



# MUNICIPAL DISTRICT OF GREENVIEW NO. 16

*"A Great Place to Live, Work and Play"*

## REGULAR AGRICULTURAL SERVICE BOARD MEETING AGENDA

Wednesday, September 20, 2017

9:30 AM

Council Chambers  
Administration Building

#1	CALL TO ORDER		
#2	ADOPTION OF AGENDA		
#3	MINUTES	3.1	Regular Agricultural Service Board Meeting Minutes held August 23, 2017 – to be adopted 3
		3.2	Business Arising from the Minutes
#4	DELEGATIONS	4.1	
#5	OLD BUSINESS	5.1	Deadstock LATE 9
		5.2	Agriculture Department Covered Workspace LATE
#6	NEW BUSINESS	6.1	2018-2020 Operating Budget LATE 132
		6.2	2018-2020 Agriculture Services Strategic Business Plan 134
		6.3	Wembley Co-op Seed Cleaning Plant 161
		6.4	Resolutions 165
		6.5	Agriculture Service Board Regional Conference 167
		6.6	Wolf Harvest Incentive Program Policy 183
#7	STAFF REPORT & ASB MEMBERS BUSINESS & REPORTS	7.1	Staff Report 190

#8	CORRESPONDENCE	8.1	College Opens State-of-the-Art Dairy Centre	198
		8.2	Potential Impacts of Changing Tax Regulations on Farming Operations	200
		8.3	Clubroot Climbs Up into the Peace Region	202
		8.4	Efforts to Keep Out Invasive Mussels Working - For Now	205
		8.5	August, September, October	208
#9	IN CAMERA		N/A	
#10	ADJOURNMENT			

**Minutes of a  
REGULAR AGRICULTURAL SERVICE BOARD MEETING  
MUNICIPAL DISTRICT OF GREENVIEW NO. 16  
M.D. Administration Building  
Valleyview, Alberta on Wednesday, August 23, 2017**

**#1  
CALL TO ORDER**

Chair Allen Perkins called the meeting to order at 9:35 a.m.

**PRESENT**

A.S.B. Member - Chair	Allen Perkins
A.S.B. Member – Councillor	Bill Smith
A.S.B. Member - Councillor	Dale Smith
A.S.B. Member	Larry Smith
A.S.B. Member	Warren Wohlgemuth
A.S.B. Member	Laurie Mitchell

**ATTENDING**

Manager, Agriculture Services	Quentin Bochar
Assistant Manager, Agriculture Services	Dave Berry
Recording Secretary	Kristin King
Municipal Intern	Danie Lagemaat

**ABSENT**

A.S.B. Member - Vice Chair	Shelley Morrison
----------------------------	------------------

**#2  
AGENDA**

MOTION: 17.08.25 Moved by: Larry Smith  
That the Agenda be adopted as presented.

CARRIED

**3.1 REGULAR ASB  
MEETING**

MOTION: 17.08.26 Moved by: Warren Wohlgemuth  
That the minutes of the June 28, 2017 Regular Agricultural Service Board Meeting to be adopted as presented.

CARRIED

**3.2  
BUSINESS ARISING  
FROM MINUTES**

**3.2 BUSINESS ARISING FROM MINUTES**

**#5  
OLD BUSINESS**

**5.1 DEADSTOCK DISPOSAL**

**#6  
NEW BUSINESS**

**6.1 2017 CAPITAL BUDGET PRESENTATION**

MOTION: 17.08.27 Moved by: Laurie Mitchell  
That the Agriculture Service Board approve the purchase of AG18001 (3 Pt Rear Blade) in the amount of \$7,500.00 for the Agriculture Services Draft Capital Budget 2018-2020.

CARRIED

**#4.0  
DELEGATIONS**

**4.1 DOUG MACAULAY- MANAGER, AGRICULTURE SERVICE BOARD  
PROGRAM**

MOTION: 17.08.28 Moved by: Bill Smith  
That the Agriculture Service Board accept the presentation from Alberta  
Agriculture and Forestry (AAF) as information.

CARRIED

10:40am Chair Allen Perkins called a recess

10:54am Chair Allen Perkins reconvened the meeting

**#6  
NEW BUSINESS**

**6.1 2017 CAPITAL BUDGET PRESENTATION**

MOTION: 17.08.29 Moved by: Bill Smith  
That the Agriculture Service Board approve the purchase of AG18002 (Pick-  
up Replacement) in the amount of \$55,000.00 and AG18003 (Pick-up  
Replacement) in the amount of \$55,000.00 for the Agriculture Services Draft  
Capital Budget 2018-2020.

CARRIED

MOTION: 17.08.30 Moved by: Warren Wohlgemuth  
That the Agriculture Service Board recommend to Council that the two  
surplus vehicles be forwarded to Smoky Applied Research and  
Demonstration Association (SARDA) and Peace Country Beef and Forage  
Association (PCBFA).

CARRIED

MOTION: 17.08.31 Moved by: Dale Smith  
That the Agriculture Service Board approve the purchase of AG18004 (500  
Gallon Sprayer) for the amount of \$30,000.00, AG18005 (300 Gallon  
Boomless Sprayer) for the amount of \$30,000.00, and AG18006 (Loading  
Chute) for the amount of \$10,000.00 for the Agriculture Services Draft  
Capital Budget 2018-2020.

CARRIED

MOTION: 17.08.32 Moved by: Laurie Mitchell

That the Agriculture Service Board approve the purchase of AG19001 (Pick up Replacement) in the amount of \$55,000.00, AG19002 (Pick up Replacement) in the amount of \$55,000.00, AG19003 (Pick up Replacement) in the amount of \$55,000.00 and AG19004 (Pick Up Truck New) in the amount of \$55,000.00 for the Agriculture Services Draft Capital Budget 2018-2020.

CARRIED

MOTION: 17.08.33 Moved by: Larry Smith

That the Agriculture Service Board approve the purchase of AG19005 (UTV New) in the amount of \$34,000.00 and AG19006 (Spray System for UTV) in the amount of \$6,500.00 for the Agriculture Services Draft Capital Budget 2018-2020.

CARRIED

MOTION: 17.08.34 Moved by: Bill Smith

That the Agriculture Service Board approve the purchase of AG19007 (Cattle Squeeze) in the amount of \$12,000.00, AG19008 (Loading Chute) in the amount of \$10,000.00, AG19009 (Loading Chute) in the amount of \$10,000.00 and AG19010 (Post Pounder) in the amount of \$15,000.00 for the Agriculture Services Draft Capital Budget 2018-2020.

CARRIED

MOTION: 17.08.35 Moved by: Dale Smith

That the Agriculture Service Board approve the purchase of AG19011 (Pull Type Dozer Blade) in the amount of \$40,000.00 and AG19012 (Pull Type V-Ditcher) in the amount of \$20,000.00 for the Agriculture Services Draft Capital Budget 2018-2020.

CARRIED

MOTION: 17.08.36 Moved by: Warren Wohlgemuth

That the Agriculture Service Board approve the purchase of AG20001 (Enclosed Trailer) in the amount of \$20,000.00 for the Agriculture Services Draft Capital Budget 2018-2020.

CARRIED

MOTION: 17.08.37 Moved by: Bill Smith  
That the Agriculture Service Board approve the purchase of AG20002 (Post Pounder) in the amount of \$15,000.00 and AG20003 (Post Pounder) in the amount of \$15,000.00 for the Agriculture Services Draft Capital Budget 2018-2020.

CARRIED

MOTION: 17.08.38 Moved by: Bill Smith  
That the Agriculture Service Board recommend to Council to look at solutions for a covered priority workspace for the Rental Fleet repairs.

CARRIED

MOTION: 17.08.39 Moved by: Bill Smith  
That the Agriculture Service Board look into a Bale Hauler (2018) and a replacement of the Pull Type Scraper (2020) for Grovedale rental fleet.

CARRIED

MOTION: 17.08.40 Moved by: Laurie Mitchell  
That the Agriculture Service Board accept the Agriculture Services Draft Capital Budget 2018-2020 as amended.

CARRIED

**6.1.2 PCBFA SURPLUS VEHICLE REQUEST**

#7 STAFF REPORT & ASB MEMBERS BUSINESS & REPORTS

**7.1 STAFF REPORT & ASB MEMBERS BUSINESS & REPORTS**

**MEMBER LAURIE MITCHELL updated the Agriculture Service Board on her recent activities**

- No meeting to report

**MEMBER LARRY SMITH updated the Agriculture Service Board on his recent activities**

- No meeting to report

**CHAIR ALLEN PERKINS updated the Agriculture Service Board on his recent activities**

- No meeting to report

**MEMBER WARREN WOHLGEMUTH updated the Agriculture Service Board on his recent activities, which include;**

- Attended the Tansy Island 2017 Project - August 14, 2017

**COUNCILLOR DALE SMITH updated the Agriculture Service Board on his recent activities, which include;**

- Attended a SARDA meeting - 29 July 2017

**COUNCILLOR BILL SMITH updated the Agriculture Service Board on his recent activities**

- No meeting to report

MOTION: 17.08.41 Moved by: Larry Smith  
That the Agricultural Service Board move the September 27, 2017 ASB meeting to September 20, 2017.

CARRIED

STAFF REPORTS

MOTION: 17.08.42 Moved by: Dale Smith  
That the Agricultural Service Board accept the Manager’s report and ASB members reports as information.

CARRIED

#8  
CORRESPONDENCE

**8.1 FORAGE FACTS –JULY 2017**

**8.2 FORAGE COUNTRY – SUMMER 2017**

**8.3 BACK FORTY – AUGUST 2017**

**8.4 UNSEEDED ACRES CREATE RIPPLE EFFECT IN THE NUMBER OF INSURED ACRES THIS SUMMER**

**8.5 150 YEARS OF CANADIAN AGRICULTURE**

**8.6 WHAT’S YOUR BIGGEST DISEASE THREAT THIS YEAR**

**8.7 YOU WANT POLLINATORS TO MAKE THEIR HOME ON YOUR RANGE**

**8.8 FUSARIUM RISK MAP LAUNCHED IN ALBERTA**

**8.9 ALGAE COULD PUT DUGOUT WATER AT RISK**

**8.10 FARM LEADERS**

**8.11 HIGH MOISTURE LEVELS COULD PREVENT DRIVE UP CANOLA DISEASES ACROSS PROVINCE**

**8.12 HOW TO PREVENT PARASITE RESISTANCE TO WORM AND FLIES**

**8.13 PUT ANTIMICROBIALS, TRACEABILITY, AND BIOSECURITY ON YOUR TO DO LIST**

**8.14 STACK HAY BALES PROPERLY TO HELP MAINTAIN QUALITY**

**8.15 AFAC URBAN CHICKENS**

**8.16 MINISTER CARLIER LETTER RE: GE ALFALFA BYLAW**

**8.17 CROP CONDITIONS AS OF AUGUST 08, 2017**

**8.18 WORKSHOP: TOOLS TO BUILD YOUR COW HERD**

**8.19 LAUNCH OF DRAFT PLANT AND ANIMALS HEALTH STRATEGY CONSULTATION**

**8.20 AUGUST,SEPTEMBER,OCTOBER**

**CORRESPONDENCE LISTING**

MOTION: 17.08.43 Moved by: Laurie Mitchell  
That the Agricultural Service Board accept the correspondence listing as presented.

CARRIED

**#9 IN CAMERA**

**9.0 IN CAMERA**

**#10 ADJOURNMENT**

**10.0 ADJOURNMENT**

MOTION: 17.08.44 Moved by: Laurie Mitchell  
That the Agricultural Service Board Meeting adjourn at 12.42 p.m.

CARRIED

---

Agricultural Service Board Chair

---

Manager, Agricultural Services



## **Canadian Food Inspection Agency Policy: Permits for Landfill Sites Receiving Specified Risk Material**

### **Background**

Specified risk material (SRM) refers to cattle tissues that potentially contain bovine spongiform encephalopathy (BSE) infectivity. The Canadian Food Inspection Agency (CFIA) can minimize the risk associated with SRM to the environment, domestic and wild animals, and Canadians, in general, by regulating, through the issuance of permits, the burial of SRM. It is necessary for individuals or businesses wishing to receive SRM for burial to meet the specific operational and site requirements to ensure its safe handling and confinement.

### **General Landfill Site Requirements**

The best handling practices for SRM have been established through scientific assessments to ensure safety and confinement. The practices include establishing adequate signage, fencing, and specific operating procedures, as well as reporting integrity breaches and retaining detailed records.

Adequate signage installed at all access points around the perimeter, consisting of information on ownership, nature of operation, hours of operation, accepted types of fill and emergency contact information, is necessary. The use of fencing or other barriers to separate the landfill site from adjacent properties should prevent domestic ruminants and wildlife, including wild ruminants, scavengers, and birds from gaining access to SRM and raw leachate.

Daily cover material should be available, with all SRM covered before the end of the shift during which it is delivered. The nature and depth of coverage must be adequate enough to deter scavengers.

Personnel who receive and handle the SRM must be trained in standard SRM confinement operating procedures and have easy access to the on-site landfill's operating procedure manuals. The equipment that handles SRM can either be designated for SRM handling only or must be cleaned on-site by pressure washing to ensure that all organic material is removed from the interior and exterior surfaces prior to alternative use. All organic material greater than 4 mm in size in wash water must be confined within the SRM area or directed to the leachate containment system.

All breaches in the integrity of confinement, including access by scavengers, domestic or wild ruminants, leachate escape, or movement of SRM or landfill contents out of the area previously approved by permit, must be reported to the CFIA. Detailed monitoring logs (including, but not limited to, well logs, leachate treatment records, gas management records, stormwater management records, and disposal records) must be kept on-site for a period of 10 years. The detailed records may be instrumental in assessing future disease occurrences in animals or for public health concerns.

Specific details for the records are as follows:

A record must be kept for each day on which SRM is removed, stained, or received, or when carcasses are collected or received. Records must include the following:

- name and address of the person transporting SRM to the landfill site;
- date received;
- combined weight of the SRM and carcasses or parts of carcasses received;
- date of landfill (if different from reception);
- location of SRM within the landfill site (applicable to large landfills), as identified by methods such as surveying, GPS; and
- if applicable, numbers of approved tags on the carcasses or, in the case of carcasses not bearing approved tags, name and address of the owner, or farm or other place from which the carcass was removed.

### **Limits to Amount of Material a Site Receives**

Scientific risk assessments have been done to establish limits regarding the total volume of slaughter waste and deadstock that can be confined safely, depending on the specific parameters of a site. Specific technical requirements must be met to ensure the protection of the surrounding environment, including the region's surface and groundwater supply. The CFIA recognizes three basic types of disposal sites: 1) engineered landfill, 2) natural landfill, and 3) non-contiguous burial. A non-contiguous burial site refers to a producer or small business owner who wishes to bury a limited quantity of SRM that has been generated on-site, on a premises that they own, but not contiguous with the farm or premises of origin of the SRM.

- Sites meeting the requirements for an engineered landfill have no limits imposed by the CFIA with respect to the volume of SRM or the deadstock containing SRM that they may receive. (Refer to [Technical Requirements for an Engineered Landfill Site Permit: Specified Risk Material Confinement.](#))
- The CFIA limits those sites meeting the requirements for a natural landfill to receive a maximum of 4000 tonnes/year of slaughter waste and deadstock, of which a maximum of 2000 tonnes/year may originate from over-30-month-old (OTM) cattle. (Refer to [Technical Requirements for a Natural Landfill Site Permit: Specified Risk Material Confinement.](#))
- It is permissible to have a specific cell within a landfill designated for SRM, in which case, specific requirements would apply, rather than to the entire landfill.
- Sites meeting the requirements for non-contiguous burial are limited by the CFIA to receive not over 350 kg of material per week (equivalent to SRM from seven mature bovine carcasses) or 18,200 kg of material per year (equivalent to approximately 30 mature bovine carcasses or SRM only from 360 mature carcasses). (Refer to [Technical Requirements for a Non-Contiguous Burial Site Permit: Specified Risk Material Confinement.](#))

## **Permit Application**

Individuals or businesses may contact the local district [CFIA Animal Health Office](#) for a permit application *Form CFIA/ACIA 5405 - Application for Permit to Remove, Use, Convey, Treat, Store, Sell, Distribute, Confine, or Destroy Specified Risk Material (SRM) under the Health of Animals Act*.

Include the following documents with the submission to the local district CFIA Animal Health Office:

- completed form CFIA/ACIA 5405;
- all relevant municipal and provincial licenses and inspection reports;
- detailed site plans, including (where applicable) scale, north indication, relevant elevations, location of entrances, buildings, roads, fences, stormwater ditches, surface runoff drainage systems, leachate containment system, leachate treatment system, retention ponds, measuring wells, manholes, an indication of where within the landfill the SRM will be deposited;
- standard operating procedures and any additional proposed procedures, and quality assurance programs pertaining to the confinement of SRM for landfills; and
- results of any recent analyses or verifications relevant to SRM confinement.

Upon receipt and review of the completed application for permit, the operator of the landfill site or owner will be contacted and an inspection visit scheduled.

Subsequent to completing the landfill site inspection, the owner of the site will receive an inspection report. Any deficiencies will be outlined in the summary. The deficiencies should be addressed by preparing and submitting a corrective action plan to the CFIA district office. Implementation and effectiveness of this plan will be verified by an on-site follow-up inspection prior to issuing a permit.

## **Permit Issuance and Compliance Monitoring**

For landfill sites that meet all the requirements, a *Form CFIA/ACIA 5406 – SRM Permit to confine SRM under the Health of Animals Act* will be issued. The original copy of the permit will be forwarded to the applicant. Permits will be renewed annually, provided there is ongoing compliance with the standard operating procedures of the site. CFIA inspectors conduct compliance monitoring via random quarterly inspections. Provincial or municipal inspections may take the place of CFIA compliance inspections.



Province of Alberta

ANIMAL HEALTH ACT

# **DISPOSAL OF DEAD ANIMALS REGULATION**

**Alberta Regulation 132/2014**

Extract

© Published by Alberta Queen's Printer

Alberta Queen's Printer  
7<sup>th</sup> Floor, Park Plaza  
10611 - 98 Avenue  
Edmonton, AB T5K 2P7  
Phone: 780-427-4952  
Fax: 780-452-0668

E-mail: [qp@gov.ab.ca](mailto:qp@gov.ab.ca)  
Shop on-line at [www.qp.alberta.ca](http://www.qp.alberta.ca)

### **Copyright and Permission Statement**

Alberta Queen's Printer holds copyright on behalf of the Government of Alberta in right of Her Majesty the Queen for all Government of Alberta legislation. Alberta Queen's Printer permits any person to reproduce Alberta's statutes and regulations without seeking permission and without charge, provided due diligence is exercised to ensure the accuracy of the materials produced, and Crown copyright is acknowledged in the following format:

© Alberta Queen's Printer, 20 \_\_.\*

\*The year of first publication of the legal materials is to be completed.

### **Note**

All persons making use of this document are reminded that it has no legislative sanction. The official Statutes and Regulations should be consulted for all purposes of interpreting and applying the law.

(no amdt)

**ALBERTA REGULATION 132/2014**

**Animal Health Act**

**DISPOSAL OF DEAD ANIMALS REGULATION**

*Table of Contents*

<b>1</b>	Definitions
<b>2</b>	Application
<b>Disposal of Dead Animals</b>	
<b>3</b>	Owner's duties
<b>4</b>	Disposal by meat facility
<b>5</b>	Conditions respecting use of disposal methods
<b>6</b>	Diseased animals
<b>7</b>	Disposal in landfill
<b>8</b>	Burial
<b>9</b>	Burning
<b>10</b>	Composting in compost facility
<b>11</b>	Farm composting
<b>12</b>	Food for other animals
<b>13</b>	Rendering
<b>14</b>	Natural disposal
<b>15</b>	Method approved by Minister
<b>16</b>	Approval of disposal methods
<b>17</b>	Rendering plant
<b>18</b>	Disaster or emergency
<b>General</b>	
<b>19</b>	Transport of non-rendered dead animal
<b>20</b>	Diagnosis of animal diseases
<b>21</b>	Offences
<b>22</b>	Penalties
<b>23</b>	Repeal
<b>24</b>	Expiry
<b>25</b>	Coming into force

**Definitions**

**1** In this Regulation,

- (a) “Act” means the *Animal Health Act*;
- (b) “composting”, in respect of a dead animal, means a managed process for aerobic decomposition of the dead animal;
- (c) “dead animal” means
  - (i) all or part of an animal that has died from a cause other than having been slaughtered or killed for
    - (A) human or animal consumption, or
    - (B) an animal product or animal by-product,
  - (ii) inedible offal, condemned material or waste material from an animal that was slaughtered or killed for
    - (A) animal consumption, or
    - (B) an animal product or animal by-product,and
  - (iii) inedible offal, condemned material or waste material from an animal processed at a meat facility;
- (d) “meat facility” means
  - (i) a meat facility within the meaning of the *Meat Inspection Act*, and
  - (ii) an establishment within the meaning of the *Meat Inspection Act* (Canada) in which animals are slaughtered;
- (e) “rendering plant” means a rendering plant within the meaning of the *Health of Animals Act* (Canada).

**Application**

**2(1)** This Regulation does not apply to wildlife as defined in the *Wildlife Act* or controlled animals as defined in the *Wildlife Act*, except

- (a) wildlife or controlled animals possessed by a person who is or was the holder of a zoo permit under the *Wildlife Act* relating to the wildlife or controlled animals,
- (b) wildlife possessed by a person who is or was the holder of a game bird farm permit under the *Wildlife Act* relating to the wildlife,

- (c) wildlife possessed by a person who is or was the holder of a temporary shelter permit under the *Wildlife Act* relating to the wildlife,
  - (d) fur-bearing animals held by a person who is or was the holder of a licence under the *Fur Farms Act* relating to the fur-bearing animals,
  - (e) wildlife or controlled animals possessed by a non-resident or non-resident alien who is or was the holder of an import permit under the *Wildlife Act* relating to the wildlife or controlled animals, and
  - (f) wildlife processed at a meat facility.
- (2) For greater certainty, nothing in this Regulation affects the operation of any other law, including, without limitation,
- (a) any law that requires an approval, consent, permit, licence or other authorization or document to be obtained for an activity relating to the disposal of a dead animal, or
  - (b) any law that relates to a method of disposal, including without limitation, any law prohibiting or regulating the setting of fires.

### Disposal of Dead Animals

#### Owner's duties

- 3(1)** The owner of a dead animal shall dispose of the dead animal in accordance with this Regulation.
- (2)** In storing or disposing of a dead animal, the owner of the dead animal shall ensure that
- (a) the odours generated by the dead animal are minimized,
  - (b) any run-on or run-off water at the site where the dead animal is located is minimized,
  - (c) the risk of the spread of disease is minimized, and
  - (d) the dead animal does not create a nuisance.
- (3)** The owner of a dead animal shall dispose of the dead animal within 7 days unless the owner stores the dead animal
- (a) outside during winter months when the ambient temperature is low enough to keep the dead animal completely frozen,



- (b) in a freezer unit, or
  - (c) in accordance with the directions of the chief provincial veterinarian, an inspector appointed under section 6(2) of the Act or a veterinary inspector appointed under the *Health of Animals Act* (Canada).
- (4) The owner of a dead animal shall comply with any direction of an inspector directing the owner to dispose of the dead animal.
- (5) The owner of an animal that is euthanized with drugs or other chemical substances shall take steps to prevent scavengers from gaining access to the animal beginning at the time the drugs or other chemical substances are administered until the final disposal of the dead animal.

**Disposal by meat facility**

4 Subject to section 6 and the terms of any order made under section 18, an owner or operator of a meat facility shall dispose of a dead animal by a method

- (a) set out in section 7, 9(b), 10 or 13,
- (b) referred to in section 15 that is approved for use by owners or operators of meat facilities under section 16, or
- (c) authorized by the chief provincial veterinarian.

**Conditions respecting use of disposal methods**

5 An owner of a dead animal shall not dispose of a dead animal using a method referred to in section 8, 9(a), 11 or 14 unless

- (a) the owner had custody or care and control of the animal immediately before the animal's death, and
- (b) the owner is an owner of the land or premises on which the dead animal is disposed of.

**Diseased animals**

6(1) If a dead animal is known or suspected to have had a disease that is reportable under the Act but is not reportable under the *Health of Animals Act* (Canada), the owner of the dead animal shall dispose of the dead animal by a method provided for in this Regulation as directed by the chief provincial veterinarian or an inspector appointed under section 6(2) of the Act.

(2) If a dead animal is known or suspected to have had a disease that is not reportable under the Act but is reportable under the

*Health of Animals Act (Canada)*, the owner of the dead animal shall dispose of the dead animal by a method provided for in this Regulation as directed by a veterinary inspector appointed under the *Health of Animals Act (Canada)*.

(3) If a dead animal is known or suspected to have had a disease that is reportable under the Act and under the *Health of Animals Act (Canada)*, the owner of the dead animal shall dispose of the dead animal by a method provided for in this Regulation as directed by

- (a) the chief provincial veterinarian or an inspector appointed under section 6(2) of the Act, or
- (b) a veterinary inspector appointed under the *Health of Animals Act (Canada)*.

#### **Disposal in landfill**

7 Subject to section 6 and the terms of any order made under section 18, a dead animal may be disposed of in a Class I or Class II landfill as defined in the *Waste Control Regulation (AR 192/96)*.

#### **Burial**

8(1) In this section, “provincial highway” means a provincial highway as defined in the *Highways Development and Protection Act*, but does not include a proposed highway.

(2) Subject to section 6 and the terms of any order made under section 18, a dead animal may be buried in a farm burial pit in accordance with subsections (3) to (6).

(3) A dead animal may be buried in a farm burial pit only if the bottom of the pit is at least one metre above the seasonal high-water table.

(4) One or more dead animals may be buried in a farm burial pit if

- (a) the total weight of the dead animals buried in the pit does not exceed 2500 kg, and
- (b) the pit
  - (i) is at least 100 m from any well or other domestic water intake, stream, creek, pond, spring, river, irrigation canal, dugout or other water source and the high-water mark of any lake,
  - (ii) is at least 25 m from the edge of any coulee or embankment,

- (iii) is at least 10 m from any other farm burial pit,
- (iv) is at least 100 m from any residence,
- (v) is at least 100 m from the boundary of any land owned or leased by a person other than the owner of the dead animal, unless the owner or leaseholder of the land has consented in writing to the pit being located closer to the boundary,
- (vi) is at least 300 m from any provincial highway, and
- (vii) is covered with
  - (A) a minimum of one metre of compacted soil, if no additional dead animals are to be buried in the pit, or
  - (B) a wooden or metal lid that is designed to exclude scavengers and quicklime is applied to the dead animal or animals in sufficient quantities to control flies and odour, if the weight limit established by clause (a) has not been reached and the owner intends to bury additional dead animals in the farm burial pit.

(5) For the purposes of subsection (4)(a), the total weight of dead animals is determined by adding the weight at the time of burial of each dead animal buried in the pit to the weight at the time of burial of each dead animal previously buried in the pit.

(6) One or more dead animals may be buried in a farm burial pit if

- (a) the total weight of the dead animals buried in the pit does not exceed 100 kg, and
- (b) the pit
  - (i) is at least 50 m from any well or other domestic water intake, stream, creek, pond, spring, river, irrigation canal or other water source and the high-water mark of any lake,
  - (ii) is at least 25 m from the edge of any coulee or embankment,
  - (iii) is at least 100 m from any residence situated on land owned or leased by a person other than the owner of the dead animal,
  - (iv) is at least 3 m from any other farm burial pit,

- (v) is covered with a minimum of one metre of compacted soil, and
- (vi) has not been used for the burial of a dead animal during the previous 5-year period.

(7) If authorized in writing by the chief provincial veterinarian or an inspector appointed under section 6(2) of the Act, one or more dead animals exceeding 2500 kg in total weight may be buried in a farm burial pit in accordance with any directions provided in the authorization.

#### **Burning**

**9** Subject to section 6 and the terms of any order made under section 18, a dead animal may be burned in accordance with the applicable provisions in the *Environmental Protection and Enhancement Act* and in the regulations or codes of practice under that Act relating to the burning

- (a) in an open fire, or
- (b) in an incinerator.

#### **Composting in compost facility**

**10** Subject to section 6 and the terms of any order made under section 18, a dead animal may be disposed of by composting in a Class I compost facility as defined in the *Waste Control Regulation* (AR 192/96).

#### **Farm composting**

**11(1)** Subject to section 6, and the terms of any order made under section 18, a dead animal may be disposed of by composting

- (a) in an outdoor farm open compost pile
  - (i) that is
    - (A) at least 100 m from any well or other domestic water intake, stream, creek, pond, spring, river, irrigation canal, dugout or other water source and the high-water mark of any lake,
    - (B) at least 25 m from the edge of any coulee or embankment, and
    - (C) at least 100 m from any residence,

- (ii) that is designed in a manner that will exclude scavengers,
- (iii) that is at least 100 m from the boundary of any land owned or leased by a person other than the owner of the dead animal, unless the owner or leaseholder of the land has consented in writing to the outdoor farm open compost pile being located closer to the boundary,
- (iv) that is at least 300 m from any provincial highway, and
- (v) in which the dead animal or animals are covered with at least 60 cm of composting material,

or

- (b) in an indoor farm open compost pile that is located in a building that has
  - (i) an impervious floor, and
  - (ii) adequate drainage control to prevent the contamination of surface water or groundwater from the compost effluent.

(2) Where one or more dead animals are composted in an outdoor or indoor farm open compost pile,

- (a) the volume of the dead animal or animals in the compost pile must not exceed 25% of the total volume of the compost pile, and
- (b) material may not be removed from the compost pile until the dead animal or animals are composted to the extent that
  - (i) the generation of odours by the compost is minimized,
  - (ii) the compost will not contaminate surface water or groundwater,
  - (iii) the compost will not attract vectors of disease, and
  - (iv) the use of the compost will not cause or contribute to the spread of disease, cause scavenging or create a nuisance.

**Food for other animals**

**12(1)** Subject to section 6 and the terms of any order made under section 18, the owner of a dead animal may dispose of the dead animal by feeding it or allowing another person to feed it to an animal if the owner of the dead animal

- (a) knows that the dead animal
  - (i) did not have an infectious or contagious disease or a disease that is notifiable under the Act or reportable under the Act or the *Health of Animals Act* (Canada), and
  - (ii) was not euthanized with drugs or other chemical substances,

and

- (b) provides a written certificate to the owner of the animal to which the dead animal is being fed confirming that the dead animal did not have a disease referred to in clause (a) and was not euthanized as referred to in clause (a), where the dead animal is being fed to an animal that is not owned by the owner of the dead animal.

**(2)** No person shall feed a dead animal to a production animal as defined in the *Authorized Medicine Sales Regulation* if the feeding of the dead animal to the production animal would contravene the *Health of Animals Act* (Canada) or the regulations under that Act.

**Rendering**

**13** Subject to section 6 and the terms of any order made under section 18, a dead animal may be disposed of by rendering at a rendering plant operated under a permit issued under the *Health of Animals Act* (Canada).

**Natural disposal**

**14(1)** In this section, “natural disposal”, in respect of a dead animal, means disposing of the dead animal in a manner that allows for scavenging.

**(2)** Subject to section 6 and the terms of any order made under section 18, a dead animal, other than inedible offal or condemned material, may be disposed of by natural disposal if

- (a) the animal is not known or suspected to have had an infectious or contagious disease or a disease that is

notifiable under the Act or reportable under the Act or the *Health of Animals Act (Canada)*,

- (b) the dead animal was not euthanized with drugs or other chemical substances,
- (c) the total weight of the animals being disposed of at one site does not exceed 1000 kg,
- (d) there is a distance of at least 500 m between disposal sites, and
- (e) the dead animal is disposed of at a disposal site that
  - (i) is on property that is owned or leased by the owner of the dead animal and at least 100 m from the boundary of land owned or leased by a person other than the owner of the dead animal, unless the owner or leaseholder of the land has consented in writing to the disposal site being located closer to the boundary,
  - (ii) is at least 500 m from any well or other domestic water intake, stream, creek, pond, spring, river irrigation canal, dugout or other water source and the high-water mark of any lake,
  - (iii) is at least 25 m from the edge of any coulee or embankment,
  - (iv) is at least 400 m from any livestock facility, including a pasture, situated on land owned or leased by a person other than the owner of the dead animal,
  - (v) is at least 400 m from any residence,
  - (vi) is at least 400 m from any road, and
  - (vii) is at least 400 m from any
    - (A) park or recreation area as those terms are defined in the *Provincial Parks Act*,
    - (B) wilderness area, ecological reserve, natural area or heritage rangeland as those terms are defined in the *Wilderness Areas, Ecological Reserves, Natural Areas and Heritage Rangelands Act*, or
    - (C) any other land intended for recreational use by the public.

**Method approved by Minister**

**15** Subject to section 6 and the terms of any order made under section 18, a dead animal may be disposed of in a manner that has been approved by the Minister under section 16 if any terms or conditions imposed under that section are complied with.

**Approval of disposal methods**

**16** The Minister may approve a method or methods for the disposal of dead animals in addition to the methods provided for under sections 7 to 14 and may, in the approval,

- (a) specify whether the method or methods are approved for use by owners or operators of meat facilities, and
- (b) impose any terms or conditions on the disposal of dead animals using the method or methods that the Minister considers appropriate.

**Rendering plant**

**17** The owner or operator of a rendering plant shall ensure

- (a) that a dead animal rendered at the plant is subjected to such temperature and pressure as is necessary to render every portion of the carcass free from all viable pathogenic organisms, and
- (b) that microbiological quality assurance processes are in place to prevent the occurrence of viable pathogenic organisms.

**Disaster or emergency**

**18(1)** In the event of a disaster or emergency, including, without limitation, a flood, fire or outbreak of disease, the chief provincial veterinarian may, for the purposes of responding to and dealing with the effects of the disaster or emergency, make an order

- (a) in respect of any person or class of persons that for the period set out in the order
  - (i) exempts the person or class of persons from the application of this Regulation or any provision of this Regulation, or
  - (ii) varies the rules applicable to a method for the disposal of dead animals set out in this Regulation in respect of dead animals disposed of or to be disposed of by the person or class of persons,



or

- (b) in respect of any owner or class of owner of a dead animal or type of dead animal specified in the order that directs the owner or class of owner to dispose of the dead animal or a dead animal of that type in a manner or by a method specified in the order.

**(2)** A person or owner who is the subject of an order or is a member of a class of persons or owners that is the subject of an order under subsection (1)(a)(ii) or (b) shall comply with the order.

### **General**

#### **Transport of non-rendered dead animal**

**19** A person who transports, or prepares for transport, a dead animal that has not been rendered shall ensure that the dead animal is transported or prepared for transport in such a manner so as to prevent

- (a) any dissemination of pathogenic organisms into the environment from the leakage of blood or other body fluids of the dead animal, and
- (b) the contamination of food intended for consumption by humans or animals.

#### **Diagnosis of animal diseases**

**20** Nothing in this Regulation prohibits the collection, shipment or transport of a dead animal as may be required by a registered veterinarian or the owner of the dead animal for the diagnosis of animal disease.

#### **Offences**

**21** A person who contravenes or fails to comply with this Regulation is guilty of an offence.

#### **Penalties**

**22(1)** A person who is guilty of an offence under section 21

- (a) for a first offence, to a fine of not more than \$15 000 and, in the case of a continuing offence, to a further fine of not more than \$1000 for each day or part of a day during which the offence continues after the first day, and
- (b) for a 2nd or subsequent offence,

- (i) to a fine of not more than \$30 000 and, in the case of a continuing offence, to a further fine of not more than \$2000 for each day or part of a day during which the offence continues after the first day, or
- (ii) to imprisonment for a term not exceeding one year,

or to both fines and imprisonment.

(2) A prosecution under subsection (1) may be commenced within 2 years of the commission of the alleged offence but not afterwards.

#### **Repeal**

**23** The *Destruction and Disposal of Dead Animals Regulation* (AR 229/2000) is repealed.


#### **Expiry**

**24** For the purpose of ensuring that this Regulation is reviewed for ongoing relevancy and necessity, with the option that it may be repassed in its present or an amended form following a review, this Regulation expires on September 30, 2023.

#### **Coming into force**

**25** This Regulation comes into force on the coming into force of section 19 of the *Animal Health Amendment Act, 2009*.



Printed on Recycled Paper 

# LARGE ANIMAL MORTALITY COMPOSTING



Agdex 400/29-4

*Alberta*   
Government



# LARGE ANIMAL MORTALITY

## composting

Mortality Disposal	3
Potential Environmental and Biosecurity Risks	4
Livestock Mortality Composting	5
Keys to Success	7
Build and Manage Compost Piles	9
Composter Design	13
Planning Considerations	19
Compost Uses	20
Troubleshooting	21
Caution	22
Appendix A   Act and Regulation	24
Appendix B   Design Worksheets	32
References	37
For More Information	38



# Livestock Mortality Documents

Livestock Mortality Management (Disposal) Agdex 400/29-1

Swine Mortality Composting Agdex 440/29-1

Poultry Mortality Composting Agdex 450/29-1

Livestock Mortality Burial Techniques Agdex 400/29-2

# mortality disposal

Mortalities happen. Under Alberta's Destruction and Disposal of Dead Animals Regulation of the *Animal Health Act*, Appendix A, the owner of a dead animal shall dispose of the animal within 7 days of its death. Mortalities can be composted, incinerated, buried, rendered, or naturally disposed. Today, animal agriculture is challenged to discover innovative ways to dispose of livestock mortalities. Composting of livestock mortalities is one option. There are two general approaches to livestock mortality composting: bin systems and windrow systems.

The environmental considerations for improper disposal include:

- Odour – decomposition of organic matter, particularly the anaerobic (lacking oxygen) breakdown of proteins by bacteria, will produce a foul odour.
- Scavengers – ravens, magpies, coyotes, etc. and insects can transmit disease and are a nuisance.
- Pathogens – disease-causing spores may still be viable.
- Excess Nutrients – concentrated source of nitrogen.
- Nuisance – visible carcasses and bones fuel social issues and can puncture tires.

Composting in a properly managed system will work to prevent livestock disease transmission, protect air and water quality and reduce the nuisance of carcasses and bones. Composting improperly in an unmanaged system can result in a large nuisance and risks social repercussions.

