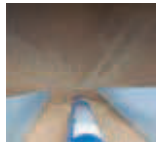




environmental farm plan

sustainably farmed



Emergency Plan

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The information and recommendations contained in this publication are believed to be reliable and representative of contemporary expert opinion on the subject material. The Ontario Soil and Crop Improvement Association (OSCIA) does not guarantee absolute accuracy or sufficiency of subject material, nor can it accept responsibility for health and safety recommendations that may have been omitted due to particular and exceptional conditions and circumstances.

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Introduction to Emergency Planning

All farm operations deal with materials that, if improperly handled, have the potential to contaminate and damage our environment. Learning about the risks on your farm will help you develop plans of action to use in the event of a spill or other emergency.

The process of developing a customized Emergency Plan will put essential information at your fingertips in the event of an emergency.

A completed Emergency Plan is a series of plans that help prepare you for different types of emergencies according to the specifics of your operation.

This workbook will guide you through the process, starting with “big-picture” farm-wide emergency planning and working through risk-specific situations. Templates will help you capture the essentials.

Work with your family and employees to make sure the plans are practical. Being prepared to act in an emergency situation shows you are aware of the risks on your property, which is an important part of demonstrating due diligence towards preventing damage.

TIP

The Emergency Plans printed on heavy paper should be removed from this workbook and posted in appropriate areas around the farm. When the posted copies look worn it is time to review your Emergency Plans to make sure they are still up to date.

EMERGENCY PLANS CONSIST OF:

Emergency phone numbers; this list should be posted beside ALL telephones on the property at ALL times

Knowledge of surrounding dwellings and land uses

A list of emergency equipment and supplies and their locations

A sketch of your farmstead and immediate surroundings, including emergency water supplies

A sketch of where water or liquids could run off the farmstead, include nearby rivers, lakes, wells, wetlands, woodlots, open ditches, and the tile drainage system

A sketch showing locations of fire extinguishers, potential explosives, flammables and chemical storages

Plans outlining the actions to be followed in the event of a spill (e.g. manure, pesticides, fuels) or in case of another emergency

Management plans and record keeping should be done in addition to farm emergency plans. These records should provide additional information on the use of products and management factors involved with manure, pesticides, fertilizer and other materials.

The Appendix contains extra information and samples of Record Keeping templates. These can be photocopied, or adapted to better suit your specific situation.

Be sure to test your plans in non-crisis situations to confirm they work as intended!

Emergency Telephone List

Please review and complete the attached pages as they apply to your farm operation(s).
Please copy and post beside every telephone on your property.

EMERGENCY TELEPHONE LIST	
Farm Manager	Phone:
	Cell:
Alternate Contact	Phone:
	Cell:
Family Doctor	Phone:
Hydro Provider	Phone:
Local Municipality	Phone:

Directions to the farmstead, starting at the nearest town or major intersection:

Farm Name	
Civic Address	
Road	
Town/City	
Postal Code	
Township	
Lot	
Concession	
County/Region	

Poison Information Centre

24 Hours, bilingual

1-800-268-9017

Spills Action Centre

24 Hours, bilingual

1-800-268-6060

In an emergency requiring the fire department or medical assistance call

911

Farm Emergency Plan

1. HAVE A GOOD SKETCH OF YOUR FARM

Draw a map showing the farmstead site. Use a suitable scale for your sketch and provide distances to show the approximate sizes of features on your farm and distances between these features.

TIP

You can photocopy and attach your Environmental Farm Plan Farmstead Sketch, add details to an aerial photograph (available online) or use the template provided in this workbook (page 8).

FEATURES TO INCLUDE ON YOUR MAP (PAGE 8)

All buildings, including fan openings, windows, doors, floor drains and their outlets
Supplies (e.g. fire extinguishers, first aid kits, tools, protective clothing, absorbent materials)
Electrical service panels
Hydro, gas, and water shutoffs
Generator(s), hookups for generator
All fixed outside equipment
Compressed gas storages (e.g. oxygen, acetylene, and air tanks)
Propane and fuel tanks
Anhydrous ammonia storage
Water well(s) location, including abandoned and unused wells
Water source for fire fighting (may be the nearest tank fill location)
Possible contamination sources (e.g. pesticide storages, fertilizer storages, petroleum products storage, septic systems, manure storages, barnyards, pesticide mixing facilities)
Expected pathways for water runoff (e.g. where will the water flow when you put out a fire?)
Perimeter fences, gates, tile inlets, catch basins, surface water
Access routes

2. KNOW WHERE YOUR EMERGENCY EQUIPMENT AND SUPPLIES ARE

Fire Extinguishers	
First Aid	
Vacuum Truck	
Scrapers, Front-end Loaders, Backhoes	
Portable Water Pumps	
Water Tanker	

Absorbent Materials (e.g. dry sawdust, peat, straw)	
Sand Bags	
Portable Generators	

3. LIST THE LOCATIONS/TYPES OF EMERGENCY WATER SUPPLIES ON YOUR FARM

e.g. hydrants, ponds, watercourses, wells.

4. THE AREA AROUND YOUR FARM IS IMPORTANT

Briefly describe what geographical features and land uses are present within 1.5km of your farm; include phone numbers of neighboring land users if required.

TIP *This helps the Spills Action Centre and Ministry of the Environment and Climate Change (MOECC) officers evaluate the severity of a spill, and helps determine the best way to manage spills.*

		Telephone Number(s)
NORTH		
SOUTH		
EAST		
WEST		

EXAMPLE:

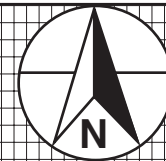
NORTH	<i>pasture for 1km, commercial district after that</i>	
SOUTH	<i>cash crop fields, neighbouring farm has a well within 1km of my farm</i>	
EAST	<i>road, neighbouring pasture</i>	
WEST	<i>cash crop field, creek and a pond roughly 0.5km from my fence line</i>	

Draw a map showing the area surrounding your farm for approximately 1.5km in all directions (page 9). Focus on the surface and subsurface drainage of the property, and where that water discharges. Indicate areas where runoff can be contained by locating where runoff may be blocked by dikes or dams. Make note of sensitive adjacent land uses.

TIP *More copies of the map template are available at the end of the workbook. If you choose to include everything on a single map make sure you can read it.*

My Farm

Approximate Scale: _____



LEGEND

Fire Protection Equipment

- Fire hydrant
- First aid
- Main gas shutoff
- Main water shutoff
- Underground fuel tank
- Main electrical shutoff
- Aboveground fuel tank

Buildings

- Fire door
- Sliding door
- Window
- Pedestrian door
- Overhead door

Hazardous Substances

- Compressed gas
- Corrosive materials
- Flammable liquids
- Poisonous materials
- Oxidizing materials
- Fire extinguisher

Also Indicate:

- All buildings
- Other supplies (i.e. tools, protective clothing)
- Electrical service panels
- Location(s) of generator(s) and hookup(s)
- Fences
- Access routes
- Expected runoff pathways
- All fixed outside equipment
- Anhydrous ammonia storage
- Water source for firefighting
- Possible contamination sources (i.e. manure, septic, chemical storage)

The area around my farm

Approximate Scale: _____



Show the area surrounding approximately 1.5km around your farm. Focus on:

- Surface and subsurface drainage
- Areas where water discharges
- Areas where runoff could be contained with dikes or dams
- Sensitive adjacent land uses

Managing Spills on your Farm

The 4Cs of Spill Management: **Control - Contain - Call - Clean**

A SPILL IS A DISCHARGE INTO THE NATURAL ENVIRONMENT OF A MATERIAL THAT:

- Is abnormal in quality or quantity, and
- Causes, or is likely to cause, adverse effect to humans, animals and/or the environment.

