

AGRI-FACTS

Practical Information for Alberta's Agriculture Industry

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Agdex 400/29-3

Pre-selecting Mass Carcass Disposal Sites

The Alberta Government, led by Alberta Agriculture and Food (AAF), works with all levels of government to ensure Alberta farmers are prepared to dispose of large numbers of livestock carcasses, should the need ever arise. In the event of a mass livestock disposal situation, the federal, provincial and municipal governments, along with livestock producers, all have roles to play. These roles depend on the cause of livestock mortality situation.

In all cases of mass mortality, Alberta livestock producers are responsible for the disposal of their own livestock, preferably on their own property. This responsibility includes pre-selecting an environmentally suitable disposal site or sites, large enough to accommodate the entire herd or flock.

Mass livestock mortalities

Fire, flooding or a foreign animal disease outbreak can suddenly result in a large number of dead animals.

For example, in 2001, over four million animals were destroyed in the United Kingdom during an outbreak of foot and mouth disease (FMD). Decisions had to be quickly made about where and how to dispose of the carcasses to limit the spread of the disease and prevent danger to the public or the environment.

A fire or flood involving a large hog, poultry or dairy barn could also result in the need to dispose of a large number of carcasses.

Handling an emergency situation in Alberta

Foreign Animal Disease (FAD)

If livestock mortalities occur due to a foreign animal disease outbreak (e.g., FMD), the federal Canadian Food Inspection Agency (CFIA) is the authority responsible for directing carcass disposal. This means the CFIA supplies some of the financial and manpower assistance required to manage the situation. The CFIA makes the decisions about how to dispose of the carcasses in the safest way possible. This could include burial, burning or composting.

Other situations

If mass animal deaths occur due to a provincially listed infectious disease (e.g., infectious laryngotracheitis in chickens), a fire, a flood or another natural disaster, the appropriate municipal authorities and various provincial government departments will direct carcass disposal.

*Disposal in
24 hours or less
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Pre-selecting disposal sites is important

The pre-selection of disposal sites is important because in many instances it is necessary to dispose of carcasses in 24 hours or less. If a site has been pre-selected and approved, this is easier to achieve. In cases of highly contagious diseases (e.g., FMD), it is extremely important that the CFIA be able to dispose of carcasses quickly to contain the disease and prevent its spread to neighbouring herds or flocks.

The selection of a carcass disposal site requires some knowledge of the environmental conditions of the proposed site. Some of the conditions to consider when pre-selecting a site include land topography, the water table, drainage, soil type and depth, the distance to neighbours, and the location of roads and other rights-of-way.

Livestock producers should use their own land for mass carcass disposal

The quickest and easiest place to dispose of dead stock is on a producer's own farmland.

In the case of a highly contagious foreign animal disease, the CFIA will likely destroy animals on site. Therefore, the disposal of carcasses in close proximity to where they are destroyed minimizes transportation costs and limits the spread of disease to surrounding herds.

If a livestock producer does not have enough suitable land available for the disposal of his/her own animals, agreements may be made with neighbours who do have suitable disposal sites.

The Office of the Chief Provincial Veterinarian at AAF is leading an inter-departmental team in the development of an emergency carcass disposal toolkit for municipalities. This toolkit will contain information and guidelines to assist Alberta's municipalities with planning for emergency carcass disposal, including pre-selecting suitable burial sites. Municipal sites may be necessary if individual producers do not have any or enough suitable land of their own, or if multiple farms are affected.

Suitable land

Land chosen for carcass disposal must meet the requirements outlined in the *Destruction and Disposal of Dead Animals Regulation* (Alberta Regulation 229/2000), in order to protect human and livestock health, as well as the environment. This information can be viewed at: http://www.qp.gov.ab.ca/documents/Regs/2000_229.cfm?frm_isbn=0773289585

When unsure of the potential impacts on public health or the environment, the Regional Health Authority or the regional office of Alberta Environment should be contacted for guidance.

The following important points are found in the above regulation:

- Trench depth must be at least 1 m (3 ft.) above the seasonal high water table and the carcasses must be covered by at least 1 m (3 ft.) of compacted soil.
- Sites must be 100 m (333 ft.) from wells, domestic water intakes, streams, creeks, ponds, springs and high water marks of lakes, and at least 25 m (83 ft.) from the edge of a coulee, major cut or embankment.
- Sites must be at least 100 m (333 ft.) from any residences and livestock facilities, including pastures situated on land owned or leased by another person.
- Disposal sites cannot be less than 300 m (1,000 ft.) from a primary highway, 100 m (333 ft.) from a secondary highway and 50 m (167 ft.) from any other road allowance.
- Fences may need to be erected around the burial site to warn people that this land is not available for use.

Due to the settling of the soil, maintenance of the area around the disposal pit may be required for several years and the area may not be suitable for farming. Landowners are responsible for monitoring disposal sites on their land.

Land requirements to bury an entire herd

The following information is provided as a guideline.

- A pit 2 m (6.5 ft.) wide x 4 m (13 ft.) deep x 10 m (33 ft.) long can hold 31 adult cattle carcasses. This leaves 2 m or 6.5 ft. for soil cover.
- A pit 2 m (6.5 ft.) wide x 5 m (16.5 ft.) deep x 10 m (33 ft.) long can hold 46 adult cattle carcasses. This leaves 2 m or 6.5 ft. for soil cover.

To bury adult hogs or sheep, a rule of thumb is to multiply the capacities listed above by five. For broiler chickens (market-ready weight), multiply the capacity by 200. For turkeys (market-ready weight) multiply the capacity by 40.

For example, to dispose of 25,000 head of cattle an 8,065 m (26,211 ft.) long trench is required if it is 4 m (13 ft.) deep. A 5,436 m (17,664 ft.) long trench is required if it is 5 m (16.5 ft.) deep.

If trenches are dug every 10 m (33 ft.), the potential capacity of a quarter section of land, located in compliance with the *Destruction and Disposal of Dead Animals Regulation*, is: 189,852 head of cattle if the trenches are 4 m (13 ft.) deep or 284,778 head of cattle if the trenches are 5 m (16.5 ft.) deep.

If the livestock losses are due to an infectious/reportable disease, the manure, bedding, milk and feed may also have to be disposed of. This will add to the requirements listed above for pit sizes.

Compensation

For situations requiring mass carcass disposal, livestock producers should examine their own insurance policies covering buildings and livestock, etc. to determine their coverage.

At the present time there is no compensation available for land used to dispose of carcasses in the event of a foreign animal disease outbreak. However, the federal government is reviewing this issue.

Under provincial legislation, the *Disaster Services Act* may provide eligible producers with financial compensation for loss of land due to a fire, flood or other natural disasters.

For more information:

Livestock producers who are looking for additional information about pre-selecting a mass carcass disposal site can contact their local livestock association or visit AAF's website at: <http://www.agric.gov.ab.ca>.

Information specific to livestock burial is available in the following two publications, also available on the website.

- *Livestock Mortality* (Agdex 400/29-1)
- *Livestock Burial* (Agdex 400/29-2)

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