Costs related to composting mortalities include the time to manage the process, operating costs and equipment costs. Managing the process requires time to form the base for composting, to stockpile carbon materials, to add mortalities, to turn the windrow and the time to land apply the finished compost. Annual operating costs include fuel, labour, land costs for the site and the costs of the carbon materials. The equipment costs for composting include the use of a front end loader tractor or another means to build and turn the material.

# potential environmental and biosecurity risk

lowest risk

- Compost in a properly managed system or burn in an approved incinerator on the farm.
- Bury in appropriate soils or store frozen for spring burial or rendering plant pick-up (Refer to Livestock Mortality Burial Techniques, Agdex 400/29 – 2).
- Partially buried or carcass left outside for scavengers or to decay.

highest risk

POTENTIAL RISK





# livestock mortality composting

- Inexpensive alternative for large animal disposal.
- Can kill pathogens and reduce chance to spread disease.
- Destroys the viability of weed seeds.
- Environmentally safe and valuable soil carbon material.
- Can be operated year round.
- Utilizes equipment available on-farm.
- Low odour generated.
- Low labour and management requirements.
- Publically acceptable.
- “Green” option – recycles and promotes biosecurity.
- Expands social acceptance.

Composting is the biological breakdown of organic materials in an aerobic (presence of oxygen) environment. Livestock mortality composting requires a high-carbon material with moderate moisture levels and good porosity to surround the carcasses which have a high moisture content and nearly zero porosity. The carcasses and carbon materials are layered into the pile and no mixing is done until after the high-rate (primary) stage of composting has occurred. In and around the animal, the process is anaerobic but as gasses are produced and move away, they enter an aerobic zone. Here the gasses are trapped in the surrounding material which supports bacteria to form a biological filter, or a biofilter. Composting livestock mortalities is best described as an “above ground burial in a biofilter with pathogen kill by high temperature.”

The carbon material around the carcass serves several key functions:

- Surrounds the carcasses making them less accessible and attractive to pests.
- Absorbs excess liquids released by decomposing carcasses.
- Provides structure and porosity which promotes air movement throughout the material.
- Provides an energy source for microbial growth.

Avoid turning the pile during the primary stage. After this time, the pile is moved to begin the secondary stage. Moving the pile introduces air and mixes the contents leading to uniformity in the finished compost. The secondary pile is then turned and placed in a pile for storage. Bones sometimes remain intact after completion of the storage process. They are generally quite brittle and pose no health risks or danger to equipment when land applied.



While composting is a natural process, it requires proper conditions to occur rapidly, minimize odour and prevent nuisance problems.

# keys to success

## Nutrient Balance (C:N)

The proper compost mix requires both carbon (C) and nitrogen (N) at the proper ratio near 30:1. This will result in a composting process that generates little odour yet offers an environment where microorganisms can flourish. Fresh carcasses have a low C:N of 14:1. Plant materials such as wood chips, sawdust, chopped corn stover, shredded paper or straw have a high C:N for on-farm mortality composting.

## Moisture

Like all living things, microorganisms need water. To encourage their growth and rapid composting, water content of the mixture should be 50 – 60% w.b. (wet basis). It is important to avoid excess water due to the potential for odour and excess liquids released by decomposing carcasses. When fresh large animal carcasses are used, there is usually no need to add extra moisture. If the carbon material is extremely dry (>85% dry matter) or the carcasses have dried out before composting, water may be needed.

## Temperature

Temperature is a good indicator of the “health” of the compost process. A probe-type dial thermometer with a 1 m (39 in) stem is good for monitoring temperatures, Figure 1. Temperatures should be checked frequently throughout the pile. Normally, temperatures in the primary stage should rise to 55 – 65 °C (131 °F – 149 °F) in 1 or 2 days and peak at 60 – 70 °C (140 °F – 158 °F) within 7 to 10 days.

Temperatures above 55 °C (131 °F) over 3 days will kill parasites and fecal and plant pathogens within the pile. However, to maintain high temperatures, the pile must be adequately sized, 2.4 – 3.6 m (8 – 12 ft) wide at the base and 1.5 – 2.1 m (5 – 7 ft) tall. At temperatures above 66 °C (150 °F), microbial activity declines rapidly as compost temperature exceeds 71 °C (160 °F).

Although experience indicates that temperatures above 75 °C (167 °F) are rare, a remote possibility exists that temperatures could rise to spontaneous combustion levels. If temperatures appear to be rising towards 75 °C (167 °F), the compost should be spread on the ground to cool.

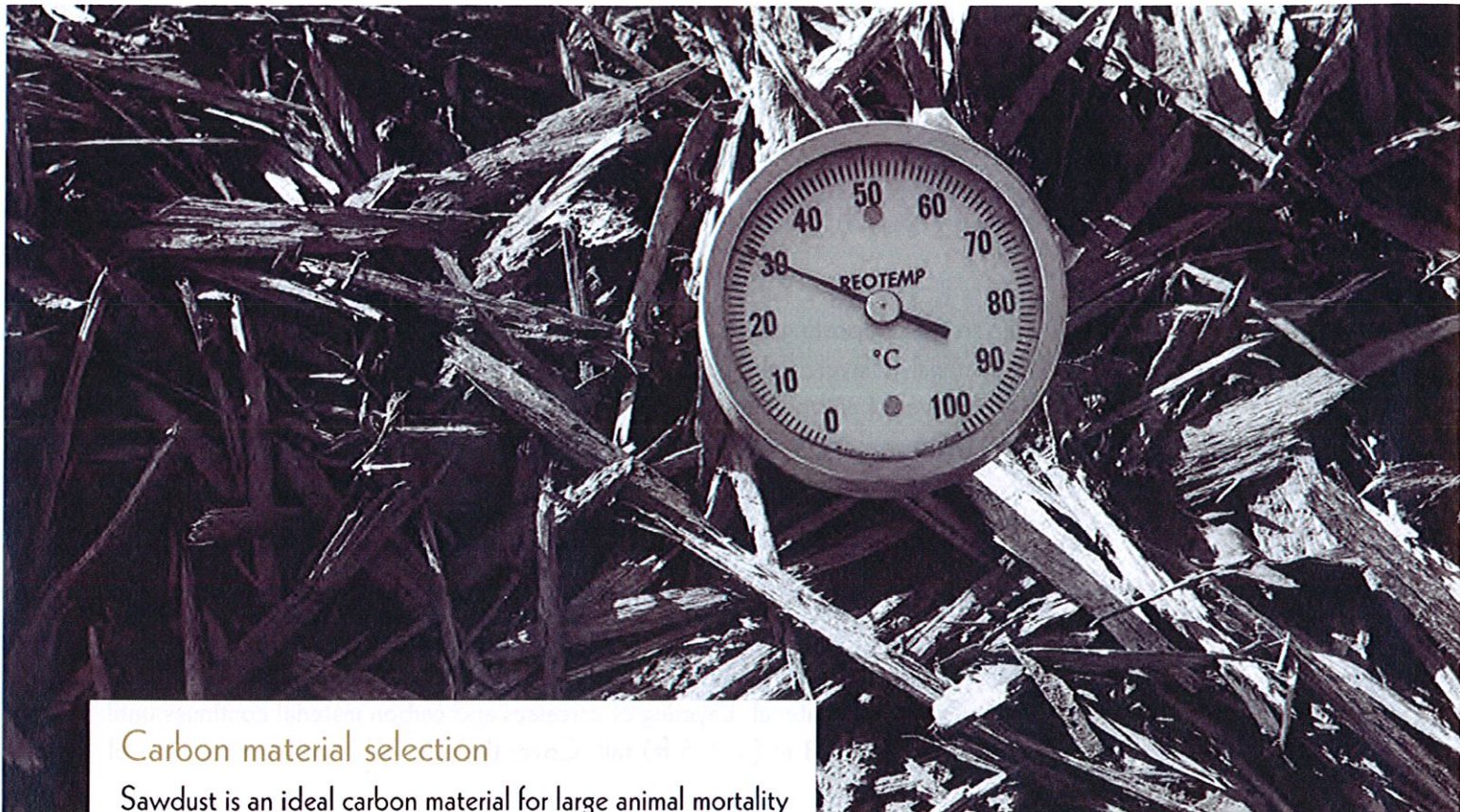


Figure 1. Temperature Measurement

### Carbon material selection

Sawdust is an ideal carbon material for large animal mortality composting due to:

- Small particle size.
- Open spaces (porosity).
- Bulk density of approximately 24 to 111 kg/m<sup>3</sup> (40 to 186 ft/yd<sup>3</sup>).
- pH of 7.0 to 8.0.
- Ease of handling.
- Absorbency.
- High carbon content.

If sawdust is not available, other plant materials such as wood chips or straw can be used. Since these tend to be less absorptive and have poorer insulating properties than sawdust, their use requires more care during cold or wet weather.

Table 1. Guidelines for composting: major factors

Major factors	Reasonable range	Preferred range
Nutrient balance, C:N	20:1 – 40:1	30:1 – 35:1
Moisture	45 – 65% w.b.	50 – 60% w.b.
Temperature	45 – 68 °C (113 – 155 °F)	54 – 66 °C (130 – 150 °F)
Particle size	0.8-1.2 cm (1/8 – 1/2 in)	Depends on material
Porosity	30 – 50%	35 – 45%
Bulk density	<640 kg/m <sup>3</sup> (1100 lbs/yd <sup>3</sup> )	
pH	5.8 – 9.0	6.5 – 8.0
Oxygen concentration	>5%	>10%

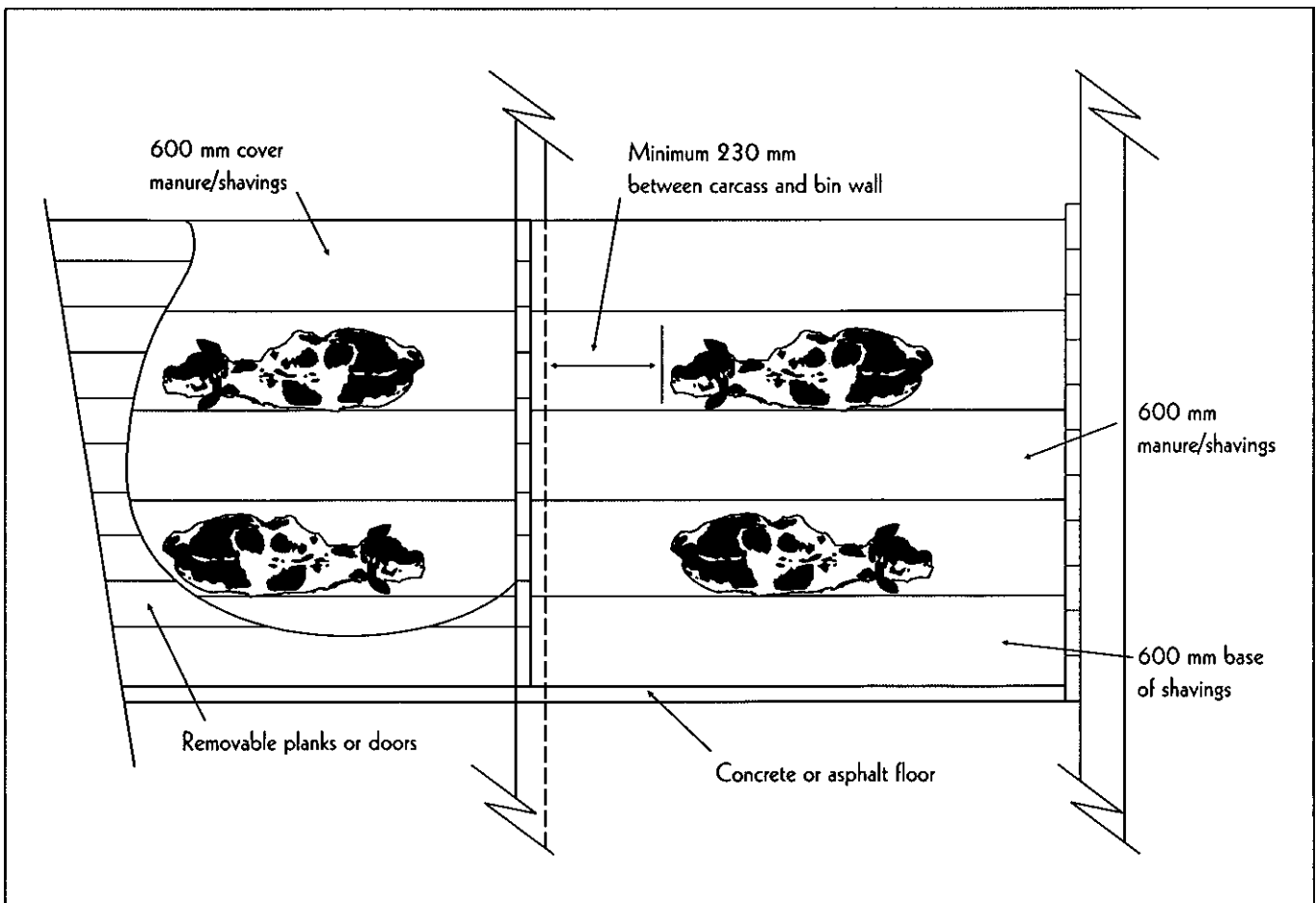
# build and manage compost piles

Large animal composting can be accomplished by layering in either a bin or a windrow. The material is layered the same for both systems. Begin by placing a 600 mm (24 in) layer of carbon material such as sawdust on the bottom, Figure 2 and 3.

Carcasses are placed on top of the base layer at least 230 mm (9 in) away from the edge of the base. Carcasses should be 600 mm (24 in.) apart. Too many carcasses in one spot leads to localized wet areas and poor composting. Small pigs may be grouped or placed with less carbon material between them.

After the carcasses are positioned, they are covered immediately with 600 mm (24 in) of carbon material. Layering of carcasses and carbon material continues until the pile is 1.2 – 1.8 m (4 – 6 ft) tall. Cover the pile with 600 mm (24 in) of carbon materials.

**Figure 2. Composting bins built in layers**

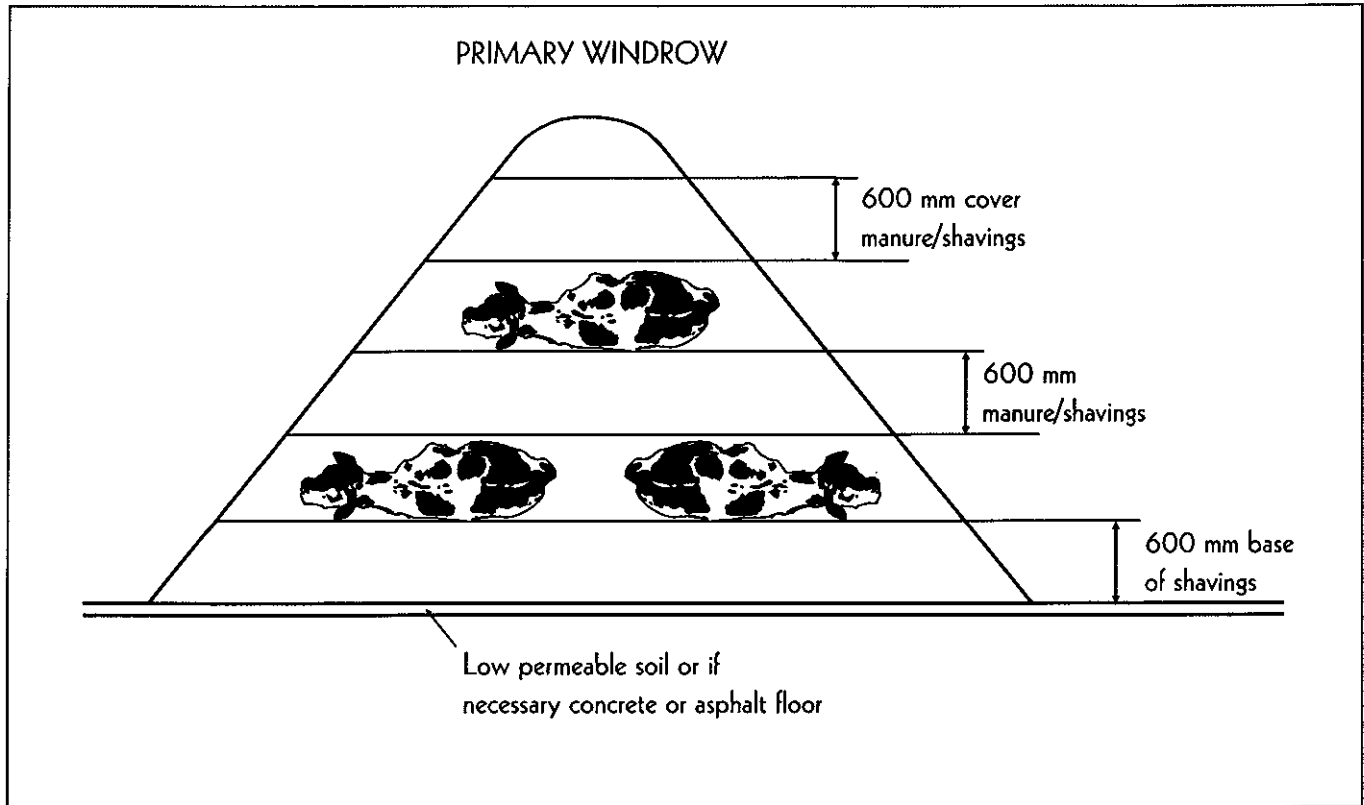


Carcasses should be 600 mm (24 in.) apart



Too many carcasses in one spot leads to localized wet areas and poor composting.

Figure 3. Composting windrows built in layers



### Two Stage Process

After the initial piling of a windrow or completely filling a bin, the material will heat up quickly and then gradually start to cool. The cooling is a normal sign that organisms are starting to be deficient in one of the ingredients. This primary stage for large animal mortalities lasts approximately 3 months. It may be necessary to extend this period of time if an unusual number of large carcasses are composted or if ambient temperatures are low. Mix the pile to re-introduce oxygen and redistribute the composting material to encourage rapid decomposition causing the temperatures to rise again. This secondary stage lasts approximately another 3 months.

By the end of the second heating stage, carcasses are normally reduced to a few brittle bone fragments that are clean and free of tissues that cause odours and attract insects and scavengers. Large carcasses may need a third heating stage.

Failure to manage the system will result in odours that attracts flies, scavengers and other vermin to the site.

Composting is considered complete when there is:

- No soft animal tissue.
- No bones or bone fragments larger than 15 cm (6 in) in any dimension.
- No other animal matter larger than 2.5 cm (1 in) in any dimension.
- No offensive odours.



The compost structure is designed for daily losses and occasional periods of high loss.

To do this, there are two basic designs bin and windrow composting



# composter design

## Bin Composting

Bin composting improves the aesthetics of mortality composting. As described previously, the primary stage lasts 3 months before moving to a second bin or to a windrow for the secondary stage. The layout of the composter should be flexible. This will accommodate existing features, restrictions, traffic patterns, equipment or other factors particular to a given operation. No specific layout is best in all cases.

The following points should be taken into consideration when designing a mortality bin composter.

1. Surface water should be diverted away or around the compost site to eliminate contamination.
2. Depth of compost bins should not exceed 2 carcasses high. This will reduce compaction effects and the potential for spontaneous combustion.
3. Since small carcasses are usually placed inside the primary compost bins by hand, the front of the bin should be designed so that carcasses will not have to be lifted too high. This can be done with removable drop boards that slide into vertical channels or with doors that split horizontally.
4. The width of compost bins is usually selected to accommodate loading/unloading equipment. Tractor front-end loaders or skidsteers are typically used. Bin width should be at least 0.3 m (12 in) wider but preferably 0.6 – 1 m (2 – 3 ft) wider than the bucket. If wheels on the equipment are wider than the bucket, the bin should be widened accordingly.
5. The length of the compost bins is generally 3 – 4.5 m (10 – 15 ft) for large animal. A disadvantage of longer bins is that they are more difficult to enter and exit.
6. Several smaller primary composting bins work more efficiently than a few very large bins.
7. Even though calculations may indicate fewer, a minimum of two primary bins is required. This allows use of the second bin while the last additions to the first bin are composting.
8. Secondary composting volume may be provided in bins that are duplicates of primary bins or a large bin.
9. It may be desirable to add one or two extra primary composting bins. These bins can be used to store ingredients such as litter, sawdust, etc. If unusually high mortalities occur, the extra bins could be put into service. Experience has shown that some ingredient storage at the composter site greatly facilitates management of the process.



Extra space is inexpensive and provides valuable flexibility for contingencies such as busy times of the year when bins cannot be emptied on time or occasional batches requiring additional time to decompose completely.

Temporary bins for mortality composting have been constructed using large bales as sidewalls with no roof. This type of construction is less expensive and provides flexibility, such as the number of bins and their location, that a permanent structure would not. When the need arises, bale bins can also be used along with a permanent structure facility to provide additional composting capacity.

## Sizing the Composter

The design, number and size of bins can be calculated once an estimate of the number and weight of mortalities has been determined. Appendix B contains these calculations.

Bins with 15 – 30 m<sup>3</sup> (530 – 1060 ft<sup>3</sup>) of capacity are recommended for large animal carcasses. These bins have a floor area of approximately 10 – 20 m<sup>2</sup> (108 – 216 ft<sup>2</sup>).

Extremely large bins that take a long time to fill are undesirable as they lead to unnecessarily long heating times since the first carcasses were placed. Total bin volume recommendations suggested are based on average daily death losses.

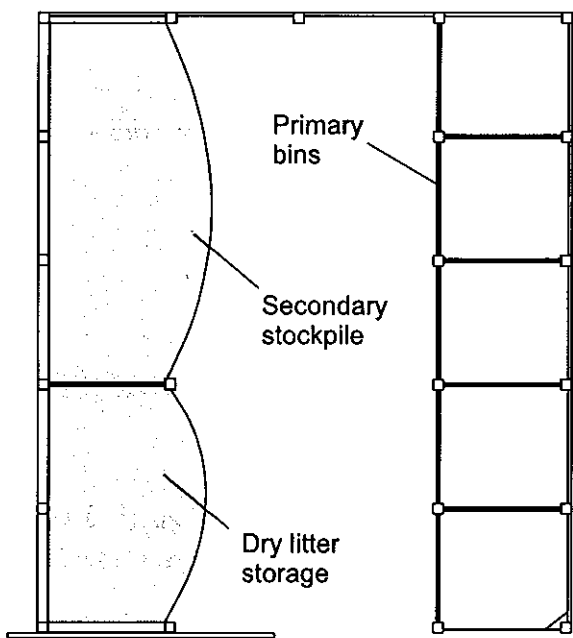
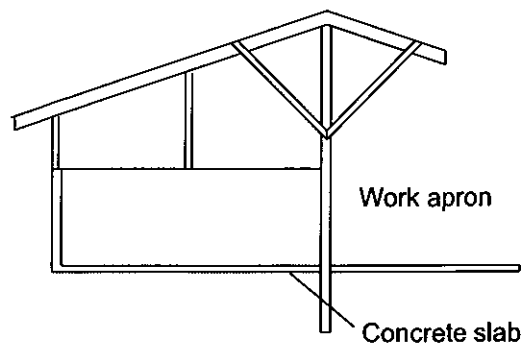
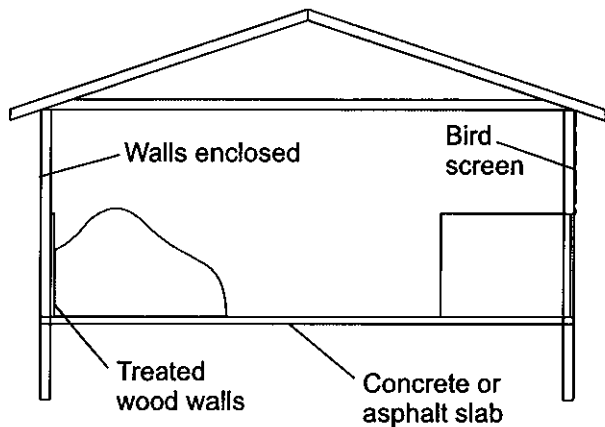
Bin systems constructed for composting large animal typically require 1.25 m<sup>3</sup>/kg (20 ft<sup>3</sup>/lb) of room for primary composting and the same for secondary composting. For example, a farm averaging 50 kg (110 lb) of loss each day would need approximately 62.5 m<sup>3</sup> (2200 ft<sup>3</sup>) of primary capacity and the same amount for secondary bin space.

Appendix B illustrates the method for determining the number of primary bins needed for a large animal mortality composting system. Primary bins may be arranged in any configuration. Generally, it is more efficient to arrange the bins so that primary compost can be quickly and easily moved to the secondary composting area.

Figure 4, Layout A is a schematic of a composter with 5 primary bins and a large floor area for stockpiling the secondary compost. It also includes ingredient storage. This building can be enclosed on three sides (one end door) and the wall above the primary bins can be screened. These added features improve visual aesthetics, reduce odours and restrict bird access for better disease control.

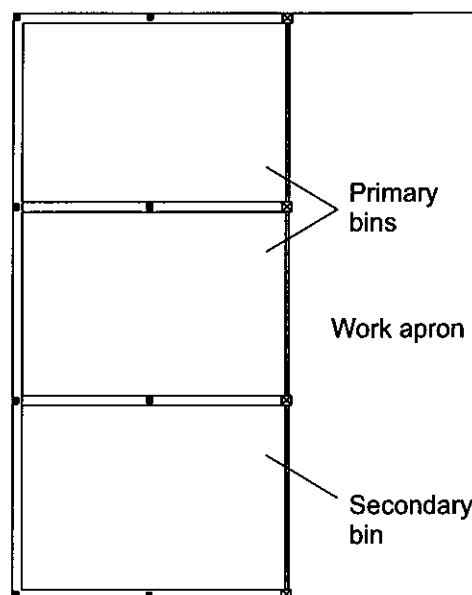
Figure 4, Layout B is a schematic of a composter with 2 primary bins and 1 secondary bin. The bins are enclosed on 3 sides. The work apron provides easy accessibility to each of the bins.

**Figure 4 – Two typical composting unit layouts**



**Layout A**

Composting bins and stockpiling with central work area.



**Layout B**

Composting bins in open front shed.

## Windrow Composting

Windrow composting is a relatively simple and inexpensive way to manage loss scenarios due to disease, ventilation failures or other unpredictable events which would require large facilities. As described previously, the primary stage lasts 3 months before mixing the windrow to begin the secondary stage. Windrows are generally not sheltered from the wind, rain and snow which can affect the process. Because walls and roofs are not required in these designs, it is easier to load, unload and mix the materials. Windrows are constructed on all weather surfaces such as low permeable soils or concrete.


The length of the windrow is extended as mortalities occur.

The following points should be taken into consideration for site preparation and operation.

1. A composting pad with a 2% slope should be constructed on 0.5 m (1.6 ft) of clay with permeability less than  $5 \times 10^{-8}$  m/s ( $1.6 \times 10^{-7}$  ft/s) or an alternative with equivalent protection such as concrete.
2. The site should have a run-on control system to prevent surface water flowing onto the composting area.
3. The site should have a run-off control system to protect surface water from contamination.
4. To mix the material, start at one end of the windrow and move the contents to form a new windrow .
5. If the material is dry, add water while turning.
6. Cover any exposed carcass tissue after the windrow has been turned.
7. Be sure the piles are mounded to shed rainfall.

## Sizing the Windrow

The number of carcasses and the average weight needs to be known. Recommended windrow dimensions are 3.6 m (12 ft) wide at the base and no more than 2.1 m (7 ft) tall. To assist you in determining yearly losses, sawdust requirements and windrow volume, refer to Appendix B.



When choosing a composting location, consult the local office of the Natural Resources Conservation Board (NRCB).

**Calgary Office**

3rd Floor, 640 5th Avenue S.W.  
Calgary AB T2P 3G4  
Phone: 403-662-3990  
Fax: 403-662-3994

**Edmonton Office**

4th Floor Sterling Place  
9940-106 Street  
Edmonton, AB T5K 2N2  
Phone: 780-422-1977  
Fax: 780-427-0607

**Fairview Office**

Provincial Building  
10209-109 Street  
Box 159, Fairview AB T0H 1L0  
Phone: 780-835-7111  
Fax: 780-835-3259

**Lethbridge Office**

Agriculture Centre  
100, 5401-1st Avenue S.  
Lethbridge, AB T1J 4V6  
Phone: 403-381-5166  
Fax: 403-381-5806

**Morinville Office**

Room 201, Provincial Building  
10008-107 Street  
Morinville, AB T8R 1L3  
Phone: 780-939-1212  
Fax: 780-939-3194

**Red Deer Office**

Provincial Building  
# 303, 4920-51 Street  
Red Deer AB T4N 6K8  
Phone: 403-340-5241  
Fax: 403-340-5599

# planning considerations

Actual construction of a composter can take many different forms, all producing good results. Some features to consider are location, type of structure, construction materials and ingredient storage.

## Location/Access

Location of a composter should follow the criteria in the Destruction and Disposal of Dead Animals Regulation of the *Animal Health Act*. It states that the compost pile must be:

- At least 100 m (328 ft) from wells or other domestic water intakes, streams, creeks, ponds, springs rivers, irrigation canals, dugouts and high water marks of lakes and at least 25 m (82 ft) from the edge of a coulee or embankment.
- At least 100 m (328 ft) from any residences.
- At least 100 m (328 ft) from the boundary of any land owned or leased by another person unless written consent to the pile being closer to the boundary.
- At least 300 m from any provincial highway.

The location should also take into account any impact it may have on the farm residence and neighbouring residences. While offensive odours are not usually generated in the composting process, the handling of dead birds, manure and litter may not be aesthetically pleasing. When locating a composter, consideration should be given to traffic patterns required for moving dead birds, the required ingredients and removing the finished compost from the composter. The composter site should be well-drained and provide all-weather access roads and work areas.

## Foundation/Floor

Composting should have an impervious, weight-bearing foundation for all composting areas. This feature ensures all-weather operation, helps secure the composter against rodent access and generally minimizes the potential for contamination of the surrounding area. Consideration should also be given to providing a concrete floor in traffic areas and work alleys. Experience has shown that with the frequent loading and unloading activities associated with composting, dirt or even gravel areas tend to become rutted and potholed.

## Construction Materials

Any portion of the compost structure such as poles and sidewalls that will be in contact with dirt or composting material should be constructed with pressure treated lumber or other rot-resistant materials.

Temporary bins can also be constructed with bales of low-quality hay or straw. This type of construction is less expensive and provides flexibility such as the number of bins and their location that a permanent structure would not.

## Roof

A roof covering compost bins controls rainwater and the moisture content of the composting mass. Roofing the working area also facilitates all-weather activities. Additionally, any ingredient storage areas or bins should be roofed to preserve the ingredients at the desired moisture content. Roof heights must be adequate to ensure clearance for front-end loaders.

## Ingredient Storage

Having sufficient amounts of ingredients such as sawdust and litter present at the compost site greatly facilitates the day-to-day management of the process. In determining the amount of storage needed, consideration should be given to the frequency with which ingredient transfer and restocking can be managed. Storage requirements may vary considerably among different operations. Bins used for storage can double as primary composting bins during periods of high death loss or they may facilitate the expansion of the composting area if the farm is increased. Ingredient storage does not have to be in bins. If the composting area can be constructed in conjunction with a litter storage facility, handling may be greatly simplified.

## Utilities

A water line with a freeze-proof hydrant at the compost facility will aid in adjusting the moisture content of the recipe (if needed) and further facilitate cleanup and wash down of personnel, equipment and the composting area. A minimum 20-amp electrical circuit will allow for the use of power tools, lights or other appliances that may be required at the compost facility.

# compost uses

---

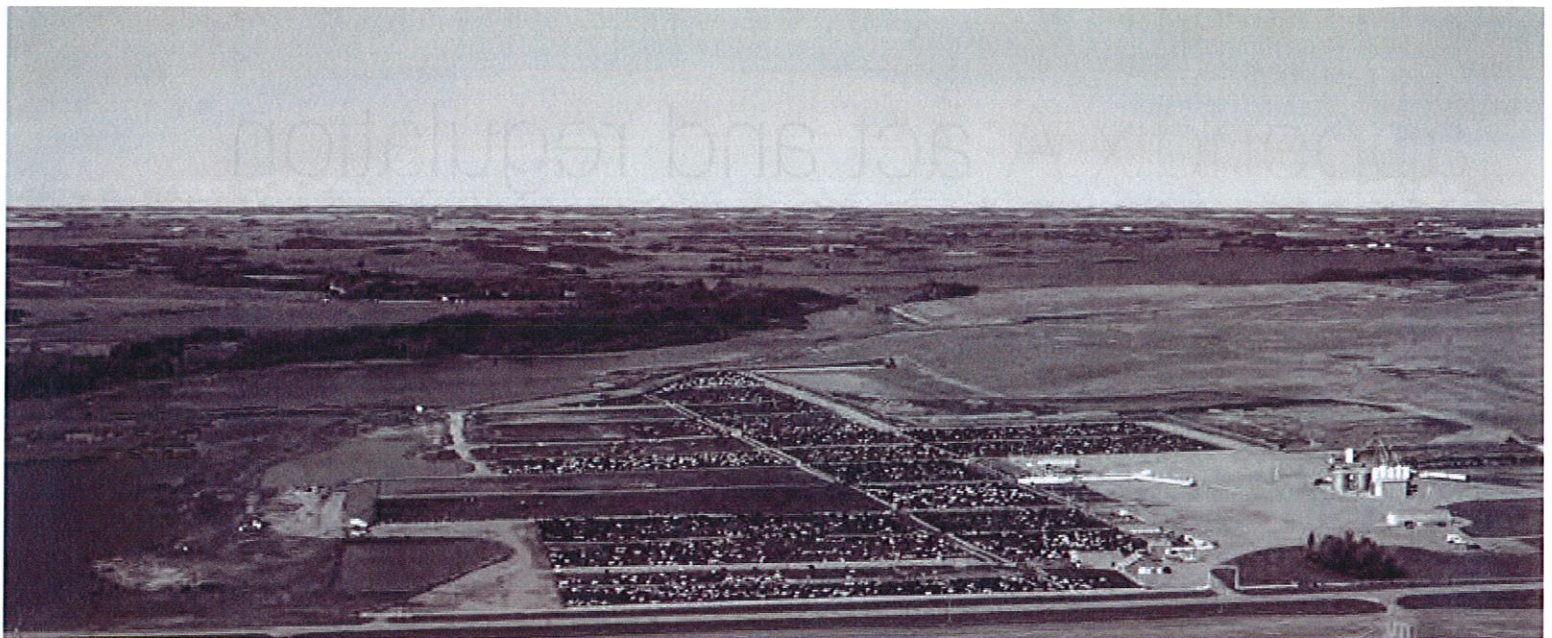
Well composted mortalities can be used as a soil conditioner and nutrient source for crops. The soil-amending and plant food properties of compost make it a valuable by-product of poultry production.

Users of compost are encouraged to obtain a nutrient analysis of the product prior to its use. It is recommended that mortality compost not be spread on active pasture land or home gardens. Poorly composted animal mortalities may contain bones and other mortality residue that may damage equipment and be unsightly when land applied.



# troubleshooting

Symptom	Problem	Recommendation
Pile fails to reach high temperatures	The pile is lacking oxygen because the material is too dense or contains too much moisture	Rebuild the pile with coarser material to allow for air to circulate
	The pile is too small	Increase size to at least 1.2 x 1.2 x 1.2 m (4 x 4 x 4 ft)
	Winter composting with not enough of an insulation layer	Provide an insulation layer of carbon material, 600 mm (2 ft)
	Pile is too dry	Add water
Temperature in the pile begins to drop near the end of the primary stage	The pile is lacking oxygen	Turn the pile to reintroduce air and mix the materials
	The pile is lacking moisture	Turn the pile and check to ensure the moisture content is between 45 and 65%
Odour	Too wet	Add bulking material and turn
	Too low C:N	Evaluate bulking material and adjust as necessary
Flies	Inadequate cover	Cover with 600 mm (2 ft) of carbon material
	Poor sanitation conditions	Provide an adequate base of carbon material to absorb all liquids from the mortalities. Provide run-on and run-off protection, due to precipitation, at the site by grading the pad to a 1-2% slope
	Too wet	Add bulking material and turn the pile
	Failure to reach proper temperature	Assess C:N
Scavenging animals	Inadequate cover	Maintain 600 mm (2 ft). Avoid initial entry with fence or barrier. Ensure the pile is heating properly



## caution

If an animal is known or suspected to have died from an infectious or reportable disease, the owner must report this to authorities and dispose of the animal in the manner they recommend. For an animal that has been euthanized, owners need to prevent scavengers from gaining access to the dead animal. These animals cannot be disposed of by natural disposal.

Reportable Diseases are those which require action to control or eradicate because they are a threat to animal or human health, food safety or the economy.

Notifiable Diseases are those which simply require monitoring for trade purposes or to understand their presence in Alberta. No action will be taken.

Anyone who knows or ought to know that any of these diseases are or may be present in an animal **MUST** report that fact to the **Office of the Chief Provincial Veterinarian** within **24** hours by calling **1-800-524-0051**.

# appendix A act and regulation

In this Regulation,

- (a) "Act" means the *Animal Health Act*;
- (b) "composting", in respect of a dead animal, means a managed process for aerobic decomposition of the dead animal;
- (c) "dead animal" means
  - (i) all or part of an animal that has died from a cause other than having been slaughtered or killed for
    - (A) human or animal consumption, or
    - (B) an animal product or animal by-product,
  - (ii) inedible offal, condemned material or waste material from an animal that was slaughtered or killed for
    - (A) animal consumption, or
    - (B) an animal product or animal by-product, and
  - (iii) inedible offal, condemned material or waste material from an animal processed at a meat facility;
- (d) "meat facility" means
  - (i) a meat facility within the meaning of the *Meat Inspection Act*, and
  - (ii) an establishment within the meaning of the *Meat Inspection Act* (Canada) in which animals are slaughtered;
- (e) "rendering plant" means a rendering plant within the meaning of the *Health of Animals Act* (Canada).