TIP

After the spill has been dealt with, evaluate why it happened and how it could be prevented from happening again. Address any shortcomings in your equipment and procedures. Accidents happen, but reporting the same basic incident several times is evidence of negligence.

STEPS TO TAKE IF A SPILL OCCURS



1. Control the material being spilled. Shut off the pumps, righten the container, do what you can to stop the spill at its source. This should only be attempted if you can control the source of the spill **without putting yourself in danger**. If the situation is potentially dangerous, skip to step 2.



2. Contain the spill. Dig a trench or a dike, cover liquids with absorptive material. Try your best to minimize the impact of the spill. If the situation is risky, skip to step 3.



3. Call the Spills Action Centre (1-800-268-6060) and your municipality to alert them about the spill. *It is very important this call comes from you, and not a passerby.* As soon as efforts have begun to contain the material, call in the spill. They will document that a spill has occurred and send a Ministry of the Environment and Climate Change (MOECC) representative to help, if necessary. You will also be asked to notify them when the spill has been cleaned up. Failure to report a spill is an offense.



4. Clean the material, acting on the advice that the MOECC or other experts provide.

IMPORTANT:

If the spill cannot be controlled call the Spills Action Centre immediately. If the spill is an explosive or flammable material call 911 immediately. Adjust the steps provided with good judgement based on your situation. If the situation is dangerous, remove yourself, your family and your employees and call for help.

Manure or Biosolids Spills¹

Prevent spills from dragline application systems by having automatic shutoff on all pumping equipment. Constant radio contact between the pump operator and the applicator that will allow immediate shutdown in an emergency is a suitable alternative. Using both options is ideal. To monitor material flow and help identify problems, install a flow meter on the applicator unit where the transfer line attaches, and install a display in the tractor cab.

Check all transfer lines and valves before pumping or transferring manure. Look for defects and insecure connections. Locate all pipe/dragline joints a minimum of 15m (50ft) away from any watercourse, stream, municipal drain or catch basin.

If there is concern about material entering the tile drains (e.g. if the soil is very dry and cracked), lightly cultivate the top few inches of soil prior to spreading. Apply manure or biosolids at rates less than 3600 gal/ac.

DO NOT SPREAD:

Liquid manure or biosolids on steep slopes or within 20m (66ft) of surface water

Solid manure or biosolids on steep slopes or within 10m (33ft) of surface water

Any manure or biosolids if there is a high risk of a high volume rain event in the near future

Monitor tile outlets before, during, and after spreading (up to a day) for any sign of water contamination by manure or biosolids. A change in the water colour of running tiles indicates a potential manure spill. If any trace of material is noticed, stop applying, plug the tile(s), and take the necessary steps to handle the contaminated flow, acting on the advice of the MOECC.

STEPS TO TAKE IF A MANURE OR BIOSOLIDS SPILL OCCURS



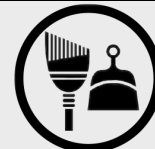
1. CONTROL
the source of the spill, if possible without danger to yourself. Turn off all pumping equipment.



2. CONTAIN
the manure or biosolids spill. For example, construct earthen berms, block drains/watercourses and plug tile drains.



3. CALL
the Spills Action Centre and your municipality.



4. CLEAN
up the Spill. Spills involving manure/biosolids should be land applied using proper procedures according to your Nutrient Management Plan (NMP), if one has been prepared. Depending on the situation, alternative methods of cleaning may be required.

Information about managing manure spills is on page 34.

¹This section pertains to all ASM and NASM. "Manure" refers to all **Agricultural Source Materials (ASM)** including: manure (including bedding), yard and manure storage runoff, washwaters including milking centre washwater, materials from a treatment system, organic materials produced by intermediate generators. "Biosolids" refers to all **Non-Agricultural Source Materials (NASM)** includes: sewage biosolids, pulp and paper biosolids and other non-agricultural nutrient materials capable of being land-applied (e.g. brewery and meat processing byproducts).





Emergency Plan

Manure or Biosolids Spills

FARM LOCATION INFORMATION	
Name _____	County/Region _____
Farm Name _____	Township _____
Fire Number _____	Lot _____
Road Name _____	Concession _____
Town/City _____	Telephone _____
Postal Code _____	Cell Phone _____

The following equipment is readily available to contain and clean the spill:

EQUIPMENT	LOCATION

	1. CONTROL the source of the spill (if possible without risk) using the following methods:
	2. CONTAIN the material and any contaminated runoff using the following methods:
	3. CALL: In an EMERGENCY call 911
	The Spills Action Centre at 1-800-268-6060 The County / Region of _____ at _____
	4. CLEAN the spill using the following methods, unless directed otherwise:

For more information, my complete Emergency Plan can be found in my **Environmental Farm Plan** binder located _____.





Pesticide Spills

The first step to safe handling and storing of pesticides is to attend an **Ontario Grower Pesticide Safety Course**. This course is mandatory for farmers wishing to purchase or apply pesticides from certain schedules. Refer to pages 53-54 in the BMP book *Pesticide Storage, Handling, and Application* for additional information regarding proper procedures to manage spills.

Try to purchase only the amount of pesticide that you need to reduce the amount stored on your property. If you do have to store pesticides on the property, make sure that they are stored in an approved manner, i.e. a separate facility that is secure (locked), is properly ventilated and has signage indicating storage of pesticides. During the storage period, check products frequently for damage to containers or leaks.

In the event a spill does occur, take the appropriate precautions to avoid pesticide exposure. Additional details may be obtained by contacting the Ministry of the Environment and Climate Change (MOECC).

Material Safety Data Sheets (MSDS) provide safety information on any chemical product. They also provide physical data (e.g. flash point), storage criteria, reactivity information, disposal options and spills management advice. MSDS are available from your supplier or the Canadian Centre for Occupational Health and Safety at 1-800-668-4284.

STEPS TO TAKE IF A PESTICIDE SPILL OCCURS			
			
<p>1. CONTROL the source of the spill, if possible without danger to yourself. Turn off all pumping equipment.</p>	<p>2. CONTAIN the pesticide spill. Identify the product and take proper safety precautions before trying to contain the spill. Liquids should be covered with a thick layer of absorptive material (soil, vermiculite, kitty litter, etc.) and given time to be absorbed.</p>	<p>3. CALL the Spills Action Centre and your municipality. If an explosion/fire occurs, or there is a risk of one, call 911.</p>	<p>4. CLEAN the pesticide spill according to the advice supplied by the MOECC. Keep in mind that for your specific situation, alternative methods of cleaning may be required.</p>

KEEP GOOD RECORDS OF YOUR PESTICIDES

Keep a record of the pesticide products you use and store on the farm. Keep this list in a separate location from the actual pesticide storage.

