



EMERGENCY ACTION PLANNING

The threat of emergencies has always existed in agriculture – everything from a severe weather event, to an animal disease outbreak, to accidents involving fire or machinery.

And farmers have, intuitively and with direction from a multitude of agencies, generally prepared themselves well to deal with these infrequent but often dangerous situations.

Since the events of September 11, 2001 there's been increasing concern about agriculture's susceptibility to acts of terrorism and the industry's – and individual farmers' – ability to adequately prepare for and prevent such acts that have the potential of affecting not only agriculture but the health and welfare of all Americans.

The Iowa Pork Producers Association is building upon a foundation of information created by the National Pork Board and their quality assurance program, Pork Quality Assurance Plus™ (PQA Plus™).

Sites that have achieved PQA Plus Site Status are required to have a written emergency action plan. It doesn't have to be a set of complex documents – depending on the size of an operation; it could be as simple as filling out the first few documents in this binder.

Some operations, especially the larger ones, may choose to add some additional information such as a site map/layout of the operation and a diagram that shows where equipment, controls, and potentially-hazardous items such as medicines and chemicals are located.

A more comprehensive plan will include information about the buildings and areas of the farm where livestock are kept (and the purpose of that location, such as farrowing). This level of detail will be invaluable to emergency response teams should they be required to come to your site.

The forms in this binder are designed for a producer to fill out – well in advance of any need – and post in buildings on the site and share with family members and employees so that in the event of natural or man-made disaster, everyone is well-prepared.

Index

General Emergency Information	3
Site Map	4
Building Layout.....	6
Manure Spill.....	8
Weather Emergency	10
Fire	11
Power Outages.....	12
Security/Biosecurity	13
Euthanasia.....	19
Mass Animal Mortality	23
Resources.....	24

General Emergency Information

Emergency Action Information

Site Name: _____ Premises ID Number (PIN): _____

Owner/Operator Name: _____ Home Phone: _____

Site Phone: _____ Cell Phone: _____

Other Emergency Contact: _____

Site Physical Address (Including 911 Address): _____

Directions to Site: _____

Important Telephone Numbers

Organization/Person	Name/Notes	Number
Rescue/Ambulance:		
Fire Department:		
Sheriff:		
Highway Patrol:		515-725-6090
Police:		
Hospital/Clinic:		
County Emergency Management Coordinator:		
Local Poison Control Center:		
Center for Agricultural Security:	Mark Shearer	515-281-5798
Herd Veterinarian:		
State Veterinarian:	Dr. Dave Schmitt	515-281-8601
IA DNR 24-hour Manure Spill Hotline:		515-281-8694
Manure Applicator:		
Equipment Dealer:		
Agrichemical Dealer:		
Electric Company:		
Water Company:		
Natural Gas/Propane Supplier:		
School(s):		
County road department:		
Other county/township offices:		
Other:		
Other:		
Other:		