## Application

**2 (1)** This Regulation does not apply to wildlife as defined in the *Wildlife Act* or controlled animals as defined in the *Wildlife Act*, except

- (a) wildlife or controlled animals possessed by a person who is or was the holder of a zoo permit under the *Wildlife Act* relating to the wildlife or controlled animals,
- (b) wildlife possessed by a person who is or was the holder of a game bird farm permit under the *Wildlife Act* relating to the wildlife,
- (c) wildlife possessed by a person who is or was the holder of a temporary shelter permit under the *Wildlife Act* relating to the wildlife,
- (d) fur-bearing animals held by a person who is or was the holder of a licence under the *Fur Farms Act* relating to the fur-bearing animals,
- (e) wildlife or controlled animals possessed by a non-resident or non-resident alien who is or was the holder of an import permit under the *Wildlife Act* relating to the wildlife or controlled animals,

and

(f) wildlife processed at a meat facility.

- (2) For greater certainty, nothing in this Regulation affects the operation of any other law, including, without limitation,
- (a) any law that requires an approval, consent, permit, licence or other authorization or document to be obtained for an activity relating to the disposal of a dead animal, or
  - (b) any law that relates to a method of disposal, including without limitation, any law prohibiting or regulating the setting of fires.

## DISPOSAL OF DEAD ANIMALS

### Owner's duties

- 3(1) The owner of a dead animal shall dispose of the dead animal in accordance with this Regulation.
- (2) In storing or disposing of a dead animal, the owner of the dead animal shall ensure that
- (a) the odours generated by the dead animal are minimized,
  - (b) any run-on or run-off water at the site where the dead animal is located is minimized,
  - (c) the risk of the spread of disease is minimized, and
  - (d) the dead animal does not create a nuisance.
- (3) The owner of a dead animal shall dispose of the dead animal within 7 days unless the owner stores the dead animal
- (a) outside during winter months when the ambient temperature is low enough to keep the dead animal completely frozen,
  - (b) in a freezer unit, or
  - (c) in accordance with the directions of the chief provincial veterinarian, an inspector appointed under section 6(2) of the Act or a veterinary inspector appointed under the *Health of Animals Act* (Canada).
- (4) The owner of a dead animal shall comply with any direction of an inspector directing the owner to dispose of the dead animal.
- (5) The owner of an animal that is euthanized with drugs or other chemical substances shall take steps to prevent scavengers from gaining access to the animal beginning at the time the drugs or other chemical substances are administered until the final disposal of the dead animal.

### Disposal by meat facility

- 4 Subject to section 6 and the terms of any order made under section 18, an owner or operator of a meat facility shall dispose of a dead animal by a method
- (a) set out in section 7, 9(b), 10 or 13,
  - (b) referred to in section 15 that is approved for use by owners or operators of meat facilities under section 16, or

(c) authorized by the chief provincial veterinarian.

### Conditions respecting use of disposal methods

- 5 An owner of a dead animal shall not dispose of a dead animal using a method referred to in section 8, 9(a), 11 or 14 unless
- (a) the owner had custody or care and control of the animal immediately before the animal's death, and
  - (b) the owner is an owner of the land or premises

### Diseased animals

- 6(1) If a dead animal is known or suspected to have had a disease that is reportable under the Act but is not reportable under the *Health of Animals Act (Canada)*, the owner of the dead animal shall dispose of the dead animal by a method provided for in this Regulation as directed by the chief provincial veterinarian or an inspector appointed under section 6(2) of the Act.
- (2) If a dead animal is known or suspected to have had a disease that is not reportable under the Act but is reportable under the *Health of Animals Act (Canada)*, the owner of the dead animal shall dispose of the dead animal by a method provided for in this Regulation as directed by a veterinary inspector appointed under the *Health of Animals Act (Canada)*.
- (3) If a dead animal is known or suspected to have had a disease that is reportable under the Act and under the *Health of Animals Act (Canada)*, the owner of the dead animal shall dispose of the dead animal by a method provided for in this Regulation as directed by
- (a) the chief provincial veterinarian or an inspector appointed under section 6(2) of the Act, or
  - (b) a veterinary inspector appointed under the *Health of Animals Act (Canada)*.

### Disposal in landfill

- 7 Subject to section 6 and the terms of any order made under section 18, a dead animal may be disposed of in a Class I or Class II landfill as defined in the Waste Control Regulation (AR 192/96).

### Burial

- 8(1) In this section, "provincial highway" means a provincial highway as defined in the *Highways Development and Protection Act*, but does not include a proposed highway.
- (2) Subject to section 6 and the terms of any order made under section 18, a dead animal may be buried in a farm burial pit in accordance with subsections (3) to (6).
- (3) A dead animal may be buried in a farm burial pit only if the bottom of the pit is at least one metre above the seasonal high-water table.
- (4) One or more dead animals may be buried in a farm burial pit if
- (a) the total weight of the dead animals buried in the pit does not exceed 2500 kg, and
  - (b) the pit

- (i) is at least 100 m from any well or other domestic water intake, stream, creek, pond, spring, river, irrigation canal, dugout or other water source and the high-water mark of any lake,
  - (ii) is at least 25 m from the edge of any coulee or embankment,
  - (iii) is at least 10 m from any other farm burial pit,
  - (iv) is at least 100 m from any residence,
  - (v) is at least 100 m from the boundary of any land owned or leased by a person other than the owner of the dead animal, unless the owner or leaseholder of the land has consented in writing to the pit being located closer to the boundary,
  - (vi) is at least 300 m from any provincial highway, and
  - (vii) is covered with
    - (A) a minimum of one metre of compacted soil, if no additional dead animals are to be buried in the pit, or
    - (B) a wooden or metal lid that is designed to exclude scavengers and quicklime is applied to the dead animal or animals in sufficient quantities to control flies and odour, if the weight limit established by clause (a) has not been reached and the owner intends to bury additional dead animals in the farm burial pit.
- (5)** For the purposes of subsection (4)(a), the total weight of dead animals is determined by adding the weight at the time of burial of each dead animal buried in the pit to the weight at the time of burial of each dead animal previously buried in the pit.
- (6)** One or more dead animals may be buried in a farm burial pit if
- (a) the total weight of the dead animals buried in the pit does not exceed 100 kg, and
  - (b) the pit
    - (i) is at least 50 m from any well or other domestic water intake, stream, creek, pond, spring, river, irrigation canal or other water source and the high-water mark of any lake,
    - (ii) is at least 25 m from the edge of any coulee or embankment,
    - (iii) is at least 100 m from any residence situated on land owned or leased by a person other than the owner of the dead animal,
    - (iv) is at least 3 m from any other farm burial pit,
    - (v) is covered with a minimum of one metre of compacted soil, and
    - (vi) has not been used for the burial of a dead animal during the previous 5-year period.
- (7)** If authorized in writing by the chief provincial veterinarian or an inspector appointed under section 6(2) of the Act, one or more dead animals exceeding 2500 kg in total weight may be buried in a farm burial pit in accordance with any directions provided in the authorization.

## Burning

- 9 Subject to section 6 and the terms of any order made under section 18, a dead animal may be burned in accordance with the applicable provisions in the *Environmental Protection and Enhancement Act* and in the regulations or codes of practice under that Act relating to the burning
- (a) in an open fire, or
  - (b) in an incinerator.

## Composting in compost facility

- 10 Subject to section 6 and the terms of any order made under section 18, a dead animal may be disposed of by composting in a Class I compost facility as defined in the Waste Control Regulation (AR 192/96).

## Farm composting

- 11(1) Subject to section 6, and the terms of any order made under section 18, a dead animal may be disposed of by composting
- (a) in an outdoor farm open compost pile
    - (i) that is
      - (A) at least 100 m from any well or other domestic water intake, stream, creek, pond, spring, river, irrigation canal, dugout or other water source and the high-water mark of any lake,
      - (B) at least 25 m from the edge of any coulee or embankment, and
      - (C) at least 100 m from any residence,
    - (ii) that is designed in a manner that will exclude scavengers,
    - (iii) that is at least 100 m from the boundary of any land owned or leased by a person other than the owner of the dead animal, unless the owner or leaseholder of the land has consented in writing to the outdoor farm open compost pile being located closer to the boundary,
    - (iv) that is at least 300 m from any provincial highway, and
    - (v) in which the dead animal or animals are covered with at least 60 cm of composting material,  
or
  - (b) in an indoor farm open compost pile that is located in a building that has
    - (i) an impervious floor, and
    - (ii) adequate drainage control to prevent the contamination of surface water or groundwater from the compost effluent.
- (2) Where one or more dead animals are composted in an outdoor or indoor farm open compost pile,
- (a) the volume of the dead animal or animals in the compost pile must not exceed 25% of the total volume of the compost pile, and

- (b) material may not be removed from the compost pile until the dead animal or animals are composted to the extent that
  - (i) the generation of odours by the compost is minimized,
  - (ii) the compost will not contaminate surface water or groundwater,
  - (iii) the compost will not attract vectors of disease, and
  - (iv) the use of the compost will not cause or contribute to the spread of disease, cause scavenging or create a nuisance.

### **Food for other animals**

**12(1)** Subject to section 6 and the terms of any order made under section 18, the owner of a dead animal may dispose of the dead animal by feeding it or allowing another person to feed it to an animal if the owner of the dead animal

- (a) knows that the dead animal
  - (i) did not have an infectious or contagious disease or a disease that is notifiable under the Act or reportable under the Act or the *Health of Animals Act (Canada)*, and
  - (ii) was not euthanized with drugs or other chemical substances, and
- (b) provides a written certificate to the owner of the animal to which the dead animal is being fed confirming that the dead animal did not have a disease referred to in clause (a) and was not euthanized as referred to in clause (a), where the dead animal is being fed to an animal that is not owned by the owner of the dead animal.

**(2)** No person shall feed a dead animal to a production animal as defined in the Authorized Medicine Sales Regulation if the feeding of the dead animal to the production animal would contravene the *Health of Animals Act (Canada)* or the regulations under that Act.

### **Rendering**

**13** Subject to section 6 and the terms of any order made under section 18, a dead animal may be disposed of by rendering at a rendering plant operated under a permit issued under the *Health of Animals Act (Canada)*.

### **Natural disposal**

**14(1)** In this section, “natural disposal”, in respect of a dead animal, means disposing of the dead animal in a manner that allows for scavenging.

**(2)** Subject to section 6 and the terms of any order made under section 18, a dead animal, other than inedible offal or condemned material, may be disposed of by natural disposal if

- (a) the animal is not known or suspected to have had an infectious or contagious disease or a disease that is notifiable under the Act or reportable under the Act or the *Health of Animals Act (Canada)*,



- (b) the dead animal was not euthanized with drugs or other chemical substances,
- (c) the total weight of the animals being disposed of at one site does not exceed 1000 kg,
- (d) there is a distance of at least 500 m between disposal sites, and
- (e) the dead animal is disposed of at a disposal site that
  - (i) is on property that is owned or leased by the owner of the dead animal and at least 100 m from the boundary of land owned or leased by a person other than the owner of the dead animal, unless the owner or leaseholder of the land has consented in writing to the disposal site being located closer to the boundary,
  - (ii) is at least 500 m from any well or other domestic water intake, stream, creek, pond, spring, river irrigation canal, dugout or other water source and the high-water mark of any lake,
  - (iii) is at least 25 m from the edge of any coulee or embankment,
  - (iv) is at least 400 m from any livestock facility, including a pasture, situated on land owned or leased by a person other than the owner of the dead animal,
  - (v) is at least 400 m from any residence,
  - (vi) is at least 400 m from any road, and
  - (vii) is at least 400 m from any
    - (A) park or recreation area as those terms are defined in the *Provincial Parks Act*,
    - (B) wilderness area, ecological reserve, natural area or heritage rangeland as those terms are defined in the *Wilderness Areas, Ecological Reserves, Natural Areas and Heritage Rangelands Act*, or
    - (C) any other land intended for recreational use by the public.

### Method approved by Minister

- 15** Subject to section 6 and the terms of any order made under section 18, a dead animal may be disposed of in a manner that has been approved by the Minister under section 16 if any terms or conditions imposed under that section are complied with.

### Approval of disposal methods

- 16** The Minister may approve a method or methods for the disposal of dead animals in addition to the methods provided for under sections 7 to 14 and may, in the approval,
- (a) specify whether the method or methods are approved for use by owners or operators of meat facilities, and
  - (b) impose any terms or conditions on the disposal of dead animals using the method or methods that the Minister considers appropriate.

## Rendering plant

- 17** The owner or operator of a rendering plant shall ensure
- (a) that a dead animal rendered at the plant is subjected to such temperature and pressure as is necessary to render every portion of the carcass free from all viable pathogenic organisms, and
  - (b) that microbiological quality assurance processes are in place to prevent the occurrence of viable pathogenic organisms.

## Disaster or emergency

- 18(1)** In the event of a disaster or emergency, including, without limitation, a flood, fire or outbreak of disease, the chief provincial veterinarian may, for the purposes of responding to and dealing with the effects of the disaster or emergency, make an order
- (a) in respect of any person or class of persons that for the period set out in the order
    - (i) exempts the person or class of persons from the application of this Regulation or any provision of this Regulation, or
    - (ii) varies the rules applicable to a method for the disposal of dead animals set out in this Regulation in respect of dead animals disposed of or to be disposed of by the person or class of persons, or
  - (b) in respect of any owner or class of owner of a dead animal or type of dead animal specified in the order that directs the owner or class of owner to dispose of the dead animal or a dead animal of that type in a manner or by a method specified in the order.
- (2)** A person or owner who is the subject of an order or is a member of a class of persons or owners that is the subject of an order under subsection (1)(a)(ii) or (b) shall comply with the order.

## GENERAL

### Transport of non-rendered dead animal

- 19** A person who transports, or prepares for transport, a dead animal that has not been rendered shall ensure that the dead animal is transported or prepared for transport in such a manner so as to prevent
- (a) any dissemination of pathogenic organisms into the environment from the leakage of blood or other body fluids of the dead animal, and
  - (b) the contamination of food intended for consumption by humans or animals.

### Diagnosis of animal diseases

- 20** Nothing in this Regulation prohibits the collection, shipment or transport of a dead animal as may be required by a registered veterinarian or the owner of the dead animal for the diagnosis of animal disease.

## Offences

21 A person who contravenes or fails to comply with this Regulation is guilty of an offence.

## Penalties

22(1) A person who is guilty of an offence under section 21(a) for a first offence, to a fine of not more than \$15 000 and, in the case of a continuing offence, to a further fine of not more than \$1000 for each day or part of a day during which the offence continues after the first day, and

(b) for a 2nd or subsequent offence,

(i) to a fine of not more than \$30 000 and, in the case of a continuing offence, to a further fine of not more than \$2000 for each day or part of a day during which the offence continues after the first day, or

(ii) to imprisonment for a term not exceeding one year, or to both fines and imprisonment.

(2) A prosecution under subsection (1) may be commenced within 2 years of the commission of the alleged offence but not afterwards.

## Repeal

23 The Destruction and Disposal of Dead Animals Regulation (AR 229/2000) is repealed.

## Expiry

24 For the purpose of ensuring that this Regulation is reviewed for ongoing relevancy and necessity, with the option that it may be repassed in its present or an amended form following a review, this Regulation expires on September 30, 2023.

## Coming into force

25 This Regulation comes into force on the coming into force of section 19 of the *Animal Health Amendment Act, 2009*.

# appendix B design worksheet

To assist you in determining yearly losses, sawdust requirements, number and size of bins, and windrow volume, refer to the following worksheets. Use the example worksheets as a guide for filling out your own.

## Large Animals Loss and Sawdust Calculations

### Mortality Material to be Handled

(a) Full grown animal losses

$$\frac{\text{# animals}}{\text{# animals}} * \frac{\text{lbs}}{\text{Avg. Wt.}} * \frac{100}{\% \text{ loss}} = \text{lbs loss/year}$$

(b) newborn losses (including still borns)

$$\frac{\text{animals born/year}}{\text{animals born/year}} * \frac{\text{lbs}}{\text{Avg. Wt.}} * \frac{100}{\% \text{ loss}} = \text{lbs loss/year}$$

(c) Young losses

$$\frac{\text{young animals/year}}{\text{young animals/year}} * \frac{\text{lbs}}{\text{Avg. Wt.}} * \frac{100}{\% \text{ loss}} = \text{lbs loss/year}$$

(d) Finisher losses

$$\frac{\text{animals finished /year}}{\text{animals finished /year}} * \frac{\text{lbs}}{\text{Avg. Wt.}} * \frac{100}{\% \text{ loss}} = \text{lbs loss/year}$$

$$\text{Total Mortality} = \text{lbs loss/year}$$

### Annual Sawdust Requirements

$$\frac{\text{lbs loss/yr}}{\text{lbs loss/yr}} * \frac{0.0037}{\text{conversion factor}} = \text{cu yards/year}$$

Up to 50% of the sawdust can be replaced by finished compost.

### Conversion

$$\frac{\text{cu yds/yr}}{\text{sawdust requirements}} * \frac{0.7645}{\text{conversion factor}} = \text{cu meters/year}$$

## EXAMPLE Large Animals Loss and Sawdust Calculations

### Mortality Material to be Handled

(a) Full grown animal losses

$$\frac{100}{\# \text{ animals}} * \frac{590 \text{ lbs}}{\text{Avg. Wt.}} * \frac{3 / 100}{\% \text{ loss}} = \underline{1770} \text{ lbs loss/year}$$

(b) newborn losses (including still borns)

$$\frac{90}{\text{animals born/year}} * \frac{113 \text{ lbs}}{\text{Avg. Wt.}} * \frac{4.4 / 100}{\% \text{ loss}} = \underline{447} \text{ lbs loss/year}$$

(c) Young losses

$$\frac{\quad}{\text{young animals/year}} * \frac{\quad}{\text{Avg. Wt.}} * \frac{\quad}{\% \text{ loss}} = \underline{\quad} \text{ lbs loss/year}$$

(d) Finisher losses

$$\frac{15}{\text{animals finished /year}} * \frac{333 \text{ lbs}}{\text{Avg. Wt.}} * \frac{\quad / 100}{\% \text{ loss}} = \underline{599.4} \text{ lbs loss/year}$$

$$\text{Total Mortality} = \underline{2816.9} \text{ lbs loss/year}$$

### Annual Sawdust Requirements

$$\frac{2816.9 \text{ lbs loss/yr.}}{\text{total death loss}} * \frac{0.0037}{\text{conversion factor}} = \underline{10.4} \text{ cu yards/year}$$

Up to 50% of the sawdust can be replaced by finished compost.

### Conversion

$$\frac{10.4 \text{ cu yards/year}}{\text{sawdust requirements}} * \frac{0.7645}{\text{conversion factor}} = \underline{8.0} \text{ cu meters/year}$$

# Bin Design and Selection for Large Animals

## Average Daily Mortality

$$\frac{\text{lbs/yr}}{\text{total mortality}} \div \frac{365}{\text{days/yr}} = \text{lbs loss/day}$$

## Bin Volumes

$$\text{Primary Bin Volume} = \frac{\text{lbs loss/day}}{\text{cu ft/lb of loss}} * 20 = \text{cubic feet}$$

$$\text{Secondary Bin Volume} = \text{Primary Bin Volume} = \text{cubic feet}$$

## Bin Wall Height

$$\text{Bin Wall Height} = \text{ft} \quad \text{Recommended 5 ft}$$

## Floor Areas

$$\text{Primary Bin Floor Area} = \frac{\text{cu ft}}{\text{primary bin volume}} \div \frac{\text{ft}}{\text{bin wall height}} = \text{sq ft}$$

$$\text{Secondary Bin Floor Area} = \text{Primary Bin Floor Area} = \text{sq ft}$$

## Select Bin Size

Typical Bin Dimensions:	10 ft x 10 ft	10 ft x 12 ft	10 ft x 14 ft	10 ft x 16 ft
		12 ft x 12 ft	12 ft x 14 ft	12 ft x 16 ft

The bin area you choose should fall between 100 and 200 square feet.

## Number of Primary Bins

$$\# \text{ of primary bins} = \frac{\text{sq ft}}{\text{primary bin floor size}} \div \frac{\text{sq ft}}{\text{bin size}} = \text{bins}$$

## Number of Secondary Bins

$$\# \text{ of secondary bins} = \# \text{ of primary bins} = \text{bins}$$

Be sure to round up to the next whole number.

Alternatively, 1 secondary bin can be used for every 2 primary bins if finished compost is utilized every 90 days (i.e. finished compost is not stored in bins).

## Total Number of Bins

$$\# \text{ bins} = \frac{\text{# of primary bins}}{\text{bins}} + \frac{\text{# of secondary bins}}{\text{bins}} + \frac{\text{# of additional bins}}{\text{bins}} = \text{bins}$$

Additional bins can be used for storage of finished compost, sawdust, etc.

## EXAMPLE Bin Design and Selection for Large Animals

### Average Daily Mortality

$$\frac{2816.9 \text{ lbs loss/yr.}}{\text{total mortality}} \div \frac{365}{\text{days/yr}} = \frac{7.7}{\text{lbs loss/day}}$$

### Bin Volumes

$$\text{Primary Bin Volume} = \frac{7.7}{\text{lbs loss/day}} * \frac{20}{\text{cu ft/lb of loss}} = \frac{154}{\text{cubic feet}}$$

$$\text{Secondary Bin Volume} = \text{Primary Bin Volume} = \frac{154}{\text{cubic feet}}$$

### Bin Wall Height

$$\text{Bin Wall Height} = \frac{5 \text{ ft}}{\text{Recommended 5 ft}}$$

### Floor Areas

$$\text{Primary Bin Floor Area} = \frac{154 \text{ cu ft}}{\text{primary bin volume}} \div \frac{5 \text{ ft}}{\text{bin wall height}} = \frac{31}{\text{sq ft}}$$

$$\text{Secondary Bin Floor Area} = \text{Primary Bin Floor Area} = \frac{31}{\text{sq ft}}$$

### Select Bin Size

Typical Bin Dimensions:	10 ft x 10 ft	10 ft x 12 ft	<u>10 ft x 14 ft</u>	10 ft x 16 ft
		12 ft x 12 ft	12 ft x 14 ft	12 ft x 16 ft

The bin area you choose should fall between 100 and 200 square feet.

### Number of Primary Bins

$$\# \text{ of primary bins} = \frac{154 \text{ sq ft}}{\text{primary bin floor size}} \div \frac{140 \text{ sq ft}}{\text{bin size}} = \frac{1.1}{\text{bins}} \approx 2 \text{ bins}$$

### Number of Secondary Bins

$$\# \text{ of secondary bins} = \# \text{ of primary bins} = \frac{2}{\text{bins}}$$

Be sure to round up to the next whole number.

Alternatively, 1 secondary bin can be used for every 2 primary bins if finished compost is utilized every 90 days (i.e. finished compost is not stored in bins).

### Total Number of Bins

$$\# \text{ bins} = \frac{2}{\# \text{ of primary bins}} + \frac{2}{\# \text{ of secondary bins}} + \frac{2}{\# \text{ of additional bins}} = \frac{6}{\text{bins}}$$

Additional bins can be used for storage of finished compost, sawdust, etc.

## Windrow and Pad Sizing

### Windrow Height

Windrow Height

= \_\_\_\_\_ ft

A tall windrow generally makes better use of the pad area and carbon material.  
(5 to 7 feet works best)

Producers using this design will load the carcasses while continually extending the length of the compost windrow.



# references

Bonhotal, J., L. Telega, J. Petzen. 2008. Natural rendering: composting livestock mortality and butcher waste. Ithaca, New York: Cornell Waste Management Institute.

Canadian Food Inspection Agency. 2009. Enhanced animal health protection from BSE. <http://www.inspection.gc.ca/english/anima/heasan/disemala/bseesb/enhren/enhrene.shtml> (Accessed: November 2009).

Canadian Food Inspection Agency. 2007. SRM Permits <http://www.inspection.gc.ca/english/anima/heasan/disemala/bseesb/enhren/perme.shtml> (Accessed: March 2010).

Crenshaw, M.A. 2006. Management guidelines for composting swine mortality in Mississippi. Publication 2332. Mississippi State University Extension.

Glanville, T. 2008. Composting swine mortalities in Iowa. PM 1917. Iowa State University Extension.

Harper, A.F., and M.J. Estienne. 2009. Composting for mortality disposal on hog farms. Publication 414-020. Virginia Cooperative Extension.

Haug, R.T. 1993. The Practical Handbook of Compost Engineering. Lewis Publishers. ISBN 0-87371-373-7.

Keener, H., D. Elwell, T. Mescher. 1997. Composting swine mortality principles and operation. AEX-711-97. Ohio State University Extension.

Laporte, J. 2009. Deadstock disposal options for on-farm, Agdex 729/400. Ontario Ministry of Agriculture, Food and Rural Affairs.

Mescher, T., K. Wolfe, S. Foster, R. Stowell. 1997. Swine composting facility design. AEX-713-97. Ohio State University Extension.

North Dakota State University. 2009. Composting animal manures and carcasses. North Dakota State University, Fargo, North Dakota.

Nova Scotia. On-farm livestock mortality management. [http://nsac.ca/eng/outreach/mort\\_manage\\_narrow.pdf](http://nsac.ca/eng/outreach/mort_manage_narrow.pdf) (January, 2010)

Ritz, C. and J. Worley. 2005. Poultry mortality composting management guide. Publication B-1266. University of Georgia Cooperative Extension Service.

Stettler, D. 2001. Mortality management. Lesson 51. Ames, Iowa: Midwest Plan Service. <https://www.rhs.org.uk/AdviceSearch/Profile.aspx?pid=297>

# for more information

Reportable Diseases

Office of the Chief Provincial Veterinarian

780-427-3448 or toll-free by first dialing 403-310-0000

[http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/cpv4264](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/cpv4264)

Alberta's Notifiable and Reportable Diseases Website

[http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/afs12455](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/afs12455)

CFIA

<http://www.inspection.gc.ca/english/animal/animae.shtml>



## Acknowledgements

### Technical content prepared by:

Virginia Nelson, *Project Manager*  
Technology and Innovation Branch  
Environmental Stewardship Division  
Alberta Agriculture and Rural Development

### Special acknowledgement for contributions by:

Rick Atkins  
Michael Bevans  
Jason Cathcart  
Kris Chawla  
Brian Koberstein  
Vince Murray  
Julie Popowicz  
Kayla Vaage  
Amanda Vanee  
Trevor Wallace  
Wayne Winchell  
*all of Alberta Agriculture and Rural Development*

### Graphic Design:


Mihaela Manolescu  
Alberta Agriculture and Rural Development

**Copyright © 2011.** Her Majesty the Queen in Right of Alberta  
(Alberta Agriculture and Rural Development). All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without written permission from the Technology and Innovation Branch (Environmental Stewardship Division), Alberta Agriculture and Rural Development

Printed in Canada





# LIVESTOCK MORTALITY BURIAL TECHNIQUES



Agdex 400/29-2

*Alberta*   
Government

# LIVESTOCK MORTALITY

## burial techniques

Starts  
with  
end  
with  
end  
with  
end  
with  
end

Mortality Disposal	3
Potential Environmental and Biosecurity Risks	4
Water Contamination Concerns	5
Burial	11
Selecting the Right Site	11
Digging Safety	13
Type of Pits/Holes	13
Placing Deadstock in Burial Pits	15
Covering Deadstock	15
Record Keeping	15
Caution	16
Appendix A   Act and Regulation	18
References	27
For More Information	29



# Livestock Mortality Documents

Poultry Mortality Composting Agdex 450/29-1

Swine Mortality Composting Agdex 440/29-1

Large Animal Mortality Composting Agdex 400/29-4

Livestock Mortality Management (Disposal) Agdex 400/29-1



# mortality disposal

Mortalities happen. Under Alberta's Destruction and Disposal of Dead Animals Regulation of the *Animal Health Act*, Appendix A, the owner of a dead animal shall dispose of the animal within 7 days of its death. Mortalities can be composted, incinerated, buried, rendered or naturally disposed. Today, animal agriculture is challenged to discover innovative ways to dispose of livestock and poultry mortalities. Burial of livestock mortalities is one option.

The environmental considerations for improper disposal include:

- Odour – decomposition of organic matter, particularly the anaerobic (lacking oxygen) breakdown of proteins by bacteria, will produce a foul odour.
- Scavengers – ravens, magpies, coyotes, etc. and insects can transmit disease and are a nuisance.
- Pathogens – disease-causing spores may still be viable.
- Excess Nutrients – concentrated source of nitrogen.
- Nuisance – visible carcasses and bones fuel social issues and can puncture tires.

Burial of livestock and poultry mortalities on the farm where they were produced is one option. The booklet does not cover all burial requirements. For this information, refer to the regulation, Appendix A.

**This protocol is not appropriate for disposal of mass mortalities.**

## Emergency Carcass Disposal

- Accidents and natural disasters can result in mass mortalities.
- Contact your Municipal District or County for emergency carcass disposal assistance.
- The Destruction and Disposal of Dead Animals Regulation allows more than 2500 kg (5500 lbs) of dead animals to be buried in a single on-farm burial pit under the direction of the Chief Provincial Veterinarian or a veterinary inspector.

## *How Burial Works*

Decomposition of buried deadstock is a slow process and works best if the mortalities are mixed with soil and buried in well-drained, warm soils with aerobic (oxygen present) conditions.

In good conditions, decomposition occurs in a few months especially in the upper layers of the soil. However, under poor conditions decomposition can take years, especially if deadstock are packed together in wet soil and buried deep where soil temperatures are cool.

# potential environmental and biosecurity risk

## lowest risk

- Compost in a properly managed system or burn in an approved incinerator on the farm.
- Bury in appropriate soils or store frozen for spring burial or rendering plant pick-up (Refer to Livestock Mortality Burial Techniques, Agdex 400/29 – 2).
- Partially buried or carcass left outside for scavengers or to decay.

POTENTIAL RISK

## highest risk



# water contamination concerns

## Groundwater Contamination Concerns

As the mortalities break down, the components that are soluble such as nitrates and chlorides (possibly bacteria) can be leached into the groundwater.

Soil properties that impact the leaching potential include soil organic matter content, soil texture and soil structure.

Organic matter and clay content together control the soil's ability to bind and hold compounds that are moving through the soil in the water. Soils low in organic matter and/or clay content have a lower ability to bind and trap compounds and are therefore a higher risk for groundwater contamination.

Soil texture refers to the proportions of sand, silt and clay in a soil. Coarse-textured sandy and gravelly soils have the largest pores and the most rapid permeability. Fine-textured clayey soils have very tiny pores and very slow permeability rates. Medium-textured loams, silt loams and clay loams have intermediate rates of soil permeability.

Soil structure can have an impact on water infiltration. Soils with dense, compact or cemented soil layers have very slow rates of permeability. Permeability rates are given in millimetres per hour. Typical rates are 0.25 mm/hr (0.01 in/hr) for compact clay, 12.7 mm/hr (0.5 in/hr) for a loam with good structure and 380 mm/hr (15 in/hr) for loamy sand.

The zone above the groundwater table (vadose zone) up to the soil surface is effective in binding and destroying some biological contaminants. The thickness and therefore the effectiveness of this zone depend on the height and duration of the groundwater table in the soil. Shallow water tables that persist for long periods increase the risk of groundwater contamination. Well-drained soils are much less sensitive than poorly drained soils which may have water tables at or near the surface for several months of the year.

**Note:** Shallow bedrock depth may also be a concern in a few areas of the province. Open fractures in bedrock permit rapid movement of contaminated water with minimal filtration or treatment.

The third factor that impacts a soil's risk for groundwater contamination is the amount of rainfall or snow. No matter how permeable the soil, the leaching potential remains low if there is insufficient water to move compounds through the soil.



Where rainfall exceeds both plant consumptive use and the soil's ability to store water, leaching occurs. Water moving below the root zone ultimately reaches groundwater, carrying with it soluble soil constituents.

The landscape also influences the impact of moisture. Soils near hilltops often shed water, either by runoff or lateral flow within the soil. Soils lower on the hillside and where the slope begins to flatten out are more susceptible to leaching from the added moisture loading.

The combined effects of leaching potential, binding potential and moisture accumulation determine a soil's risk with respect to groundwater vulnerability. The highest risk soil to groundwater contamination is a sandy soil that is exposed to very high water accumulation. Soil with the lowest level of risk to groundwater contamination is fine textured and experiences very low rain or snow fall accumulations.

Alberta's Environmental Farm Plan (AEFP) provides a method for determining the potential for groundwater contamination. It suggests how to determine if the groundwater contamination potential is low, moderate or high.

For the purposes of this booklet, Table 1 can be used to determine which groundwater contamination category a burial site falls into. The Alberta Destruction and Disposal of Dead Animals Regulation specifies for burial that the bottom of the pit must be at least 1 m (3.3 ft) above the seasonal high water table.

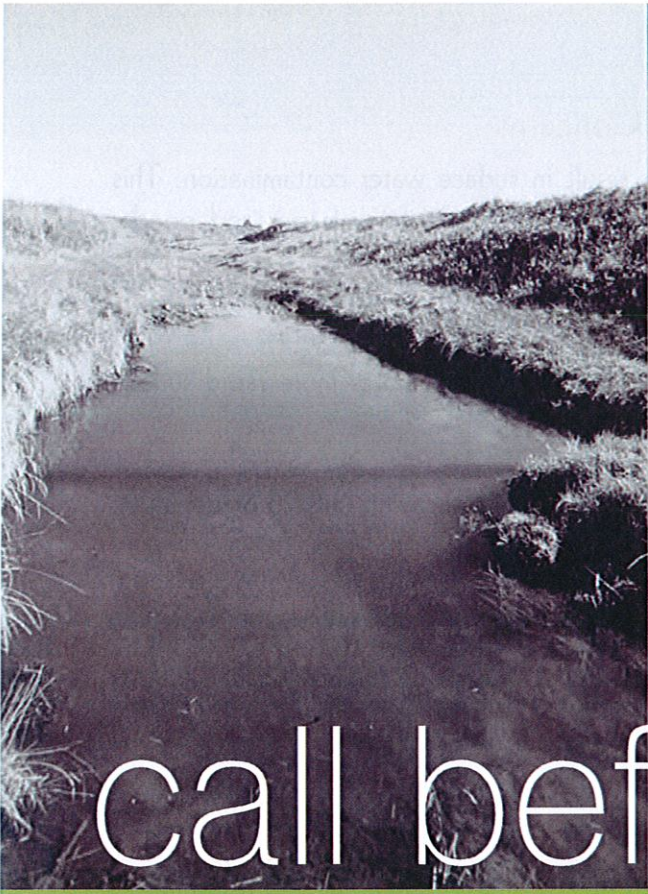
**Table 1. Simplified method of determining groundwater contamination potential**

Soil Group (Rating i)	Sub Surface Soil Texture (Rating vii)	Depth of Aquifer (Rating viii)
Brown (2)	Bedrock or Coarse Textured Soils (4)	< 8 m (30 ft) (4)
Dark Brown (3)	Medium Textured Soils (3)	8-30 m (30-100 ft) (4)
Black (4)	Fine Textured Soils (3)	30-60 m (100-200 ft) (2)
Grey (4)		> 60 m (200 ft) (1)

$$\text{Contamination potential} = \frac{i + vii + viii}{3}$$

(if result is a fraction, round up to next whole number)

1 (Low) 2 (Moderate) 3 (High)



call before

you dig!

1-800-242-3447

Request the location of your utilities marked.

Notify 2 full working days ahead.

Provide the dig area information, type of work, date of work to start.

It's easy and no charge to you.

## Surface Water Contamination Concerns

Improper burial of mortalities can also result in surface water contamination. This can affect the water quality draining into watercourses, catch basins and ponds. Some land has a higher potential for surface water contamination because of the topography and soil type.

Hilly land is of more concern than flat land since it promotes more rapid surface water run-off during spring run-off or heavy rainfall.

Clays with higher clay content, often referred to as heavier soils, promote more rapid run-off than lighter soils such as sand.

The best soil condition to reduce groundwater contamination is a fine-grained, heavy soil like clay. Unfortunately, fine-grained, heavy soils can promote rapid runoff that can contribute to surface water contamination. This paradox complicates the choice for an ideal burial site.

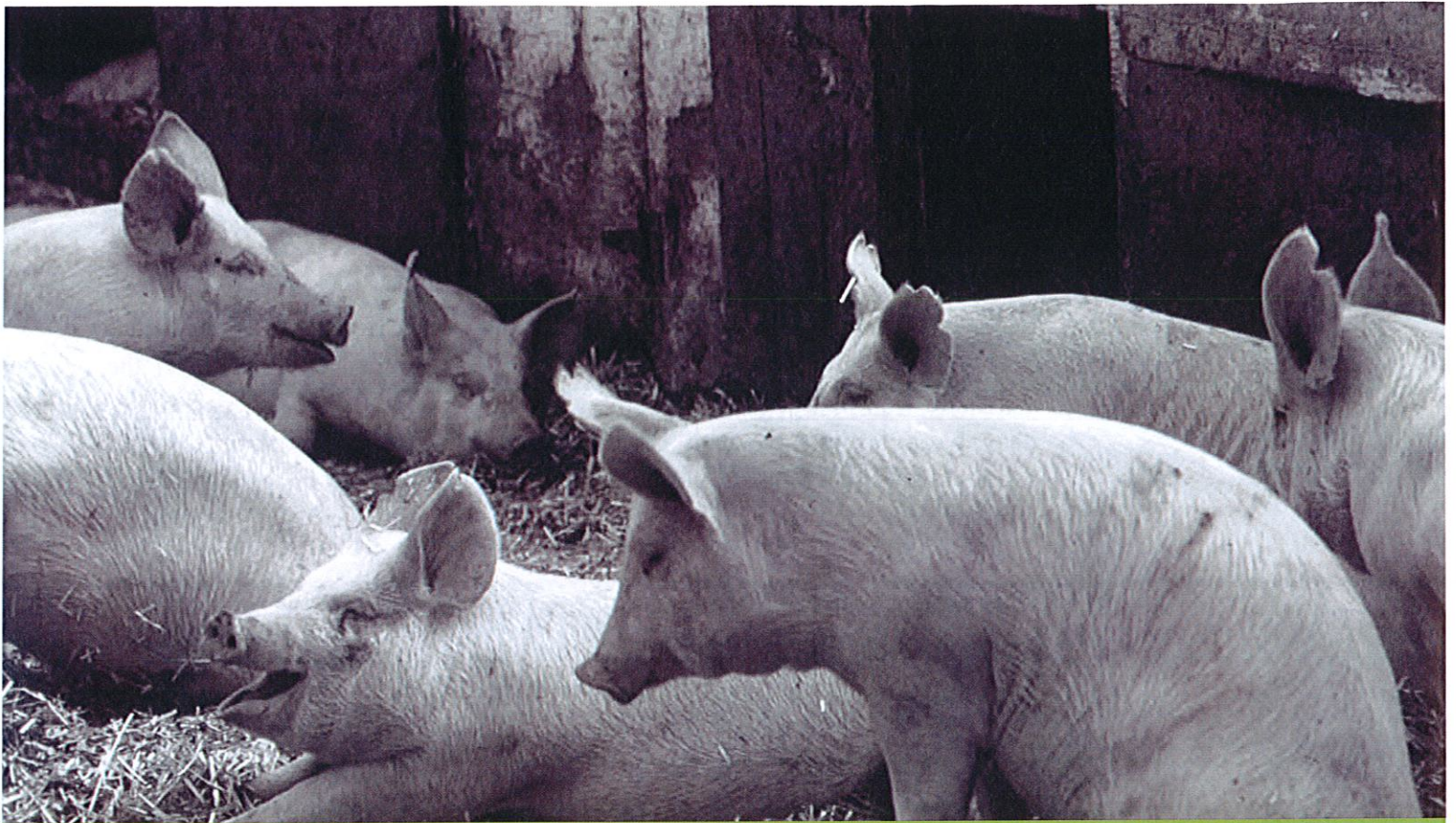
## How Suitable is your Land for Burial of Mortalities?