TIP *In the event of a spill, fire, or theft, an inventory list will prove valuable in assisting emergency personnel.*

Pesticide records should track not only the name and concentration of the product, but also the amount you purchased, the amount you have left and the 'use by' date. This is a great place to quickly note any special procedures that may be needed to clean up a spill of the product.

You can find a sample pesticide record keeping template on page 35.

Emergency Plan

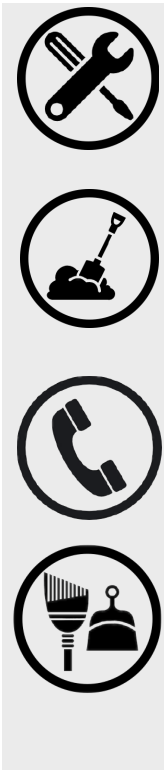
Pesticide Spills

FARM LOCATION INFORMATION

Name _____	County/Region _____
Farm Name _____	Township _____
Fire Number _____	Lot _____
Road Name _____	Concession _____
Town/City _____	Telephone _____
Postal Code _____	Cell Phone _____

The following equipment is readily available to contain and clean the spill:

EQUIPMENT	LOCATION



1. CONTROL the source of the spill (if possible without risk) using the following methods:

2. CONTAIN the material and any contaminated runoff using the following methods:

3. CALL: In an **EMERGENCY** call **911**

The Spills Action Centre at 1-800-268-6060
 The County / Region of _____ at _____

4. CLEAN the spill using the following methods, unless directed otherwise:

For more information, my complete Emergency Plan can be found in my **Environmental Farm Plan** binder located _____.

Petroleum Spills

YOU CAN PREVENT FUEL SPILLS BY:

Using fuel dispensers that automatically shut off when the tank is full, or when the handle is released

Securing and locking tanks and nozzles when not in use

Using only approved containers to transport fuel

Securing fuel containers during transportation

Protecting all fuel storage tanks and piping against rust

Diking around fuel tanks

Note: in some cases, dikes are a legal requirement

The Liquid Fuel Handling Code requires records of monitoring to be kept for all tanks. **Worksheet #5** of the Environmental Farm Plan Workbook explains some of the options for different types of agricultural fuel storage tanks. Additional details may be obtained by contacting the Technical Standards and Safety Authority (TSSA).

TIP

Regularly checking your petroleum storages can alert you to a minor leak before it becomes a major problem.

STEPS TO TAKE IF A PESTICIDE SPILL OCCURS



1. CONTROL
the source of the spill, if possible without danger to yourself.



2. CONTAIN
the petroleum spill by constructing earthen berms with a scraper blade or loader, or by using sand bags.



3. CALL
the Spills Action Centre and the municipality. If an explosion/fire occurs or there is a risk of one, call 911.



4. CLEAN
the petroleum spill according to the advice supplied by the MOECC. Any contained spill involving petroleum should be scooped up, sucked up with a vacuum tank, or soaked up with appropriate absorbent materials.

Records for Underground Fuel Tanks

Conduct volume reconciliation daily, ideally at a set time to reduce temperature variations. Using a clean measuring stick, measure and record the depth of the fuel in the tank. Investigate any discrepancies between anticipated and actual fuel levels.

Records for Aboveground Fuel Tanks

Perform a weekly visual inspection of the tank and surrounding area. Check for leaks and spills, inspect the pump, hose and all connections for evidence of leaking. Check the vacuum gauge for evidence of a leak in the interior tank wall, if applicable. Check the tank for rust. If there is a dike, drain any water as needed.

Sample petroleum storage tank record keeping templates are on pages 36 and 37.

Emergency Plan

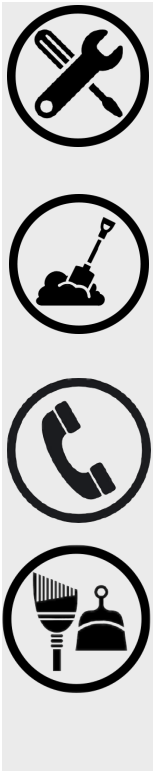
Petroleum Spills

FARM LOCATION INFORMATION

Name _____	County/Region _____
Farm Name _____	Township _____
Fire Number _____	Lot _____
Road Name _____	Concession _____
Town/City _____	Telephone _____
Postal Code _____	Cell Phone _____

The following equipment is readily available to contain and clean the spill:

EQUIPMENT	LOCATION



1. CONTROL the source of the spill (if possible without risk) using the following methods:

2. CONTAIN the material and any contaminated runoff using the following methods:

3. CALL: In an **EMERGENCY** call **911**

The Spills Action Centre at 1-800-268-6060
 The County / Region of _____ at _____

4. CLEAN the spill using the following methods, unless directed otherwise:

For more information, my complete Emergency Plan can be found in my **Environmental Farm Plan** binder located _____.

Other Farm Emergencies

Introduction

Remember there are many possible emergency situations on your farm!

BE PREPARED FOR:

Major Electrical Power Outages

Catastrophic Livestock Losses

Low Water Conditions

Fire

Flowing Grain Entrapment

Insufficient Manure Storage Capacity

Health and Safety

TIP

Take a minute to think what other emergencies might impact your farm and family, and develop a plan to respond before it happens.

For example, do you live on a flood plain? In a tornado prone area? How can you prepare for those situations? This section (pages 17-32) can help you prepare a customized emergency plan for each scenario in the grey box to the left.

DO YOU HAVE ENOUGH INSURANCE?

One way to protect your farm business and recover from an emergency is to have adequate insurance. Many people are under-insured, which makes it difficult to quickly return their operation to normal.

TIP

Find out exactly what your policy covers and what it does not. Find out how claims are handled in an emergency situation, and what you will need to do to get payments.

KEEP RECORDS OF THE ASSETS YOU OWN

Know the appraised and replacement values of your home, machinery, tools, buildings, stored crops, vehicles and livestock (both owned and non-owned). Document your belongings with photographs. Make copies of ALL your important documents.

TIP

Place copies of these documents off-site, such as in a safety deposit box or with a trusted family member. Consider saving digital copies in a secure internet-based storage system (i.e. "the cloud"). If you are storing critical documents on your property, consider investing in a fireproof safe and/or filing cabinet.

EXAMPLES OF IMPORTANT DOCUMENTS:

Insurance policies
SIN cards
Passports
Driver's licenses
Proof of ownership
Livestock records
Inventory lists

HAVE AN EMERGENCY KIT

Use the lists below to develop an Emergency Kit that will last for 3 days. Assemble the items and information you might need before you do need it.

Remember that your livestock will be impacted by an emergency. You will need supplies and information, and you will need to access them quickly. Consider the daily feed and water requirements for all your livestock. Assemble the items and information you will need to respond to an emergency situation.