Site Map

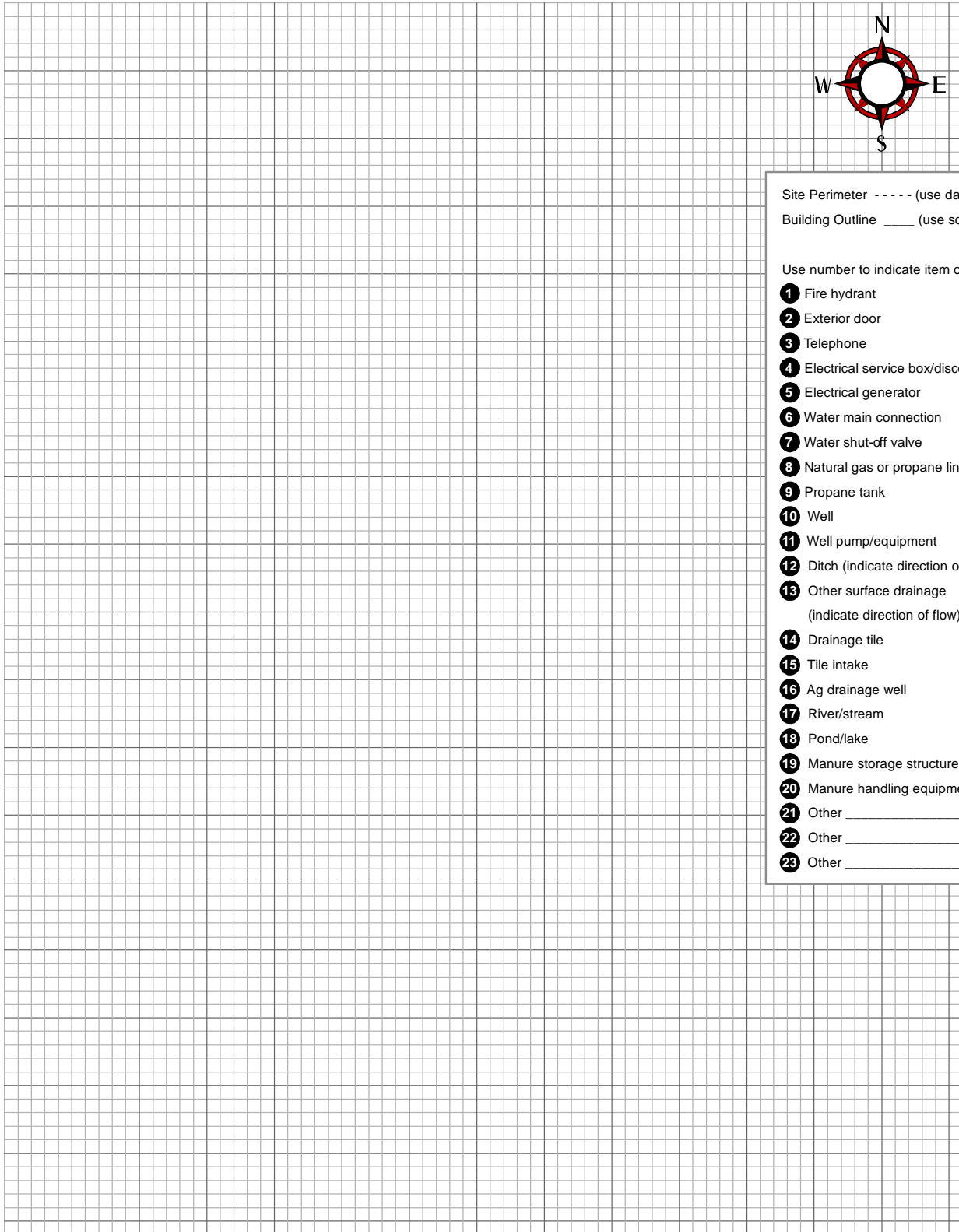
A good emergency action plan contains a site map of the facility. A site map can help employees, visitors, delivery personnel, and emergency responders when on-site. A properly prepared site map should include major physical details about the site. Additional details listed may be added on a Building Layout map. Some of these items are:

- Facility address and location (including 911 address)
- Site boundaries
- Building siting and layout
- Locations of:
 - First aid kit
 - Fire extinguisher(s) and Fire hydrant(s)
 - Euthanasia equipment
 - Pharmaceuticals
 - Telephone
 - Ventilation controls
 - Electrical service boxes/disconnects
 - Water main connections and shut-off valves
 - Wells and well equipment
 - Important water-related points such as; drainage tile intakes and ag drainage wells, rivers/streams, ponds/lake
 - Identification of the manure storage structure with associated pump-out ports, valves, pumps, etc.
 - Surface drainage indication, direction of runoff, etc.

Make copies of the blank Site Map and fill one out for each production site. Post at least one copy in each building on the site and retain one copy in this binder.

Site Map

Site Name: _____ Premises ID Number: _____ Date: _____



Site Perimeter - - - - (use dashed line)
Building Outline ____ (use solid line)

Use number to indicate item on map

- ① Fire hydrant
- ② Exterior door
- ③ Telephone
- ④ Electrical service box/disconnect
- ⑤ Electrical generator
- ⑥ Water main connection
- ⑦ Water shut-off valve
- ⑧ Natural gas or propane line
- ⑨ Propane tank
- ⑩ Well
- ⑪ Well pump/equipment
- ⑫ Ditch (indicate direction of flow)
- ⑬ Other surface drainage (indicate direction of flow)
- ⑭ Drainage tile
- ⑮ Tile intake
- ⑯ Ag drainage well
- ⑰ River/stream
- ⑱ Pond/lake
- ⑲ Manure storage structure
- ⑳ Manure handling equipment
- ㉑ Other _____
- ㉒ Other _____
- ㉓ Other _____

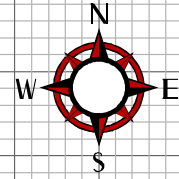
Building Layout

A building layout map can help individuals find equipment and other important items during emergency times as well as other times. A building layout map may include many of the items listed on the site map but is specifically detailed for each individual building allowing greater precision when looking for specific items. Make copies of the blank Building Layout and fill one out for each building. Post at least one copy in the building and retain one copy in this binder.