To check the suitability of a site for burying mortalities, consult soil and topographic maps and dig test holes in the area to see how close the groundwater is to the soil surface. Dig test holes in early spring when the groundwater is normally at its highest. Before test holes are dug, underground utilities should be located (call Alberta One-Call 1-800-242-3447). Soil auger probes (50 mm (2 in.) diameter) are available in extendable lengths for simple depth investigations up to 3 m (10 ft).

Mortalities should not be buried on hilly land as the soil covering the mortalities could wash out during rainstorms leading to surface water contamination. Keep burial sites on relatively flat land with a slope of less than 2% (2 m (6.6 ft) drop for every 100 m (328 ft)).

### *Other Concerns*

If mortalities are not buried properly, wild animals, dogs or birds could exhume them and contribute to the spread of disease. Partially decayed mortalities are unsightly, attract rodents, smell and provide a breeding ground for flies.



No one should ever  
get into a pit/hole since  
unstable side slopes  
could collapse!



# burial

Burying mortalities during cold weather when the ground is frozen is very difficult, both from the aspect of excavating frozen ground and from trying to cover the mortalities with frozen soil. During the winter, some species such as beef, swine, dairy, bison, horses and poultry can be picked up by rendering companies. Other species such as sheep, goats, alpaca, elk and deer must be kept frozen in a secured area until they can be buried in the spring.

## Selecting the Right Site

Locating the burial site in the right place is critical for good carcass decomposition and protection of the environment. **Minimum** setback requirements under the Destruction and Disposal of Dead Animal Regulation are identified in Table 2. **Recommended** setback distances to water wells, Table 3, are based on AEFPP methods for determining groundwater contamination potential. For burial sites located on flat land (less than 2% slope), the setback distances to open-top catch basins and ponds used for watering livestock should be 100 m (328 ft).

**Table 2. Minimum setback requirements (<2500 kg/site)**

Feature	Setback
Wells, domestic water intakes, streams, creeks, ponds, springs, rivers, irrigation canals, dugouts, highwater marks of lakes	100 m (328 ft)
Edge of coulee, or embankment	25 m (82 ft)
Residences	100 m (328 ft)
Boundary of any land owned or leased by another person unless written consent to the site being closer to the boundary	100 m (328 ft)
Provincial highway	300 m (984 ft)

**Table 3. Recommended setback distances between burial sites and wells**

Groundwater Contamination Potential	Drilled or Dug Wells
1 High	N/A
2 Moderate	150 m (492 ft)
3 Low	100 m (328 ft)



## Using a Tractor-Mounted Posthole Auger

Tractor-mounted posthole augers are available in several diameters. The smallest hole diameter to consider for mortality purposes is 0.3 m (1 ft). Anything smaller would not fit a 25 kg (55 lbs) mortality without difficulty. For farmers with many mortalities to bury, a tractor-mounted auger with bore diameters up to 0.6 m (2 ft) is necessary. Cover mortalities between burial intervals with at least 0.15 m (6 in) of soil, use a secured plywood cap and flag the hole to provide warning. A hole 1.2 m (4 ft) deep and 0.3 m (1 ft) in diameter can hold up to 50 kg (110 lbs) of mortalities. A few holes could be dug at once then used as required provided they were suitably covered, secured and marked with warning flags.

## Digging Safety

The Destruction and Disposal of Dead Animal Regulation specifies a maximum of 2500 kg (5500 lbs) total deadstock per burial pit. Due to this limitation, very large or deep pits are not necessary. Limiting the depth of burial pits to 1.2 m (4 ft) places deadstock in the biologically active part of the soil, protects groundwater and avoids the dangers of deep trenches.

Injuries and deaths resulting from trench and pit wall collapse are common and completely preventable.

Once soil is removed from a pit, it is no longer available to provide support for the soil left behind in the pit. Without support, soil from the pit wall eventually moves downward and inward into the excavation. This creates a serious life-threatening hazard for workers in a pit.

Occupational Health and Safety states that an excavation more than 1.5 m (5 ft) deep requires protection from cave-ins or sliding by shoring or cutting back the walls.

Spoil piles must be more than 1 m (3.3 ft) away from the edge of the pit and the slope of the pile cannot exceed 45 degrees from the horizontal. Factors that may cause pit cave-ins include soil type, increased moisture content and large heavy equipment movement near the pit causing vibrations resulting in soil fracture.

## Type of Pits/Holes

Two methods for digging a pit are using a backhoe (for larger pits) or a tractor-mounted posthole auger (for smaller pits).

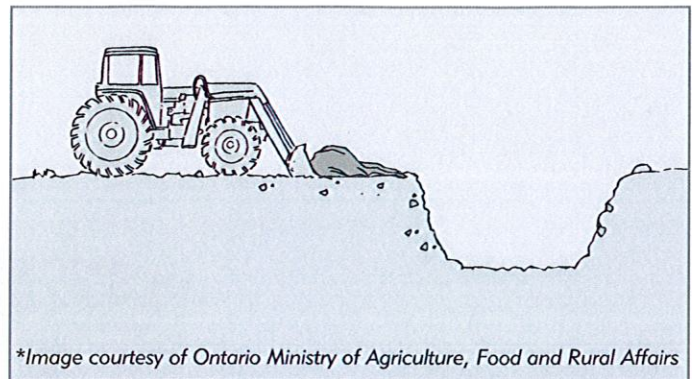
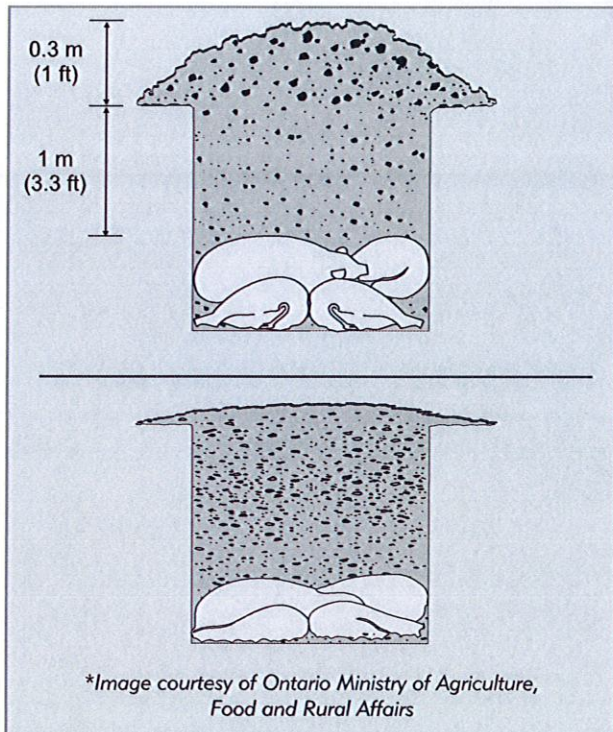


## Using a Backhoe

A contractor can be hired to dig a deep, narrow pit (generally one or two hoe widths wide). Pits should not be more than about 1.2 m (4 ft) deep, 4.3 m (14 ft) long and 1.0 m (3 ft) wide. The size of the hole required may vary with species type but generally 0.22 m<sup>3</sup>/100 kg (3.5 ft<sup>3</sup>/100 lbs) of mortality is adequate.

## Placing Deadstock in Burial Pits

Plan carefully how to place carcasses in the pit. Do not drop them from a tractor front-end loader unless your front wheels are well back from the pit. Push large, heavy carcasses such as cows into the pit from the side. Always stay as far away as possible from the pit with the tractor.



## Covering Deadstock

Place as much soil as possible on deadstock to encourage quick decomposition. Reduce the chance of cave-ins by pushing the soil rather than dumping it in. Lightly compact the soil using a front-end loader or backhoe bucket. Do not drive over the pit. Mark the area with a flag for a period of time so you can find the location again and monitor it for scavenger problems, uneven settling or leaching.

There are two methods of covering mortalities. They can be immediately covered with a minimum of 1 m (3.3 ft) of compacted soil which includes 0.3 m (1 ft) of soil crowned up over the hole or pit. This mounding helps prevent scavenging animals from digging up the mortalities, allows the soil to settle and helps shed surface water.

An alternative method for covering mortalities uses 0.15 m (6 in) of soil between burial intervals with the addition of 0.5 kg (1 lbs) of quicklime for every 10 kg (22 lbs) of mortalities for controlling odour and flies. The pit is then capped with a metal or wooden lid and secured on the top edges with soil. The lid is removed and replaced every time mortalities are added. Install a bright flag warning of the pit location as it could be hazardous to wildlife, domestic animals, farm equipment, hunters, all terrain vehicles and children.

## Record Keeping

A record should be kept of the burial sites to avoid digging again too soon in the same location. Important information to record for each site is:

- Exact location in relation to some fixed point or GPS coordinates.
- Date of burial.
- Type and size of animal mortalities.
- Reason for death.
- Approximate total weight of mortalities.

An aerial photo of the farm might be helpful in record keeping since the burial location could be drawn on it.

\*Portions of this work were reproduced and adapted with permission from *Nutrient Management Act, 2002: Burial of On-Farm Deadstock* (Publication 09-029), Ontario Ministry of Agriculture, Food and Rural Affairs. © Queen's Printer for Ontario, 2009.



## caution

If an animal is known or suspected to have died from an infectious or reportable disease, the owner must report this to authorities and dispose of the animal in the manner they recommend. For an animal that has been euthanized, owners need to prevent scavengers from gaining access to the dead animal. These animals cannot be disposed of by natural disposal.

### Disease Deaths

Anyone who knows or ought to know that a reportable or notifiable disease is or may be present in an animal **MUST** report that fact to the **Office of the Chief Provincial Veterinarian** within 24 hours by calling 1-800-524-0051.

## SRM Alert – Cattle Carcass Disposal (Canadian Food Inspection Agency 2009)

In 2007, the Canadian Food Inspection Agency's (CFIA) enhanced feed ban was enacted to control the handling, transporting and disposal of specified risk material (SRM). SRM includes the skull, brain, trigeminal ganglia (nerves attached to the brain), eyes, tonsils, spinal cord and dorsal root ganglia (nerves attached to the spinal cord) of cattle aged 30 months or older and the distal ileum (portion of the small intestine) of all cattle. Under the regulations, a permit is required to receive, remove from any premises, use, convey (other than from one area to another on the same premises), treat, store, export, sell, distribute, confine or destroy SRM in any form, including bovine deadstock from which SRM has not been removed. The location receiving the SRM must have a separate permit.

The Health of Animals Regulations allows for cattle producers to dispose of SRM on the premises where the animal was found dead without the need for a CFIA permit. The CFIA has defined "site" as being contiguous properties whether or not there is a public access or right of way which traverses the properties. Therefore, a permit is needed to move SRM from one property to another if travelling on public land (road) even if the sites are both owned by the same person.

A farmer may obtain an annual CFIA permit to transport SRM to this non-contiguous site. However, the receiving site requires an annual permit to receive the SRM and needs to meet defined minimal requirements as outlined on the permit.

The SRM [permit application form](#) is available online at [www.inspection.gc.ca/bse](http://www.inspection.gc.ca/bse). It should be completed and submitted to the nearest CFIA district office. If the situation is time-sensitive or occurs outside of normal business hours, call 1-800-442-2342 to request an emergency SRM permit. You will be directed to a CFIA inspector on-call who will request the following information:

- The transporter's name, address, phone number, e-mail address.
- A description of the conveyance used to transport the SRM (license plate of truck or description of tarp/bucket).
- The SRM permit number of the site that will be receiving the SRM (unless it is the farm of origin of an animal dying in transit).
- The number of carcasses and approximate weight of SRM being transported.
- CCIA or ATQ tag number(s).

The inspector will provide a permit number which will be valid for 48 hours or less. An actual copy of the SRM permit will be provided during an ensuing inspection.

CFIA's SRM permits to transport, accept and dispose of SRM are free. For more information, visit [www.inspection.gc.ca/bse](http://www.inspection.gc.ca/bse), call 1-800-442-2342 or visit your local CFIA office.

# appendix A act and regulation

In this Regulation,

- (a) “Act” means the *Animal Health Act*;
- (b) “composting”, in respect of a dead animal, means a managed process for aerobic decomposition of the dead animal;
- (c) “dead animal” means
  - (i) all or part of an animal that has died from a cause other than having been slaughtered or killed for
    - (A) human or animal consumption, or
    - (B) an animal product or animal by-product,
  - (ii) inedible offal, condemned material or waste material from an animal that was slaughtered or killed for
    - (A) animal consumption, or
    - (B) an animal product or animal by-product, and
  - (iii) inedible offal, condemned material or waste material from an animal processed at a meat facility;
- (d) “meat facility” means
  - (i) a meat facility within the meaning of the *Meat Inspection Act*, and
  - (ii) an establishment within the meaning of the *Meat Inspection Act* (Canada) in which animals are slaughtered;
- (e) “rendering plant” means a rendering plant within the meaning of the *Health of Animals Act* (Canada).

## Application

**2 (1)** This Regulation does not apply to wildlife as defined in the *Wildlife Act* or controlled animals as defined in the *Wildlife Act*, except

- (a) wildlife or controlled animals possessed by a person who is or was the holder of a zoo permit under the *Wildlife Act* relating to the wildlife or controlled animals,
- (b) wildlife possessed by a person who is or was the holder of a game bird farm permit under the *Wildlife Act* relating to the wildlife,
- (c) wildlife possessed by a person who is or was the holder of a temporary shelter permit under the *Wildlife Act* relating to the wildlife,
- (d) fur-bearing animals held by a person who is or was the holder of a licence under the *Fur Farms Act* relating to the fur-bearing animals,
- (e) wildlife or controlled animals possessed by a non-resident or non-resident alien who is or was the holder of an import permit under the *Wildlife Act* relating to the wildlife or controlled animals, and



(f) wildlife processed at a meat facility.

- (2) For greater certainty, nothing in this Regulation affects the operation of any other law, including, without limitation,
- (a) any law that requires an approval, consent, permit, licence or other authorization or document to be obtained for an activity relating to the disposal of a dead animal, or
  - (b) any law that relates to a method of disposal, including without limitation, any law prohibiting or regulating the setting of fires.

## DISPOSAL OF DEAD ANIMALS

### Owner's duties

3(1) The owner of a dead animal shall dispose of the dead animal in accordance with this Regulation.

- (2) In storing or disposing of a dead animal, the owner of the dead animal shall ensure that
- (a) the odours generated by the dead animal are minimized,
  - (b) any run-on or run-off water at the site where the dead animal is located is minimized,
  - (c) the risk of the spread of disease is minimized, and
  - (d) the dead animal does not create a nuisance.
- (3) The owner of a dead animal shall dispose of the dead animal within 7 days unless the owner stores the dead animal
- (a) outside during winter months when the ambient temperature is low enough to keep the dead animal completely frozen,
  - (b) in a freezer unit, or
  - (c) in accordance with the directions of the chief provincial veterinarian, an inspector appointed under section 6(2) of the Act or a veterinary inspector appointed under the *Health of Animals Act* (Canada).
- (4) The owner of a dead animal shall comply with any direction of an inspector directing the owner to dispose of the dead animal.
- (5) The owner of an animal that is euthanized with drugs or other chemical substances shall take steps to prevent scavengers from gaining access to the animal beginning at the time the drugs or other chemical substances are administered until the final disposal of the dead animal.

### Disposal by meat facility

- 4 Subject to section 6 and the terms of any order made under section 18, an owner or operator of a meat facility shall dispose of a dead animal by a method
- (a) set out in section 7, 9(b), 10 or 13,
  - (b) referred to in section 15 that is approved for use by owners or operators of meat facilities under section 16, or
  - (c) authorized by the chief provincial veterinarian.

### Conditions respecting use of disposal methods

- 5 An owner of a dead animal shall not dispose of a dead animal using a method referred to in section 8, 9(a), 11 or 14 unless
- (a) the owner had custody or care and control of the animal immediately before the animal's death, and
  - (b) the owner is an owner of the land or premises

### Diseased animals

- 6(1) If a dead animal is known or suspected to have had a disease that is reportable under the Act but is not reportable under the *Health of Animals Act (Canada)*, the owner of the dead animal shall dispose of the dead animal by a method provided for in this Regulation as directed by the chief provincial veterinarian or an inspector appointed under section 6(2) of the Act.
- (2) If a dead animal is known or suspected to have had a disease that is not reportable under the Act but is reportable under the *Health of Animals Act (Canada)*, the owner of the dead animal shall dispose of the dead animal by a method provided for in this Regulation as directed by a veterinary inspector appointed under the *Health of Animals Act (Canada)*.
- (3) If a dead animal is known or suspected to have had a disease that is reportable under the Act and under the *Health of Animals Act (Canada)*, the owner of the dead animal shall dispose of the dead animal by a method provided for in this Regulation as directed by
- (a) the chief provincial veterinarian or an inspector appointed under section 6(2) of the Act, or
  - (b) a veterinary inspector appointed under the *Health of Animals Act (Canada)*.

### Disposal in landfill

- 7 Subject to section 6 and the terms of any order made under section 18, a dead animal may be disposed of in a Class I or Class II landfill as defined in the Waste Control Regulation (AR 192/96).

### Burial

- 8(1) In this section, "provincial highway" means a provincial highway as defined in the *Highways Development and Protection Act*, but does not include a proposed highway.
- (2) Subject to section 6 and the terms of any order made under section 18, a dead animal may be buried in a farm burial pit in accordance with subsections (3) to (6).
- (3) A dead animal may be buried in a farm burial pit only if the bottom of the pit is at least one metre above the seasonal high-water table.
- (4) One or more dead animals may be buried in a farm burial pit if
- (a) the total weight of the dead animals buried in the pit does not exceed 2500 kg, and
  - (b) the pit

- (i) is at least 100 m from any well or other domestic water intake, stream, creek, pond, spring, river, irrigation canal, dugout or other water source and the high-water mark of any lake,
  - (ii) is at least 25 m from the edge of any coulee or embankment,
  - (iii) is at least 10 m from any other farm burial pit,
  - (iv) is at least 100 m from any residence,
  - (v) is at least 100 m from the boundary of any land owned or leased by a person other than the owner of the dead animal, unless the owner or leaseholder of the land has consented in writing to the pit being located closer to the boundary,
  - (vi) is at least 300 m from any provincial highway, and
  - (vii) is covered with
    - (A) a minimum of one metre of compacted soil, if no additional dead animals are to be buried in the pit, or
    - (B) a wooden or metal lid that is designed to exclude scavengers and quicklime is applied to the dead animal or animals in sufficient quantities to control flies and odour, if the weight limit established by clause (a) has not been reached and the owner intends to bury additional dead animals in the farm burial pit.
- (5) For the purposes of subsection (4)(a), the total weight of dead animals is determined by adding the weight at the time of burial of each dead animal buried in the pit to the weight at the time of burial of each dead animal previously buried in the pit.
- (6) One or more dead animals may be buried in a farm burial pit if
- (a) the total weight of the dead animals buried in the pit does not exceed 100 kg, and
  - (b) the pit
    - (i) is at least 50 m from any well or other domestic water intake, stream, creek, pond, spring, river, irrigation canal or other water source and the high-water mark of any lake,
    - (ii) is at least 25 m from the edge of any coulee or embankment,
    - (iii) is at least 100 m from any residence situated on land owned or leased by a person other than the owner of the dead animal,
    - (iv) is at least 3 m from any other farm burial pit,
    - (v) is covered with a minimum of one metre of compacted soil, and
    - (vi) has not been used for the burial of a dead animal during the previous 5-year period.
- (7) If authorized in writing by the chief provincial veterinarian or an inspector appointed under section 6(2) of the Act, one or more dead animals exceeding 2500 kg in total weight may be buried in a farm burial pit in accordance with any directions provided in the authorization.

## Burning

- 9 Subject to section 6 and the terms of any order made under section 18, a dead animal may be burned in accordance with the applicable provisions in the *Environmental Protection and Enhancement Act* and in the regulations or codes of practice under that Act relating to the burning
- (a) in an open fire, or
  - (b) in an incinerator.

## Composting in compost facility

- 10 Subject to section 6 and the terms of any order made under section 18, a dead animal may be disposed of by composting in a Class I compost facility as defined in the Waste Control Regulation (AR 192/96).

## Farm composting

- 11(1) Subject to section 6, and the terms of any order made under section 18, a dead animal may be disposed of by composting
- (a) in an outdoor farm open compost pile
    - (i) that is
      - (A) at least 100 m from any well or other domestic water intake, stream, creek, pond, spring, river, irrigation canal, dugout or other water source and the high-water mark of any lake,
      - (B) at least 25 m from the edge of any coulee or embankment, and
      - (C) at least 100 m from any residence,
    - (ii) that is designed in a manner that will exclude scavengers,
    - (iii) that is at least 100 m from the boundary of any land owned or leased by a person other than the owner of the dead animal, unless the owner or leaseholder of the land has consented in writing to the outdoor farm open compost pile being located closer to the boundary,
    - (iv) that is at least 300 m from any provincial highway, and
    - (v) in which the dead animal or animals are covered with at least 60 cm of composting material, or
  - (b) in an indoor farm open compost pile that is located in a building that has
    - (i) an impervious floor, and
    - (ii) adequate drainage control to prevent the contamination of surface water or groundwater from the compost effluent.
- (2) Where one or more dead animals are composted in an outdoor or indoor farm open compost pile,
- (a) the volume of the dead animal or animals in the compost pile must not exceed 25% of the total volume of the compost pile, and

- (b) material may not be removed from the compost pile until the dead animal or animals are composted to the extent that
  - (i) the generation of odours by the compost is minimized,
  - (ii) the compost will not contaminate surface water or groundwater,
  - (iii) the compost will not attract vectors of disease, and
  - (iv) the use of the compost will not cause or contribute to the spread of disease, cause scavenging or create a nuisance.

### **Food for other animals**

**12(1)** Subject to section 6 and the terms of any order made under section 18, the owner of a dead animal may dispose of the dead animal by feeding it or allowing another person to feed it to an animal if the owner of the dead animal

- (a) knows that the dead animal
  - (i) did not have an infectious or contagious disease or a disease that is notifiable under the Act or reportable under the Act or the *Health of Animals Act (Canada)*, and
  - (ii) was not euthanized with drugs or other chemical substances, and
- (b) provides a written certificate to the owner of the animal to which the dead animal is being fed confirming that the dead animal did not have a disease referred to in clause (a) and was not euthanized as referred to in clause (a), where the dead animal is being fed to an animal that is not owned by the owner of the dead animal.

**(2)** No person shall feed a dead animal to a production animal as defined in the Authorized Medicine Sales Regulation if the feeding of the dead animal to the production animal would contravene the *Health of Animals Act (Canada)* or the regulations under that Act.

### **Rendering**

**13** Subject to section 6 and the terms of any order made under section 18, a dead animal may be disposed of by rendering at a rendering plant operated under a permit issued under the *Health of Animals Act (Canada)*.

### **Natural disposal**

**14(1)** In this section, “natural disposal”, in respect of a dead animal, means disposing of the dead animal in a manner that allows for scavenging.

**(2)** Subject to section 6 and the terms of any order made under section 18, a dead animal, other than inedible offal or condemned material, may be disposed of by natural disposal if

- (a) the animal is not known or suspected to have had an infectious or contagious disease or a disease that is notifiable under the Act or reportable under the Act or the *Health of Animals Act (Canada)*,

- (b) the dead animal was not euthanized with drugs or other chemical substances,
- (c) the total weight of the animals being disposed of at one site does not exceed 1000 kg,
- (d) there is a distance of at least 500 m between disposal sites, and
- (e) the dead animal is disposed of at a disposal site that
  - (i) is on property that is owned or leased by the owner of the dead animal and at least 100 m from the boundary of land owned or leased by a person other than the owner of the dead animal, unless the owner or leaseholder of the land has consented in writing to the disposal site being located closer to the boundary,
  - (ii) is at least 500 m from any well or other domestic water intake, stream, creek, pond, spring, river irrigation canal, dugout or other water source and the high-water mark of any lake,
  - (iii) is at least 25 m from the edge of any coulee or embankment,
  - (iv) is at least 400 m from any livestock facility, including a pasture, situated on land owned or leased by a person other than the owner of the dead animal,
  - (v) is at least 400 m from any residence,
  - (vi) is at least 400 m from any road, and
  - (vii) is at least 400 m from any
    - (A) park or recreation area as those terms are defined in the *Provincial Parks Act*,
    - (B) wilderness area, ecological reserve, natural area or heritage rangeland as those terms are defined in the *Wilderness Areas, Ecological Reserves, Natural Areas and Heritage Rangelands Act*, or
    - (C) any other land intended for recreational use by the public.

### Method approved by Minister

- 15 Subject to section 6 and the terms of any order made under section 18, a dead animal may be disposed of in a manner that has been approved by the Minister under section 16 if any terms or conditions imposed under that section are complied with.

### Approval of disposal methods

- 16 The Minister may approve a method or methods for the disposal of dead animals in addition to the methods provided for under sections 7 to 14 and may, in the approval,
- (a) specify whether the method or methods are approved for use by owners or operators of meat facilities, and
  - (b) impose any terms or conditions on the disposal of dead animals using the method or methods that the Minister considers appropriate.

## **Rendering plant**

- 17** The owner or operator of a rendering plant shall ensure
- (a) that a dead animal rendered at the plant is subjected to such temperature and pressure as is necessary to render every portion of the carcass free from all viable pathogenic organisms, and
  - (b) that microbiological quality assurance processes are in place to prevent the occurrence of viable pathogenic organisms.

## **Disaster or emergency**

- 18(1)** In the event of a disaster or emergency, including, without limitation, a flood, fire or outbreak of disease, the chief provincial veterinarian may, for the purposes of responding to and dealing with the effects of the disaster or emergency, make an order
- (a) in respect of any person or class of persons that for the period set out in the order
    - (i) exempts the person or class of persons from the application of this Regulation or any provision of this Regulation, or
    - (ii) varies the rules applicable to a method for the disposal of dead animals set out in this Regulation in respect of dead animals disposed of or to be disposed of by the person or class of persons, or
  - (b) in respect of any owner or class of owner of a dead animal or type of dead animal specified in the order that directs the owner or class of owner to dispose of the dead animal or a dead animal of that type in a manner or by a method specified in the order.
- (2)** A person or owner who is the subject of an order or is a member of a class of persons or owners that is the subject of an order under subsection (1)(a)(ii) or (b) shall comply with the order.

## **GENERAL**

### **Transport of non-rendered dead animal**

- 19** A person who transports, or prepares for transport, a dead animal that has not been rendered shall ensure that the dead animal is transported or prepared for transport in such a manner so as to prevent
- (a) any dissemination of pathogenic organisms into the environment from the leakage of blood or other body fluids of the dead animal, and
  - (b) the contamination of food intended for consumption by humans or animals.

### **Diagnosis of animal diseases**

- 20** Nothing in this Regulation prohibits the collection, shipment or transport of a dead animal as may be required by a registered veterinarian or the owner of the dead animal for the diagnosis of animal disease.

## Offences

21 A person who contravenes or fails to comply with this Regulation is guilty of an offence.

## Penalties

22(1) A person who is guilty of an offence under section 21(a) for a first offence, to a fine of not more than \$15 000 and, in the case of a continuing offence, to a further fine of not more than \$1000 for each day or part of a day during which the offence continues after the first day, and

(b) for a 2nd or subsequent offence,

(i) to a fine of not more than \$30 000 and, in the case of a continuing offence, to a further fine of not more than \$2000 for each day or part of a day during which the offence continues after the first day, or

(ii) to imprisonment for a term not exceeding one year, or to both fines and imprisonment.

(2) A prosecution under subsection (1) may be commenced within 2 years of the commission of the alleged offence but not afterwards.

## Repeal

23 The Destruction and Disposal of Dead Animals Regulation (AR 229/2000) is repealed.

## Expiry

24 For the purpose of ensuring that this Regulation is reviewed for ongoing relevancy and necessity, with the option that it may be repassed in its present or an amended form following a review, this Regulation expires on September 30, 2023.

## Coming into force

25 This Regulation comes into force on the coming into force of section 19 of the *Animal Health Amendment Act, 2009*.



# references

---

Alberta Environmental Farm Plan Company. 2005. Soil and site characteristics. In *Environmental Farm Plan*, second edition. Edmonton, Alberta: Alberta Environmental Farm Plan Company.

Canadian Food Inspection Agency. 2009. Enhanced animal health protection from BSE. <http://www.inspection.gc.ca/english/anima/heasan/disemala/bseesb/enhren/enhrene.shtml> (Accessed: November 2009).

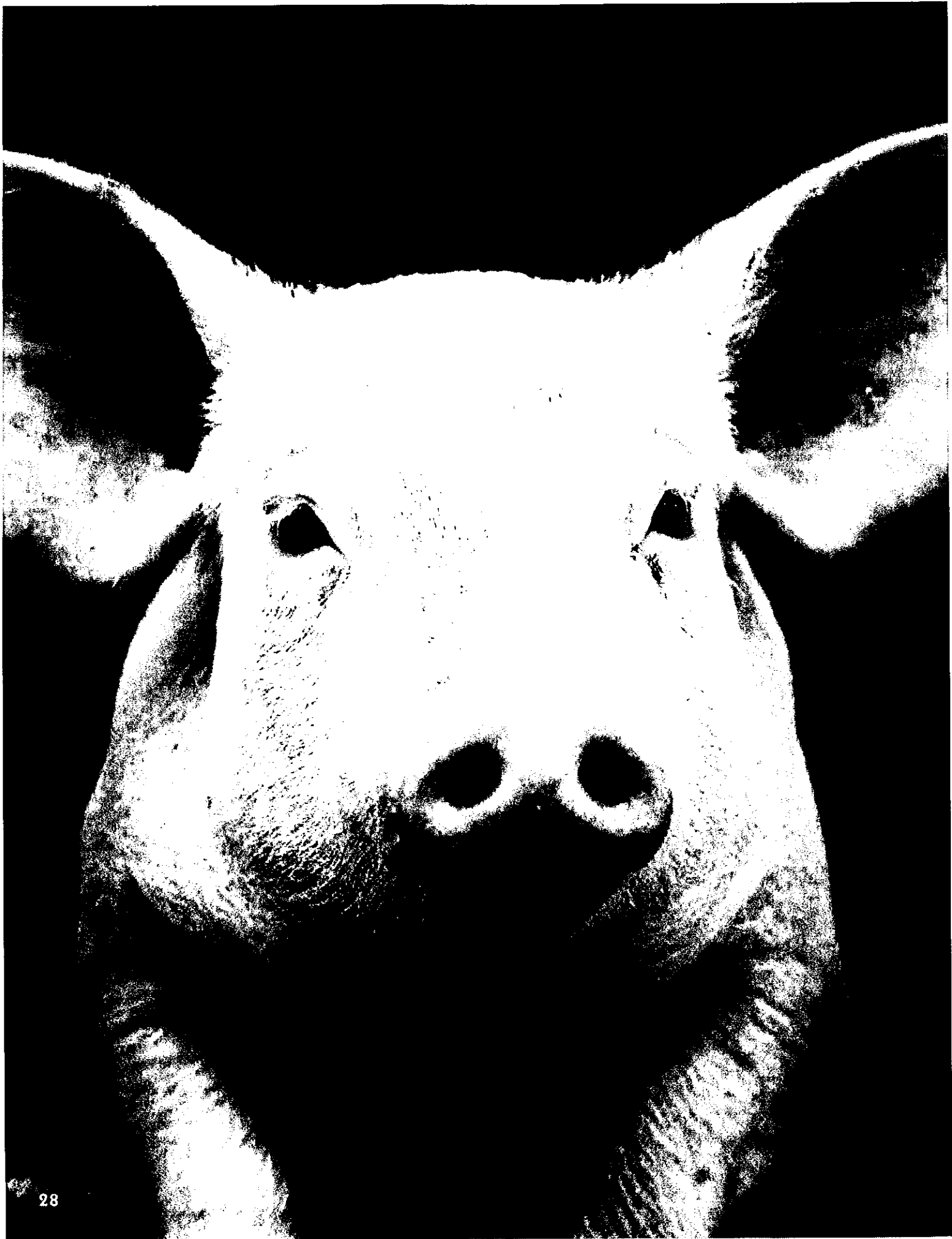
Canadian Food Inspection Agency. 2007. SRM Permits <http://www.inspection.gc.ca/english/anima/heasan/disemala/bseesb/enhren/perme.shtml> (Accessed: March 2010).

Fraser, H. 2009. Burial of on-farm deadstock, Agdex 729/400. Guelph, Ontario: Ontario Ministry of Agriculture, Food and Rural Affairs. Have permission certificate for artwork.

Government of Alberta. 2009. Part 32 Excavating and tunneling. In *Occupation Health and Safety Code*. 32-1 – 32-11. Edmonton, Alberta.

Government of Alberta. 2009. Part 32 Excavating and tunneling. In *Occupation Health and Safety Code Explanation Guide*. 32-1 – 32-31. Edmonton, Alberta.





# for more information

## Emergency Carcass Disposal

Contact your local rural municipality for assistance.

## Reportable Diseases

Office of the Chief Provincial Veterinarian

780-427-3448 or toll-free by first dialing 403-310-0000

[http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/cpv4264](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/cpv4264)

## Alberta's Notifiable and Reportable Diseases Website

[http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/afs12455](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/afs12455)

## Canadian Food Inspection Agency

Visit [www.inspection.gc.ca/bse](http://www.inspection.gc.ca/bse), call 1-800-442-2342 or visit your local CFIA office listed on the following page.