Pets may need emergency food and shelter too. They may also need restraining or containing to keep them out of the way of emergency personnel. Finding a suitable length of rope to tie up a dog that is normally loose can be a challenge you won't have time for in an emergency situation.

HOUSEHOLD EMERGENCY KIT

First aid supplies	Change of clothing for all family members, including footwear	Candles and matches or a lighter
Sleeping bag or blankets for each family member	Flashlights and batteries	Battery-powered or hand-cranked radio
Extra batteries	Non-perishable food	Bottled water
Basic tools (e.g. hammer, nails, pliers, duck tape etc.)	Extra vehicle and house keys	Money, including change
Copies of important family documents (birth certificates, licenses, life insurance)	List of emergency phone numbers	Supplies for special needs (medications, baby formula, pet food etc.)

LIVESTOCK OR PET EMERGENCY KIT

First aid supplies	Vet information	Medications
Feed	Alternate water source	Restraints
Temporary fencing	Temporary shelter	Transportation
Basic tools (i.e. fencing pliers)	Experienced handlers	Ownership and other records

TIP

What else might your family and/or livestock need? Consider your specific needs.

Major Electrical Power Outages

DETERMINE YOUR POWER NEEDS

Determine how much power you need to maintain basic farm/household operations by surveying all necessary equipment and its electrical load. Based on these figures you can determine the minimum size of generator(s) needed for your operation in the event of an outage.

TIP

Remember that your farm may have different needs than your neighbour's. Do you need to maintain ventilation or refrigeration for your operation? What aspects of your farm need an uninterrupted power source? Which ones can share a power source?

DETERMINE YOUR WATER SUPPLY

Have a minimum of 4.5 litres of potable water per person per day on hand.

Determine the minimum amount of water your livestock/birds need. The OMAFRA Factsheet *Water Requirements for Livestock* is an excellent resource to consult.

Identify a reliable, clean source of water. This can be your well if a generator can be used to operate the pump. Remember that your water source may need treating (boiling) before human consumption.

DETERMINE YOUR FEEDING / FODDER REQUIREMENTS

Have enough food for your family to last 72 hours.

Consider how you will prepare this food. Do you have a barbecue? A manual can opener?

Determine the minimum daily feed ration per animal/bird. Consult with your nutritionist or supplier to establish these minimums.

Have enough feed for your livestock/birds to last at least 72 hours.

Have a back up feed supplier who may be on a different part of the grid. How will you deliver feed to your livestock/birds? Is your daily system dependent on hydro?

USE YOUR GENERATOR SAFELY

- Have a qualified electrician install a double-pole-double-throw transfer switch at the connection point. This will help protect hydro workers on the power grid, and your facility.
- Store your generator(s) in a secure but accessible location.
- Follow the manufacturer's recommended operating instructions.
- Operate the generator in well-ventilated areas to prevent carbon monoxide poisoning.
- Train family and employees in safe use of the generator.
- Post written connection and startup procedures at the connection point(s).
- Complete routine maintenance according to the owner's manual.
- Test the generator at appropriate frequencies and electrical loads.
- Keep fuel available for your generator. If your generator has a battery back-up power option be sure to have a battery available.

Tables to help you determine your power, feed and water needs can be found on page 38.

Emergency Plan

Major Electrical Power Outages

FARM LOCATION INFORMATION

Name _____	County/Region _____
Farm Name _____	Township _____
Fire Number _____	Lot _____
Road Name _____	Concession _____
Town/City _____	Telephone _____
Postal Code _____	Cell Phone _____

CALL

If necessary, I can contact:
 Hydro Provider _____ at _____
 The County / Region of _____ at _____

In EMERGENCY call 911

DO NOT call 911 just because your power is out. Call your hydro provider for information specific to your situation.

I will protect my property by:

- Unplugging all electrical equipment to prevent damage from electrical surges or spikes when power is eventually restored.

I will protect myself by:

- Using battery-powered light sources (flashlights or lanterns). Candles are a fire risk.
- Using fuel-powered generators and cooking equipment outside to prevent accumulations of carbon monoxide in my home/buildings.

I will protect my livestock and/or birds:

	Name	Phone Number(s)
Backup feed supplier(s)		
Veterinarian		
Livestock Shippers		
Extra Manpower		

For more information, my complete Emergency Plan can be found in my **Environmental Farm Plan** binder located _____.

Catastrophic Livestock Losses

WHAT RISKS CAN LEAD TO CATASTROPHIC LIVESTOCK LOSS?

Catastrophic livestock losses can occur in the event of a barn fire, natural disaster, disease, or system or structural failures.

HOW CAN I DISPOSE OF DEADSTOCK?

You should decide your preferred methods of deadstock removal before a crisis, keeping in mind that mass burials are not generally permitted. Decide if you want to compost or ship the stock, or if you think mass burial might be suited for your property. Be aware that your options might change in the winter. The OMAFRA Factsheet *Emergency Disposal of On-Farm Deadstock* may help you plan. For general information on managing deadstock, refer to the BMP book *Deadstock Disposal*.

COMPOSTING	If you decide to compost you should identify a heavy equipment operator and a substrate supplier, if needed (i.e. if you do not have solid manure). You will need a plan to keep scavengers away from the compost area.
SHIPPING	If you choose to ship the stock you should investigate the rules at your local landfill or other licensed receiving facilities, so you know who to call. Remember that dead cattle can be difficult to ship, and that there may not be a receiver close to you.
BURIAL	Be aware that mass burial is not generally recommended. You will need an Emergency Authorization, issued by OMAFRA, to allow a mass burial. To get this authorization, you will need to be able to defend why burial is the best option for your situation. Be prepared by identifying a few carefully selected sites that avoid tile runs and that are suitably far from other sensitive features like surface water. Mark these potential sites on your farm map on page 8.



Before a catastrophic livestock loss occurs, check your insurance coverage. Know exactly what is covered and how. Specifically ask if disposal costs come out of a general policy, or if there is a separate rider. If you are considering a mass burial, ask your insurance provider if they will allow it. Many providers will not insure properties with a mass burial on site.

BE MENTALLY PREPARED

The personal and public aspects of catastrophic livestock losses are where you may need to plan the most. Not only will you have to mentally and emotionally come to grips with the loss of your livestock, you may have to manage outsiders immediately. It is not unheard of for animal activist groups to arrive at the scene of a catastrophic livestock loss and begin protesting. Farm & Food Care Ontario may be able to help you cope with the media.

Identify members of your family and the community who can help you get through this time. Have suggestions of people prepared to deal with the media and to direct traffic (both emergency traffic and sightseers). Talk with your commodity group to see if they offer support.

Emergency Plan

Catastrophic Livestock Losses

FARM LOCATION INFORMATION	
Name _____	County/Region _____
Farm Name _____	Township _____
Fire Number _____	Lot _____
Road Name _____	Concession _____
Town/City _____	Telephone _____
Postal Code _____	Cell Phone _____

CONTACT INFORMATION	PHONE NUMBER
Spills Action Centre	1-800-268-6060
OMAFRA Agricultural Contact Centre (business hours)	1-877-424-1300
My Commodity Group	
Farm & Food Care (business hours)	1-877-837-1326
Potential Licensed Receiving Facilities	
Heavy Equipment Operators	
Substrate Suppliers	
Insurance Company and Policy Number	

For more information, my complete Emergency Plan can be found in my **Environmental Farm Plan** binder located _____.

