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B.C. 4-H Farm & Family Emergency Planning Guide



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The Importance of Being Prepared

No one can predict when a disaster may strike or what the repercussions may be. However, anyone can help reduce the impact of an emergency.

By following four main steps your family can become prepared to act if there is an emergency.

1. Learn of the possible emergencies in your area and your community emergency plan.
2. Build both emergency and first-aid kits.
3. Create a family and a farm emergency plan.
4. Practice and review your plans.

This booklet will help you create emergency plans for your family and farm. This includes preparations so your family can be self sufficient for up to 72 hours as recommended by the Canadian Department of Public Safety.

You will be able to use this booklet to reference emergency plans, contact numbers and other information that is important during an emergency situation.

Read, discuss and become familiar with the emergency plan as a family.

Acknowledgements

We would like to recognize the use of information provided by Public Safety Canada regarding emergency planning.

Source: *Basic Emergency Kit*, http://www.getprepared.ca/kit/basic_e.asp, Public Safety Canada 2007. Reproduced with the permission of the Minister for Public Works and Government Services, [2007].

Source: *Make an Emergency Plan*, http://www.getprepared.ca/plan/plan_e.asp, Public Safety Canada 2007. Reproduced with the permission of the Minister for Public Works and Government Services, [2007].

We would also like to recognize the Canadian Farm Business Management Council for allowing the use of their materials regarding emergency planning for farms. www.farmcentre.com



Build a First-Aid Kit

It is important to have a well maintained first-aid kit close by. *Well maintained* means replacing and refreshing the items on a regular basis.

Place the following items in a small sealable container that is clearly marked “**First-Aid Kit**”.

- Sterile Adhesive bandages of different Sizes**
- Assorted sizes of safety pins**
- Cleansing agent (i.e. hand sanitizer)**
- Latex Gloves (2 pairs)**
- Sunscreen**
- 5 cm (2 inch) sterile gauze pads (4-6)**
- 10 cm (4 inch) sterile gauze pads (4-6)**
- Triangular Bandages (3)**
- 5 cm (2 inch) sterile roller bandages (3)**
- 7.6 cm (3 inch) sterile roller bandages (3)**
- Moistened Towelettes**
- Tweezers**
- Needle**
- Scissors**
- Antiseptic**
- Thermometer**
- Tongue Depressors**
- First-Aid Manual**



If a pre-assembled kit is purchased, make sure it has all of the items above included.

Additional Emergency Supplies

Your emergency kit will have enough supplies to get your family through the first 72 hours of an emergency. In addition to the kit, it is recommended that you have the following emergency supplies:

- Change of clothing and footwear** – One per member of household.
- Sleeping bag or warm blanket** – One per member of household.
- Whistle** – Used to attract attention in an emergency.
- Garbage Bags**
- Toilet Paper**
- Safety Gloves**
- Small fuel-driven stove & fuel** – Follow directions on proper use and storage.
- Six litres of water per person** – For cooking and cleaning. This is in addition to drinking water.
- Other personal care supplies**
- Copies of personal documents** – Such as passports, birth certificates and insurance plans.
- Basic Tools** – A hammer, pliers, wrench and bolt cutters can be useful during an emergency. Include fasteners such as nails and screws.



Build an Emergency Car Kit

Every vehicle your family owns should have its own emergency kit. Place the following items in a duffle bag or other suitable container and store in a secure place in each vehicle.

- Water** – In plastic bottles so they will not break if the water freezes. Include two litres per seatbelt. Must be changed every six months.
- Food** – Pack food that will not spoil, such as energy bars and dried goods.
- First-Aid Kit** – To treat injuries.
- Blanket** – Many uses including first-aid treatment for shock and hypothermia.
- Sand, Salt or Non-Clumping Cat Litter**
- Small Shovel**
- Antifreeze and Windshield Washer Fluid**
- Tow Rope**
- Jumper Cables**
- Fire Extinguisher**
- Warning Light or Road Flares**
- Candles and Matches**
- Wind Up Flashlight**
- Whistle** – Used to attract attention.
- Roadmaps**
- Copy of the 4-H Farm and Family Emergency Planning Guide**

Build an Emergency Kit

Place the following items in an easy-to-carry container, like a **backpack** or a **small suitcase on wheels**, and keep it in your home.