## Canadian Food Inspection Agency (CFIA) Offices

### Canadian Food Inspection Agency (CFIA)

Alberta South Calgary  
110 Country Hills Landing Northwest  
Calgary, Alberta T3K 5P3  
Telephone: 403-299-7660

### Canadian Food Inspection Agency (CFIA)

Lethbridge Office – Animal Programs  
3605-14th Avenue North  
Lethbridge, Alberta T1H 6P7  
Telephone: 403-382-3121

### Canadian Food Inspection Agency (CFIA)

Coutts Office – Animal Programs  
PO Box 130  
Coutts, Alberta T0K 0N0  
Telephone: 403-344-3808

### Canadian Food Inspection Agency (CFIA)

Medicine Hat District Office  
7 Strachan Bay Southeast, Suite 105  
Medicine Hat, Alberta T1B 4Y2  
Telephone: 403-528-6850

### Canadian Food Inspection Agency (CFIA)

Animal Programs – Edmonton  
7000-113th Street  
Edmonton, Alberta T6H 5T6  
Telephone: 780-495-3333

### Canadian Food Inspection Agency (CFIA)

Edmonton Regional Office – Animal Health  
7000-113th Street  
Edmonton, Alberta T6H 5T6  
Telephone: 780-495-3333

### Canadian Food Inspection Agency (CFIA)

Grande Prairie District Office  
10135-100th Avenue  
Grande Prairie, Alberta T8V 0V4  
Telephone: 780-831-0335

### Canadian Food Inspection Agency (CFIA)

Vermilion District Office – Animal Health  
5016-49th Avenue, Unit B  
Vermilion, Alberta T9X 1B7  
Telephone: 780-853-5637

### Canadian Food Inspection Agency (CFIA)

Red Deer  
6503-67th Street  
Red Deer, Alberta T4P 1A3  
Telephone: 403-340-4204

### Canadian Food Inspection Agency (CFIA)

Wetaskiwin District Office  
5729-40th Avenue  
Wetaskiwin, Alberta T9A 2Z1  
Telephone: 780-352-3955



## Acknowledgements

### Technical content prepared by:

Virginia Nelson, *Project Manager*  
Technology and Innovation Branch  
Environmental Stewardship Division  
Alberta Agriculture and Rural Development

### Special acknowledgement for contributions by:

Rick Atkins  
Michael Bevans  
Jason Cathcart  
Kris Chawla  
Brian Koberstein  
Vince Murray  
Julie Popowicz  
Kayla Vaage  
Amanda Vanee  
Trevor Wallace  
Wayne Winchell  
*all of Alberta Agriculture and Rural Development*

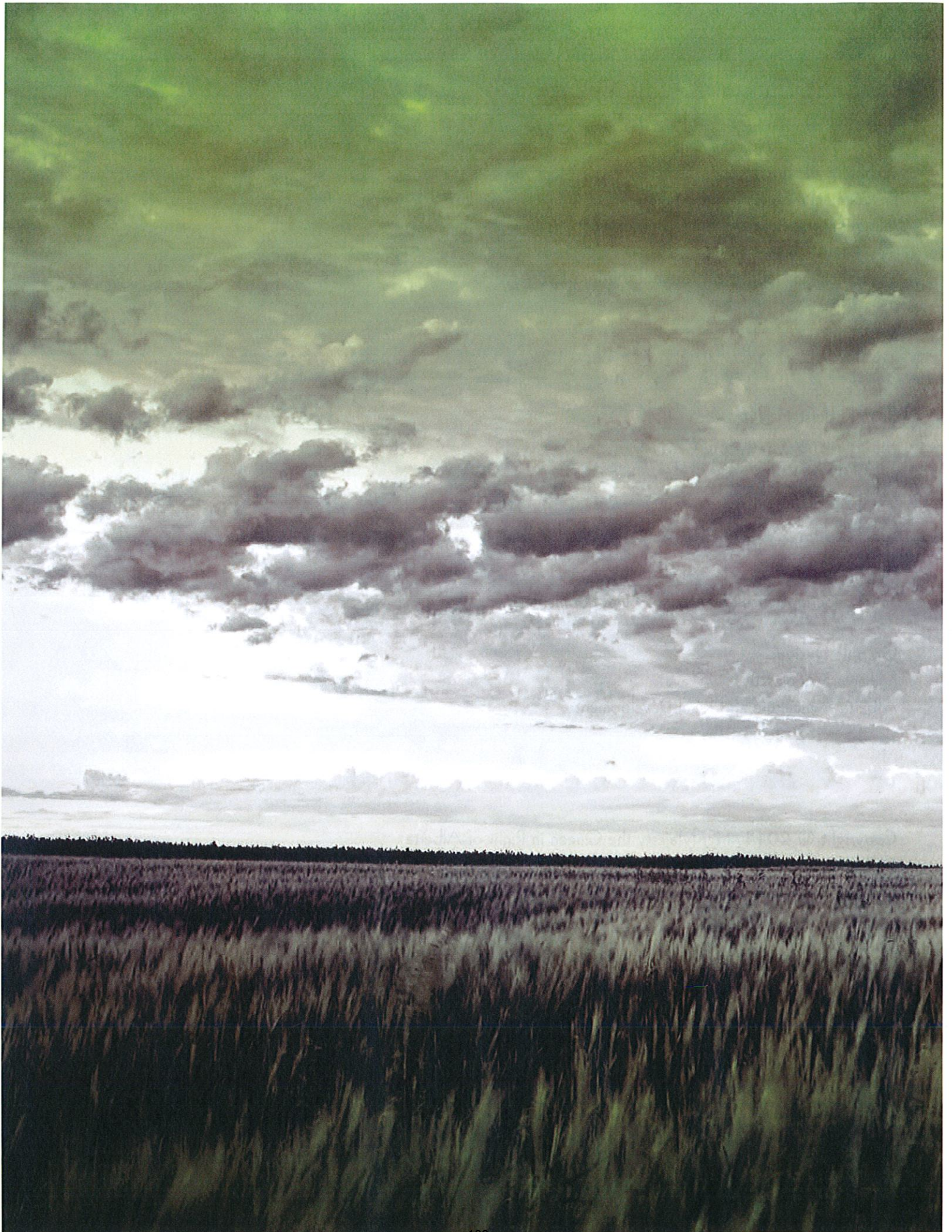
### Graphic Design:


Mihaela Manolescu  
Alberta Agriculture and Rural Development

**Copyright © 2011.** Her Majesty the Queen in Right of Alberta  
(Alberta Agriculture and Rural Development). All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without written permission from the Technology and Innovation Branch (Environmental Stewardship Division), Alberta Agriculture and Rural Development

Printed in Canada





# LIVESTOCK MORTALITY MANAGEMENT (DISPOSAL)



Agdex 400/29-1

*Alberta*  
Government



# LIVESTOCK

# MORTALITY

## management (disposal)

starts  
with  
care

Mortality Disposal	3
Potential Environmental and Biosecurity Risks	4
Disposal Options	5
Incineration	5
Livestock Burial	7
Rendering	7
Composting	9
Natural Disposal	9
Caution	10
Appendix A   Act and Regulation	12
References	21
For More Information	22

16200



# Livestock Mortality Documents



Poultry Mortality Composting Agdex 450/29-1

Swine Mortality Composting Agdex 440/29-1

Large Animal Mortality Composting Agdex 400/29-4

Livestock Mortality Burial Techniques Agdex 400/29-2

# mortality disposal

Livestock producers are in the business of producing marketable meat products. However, every livestock producer must face the reality of carcass disposal, regulated by the Destruction and Disposal of Dead Animals Regulation of the *Animal Health Act*, Appendix A. Dead animals must be disposed of in an acceptable manner within 7 days of death. Mortalities can be composted, incinerated, buried, rendered or naturally disposed.

Proper disposal of carcasses is important for both the prevention of livestock disease transmission and the protection of air and water quality. Access to carcasses by scavengers is only permitted under the guidelines for natural disposal.

The environmental considerations for improper disposal include:

- Odour – decomposition of organic matter, particularly the anaerobic (lacking oxygen) breakdown of proteins by bacteria, will produce a foul odour.
- Scavengers – ravens, magpies, coyotes, etc. and insects can transmit disease and are a nuisance.
- Pathogens – disease-causing spores may still be viable.
- Excess Nutrients – concentrated source of nitrogen.
- Nuisance – visible carcasses and bones fuel social issues and can puncture tires.



# potential environmental and biosecurity risk

lowest risk

- Compost in a properly managed system or burn in an approved incinerator on the farm.
- Bury in appropriate soils or store frozen for spring burial or rendering plant pick-up (Refer to Livestock Mortality Burial Techniques, Agdex 400/29 – 2).
- Partially buried or carcass left outside for scavengers or to decay.

highest risk

POTENTIAL RISK



# disposal options

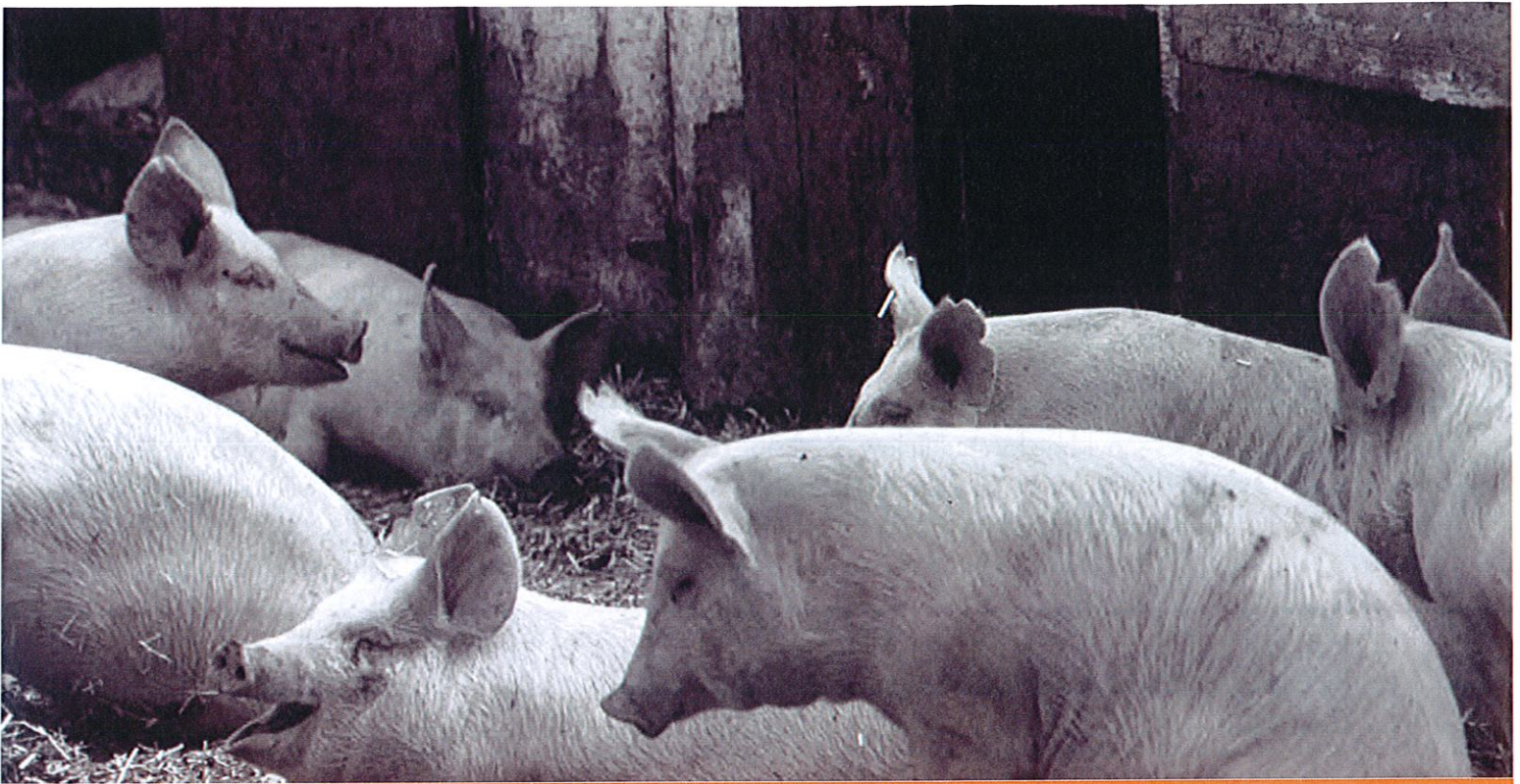
## Incineration

Thorough and complete incineration of carcass (including all bones) is one option for livestock producers. While incineration can be convenient for those with access to the necessary equipment, producers need to realize that “complete incineration” will not result from a simple burn pile or barrel; furthermore, a simple burn pile or barrel cannot meet emissions standards for combustion. Double chambered incinerators reach temperatures greater than 850 °C (1560 °F) and provide oxygen to complete the burning process thus reducing particulate and gas emissions.

Incinerators must be loaded and operated according to manufacturer’s recommendations to maximize equipment life and minimize emission problems. Ashes should be removed frequently to maximize combustion and prevent damage to equipment. Nuisance complaints generated by poor maintenance and operational efforts are common.

Fuel for incinerating carcasses is a significant expense. The cost of operation and discipline required to prevent complaints has reduced the popularity of incineration in recent years.

Producers choosing to install an on-farm incinerator must operate it in accordance with the *Environmental Protection and Enhancement Act* and the regulations or codes under the Act related to incineration.



# incineration

## Advantages:

- Complete reduction of volume.
- Rapid oxidation to carbon and water.
- Environmentally safe (may require an air permit).
- Can dispose of mortalities as they are generated, therefore no temporary storage required.
- Residue from properly incinerated carcasses will not attract insects or rodents.
- System can be mobile or a co-op could be formed to purchase an incinerator to be shared between farms.

## Disadvantages:

- Major capital investment along with expensive fuel costs.
- Must be maintained (burners wear out and soot must be scrubbed out to prevent stack fires).
- Ash has no fertilizer potential and there may be a trace of heavy metals from micronutrients fed to the animals.
- Safety hazards associated with high temperature incinerators.

## Livestock Burial

Burial is a suitable practice for summer yet difficult during winter due to frozen ground conditions. Dead animals can be placed in a pit which is then backfilled each time a carcass is added. Carcasses must be covered with either

- A minimum of 1 m (3.3 ft) of compacted soil.
- 0.15 m (6 in) of soil, 0.5 kg (1 lb) of quicklime for every 10 kg (22 lbs) of mortality, and a lid.

For more information see Livestock Mortality Burial Techniques, Agdex 400/29-2.

Burial requires great care in site selection because as carcasses decompose they release materials that pollute groundwater. Burial sites should be located in low permeable soils. Areas with a high groundwater level or shallow aquifer must be avoided. The weight of dead animals in the pit may not exceed 2500 kg (5500 lbs). Refer to Appendix A for site selection criteria.

### Advantages:

- Inexpensive (if using your own equipment).
- Biosecure (no trucks coming from other farms to pick up carcasses).
- Convenient.

### Disadvantages:

- Difficult to impossible in winter.
- Can cause groundwater pollution.
- No burial sites where the bottom of the pit is less than 1 m (3.3 ft) above the seasonal high water table.

## Rendering

Another popular option is transporting carcasses to an approved disposal plant. Rendering is a convenient, clean and waste-free solution that ultimately recycles the remains into other products. The renderer generally provides on-farm pick up for a fee. However, some companies are selective about which species they accept and which geographic locations they serve. Since transportation is expensive, pick up will be scheduled when the renderer can make several stops in the same area.

Rendering processes dead animals into feed ingredients such as bone meal, meat meal, feather meal, and liquid animal fat. Animals that die during the winter can be frozen and delivered to the renderer at convenient intervals. Rendering companies will generally not accept carcasses that do not remain intact when handled. Depending upon the end product of the rendering process, there may be other restrictions on carcass quality and condition. Refer to the Yellow Pages Directory under "Rendering Companies" for companies providing this service.

Timely pick up is the biggest challenge when using rendering as a mortality disposal method, specifically during the warm and hot seasons. Collection vehicles must employ proper biosecurity measures to prevent disease transmission between farms. Costs for rendering continue to increase and the expense and logistics of collecting small volumes of carcasses on a frequent basis prevents this disposal method from being widely accepted.

Some pick up fees have been instituted regardless of the volume of mortalities, therefore some producers have chosen to invest in on-site preservation methods such as refrigeration, acid preservation and fermentation. The costs of on-farm storage of carcasses should be determined as they may outweigh the benefit of less frequent pickups by the renderers.

**Refrigeration:**

Generally limited to poultry or young animals, refrigeration units are expensive to purchase and operate. As a preservation method, refrigeration works very well; however, the unit must have sufficient refrigeration capacity to rapidly remove heat from the carcass.

**Acid Preservation:**

Punctured carcasses are placed in an acid solution (e.g. 3% sulfuric acid) which preserves the nutrient content and inactivates pathogens and microorganisms. The renderer can process the acid – preserved organic matter – into a high nutrient feed ingredient. Acids and the associated equipment are expensive and safety is a primary issue.

**Fermentation:**

Lactic acid fermentation is a process that provides a way to store carcasses for at least 25 weeks. Carcasses are mixed with a carbohydrate source and a culture inoculant. When the pH is reduced to 4.5, the microorganisms are inactivated and the decomposition process ceases. This process is referred to as pickling.

**Advantages:**

- The carcass is completely removed from the farm.
- The rendering process destroys most diseases.

**Disadvantages:**

- Pathogenic transmission during pick up and transportation is possible (care must be taken to prevent the pathogens from moving through the system).
- Increasing cost due to reduced marketability of rendered products.



## Composting

Composting is a controlled process. During the process, bacteria, fungi and other organisms break down organic materials to a stable mixture called compost, while consuming oxygen and releasing heat, water and carbon dioxide. The finished compost resembles humus and can be used as a soil amendment. Composting reduces the volume of the parent materials and most pathogens are destroyed if the process is controlled.

Composting of carcasses is gaining popularity. For more details on composting, see Poultry Mortality Composting, Agdex 450/29-1, Swine Mortality Composting, Agdex 440/29-1 and Large Animal Mortality Composting Agdex 400/29-4.

Proper management of the composting facility is required to ensure composting of the carcasses occurs. The basic requirements for successful composting are:

- Aerobic conditions (in the presence of oxygen).
- Proper temperature, moisture, pH and carbon to nitrogen ratio.
- Maintaining a temperature of 55 °C (131 °F) for at least three days.

Other factors that must be considered when composting are:

- Properly constructed facilities and the use of primary and secondary areas.
- Facility design must limit access of scavengers.
- Equipment needs including the use of a front-end loader.
- Management, monitoring and turning requirements of compost.
- Ensuring compost is applied to crop land without direct contact with livestock.
- Availability of necessary inputs of litter, straw and manure.
- The location of compost, Appendix A.
- Contaminated run-off must be collected and surface water directed away from the composting facility.

### Advantages:

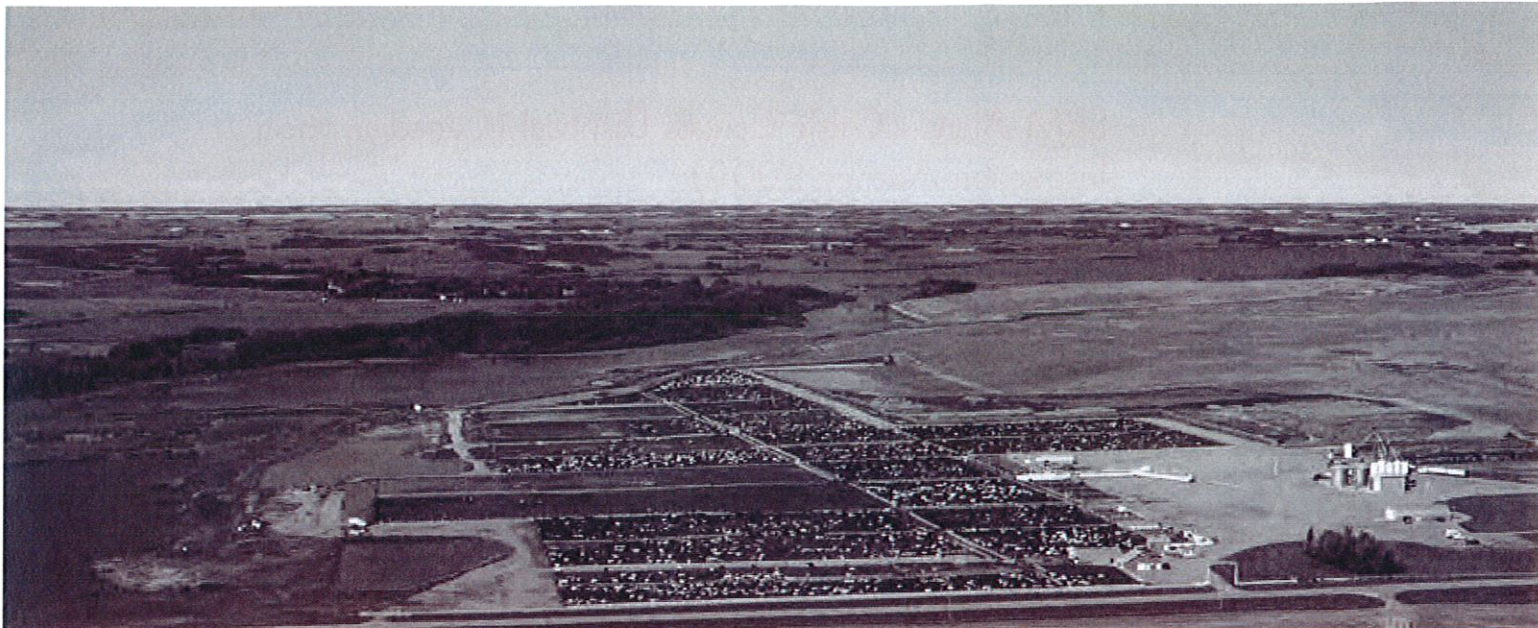
- Biosecure.
- Year-round use.
- Relatively inexpensive.
- Environmentally sound.
- Value-added product to sell or use (sales regulated by the *Fertilizer Act*).
- Best and recommended method to handle catastrophic losses.
- Heat of composting process kills most pathogens, weed seeds and insect larvae.
- Scavengers do not bother actively heating compost.

### Disadvantages:

- May be labour intensive.
- Requires an impervious pad.
- Bin composting requires rot resistant walls and a cover to repel rain.
- Takes practice to develop the technique.
- Requires a carbon source.

## Natural Disposal

Disposal of carcasses by scavengers is a permitted method in Alberta but because of the very high probability of disease spread and of creating a public nuisance, this method is not recommended. All regulations concerning natural disposal are outlined in Appendix A.



## caution

If an animal is known or suspected to have died from an infectious or reportable disease, the owner must report this to authorities and dispose of the animal in the manner they recommend. For an animal that has been euthanized, owners need to prevent scavengers from gaining access to the dead animal. These animals cannot be disposed of by natural disposal.

Reportable Diseases are those which require action to control or eradicate because they are a threat to animal or human health, food safety or the economy.

Notifiable Diseases are those which simply require monitoring for trade purposes or to understand their presence in Alberta. No action will be taken.

Anyone who knows or ought to know that any of these diseases are or may be present in an animal **MUST** report that fact to the **Office of the Chief Provincial Veterinarian** within 24 hours by calling 1-800-524-0051.

## SRM Alert – Cattle Carcass Disposal (Canadian Food Inspection Agency 2009)

In 2007, the Canadian Food Inspection Agency's (CFIA) enhanced feed ban was enacted to control the handling, transporting and disposal of specified risk material (SRM). SRM includes the skull, brain, trigeminal ganglia (nerves attached to the brain), eyes, tonsils, spinal cord and dorsal root ganglia (nerves attached to the spinal cord) of cattle aged 30 months or older and the distal ileum (portion of the small intestine) of all cattle. Under the regulations, a permit is required to receive, remove from any premises, use, convey (other than from one area to another on the same premises), treat, store, export, sell, distribute, confine or destroy SRM in any form, including bovine dead stock from which SRM has not been removed. The location receiving the SRM must have a separate permit.

The Health of Animals Regulations allows for cattle producers to dispose of SRM on the premises where the animal was found dead without the need for a CFIA permit. The CFIA has defined "site" as being contiguous properties whether or not there is a public access or right of way which traverses the properties. Therefore, a permit is needed to move SRM from one property to another if traveling on public land (roads) even if the sites are both owned by the same person.

A farmer may obtain an annual CFIA permit to transport SRM to this non-contiguous site. However, the receiving site requires an annual permit to receive the SRM and needs to meet defined minimal requirements as outlined on the permit.

The SRM [permit application form](#) is available online at [www.inspection.gc.ca/bse](http://www.inspection.gc.ca/bse). It should be completed and submitted to the nearest CFIA district office. If the situation is time-sensitive or occurs outside of normal business hours, call 1-800-442-2342 to request an emergency SRM permit. You will be directed to a CFIA inspector on-call who will request the following information:

- The transporter's name, address, phone number, e-mail address.
- A description of the conveyance used to transport the SRM (license plate of truck or description of tarp/bucket).
- The SRM permit number of the site that will be receiving the SRM (unless it is the farm of origin of an animal dying in transit).
- The number of carcasses and approximate weight of SRM being transported;
- CCIA or ATQ tag number(s).

The inspector will provide the permit number which will be valid for 48 hours or less. An actual copy of the SRM permit will be provided during an ensuing inspection.

CFIA's SRM permits to transport, accept and dispose of SRM are free. For more information, visit [www.inspection.gc.ca/bse](http://www.inspection.gc.ca/bse), call 1-800-442-2342 or visit your local CFIA office.

# appendix A act and regulation

In this Regulation,

- (a) “Act” means the *Animal Health Act*;
- (b) “composting”, in respect of a dead animal, means a managed process for aerobic decomposition of the dead animal;
- (c) “dead animal” means
  - (i) all or part of an animal that has died from a cause other than having been slaughtered or killed for
    - (A) human or animal consumption, or
    - (B) an animal product or animal by-product,
  - (ii) inedible offal, condemned material or waste material from an animal that was slaughtered or killed for
    - (A) animal consumption, or
    - (B) an animal product or animal by-product, and
  - (iii) inedible offal, condemned material or waste material from an animal processed at a meat facility;
- (d) “meat facility” means
  - (i) a meat facility within the meaning of the *Meat Inspection Act*, and
  - (ii) an establishment within the meaning of the *Meat Inspection Act* (Canada) in which animals are slaughtered;
- (e) “rendering plant” means a rendering plant within the meaning of the *Health of Animals Act* (Canada).

## Application

**2 (1)** This Regulation does not apply to wildlife as defined in the *Wildlife Act* or controlled animals as defined in the *Wildlife Act*, except

- (a) wildlife or controlled animals possessed by a person who is or was the holder of a zoo permit under the *Wildlife Act* relating to the wildlife or controlled animals,
- (b) wildlife possessed by a person who is or was the holder of a game bird farm permit under the *Wildlife Act* relating to the wildlife,
- (c) wildlife possessed by a person who is or was the holder of a temporary shelter permit under the *Wildlife Act* relating to the wildlife,
- (d) fur-bearing animals held by a person who is or was the holder of a licence under the *Fur Farms Act* relating to the fur-bearing animals,
- (e) wildlife or controlled animals possessed by a non-resident or non-resident alien who is or was the holder of an import permit under the *Wildlife Act* relating to the wildlife or controlled animals, and

(f) wildlife processed at a meat facility.

- (2) For greater certainty, nothing in this Regulation affects the operation of any other law, including, without limitation,
- (a) any law that requires an approval, consent, permit, licence or other authorization or document to be obtained for an activity relating to the disposal of a dead animal, or
  - (b) any law that relates to a method of disposal, including without limitation, any law prohibiting or regulating the setting of fires.

## DISPOSAL OF DEAD ANIMALS

### Owner's duties

- 3(1) The owner of a dead animal shall dispose of the dead animal in accordance with this Regulation.
- (2) In storing or disposing of a dead animal, the owner of the dead animal shall ensure that
- (a) the odours generated by the dead animal are minimized,
  - (b) any run-on or run-off water at the site where the dead animal is located is minimized,
  - (c) the risk of the spread of disease is minimized, and
  - (d) the dead animal does not create a nuisance.
- (3) The owner of a dead animal shall dispose of the dead animal within 7 days unless the owner stores the dead animal
- (a) outside during winter months when the ambient temperature is low enough to keep the dead animal completely frozen,
  - (b) in a freezer unit, or
  - (c) in accordance with the directions of the chief provincial veterinarian, an inspector appointed under section 6(2) of the Act or a veterinary inspector appointed under the *Health of Animals Act* (Canada).
- (4) The owner of a dead animal shall comply with any direction of an inspector directing the owner to dispose of the dead animal.
- (5) The owner of an animal that is euthanized with drugs or other chemical substances shall take steps to prevent scavengers from gaining access to the animal beginning at the time the drugs or other chemical substances are administered until the final disposal of the dead animal.

### Disposal by meat facility

- 4 Subject to section 6 and the terms of any order made under section 18, an owner or operator of a meat facility shall dispose of a dead animal by a method
- (a) set out in section 7, 9(b), 10 or 13,
  - (b) referred to in section 15 that is approved for use by owners or operators of meat facilities under section 16, or
  - (c) authorized by the chief provincial veterinarian.

### Conditions respecting use of disposal methods

- 5 An owner of a dead animal shall not dispose of a dead animal using a method referred to in section 8, 9(a), 11 or 14 unless
- (a) the owner had custody or care and control of the animal immediately before the animal's death, and
  - (b) the owner is an owner of the land or premises

### Diseased animals

- 6(1) If a dead animal is known or suspected to have had a disease that is reportable under the Act but is not reportable under the *Health of Animals Act* (Canada), the owner of the dead animal shall dispose of the dead animal by a method provided for in this Regulation as directed by the chief provincial veterinarian or an inspector appointed under section 6(2) of the Act.
- (2) If a dead animal is known or suspected to have had a disease that is not reportable under the Act but is reportable under the *Health of Animals Act* (Canada), the owner of the dead animal shall dispose of the dead animal by a method provided for in this Regulation as directed by a veterinary inspector appointed under the *Health of Animals Act* (Canada).
- (3) If a dead animal is known or suspected to have had a disease that is reportable under the Act and under the *Health of Animals Act* (Canada), the owner of the dead animal shall dispose of the dead animal by a method provided for in this Regulation as directed by
- (a) the chief provincial veterinarian or an inspector appointed under section 6(2) of the Act, or
  - (b) a veterinary inspector appointed under the *Health of Animals Act* (Canada).

### Disposal in landfill

- 7 Subject to section 6 and the terms of any order made under section 18, a dead animal may be disposed of in a Class I or Class II landfill as defined in the Waste Control Regulation (AR 192/96).

### Burial

- 8(1) In this section, "provincial highway" means a provincial highway as defined in the *Highways Development and Protection Act*, but does not include a proposed highway.
- (2) Subject to section 6 and the terms of any order made under section 18, a dead animal may be buried in a farm burial pit in accordance with subsections (3) to (6).
- (3) A dead animal may be buried in a farm burial pit only if the bottom of the pit is at least one metre above the seasonal high-water table.
- (4) One or more dead animals may be buried in a farm burial pit if
- (a) the total weight of the dead animals buried in the pit does not exceed 2500 kg, and
  - (b) the pit

- (i) is at least 100 m from any well or other domestic water intake, stream, creek, pond, spring, river, irrigation canal, dugout or other water source and the high-water mark of any lake,
  - (ii) is at least 25 m from the edge of any coulee or embankment,
  - (iii) is at least 10 m from any other farm burial pit,
  - (iv) is at least 100 m from any residence,
  - (v) is at least 100 m from the boundary of any land owned or leased by a person other than the owner of the dead animal, unless the owner or leaseholder of the land has consented in writing to the pit being located closer to the boundary,
  - (vi) is at least 300 m from any provincial highway, and
  - (vii) is covered with
    - (A) a minimum of one metre of compacted soil, if no additional dead animals are to be buried in the pit, or
    - (B) a wooden or metal lid that is designed to exclude scavengers and quicklime is applied to the dead animal or animals in sufficient quantities to control flies and odour, if the weight limit established by clause (a) has not been reached and the owner intends to bury additional dead animals in the farm burial pit.
- (5) For the purposes of subsection (4)(a), the total weight of dead animals is determined by adding the weight at the time of burial of each dead animal buried in the pit to the weight at the time of burial of each dead animal previously buried in the pit.
- (6) One or more dead animals may be buried in a farm burial pit if
- (a) the total weight of the dead animals buried in the pit does not exceed 100 kg, and
  - (b) the pit
    - (i) is at least 50 m from any well or other domestic water intake, stream, creek, pond, spring, river, irrigation canal or other water source and the high-water mark of any lake,
    - (ii) is at least 25 m from the edge of any coulee or embankment,
    - (iii) is at least 100 m from any residence situated on land owned or leased by a person other than the owner of the dead animal,
    - (iv) is at least 3 m from any other farm burial pit,
    - (v) is covered with a minimum of one metre of compacted soil, and
    - (vi) has not been used for the burial of a dead animal during the previous 5-year period.
- (7) If authorized in writing by the chief provincial veterinarian or an inspector appointed under section 6(2) of the Act, one or more dead animals exceeding 2500 kg in total weight may be buried in a farm burial pit in accordance with any directions provided in the authorization.

## Burning

- 9 Subject to section 6 and the terms of any order made under section 18, a dead animal may be burned in accordance with the applicable provisions in the *Environmental Protection and Enhancement Act* and in the regulations or codes of practice under that Act relating to the burning
- (a) in an open fire, or
  - (b) in an incinerator.

## Composting in compost facility

- 10 Subject to section 6 and the terms of any order made under section 18, a dead animal may be disposed of by composting in a Class I compost facility as defined in the Waste Control Regulation (AR 192/96).

## Farm composting

- 11(1) Subject to section 6, and the terms of any order made under section 18, a dead animal may be disposed of by composting
- (a) in an outdoor farm open compost pile
    - (i) that is
      - (A) at least 100 m from any well or other domestic water intake, stream, creek, pond, spring, river, irrigation canal, dugout or other water source and the high-water mark of any lake,
      - (B) at least 25 m from the edge of any coulee or embankment, and
      - (C) at least 100 m from any residence,
    - (ii) that is designed in a manner that will exclude scavengers,
    - (iii) that is at least 100 m from the boundary of any land owned or leased by a person other than the owner of the dead animal, unless the owner or leaseholder of the land has consented in writing to the outdoor farm open compost pile being located closer to the boundary,
    - (iv) that is at least 300 m from any provincial highway, and
    - (v) in which the dead animal or animals are covered with at least 60 cm of composting material,  
or
  - (b) in an indoor farm open compost pile that is located in a building that has
    - (i) an impervious floor, and
    - (ii) adequate drainage control to prevent the contamination of surface water or groundwater from the compost effluent.
- (2) Where one or more dead animals are composted in an outdoor or indoor farm open compost pile,
- (a) the volume of the dead animal or animals in the compost pile must not exceed 25% of the total volume of the compost pile, and



- (b) material may not be removed from the compost pile until the dead animal or animals are composted to the extent that
  - (i) the generation of odours by the compost is minimized,
  - (ii) the compost will not contaminate surface water or groundwater,
  - (iii) the compost will not attract vectors of disease, and
  - (iv) the use of the compost will not cause or contribute to the spread of disease, cause scavenging or create a nuisance.

### **Food for other animals**

**12(1)** Subject to section 6 and the terms of any order made under section 18, the owner of a dead animal may dispose of the dead animal by feeding it or allowing another person to feed it to an animal if the owner of the dead animal

- (a) knows that the dead animal
  - (i) did not have an infectious or contagious disease or a disease that is notifiable under the Act or reportable under the Act or the *Health of Animals Act (Canada)*, and
  - (ii) was not euthanized with drugs or other chemical substances, and
- (b) provides a written certificate to the owner of the animal to which the dead animal is being fed confirming that the dead animal did not have a disease referred to in clause (a) and was not euthanized as referred to in clause (a), where the dead animal is being fed to an animal that is not owned by the owner of the dead animal.

**(2)** No person shall feed a dead animal to a production animal as defined in the Authorized Medicine Sales Regulation if the feeding of the dead animal to the production animal would contravene the *Health of Animals Act (Canada)* or the regulations under that Act.

### **Rendering**

**13** Subject to section 6 and the terms of any order made under section 18, a dead animal may be disposed of by rendering at a rendering plant operated under a permit issued under the *Health of Animals Act (Canada)*.

### **Natural disposal**

**14(1)** In this section, “natural disposal”, in respect of a dead animal, means disposing of the dead animal in a manner that allows for scavenging.

**(2)** Subject to section 6 and the terms of any order made under section 18, a dead animal, other than inedible offal or condemned material, may be disposed of by natural disposal if

- (a) the animal is not known or suspected to have had an infectious or contagious disease or a disease that is notifiable under the Act or reportable under the Act or the *Health of Animals Act (Canada)*,

- (b) the dead animal was not euthanized with drugs or other chemical substances,
- (c) the total weight of the animals being disposed of at one site does not exceed 1000 kg,
- (d) there is a distance of at least 500 m between disposal sites, and
- (e) the dead animal is disposed of at a disposal site that
  - (i) is on property that is owned or leased by the owner of the dead animal and at least 100 m from the boundary of land owned or leased by a person other than the owner of the dead animal, unless the owner or leaseholder of the land has consented in writing to the disposal site being located closer to the boundary,
  - (ii) is at least 500 m from any well or other domestic water intake, stream, creek, pond, spring, river irrigation canal, dugout or other water source and the high-water mark of any lake,
  - (iii) is at least 25 m from the edge of any coulee or embankment,
  - (iv) is at least 400 m from any livestock facility, including a pasture, situated on land owned or leased by a person other than the owner of the dead animal,
  - (v) is at least 400 m from any residence,
  - (vi) is at least 400 m from any road, and
  - (vii) is at least 400 m from any
    - (A) park or recreation area as those terms are defined in the *Provincial Parks Act*,
    - (B) wilderness area, ecological reserve, natural area or heritage rangeland as those terms are defined in the *Wilderness Areas, Ecological Reserves, Natural Areas and Heritage Rangelands Act*, or
    - (C) any other land intended for recreational use by the public.

### Method approved by Minister

15 Subject to section 6 and the terms of any order made under section 18, a dead animal may be disposed of in a manner that has been approved by the Minister under section 16 if any terms or conditions imposed under that section are complied with.

### Approval of disposal methods

16 The Minister may approve a method or methods for the disposal of dead animals in addition to the methods provided for under sections 7 to 14 and may, in the approval,

- (a) specify whether the method or methods are approved for use by owners or operators of meat facilities, and
- (b) impose any terms or conditions on the disposal of dead animals using the method or methods that the Minister considers appropriate.

## Rendering plant

- 17** The owner or operator of a rendering plant shall ensure
- (a) that a dead animal rendered at the plant is subjected to such temperature and pressure as is necessary to render every portion of the carcass free from all viable pathogenic organisms, and
  - (b) that microbiological quality assurance processes are in place to prevent the occurrence of viable pathogenic organisms.

## Disaster or emergency

- 18(1)** In the event of a disaster or emergency, including, without limitation, a flood, fire or outbreak of disease, the chief provincial veterinarian may, for the purposes of responding to and dealing with the effects of the disaster or emergency, make an order
- (a) in respect of any person or class of persons that for the period set out in the order
    - (i) exempts the person or class of persons from the application of this Regulation or any provision of this Regulation, or
    - (ii) varies the rules applicable to a method for the disposal of dead animals set out in this Regulation in respect of dead animals disposed of or to be disposed of by the person or class of persons, or
  - (b) in respect of any owner or class of owner of a dead animal or type of dead animal specified in the order that directs the owner or class of owner to dispose of the dead animal or a dead animal of that type in a manner or by a method specified in the order.
- (2)** A person or owner who is the subject of an order or is a member of a class of persons or owners that is the subject of an order under subsection (1)(a)(ii) or (b) shall comply with the order.

## GENERAL

### Transport of non-rendered dead animal

- 19** A person who transports, or prepares for transport, a dead animal that has not been rendered shall ensure that the dead animal is transported or prepared for transport in such a manner so as to prevent
- (a) any dissemination of pathogenic organisms into the environment from the leakage of blood or other body fluids of the dead animal, and
  - (b) the contamination of food intended for consumption by humans or animals.

### Diagnosis of animal diseases

- 20** Nothing in this Regulation prohibits the collection, shipment or transport of a dead animal as may be required by a registered veterinarian or the owner of the dead animal for the diagnosis of animal disease.

## Offences

**21** A person who contravenes or fails to comply with this Regulation is guilty of an offence.

## Penalties

**22(1)** A person who is guilty of an offence under section 21(a) for a first offence, to a fine of not more than \$15 000 and, in the case of a continuing offence, to a further fine of not more than \$1000 for each day or part of a day during which the offence continues after the first day, and

(b) for a 2nd or subsequent offence,

(i) to a fine of not more than \$30 000 and, in the case of a continuing offence, to a further fine of not more than \$2000 for each day or part of a day during which the offence continues after the first day, or

(ii) to imprisonment for a term not exceeding one year, or to both fines and imprisonment.

**(2)** A prosecution under subsection (1) may be commenced within 2 years of the commission of the alleged offence but not afterwards.