Building Layout

Building ID: _____ Purpose/Use: _____

Site Name: _____ Premises ID Number: _____ Date: _____



- Building Outline ____ (use solid line)
- Use number to indicate item on map
- ① First aid kit
 - ② Fire extinguisher
 - ③ Fire hydrant
 - ④ Interior door
 - ⑤ Exterior door
 - ⑥ Euthanasia equipment
 - ⑦ Pharmaceuticals
 - ⑧ Telephone
 - ⑨ Ventilation controls
 - ⑩ Emergency curtain drop
 - ⑪ Electrical service box/disconnect
 - ⑫ Electrical generator
 - ⑬ Water main connection
 - ⑭ Water shut-off valve
 - ⑮ Natural gas or propane line
 - ⑯ Propane tank
 - ⑰ Manure storage structure
 - ⑱ Manure handling equipment
 - ⑲ Other _____
 - ⑳ Other _____
 - ㉑ Other _____

Manure Spill

Each site should have a plan in place, ready to put into action in the event a manure spill (or accidental discharge) requires response. This manure spill response plan should be reviewed every six months and all personnel involved with the livestock facility have been trained on, and can locate a written copy, of the plan.

The best-case scenario is that you never have a manure spill/leak and never have to use this section of an emergency action plan. Being prepared and taking preventative measures can help you achieve that goal.

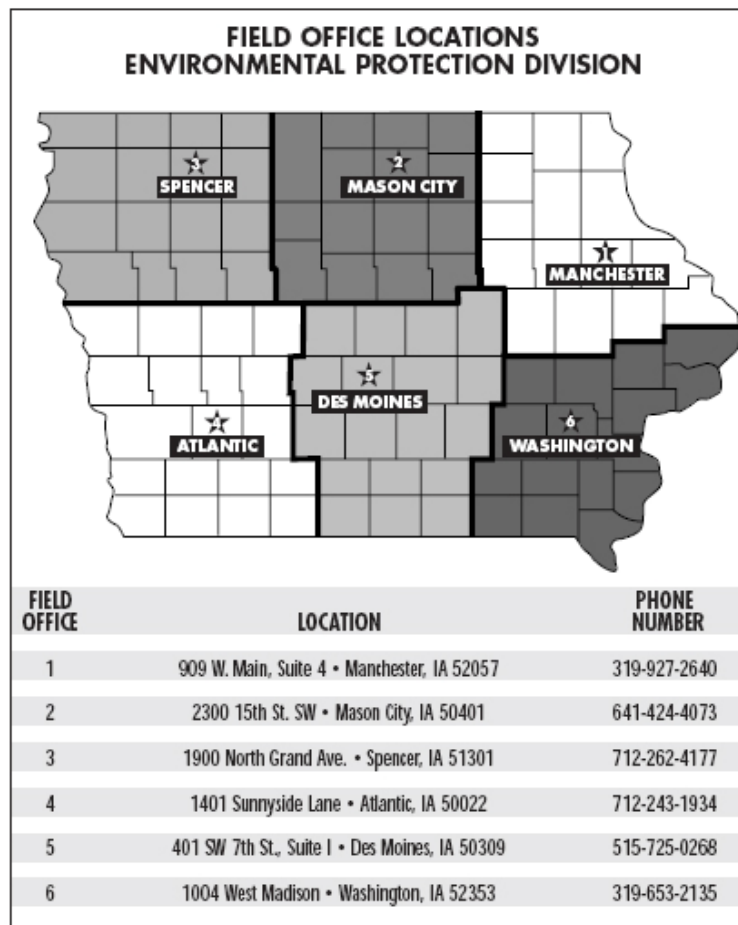
- Prevention and preparation - reduce risks and help prevent a spill/leak by:
 - Have an emergency plan and train your family and employees on the plan
 - Establish and follow protocols for moving/storing/applying manure
 - Keep equipment repaired and properly maintained
 - Eliminate the source/cause of spilled/leaked manure if possible

What is the typical sequence of actions/events if a manure spill or leak was to occur?