The emergency kit should be properly labelled, highly visible and easily accessible.

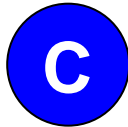
- Water** – Six litres of drinking water per person. Must be changed every 6 months.
- Food** – Pack food that will not spoil such as canned food, energy bars and dried goods.
- Manual Can Opener**
- First-Aid Kit** – To deal with injuries.
- Blanket** – Many uses including first-aid treatment for shock and hypothermia.
- Candles and Matches** – To be used in case of a power outage. If candles are used, keep the flame away from any combustible materials.
- Battery Powered Radio** – To be used to listen for updates and instructions from emergency workers.
- Extra Batteries** – For radio and flashlight.
- Special Items** – Such as infant formula, prescription medications or equipment for people with disabilities.
- Extra Keys** – For your home and vehicles.
- 4-H Farm & Family Emergency Planning Guide** – Contains information important to emergency situations.



Fire Extinguishers

There are different categories of fires that require different types of extinguishers.

The three main categories of fire are:



<p>Ordinary Combustibles</p> <ul style="list-style-type: none"> - Wood - Paper - Cloth 	<p>Flammable Liquids</p> <ul style="list-style-type: none"> - Gasoline - Paints - Oils 	<p>Electrical Equipment</p> <ul style="list-style-type: none"> - Computers - Motors - Switches
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In order to handle all three categories of fire, you need an ABC Fire Extinguisher. This is usually a multi-purpose dry chemical extinguisher.

How to use a fire extinguisher

Just remember P. A. S. S.!

Pull the pin

Aim the nozzle

Squeeze the lever

Sweep the nozzle back and forth



REMEMBER:

- Aim the extinguisher at the base of the flame.
- If the fire does not go out after 30 seconds, leave the area and call the fire department.

Service the fire extinguisher at the beginning of each year and after any use.

Call your local fire department for workshops on the proper use of fire extinguishers.

Family Evacuation Plans

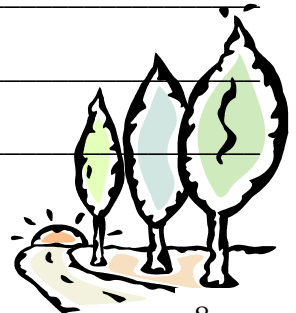
Planning evacuation routes will help your family get out of the home faster. Meeting at a designated location will assist you to get out of harm's way. Be sure to identify evacuation routes for each level of the home.

Home Evacuation Plans: _____

The Outdoor Meeting Place: _____

It might be necessary for your family to evacuate the area. Take the time to plan your evacuation route.

Neighbourhood Evacuation Plans: _____



Contact List

Have this information in your emergency kit and a copy available at every telephone.

Calling 911

- You will be asked if you need fire, police, or ambulance services.
- You will be asked your address. You may be required to provide directions.

Address: _____

Directions: _____

- You will be asked questions about the event and current situation.

**Listen carefully, speak clearly,
and be calm.**



Non-Emergency Numbers

Health Clinic: _____

Fire: _____

Police: _____

Other Important Numbers

Provincial Emergency Program **1-800-663-3456**

- To report a public emergency

BC Nurse Line: _____

Poison Control: _____

BC Hydro: _____

Terasen Gas: _____

Family Doctor: _____

Other: _____

Important Locations

In the event of an emergency, it is important for each member of the family to know where emergency equipment is located and how to shut off utilities.

Write down the location of each item and any necessary instructions.

Emergency Kit: _____

Fire Extinguisher: _____

Water Valve: _____

Shut Off Procedure: _____

Gas Valve: _____

Shut Off Procedure: _____

Electrical Box: _____

Shut Off Procedure: _____

Floor Drain: _____

Contact List

List the contact information for an out of town contact, such as a family member or friend.

If a natural disaster or other emergency happens while your family is separated, plan for everyone to call the out of town contact. This will allow your family to know everyone's location and condition.

