them, off to their side and up by their head.

Farm Animal Highway Accident Statistics

- 59% of accidents occur between midnight and 9:00 am.
- 56% of all accidents documented involved cattle,
- 27% involved hogs, 11% involved poultry.
- 84% of the trailers roll on the right hand side.
- 80% were single vehicle accidents.
- 85% were caused by driver error.
- 1% of accidents indicated that weather was the cause.

Horses:

- Horses can strike with both their back and front feet.
- Always approach a horse on the left side, to prevent possible spooking.

Pigs:

- Be careful when handling pigs, as they bite. Boars can be very aggressive.
- Pigs are difficult to move, even when they are not scared. Do not run pigs, as this may be fatal.
- Pigs may make loud squealing noises that sound like they are in pain even if they are not.

Poultry:

- Poultry frighten quickly when in close contact with people and will react hysterically.
- Poultry are difficult to contain and handle. Try not to startle them.
- The best containment and herding aids for poultry are snow or construction fences.

Sheep:

- Sheep pile up when frightened, and can smother. Back off and allow them to calm down.
- Sheep will do anything to stay with the group. Do not isolate sheep, but move them as a group.
- Sheep should not be grabbed by the wool, if avoidable.

Livestock Behavior in an Emergency

- When an animal feels cornered, it will fight or try to flee.
- Livestock view humans as predators, and their natural instinct is to run from predators.
- Prey animals are herd animals and become agitated when isolated or separated. Single animals are dangerous animals.
- Once livestock become excited or scared, it may take 20-30 minutes to calm them.

Resources

Farm Animal Council

www.livestockwelfare.com

Canadian Livestock Transport Certification Program

<http://www.livestocktransport.ca/en/>

Additional information to consider adding to this binder:

- Copy of Livestock and Poultry Transport Accident Plan

Farm Animal Transport Accident

Emergency Plan for _____ Farm

Preparation

If I transport farm animals on a highway, I have an Emergency Plan on board. The Plan includes:

- Emergency contact sheet with 24-hour phone numbers for RCMP, fire and rescue, insurance companies, veterinarian, dead stock services, etc.
- A list of resources that could be mobilized in the event of a rollover accident (i.e., panels or snow fences for containment, stock trailers, etc.).
- Emergency response equipment including flares/traffic triangles, fire extinguisher and spill kits. A camera is useful.
- Paperwork in an easily accessible area of the truck cab.



Response

If I am the driver involved in a farm animal highway incident and uninjured:

- I will call 911 if the accident occurs on a public roadway, or emergency assistance is required for an on-farm accident. I will advise the operator of:
 - Location of the accident
 - Status of the animals
 - Any known hazards
- I will set out emergency warning devices asap.
- I will phone the insurance companies for both the vehicle and the livestock, if applicable, and provide with the following information:
 - Accident location
 - Any injuries
 - Condition of animals
 - Position of truck or trailer
 - Number of vehicles involved
 - If first responders are on scene yet

In Canada, the driver, farm owner and producer have no legal jurisdiction at a traffic accident scene.

They will often be asked to assist at accidents, but operate solely under the command of police and fire officials.

- ❑ If damage is minor, the trailer is upright and there are no injuries or escaped animals, I will take photos and record names and addresses of people involved, and witnesses.
- ❑ I will not move livestock off the truck or trailer until a containment vehicle or suitable area is available.
- ❑ If the trailer is damaged and animals have escaped, I will try to direct them to an area far away from traffic.



- ❑ I will take photos of the accident as soon as possible. Photographs should include:
 - Road conditions
 - Vehicle damage
 - Truck and/or trailer position
 - The overall accident scene
 - Skid marks
 - Curves, intersections
 - Where the vehicle left the road

- ❑ I will take all necessary precautions to provide as much protection and comfort for the animals as possible.

- ❑ I will release statements only to people of authority.

- ❑ When first responders arrive, I will advise them of the accident, such as human injuries, status of animals, any known hazards, and knowledge of any response support on the way.

- ❑ I will respect the chain of command. I understand that RCMP and Fire / Rescue will take command of the incident scene.



Notes

Additional Resources

This Guide complements other emergency guides, reports, and documents that may be of interest. Some useful resources may be accessed through websites listed in this section.

Agriculture and Agri-Food Canada Programs

<http://www.agr.gc.ca/eng/programs-and-services/?id=1362151577626>

AgSafe Safety Materials

<http://www.agsafebc.ca/>

BC Hydro Power Outages Map

https://www.bchydro.com/outages/orsMapView.jsp?WT.ac=hp_mh_outmap

BC Livestock Watering Handbook

<http://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/agricultural-land-and-environment/water/water-supply-conservation/livestock-watering-handbook>

BC Ministry of Agriculture, Animal Health Center

<http://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/animals-and-crops/animal-health/animal-health-centre>

BC Ministry of Agriculture, Livestock Relocation, Emergency Management Planning Tools

<https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/business-market-development/emergency-management/livestock-relocation>

BC Ministry of Agriculture, Sustainable Agriculture Management

<https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/programs>

BC Ministry of Agriculture – Agricultural Waste Management

<http://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/agricultural-land-and-environment/waste-management>

BC Ministry of Environment – Drought Information

<https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/drought-flooding-dikes-dams/drought-information>

Canadian Quality Assurance (CQA) Program

<http://www.cqa-aqc.ca/index-e.php>

CFIA Reportable Diseases

<http://www.inspection.gc.ca/animals/terrestrial-animals/diseases/reportable/eng/1303768471142/1303768544412>

Current Wildfire Situation in B.C.

<https://www2.gov.bc.ca/gov/content/safety/wildfire-status>

DataBC

www.data.gov.bc.ca/

Emergency Management BC

<http://www2.gov.bc.ca/gov/content/safety/emergency-preparedness-response-recovery>

Emergency Management BC, Disaster Financial Assistance Program

<http://www2.gov.bc.ca/gov/content/safety/emergency-preparedness-response-recovery/emergency-response-and-recovery/disaster-financial-assistance>

Environmental Farm Plan Program

<https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/programs/environmental-farm-plan>

FireSmart Manual

www.bcwildfire.ca/Prevention/firesmart.htm

Fortis BC Power Outage

<http://fortisbc.com/Safety/EmergencyPreparedness/Pages/Power-outages.aspx>

Freshet and Flood Preparedness for Agriculture

<https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/business-market-development/emergency-management/freshet-and-flood>

Google Earth

www.google.com/earth/

Insurance Bureau of Canada

www.ibc.ca/on/

On-Farm Contingency Plan

https://www.bcac.bc.ca/sites/bcac.localhost/files/Ardcorp_Program_Documents/EFP/Contingency%20Plan%20-%20Template%20for%20On%20Farm%20Planning.pdf

Premises ID

<https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/programs/premises-id>

Wildfire Information

1-888-3FOREST (1-888-336-7378)

Wildfire Loss Prevention

<https://www2.gov.bc.ca/gov/content/safety/wildfire-status>

WorkSafe BC

<http://www2.worksafebc.com/Portals/Agriculture/Home.asp>