1. Quickly assess the situation and estimate the scope of the spill, and potential risks to:
 - Human health
 - Animal health and well-being (livestock and wildlife)
 - The environment
 - Structures
2. Stop flow of manure (if possible)
 - Shut off equipment/pipelines/etc.
 - Contain the spill if possible with earthen dikes, etc..
3. Contact appropriate authorities to report incident (and to request assistance if necessary)
 - Iowa State Law requires that the Iowa Department of Natural Resources (DNR) be contacted within 6 hours of the onset or discovery of a spill/leak. (See map and contacts below)
4. Assess damages
 - Determine extent of damages
5. Analysis and Prevention
 - Analyze cause and potential actions that may have prevented spills/leak
 - Develop revised plan to prevent future incidents
6. Remediation/Reconstruction
 - Develop and execute plan to repair/remediate damages

In the event of a manure spill or leak, every effort possible should be made to prevent movement of manure off-site. If necessary, contact neighbors or nearby contractors with earth-moving equipment available to assist with containment. If tile intakes are present, have devices on hand to prevent manure from entering the tile lines. Contact neighbors with manure handling equipment to land apply the manure. Prevent manure from entering bodies of water or other environmentally sensitive areas, such as sinkholes and ag drainage wells. For assistance, contact your local sheriffs department and/or other emergency response personnel in your county.

Remember - Iowa State Law requires that the Iowa Department of Natural Resources (DNR) be contacted within 6 hours of the onset or discovery of a spill/leak. Contact information is listed below.



**Weekends, Holidays, After-Hours:
(515)281-8694**

Weather Emergency

There are many **serious/dangerous** weather problems that may occur, including; tornados, hailstorms, snow, ice storms, floods, high winds (and various combinations of them all), and it doesn't take much for the weather to warrant some advance planning.

During a disaster, the behavior and activities of livestock can change dramatically. Advice on disaster planning and precautions is available from several sources, including your local emergency management office, animal control center and area veterinarians. A few tips to help you be prepared include:

- Develop an emergency action plan that includes a list of emergency phone numbers for local agencies that can assist you if disaster strikes - - including your herd veterinarian, state veterinarian, county emergency management coordinator, fire department, and others.
- Make sure all emergency alert/alarm systems and emergency generators are fully functional.
- Be ready to EVACUATE LIVESTOCK IF POSSIBLE. Arrangements for evacuation, including routes and host sites, should be made in advance. Alternate routes should be mapped out in case the planned route is inaccessible. Evacuation sites should have or be able to readily obtain food, water, veterinary care, handling equipment and facilities.
 - Trucks, trailers, and other vehicles suitable for transporting livestock (appropriate to the type of animal) should be available, along with experienced handlers and drivers to transport them. Whenever possible, the animals should be accustomed to these vehicles in advance so they're less frightened and easier to move.
 - If evacuation is not possible, a decision must be made whether to move large animals to available shelter or turn them outside. This decision should be determined based on the type of disaster and the soundness and location of the shelter (structure). All animals should have some form of identification that will help facilitate their return.

You can monitor the weather on a regular basis by obtaining a weather radio that operates on both AC and battery power. Make sure it receives the nearest National Oceanic and Atmospheric Administration (NOAA) station. Visit this web site for information about NOAA and a variety of weather radios available (NOAA does not make specific recommendations):

<http://www.noaa.gov/wx.html>

For information about NOAA in Iowa visit: <http://www.legislative.noaa.gov> or call: (202)-482-4981.

Fire

Thousands of Americans die or are injured in fires every year. But fires on farms take on proportions quite unlike the typical urban house fire. Think of the places where fire can occur on the farm:

- Home
- Barn or other livestock housing
- Machine shed
- Chemical storage container
- Fertilizer including anhydrous ammonia
- Propane, gasoline, diesel tanks
- Grain storage
- Explosives (in certain circumstances)
- Wildfires

And, of course, given the nature of fire, it's possible that more than one of these kinds of fire can occur at the same time.

Prepare yourself for what you hope will never happen by:

1. Making sure that your rural address is clearly visible from all approaches to your property. Even with modern 911 technologies, it's not enough to rely on technology alone.