Primary Out of Town Contact:

Name: _____

Address: _____

Phone #1: _____

Phone #2: _____

Email: _____

Secondary Contact:

Name: _____

Address: _____

Phone #1: _____

Phone #2: _____

Email: _____

**Listen carefully, speak clearly
and be calm.**

Farm Preparedness

Health & Safety (Plants & Animals)

- Do you have a site plan or drawing of your farm identifying the location of fields, crops and livestock?
- Do you have adequate back-up feed supplies?
 - Necessary amount for all animals in your care?
 - Are you able to prepare and dispense feed and are there power/fuel requirements?
- Is there adequate drainage of crop land?
- Is there a plan to assist crop recovery?

Environmental

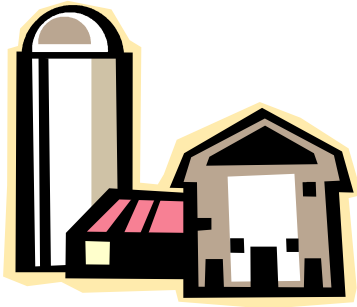
- Able to dispose of excess water and manure during flooding or otherwise (adequate drainage)?
- Have site plan indicating all potential sources of waste water and manure?
- Have waste storage facilities? Location (septic tanks/holding tanks/lagoons)?
- Do manure storage facilities meet all local and provincial building codes and safety standards?
- Have action plan to contain and clean up accidental spills due to normal farm operation or natural disaster?



Farm Preparedness

Hazardous Materials

- Any hazardous materials on the farm property?
- Are all hazardous materials properly stored (pesticides / fertilizers / gasoline / propane)?
- Aware of basic guidelines to reduce risk of exposure to pesticides and other chemicals?
- Do you or any family member have proper training for safe handling of chemicals?
- Do you know how to access local, provincial or other resources in the event of a spill?



Finance and Administration

- Are farm records protected from natural disasters (fire/flood)?
- Are records computerized? If so, is the information backed up and stored in a safe place?
- Have duplicates of insurance policies, property deeds, wills and other important documents?
- Have off-farm storage options for your records and documents (safety deposit box)?
- Are all farm insurance policies up-to-date?

Farm Preparedness

A large extent of emergency planning for farms is preparedness and prevention.

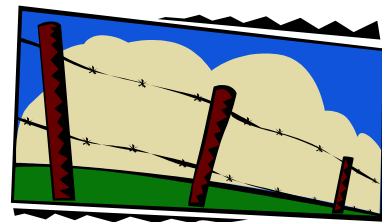
This list is not comprehensive but is only guideline. Work through the following questions to help you to prepare for and lessen the impact of an emergency. For more information, refer to the 'Resources' section.

Power

- Does your farm have adequate back-up power in the event of a power outage?
 - Does your back-up power need fuel?
 - Do you have alternate forms of energy available (wind/solar/wood heat/propane)?

Water

- Does your farm have adequate emergency water supplies?
 - Sources of potable water for human and livestock consumption? Location of sources?
 - Distribution of potable water? Is power needed to access the supply (pumps/gravity feeds/irrigation system)?
 - Can you store emergency drinking water (reservoirs/tanks/cisterns)?
- Can you purify your water if needed?
- Can you protect or decontaminate your water supplies AFTER an emergency?



Livestock Evacuation Plan

Some natural disasters require the evacuation of livestock. To be most effective, plans to evacuate animals need to be arranged in advance.

Relocation Site

Where are you going to take your animals? Be sure this site is large enough and a sufficient distance from the original location.

Phone number: _____

Route(s)

(Include alternate routes in case of road closures)

Transportation

Determine what methods of transportation are available. If there are other people you can call to help move your animals, list their name and contact numbers.

Name: _____

Contact #: _____

Name: _____

Contact #: _____

**Remember to keep all vehicles fuelled
and trailers in working order.**

Farm Asset Inventory and Site Map

A detailed farm inventory and site map will allow you to get information about your farm to emergency services quickly.

Site Map

On a separate piece of paper, create a map of your farm. Be sure to label buildings, storage, and crops/livestock on the map.

Once your map is complete attach it to your B.C. 4-H Farm & Family Emergency Planning Guide.

Farm Asset Inventory

Using a separate piece of paper, list all of the items that fall under each category outlined below. Once the list contains all of the important assets on the farm, attach it to your B.C. 4-H Farm & Family Emergency Planning Guide.