## Repeal

**23** The Destruction and Disposal of Dead Animals Regulation (AR 229/2000) is repealed.

## Expiry

**24** For the purpose of ensuring that this Regulation is reviewed for ongoing relevancy and necessity, with the option that it may be repassed in its present or an amended form following a review, this Regulation expires on September 30, 2023.

## Coming into force

**25** This Regulation comes into force on the coming into force of section 19 of the *Animal Health Amendment Act, 2009*.

# references

---

Alberta Environment. 2005. Code of Practice for small incinerators. Edmonton, Alberta: Alberta Environment.

Accessible online at <http://www.gp.Alberta.ca/documents/codes/INCINERATORS.pdf>

Canadian Food Inspection Agency. 2009. Enhanced animal health protection from BSE. <http://www.inspection.gc.ca/english/anima/heasan/disemala/bseesb/enhren/enhrene.shtml> (Accessed: November 2009).

Canadian Food Inspection Agency. 2007. SRM Permits <http://www.inspection.gc.ca/english/anima/heasan/disemala/bseesb/enhren/perme.shtml> (Accessed: March 2010).

Cornell Waste Management Institute. 2002. Natural rendering: composting livestock mortality and butcher waste. Ithaca, NY: Cornell University.

Erickson, L.E., E. Fayet, B.K. Kakumanu, L.C. Davis. 2004. Lactic acid fermentation. In *Carcass Disposal: A Comprehensive Review*. National Agricultural Biosecurity Center.

Government of Alberta. 2006. Substance Release Regulation of the *Environmental Protection and Enhancement Act*. Alberta Regulation 124/93. Edmonton, Alberta: Government of Alberta.

Haug, R.T. 1993. *The Practical Handbook of Compost Engineering*. Lewis Publishers. ISBN 0-87371-373-7.

Laporte, J. 2009. Deadstock disposal options for on-farm, Agdex 729/400. Ontario Ministry of Agriculture, Food and Rural Affairs.

Nova Scotia. On-farm livestock mortality management. [http://nsac.ca/eng/outreach/mort\\_manage\\_narrow.pdf](http://nsac.ca/eng/outreach/mort_manage_narrow.pdf) (January, 2010)

# for more information

## Emergency Carcass Disposal

Contact your local rural municipality for assistance.

## Reportable Diseases

Office of the Chief Provincial Veterinarian

780-427-3448 or toll-free by first dialing 403-310-0000

[http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/cpv4264](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/cpv4264)

## Alberta's Notifiable and Reportable Diseases Website

[http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/afs12455](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/afs12455)

## Canadian Food Inspection Agency

Visit [www.inspection.gc.ca/bse](http://www.inspection.gc.ca/bse), call 1-800-442-2342 or visit your local CFIA office listed on the following page.



## Canadian Food Inspection Agency (CFIA) Offices

### **Canadian Food Inspection Agency (CFIA)**

Alberta South Calgary  
110 Country Hills Landing Northwest  
Calgary, Alberta T3K 5P3  
Telephone: 403-299-7660

### **Canadian Food Inspection Agency (CFIA)**

Lethbridge Office – Animal Programs  
3605-14th Avenue North  
Lethbridge, Alberta T1H 6P7  
Telephone: 403-382-3121

### **Canadian Food Inspection Agency (CFIA)**

Coutts Office – Animal Programs  
PO Box 130  
Coutts, Alberta T0K 0N0  
Telephone: 403-344-3808

### **Canadian Food Inspection Agency (CFIA)**

Medicine Hat District Office  
7 Strachan Bay Southeast, Suite 105  
Medicine Hat, Alberta T1B 4Y2  
Telephone: 403-528-6850

### **Canadian Food Inspection Agency (CFIA)**

Animal Programs – Edmonton  
7000-113th Street  
Edmonton, Alberta T6H 5T6  
Telephone: 780-495-3333

### **Canadian Food Inspection Agency (CFIA)**

Edmonton Regional Office – Animal Health  
7000-113th Street  
Edmonton, Alberta T6H 5T6  
Telephone: 780-495-3333

### **Canadian Food Inspection Agency (CFIA)**

Grande Prairie District Office  
10135-100th Avenue  
Grande Prairie, Alberta T8V 0V4  
Telephone: 780-831-0335

### **Canadian Food Inspection Agency (CFIA)**

Vermilion District Office – Animal Health  
5016-49th Avenue, Unit B  
Vermilion, Alberta T9X 1B7  
Telephone: 780-853-5637

### **Canadian Food Inspection Agency (CFIA)**

Red Deer  
6503-67th Street  
Red Deer, Alberta T4P 1A3  
Telephone: 403-340-4204

### **Canadian Food Inspection Agency (CFIA)**

Wetaskiwin District Office  
5729-40th Avenue  
Wetaskiwin, Alberta T9A 2Z1  
Telephone: 780-352-3955

## Acknowledgements

### Technical content prepared by:

Virginia Nelson, *Project Manager*  
Technology and Innovation Branch  
Environmental Stewardship Division  
Alberta Agriculture and Rural Development

### Special acknowledgement for contributions by:

Rick Atkins  
Michael Bevans  
Jason Cathcart  
Kris Chawla  
Brian Koberstein  
Vince Murray  
Julie Popowicz  
Kayla Vaage  
Amanda Vanee  
Trevor Wallace  
Wayne Winchell  
*all of Alberta Agriculture and Rural Development*

### Graphic Design:

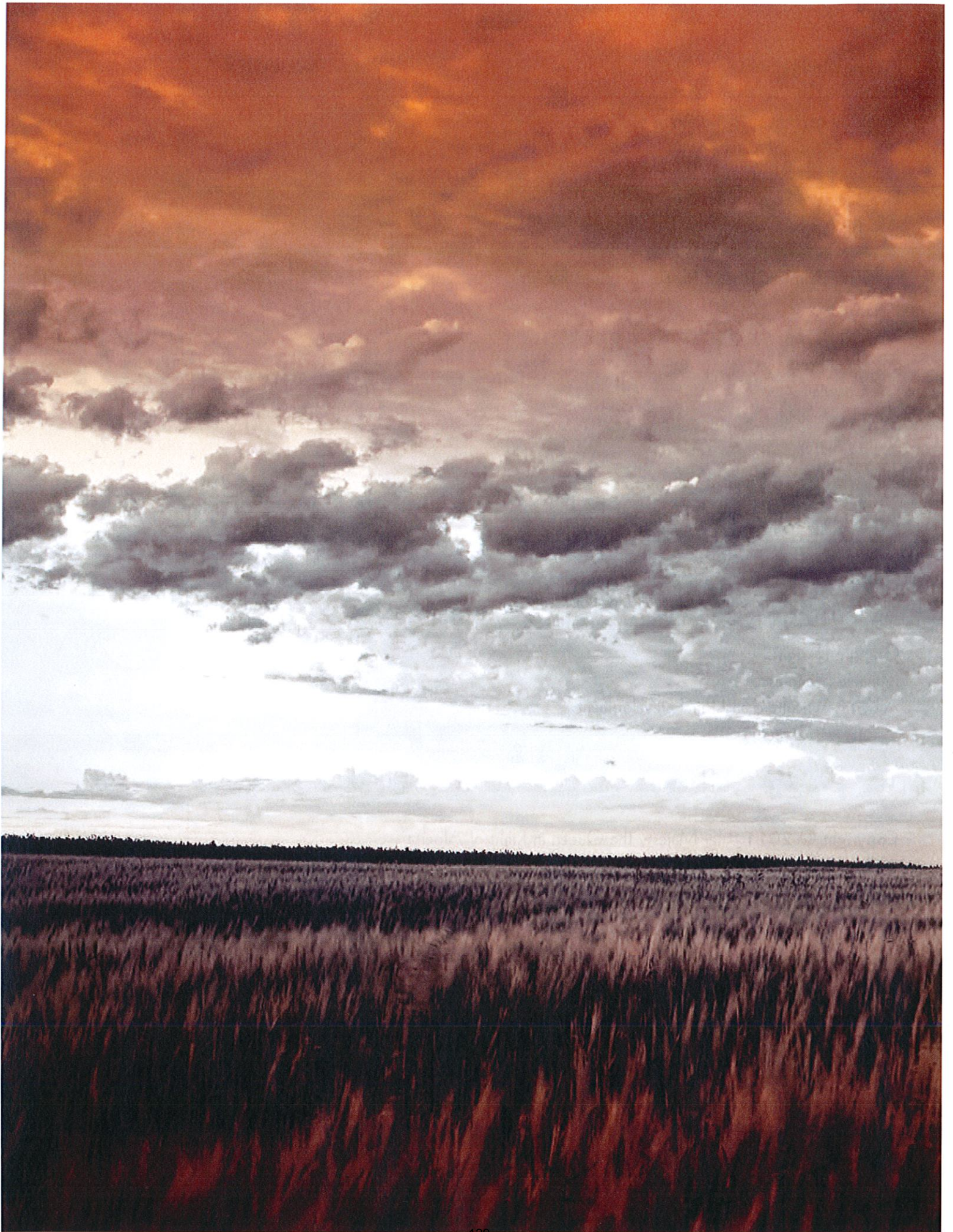
Mihaela Manolescu  
Alberta Agriculture and Rural Development

**Copyright © 2011.** Her Majesty the Queen in Right of Alberta  
(Alberta Agriculture and Rural Development). All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without written permission from the Technology and Innovation Branch (Environmental Stewardship Division), Alberta Agriculture and Rural Development

Printed in Canada







**APPLICATION FOR PERMIT TO RECEIVE, REMOVE FROM ANY PREMISES, USE, TRANSPORT, TREAT, STORE, SELL, DISTRIBUTE, CONFINE OR DESTROY SPECIFIED RISK MATERIAL (SRM) UNDER THE HEALTH OF ANIMALS ACT**

Applicant				
Name			Street Address	
City		Province <input checked="" type="checkbox"/>	Postal Code	Contact Person
Telephone	Facsimile		E-mail (if applicable)	
Type of Application				
<input type="radio"/> New Permit	<input type="radio"/> Renewal of Permit	<input type="radio"/> Amendment of Permit	Existing Permit No. (if applicable)	
Reason for Permit				
Estimated weight of SRM to be handled (if known)				
Location(s) from which the SRM is removed				
Name				
Street Address		City	Province <input checked="" type="checkbox"/>	Postal Code
Location(s) to which the SRM is to be transported				
Name				
Street Address		City	Province <input checked="" type="checkbox"/>	Postal Code
Transporter(s) of SRM				
Name				
Street Address		City	Province <input checked="" type="checkbox"/>	Postal Code
For Application to Transport SRM				
Description of conveyance or licence plate number of truck(s) or trailer(s).				
Signature Section				
<div style="display: flex; justify-content: space-around; margin-top: 50px;"> <div style="border-top: 1px solid black; width: 30%; text-align: center;">Signature</div> <div style="border-top: 1px solid black; width: 30%; text-align: center;">Date</div> </div>				
Please return this application to your local CFIA district office. Visit <a href="#">CFIA Area and Regional Offices website</a> for a list of the CFIA district offices.				

The information you provide on this document is collected by the Canadian Food Inspection Agency under the authority of the *Health of Animals Act* for the purpose of issuing a permit. Information may be accessible or protected as required under the provisions of the *Access to Information Act* and the *Privacy Act*.



## Technical Requirements for an Engineered Landfill Site Permit: Specified Risk Material Confinement

This page is part of the Guidance Document Repository (GDR).

1. Liner and associated leachate containment system: The liner for an engineered landfill and the associated leachate containment systems must have a hydraulic conductivity of not more than  $1 \times 10^{-9}$  m/s ( $1 \times 10^{-7}$  cm/s) and have a thickness of at least 80 cm. An equivalent combination that provides a breakthrough time of at least 25 years is also acceptable. The liner may be constructed of natural clay, engineered clay-compacted soil, rock, geomembranes (industry-approved plastic sheeting or high density polyethylene), or a combination thereof. The bottom slopes of the liner must be at least 2% on controlling slopes and 0.5% on the remaining slopes. More complex liner systems may incorporate further protective layers, such as sand or gravel and Geotextile mats.
2. Groundwater protection: The height of the groundwater must be maintained at a minimum of 50 cm below the lowest point of the liner throughout all seasonal variations. Groundwater-lowering systems may provide for positive drainage of the groundwater away from the landfill area.
3. Surface water management: The landfill must have a surface water management system that diverts surface and storm water from the disposal area, handles runoff discharge from the landfill, and controls erosion, sedimentation, and flooding. This system must be hydraulically separate from the site's leachate management system.
4. Leachate control system: The landfill must have a leachate collection network, or equivalent, that is hydraulically separate from the landfill's storm water system. This system must function year-round, offer adequate storage capacity, and be accessible for inspection and monitoring of flow.
5. Landfill cap: The final cover of any part of a cell or landfill must consist of a barrier layer of at least 60 cm of compacted natural or amended soil, or a geomembrane and a soil layer of reduced thickness with a hydraulic conductivity of  $1 \times 10^{-8}$  m/s ( $1 \times 10^{-6}$  cm/s). Additional layers of substrates and final topography, including a minimum of 15 cm of topsoil, must be installed to minimize infiltration and erosion, and to prevent pooling of water in accordance with local environmental standards and requirements (i.e. soil graded at a slope between 3%–5% with vegetation or an armored surface). If the cap is not mounted to prevent pooling or ponding, or otherwise designed to prevent rain from intruding and forming leachate, then the saturated hydraulic conductivity of the cap must be no more than  $1 \times 10^{-9}$  m/s ( $1 \times 10^{-7}$  cm/s), and must be at least 60 cm thick.
6. For background information and general landfill site requirements, refer to the [Canadian Food Inspection Agency Policy: Permits for Landfill Sites Receiving Specified Risk Material](#).





# REQUEST FOR DECISION

---

SUBJECT: **Agriculture Services Draft Operating Budget 2018-2020**  
SUBMISSION TO: AGRICULTURAL SERVICES BOARD      REVIEWED AND APPROVED FOR SUBMISSION  
MEETING DATE: September 20, 2017      CAO:      MANAGER: QFB  
DEPARTMENT: AGRICULTURE      GM:      PRESENTER: QFB  
STRATEGIC PLAN: Level of Service

---

RELEVANT LEGISLATION:

**Provincial** (cite) – N/A

**Council Bylaw/Policy** (cite) – N/A

---

RECOMMENDED ACTION:

**MOTION: That the Agriculture Service Board accept the Agriculture Services Draft Operating Budget 2018-2020.**

---

BACKGROUND/PROPOSAL:

The Agriculture Service Board is an Advisory Board to Greenview Council and recommends a draft three year Operating Budget Outline to Council for the Agriculture Services Department Budget. This is a document that will guide the Agriculture Service Board and the Agriculture Services Department in fulfilling Councils mandate of providing services to the residents of Greenview.

---

BENEFITS OF THE RECOMMENDED ACTION:

1. The benefits of providing a three year budget allows the ASB to see how budgeting for Capital and Operations over a three year span is an efficient and effective use of resources.

---

DISADVANTAGES OF THE RECOMMENDED ACTION:

1. There are no perceived disadvantages

---

ALTERNATIVES CONSIDERED:

**Alternative #1:** The ASB decides to not accept the recommendation as above and modify the 2018-2120 Agriculture Services Draft Operating Budget.

---

FINANCIAL IMPLICATION:

N/A

**Direct Costs:**

**Ongoing / Future Costs:**

---

---

STAFFING IMPLICATION:

N/A.

---

PUBLIC ENGAGEMENT LEVEL:

Greenview has adopted the IAP2 Framework for public consultation.

**INCREASING LEVEL OF PUBLIC IMPACT**

Inform

**PUBLIC PARTICIPATION GOAL**

Inform - To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.

**PROMISE TO THE PUBLIC**

Inform - We will keep you informed.

---

FOLLOW UP ACTIONS:

The approved draft Operating budget will be submitted to Corporate Services on September 22, 2017.

---

ATTACHMENT(S):

- The Agriculture Services 3 year Operating Budget plan
- The Agriculture Services Budget Green Sheets for Service Enhancements



# REQUEST FOR DECISION

---

**SUBJECT:** Agriculture Service Board 2018-2020 Business Plan  
**SUBMISSION TO:** AGRICULTURAL SERVICES BOARD      REVIEWED AND APPROVED FOR SUBMISSION  
**MEETING DATE:** September 20, 2017      CAO:      MANAGER: QFB  
**DEPARTMENT:** AGRICULTURE      GM:      PRESENTER: QFB  
**STRATEGIC PLAN:** Level of Service

---

**RELEVANT LEGISLATION:**

**Provincial** (cite) – N/A

**Council Bylaw/Policy** (cite) – N/A

---

**RECOMMENDED ACTION:**

**MOTION:** That the Agriculture Service Board approve the 2017-2019 ASB Strategic Business Plan as presented.

---

**BACKGROUND/PROPOSAL:**

The ASB Strategic Business Plan was created as a requirement for the Legislative Stream Funding that the ASB receives from Alberta Agriculture and Forestry, as well as a strategic direction document for the Agriculture Services Department. The business plan outlines a three year action plan for the ASB as well as following the guidelines for the three year funding cycle that AAF has in place for an ASB to receive Legislative Stream Funding. The first funding cycle was for 2011-2013, and the second funding cycle is for 2014-2016, and the current funding cycle is 2017-2019.

---

**BENEFITS OF THE RECOMMENDED ACTION:**

1. The benefits of providing a three year strategic business plan include the \$150,000.00 minimum annual ASB grant, and having a strategic direction for the ASB to follow and compare success with.
- 

**DISADVANTAGES OF THE RECOMMENDED ACTION:**

1. The ASB not accepting the business plan, could impact Greenview from receiving the ASB Legislative Stream Grant with a minimum value of \$150,000.00.
- 

**ALTERNATIVES CONSIDERED:**

**Alternative #1:** Council has the alternative to not accept the recommended motion for information, but this course of action is not recommended by administration, because the ASB and the Agriculture department would not have a business plan to guide their actions, and it could impact receiving the ASB Legislative Funding Stream Grant.

---



FINANCIAL IMPLICATION:

By ASB not accepting the business plan could impact Greenview from receiving the ASB Legislative Stream Grant with a minimum value of \$150,000.00

**Direct Costs: N/A**

**Ongoing / Future Costs: N/A**

---

STAFFING IMPLICATION:

There are no staffing implications to the recommended motion.

---

PUBLIC ENGAGEMENT LEVEL:

Greenview has adopted the IAP2 Framework for public consultation.

.

**INCREASING LEVEL OF PUBLIC IMPACT**

Inform

**PUBLIC PARTICIPATION GOAL**

Inform - To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.

**PROMISE TO THE PUBLIC**

Inform - We will keep you informed.

---

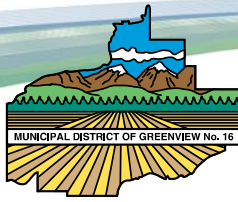
FOLLOW UP ACTIONS:

There are no follow up actions to the recommended motion.

---

ATTACHMENT(S):

- 20017-2019 ASB Strategic Business Plan



MUNICIPAL DISTRICT OF GREENVIEW NO. 16

*"A Great Place to Live, Work and Play"*

# AGRICULTURAL SERVICE BOARD STRATEGIC BUSINESS PLAN

2017-2019

## **VISION**

The Municipal District of Greenview Agricultural Service Board recognizes that it is beneficial to the agricultural community and municipal residents / ratepayers to provide ongoing progressive programs and services, and to encourage adoption of innovative technologies and best management practices designed to improve production and support an economical, environmentally sustainable agriculture industry while reducing negative impacts on the natural environment.

## **MISSION**

The Agricultural Service Board strives to serve all municipal stakeholders through proactive programming that continually meets the needs of the agricultural community, while providing effective, responsive, and environmentally conscientious initiatives which adhere to designated legislations and encourage sustainable agricultural productivity; thereby enhancing quality of life for all municipal residents.

## **VALUES**

### **Service**

The Agricultural Service Board believes in responding to the needs of all municipal ratepayers in a respectful, courteous, effective, and timely manner. The Board values accountability, honesty, integrity - in our Board and in our employees, promoting open, honest, communication and the provision of consistent, unbiased, equal service to all residents / rate payers.

### **Communication**

Agricultural Service Board members are committed to remaining informed on relevant agricultural issues and strive to develop and implement programs which address the changing needs of agricultural producers. Board members encourage Administration staff to attend training and seminars, and to research available publications in order to gather useful information for dissemination to the public.

### **Innovation & Collaborations**

The Agricultural Service Board believes in facilitating research in an effort to discover improved techniques and products which are beneficial to both agricultural production and the environment. The Agricultural Service Board supports collaboration with other agencies and industries to mutually benefit the agriculture industry and the community as a whole.

### **Program Administration**

The Agriculture Service Board believes agriculture is an important, valuable industry, and is committed to assist agriculture and Agri-business, by retaining knowledgeable qualified staff to develop and deliver programs and services which promote long term viability and profitability of agricultural producers.

## LEGISLATED REQUIREMENTS

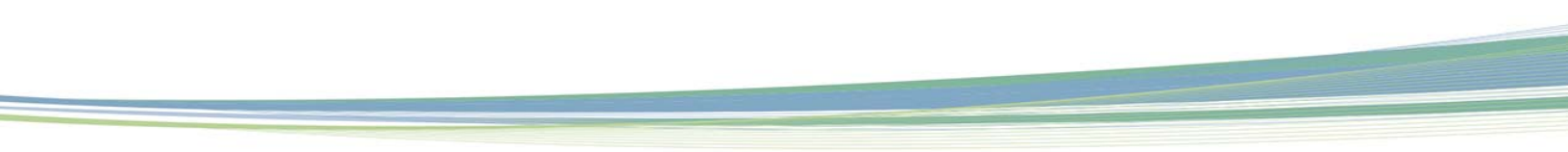
**GOAL 1:** To prevent the establishment and proliferation of non-native, invasive plant species on municipal properties and roadways.

### Strategy 1.1 Control noxious weeds, and eradicate prohibited noxious weeds.

- Activity 1.1.1** Apply selective herbicide to road rights-of-way on a two year rotational basis; gravel pits, and other municipal properties on an as needed basis.
- Activity 1.1.2** Seed disturbed areas, using only weed-free certified (certificate of analysis included) seed blends suitable for use in municipal ditches / properties, and require road construction contractors to use similar criteria.
- **Action: Engineering Design and Construction Standards section 9.3**
- Activity 1.1.3** Implement a Municipal Policy to encourage sanitization of ground disturbance equipment originating from outside the municipality.
- **Action: Equipment Sanitation Policy AG 17**
- Activity 1.1.4** Provide other municipal employees with pertinent information regarding noxious weeds, and encourage vigilant observation.
- **Action: Mowing crew provides details of infestations of noxious weeds to Agriculture staff**
- Activity 1.1.5** Encourage all municipal employees to report observations of unusual plants, for identification and determination of remedial action by Agricultural Services staff.
- **Action: Educate staff (via staff newsletter, lunch and learn sessions, website) to report any unusual plants to Agriculture staff**
- Activity 1.1.6** Maintain an accurate database of weed infestations.
- **Action: AIMS database is used to provide infestation maps**
- Activity 1.1.7** Conduct immediate remedial action on Prohibited Noxious weeds; educate Agriculture staff and advise the public regarding “Early Detection and Rapid Response” to eradicate existing prohibited noxious weed populations, and prevent establishment of new populations.
- **Action: Provide weed awareness education to both staff and the public (via workshops, newsletter, and website) about Early Detection and Rapid Response.**

### Strategy 1.2 Enhance Spray Exemption policy and update Agreements.

- Activity 1.2.1** Inform Spray Exemption Agreement holders of their obligations for the control of noxious (and eradication of prohibited noxious) weed species.
- **Action: Agreement explains Landowners obligations, signature indicates consent with agreement**
- Activity 1.2.2** Provide information regarding designated weed species to all Spray Exemption Agreement holders, and present viable alternatives to herbicide weed control.
- **Action: Publications are made available to landholders and information is provided regarding non-herbicide control**



**Activity 1.2.3** Inform Certified Organic Producers of their obligations for the control of noxious (and the eradication of prohibited noxious) weed species.

- **Action: Agreement explains landowners obligations, signature indicates consent with agreement**

**Activity 1.2.4** Provide information regarding declared weeds to Organic Producers and offer viable alternatives to herbicide weed control.

- **Action: Publications are made available to landholders and information is provided regarding non-herbicide control**

## Measurable Outcomes

2017	2018	2019
<ul style="list-style-type: none"> <li>- 2% lower incidence of noxious weeds in Municipal roadside ditches and other properties.</li> <li>- 2% lower incidence of noxious weeds and brush in broadcast spray exclusion zones.</li> <li>- Zero incidence of prohibited noxious weeds in Municipal ditches and properties.</li> <li>- Zero prohibited noxious weeds within Spray Exemption Zones. 3% reduction of noxious weed infestations, or vegetation/ brush over 2 feet in height within Spray Exemption Zones.</li> <li>- Zero prohibited noxious weeds on private land used for organic crop production. 3% reduction of noxious weed infestations on private land used for organic crop production.</li> <li>- All disturbed areas from established project list are seeded each year, and monitored for proliferation of weeds.</li> </ul>	<ul style="list-style-type: none"> <li>- 2% lower incidence of noxious weeds in Municipal roadside ditches and other properties.</li> <li>- 2% lower incidence of noxious weeds and brush in broadcast spray exclusion zones.</li> <li>- Zero incidence of prohibited noxious weeds in Municipal ditches and properties.</li> <li>- Zero prohibited noxious weeds within Spray Exemption Zones. 2% reduction of noxious weed infestations, or vegetation/ brush over 2 feet in height within Spray Exemption Zones.</li> <li>- Zero prohibited noxious weeds on private land used for organic crop production. 2% reduction of noxious weed infestations on private land used for organic crop production.</li> <li>- All disturbed areas from established project list are seeded each year, and monitored for proliferation of weeds.</li> </ul>	<ul style="list-style-type: none"> <li>- 2% lower incidence of noxious weeds in Municipal roadside ditches and other properties.</li> <li>- 2% lower incidence of noxious weeds and brush in broadcast spray exclusion zones.</li> <li>- Zero incidence of prohibited noxious weeds in Municipal ditches and properties.</li> <li>- Zero prohibited noxious weeds within Spray Exemption Zones. 2% reduction of noxious weed infestations, or vegetation/ brush over 2 feet in height within Spray Exemption Zones.</li> <li>- Zero prohibited noxious weeds on private land used for organic crop production. 2% reduction of noxious weed infestations on private land used for organic crop production.</li> <li>- All disturbed areas from established project list are seeded each year, and monitored for proliferation of weeds.</li> </ul>

**GOAL 2:** Prevent the establishment of non-native, invasive plant species on private property and Crown (public) lands.

### Strategy 2.1 Education and Awareness

- Activity 2.1.1** When ever possible, make personal contact with landowners to provide information regarding noxious weeds; providing advice on weed identification and control, and municipal programs.
- **Action: Procedure 6303-01**
- Activity 2.1.2** Conduct invasive species awareness extension events to inform the general public regarding invasive species (providing information about weed identification, biology, and prevention/control). In addition, advertise weed awareness (website, newsletters, and pamphlets) designed to include all landowners and recreational land users.
- **Action: Part of the Agriculture Services extension program**
- Activity 2.1.3** Establish a list of available reputable contractors, licensed to provide weed control services.
- **Action: Provided to rate payers with information packages as well as upon request**

### Strategy 2.2 Inspection / Enforcement

- Activity 2.2.1** Inspect all reasonably accessible public and private lands for noxious and prohibited noxious weeds, and accurately plot infestations (location, abundances, and severity).
- **Action: Hire sufficient number of seasonal staff**
- Activity 2.2.2** Issue friendly information letter to landowners found to have weeds (include species information, control options /recommendations, and reminder of legislative requirements).
- **Action: Procedure 6303-01**
- Activity 2.2.3** Issue Weed Notices as a last resort, after repeated attempts to solicit voluntary compliance to remedy the problem have been unsuccessful. At all times, consideration will be given to the negative impacts on neighboring lands.
- **Action: Procedure 6303-01**
- Activity 2.2.4** Maintain up-to-date database of weed infestations, with accurate current and historical information.
- **Action: AIMS database has all information inputted ffrom 2014 – Present and will continue to input for future years**
- Activity 2.2.5** Perform annual inspections of local seed cleaning facilities, and mobile cleaning units.
- **Action: Alberta Weed Control Act W5**

## **Strategy 2.3 Assistance Programs**

- Activity 2.3.1** Advertise Municipal Policy to provide herbicide weed control (at no charge) on private land infestations to maximum area allowable by Municipal Policy.
- **Action: Advertise annually (newspaper, newsletter, website)**
- Activity 2.3.2** Advertise and promote a Fence line Spray Program, providing residual herbicide applications along perimeters and fence lines adjacent to municipal roadways, at no charge to landowners.
- **Action: Advertise annually (newspaper, newsletter, website)**
- Activity 2.3.3** Advertise and promote rental spray equipment (quad sprayers, backpack sprayers, and trailer mounted field sprayers).
- **Action: Advertise annually (newspaper, newsletter, website)**

## **Strategy 2.4 Partnership with the Towns of Fox Creek and Valleyview**

- Activity 2.4.1** Provide weed inspection services to the towns; and serve as an information resource to Town staff as required.
- **Action: As per signed contract with the two Towns**



## Measurable Outcomes

2017	2018	2019
<ul style="list-style-type: none"> <li>- 2% lower incidence of noxious weeds through voluntary compliance, compared to 2015 database.</li> <li>- Further contact is made with landowners on properties where noxious weeds are observed and no compliance efforts visible. Preparation for Weed advisory letters to be sent in 2017.</li> <li>- Personal contact is made, and/or weed information package &amp; compliance letter sent for each newly inspected property where noxious or prohibited noxious weeds observed.</li> <li>- Enforced compliance on prohibited noxious weeds to achieve zero incidence.</li> <li>- Continued mapping and Weed Inspection reports created for each property inspected or re-inspected (including area infested, abundance, and location of weeds).</li> <li>- Updated historical weed / crop database to include newly inspected properties and re-inspections. Maps comparison to review reductions and determine trends.</li> <li>- Inspections of accessible AEP lands and oil leases, with maps and Weed Inspection Reports created. AEP notified and compliance requested.</li> </ul>	<ul style="list-style-type: none"> <li>- 2% lower incidence of noxious weeds through voluntary compliance, compared to 2016 database.</li> <li>- Further contact is made with landowners on properties where noxious weeds are observed and no compliance efforts visible. Preparation for Weed advisory letters to be sent in 2018</li> <li>- Personal contact is made, and/or weed information package &amp; compliance letter sent for each newly inspected property where noxious or prohibited noxious weeds observed.</li> <li>- Enforced compliance on prohibited noxious weeds to achieve zero incidence.</li> <li>- Continued mapping and Weed Inspection reports created for each property inspected or re-inspected (including area infested, abundance, and location of weeds).</li> <li>- Updated historical weed / crop database to include newly inspected properties and re-inspections. Maps comparison to review reductions and determine trends.</li> <li>- Inspections of accessible AEP lands and oil leases, with maps and Weed Inspection Reports created. AEP notified and compliance requested.</li> </ul>	<ul style="list-style-type: none"> <li>- 2% lower incidence of noxious weeds through voluntary compliance, compared to 2017 database.</li> <li>- Further contact is made with landowners on properties where noxious weeds are observed and no compliance efforts visible. Preparation for Weed advisory letters to be sent in 2019.</li> <li>- Personal contact is made, and/or weed information package &amp; compliance letter sent for each newly inspected property where noxious or prohibited noxious weeds observed.</li> <li>- Enforced compliance on prohibited noxious weeds to achieve zero incidence.</li> <li>- Continued mapping and Weed Inspection reports created for each property inspected or re-inspected (including area infested, abundance, and location of weeds).</li> <li>- Updated historical weed / crop database to include newly inspected properties and re-inspections. Maps comparison to review reductions and determine trends.</li> <li>- Inspections of accessible AEP lands and oil leases, with maps and Weed Inspection Reports created. AEP notified and compliance requested.</li> </ul>

**GOAL 3:** Prevent the establishment and proliferation of invasive weeds on transportation corridors.

**Strategy 3.1 Consultation with CN Rail, Alberta Transportation, other stakeholders**

- Activity 3.1.1** Meet annually (minimum) with Alberta Transportation and their contractor to develop and review vegetation management plans.  
Provide feedback regarding program success and concerns.
- **Action: Meet annually**
- Activity 3.1.2** Meet annually with CN Rail representatives and their contractor to review vegetation management plans. Remain in contact with appropriate personnel throughout the growing season to ensure effective herbicide applications are conducted.
- **Action: Meet annually**
- Activity 3.1.3** Provide information to individuals transporting goods / equipment into the municipality regarding proper sanitation and load cover. Advertise and promote the sanitation of excavation equipment, load cover for seed transport, and discourage transportation of weed-infected hay and straw.
- **Action: Advertise annually (newspaper, newsletter, website)**

**Strategy 3.2 Inspections / Enforcement**

- Activity 3.2.1** Conduct regular inspections of accessible CN Rail lines, and regularly notify company and contractor of weed observations, and request compliance.
- **Action: Procedure 6303-01**
- Activity 3.2.2** Conduct regular inspections of Provincial Highway rights-of-way, notify Maintenance Contract Inspector and service contractor of observations, and request compliance.
- **Action: Procedure 6303-01**
- Activity 3.2.3** Issue Weed Notices as a last resort, after repeated attempts to solicit voluntary compliance to remedy problem have been ignored or unsuccessful. At all times, consideration will be given to the negative impacts on neighboring lands.
- **Action: Procedure 6303-01**
  - **Action: Alberta Weed Control Act W5**
- Activity 3.2.4** Maintain accurate database of weed infestations.
- **Action: AIMS database has all information inputted from 2014 - present and will continue to input for future years**

## Measurable Outcomes

2017	2018	2019
<ul style="list-style-type: none"> <li>- 2% lower occurrence of noxious weeds on major transportation corridors.</li> <li>- Zero prohibited noxious weeds on major transportation corridors.</li> <li>- Municipal Policy regarding sanitation of ground disturbance equipment advertised on website and newsletters; information provided to stakeholders in response to enquiries.</li> <li>- Information included in a minimum of one newsletter article regarding load cover as preventative measure for weed and disease spread.</li> </ul>	<ul style="list-style-type: none"> <li>- 2% lower occurrence of noxious weeds on major transportation corridors.</li> <li>- Zero prohibited noxious weeds on major transportation corridors.</li> <li>- Municipal Policy regarding sanitation of ground disturbance equipment advertised on website and newsletters; information provided to stakeholders in response to enquiries.</li> <li>- Information included in a minimum of one newsletter article regarding load cover as preventative measure for weed and disease spread.</li> </ul>	<ul style="list-style-type: none"> <li>- 2% lower occurrence of noxious weeds on major transportation corridors.</li> <li>- Zero prohibited noxious weeds on major transportation corridors.</li> <li>- Municipal Policy regarding sanitation of ground disturbance equipment advertised on website and newsletters; information provided to stakeholders in response to enquiries.</li> <li>- Information included in a minimum of one newsletter article regarding load cover as preventative measure for weed and disease spread.</li> </ul>

**GOAL 4: Protect the quality and integrity of agricultural soils within the Municipal District of Greenview**

**Strategy 4.1 Land Use By-law**

- Activity 4.1.1** Promote understanding by local authority that the Municipal Land Use By-law should include the preservation of lands with higher agricultural value.
- **Action: Meet with and educate MPC and SDAB on the preservation of high value agriculture soils for agriculture purposes**
- Activity 4.1.2** Discourage the fragmentation of agricultural lands and where possible encourage development in marginal lands.
- **Action: Meet with and educate MPC and SDAB on the preservation of high value agriculture soils for agriculture purposes**
- Activity 4.1.3** Recommend that topsoil removed from agricultural land is retained on the land for future use.
- **Action: Creation of a Topsoil Removal By-Law to ensure that topsoil is not removed without a permit**

**Strategy 4.2 Education and Awareness**

- Activity 4.2.1** Collaborate with Applied Research and Demonstration organizations to host extension events on reduced tillage, nutrient management and variable rate technology.
- **Action: Work Closely with SARDA and PCBFA to promote education regarding soil and water erosion**
- Activity 4.2.2** Publish newsletter and website information on conservation tillage, best soil management practices, and promote awareness of legislation under the Soil Conservation Act.
- **Action: Promote education regarding soil and water erosion (newsletter and website)**

**Strategy 4.3 Ground Cover Maintenance and Seeding**

- Activity 4.3.1** Maintain healthy grassy vegetation on all roadside ditches.
- Activity 4.3.2** Seed all areas disturbed as a result of municipal projects, using an appropriate certified (certificate of analysis included) seed blend, and maintain healthy vegetation, once established.
- **Action: Engineering Design and Construction Standards section 9.3**

## Measurable Outcomes

2017	2018	2019
<ul style="list-style-type: none"><li>- 2% reduction of visual signs of soil erosion (blowing soil) during high wind conditions.</li> <li>- 2% reduction of visual signs of soil erosion (washout) during run-off and flood conditions.</li></ul>	<ul style="list-style-type: none"><li>- 2% reduction of visual signs of soil erosion (blowing soil) during high wind conditions.</li> <li>- 2% reduction of visual signs of soil erosion (washout) during run-off and flood conditions.</li></ul>	<ul style="list-style-type: none"><li>- 2% reduction of visual signs of soil erosion (blowing soil) during high wind conditions.</li> <li>- 2% reduction of visual signs of soil erosion (washout) during run-off and flood conditions.</li></ul>

**GOAL 5:**            **Protect lands and agricultural crops within the Municipal District of Greenview from agricultural (and non-agricultural) declared pests**