Check with local authorities as to the best way to make sure that they can identify your premises. In some locales, a unique 911 address posting (on a utility pole or mailbox standard, for instance) will suffice.

Accessible and helpful information for emergency responders may include:

- A detailed map of your premises showing where chemicals, livestock, fuel tanks, explosives and grain storage (among other things) are situated.
 - A list of emergency contacts for use when you are not at home – include phone numbers for home, work and cell phones, e-mail addresses, and if you can gather the information about how chemical or other manufacturers of hazardous materials recommend handling the products in emergency situations.
2. Placing fire extinguishers at appropriate locations throughout your home, barn, and storage units. Make SURE that the extinguishers are designed to deal with the kind of fire that might break out.
 3. Asking emergency responders to come to your farm and touring it with you so that they can familiarize themselves with the layout in advance and offer you advice about what you can do to make your premises more fireproof.
 4. Developing a first aid kit – check with your local Red Cross for assistance in outfitting the kit with the proper contents.

Power Outages

Power outages may be a result of weather, failure of electrical supply lines, accident or other events. Regardless of the cause having an operational generator available is critical.

Here are some tips to keep in mind for maintenance and use of stand-alone electrical generators:

1. Make sure fuel tanks are always full
2. Ensure that a disconnect is properly installed to prevent generator-produced electricity from flowing back into the grid/lines entering the operation
3. Periodically test the generator systems as outlined in the owners manual
4. If the generators need a key to start them, make sure the key is available and a duplicate key is accessible
5. Instruct all members of your family and all employees how to use the generator and periodically test them on their knowledge
6. If you are away from home and have asked a neighbor (or someone else not familiar with your operation) to look in on things for you, be sure that they know how to operate the emergency generator(s)
7. Have an adequate supply of flashlights and other portable lights in the event that the electricity goes out at night

Complete a generator test on a regular basis and record tests on a form such as this:

Generator Location:		Generator ID:
Date	Person Testing	Results/Action required

Security/Biosecurity

Security

Early awareness is key to minimizing the effect of an emergency incident such as a disease outbreak or an agro-terrorism event. Understanding key players' roles and responsibilities in the event of a foreign animal disease (FAD) outbreak, or an act of agro-terrorism against Iowa's swine industry. Preparedness benefits the industry because it permits a rapid response to an event and could also reduce the impact of incident.

Increasing producer awareness and preparedness is required in order to ensure the security and safety of pork producers and the pigs that they care for. So how do you keep something like this from happening on your farm? The following is a list of best management practices (BMPs) that will assist you in being prepared if a FAD or act of agro-terrorism was to occur in Iowa.

Security Best Management Practices

- Deter access to the farm to prevent intruders.
 - Limit farm entry to one gated road, keep the gate locked when not in use
 - Secure the perimeter with fencing
 - Place buzzers on gates that alert you when a vehicle or person has crossed the farm entrance
 - Ensure that areas surrounding and within farm buildings are well lit
 - Keep buildings and storage areas locked when not in use.
 - Plant/trim trees and shrubs so that they do not block lighting and provide concealment to criminals
 - Have a "No Visitor" policy for non-service individuals if possible
- Employee Screening and Training
 - Require all applicants to fill out a written job application including references from previous employment
 - Provide all new employees with direct supervision
 - Mandate participation in industry quality assurance programs
 - Build security awareness into daily job responsibilities
 - Notify employees of contact people, back-up contacts and procedures to report suspicious activity
 - Restrict personal items allowed on the farm, provide a locker to store personal items while at work
 - Swap, re-key or change the combinations of all mechanical and electronic locks after an employee has been terminated or leaves