- **Land and Buildings**
 - Land Owned (acres)
 - Land Leased (acres)
 - Farmhouse(s)
 - Barn(s)
 - Garage(s)
 - Sheds
 - Silos/Elevators
 - Greenhouses
 - Fences (all types)
- **Field Machinery & Equipment**
- **Barn Equipment**
- **Livestock (dairy/beef/swine/lamb)**
- **Crops (wheat/barley/potatoes/apples)**
- **Purchased Feed and Supplements**
- **Chemicals (pesticides/herbicides/fertilizers)**
- **Hazardous Materials**

Livestock Evacuation Plan

Identification

It is critical that you are able to identify all of your animals before, during and after an emergency. Some types of livestock require particular methods such as cattle and CCIA tags. Do not wait until you have to evacuate your animals to mark and record identification information.

Supplies/Feeding/Water

Determine how will you feed and water your animals at the relocation site.

Veterinarians

Name: _____

Contact #: _____

Name: _____

Contact #: _____

Returning to the Farm

Before you return your livestock to your farm, use this quick checklist to determine if it is safe.

- Barn is structurally sound and can safely house animals**
- Water supply is clean and not contaminated**
- Feed/Hay supply is clean and dry**
- Fencing is in place and secure**
- Electricity is available and safe**



Flooded storm drain

NEVER WALK IN WATER THAT IS ABOVE YOUR KNEES

Emergency Planning

It is important to learn of the disasters that can be experienced in your region and make plans for each of them. Remember that you could experience secondary effects of natural disasters in other areas. For example, you may not be at risk for a landslide, but a landslide in another area could interrupt power to your farm or home.

Common Natural Disasters in British Columbia

- Avalanche
- Drought *
- Earthquake *
- Extreme Weather (Storms) *
- Flood *
- Landslide
- Storm Surge & Tsunami
- Wildfire *
- Backcountry Accident
- Hazardous Materials Spill *
- Infectious Disease Outbreak
- Volcanic Eruption
- Wildlife Interface
- Power Outage *

* Emergencies Covered in this Guide

For more information on emergency situations, consult the resources section at the end of this guide.



Floods

Floods can be slow-rising, which is the result of floodwaters causing a river to swell and spill its banks, or they can be fast-rising, which could be the result of heavy rains and snowmelt or a dam failure.

Preparing for a Flood

- Have a livestock evacuation plan established.
- Determine if your farm is in a floodplain at higher risk of flooding.
- Install check valves in farm and home plumbing that will prevent floodwater from backing up septic systems.
- Build separate sheds for the storage of hazardous materials.
- Ensure manure pits and lagoons can withstand flooding.
- Stock materials such as sandbags, lumber and plastic sheeting.
- If the conditions for a flood are present, pack up valuable possessions to have them ready to move and consider evacuating livestock.

In the Event of a Flood

- Reduce the impact of flooding through the use of sandbags and other waterproof barriers.
- There may be an interruption in power, fuel sources and road access.
- Unless it would compromise your own safety, evacuate livestock using your established plan.
- If you must leave animals behind, make sure they are not confined or tied up.
- If there is time shut off the utilities to your home.
- Do not drive over a flooded road.
- Do not cross water that is above your knees.
- Food that comes in contact with flood waters becomes contaminated and is unfit for both human and livestock consumption.



Drought/Extreme Heat

Drought is the result of no substantial rainfall in an area for a long period of time. Extreme heat is an above average temperature in an area and lasts more than a few days.

Preparing for Extreme Heat or Drought

- Practice water conservation measures on your farm. This will reduce the strain on your water resources before and during periods of drought.
 - Landscape with drought resistant plants.
 - Do not run water while washing vegetables, brushing teeth, and other activities.
 - Place a brick in the tanks of each toilet in your home. It reduces water use.
- Excessive energy use can lead to power outages, so it is important to conserve it. During the summer and times of extreme heat, power consumption rises as more people use air conditioners.
 - Insulate your home to reduce the demand for air conditioning.
 - Keep your thermostat set at a moderate level.
 - Use cold or warm water when using washing machines.
 - Run dishwashers only when they are full.
 - Turn off lights and appliances when not in use.
- Provide shade and salt licks for livestock.
- Ensure the whole family knows the symptoms and treatment for heat stroke and dehydration.

