Wisconsin

Livestock Mass Mortality Disposal Guide

Updated September 2024

Background: This guide is intended for use by livestock producers to develop a plan and prepare their farm in the event of an unexpected mass mortality event such as a foreign animal disease, weather-related event, or other disaster.

The response goal for waste management is to properly dispose of potentially contaminated or infected materials, including animal carcasses, as soon as possible while containing disease pathogens, protecting the environment, ensuring stakeholder acceptance, and maximizing cost effectiveness.

Directions: Below is a suggested step-by-step guide of actions to take to prepare your farm for an unexpected mass mortality event. Each county and municipality are slightly different so some steps may vary depending on your location.

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Disposal Considerations: When developing a plan that best suits their operation, there are several considerations that the producer must make including:

- Disease or non-disease event
- Weather and seasons
- Materials available for disposal- organic or inorganic
- Environmental considerations- land base, soil type, water table, etc.
- Transportation and facilities
- Location in proximity to neighbors, other livestock, buildings, etc.
- Federal, state, and local regulations

Other Resources:

USDA Desktop Guide: This is a full comprehensive guide developed by USDA that has very in-depth information focusing on emergency carcass management. The guide can be found online here: Disposal_book_2024_final5.pdf (usda.gov).

USDA Options Time & Cost Calculator: The calculator provides a comparison of onsite and offsite disposal options, including the time involved in disposing of carcasses and relative costs. It will help you make quick, informed decisions for planning. cm-calculator.xlsx (live.com)

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STEP 1. RESEARCH DISPOSAL OPTIONS

There are several options for managing a large number of carcasses in an unexpected event although not all are feasible for every producer. Below is a listing of disposal options along with pros and cons of each. Beneath the table is a listing of additional considerations and questions to ask to determine what method is best for your operation.

Disposal Method	Pros	Cons
Landfill	• Quick • Convenient	• Infrastructure & operational issues • Landfill must be willing/ able to take carcasses & waste • Wastewater treatment plant issues as leachate is sent there • Transportation of materials • Doesn't deactivate pathogens • Slow carcass degradation
Burial	• Quick • Convenient • Cheap	• Land usage • Doesn't deactivate pathogens • Slow carcass degradation • Potential for groundwater contamination
Thermal Biological Treatment (Composting)	• Pathogen deactivation • Organic materials used in the process • Beneficial end-product	• Space • Monitoring requirements • Carbon • Labor intensive to build
Incineration	• Complete combustion results in inert ash • Destroys pathogens (except CWD)	• Only carcasses • Throughput restrictions limited to 500 lbs. / hour without DNR licensing (~ 1.5 pigs) • Staging carcasses • Maintenance • Constant oversight • Ash disposal- restrictions
Rendering	• Complete removal of carcass • Don't need land base other than staging carcasses	• Costly • Limited availability in WI • Only take a limited number of animals at one time

A. Landfill

If this is an option you would like to explore, there are some questions that you should ask the landfill to start the conversation:

- Will the landfill accept carcasses from either a mass mortality or disease outbreak situation?
- Will the landfill accept other wastes generated from a mass mortality or disease outbreak generated by the farm?

- Be prepared to provide approximate tonnages of carcasses and other wastes that would need to be disposed of at the landfill.
- What special acceptance procedures does the farm need to follow for acceptance at the landfill (ex. Prior notification, lining the dumpster, hours of disposal, etc.)?

B. Burial:

If this is an option you would like to explore, there are some questions that you should ask your county or the DNR to start the conversation:

- What are the regulations regarding setbacks from carcasses to groundwater, surface water, private wells, public wells, roadways, etc.
- Do I have enough land/ how much land would be needed?
- What is the depth to groundwater at my facility?
- What soils do I have at my facility?
- What liability do I have with the burial of carcasses?

C. Thermal Biological Treatment (Composting):

If this is an option you would like to explore, there are some questions that you should ask yourself, county, and DNR:

- How large of an area will I need?
- Will the composting be completed inside or outside?
- Do I want to utilize windrows or a structure?
- Will the composting take place on-farm or off-farm?
- What are my options for organic material to compost with (mulch, wood chips, etc.)
    - Availability?
- If needed, do I have a source of water available?
- Are there any licensed compost facilities that I could send my materials to?
- Note: Use the attached calculators to help you determine how much space and organic material you will need.

D. Incineration:

This is not a great option for a large number of mortalities as there are throughput restrictions that don't allow for very many animals to be put in at once. If you would like to further explore this option, contact DNR to discuss licensing requirements.

E. Rendering:

If this is an option you would like to explore, there are some questions you should ask yourself and the rendering company to get the conversation started:

- What is the cost of rendering and can I afford it?
- What is the capacity of a truck and how timely can they remove a large number of carcasses?
- What is the availability of rendering in my area?

STEP 2. DRAFT YOUR PLAN

Once you have decided on your disposal method(s), complete the information provided on the attached template (pages 6-19) to complete your plan. Keep this plan on hand at your site in both a paper and electronic copy should you ever need it.