**Strategy 5.1 Prevent or control Clubroot infestations**

- Activity 5.1.1**        During each growing season, inspect as many canola crops within the Municipal District as time and manpower constraints permit, for symptoms of Clubroot of canola.
- **Action: crop inspections are completed in conjunction with weed inspections**
- Activity 5.1.2**        Promote landowner awareness of Clubroot prevention strategies, legislation, and best management practices through newsletter and website articles. Provide information discouraging shortened crop rotations.
- **Promote education through newsletter and website**
  - **Promote education collaboratively with SARDA and PCBFA**
- Activity 5.1.3**        Create Municipal Policy to address sanitation requirements for machinery and ground disturbance equipment brought into the area from outside the municipality.
- **Action: Policy AG 17 Equipment Sanitation**
- Activity 5.1.4**        Confirmed detection of Clubroot, issue appropriate Notices and require landowners to adhere to Provincial Legislation and Provincial Best Management Practices.
- **Action: Policy AG 04 Pest Control**
  - **Alberta Agricultural Pests Act A-8**
- Activity 5.1.5**        Issue newsletter and website articles to promote awareness of symptoms, strongly promote public awareness of Clubroot prevention strategies, legislation and best management practices, and encourage landowners to self-inspect for Clubroot and other diseases of canola.
- **Action: Promote awareness through newsletter, website and collaboration with SARDA**

**Strategy 5.2 Promote the designation of the Municipal District of Greenview as a “Zero Tolerance” jurisdiction for Fusarium Graminearum.**

- Activity 5.2.1**        Participate in AAF Fusarium Graminearum survey, inspect the designated number of fields, and report survey results.
- **Action: Cooperate with AAF to complete surveys as requested**
  - **Action: crop inspections are completed in conjunction with weed inspections**
- Activity 5.2.2**        Upon confirmed detection of FG, issue prescribed Notice to the landowner, and promote public awareness of obligations to follow guidelines and protocols and Provincial FG Management Plan.
- **Action: Agricultural Pests Act A-8**

### Strategy 5.3 Prevent or control Virulent Blackleg infestations

- Activity 5.3.1** During each growing season, inspect as many canola crops within the Municipal District of Greenview as time and available manpower constraints permit, for symptoms of Virulent Blackleg of canola.
- **Action: crop inspections are completed in conjunction with weed inspections**
- Activity 5.3.2** Promote landowner awareness of Blackleg prevention strategies, legislation, symptoms, and best management practices through newsletter and website articles. Provide information discouraging shortened crop rotations and encourage producers to self-inspect for Virulent Blackleg and other diseases of canola through newsletter and website articles
- **Promote education through newsletter and website**
  - **Promote education collaboratively with SARDA and PCBFA**
- Activity 5.3.3** Confirmed detection of Virulent Blackleg, issue appropriate Notices and require producers to adhere to Provincial legislation and Provincial Best Management Practices.
- **Action: Policy AG 04 Pest Control**
  - **Alberta Agricultural Pests Act A-8**

### Strategy 5.4 Reduce crop loss to destructive Grasshopper species

- Activity 5.4.1** Participate in AAF Grasshopper survey to assist in forecasting potential infestations.
- **Action: Grasshopper inspections are completed in conjunction with weed inspections**
  - **Action: Alberta Agricultural Pests Act A-8**
- Activity 5.4.2** Encourage timely application of grasshopper bait strips or prudent use of insecticide for grasshopper control.
- **Promote education through newsletter and website**
  - **Promote education collaboratively with SARDA and PCBFA**
- Activity 5.4.3** Provide bait application equipment as part of equipment rental fleet, at minimal charge to landowners.
- **Action: Policy AG 09**

### Strategy 5.5 Reduce numbers of wild boar “at large”

- Activity 5.5.1** Participate in Provincial Wild Boar Bounty Program and promote public awareness of the program through newsletter and website articles, encouraging the public to report sightings of “at large” animals and to utilize the incentive program if desired.
- **Action: Promote education and awareness via newsletter and website**
  - **Action: Alberta Agricultural Pests Act A-8**
- Activity 5.5.2** Facilitate the acceptance of pairs of ears, completion of eligibility declarations, and issuance of reward incentive payments. Report wild boar harvest information to the Province as scheduled.
- **Action: Report on an annual basis to AAF the number of pairs of ears turned in.**

## Strategy 5.6 Reduce livestock predation

- Activity 5.6.1** Employ individuals (Form 7 Licensees) under Coyote Predation Management Program and follow mandated program guidelines.
- **Action: Agriculture Manager, Assistant Manager, and Problem Wildlife Officer will be licensed for a Form 7**
  - **Action: Alberta Agricultural Pests Act A-8 and Pest and Nuisance Control Regulation 184/2001**
- Activity 5.6.2** Facilitate the acceptance / marking of wolf carcasses, completion of eligibility declarations, and issuance of reward incentive payments to ratepayers harvesting wolves in accordance with Municipal Policy.
- **Action: Report on a monthly basis to ASB**
  - **Action: Policy AG 10**
- Activity 5.6.3** Encourage producer awareness of prevention strategies and non-lethal predator controls via website and newsletter articles.
- **Action: Awareness promoted via newsletter and website**
  - **Action: Host Wolf Awareness Seminar, Predator Control Seminar**

## Strategy 5.7 Prevent establishment of Norway Rat populations

- Activity 5.7.1** Investigate all reported Norway Rat sightings.
- **Action: Alberta Agricultural Pests Act A-8**
- Activity 5.7.2** Issue Notice to Control Pests as required.
- **Action: Alberta Agricultural Pests Act A-8**
- Activity 5.7.3** Perform rat control work through use of baiting and other means. Solicit assistance from Provincial rat control personnel.
- **Action: Alberta Agricultural Pests Act A-8**
- Activity 5.7.4** Provide advice and information to landowners regarding rat identification, prevention and control.
- **Action: Alberta Agricultural Pests Act A-8**



## Measurable Outcomes

2017	2018	2019
<ul style="list-style-type: none"> <li>- Zero incidences of crops found with symptoms of Clubroot, Blackleg, or Fusarium Graminearum.</li> <li>- No Norway Rat infestations</li> <li>- Early detection and response to destructive grasshopper outbreaks. Increased use of available equipment.</li> <li>- Reduction in livestock losses due to predation and reduced numbers of requests for assistance.</li> </ul>	<ul style="list-style-type: none"> <li>- Zero incidences of crops found with symptoms of Clubroot, Blackleg, or Fusarium Graminearum.</li> <li>- No Norway Rat infestations</li> <li>- Early detection and response to destructive grasshopper outbreaks. Increased use of available equipment.</li> <li>- Reduction in livestock losses due to predation and reduced numbers of requests for assistance.</li> </ul>	<ul style="list-style-type: none"> <li>- Zero incidences of crops found with symptoms of Clubroot, Blackleg, or Fusarium Graminearum.</li> <li>- No Norway Rat infestations</li> <li>- Early detection and response to destructive grasshopper outbreaks. Increased use of available equipment.</li> <li>- Reduction in livestock losses due to predation and reduced numbers of requests for assistance.</li> </ul>

**GOAL 6: Animal Health Act Responsibilities**

**Strategy 6.1 Assist and support the office of Chief Provincial Veterinarian**

- Activity 6.1.1** Assist with disease outbreak and control measures as requested, and provide logistical support to Chief Provincial Veterinarian or CFIA disease control specialists.
- Activity 6.1.2** Serve as Animal Health Inspector if appointed by Chief Provincial Veterinarian.
- Activity 6.1.3** Develop Emergency Response Plan for rapid response to disease outbreaks and other agricultural disasters, incorporating Incident Command System protocols.

**Measurable Outcomes**

<b>2017</b>	<b>2018</b>	<b>2019</b>
- Agricultural Emergency Response Plan completed and updated on an annual basis.	- Agricultural Emergency Response Plan completed and updated on an annual basis.	- Agricultural Emergency Response Plan completed and updated on an annual basis.

## OTHER PROGRAMS AND SERVICES

**GOAL 7:** Manage roadside vegetation to enhance motorist safety (improve sightline visibility / snow trap reduction), integrated weed control

### Strategy 7.1 Roadside spraying

- Activity 7.1.1** Apply selective herbicide to control encroaching brush and tall broadleaf weedy vegetation, using appropriate equipment.
- **Action: Coordinate with Operations Department to apply herbicides to area brushed and mowed.**
- Activity 7.1.2** Manual application of selective herbicide to control woody species that fall outside the scope of the roadside vegetation spray program.

### Measurable Outcomes

2017	2018	2019
- Roadside spraying activities completed (strategy 7.1)	- Roadside spraying activities completed (strategy 7.1)	- Roadside spraying activities completed (strategy 7.1)

**GOAL 8: Offer rental equipment to producers**

**Strategy 8.1** Rental Equipment Fleet

**Activity 8.1.1** Provide rate payers with equipment that may be cost-prohibitive to purchase, or not readily commercially available.

- **Action: Policy AG 09**

**Activity 8.1.2** Provide operations guides / Safe Work Procedures with rentals, to ensure safe and appropriate operation of equipment.

**Activity 8.1.3** Advertise availability of equipment on municipal website and in newsletter articles.

- **Action: Promote equipment and availability in newsletter and website**

**Measurable Outcomes**

2017	2018	2019
<ul style="list-style-type: none"><li>- Continued positive feedback from renters and increased numbers of rentals.</li><li>- Continued safety of users. Expanded rental fleet if warranted by user requests.</li></ul>	<ul style="list-style-type: none"><li>- Continued positive feedback from renters and increased numbers of rentals.</li><li>- Continued safety of users. Expanded rental fleet if warranted by user requests.</li></ul>	<ul style="list-style-type: none"><li>- Continued positive feedback from renters and increased numbers of rentals.</li><li>- Continued safety of users. Expanded rental fleet if warranted by user requests.</li></ul>

**GOAL 9: Ensure livestock producers have access to veterinary services.**

**Strategy 9.1 Veterinary Services Incorporated**

**Activity 9.1.1** Budget annually, for Municipal contribution to eligible procedures accepted for VSI subsidization.

- **Action: Policy AG 12**

**Activity 9.1.2** Issue memberships and maintain current list of producers eligible to enroll in VSI, and inform veterinary clinics.

- **Action: Maintain VSI client list on a monthly basis**

**Measurable Outcomes**

2017	2018	2019
<ul style="list-style-type: none"> <li>- Continued Municipal support of program to encourage veterinarian and service retention in the region.</li> <li>- Continued producer participation and demand for VSI program.</li> </ul>	<ul style="list-style-type: none"> <li>- Continued Municipal support of program to encourage veterinarian and service retention in the region.</li> <li>- Continued producer participation and demand for VSI program.</li> </ul>	<ul style="list-style-type: none"> <li>- Continued Municipal support of program to encourage veterinarian and service retention in the region.</li> <li>- Continued producer participation and demand for VSI program.</li> </ul>

## ENVIRONMENT

### **GOAL 10: Encourage Agricultural Environmental Sustainability**

#### **Strategy 10.1 Pesticide container recycling**

- Activity 10.1.1** Promote pesticide container recycling through newsletter and website articles.
- **Action: Promote program via newspaper, newsletter and website**
- Activity 10.1.2** Maintain pesticide container storage facilities and collaborate with “Clean Farms” crushing contractor to ensure pesticide containers are crushed and removed annually.
- **Action: Containers are collected and crushed on an annual basis**

#### **Strategy 10.2 AESA initiatives**

- Activity 10.2.1** Form partnerships with local organizations which have expertise, manpower and equipment to meet AESA goals outlined in Environmental Funding Stream portion of ASB grant application.
- **Action: Formed partnership with MD Smoky River, Northern Sunrise County, and MD Big Lakes for another three year agreement with AARD**
- Activity 10.2.2** Provide financial support to SARDA (Smoky Applied Research & Demonstration Association) and the PCBFA (Peace Country Beef & Forage Association) to conduct AESA projects on behalf of the Municipality.
- **Action: Financial support budgeted in operational budget**
- Activity 10.2.3** Assist SARDA or PCBFA in locating cooperators for riparian improvement projects (exclusionary fencing and rotational grazing).
- **Action: Collaborate with research groups in finding local cooperators**
- Activity 10.2.4** Advertise AESA extension events through website, MD newsletter distribution, posters and ratepayer contact.
- **Action: Promote AESA type events in collaboration with research groups via website, newsletter, and posters when manpower allows.**
- Activity 10.2.5** Provide assistance and support for SARDA and PCBFA at AESA extension events.
- **Action: Promote AESA type events in collaboration with research groups via website, newsletter, and posters when manpower allows**

### Strategy 10.3 Environmental Farm Plan

- Activity 10.3.1** Provide assistance and support to PCBFA and SARDA for EFP workshops when requested.
- **Action: Promote EFP type events in collaboration with research groups via website, newsletter, and posters when manpower allows**
- Activity 10.3.2** Advertise EFP workshops through website, newsletter articles, and posters; and encourage producer attendance through telephone and personal contact.
- **Action: Promote EFP type events in collaboration with research groups via website, newsletter, and posters when manpower allows**

### Strategy 10.4 Reduce Overuse / Misuse of Pesticides

- Activity 10.4.1** Require all herbicide application employees be trained to the minimum level of Authorized Assistant, and encourage employees to obtain Pesticide Applicator Certification.
- **Action: Manager of Agriculture has certification to provide the training**
- Activity 10.4.2** Provide financial support for examination fees to employees seeking Pesticide Applicator Certification.
- Activity 10.4.3** Require all herbicide applicators attend local herbicide product stewardship training, and follow PVMAA “Industry Standards and Good Practices” for vegetation management.
- Activity 10.4.4** Provide additional training to staff members to increase knowledge and prevent misapplication of herbicides. Maintain scrupulous application records.
- Activity 10.4.5** Provide information and advice to producers regarding prudent use of pesticides through newsletter articles and MD website.

### Strategy 10.5 Reduce Over-application / Leaching of Fertilizers.

- Activity 10.5.1** Provide operations guide to renters for appropriate soil sampling techniques with each rental.
- Activity 10.5.2** Advertise availability of soil sampling device through website and MD newsletters
- Activity 10.5.3** Provide financial support to SARDA and PCBFA and assist (as required) at extension events related to BMPs for nutrient planning.
- Activity 10.5.4** Advertise extension events on website, posters, and newsletters.

## Measurable Outcomes

2017	2018	2019
<ul style="list-style-type: none"> <li>- Increased producer use of pesticide container storage and crushing facility and reduction of long-term storage on farm properties.</li> <li>- Attendance at workshops, and numbers of producers implementing changes.</li> <li>- Additional sites for riparian improvement investigated (collaboration with PCBFA and SARDA).</li> </ul>	<ul style="list-style-type: none"> <li>- Increased producer use of pesticide container storage and crushing facility and reduction of long-term storage on farm properties.</li> <li>- Attendance at workshops, and numbers of producers implementing changes.</li> <li>- Additional sites for riparian/environmental improvement investigated (collaboration with PCBFA and SARDA).</li> </ul>	<ul style="list-style-type: none"> <li>- Increased producer use of pesticide container storage and crushing facility and reduction of long-term storage on farm properties.</li> <li>- Attendance at workshops, and numbers of producers implementing changes.</li> <li>- Additional sites for riparian/environmental improvement investigated (collaboration with PCBFA and SARDA).</li> </ul>



**GOAL 11:** Promote positive relationships between Agricultural Services, Agricultural producers and other rural residents

**Strategy 11.1 Increase awareness of new rural residents**

**Activity 11.1.1** Create information package for new rural residents and display on website and in Administration office.

**Activity 11.1.2** Conduct workshop for acreage and cottage owners, to inform and advise their responsibilities as rural residents, and relationships with agricultural producer neighbours.

- **Action: Green Acreages Workshop will be part of extension program**

**Measurable Outcomes**

2017	2018	2019
<ul style="list-style-type: none"> <li>- Reduced number of non-legitimate complaints regarding normal agricultural activity to Municipal By-Law Officer.</li> <li>- Conduct one workshop for acreage and cottage owners.</li> </ul>	<ul style="list-style-type: none"> <li>- Reduced number of non-legitimate complaints regarding normal agricultural activity to Municipal By-Law Officer.</li> <li>- Conduct one workshop for acreage and cottage owners.</li> </ul>	<ul style="list-style-type: none"> <li>- Reduced number of non-legitimate complaints regarding normal agricultural activity to Municipal By-Law Officer.</li> <li>- Conduct one workshop for acreage and cottage owners.</li> </ul>

**GOAL 12: Strengthen partnerships with organizations with similar mandates**

**Strategy 12.1 Support and partner with Producer groups**

- Activity 12.1.1** Provide financial support to producer groups (PCBFA, SARDA)
- **Action: Financial support budgeted in Agriculture Services operational budget**
- Activity 12.1.2** Provide manpower for selected projects.
- **Action: When manpower is available it can be utilized for selected projects**
- Activity 12.1.3** Advertise extension events on website, newsletters; and provide support and assistance (as requested) at tours, workshops, etc.
- **Action: Collaborate with producer groups via newsletters, website, and posters when manpower allows**

**Strategy 12.2 Support local Agricultural Societies**

- Activity 12.2.1** Provide financial or in-kind support for special projects.

**Strategy 12.3 Support local 4H clubs**

- Activity 12.3.1** Serve as information resource for agriculture related enquiries
- Activity 12.3.2** Provide financial support for special projects.

**Measurable Outcomes**

2017	2018	2019
- 2 % more collaborative projects with other organizations over 2017.	- 2 % more collaborative projects with other organizations over 2018.	- 2 % more collaborative projects with other organizations over 2019.



# REQUEST FOR DECISION

---

SUBJECT: **Wembley Co-op Seed Cleaning Association Request for Funding**  
SUBMISSION TO: AGRICULTURAL SERVICES BOARD      REVIEWED AND APPROVED FOR SUBMISSION  
MEETING DATE: September 20, 2017      CAO:      MANAGER: QFB  
DEPARTMENT: AGRICULTURE      GM:      PRESENTER: QFB  
STRATEGIC PLAN: Level of Service

---

RELEVANT LEGISLATION:

**Provincial** (cite) – N/A

**Council Bylaw/Policy** (cite) – N/A

---

RECOMMENDED ACTION:

**MOTION: That the Agriculture Service Board accept the Wembley Co-op Seed Cleaning Association Letter of Request for funding as information.**

---

BACKGROUND/PROPOSAL:

On Sept 11, 2017 a letter was received from the Wembley Co-op Seed Cleaning Association Ltd. Regarding a funding request in the amount of \$30,000.00 to help fund an expansion of capacity and a truck scale at the Wembley Seed Cleaning Plant.

The letter of request outlines a proposed budget for the expansion, who funding requests have been sent to, and a request for funding of \$30,000.00 which is about 10% of the forecasted project costs.

---

BENEFITS OF THE RECOMMENDED ACTION:

1. The benefit of ASB accepting this letter as information is that the ASB members will be informed of the request from the Wembley Co-op Seed Cleaning Association.

---

DISADVANTAGES OF THE RECOMMENDED ACTION:

1. There are no perceived disadvantages to the recommended motion.

---

ALTERNATIVES CONSIDERED:

**Alternative #1:** ASB has the alternative to not accept the recommended motion for information. This is not recommended by administration.

---

FINANCIAL IMPLICATION:

There are no financial implications to the recommended motion.

**Direct Costs:**

**Ongoing / Future Costs:**

---

**STAFFING IMPLICATION:**

There are no staffing implications to the recommended motion.

---

**PUBLIC ENGAGEMENT LEVEL:**

Greenview has adopted the IAP2 Framework for public consultation.

**INCREASING LEVEL OF PUBLIC IMPACT**

Inform

**PUBLIC PARTICIPATION GOAL**

Inform - To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.

**PROMISE TO THE PUBLIC**

Inform - We will keep you informed.

---

**FOLLOW UP ACTIONS:**

There are no follow up actions.

---

**ATTACHMENT(S):**

- Letter from Wembley Co-op Seed Cleaning Association Ltd.

# Wembley Co-op Seed Cleaning Assn Ltd

Box 177 Wembley, AB T0H 3S0  
(780)766-2630 wembleyseed@telus.net

Sept 11, 2017

Municipal District of Greenview  
4806-36 Ave  
Valleyview, AB  
T0H 3N0

The Wembley coop seed cleaning plant has been part of the local agricultural community since the early 1970's. Although we are located in the County of Grande Prairie we also clean seed that originates from neighboring Municipalities. We have customers that utilize our plant from both the Debolt and Grovedale areas within your MD. We also clean, grade and distribute 48% of the pedigreed seed in the Alberta Peace River region. Some of this grain is seeded within your Municipal District.

The board of directors and myself have determined a need to make an expansion to our operations and would like to invite you to participate as this would be beneficial to your ratepayers.

We have a  $\frac{3}{4}$  acre area north of the seed plant building that can be developed to accommodate for more bin storage and a 30 meter truck scale.

Our current proposed budget is as follows:

Bury 3 phase power lines	\$35,000
Strip and haul away top soil. Replace with 1560 yards gravel	\$72,500
90 foot truck scale with concrete base and display	\$101,000
35 meter 1200 mm culvert for approach to yard	\$9200
6 smooth wall bins (three 2300 bushel and three 4000 bushel)	\$85,500

Total estimated cost of project

\$303,200

As a seed cleaning association we would like to make a request to the MD of Greenview for funding of \$30,000.00 which is approximately 10 percent of estimated cost of this project. We have also made a request to the County of Grande Prairie for 50% funding as most of our members are county residents. We would cover the remaining costs as we are in a financial position to do so. Our projected start date is May 1, 2018.

Sincerely,

Wade Perrin

Manager

Wembley Co-op Seed Cleaning Assn Ltd



# REQUEST FOR DECISION

---

SUBJECT: **ASB Conference Resolutions**

SUBMISSION TO: AGRICULTURAL SERVICES BOARD	REVIEWED AND APPROVED FOR SUBMISSION
MEETING DATE: September 20, 2017	CAO: MANAGER: QFB
DEPARTMENT: AGRICULTURE	GM: PRESENTER: QFB
STRATEGIC PLAN: Level of Service	

---

RELEVANT LEGISLATION:

**Provincial** (cite) – N/A

**Council Bylaw/Policy** (cite) – N/A

---

RECOMMENDED ACTION:

**MOTION 1: That the Agriculture Service Board accept the ASB Conference Resolution Rules and Procedures as Information.**

**MOTION 2: That the ASB direct administration to draft any needed resolutions for the upcoming resolution deadline of Sept 26, 2017**

---

BACKGROUND/PROPOSAL:

Every year the provincial ASB Committee sends the ASB Resolution Rules and Procedures to all the ASB's in Alberta. This information contains the current rules and procedures for drafting resolutions that are intended to go forward to the ASB Regional Conferences, and then ultimately to the Provincial ASB Conference.

This information is for the benefit of the ASB members to provide direction to Agriculture Administration, when it comes time for the need to draft resolutions.

---

BENEFITS OF THE RECOMMENDED ACTION:

1. The benefit of ASB accepting the recommended motion is that the board members will be aware of the rules and procedures for drafting and presenting resolutions to the ASB regional and Provincial Conferences.
  2. The additional benefit of the ASB accepting the recommended motion will be that direction will be provided to Agriculture Administration for drafting any needed resolutions.
- 

DISADVANTAGES OF THE RECOMMENDED ACTION:

1. There are no perceived disadvantages to the recommended motion.
- 

ALTERNATIVES CONSIDERED:

**Alternative #1:** ASB has the alternative to not accept the recommended motion for information. This is not Administrations recommendation, as then ASB will not be informed as to the process for ASB Resolutions.

---

**FINANCIAL IMPLICATION:**

There are no financial implications to the recommended motion

**Direct Costs:**

**Ongoing / Future Costs:**

---

**STAFFING IMPLICATION:**

There are no staffing implications to the recommended motion.

---

**PUBLIC ENGAGEMENT LEVEL:**

Greenview has adopted the IAP2 Framework for public consultation.

---

**INCREASING LEVEL OF PUBLIC IMPACT**

Inform

**PUBLIC PARTICIPATION GOAL**

Inform - To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.

**PROMISE TO THE PUBLIC**

Inform - We will keep you informed.

---

**FOLLOW UP ACTIONS:**

If it is determined by the ASB to draft resolutions for the Regional ASB Conference, then they shall be completed before the Deadline of Sept 26, 2017.

---

**ATTACHMENT(S):**

- ASB Resolution Rules and Procedures





# REQUEST FOR DECISION

---

SUBJECT: **ASB Regional Conference**

SUBMISSION TO: AGRICULTURAL SERVICES BOARD      REVIEWED AND APPROVED FOR SUBMISSION

MEETING DATE: September 20, 2017      CAO:      MANAGER: QFB

DEPARTMENT: AGRICULTURE      GM:      PRESENTER: QFB

STRATEGIC PLAN: Level of Service

---

RELEVANT LEGISLATION:

**Provincial** (cite) – N/A

**Council Bylaw/Policy** (cite) – N/A

---

RECOMMENDED ACTION:

**MOTION 1: That the Agriculture Service Board accept the Regional ASB Conference Registration Package as information.**

**MOTION 2: That the ASB provide direction to Agriculture Administration as to which ASB members will be attending the Regional Conference.**

---

BACKGROUND/PROPOSAL:

A registration package was received from the MD of Fairview, the 2017 Peace Regional ASB Conference Host. The registration package contains the following: Agenda, registration form, and location of the conference.

---

BENEFITS OF THE RECOMMENDED ACTION:

1. The benefit of accepting the recommendation is to confirm receipt of the Regional ASB Conference registration package.
  2. The benefit of accepting the recommendation is to confirm which members of the ASB will attend the Regional ASB Conference.
- 

DISADVANTAGES OF THE RECOMMENDED ACTION:

1. There are no perceived disadvantages to the recommended motion.
- 

ALTERNATIVES CONSIDERED:

**Alternative #1:** ASB has the alternative to not accept the recommended motion for information, but this is not recommended by Administration.

---

FINANCIAL IMPLICATION:

The registration fees for the Regional ASB Conference are included in the 2018 Agriculture Operating Budget.

**Direct Costs:** the registration fees for the ASB members

---

**Ongoing / Future Costs:** N/A

---

**STAFFING IMPLICATION:**

There are no staffing implications to the recommended motion.

---

**PUBLIC ENGAGEMENT LEVEL:**

Greenview has adopted the IAP2 Framework for public consultation.

---

**INCREASING LEVEL OF PUBLIC IMPACT**

Inform

**PUBLIC PARTICIPATION GOAL**

Inform - To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.

**PROMISE TO THE PUBLIC**

Inform - We will keep you informed.

---

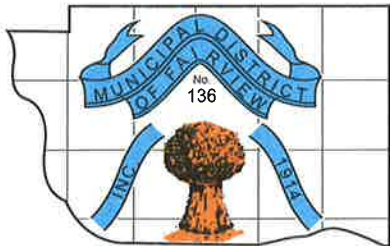
**FOLLOW UP ACTIONS:**

The member registrations will be sent into the host municipality.

---

**ATTACHMENT(S):**

- 2017 Peace Region ASB Conference Registration Package



Box 189,  
FAIRVIEW, ALBERTA  
T0H 1L0

Email: [mdinfo@mdfairview.ab.ca](mailto:mdinfo@mdfairview.ab.ca)

PHONE: 780-835-4903  
FAX: 780-835-3131

September 8, 2017

**Peace Region Councillors, A.S.B. Members, AAAF Members and AAF Key Contacts**

The M.D. of Fairview No. 136 is pleased to be hosting the 2017 Peace Region A.S.B. Regional Conference in Fairview, Alberta October 25<sup>th</sup>, 2017 at the Dunvegan Inn and Suites.

Please accept this letter as your invitation to attend, and please pass the invitation and information on to the Alberta Agriculture and Forestry Key Contact for your A.S.B.

Attached you will find:

- A registration form; deadline for Registrations is October 13<sup>th</sup>, 2017 (however for planning purposes earlier registrations would be greatly appreciated)
- DRAFT Agenda for the October 25<sup>th</sup> Conference
- The Regional Resolution Rules of Procedure – last updated January 25<sup>th</sup>, 2017
- Minutes from the November 9<sup>th</sup>, 2016 Regional conference hosted by the County of Northern Lights

According to the Rules of Procedure, Resolutions for the Regional Conference are to be forwarded to the Secretary of the Regional Resolutions Committee four weeks prior to the Conference. September 26<sup>th</sup>, 2017 will be considered as “Late Resolutions” and must be submitted to the Regional Conference with sufficient copies for all voting delegates and attendants,

The M.D. of Fairview No. 136 A.S.B. is looking forward to being your hosts in Fairview, Alberta October 25<sup>th</sup>, 2017. Feel free to contact me with any questions or concerns in this matter.

Sincerely,

Fred Sawchuk  
Secretary, Regional Resolutions Committee  
Agricultural Fieldman, M.D. of Fairview No. 136  
Box 189  
Fairview, AB T0H 1L0  
Phone Office: 780-835-4903  
Cell: 780-834-7017

**2017 Peace Region Agricultural Service Board Regional Conference  
October 25, 2017  
Dunvegan Inn and Suites, Fairview, AB**

<b>Proposed Time</b>	<b>Event</b>	<b>Potential Speakers</b>
<b>8:45 - 9:20am</b>	Registration	
<b>9:20 - 9:30am</b>	Opening remarks	M.D. of Fairview No. 136, A.S.B. Rep.
<b>9:30 - 10:00am</b>	A.S.B. Program and Acts update	Doug Macaulay
<b>10:00 - 10:35am</b>	Diseases of Aspen	Toso Botic
<b>10:30 - 10:45am</b>	Coffee Break	Compliments of our sponsors
<b>10:45 - 11:30am</b>	Clubroot Information	David Feindel
<b>11:30 - 12:00pm</b>	Hemp Bale Wrap	Carly Shaw
<b>12:00 - 12:45pm</b>	Lunch	
<b>1:00 - 1:45pm</b>	Carbon Tax/Growing Forward 3 Update	Mike Hittinger
<b>1:45 - 2:30pm</b>	Mighty Peace Watershed Alliance	Adam Norris
<b>2:30 - 2:50pm</b>	Coffee Break	Compliments of our sponsors
<b>2:50 - 3:15pm</b>	Peace Country Beef and Forage Updates	Akim Omokanye/Liisa Vihvelin
<b>3:15 - 4:30pm</b>	Resolution session 1. Election of ASB Regional Rep 2. Updates from ASB Provincial Committee 3. Review Rules of Procedure 4. Call for amendments to Rules 5. Motion to accept Emergent resolutions (if any) 6. Motion to accept order of resolutions Resolutions session	Doug Macaulay, AF Corey Beck, 2017 Regional ASB Representative
<b>4:30 pm</b>	Invitation to 2018 Regional ASB Conference	A.S.B. Chairman, Clear Hills County
<b>4:35 pm</b>	7. Adjournment	M.D. of Fairview No. 136 A.S.B. Chairman

**THANK YOU TO OUR SPONSORS!**  
**Campbell Chrysler, Ditch Doctors, Fentie's Fuel UFA, O.K. Tire,**  
**Prairie Coast, Tee Jays Mechanical, &**  
**Tegart Apiaries Honey**

**Minutes of the Peace Region A.S.B. Conference  
Resolutions Session  
held at the  
Dixonville Community Hall, Dixonville, AB  
November 9<sup>th</sup>, 2016**

**Present:**

ALBERTA AGRICULTURE AND RURAL DEVELOPMENT	MACAULAY, Doug	ASB Program Coordinator
	PETERSON, Raelyn BRENNAN, David FEINDEL, David STENBRAATAN, Elaine	Grass Specialist Pest Surveillance Pest Surveillance New Venture
BIRCH HILLS COUNTY	CARBONE, Terry LANGLOIS, Kathrin DORAN, Marvin MACAULEY, Jack OUELLET, Amanda GIES, Amelia	ASB Chair ASB Member ASB Member ASB Member Ag Fieldman Asst. Ag Fieldman
CLEAR HILLS COUNTY	HARCOURT, Brian ROSS, MacKay CANDY, Garry RUECKER, Baldur JOHNSON, Charlie WATCHORN, Julie COON, Greg ZYLSTRA, Aaron	Chair Member Member Deputy Chair Councillor Member Ag Fieldman Ag Fieldman
COUNTY OF GRANDE PRAIRIE	BECK, Corey SUTHERLAND, Ross MARSHALL, Bob HENRY, Jill ROSVOLD, Karen BEESTON, Daryl	Councillor Deputy Reeve Councillor REO Councillor Councillor
COUNTY OF NORTHERN LIGHT	GAUGLER, Blake	Ag Fieldman

	YASINKSI, Brenda LOOGMAN, Arie ANDERSON, Cheryl REESE, Brent HALABISKY, Linda	Councillor Councillor Reeve Councillor Councillor
MACKENZIE COUNTY	KNELSEN, Josh DYCK, Ernie BATT, Terry SMITH, Grant DOERKSEN, David JORGENSEN, Eric NEUFELD, Bill	ASB Chair Member Member Ag Fieldman Member Council Rep Reeve
MD OF BIG LAKES	MENEICE, Doug NICHOLS, Duane ALLAN, Suzanne	ASB Chair ASB Vice Chair Director Community Services
MD OF FAIRVIEW #136	MCLACHLAN, Allan MOSKALYK, Kent SAWCHUK, Fred	Member Member Ag Fieldman
MD OF GREENVIEW	WOHLGEMUTH, Warren BOCHAR, Quentin ALLEN, Sean	Member Ag Fieldman Ag Supervisor
MD OF PEACE #135	REYDA, Janice KEILLOR, Rick IQBAL, Nasar LEGER, George EASTMAN, Sandra	Member Member Ag Fieldman Member Member
MD OF SMOKY RIVER #130	JOHNSON, Raoul DUMONT, Donald TRUDEAU, Andre BOULET, Normand	Member V. Chairman Member Ag Fieldman
MD OF SPIRIT RIVER #133	MERCIER, Yves WALLIN, Larry GARROW, Elaine	Member Member Member

NORTHERN SUNRISE COUNTY	DALLYN, Doug	Councillor
	DUTRISAC, Sebastien	Ag Fieldman
	KUBISH, Michael	Member
	THOMAS, Peter	Member
	DE KLERK, Angela	Admin Asst. Ag
	KOLEBABA, Carolyn	Deputy Reeve
SADDLE HILLS COUNTY	WHITE, Jennifer	Coordinator of Rural Development
	ARMAGOST, Elaine	Mgr. Rural Svs.
	Steffen, Shayne	Asst. CAO
	TITFORD, Ken	Member
	MOEN, John	Member

Corey Beck, the Chairman of the Regional Resolutions Committee and the Peace Region A.S.B Committee Representative from County of Grande Prairie opened the session at 2:59 pm and informed the delegates he was elected last year, for a 2 year term; commenting the wording in the rules and procedures needed to be changed from annual to biennial, at the provincial committee.

Linda Halabisky from County of Northern Lights moved Blake Gaugler as secretary for the resolution committee, Bob Marshall from County of Grande Prairie seconded.

**CARRIED**

Corey updated the delegates on the past year's activities of the Provincial A.S.B. Committee, highlights were:

- Education was needed to increase awareness of the acts, commenting it was a long, costly process
- That the Environment and Parks Minister is very hands on with working on the committee
- Responses to the report card grading of past resolutions is not satisfactory
- Hoping with the new NDP government would be more proactive with AG plastic products
  - Not enough money in recycling to warrant its cause
- Most resolutions submitted tend to ask for an increase in spending
  - Looking for no cost alternatives
- Review of Bill 6 working groups
  - Each working group focuses on a specific part
  - Group 3 (Corey's group):
    - Group 3 focuses OH&S regulation

- Identifying how and what in the OH&S is applicable to farms
- The wording in the OH&S is fairly vague which leads to some grey area when interpreting how it is applicable and the implications
- Groups will send recommendation forward to a stakeholder group
- Groups consist of farmers and local representatives
- Working on classing farm employees, family, part time and any exemptions
- Stressed the importance of hazard assessment for future farming operations
- Not much collaboration between groups so far

The minutes of the November 5<sup>th</sup> Peace Region A.S.B. Conference and Resolutions session were reviewed.

Carolyn Kolebaba from Northern Sunrise County moved to accept minutes as read and Mackay Ross from Clear Hills County seconded.

**CARRIED**

Corey Beck reviewed the Regional A.S.B. Rules of Procedure noting that:

Floor motion to have late resolutions qualify as either 125 copies or an electronic copy visible by all attendees for review, see section 3 in proposed changes to rules of procedures, moved by Donald Dumont from M.D. of Smoky River. Carolyn Kolebaba proposed friendly amendment to add as a separate statement in the rules and procedures as 3c. The question was called, no one was opposed.

**CARRIED**

Floor motion to have only 2 voting delegates at the Peace Region A.S.B Regional Resolution Conference, see 5.a.2 in the proposed changes to rules of procedures, this motion was moved by Mackay Ross from Clear Hills County. The question was called, there was only one was opposed.

**CARRIED**

Doug Dallyn from Northern Sunrise County moved to adopt the Rules of Procedure as presented, Seconded by Mackay Ross from Clear Hills County.

**CARRIED**

Daryl Beeston from County of Grande Prairie moved to accept the order of the Resolutions as presented, seconded by Doug Dallyn from Northern Sunrise County.

**CARRIED**

**Resolution No. 1 – ENSURING COMPETITION FOR SEED AND CROP PROTECTION PRODUCTS by M.D. of Smoky River**

**THEREFORE BE IT RESOLVED**

**THAT ALBERTA’S AGRICULTURAL SERVICE BOARDS REQUEST THAT** Alberta Agriculture and Forestry, Agriculture and Agri-Food Canada and the Administrative Tribunals Support Service of Canada work



cooperatively to ensure a merger between Bayer and Monsanto is either prevented, or allowed only in a manner which assures competition of agricultural seeds and crop protection products remains.

Moved by Donald Dumont from M.D. of Smoky River, seconded by Andre Trudeau from M.D. of Smoky River.

Seconder Andre Trudeau waived, no one spoke in opposition so the question was called.

**CARRIED**

**Resolution No. 2 – AGRI-FOOD EDUCATION IN THE CLASSROOM by Northern Sunrise County**

**THEREFORE BE IT RESOLVED**

**THAT ALBERTA’S AGRICULTURAL SERVICE BOARDS REQUEST** that Alberta Education and Alberta Agriculture and Forestry increase the amount of time spent in the school curriculum to discuss food and agriculture.

**FURTHER BE IT RESOLVED**

**THAT ALBERTA’S AGRICULTURAL SERVICE BOARDS REQUEST** that Alberta Education and Alberta Agriculture and Forestry create a panel of Agricultural and Nutrition experts to create the curriculum that will be taught in Alberta classrooms.

Moved by Doug Dallyn from Northern Sunrise County and seconded by Carolyn Kolebaba from Northern Sunrise County.