- Hazardous materials (drugs, disinfectants, pesticides, herbicides)
 - Physically secure all storage areas containing hazardous chemicals
 - Limit access to storage areas containing hazardous chemicals
 - Keep an accurate inventory of all hazardous materials
- Back-up Power and Computers
 - Have a generator or backup power in case of a power outage
 - Restrict access to computers
 - Back-up all data frequently
- Contact Information
 - Create a list of contacts for: Owner/operator of the unit, herd veterinarian, local police and fire departments (dial 911), the Center for Agricultural Security, the state veterinarians office and county emergency management coordinator
 - List of customers' names and contact information
 - List of suppliers names, contact information and items you purchase
- Train employees to recognize signs of FAD
 - Unusually high number of sick animals
 - Unusually high number of deaths
 - Blisters or vesicles on animals' snout or feet
 - Large number of lame animals
 - Large number of animals with fevers, not eating or not wanting to stand
 - Discoloration of the ears, belly, rump, legs or tail
 - Animals act uncoordinated or show other neurological signs
- Water Security
 - Secure water wells if possible
 - Ensure that water systems are equipped with backflow prevention
 - Chlorinate water systems
 - Identify alternate sources of water as a back up plan
- Feed
 - Label all chemical and pesticides and store them separately from feed
 - Clean storage areas between batches of feed
 - Lock feed ingredient bins
 - Examine all feeds and other ingredients closely for manure, mold or foreign materials
 - Keep a sample of each batch of feed for 6 months
- Reporting suspicious activity
 - Call proper law enforcement authorities
 - Emphasize to farm personnel the need for heightened awareness
 - Communicate with other producers locally (create producer roundtables to discuss issues)

- Call your herd veterinarian to report a suspicious acting animal. The veterinarian will be able to assist in where to send animal, and what steps to take
- Producers' veterinary staff arrange quarterly meetings to exchange disease information

Agriculture is accessible to an outsider and instead of focusing entirely on hardening the targets, the industry must be able to negate the effect of an attack. The swine production industry is easily recognizable, and is everywhere in Iowa. The most important steps are creating awareness and providing best management practices that can assist pork producers.

Biosecurity

Preventing the introduction of disease agents is a continuous challenge for pork producers and veterinarians. When a farm or site is affected by disease the impact can be devastating to the health of the swine and the producer's bottom line. If a foreign animal disease were to overcome the biosecurity safeguards we have placed on our farms and our country, it would have a devastating effect on all pork producers.

To protect their own interests and those of their colleagues, producers need to initiate an appropriate level of biosecurity on their farms. A good biosecurity program helps to lower the risk of pathogens being transferred from farm to farm.

The following best management practices (BMPs) should help producers and their employees as they think through their operation's biosecurity strengths and weaknesses.

Biosecurity Best Management Practices

- Isolation facilities for incoming breeding stock
- Location of facility
 - Two miles from any other swine
- Pig Flow
 - Utilize all-in, all-out pig flow
- Pest/Wildlife Control-Control birds, wildlife and rodents
 - Clean up feed spills
 - Prompt carcass removal
 - Eliminate access of pests/wildlife into the confinement facility
 - No pets – i.e. cats are not a proper method of rodent control in a confinement facility

- Access Deterrents
 - No trespassing or no visitor's signs
 - Perimeter fences and locked gates or driveways
- Visitors should fill out a log (as shown on page 18)
 - Visitors are not just strangers but include anyone not based on-site; including maintenance/repair people, neighbors and salespeople among others
 - Provide a designated, hard-surfaced parking area away from livestock or their wastes
 - Ask questions -Purpose of visit, previous pig contact, etc.
 - Designated area for changing/cleaning up that is accessible so visitors stay clean when changing or after they clean up
 - Provide, and require to wear, clean, protective clothing and boots
- Transportation
 - Wash, disinfect and dry trucks/trailers after each load
 - Trucker observes downtime between swine facilities
 - Farm has an off-site transfer facility (limit commingling)
 - Feed transporting should be monitored and quality control measures in place to reduce or eliminate pathogens
- Moving off the farm
 - Care should be taken to avoid exposing different populations of animals to each other directly or through material on clothing/boots, vehicles, equipment
- Animal movement log
 - Name, address, phone number of seller
 - Prior herd health program
 - Vaccinations, worming etc
 - Date animals arrived, location on farm
 - Species, number sex and age of animals
 - Record animal ID's or provide new ID
 - Sickness / death log for all animals
 - Include disease diagnosis or reason animal died
 - Record all animal movements off the farm
 - Include buyer name, address and phone number
 - Species, age, sex, and ID of all animals leaving farm
- Report disease symptoms to veterinarian
 - Especially if you see
 - Unexplained mortality
 - Rapid onset of disease
 - Blisters and ulcers on mouth, muzzle or feet
 - Get a diagnosis on all animal mortalities