Utilize the checklist and planning guides for each disposal option on the USDA APHIS website here: Carcass Management (usda.gov).

For questions contact the following individuals:
Dan Kroll 920-401-1314 or Daniel.Kroll@wisconsin.gov
Becky Podgorski 608-290-0157 or Rebecca.Podorski@wisconsin.gov
Regional CAFO Specialists- list found here: Agricultural runoff management staff | | Wisconsin DNR

STEP 3. REVIEW YOUR PLAN WITH STATE OFFICIALS

Once you have developed your plan, reach out to one of the following individuals to review it and ensure that it is compliant and relevant for your operation.
Dan Kroll 920-401-1314 or Daniel.Kroll@wisconsin.gov
Becky Podgorski 608-290-0157 or Rebecca.Podorski@wisconsin.gov
Regional CAFO Specialists- list found here: Agricultural runoff management staff | | Wisconsin DNR

STEP 4. MAINTAIN YOUR PLAN

Once you have a plan in place, it is important to keep both a digital and paper copy in a safe location where it can be easily accessed if needed. It is a good idea to review it annually to keep yourself informed and make any changes that may be necessary.

TEMPLATE: Beginning on the next page you will find a blank Mortality Disposal Plan template. Fill in the information to personalize it for your farm.

(INSERT FARM NAME)

MASS MORTALITY DISPOSAL PLAN

Date created:

Table of Contents

CONTACT INFORMATION/ EMERGENCY ACTION PLAN

List the name, phone number, and email for each contact person or business.

Company / Producer Contact Information	
Company Name	
Company Contact Person	
Mailing Address	
Phone	
Email	
Farm Name	
Premises ID	
Address of Farm	
County	
Owner/Contact Name	
Phone	
Email	
Farm Manager Name	
Phone	
Email	

Emergency Contacts	
Emergency	9-1-1
Rescue/Ambulance	
Fire Department	
Police/ Sheriff	
Poison Control	
Doctor	
Hospital	
Insurance Provider	
Other	

Primary Veterinarian	
Veterinarian	
Company	
Phone	
Email	

Government Agency Contacts	
State Veterinarian	Dr. Darlene Konkle Phone: (608) 224-4872 (Monday-Friday, 7:45 a.m.-4:30 p.m.)
24-hour Emergency Line	To report a suspected FAD call: (800) 943-0003 *Choose option 2 and tell the duty officer you are reporting a potential animal disease.* Email: DATCPAnimalImports@wisconsin.gov
USDA Area Veterinarian in Charge (AVIC)	Erika Langfoss Phone: 608-287-8033 Email: Erika.langfoss@usda.gov

24-hour AVIC Emergency Line	866-536-7593
Wisconsin DNR	Jeffrey Voltz Phone: (608) 695-4992 Email: jeffrey.voltz@wisconsin.gov
County Emergency Management	
Wisconsin Veterinary Diagnostic Lab	Phone: 608-262-5432 Email: info@wvdl.wisc.edu
Additional Contacts	
FDA	General info: 888-463-6332 Emergency: 866-300-4374
FSIS	Wisconsin is in District 25 Phone: (515) 727-8960
Other:	
Equipment & Materials Contactors/Operators	
Heavy Equipment Contactor/Operator	
Phone	
Email	
Depopulation Contractor/Operator	
Phone	
Email	
Carbon Supplier	
Phone	
Trucking Contractor	
Phone	
Other	
Manure Spill Contacts	
State EPA (DNR)	Call to report spills immediately: 800-943-0003
Earth Moving	
Manure Pumping	
Hauling	
Equipment	
County Engineer	
Other	
System Failure Contacts	
Electricity	
Plumbing	
Heating	
Ventilation	
Animal Transport	
Feed	
Mortality Disposal	See above

(INSERT AERIAL SITE MAPS)

MAP(S) INCLUDING THE FOLLOWING:

1. Location of buildings on the premises.

2. Emergency staging, composting and burial areas, as approved.

3. Map with clean and dirty line (for disinfecting movement on/off the premises).

4. Waterways, flood plains, wells.

5. Outline areas on imagery; include coordinates of boundaries as appropriate.

(INSERT SOIL SURVEY MAP)

SITE INFORMATION

Multiple Animal Species on Site: ☐ Yes ☐ No

List Species: _____

Animal Buildings:

BARN NUMBER	LENGTH	WIDTH	HEIGHT	TYPE *(Pole, breeding, gestation, nursery, grower, finisher, etc.)*

Type of Ventilation: _____

_____

Location and Type of Heat Access: _____

_____

Location and Type of Water Access: _____

_____

Number of Compost/Mortality Piles on Site: _____

BARN NUMBER	LENGTH	WIDTH	HEIGHT	TYPE

Litter/Manure Storage Buildings or Structures:

