

Information about Pre-Selection of Mass Carcass Disposal Sites for Alberta Livestock Producers

Have you ever thought about where and how you might dispose of your livestock, if your entire herd was killed by a fire, a flood, or disease?

The Alberta Government, led by Alberta Agriculture, Food and Rural Development (AAFRD), is investigating the issue of mass farm animal carcass disposal. The roles that the federal, provincial and municipal governments will play when dealing with carcass disposal will depend on the cause of livestock mortality.

In all cases of mass mortality, livestock producers have a responsibility to be prepared by pre-selecting environmentally suitable disposal sites on their farm, where possible, to accommodate all of their own livestock.

Why would mass livestock mortalities occur?

There are several reasons why large numbers of animals, such as a herd or flock could be killed, including fire, flood and foreign animal disease. Last year, in the United Kingdom, over 4 million animals were eradicated due to an outbreak of foot-and-mouth disease (FMD). Decisions had to be made about where and how to quickly dispose of the carcasses without spreading the disease or endangering public health and the environment. A fire in a large pig, poultry or dairy barn can also result in the need to dispose of large numbers of carcasses.

How would an emergency situation be handled in Alberta?

The Alberta Government is in the process of developing a Mass Farm Animal Carcass Disposal Plan. Different levels of government are responsible for regulating mass carcass disposal, depending on the reason for livestock death.

Foreign Animal Disease (FAD):

If livestock mortalities occur due to a foreign animal disease (e.g. FMD) outbreak, the federal Canadian Food Inspection Agency (CFIA) is the authority responsible for directing carcass disposal. This means the CFIA will supply some of the financial assistance and manpower required to manage the situation. The CFIA will make decisions about how to dispose of the carcasses in the safest way possible, which 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), or a fire, flood or other natural disaster, the appropriate municipal authorities and various departments of the provincial government will direct carcass disposal.

Why is pre-selection of disposal site(s) important?

In cases of highly contagious diseases (e.g. FMD), it is extremely important that the CFIA dispose of carcasses quickly to contain the disease and prevent its spread to neighboring herds or flocks. If not contained quickly, a disease such as FMD can have devastating economic consequences. Disposal of carcasses in 24 hours or less is recommended. Selection of suitable disposal sites before a disease occurs would facilitate this requirement.

Why should livestock producers 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. Approval of carcass disposal sites could be easily facilitated if the environmental conditions of the land were known ahead of time (e.g. land topography, groundwater and soil depth, distances from neighbors and roads).

In the case of foreign animal disease, the CFIA will destroy infected animals on site. Therefore, disposing carcasses in close proximity to where they were destroyed would minimize transportation costs, and would also limit the spread of disease to surrounding herds.

If a livestock producer does not have enough suitable land available for disposal of his/her own animals, agreements may be made with neighbors on surrounding farms that do have suitable disposal sites.

What land is considered to be suitable?

Land chosen for carcass disposal must meet the requirements outlined in the *Destruction and Disposal of Dead Animals Regulation* (AR 229/2000) (http://www.qp.gov.ab.ca/documents/regs/2000_229.cfm), in order to protect human and livestock health, as well as the environment. If unsure about the potential impacts on health and the environment, the Regional Health Authority, the regional office of Alberta Environment or your municipality may be contacted for guidance.

The following important points are found in the above regulation:

- Trench depth must be at least one metre (3 ft) above the seasonal water table and covered by at least one metre (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 (1000 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.

In addition, due to settling of the disposal pit over time, several years of maintenance may be required and the area may not be suitable for farming for several years. Landowners are responsible for monitoring disposal sites on their land.

Will I be compensated for costs incurred?

Each livestock producer should examine their own insurance coverage regarding buildings, livestock, etc. in the event of a situation requiring mass carcass disposal.

At the present time, the federal government is reviewing land use compensation issues. 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 disaster.

In the case of a foreign animal disease, if a livestock producer has an agreement to use his/her neighbor's land for disposal purposes, the neighbor is entitled to compensation from the CFIA for the cost of the disposal operation.

How much land is required to bury an entire herd?

As a guideline:

1. 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 (leaving 2 m or 6.5 ft for soil cover)
2. 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 (leaving 2 m or 6.5 ft for soil cover)

*For adult pigs or sheep multiply the capacity by 5
 For broiler chickens (market ready weight) multiply the capacity by 200
 For turkeys (market ready) multiply the capacity by 40
 (these estimates are only guidelines, as animal sizes and weights vary)

For example, to dispose of 25,000 head of cattle:

a 8065 m (26,211 ft) long trench is required if 4 m (13 ft) deep

or

a 5435 m (17,664 ft) long trench is required if 5 m (16.5 ft) deep

A quarter section, located in compliance with the *Destruction and Disposal of Dead Animals Regulation*, with trenches dug every 10 m, can hold:

189,852 head of cattle (4 m or 13 ft deep)

284,778 head of cattle (5 m or 16.5 ft deep)

If losses are due to an infectious/reportable disease, manure, bedding, milk and feed may also have to be disposed of, which will increase the size requirements above.

If you have further questions or concerns, please contact your provincial agriculture office or livestock association.