Low Water Conditions

GOOD DAILY MANAGEMENT WILL HELP YOU THROUGH LOW WATER CONDITIONS

Irrigation systems should be as efficient as possible to prolong water supplies.

Good pasture management results in deeply rooted plants that are more tolerant of low water.

Field crop management practices that include proper planting depth, good variety choices, effective weed control and good soil management will result in crops that will outlast those that are poorly managed.

TIP

Having adequate insurance may help you in an emergency. Call your provider to learn about the specifics of your policy. Make sure you have enough coverage before you need to make a claim.

DO YOU RELY ON IRRIGATION?

If you rely on irrigation you may have to make some hard choices in times of shortage. It is easier to make these choices in advance, before a low water situation arises. Check the OMAFRA Factsheet *How to Prepare for Irrigation Water Shortages* for more information. It may be helpful to decide how much you can reduce irrigation by thinking about the following:

Which crops will suffer most from reduced irrigation?	Which crops are at critical stages at which times of the year?
How much can you reduce irrigation rates before impacting your bottom line?	Which crops are you prepared to sacrifice, if needed?

YOU CAN GRAZE WITHOUT RAIN!

If you do not already practice rotational grazing, a low water situation is an excellent time to start. If water conditions are serious, consider using strip grazing. Dividing your pasture(s) into smaller areas not only gives the non-grazed areas time to regrow, it also significantly reduces trampling, fouling and other forms of waste. The smaller the area the livestock are in, the less feed is wasted.

Consider designating a “sacrifice pasture”. Use this area to provide supplementary feed when the other pastures need resting. Do not provide supplementary feed in grazing areas as that will result in waste.

If you decide to sacrifice a second cut hay field for grazing, be sure to divide it into small areas. Cattle will effectively graze tall pastures if space is limited, but will trample a lot of plants given the chance.

For more information, consult the OMAFRA Factsheet *Conserving Pasture Production During Dry Conditions* or OMAFRA Publication 19: *Pasture Production*. The publication *Rotational Grazing in Extensive Pastures* has worksheets to help determine the area required for intensified grazing.

Emergency Plan

Low Water Conditions

IRRIGATION PLANS	
Crops I can reduce irrigation to:	
Crops I cannot reduce irrigation to:	

CRITICAL IRRIGATION TIMING FOR CROPS THAT NEED IRRIGATION				
Crop	Can I reduce irrigation?	Critical timing	Amount of water needed	Would I sacrifice this crop?
	<input type="checkbox"/> yes no <input type="checkbox"/>			<input type="checkbox"/> yes no <input type="checkbox"/>
	<input type="checkbox"/> yes no <input type="checkbox"/>			<input type="checkbox"/> yes no <input type="checkbox"/>
	<input type="checkbox"/> yes no <input type="checkbox"/>			<input type="checkbox"/> yes no <input type="checkbox"/>
	<input type="checkbox"/> yes no <input type="checkbox"/>			<input type="checkbox"/> yes no <input type="checkbox"/>
	<input type="checkbox"/> yes no <input type="checkbox"/>			<input type="checkbox"/> yes no <input type="checkbox"/>
	<input type="checkbox"/> yes no <input type="checkbox"/>			<input type="checkbox"/> yes no <input type="checkbox"/>
	<input type="checkbox"/> yes no <input type="checkbox"/>			<input type="checkbox"/> yes no <input type="checkbox"/>

PASTURE MANAGEMENT PLANS

Please use the worksheets in the publication *Rotational Grazing in Extensive Pastures* to help implement your plans.

FIELDS SUITED TO INTENSIFIED GRAZING				
Field ID	Total field area	Possible type(s) of intensification	Fencing type(s) that could be used	Could this be a "sacrifice pasture"?

Fire

PREPARING FOR FIRE

Contact your local fire department to discuss ways to prevent fires on your farm. They may visit the farm and help identify areas where risk can be reduced. They may also help you map out access routes to all areas of your property. Sketch these access routes on your Farmstead map (page 8) and try to keep them clear of obstacles.

Install appropriate fire extinguishers in your barn, workshop and all other farm buildings and houses. Clearly mark their locations, and even include them on your map on page 8. Train your family and staff in their use, and make sure they are inspected and recharged regularly.



The fire department will often help you select appropriate extinguishers for your needs, and help you organize training events for your farm.

HOW TO PREPARE FOR A FIRE

- Map fire extinguishers.
- Map highly flammable and/or explosive materials around the property.
- Note the nearest water source that could be used to fight a fire.
- Plan fire exit routes from all your buildings.
- Map the routes and post them in appropriate areas.
- Designate an Emergency Meeting Location so everyone knows where to meet in case of a fire.
- Hold regular practice drills so that all family and staff know how they will be alerted to the presence of a fire and how they should get to safety.

SHOULD YOU TRY TO FIGHT THE FIRE?

In the event of a small fire	In the event of a fire that you hesitate to call “small” DO NOT try to extinguish it
<p>Identify the cause</p> <p>Use an appropriate fire extinguisher to put out the fire</p>	<p>Sound the alarm</p> <p>Collect as many of your family and staff as you can safely and meet at the Emergency Meeting Location</p> <p>Call 911</p>

DON'T FORGET YOUR LIVESTOCK!

It is unlikely you will be able to move livestock to safety if there is a fire. After the fire you may need to manage catastrophic livestock losses (see page 21). You will also need to assess, and manage, your living livestock.

Some things to consider for living livestock after a fire include:

- Are they injured? Is there smoke inhalation or chemical damage?
- Do they need veterinary treatment? Euthanasia?
- Do they need alternative housing? Water?
- Can they be moved or sold?
- Are they gestating or about to give birth?

Emergency Plan

Fire

FARM LOCATION INFORMATION

Name _____	County/Region _____
Farm Name _____	Township _____
Fire Number _____	Lot _____
Road Name _____	Concession _____
Town/City _____	Telephone _____
Postal Code _____	Cell Phone _____

In case of FIRE call 911

The County/Region of _____ at _____

In **EMERGENCY** call **911**

Our Emergency Meeting Location is:

The nearest source of water is:

Draw a simple map showing the Emergency Meeting Location and the water source



Flowing Grain Entrapment

From the "Flowing Grain Entrapment" Worksheet, produced by the Farm Safety Association.