- Stay vigilant for suspicious activity – Understand and follow facility security protocols (see Security BMPs above)
- Prepare an Emergency Response Plan
 - Call the herd veterinarian if a foreign animal disease is suspected. The herd veterinarian will notify authorities if warranted
 - Identify holding area, feed and water plan if you are not able to move pigs
 - Identify waste removal plans
 - Identify carcass disposal plans, make sure that the plan is compliant with DNR regulations
- Utilize available experts and resources
 - Practicing Veterinarians
 - County Extension
 - Veterinary Extension
 - Websites

Euthanasia

Euthanasia is defined as a humane death occurring without pain or distress. Every swine operation will at times have animals that need to be humanely euthanized on-site. While euthanasia on a swine operation is not always connected to an emergency situation, it is something that requires advance planning and preparation. Swine operations should always be in a position to humanely euthanize animals in a timely manner.

Every operation should have a properly completed Euthanasia Action Plan posted in a prominent location and caretakers in the operation should be properly trained to carry it out.

Considerations for euthanasia:

When humane euthanasia is the most appropriate option, the following considerations must be made when choosing the appropriate method:

- Human safety: The method must not put producers or their employees at unnecessary risk.
- Pig welfare: The method should minimize any pain or distress on the animal.
- Practicality/technical skill requirements: The method should be easily learned and repeatable with the same expected outcome.
- Cost: The method should be economical for the producer.
- Aesthetics (degree of unpleasantness for the observer): The method should not be objectionable to the person administering the procedure.
- Limitations: Some methods are only suitable for certain sizes of pigs or certain locations.

As shown in Table 1, there are various methods of humane euthanasia in pigs. The first step is to consider which methods might be considered in each phase of production for each particular farm. Table 2 outlines the considerations for specific methods of euthanasia.

Table 1: Size-related Appropriateness of Various Euthanasia Methods in Swine

	Farrowing pig less than 3 weeks (12 lb. or 5.5 kg)	Nursery pig less than 10 weeks (70 lb. or 32 kg)	Grower pig (less than 150 lb. or 68 kg)	Finisher pig (greater than 150 lb. or 68 kg)	Mature animal, sows or boars
Carbon Dioxide (CO₂)*	YES	YES	NOT PRACTICAL	NOT PRACTICAL	NOT PRACTICAL
Gunshot	NO	YES	YES	YES	YES
Captive Bolt	NO	YES	YES	YES	YES
Electrocution	YES	YES	YES	YES	YES
Anesthetic Overdose	YES	YES	YES	YES	YES
Blunt Trauma	YES	NO	NO	NO	NO

* CO₂ means Carbon Dioxide, NOT Carbon Monoxide (CO). Carbon Monoxide is a method of euthanasia but is not currently recommended because of its high potential as a human health hazard.

Table 2: Specific Euthanasia Methods for Swine

	Human Safety Risk	Pig Welfare	Skill Required	Cost	Aesthetics	Limitations
Carbon Dioxide	low, use in well ventilated area	good, causes respiratory arrest, used in some packing plants	low, proper training required	moderate, initial cost of equipment CO ₂ supply	very clean procedure, some terminal movements possible	may only be practical for small pigs
Gunshot	moderate to high, training needed, security of firearms	good, correct placement essential	moderate, proper training required	moderate, initial cost of firearm, ammunition	discharge of blood from wound	some skill and training required, not for small pigs
Penetrating Captive Bolt	moderate to high, training needed	good, correct placement essential	moderate, proper training required	moderate, initial cost of captive bolt gun	discharge of blood from wound, should be followed by severing a major artery in adult animals	some skill and training required, not for small pigs
Electrocution	low if proper lockout/tag out procedures followed and commercial hog stunner used	good, immediate unconsciousness followed by cardiac fibrillation	low, proper training required	low after initial cost of proper electrical system	muscle contraction due to electricity	300 V electricity and proper lock out/tag out essential, commercial hog stunner recommended
Anesthetic Overdose	low if assistance for holding is available	good, anesthesia followed by respiratory and cardiac arrest	high, proper training for intravenous injection essential	high, FDA regulations and control apply	terminal gasping is possible	applicable agents available only to licensed veterinarian, carcass disposal
Blunt Trauma to Head	very low	good if performed in small pigs with rapid force strong enough for instantaneous death	low, proper training required	none	may be emotionally unacceptable	only applicable to small pigs

Work with your veterinarian to outline a plan stating which method of euthanasia will be used during each phase of production on your farm. Attention must be paid to the potential for pathogen spread when selecting a method of euthanasia. Use the blank form provided. Post the plan in a centralized area as a guideline for humane euthanasia of pigs on your farm. Remember to review the plan with any new employees and annually as a reminder to all.