In the Event of Extreme Heat or Drought

- Keep your water use to a minimum.
- Ensure all animals have access to water at all times. Keep the water supply cool and in the shade.
- Take extra care to prevent fires, both on the farm and in the forest. Drought and extreme heat dries up the forest and the slightest spark can start a raging wildfire.



Winter Storms

Winter storms vary in size and strength. Heavy snowfalls can trap people in their homes and ice storms can snap power lines. A combination of snow, ice, and cold temperatures may cause livestock losses.

Preparing for a Winter Storm

- Power outage is the greatest risk in winter storms.
 - Ensure there is enough food and extra fuel available before the winter weather starts.
 - Make sure back-up power generators are in good working order and have extra fuel available.
 - Have alternate heating options available and pay attention to the manufacturer's instructions.
- If there is not enough room in a barn or other shelter for your animals, provide extra feed and windbreaks.
- Build barns and other buildings to withstand the typical snowfall in your area.
- Ensure any plumbing on the farm will handle freezing temperatures.
- Keep vehicles winterized with anti-freeze and carry other winter tools such as windshield scrapers.
- Be prepared to stay warm for at least seven days.

In the Event of a Winter Storm

- Avoid all unnecessary travel. If you are at home and a storm hits, stay there.
- Keep animals indoors if possible.
- During extreme cold, animals need extra feed to keep their energy up.
- If you must go outside wear many layers of loose fitting, protective clothing. This will keep you warmer and drier than a single piece of thick clothing.
- After a storm, assess buildings for damage and clear heavy snow packs off roofs to prevent cave-ins.

Emergency Plan: Winter Storm

Responsibility Checklist - Use this checklist to help you in identifying individuals and their responsibilities in the event of an emergency.

Task <i>Examples</i>	Person Responsible
<i>Back-up Power Operator</i>	<i>John</i>
<i>Livestock Feeding & Watering</i>	<i>Mary</i>
<i>Damage Assessment</i>	<i>Harold</i>

Alternate heating options

Emergency Plan: Drought/Heat

Primary Water Sources: _____

Secondary Water Sources: _____

Water conservation measures: _____

Energy conservation measures: _____

Measures to protect livestock: _____

Measures to prevent fires: _____

Wildfires

A wildfire is an uncontrolled burn of forests, brush or grassland. These types of fires are unpredictable and extremely dangerous.

Preparing for a Wildfire

- Use fire resistant materials on the exterior of buildings and install sprinkler systems for buildings.
- When constructing pools or ponds, make them accessible for fire equipment. They could be used as a source of water for firefighters.
- Store hay, sawdust, and other combustible materials away from buildings.
- Ensure wiring in buildings and equipment is in good condition to prevent electrical fires.
- Clear leaves and other vegetation from roofs and gutters; clear vegetation away from buildings.
- Avoid unnecessary burning. Supply a designated smoking area if necessary. Take extra care with open flame.

In the Event of a Wildfire

- Place sprinklers on the roofs of buildings. Make sure these efforts do not jeopardize water sources for firefighting crews.
- Evacuate your livestock well in advance of an official evacuation order. If there is not enough time to evacuate livestock, do not leave them confined.
 - Let animals out of barns and shut the doors behind them so they cannot re-enter.
 - Shut off electric fences.
 - Open gates.
- Watch animals for symptoms of smoke inhalation and immediately consult a veterinarian about treating burned animals.
- When returning to your farm after a wildfire, take heed of burned trees or buildings. They are unstable and likely to fall. Keep animals away from burned areas.



Earthquakes

The effect of an earthquake depends largely on its magnitude. It is impossible to predict when and where an earthquake will happen. Be aware of other emergencies that can develop from earthquakes, such as landslides, fires, hazardous material spills and floods.

Preparing for an Earthquake

- Make buildings less susceptible to damage
 - Bolt down or reinforce water heaters and other gas appliances and install flexible gas lines.
 - Have cracks in foundations and ceilings inspected by a professional.
 - Place heavy objects on lower shelves and anchor objects taller than 5 feet.
- Have bolt cutters available as earthquakes can damage gates and jam them shut.
- Identify safe locations during an earthquake.