**It only takes two or three seconds to become trapped in flowing grain.
Within another ten seconds, you can be completely submerged.**

GRAIN ENTRAPMENT HAZARDS	
Engulfment in Flowing Grain	<p>Grain flows in a funnel-shaped path to the unloading auger. This vortex of grain behaves very much like a water whirlpool. Velocity increases as grain flows from the bin wall at the top of the grain mass into a small, vertical column at the centre of the bin.</p> <p>The vertical column flows down through the grain mass at a rate that is close to the rate of the unloading auger. Essentially no grain flows in from the surrounding mass.</p> <p>The rate of inflow at the centre top of a grain bin is so great that escape is impossible. Once engulfed in the grain flow, a victim is rapidly drawn down toward the bin floor.</p> <p style="text-align: center;"><i>The few survivors of this type of entrapment say they deliberately covered their mouths and noses with their hands and did not panic. All expressed amazement at the tremendous speed of their engulfment</i></p>
Entrapment in Grain Transportation Vehicles	<p>Many entrapments and suffocations have occurred in high capacity grain transport equipment. Victims are either buried during loading from the combine or storage, or drawn into the flow of grain as a vehicle is being unloaded.</p> <p style="text-align: center;"><i>Don't allow youngsters to enter grain transport equipment!</i></p>
Collapse of Horizontal Grain Surfaces	<p>A thin layer of crusted, spoiled grain can conceal voids beneath the surface. A victim who breaks through the crust is quickly covered as an avalanche of grain collapses into the cavity.</p>
Collapse of Vertical Grain Surfaces	<p>Spoiled or caked grain can stand almost vertically. As grain is removed from the base of a caked mass, the potential for avalanche and engulfment increases dramatically.</p>
Suction Equipment Hazards	<p>All bins should be equipped with properly designed doors to permit suction unloading from the exterior only.</p>

Avoid grain entrapment!

Never walk on the surface of stored grain.

If entry is essential, use the lifeline and buddy system!

A more detailed action plan can be found on page 39.

Emergency Plan

Flowing Grain Entrapment

FARM LOCATION INFORMATION	
Name _____	County/Region _____
Farm Name _____	Township _____
Fire Number _____	Lot _____
Road Name _____	Concession _____
Town/City _____	Telephone _____
Postal Code _____	Cell Phone _____

Precautions for rescuers

- Always assume that an entrapped victim is alive.
- **DO NOT** start an unloading auger or open a gravity flow gate.
- If bin entry is required, the rescuer who goes into the structure should wear a body harness and be tied with a safety rope to at least two rescuers on the roof of the bin.

Rescue procedures when the victim is completely submerged

1. Turn on bin aeration fans to provide as much air as possible to the victim.
2. **Call 911.**
3. Remove grain from the bin in the most rapid and orderly manner possible by making large openings uniformly around the base of the bin.
4. Cut emergency openings 4 to 6 feet above the ground to reduce the potential for grain build-up around the outside of the bin. Make semi-circular or v-shaped cuts 30 to 40 inches across to form valves which, when bent up, will allow grain to flow freely. When bent back into place they will stop the flow, allowing control. Space them uniformly around the bin to prevent structural collapse.

Once the victim is partially submerged

1. If possible, lower a rescue squad member into the bin to reassure the victim and to attempt to attach a body harness/lifeline. **Do NOT try to pull the victim free.**
2. Check the victim’s airways for grain, give oxygen as needed. Try to keep the victim calm.
3. Construct a circular shield if there is danger of further grain collapse (e.g. a steel drum with both ends removed). You may need to remove a portion of the bin’s roof to get inside.
4. Once the shield is in place, try scooping grain from the inside of the shielded area. Use a board or sheet of plywood as a work platform.

For more information, **including a more detailed grain bin rescue procedure**, my complete Emergency Plan can be found in my **Environmental Farm Plan** binder located

Insufficient Manure Storage Capacity

There are times when your manure storage facility may reach critical levels. This is often because field conditions would not allow normal spreading activities. Having a plan to manage at least the extra volume will prevent a major spill emergency.

Can I winter spread?

Winter spreading is not generally considered a good way to handle an excess amount of manure. If it is absolutely necessary to winter spread, you must follow guidelines laid out in *EFP Worksheet 17*.

TIPS FOR A SAFER WINTER SPREAD (AS A LAST RESORT)

- Avoid flood zones and areas likely to be excessively wet in the spring.
- Spread as far from surface water and wells as possible.
- Spread small areas of numerous fields if that will keep manure out of surface water.
- Note that winter spreading of Category 3 NASM (i.e. sewage biosolids) IS NOT permitted in any circumstances.

How can I increase storage capacity?

- Increase land application rates, provided they still fall within the acceptable range of your Nutrient Management Plan, when conditions improve.
- Spread on hay or pasture fields.
- Identify fields that can receive more manure than normal (i.e. fields with low P levels).
- Winter spread (under limited circumstances, and only as a last resort).
- Use alternative storages e.g. a neighbour's facility, temporary field storage.
- Transfer manure to a neighbour using a Nutrient Transfer Agreement.
- Transfer manure to a broker using a Manure Broker Agreement.

TIP

Even if not required by law, a formal written broker agreement is a good idea.

DON'T FORGET THE NUTRIENT MANAGEMENT ACT

Please note that if your farm operation is required to comply with Ontario Regulation 267/03, as amended, under *The Nutrient Management Act, 2002*, you will be required to complete an Emergency Plan that describes contingency measures for when:

- Fields or equipment are not available
- Manure storage that is approaching capacity sooner than expected, or that cannot be emptied due to a lack of available fields/equipment
- More material is generated than expected

Please refer to "*Section 12: Emergency Planning*" of the *Nutrient Management Protocol* for more details and information.

Emergency Plan

Insufficient Manure Storage Capacity

Too Much Solid Manure	Potential Problems			
	Storage is at capacity	Fields are unavailable	Extra nutrients are being generated	Notes
Possible Solutions				
Days of extra storage left in the facility	N/A			
Land application Spread at an earlier date? Winter spreading (follow O. Reg 267/03)	<input type="checkbox"/> <input type="checkbox"/>	N/A	<input type="checkbox"/> <input type="checkbox"/>	possible fields, dates, special considerations:
Days of temporary field storage				possible fields, siting considerations:
Transfer to a different storage On-site Off-site	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	location, amount that can be moved:
Transfer nutrients To another farmer To a licensed broker	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	name of broker/farmer, phone number, amount that can be transferred:

Too Much Liquid Manure	Potential Problems			
	Storage is at capacity	Fields are unavailable	Extra nutrients are being generated	Notes
Possible Solutions				
Days of extra storage left in the facility	n/a			
Land application Spread at an earlier date? Winter spreading (follow O. Reg 267/03)	<input type="checkbox"/> <input type="checkbox"/>	N/A	<input type="checkbox"/> <input type="checkbox"/>	possible fields, dates, special considerations:
Days of temporary field storage	N/A	N/A	N/A	Liquid manures cannot be field stored.
Transfer to a different storage On-site Off-site	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	location, amount that can be moved:
Transfer nutrients To another farmer To a licensed broker	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	name of broker/farmer, phone number, amount that can be transferred:

Health and Safety

What is health and safety?

Being prepared for a health and safety emergency means you are prepared to keep the people involved in your operation safe. Most farm emergencies have an element of human impact. This section of the Emergency Plan will help you be prepared.

Please note that health and safety covers a lot of topics. This document will highlight a few things that are most immediately linked to the other topics discussed in this workbook.