Euthanasia Action Plan

Farm Name: _____

Date: _____

Drafted by: _____

Phase of production	Euthanasia method of choice	Alternative method of euthanasia
Farrowing piglets (<i><12lb or 5.5kg</i>)		
Nursery (<i><70lb or 32kg</i>)		
Mature animals (<i>sows, boars</i>)		

MASS EUTHANASIA

Under unusual conditions, such as disease eradication and natural disasters, euthanasia options may be limited. In these situations, the most appropriate technique that minimizes human and animal health concerns must be used. These options include, but are not limited to, CO₂ and physical methods such as gunshot, penetrating captive bolt, and cervical dislocation. The methods used should be humane, safe, and appropriate for the species involved, legal for the jurisdiction, and implemented according to current professional standards.

Persons making decisions concerning euthanasia should ideally be veterinarians and euthanasia team members should be individuals who have had training and/or experience with the species to be euthanized.

For example, with the case of a barn collapse, the decision to euthanize may be determined by fractured limbs and other severe trauma, resulting in difficulty in the animal getting up or being safely removed from harm's way or presenting a danger to humans.

In the case of a foreign animal disease the euthanasia of the animals should occur in a sequence that considers the risk the animals pose for the spread of the disease. Animals should be euthanized in descending order of priority, as follows:

1. Animals with the greatest propensity to shed the disease agent (infected swine are reported to shed a greater concentration of foot and mouth disease virus than do cattle)
2. Animals showing clinical sign of the disease of concern
3. Animals that have contact with diseased animals
4. Animals susceptible to the disease of concern

Professional judgment should be used to determine exactly which animals are euthanized first.

Mass Animal Mortality

In the event of a man-made or natural catastrophe resulting in animal mortalities, these dead animals must be disposed of according to state and local laws, and in a manner that does not adversely affect ground or surface water or create public health or other concerns. Dead animals may be disposed of through rendering services, burial, composting, or incineration although in the event of a mass animal mortality options are somewhat limited. Some tips are below:

- Rendering services
 - Dead animals should be picked up within 24 hours
- Burial
 - Dead animals should not be buried within 100 feet of a private well or surface water
 - They should not be buried where ground water would enter the burial site
 - There should be 30 inches or more soil over the animal
- Composting
 - Composting sites should be located outside a 100 year flood plain
 - Must be 100 feet or more from a well or surface water
 - Must be done in a manner that prevents runoff or leachate
- Incineration
 - If incineration is used, all dead animals are to be incinerated in an Iowa DNR-approved incinerator within 24 hours of death

If a mass animal mortality event occurs, contact your county emergency management coordinator.

Resources

Pork Quality Assurance Plus™

More information on the PQA Plus™ program, individual Certification, and Site Status can be found at: www.Pork.org/Producers/PQA/PQAPlus.aspx

Transport Quality Assurance™

Information and forms for accidents and emergencies related to the transportation of pigs is not covered by these materials but can be found in the National Pork Board's Transport Quality Assurance (TQA™) program which can be accessed at:

www.Pork.org/Producers/TQA/TQA.aspx

Security/Biosecurity

More information, including the National Pork Board Security/Biosecurity: Guides for Pork Producers, is available by calling the **Iowa Pork Producers Association at 800-372-7675**. Monitor www.pork.org for immediate information in the case of an emergency.

Euthanasia

The following material on pages 19-21 was developed by the National Pork Board and the American Association of Swine Veterinarians. For a complete version of the On-Farm Euthanasia of Swine publication visit:

www.pork.org/PorkScience/Documents/euthanasia.pdf or

www.aasp.org/aasv/euthanasia.pdf

Carcass Disposal

For additional carcass disposal information refer to:

- Iowa DNR's "Dead Animal FAQ" at: <http://www.iowadnr.gov/afo/disposal.html>
- "Poultry and Livestock Mortality Disposal in Iowa Frequently Asked Questions (FAQ's)" at:
<http://www3.abe.iastate.edu/cattlecomposting/Emergency%20Livestock%20Disposal%20Planning%20Presentation.pdf>