In the Event of an Earthquake

- Earthquakes will cause animals to become nervous. Use caution when handling animals
- The after effects of an earthquake are the most damaging.
 - Watch for falling objects, exposed wiring and small fires.
 - Shut off gas lines as soon as the earthquake stops to prevent gas leaks.
- If you are indoors when an earthquake hits remember **DROP COVER HOLD**.

Drop	Get down on the floor
Cover	Get under a strong piece of furniture
Hold	Grab onto the furniture

- Keep away from falling items or objects that can shatter, such as windows.
- If you are outside when an earthquake occurs get away from buildings, power lines and any other objects that may fall.

Hazardous Materials Spill

Hazardous materials can be released by accident or through a natural disaster. Exposure to such materials is dangerous to humans, crops, and livestock. Depending on the scale of the spill and the materials involved, local, provincial or federal agencies may respond.

Preparing for a Hazardous Materials Spill

- Hazardous materials need to be stored in safe places where children and animals cannot access them.
- Storage areas should have separate locks from other buildings onsite.
- Storage areas must be protected from freezing and overheating. Hazardous materials react poorly to heat or cold.
- Place hazardous materials on lower shelves to avoid items falling and breaking open.

In the Event of a Hazardous Materials Spill

- There is little an untrained person can do to deal with hazardous material spills. Contact professionals and follow their instructions.
- Livestock that have been exposed to low levels of contaminants may not appear to be affected, however, their meat, eggs, and milk may be contaminated. If you think your animals have been affected, contact your veterinarian.

Hazardous Materials Contacts

Resource people to be contacted in the event of a hazardous materials spill:

Contact: _____

Phone: _____

Contact: _____

Phone: _____

Contact: _____

Phone: _____



Power Outage

There are many events that can cause a power outage. Outages can last an hour, a day or a week depending on what caused the interruption.

NEVER TOUCH FALLEN POWER LINES!

The following list of questions will help you determine your ability to handle a power outage.

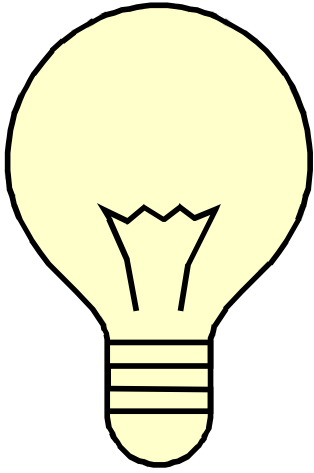
- What is the emergency power requirement for your farm and home?
- Do you have a stand-by power generator and does it meet your family's power needs?
- Does your back-up power system meet provincial regulations?
- Do you have adequate fuel reserves to last a week?
- If you do not need back-up power have you considered:
 - Heating barns and homes in the winter?
 - Irrigating fields or watering livestock without power? Do you have a manual system or alternate water sources available?

Power Outage Instructions

Essential power requirements

Responsibility Checklist - Use this checklist to help you in identifying individuals and their responsibilities in the event of an emergency.

Task	Person Responsible
<i>Example</i> <i>Back-up Power Operator</i>	<i>John</i>



Resources

The following is a list of online resources you can use to get more information related to emergency preparedness.

Provincial Emergency Program

For information on provincial responses to large disasters and emergencies. Includes information on the Disaster Financial Assistance Program and links to municipal emergency plans:
www.pep.gov.bc.ca

Department of Public Safety

For more information on preparing you family for an emergency:
www.getprepared.ca

Canadian Red Cross

For more information on first-aid and disaster relief:
www.redcross.ca

Canadian Farm Business Management Council

For a detailed farm planning guide:
www.farmcentre.com/english/downloads/pdf/disaster_planning.pdf

B.C. Ministry of Agriculture and Lands

For information on emergency programs for agriculture:
www.agf.gov.bc.ca

B.C. Ministry of Environment

For information on environmental emergencies:
www.env.gov.bc.ca

B.C. Ministry of Forests

For information on wildfires and prevention:
www.for.gov.bc.ca

Farm and Ranch Safety and Health Association

For training programs on emergency planning:
www.farsha.bc.ca

Ontario Farm Animal Council

For more information on transporting animals in an emergency situation:
www.ofac.org/pdf/emergencyguideMarch07.pdf