BARN NUMBER	LENGTH	WIDTH	HEIGHT	TYPE

Number of Manure Lagoons or Pits on Site: _____

Total Capacity of Manure Lagoon(s) or Pit(s): _____

Additional notes: _____

_____

_____

_____

ANIMAL INFORMATION

BARN NUMBER	ANIMAL TYPE	TOTAL HEAD	AVG WEIGHT

Number of Feed Bins on Site: _____

Feed Bin Height: _____ **Feed Bin Diameter:** _____ **Feed Bin Capacity:** _____

Feed Mill on Site: ☐ **Yes** ☐ **No**

Special Structures (i.e. shop, office, etc.): _____

Additional Notes: _____

_____

_____

BIOSECURITY PLAN

(If you have a Secure Pork Supply (SPS) plan, you may opt to attach that here rather than fill out the following as the SPS contains all the information needed below.)

Associated Sites: _____

_____

Shared Equipment (if yes, list sites): _____

_____

Shared Employees (if yes, list sites): _____

_____

Are driveways gated/secured? ☐Yes ☐No Truck

Wash on site? ☐Yes ☐No

Are visitor logs maintained? ☐Yes ☐No

Employee Biosecurity (shower in/out, Dutch entry, PPE, etc.): _____

_____

Total Number of Employees: _____

Pest/Rodent Control? ☐Yes ☐No **Name of Company:** _____

Method(s): _____

_____

Wildlife Mitigation? ☐Yes ☐No **Name of Company:** _____

Method(s): _____

_____

DEPOPULATION PLAN

Person responsible for making depopulation decisions	
Role/Title	
Phone number	
Email	

Preferred method of depopulation:

☐ **Cervical dislocation**

☐ **TEDS/KEDS**

☐ **Gunshot**

☐ **Captive bolt: penetrating or non-penetrating**

☐ **Gassing: house or containerized (CO2 or similar)**

☐ **Anesthetic overdose**

☐ **Electrocution**

☐ **Ventilation shutdown + heat**

☐ **Water-based foam**

Justification for preferred method of depopulation: _____

_____

_____

Resources on site for depopulation: _____

_____

_____

Secondary method of depopulation:

☐ **Cervical dislocation**

☐ **TEDS/KEDS**

☐ **Gunshot**

☐ **Captive bolt: penetrating or non-penetrating**

☐ **Gassing: house or containerized (CO2 or similar)**

☐ **Anesthetic overdose**

☐ **Electrocution**

☐ **Ventilation shutdown + heat**

☐ **Water-based foam**

_____

Other: _____

DISPOSAL PLAN

Person responsible for making disposal decisions	
Role/Title	
Phone number	
Email	

Preferred method of disposal:

☐ **Thermal Biological Treatment (Composting)** ☐**Landfill**

☐ **Burial** ☐**Incineration**

☐ **Rendering** ☐**Other:** _____

Justification for preferred method of disposal: _____

_____

_____

Resources on site for disposal: _____

_____

_____

Potential obstacles or problems associated with disposal (i.e. drainage tiles, wells, flood plain, depth to groundwater: _____

_____

_____

PREFERRED DISPOSAL METHOD

Disposal Method: _____

☐ **Indoor** ☐**Outdoor** **DNR Approval Required?** ☐**Yes** ☐**No**

Acres available outdoors: _____

Available Carbon on Site:

☐ **Mulch/Wood Chips** ☐**Clean Litter/Bedding**

☐ **Wood Shavings** ☐**Stover**

☐ **Active Compost** ☐**Other:** _____

Number of employees available to help with disposal: _____

Available Equipment on Site:

☐ **Skid Steer** _____ ☐**Dump Truck/Side Dump** _____

☐ **Tractor** _____ ☐**Windrow Turner** _____

☐ **Pay Loader** _____ ☐**Water Truck/similar** _____

☐ **Water hoses** _____ ☐**Other:** _____

☐ **Hand tools (rake, pitchfork, shovel):** _____

Will site use a contractor? ☐**Yes** ☐**No** **Name of Company:** _____

Additional Notes: _____

_____

_____

_____

_____

SECONDARY DISPOSAL METHOD

Disposal Method: _____

☐ **Indoor** ☐**Outdoor** **DNR Approval Required?** ☐**Yes** ☐**No**

Acres Available Outdoors: _____

Available Carbon on Site:

☐ **Mulch/Wood Chips** ☐**Clean Litter/Bedding**

☐ **Wood Shavings** ☐**Stover**

☐ **Active Compost** ☐**Other:** _____

Number of employees available to help with disposal: _____

Available Equipment on site:

☐ **Skid Steer** _____ ☐**Dump Truck/Side Dump** _____

☐ **Tractor** _____ ☐**Windrow Turner** _____

☐ **Pay Loader** _____ ☐**Water Truck/similar** _____

☐ **Water hoses** _____ ☐**Other:** _____

☐ **Hand tools (rake, pitchfork, shovel):** _____

Will site use a contractor? ☐**Yes** ☐**No** **Name of Company:** _____

Additional Notes: _____

_____

_____

_____

_____