TIP

*Please visit the **Ontario FarmSafe Plan** and the **Health and Safety Ontario** websites to learn about the scope of health and safety, and to help you develop a more comprehensive plan for your farm operation.*

TO BE PREPARED FOR AN EMERGENCY YOU SHOULD:

- List all family members and employees, including:
 - Phone numbers
 - Address information
 - Emergency contacts
 - Medical information
- Provide all farm workers and family members with communication tools (i.e. cell phones)
- Note the locations of all protective equipment and emergency supplies
- Identify and list the resources needed in a possible emergency
- Provide first aid training
- Know the locations of:
 - Fire extinguishers
 - First aid kits
 - Personal protective equipment
 - Eye wash stations
 - Clean up supplies
- Train everyone on the farm, including children, family and employees, so they know what to do in an emergency situation

An Emergency Contact List template can be found on page 40.

Emergency Plan

Health and Safety

FARM LOCATION INFORMATION

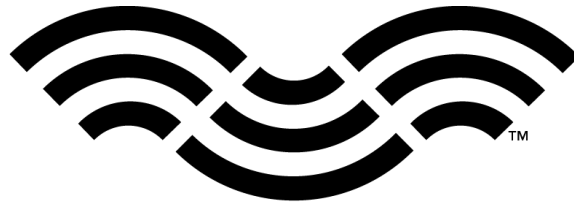
Name _____	County/Region _____
Farm Name _____	Township _____
Fire Number _____	Lot _____
Road Name _____	Concession _____
Town/City _____	Telephone _____
Postal Code _____	Cell Phone _____

SAFETY EQUIPMENT AND EMERGENCY SUPPLIES

Type	Location

CERTIFIED FIRST AID PROVIDERS

Name	Cell Phone Number	Name	Cell Phone Number



environmental farm plan
sustainably farmed

Emergency Plan

Appendix:





**Additional Information and
Templates**

Managing Manure Spills²

These tables outline ways to prevent, monitor and react to manure spills. Select the best options for your situation to manage any spills that may occur.

Due Diligence to Help Prevent Spills				
	Storage	Storage to Spreader	Spreading Equipment	Field Application
BEFORE A SPILL	<ul style="list-style-type: none"> • Build following Part VIII of O.Reg 263/03 (as amended) • Perform regular visual inspections • Install a tile drain observation station • Install a flowpath 	<ul style="list-style-type: none"> • Install an automated monitoring system 	<ul style="list-style-type: none"> • Install remote shut offs on spreading equipment • Maintain constant radio contact between operators • Properly maintain all equipment 	<ul style="list-style-type: none"> • Land apply only during good conditions • Calibrate equipment to spread at the right rate
AFTER A SPILL	<ul style="list-style-type: none"> • Evaluate your monitoring procedures • Get professional advice to minimize future risk 	<ul style="list-style-type: none"> • Install improved equipment • Improve your monitoring procedures 		<ul style="list-style-type: none"> • Maintain proper setbacks • Change application methods, e.g. timing, incorporation methods, equipment

Monitoring to Identify a Manure Leak or Spill				
	Storage	Storage to Spreader	Spreading Equipment	Field Application
MONITOR	<ul style="list-style-type: none"> • Monitor storage levels • Monitor storages during rainfall events • Monitor structural integrity 	<ul style="list-style-type: none"> • Monitor the automated monitoring system 	<ul style="list-style-type: none"> • Monitor the supply lines 	<ul style="list-style-type: none"> • Monitor tile drain flow • Monitor the runoff exit areas
DETECT	<ul style="list-style-type: none"> • Observe if flow stops • Detect a change in tile water colour 	<ul style="list-style-type: none"> • Observe if flow stops • Detect visible leaks 	<ul style="list-style-type: none"> • Observe if flow stops 	<ul style="list-style-type: none"> • Observe movement of manure off the application area • Observe a change in tile water colour

Reacting to a Manure Leak or Spill at All Management Stages	
 1. CONTROL	<ul style="list-style-type: none"> • Shut off the pumps and crush the supply lines (if possible).
 2. CONTAIN	<ul style="list-style-type: none"> • Dig a dike, a ditch and/or a sump to block the flowpath and trap the spilled material. • Place straw bale or dirt berms as needed to contain the flow. • Crush or cutoff field tiles in the area of the spill using heavy equipment.
 3. CALL	<ul style="list-style-type: none"> • Call the Spills Action Centre at 1-800-268-6060 and the municipality.
 4. CLEAN	<ul style="list-style-type: none"> • Use a vacuum truck to remove the material. • Pump the manure back into the storage if possible. • Land apply, at appropriate rates, the spilled manure. • Incorporate small spills in the field area directly into the soil.

² This section pertains to all ASM and NASM. “Manure” refers to all **Agricultural Source Materials (ASM)** including: manure (including bedding), yard and manure storage runoff, washwaters including milking centre washwater, materials from a treatment system, organic materials produced by intermediate generators. “Biosolids” refers to all **Non-Agricultural Source Materials (NASM)** including: sewage biosolids, pulp and paper biosolids, and other non-agricultural nutrient materials capable of being land-applied (e.g. brewery and meat processing byproducts).

Pesticide Record Keeping

**make a copy for each pesticide stored on your property*

Common Name _____

Trade Name _____

PESTICIDE INFORMATION	
Pesticide Group _____	Package size _____
Reference Number _____	Primary packaging _____
Formulation/Concentration _____	Date received _____
Manufacturer/Supplier _____	Use-by Date _____

Special notes in case of emergency (e.g. very flammable):

Date	Quantity Issued	Balance in Stock	Notes (stock inspection: notes on condition etc, inspector's initials)
Example MAY 23	650L	250L	stock inspected, 2 containers leaking, transferred to new containers, cleaned spilled product with sawdust (JS)

Petroleum Record Keeping

Underground Fuel Tanks

FUEL TANK LOCATION INFORMATION

Records from _____ (dd/mm/yyyy) to _____ (dd/mm/yyyy)

Tank ID _____	Contents _____
Farm Name _____	Township _____
Fire Number _____	Lot _____
Road Name _____	Concession _____
Town/City _____	Postal Code _____

TANK IS:

Metered

Not Metered

Double Walled

Not Double Walled

Date		Weekly Dip Test These numbers should be identical		Daily Vacuum Gauge Reading	Water Present?
Day	Month	1 st depth	24 hr depth	(if applicable)	Yes/No

Petroleum Record Keeping

Aboveground Fuel Tanks

FUEL TANK LOCATION INFORMATION	
Records from _____ (dd/mm/yyyy) to _____ (dd/mm/yyyy)	
Tank ID _____	Contents _____
Farm Name _____	Township _____
Fire Number _____	Lot _____
Road Name _____	Concession _____
Town/City _____	Postal Code _____

- TANK IS:**
- Metered
 - Not Metered
 - Double Walled
 - Not Double Walled
 - Diked
 - Not Diked

Date		Visual Inspections				
Day	Month	Leaks	Spills	Rust	Condition of Hoses and Pumps	Condition of Diked Area

Things to Consider for a Major Power Outage

ESTIMATED ELECTRICAL NEEDS OF MY FARM			
Items that need an uninterrupted power source	Electrical Load	Items that can share a power source	Electrical Load

ESTIMATED MINIMUM WATER NEEDS FOR MY FARM			
Human	Potential Water Sources	Treatment (if necessary)	Daily Minimum Water Needs (ie. 4 people x 4.5L = 18L per day)
Livestock / Birds	Potential Water Sources	Treatment (if necessary)	Daily Minimum Water Needs (ie 20 dry cows x 22L = 440L per day)

ESTIMATED MINIMUM FEED REQUIREMENTS FOR MY LIVESTOCK / BIRDS			
Type of Livestock	Minimum Daily Ration	Total Feed Needed Per Day	Notes on Delivery etc



OTHER CONSIDERATIONS FOR A POWER OUTAGE:

- *Keep flashlights, batteries and other such things together in an Emergency Kit.*
- *Closing barns up tight to conserve heat can reduce ventilation. It is often better the livestock are chilled than risk suffocation. Open as many vents as possible.*
- *Barns dependent on ventilation (i.e. poultry barns) should be equipped with knockout panels for emergency ventilation.*
- *Turn livestock outside, if possible, to help reduce ventilation needs.*

Detailed Grain Bin Rescue Procedure

PRECAUTIONS FOR RESCUERS

- **Always assume that an entrapped victim is alive!**
- Under no circumstances should you start an unloading auger or open a gravity flow gate. The victim could be drawn into the auger or become wedged in the opening.
- If bin entry is required, the rescuer who goes into the structure should wear a body harness and be tied with a safety rope to at least two rescuers on the roof of the bin.

GRAIN BIN RESCUE WHEN THE VICTIM IS COMPLETELY SUBMERGED

1. First, turn on bin aeration fans to provide as much air as possible to the victim. The extra air has been credited with saving several lives in grain bin rescues. Next, **call 911** to get experienced help to the accident site.
2. Remove grain from the bin in the most rapid and orderly manner possible. Attempts to ‘dig’ a buried victim free are generally fruitless because of the massive amount of material involved and the tendency of grain to back flow. Large openings should be cut uniformly around the base of the bin. Cut with an abrasive saw, air chisel or cutting torch. These openings will greatly speed up grain removal. **(If a torch is used, be alert for fire.)** If suitable cutting equipment isn’t available, use the corner of a tractor loader bucket to ram holes in the bin wall.
3. Cut emergency openings four to six feet aboveground to reduce the potential for a grain build-up around the outside of the bin – this would block the flow. Ideally, you should make semi-circular or v-shaped cuts 30 to 40 inches across to form valves which, when bent up, allow grain to flow freely. When bent back into place, they slow or stop the flow.

TIP

This type of control protects rescue workers inside the bin, who otherwise might be drawn into rapid, uncontrolled flow of grain.

4. **Space openings uniformly around the bin to reduce the risk of structural collapse and make it easier to remove grain from around the base.** Once the victim has been uncovered, the bin openings can be closed to allow safe access by rescuers.

GRAIN BIN RESCUE PROCEDURES WHEN THE VICTIM IS PARTIALLY SUBMERGED

1. If possible, lower a rescue squad member into the bin to reassure the victim and to attempt to attach a body harness or lifeline. **Don’t try to pull the victim free with the line.** The tremendous drag of the grain could cause further injuries. The lifeline is only intended to prevent further sinking.
2. Check the victim’s airway for grain. If he/she is experiencing breathing difficulties, administration of oxygen will help. Panic and struggle may be the chief reasons for respiratory problems, so try to calm the victim.
3. Construct a shield if there is danger of further grain collapse. A steel drum with both ends removed, plywood and pieces of sheet metal formed into a circle have all been used successfully. You may need to remove a portion of the bin’s roof to get material inside. Once the shield is in place, it may be possible to free the victim by scooping grain from the inside of the shielded area. **Use a board or sheet of plywood as a work platform.**

**You can avoid entrapment by making it a policy to never walk on a stored grain surface.
If entry is essential, use the lifeline and buddy system!**

The information and recommendations contained in this publication are believed to be reliable and representative of contemporary expert opinion on the subject material. The Farm Safety Association Inc. does not guarantee absolute accuracy or sufficiency of subject material, nor can it accept responsibility for health and safety recommendations that may have been omitted due to particular and exceptional conditions and circumstances.
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Health and Safety Emergency Contact List

Name	Phone Number	Address	Emergency Contact	Emergency Contact Phone Numbers	Medical Information

My Farm

Approximate Scale: _____



LEGEND

Fire Protection Equipment	Buildings	Hazardous Substances
<p>(H) Fire hydrant</p> <p>(G) Main gas shutoff</p> <p>(FT) Underground fuel tank</p> <p>(FT) Aboveground fuel tank</p>	<p>(FA) First aid</p> <p>(W) Main water shutoff</p> <p>(E) Main electrical shutoff</p> <p>(FD) Fire door</p> <p>Window</p> <p>Overhead door</p> <p>Sliding door</p> <p>Pedestrian door</p>	<p>(G) Compressed gas</p> <p>(F) Flammable liquids</p> <p>(O) Oxidizing materials</p> <p>(C) Corrosive materials</p> <p>(P) Poisonous materials</p> <p>Fire extinguisher</p>
<p>Also Indicate:</p>	<p><input type="checkbox"/> All buildings</p> <p><input type="checkbox"/> Other supplies (i.e. tools, protective clothing)</p> <p><input type="checkbox"/> Electrical service panels</p> <p><input type="checkbox"/> Location(s) of generator(s) and hookup(s)</p>	<p><input type="checkbox"/> Fences</p> <p><input type="checkbox"/> Access routes</p> <p><input type="checkbox"/> Expected runoff pathways</p> <p><input type="checkbox"/> All fixed outside equipment</p>
		<p><input type="checkbox"/> Anhydrous ammonia storage</p> <p><input type="checkbox"/> Water source for firefighting</p> <p><input type="checkbox"/> Possible contamination sources (i.e. manure, septic, chemical storage)</p>

The area around my farm

Approximate Scale: _____



Show the area surrounding approximately 1.5km around your farm. Focus on:

- Surface and subsurface drainage
- Areas where water discharges
- Areas where runoff could be contained with dikes or dams
- Sensitive adjacent land uses

Farm Emergency Plan Emergency Telephone List

Manure or Biosolids Spill
Pesticide Spills
Petroleum Spills

Major Electrical Power Outages

Catastrophic Livestock Losses

Low Water Conditions

FIRE

Flowing Grain Entrapment

Insufficient Manure Storage Capacity

Health and Safety

Managing Manure Spills

Pesticide Record Keeping

Petroleum Record Keeping

Aboveground Fuel Tanks

Petroleum Record Keeping
Underground Fuel Tanks

Things to Consider for a Major Power Outage

Detailed Grain and Bin Rescue Procedure

Health and Safety - Emergency Contact List



environmental farm plan
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