Brent Reese from County of Northern Lights asked for clarification on nutrition curriculum. Doug Dallyn confirmed that the nutrition aspect is asked to be included in the curriculum.

No one spoke in opposition so the question was called.

**CARRIED**

Linda Halabisky moved adjournment of the Resolutions session at 3:41 pm.

**CARRIED**

## **Regional Agricultural Service Board Conference Resolutions Rules of Procedure**

### **1. Regional Resolution Committee**

- a. Shall consist of:
  - i. A representative or alternate elected at the Regional Conference to sit on the Provincial ASB Committee and to act as the Chairman of the Regional Resolutions Committee.
  - ii. The Agricultural Fieldman or their designate who must be an Association of Alberta Agricultural Fieldmen (AAAF) member from the hosting Agricultural Service Board as Secretary.
  - iii. The Regional Director of AAAF.
  - iv. An Agricultural Service Board member from the hosting Board selected by that Board.
  - v. The ASB Grant Program Manager representing Agriculture and Forestry (AF) or their designate.
- b. The representative and alternate elected at the Regional Conference to sit on the Provincial ASB Committee shall be an elected or appointed member of an ASB in that region.
- c. Election of the representative and alternate shall take place at the beginning of the Resolution session in alternate years at each ASB Regional Conference, term of office to be two years. The representative (or alternate) shall assume the chair immediately following the conclusion of the resolutions session.

### **2. Responsibilities of Regional Resolution Committee Members**

- a. The Chairman shall:
  - i. Chair Regional Resolutions Committee meetings
  - ii. Chair the presentation of Resolutions at the Regional Conference
  - iii. Attend all Provincial ASB Committee meetings
  - iv. Assist in presenting Resolutions at the Provincial Conference
- b. The Secretary shall:
  - i. Advise Agricultural Service Boards that Resolutions must be forwarded four weeks prior to the Regional Conference
  - ii. In conjunction with the Regional Resolutions Committee, review, seek clarification if necessary, compile, and distribute resolutions to Agricultural Service Boards in the Region, at least one week prior to the Regional Conference
  - iii. Record proceedings of Regional Resolutions Committee meetings, and the presentation and voting on resolutions at the Regional Conference
  - iv. Forward all approved resolutions to the Provincial ASB Committee Secretary.
- c. All other members shall:
  - i. Assist with presentation of resolutions at the Regional Conference
- d. All costs incurred by the members of the committee for attending meetings will be reimbursed by each individual member's employer.

### **3. Resolutions**

- a. Resolutions shall be submitted in an approved format and shall follow the procedures for selecting, preparing and drafting resolutions as set out in Appendix "A" attached to this document.
- b. Resolutions, regional or provincial in scope, and having been passed by a majority at a local Agricultural Service Board meeting shall be forwarded to the Secretary of the Regional Resolutions Committee four weeks prior to the Regional Conference.
- c. Late resolutions must be either:
  - i. Submitted to the Regional Conference with sufficient copies for all voting delegates and attendants (approximately 125); or
  - ii. Be displayed in a manner that all persons are able to review the resolutions, for example, projected on a screen for all to read.
- d. Late resolutions must be accepted by a simple majority of the assembly.

### **4. Procedures**

- a. Resolutions submitted to the Regional Conference shall be handled in the numerical order assigned by the Chairman unless 3/5 of the voting delegates on the floor agree to accept a resolution out of numerical order.
- b. Each resolution must have a Mover and a Secunder.
- c. Only the "Therefore Be It Resolved" section will be read.
- d. The Chairman shall call on the Mover and Secunder to speak to the resolution and then immediately call for anyone wishing to speak in opposition.
  - i. If there is no one to speak in opposition, the question shall be called
  - ii. If there are speakers in opposition, the Chairman shall at his discretion call for anyone other than the Mover or Secunder to speak to the resolution before the debate is closed
- e. Anyone wishing to amend a resolution must then speak to the resolutions as written, or anyone wishing clarification must speak up. All amendments must have a Mover and Secunder.
- f. Only one amendment will be accepted at a time and only one amendment to the amendment will be accepted on any resolution.
- g. The Chairman has the discretion to request a written amendment.
- h. The Mover and Secunder are allowed five minutes in total to speak to the resolution or amendment. The Secunder may waive his right to speak and the Mover would be allowed the full five minutes.
- i. The Mover and Secunder have the right to close the debate and a maximum of two minutes each will be allowed for this.
- j. All other speakers, for or against the resolution, are allowed a maximum of two minutes.

### **5. Voting and Speaking**

- a. Voting members of Agricultural Service Boards/Agricultural Committees shall be recognized voters on any resolution.
  - i. In the South Region, each ASB shall select two voting delegates to the Regional Conference who shall display the voting credentials and be recognized voters on any resolution (October 1997).
  - ii. In the Peace Region, each ASB shall select two voting delegates to the Regional Conference who shall display voting credentials and be recognized

voters on any resolution (ratified by ASB Provincial Committee November 2016).

- b. An Agricultural Service Board member may have any person speak to a resolution by their request.
- c. All resolutions are passed or defeated by simple majority.

#### **6. Procedures for Approved Resolutions**

- a. Secretaries of the Regional Resolutions Committee shall:
  - i. Submit Regional Resolutions to the appropriate agencies as soon as possible following the Regional Conference.
  - ii. Regional Resolutions shall also be submitted to the Provincial ASB Committee for information.
- b. Submit Provincial Resolutions to the Provincial ASB Committee Secretary within five working days of the Regional Conference.

#### **7. Amendments to the Regional Rules of Procedure**

- a. An amendment to Regional Rules of Procedure may be initiated by simple motion from:
  - i. The Provincial ASB Committee
  - ii. Any Voting Delegate at the Provincial ASB Conference
  - iii. The Regional Resolutions Committee if the proposed amendment were to affect only that Regional, subject to ratification by the Provincial ASB Committee
  - iv. Any Voting Delegate at a Regional Conference if the proposed amendment were to affect only that region, subject to ratification by the Provincial ASB Committee.
- b. Amendments must be accepted by a simple majority of all voting delegates at the Provincial ASB Conference.
- c. Amendments that are carried will take effect at the next Regional Conference.

## **REGIONAL PROCEDURES FOR SELECTING, PREPARING AND WRITING RESOLUTIONS**

1. Well in advance of the regional conference, discuss as a board the concerns of your farmers. Determine the factors affecting their economic well-being as well as those limiting their capability to maintain or improve agricultural production.
2. Make a list of concerns and rate each as to its level of importance.
3. Divide your concerns into the following categories:
  - a. Local Concerns
    - i. Concerns that are local in nature.
    - ii. Your board has the authority and capability to deal with these concerns. If local or provincial finances are available you may wish to initiate programs or projects or policy to satisfy these concerns.
  - b. Regional Concerns
    - i. Concerns that are regional in nature.
    - ii. You have the authority and capability to deal with these concerns but wish to request the support (cooperative action) of bordering Agricultural Service Boards, government departments or other agencies. Note: These concerns may be taken to the regional conference with a request for action at the regional level. e.g. You may be concerned about scentless chamomile, its movement and spread in hay, crop seed in the region, etc. You would like the support of all boards in the region as well as government agencies in slowing down spread and in working towards common objectives. If such a resolution was passed at the regional conference, your regional resolutions would forward the request for support to all boards in the region plus the appropriate government agency.
  - c. Provincial Concerns
    - i. Concerns that are provincial in nature.
    - ii. In order to deal with these concerns at the local level, you require a change in provincial policy. Note: When writing your resolutions make certain you do not ask the province to do something that you already have authority at the local level to do. Because most concerns will ultimately need to be dealt with locally, ask for a change in provincial policy that would enable you as a board to take the necessary action. Resolutions that are provincial in scope, if passed by the regional conference, could be forwarded to the provincial conference for action.
4. Conduct some research on your regional and provincial concerns to:
  - a. Ensure that these concerns were not submitted as resolutions previously and that action has already been taken regionally or provincially.
  - b. Check with those agencies that you expect to respond to your concern (resolution). Determine if they are aware of the need and whether any action is being considered.
  - c. Obtain sufficient background information to be able to write and defend your resolution.
5. Write your resolutions with sufficient "whereas" statements to ensure that those reading the resolution will be able to understand your request.
  - a. All "whereas" statements should relate specifically to your request.

## APPENDIX "A" – AGRICULTURAL SERVICE BOARDS

- b. Resolutions need to be presented with only one "Therefore Be It Resolved" statement.
    - i. If other closely related requests are required in the resolution, it may be appropriate to add no more than two 'Further Therefore Be It Resolved' statements.
    - ii. If you wish to make additional requests for action, it is appropriate to write another resolution.
6. Each resolution submitted for consideration must be accompanied by background information consisting of the history of the issue and potential impacts for the sponsoring municipality and the province-wide impacts for municipalities.
7. The resolution shall be presented in the approved format as indicated on the following page.

## **Regional Resolutions Format**

### **TITLE**

WHEREAS

WHEREAS

WHEREAS

**THEREFORE BE IT RESOLVED**

**THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST**

SPONSORED BY:

MOVED BY:

SECONDED BY:

CARRIED

DEFEATED

STATUS

DEPARTMENT

### **BACKGROUND INFORMATION**

Background information should include the history of the issue, potential impacts for the sponsoring municipality and the province-wide impacts for municipalities.

# 2017 REGIONAL AGRICULTURAL SERVICE BOARD CONFERENCE

Hosted by the Municipal District of Fairview # 136

Dunvegan Inn and Suites, Fairview, AB

October 25, 2017

Deadline for Registration is October 13, 2017

**Please note, only 2 appointed A.S.B. or A.S.B. Committee members can vote on resolutions at the Regional A.S.B. Conference.**

Attending Municipality: \_\_\_\_\_

<i>Surname</i>	<i>Given</i>	<i>Position</i>	<i>Voting Member Yes/No</i>	<i>Conference Registration Fee \$55.00 + GST</i>
<b>GRAND TOTAL:</b>				

Please Make Cheques Payable To:           Municipal District of Fairview # 136

***All payments must be received by the registration deadline of October 13, 2017***

Please mail/fax or email your registration form to:

M.D. of Fairview # 136

Box 189, Fairview Alberta, T0H 1L0

Office-780-835-4903   Fax-780-835-3131

Attention: Shawna Schwerdt   shawna@mdfairview.ab.ca





# REQUEST FOR DECISION

---

**SUBJECT:** Wolf Harvest Incentive Program policy revision  
**SUBMISSION TO:** AGRICULTURAL SERVICES BOARD REVIEWED AND APPROVED FOR SUBMISSION  
**MEETING DATE:** September 20, 2017 CAO: MANAGER: QFB  
**DEPARTMENT:** AGRICULTURE GM: PRESENTER: QFB  
**STRATEGIC PLAN:** Level of Service

---

**RELEVANT LEGISLATION:**

**Provincial** (cite) – N/A

**Council Bylaw/Policy** (cite) – Greenview Policy AG 10

---

**RECOMMENDED ACTION:**

**MOTION: That Policy Review Committee approve the updated and revised version of Wolf Harvest Incentive Program Policy 6306**

---

**BACKGROUND/PROPOSAL:**

The Greenview Agriculture Service Board (ASB) has reviewed and updated the current policy AG 10 Wolf Harvest Incentive Program. Greenview supports wolf population control efforts in order to reduce livestock predation. Greenview will implement the policy and procedures to provide for a Wolf Harvest Incentive Program, for the purpose of promoting the lawful harvesting of wolves within the designated wolf harvest area of Greenview. This Policy was reviewed by the Agriculture Service Board (ASB), there were no major changes, just cleaning up the verbiage and bringing the policy to today's standard.

---

**BENEFITS OF THE RECOMMENDED ACTION:**

1. The revision to the policy allows Greenview to clearly determine who is eligible for harvesting an adult wolf, and to receive financial compensation for the wolf.
- 

**DISADVANTAGES OF THE RECOMMENDED ACTION:**

1. There are no perceived disadvantages to approving the revised policy.
- 

**ALTERNATIVES CONSIDERED:**

**Alternative #1:** ASB could maintain the current policy including current minor errors and omissions. Administration does not recommend this option as it is believed that a properly worded policy without minor errors and omissions and clear eligibility requirements would better serve Greenview.

---

**FINANCIAL IMPLICATION:**

**Direct Costs:** There are no additional direct costs associated to the recommendation.

**Ongoing / Future Costs:** There are no ongoing/future costs associated to the recommendation.

---

---

**STAFFING IMPLICATION:**

There are no staffing implications to the recommended motion.

---

**PUBLIC ENGAGEMENT LEVEL:**

Greenview has adopted the IAP2 Framework for public consultation.

**INCREASING LEVEL OF PUBLIC IMPACT**

Inform

**PUBLIC PARTICIPATION GOAL**

Inform - To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.

**PROMISE TO THE PUBLIC**

Inform - We will keep you informed.

---

**FOLLOW UP ACTIONS:**

Administration will inform the public.

---

**ATTACHMENT(S):**

- Current policy AG 10
- Revised Policy 6306
- Revised Contract of Participation (for reference)

**Title: WOLF HARVEST INCENTIVE PROGRAM**

**Policy No:**

**Effective Date:**

**Motion Number:**

**Supersedes Policy No: AG 10**



**MUNICIPAL DISTRICT OF GREENVIEW NO. 16**

*“A Great Place to Live, Work and Play”*

**Purpose:** Greenview supports wolf population control efforts in order to reduce livestock predation. Greenview will implement the policy and procedures to provide for a Wolf Harvest Incentive Program, for the purpose of promoting the lawful harvesting of wolves within the designated wolf harvest area of Greenview.

**DEFINITIONS**

**Eligible Participant** – Registered landowner of property and livestock within the boundaries of Greenview, or their designate (stated through written permission), verified by VSI membership or Administration.

**Financial Compensation** – Monies received for every lawfully harvested adult wolf by eligible participants.

**POLICY**

1. The Wolf Harvest Incentive Program will be in effect only on lands within 8 kilometers of private property, active grazing leases, and Provincial Grazing Reserves (agricultural area) within the boundaries of Greenview.
  - a. Eligible participants will be limited to registered landowners with livestock within Greenview or their Designate.
  - b. Wolves harvested outside of Greenview will not qualify for compensation.
  - c. Individuals wishing to participate in the program will be required to register with the Manager of Agricultural Services or his/her designate, in advance of participation in the program
2. Council shall, during budget deliberations, establish a budget for the Wolf Harvest Incentive Program.
3. By resolution of Council, the Wolf Harvest Incentive Program shall be activated or terminated.

**PROCEDURE**

1. Individuals participating in the wolf Harvest Incentive Program shall follow all Federal and Provincial Legislation and regulations including, but not limited to the Wildlife Act and Wildlife regulations, the Firearms Act, the Petty Trespass Act, and Alberta Hunting and Trapping Regulations, and any amendments or successor legislations thereto.
2. Greenview's Wolf Harvest Incentive Program will be reviewed annually.
3. The manager of Agriculture Services, or their designate, shall arrange appointments with eligible participants for the examination and marking of adult wolves to qualify for financial compensation through the Wolf Harvest Incentive Program.
4. Greenview shall pay financial compensation as per the Schedule of Fees, for each eligible adult wolf carcass presented to the designated receiving location.
5. Eligible participants requesting financial compensation shall enter into a Contract of Participation Agreement, at the time of marking the carcass with the Manager of Agriculture Services or their designate.
6. Entire wolf carcasses (or head only, if agreed upon with the Manger, Agriculture Services or their designate) shall be delivered to a location designated by Greenview Agriculture Services, for examination and marking, and authorization of payment of compensation;
  - a. Examination of the carcass will be performed to verify the animal has been destroyed by means other than vertebrate toxicant.
  - b. The carcass will be marked by a representative of Greenview; a carcass that has been previously marked will be rejected.
  - c. If eligible, the claimant will be provided with a financial compensation authorization (mailed via Canada Post to participant).
7. To request authorization for financial compensation, the eligible participant will provide proof of permission from the owner or authorized occupant of the land upon which the harvest was conducted, and declare the following:
  - a. The legal land location where the wolf was harvested.
  - b. The date of harvest.
  - c. The harvest was conducted in a lawful manner, in accordance with current legislation.
  - d. The participant is the legal landowner or the authorized occupant of the land; and/or
  - e. The participant had permission to harvest on said land.
8. In accordance with Provincial Legislation, the eligible participant shall be responsible for disposal of all parts of the carcass.
9. Participants shall be removed from the list of eligible participants and shall forfeit all benefit from said program, it if is determined that have not adhered to the Policy as set by Council or the Contract of Participation.
10. Disputes over eligible claims for compensation will be settled at the discretion of the Manager of Agricultural Services, whose decision will be final and binding.

**REFERENCE**

1. Contract of Participation.



# MUNICIPAL DISTRICT OF GREENVIEW No. 16

## Contract of Participation – Wolf Harvest Incentive Program

**Applicant Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Mailing Address:** \_\_\_\_\_ **Phone Number:** \_\_\_\_\_

**LSD of Harvest:** \_\_\_\_\_

1. Is the applicant a ratepayer of Greenview? Yes  No
2. Is the applicant a livestock owner? Yes  No
3. Does the participant have a VSI number? VSI \_\_\_\_\_ Yes  No
4. Is the applicant a trapper? Yes  No

If yes, please attach documentation.

\_\_\_\_\_ Trapper License (Fur Management License) Number: \_\_\_\_\_

Fur Management Area Number: \_\_\_\_\_

Name of Registered Landowner: \_\_\_\_\_

5. Has the hunter been given permission to harvest from the landowner? Yes  No

If yes, please attach documentation.

\_\_\_\_\_ Permission letter from landowner/lease holder Yes  No

Landowner Name: \_\_\_\_\_

\_\_\_\_\_ Harvested During Big Game Season: (Oct – May) Yes  No

In an effort to support population control efforts and to further public interest regarding predatory wildlife, Greenview has approved a Wolf Harvest Incentive Program for the purpose of promoting wolf harvesting within Greenview’s designated Wolf Harvest Area. Through this program, eligible participants will receive financial compensation with the presentation, at a location designated by Greenview Agriculture Services of an adult wolf carcass harvested lawfully within Greenview and in accordance with this Contract of Participation.

The terms and conditions of participation in the Program are as follows:

1. **STATUTORY ADHERENCE:** While participating in the Program, the Participant will, at all times, abide by all statutes, regulations, and bylaws enacted by the Federal, Provincial, and Municipal governments, and the Participant agrees there has been NO violation of any statutory or regulatory provision in any way. The relevant statutes include but are not limited to: the *Firearms Act*, the *Petty Trespass Act*, the *Wildlife Act*, and the *Wildlife Regulations* and any current *Hunting or Trapping Regulations*. A Participant who fails to strictly adhere to all relevant laws will forfeit any right to compensation under the Program.
2. **INDEMNIFICATION AND SAVE HARMLESS:** The Participant will indemnify and save harmless Greenview, its officers, representatives, agents and employees, from and against any and all liability for any and all claims, costs, damages and expenses or liability arising out of or on account of injury or death to persons or damage or destruction to property resulting from or arising out of or in any way connected to the Program or participation in the Program.

3. **PRECONDITIONS OF COMPENSATION:** Intended Participants will notify the Manager of Agricultural Services or their designate of their intention to participate in the Program. In order to obtain the compensation, the entire carcass of a lawfully harvested adult wolf will be presented to an appropriate representative of Greenview Agriculture Services at a delivery point, as designated by the representative responsible for administration of the Program. Any carcass received by a representative of Greenview will be marked, and any carcass that has been previously marked will be rejected. To qualify for the compensation, a wolf must have been lawfully harvested within the boundaries of Greenview’s designated Wolf Harvest Area, by a ratepayer of Greenview, their designate, or by a person with written permission from the landowner or legal occupier of Crown Land. Any individual who has not previously agreed to the terms and conditions of this Contract will be considered ineligible to receive the Compensation. The Participant will provide the date of harvest and the location where each wolf was harvested, and will produce appropriate documentation as follows:

- a) **If the wolf was harvested on private property,** the Participant will, at the time of presentation of the carcass to a representative of Greenview Agriculture Services, produce **either:**
  - i. A letter of permission, signed by the registered landowner or authorized occupant (grazing lease) of the property, authorizing the Participant to harvest wolves on the property, or
  - ii. Proof that the Participant is the registered landowner or authorized occupant (grazing lease) of the property.

4. **COMPENSATION:** If, and only if, the representative of Greenview Agriculture Services is satisfied that the Participant has complied with the terms and conditions of this Contract, the compensation will be paid by Greenview to the Participant. Compensation will be paid by Greenview to a successful Participant at the rate established in the Schedule of Fees.

I, \_\_\_\_\_, have read and understand the terms and conditions set within this agreement.

Applicant Signature: \_\_\_\_\_

Greenview Representative

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



# REQUEST FOR DECISION

---

SUBJECT: **Manager's Report and ASB Member's Report**  
SUBMISSION TO: AGRICULTURAL SERVICES BOARD      REVIEWED AND APPROVED FOR SUBMISSION  
MEETING DATE: September 20, 2017      CAO:      MANAGER: QFB  
DEPARTMENT: AGRICULTURE      GM:      PRESENTER: QFB  
STRATEGIC PLAN: Level of Service

---

RELEVANT LEGISLATION:

**Provincial** (cite) – N/A

**Council Bylaw/Policy** (cite) –N/A

---

RECOMMENDED ACTION:

**MOTION: That the Agricultural Service Board accept the Manager's report and ASB members reports as information.**

---

BACKGROUND/PROPOSAL:

The Manager's report contains information pertaining to the departments operations for the time period from the previous meeting to time of writing of the agenda.

The ASB Member's report contains information pertaining to the members activities for the time period from the previous meeting to the current meeting.

---

BENEFITS OF THE RECOMMENDED ACTION:

1. Having the ASB vote in favour of the Ag Department Staff report, will allow the ASB to be kept updated on the Ag Department activities.
- 

DISADVANTAGES OF THE RECOMMENDED ACTION:

1. There are no perceived disadvantages to the recommended motion.
- 

ALTERNATIVES CONSIDERED:

**Alternative #1:** The ASB may choose to not accept the recommended motion for information.

---

FINANCIAL IMPLICATION:

There are no financial implications to the recommended motion.

---

STAFFING IMPLICATION:

There are no staffing implications to the recommended motion.

---



**PUBLIC ENGAGEMENT LEVEL:**

Greenview has adopted the IAP2 Framework for public consultation.

*Using that framework outline the proposed level of public engagement associated with the recommended action.*

**INCREASING LEVEL OF PUBLIC IMPACT**

Inform

**PUBLIC PARTICIPATION GOAL**

Inform - To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.

**PROMISE TO THE PUBLIC**

Inform - We will keep you informed.

---

**FOLLOW UP ACTIONS:**

There are no follow up actions to the recommended motion.

---

**ATTACHMENT(S):**

- Agriculture Department Report.

**M.D. of Greenview Agricultural Services  
Department Activity Report**

**For the Period: August 24, 2017 – September 20, 2017**

**ENQUIRIES – Manager, Asst. Manager, Administrative Assistant and Ag. Supervisor Trainee**

Weeds	38
Pests	8
Trees	0
Workshops	4
Rentals	76
Equipment Purchasing	4
Extension	2
employment	0
Miscellaneous	49
<b>TOTAL ENQUIRIES (year)</b>	<b>181</b>

**MEETINGS / CONFERENCES / TRAINING**

**Manager**

- August 30, 2017 Community Services Team Building - Greenview
- September 13, 2017 DowAgro Sciences Business Meeting - Calgary
- September 14, 2017 Watershed Stewardship Day - Fairview

**Asst. Manager Agriculture Services**

- Conducted 4 Seasonal Exit Interviews - Valleyview
- August 30, 2017 Community Services Team Building - Greenview
- August 31, 2017 Clubroot Information Session - Guy

**Agriculture Supervisor Trainee Agriculture Services**

- August 30, 2017 Community Services Team Building - Greenview
- August 31, 2017 Clubroot Information Session - Guy
- September 14, 2017 Watershed Stewardship Day - Fairview

**STAFFING**

Coming to the end of the season, summer students are starting to leave for the season. As of September 19<sup>th</sup>, four Weed Inspectors and two Veg. Mgmt. Tech. are finished for the season.

**RESOURCES, EQUIPMENT, AND FACILITIES**

A new quad sprayer has been purchased for departmental use

**BUDGET**

Has started for the next cycle, Agriculture Services has to submit the Capital budget on Sept 5, and submit the operating budget on Sept 22, 2017.

**EXTENSION EVENTS**

SARDA and PCBFA have been conducting a number of Extension events in partnership with Ag Services and Ag Services has been posting the information to our web page, Facebook, and Twitter accounts.

Please see following list of events (year):

- July 13, 2017 – Summer Field School, Donnelly Sportex
- July 13, 2017 – Field Day at Research Farm, Fairview
- August 23, 2017 – Pasture Rejuvenation Field Days, Rycroft
- August 24, 2017 – Pasture Rejuvenation Field Days, Grovedale
- September 16, 2017 – Stockmanship School with Dylan Biggs, Gordondale
- December 7, 2017 – Western Canada Conference on Soil & Health, Edmonton

**PROGRAMS**➤ **VETERINARY SERVICES INCORPORATED**

Zero new card have been issued.

➤ **PEST AND NUISANCE CONTROL****WOLF HARVEST INCENTIVE**

To date, 92 wolves have been presented for payment. Total 2017 incentive expenditures: \$27,600.00.

<b>Year</b>	<b>Number of Wolves</b>	<b>Amount</b>
2012	70	21,000.00
2013	53	15,900.00
2014	48	14,400.00
2015	98	29,400.00
2016	154	46,200.00
2017	92	27,600.00
	<b>515</b>	<b>154,500.00</b>

WOLF PREDATION MANAGEMENT PROGRAM

There has been 0 new requests for assistance with verified wolf predation. There has been zero wolves removed.

COYOTE PREDATION MANAGEMENT PROGRAM

There has been 0 new requests for assistance with verified coyote predation. There has been 0 coyotes removed.

OTHER PREDATORS MANAGEMENT PROGRAM

There have been 1 new requests for assistance with other predator problems. There has been 0 pests removed.

INFRASTRUCTURE PROTECTION AND AGRICULTURE FLOODING PREVENTION PROGRAM

There has been 6 new requests for assistance (1 are ratepayers) with beaver caused flooding issues. There has been 145 beavers removed to date.

WILD BOAR BOUNTY

There have been 0 sets of Wild Boar ears turned in. Total 2017 incentive expenditures \$0.00.

➤ **RENTAL EQUIPMENT**

Busy, Alberta Agriculture Pump and Pipe Trailer Maintenance and delivery to Grovedale.

Summary Report

Loc	Equipment	Equipment Number	S/N	Total Days	Cost/ Day	Total Charges
VV	3000 Earth Mover	SOIL3000		2	\$ 150.00	\$ 400.00
CC	3000 Earth Mover	SOIL3001		5	\$ 150.00	\$ 1,000.00
GD	900 Earth Mover	SOIL3070		0	\$ 150.00	\$ -
GD	425 Earth Mover	SOIL3072		0	\$ 100.00	\$ -
VV	32" Full-Type Blade	SOIL3095	12502	11	\$ 50.00	\$ 550.00
VV	Vee-Ditcher	VDIT3210	12502	0	\$ 50.00	\$ -
VV	Field Sprayer	ASB0004/SPRY3123	1400151	20	\$ 50.00	\$ 1,000.00
CC	Field Sprayer	SPRY3076		6	\$ 50.00	\$ 300.00
GD	Field Sprayer	SPRY3121		2	\$ 50.00	\$ 100.00
VV	Boomless Sprayer - 300 Gall	SPRY3124	43262	2	\$ 50.00	\$ 40.00
VV	Estate Sprayer - Pull Type	SPRY3007/3127/3128		6	\$ 20.00	\$ 120.00
CC	Estate Sprayer - Pull Type	SPRY3008		1	\$ 20.00	\$ 20.00
GD	Estate Sprayer - Pull Type	SPRY3206		0	\$ 20.00	\$ -
VV	Estate Sprayer - 3 pt. Hitch	SPRY3129	312301212	0	\$ 20.00	\$ -
VV	Water Tank and Trailer	TR118		4	\$ 25.00	\$ 100.00
GD	Water Tank and Trailer	TR118		1	\$ 25.00	\$ 25.00
VV	Quad Wick Applicator	SPRY3211		0	\$ 10.00	\$ -
CC	Quad Wick Applicator	SPRY3212		0	\$ 10.00	\$ -
GD	Quad Wick Applicator	SPRY3213		0	\$ 10.00	\$ -
VV	Quad Mount Sprayers	SPRY3010		13	\$ 10.00	\$ 130.00
CC	Quad Mount Sprayers	SPRY3011		0	\$ 10.00	\$ -
GD	Quad Mount Sprayers	SPRY3012		2	\$ 10.00	\$ 20.00
VV	Backpack Sprayers	SPRY3083		1	FREE	\$ 5.00
CC	Backpack Sprayers	SPRY3084		0	FREE	\$ -
GD	Backpack Sprayers	SPRY3085		0	FREE	\$ -
VV	Hand Wick Applicator	MISC988		0	FREE	\$ -
VV	Granular Pesticide Belt Applicator	FEAC1207		1	\$ 30.00	\$ 30.00
VV	Manure Spreader	MANV3203	02104183UM5175	10	\$ 200.00	\$ 2,000.00
VV	Fertilizer Spreader	FERT001	AG3AVS3000FV001001	9	\$ 100.00	\$ 900.00
VV	50' Heavy Harrow c/w Granular Applicator	HARR3113	245514031	15	\$ 150.00	\$ 2,400.00
GD	33' Heavy Harrow c/w Granular Applicator	HARR3062		2	\$ 150.00	\$ 300.00
VV	30' Land Roller	ASB0005		13	\$ 200.00	\$ 2,600.00
GD	30' Land Roller	NOL0001	12-1374	0	\$ 200.00	\$ -
VV	14' Heavy Disc	ASB0001	AGCW084200X035270	12	\$ 400.00	\$ 5,800.00
GD	14' Heavy Disc	DISC1	AGCW084EX035262	1	\$ 400.00	\$ 400.00
VV	Cattle Squeeze	SQUE3099		3	\$ 25.00	\$ 75.00
CC	Cattle Squeeze	SQUE3097		0	\$ 25.00	\$ -
GD	Cattle Squeeze	SQUE3098		0	\$ 25.00	\$ -
VV	Loading Chute with 4 Panels	CHUT3115		7	\$ 25.00	\$ 175.00
CC	Loading Chute with 4 Panels	CHUT3097		6	\$ 25.00	\$ 150.00
GD	Loading Chute with 4 Panels	CHUT3096		1	\$ 25.00	\$ 25.00
VV	Panel Trailer with 20 Panels + 1 Gate	TR16	SPTRF1627E1019676	8	\$ 25.00	\$ 25.00
GD	Panel Trailer with 20 Panels + 1 Gate	PANL3046/T69		0	\$ 25.00	\$ -
VV	Tag Reader	GALA3117/3118		3	FREE	\$ -
VV	Burdock Clamps			0	FREE	\$ -
VV	Dehorner	MISC988		0	FREE	\$ -
VV	Truck Mount Seeder	SEED3073		1	\$ 30.00	\$ 30.00
VV	Quad Mount Seeder	SEED3074		7	\$ 10.00	\$ 70.00
VV	Hand Seeder	MISC988		0	FREE	\$ -
VV	Post Pounder	ASB0002		9.5	\$ 125.00	\$ 1,187.50
CC	Post Pounder	POST3126		22	\$ 125.00	\$ 2,750.00
GD	Post Pounder	ASB0003		17	\$ 125.00	\$ 2,125.00
VV	Bale Wagon			11	\$ 150.00	\$ 1,650.00
VV	No Till Drill			3	\$ 150.00	\$ 450.00
VV	Grain Vacuum			11	\$ 50.00	\$ 550.00
VV	Bin Crane	CRAN2123	09 1473	7	\$ 100.00	\$ 700.00
VV	Water Pump and Pipe - Alberta Ag	PUMPR99		0	\$ 200.00	\$ -
VV	Survey Equipment	SURV3091		3	\$ 10.00	\$ 30.00
VV	Metal Detector	METL3081		5	\$ 10.00	\$ 50.00
VV	Hay Sampler, Measuring Wheel, Bin Probe	MISC988		5	FREE	\$ -
VV	Rodent Traps	MISC988		19	\$ 10.00	\$ 190.00
VV	Barbeque	TR119		6	\$ 100.00	\$ 600.00
VV	Plastic Tables	PCTABLE5		8	\$ 10.00	\$ 80.00
VV	Rag Roller	ASB0006		0	\$ 125.00	\$ -
VV	Scare Cannons	MISC988		0	FREE	\$ -
<b>TOTAL REVENUE</b>				<b>302.5</b>	<b>\$</b>	<b>29,572.50</b>
<b>CROOKED CREEK TOTALS</b>				<b>40</b>	<b>\$</b>	<b>4,220.00</b>
<b>GROVEDALE TOTALS</b>				<b>26</b>	<b>\$</b>	<b>2,971.00</b>
<b>VALLEYVIEW TOTALS</b>				<b>211.5</b>	<b>\$</b>	<b>22,381.50</b>

➤ **VEGETATION MANAGEMENT**

**ROADSIDE VEGETATION MANAGEMENT**

Currently 2200 ditch kilometers have been sprayed. The program is projected to spray approximately 2200 Km of MD roads.

- Sprayed FSO and Operations yards
- Approximately 25 sites have been controlled using weed whackers (guard rails, bridge approaches, etc.)

**SPOT SPRAYING / ATV / UTV**

Various sites have been completed for a total of 57 Ha. The program is projected to spray approximately 75 Ha

**BRUSH SPRAYING**

Currently 100 Ha have been completed. The program is projected to spray approximately 300 Ha of brush

**PESTICIDE CONTAINER STORAGE**

Empty jugs were shredded and hauled away by the Clean Farms contractor on September 6, 2017.

**FENCELINE AND PRIVATE LAND SPRAY PROGRAMS**

There are currently 7 agreements with work completed by Ag Services staff, and an additional zero agreements where landowner completed the spraying.

**SPRAY EXEMPTION AGREEMENTS**

Deadline of April 28, 2017. For 2017 there are 106 Agreements signed at this time.

**WEED CONTROL**

#	Re-Inspections	Weeds Present	Personal Contact	Phone Calls	Weed Alerts	Weed Warnings	Notices	Enforce
4452	404	1095	176	113	859	1	82	0

Town	#	Weeds Present	Personal Contact	Weed Letters
Valleyview	1156	80	3	80
Fox Creek	988	105	2	105

➤ **AGRICULTURAL PESTS**

Grasshopper and crop surveys have been completed.

➤ **SEED CLEANING PLANT**

The Valleyview Seed Cleaning Cooperative dissolution process is coming along slowly, we are waiting for paperwork to be completed to move the process along.

**Miscellaneous**

<b>Estimated Usage</b>	<b>Swan Lake</b>	<b>Grovedale Fish Pond</b>	<b>Kakwa River</b>	<b>South View</b>
<b>Vehicles on site</b>	15	4	2	0
<b>User #'s</b>	20-25	4	12	0
<b>% Site capacity</b>	30%	3-5%	20%	0

Note:

Southview and Grande Cache Lake are contracted out to Aseniwuche Development Corp. (ADC) for maintenance

# College opens state-of-the-art dairy centre

The \$9.5-million facility will be used by hundreds of students annually and also offer short continuing education courses

By [Staff](#)

Published: September 8, 2017



The Dairy Learning Centre is packed with a range of state-of-the-art technology. *Photo: Lakeland College*

A new \$9.5-million dairy facility at Lakeland College will offer students cutting-edge learning opportunities in areas such as calf management, feed and nutrition, cow comfort, dairy-specific software, and manure management.

About 500 people turned out for the recent official opening of the 46,600-square-foot facility at the college's Vermilion campus.

“The Dairy Learning Centre replaces Lakeland’s previous dairy facility which was built in the 1980s, and puts Lakeland in the ideal position of reflecting the highest industry standards,” the college said in a news release. “It features state-of-the-art technology in robotic and conventional milking and feeding systems.



“With these systems, Lakeland students will have the opportunity to delve into what it takes to lead in the dairy industry. They’ll work with a herd of 280 head, including 120 Holstein milk cows, replacement heifers and young stock.”

The facility will primarily be utilized by animal science technology (AST) students taking a dairy major but will also be used by students in other programs.

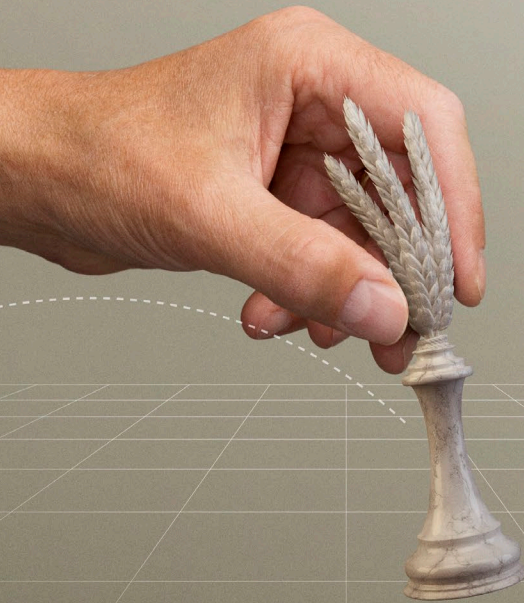
“AST students in other majors will have access to the facility during animal-handling labs; agribusiness students will study livestock production systems, AHT (animal health technology) students will apply their developing skills in hands-on labs such as blood collection and injection procedures, veterinary medical assistant students will work with the herd to get experience handling large animals, and crop technology students will learn about manure disposal and growing silage,” the news release stated.

The facility has one robotic milking parlour and a double-eight parallel parlour, and utilizes Herd Navigator technology, which automatically samples milk for mastitis, reproduction, metabolic disorders, and feed protein balance. The centre also features an automatic sort gate, triple foam mattresses, and FAN manure separator. It also has LED lighting with auto dimming, plate heat exchangers (which lowers the temperature of milk from the udder and transfers that heat for other purposes), and ventilation and heating systems that monitor outside conditions and make necessary adjustments inside for cow comfort.

The facility will also be used for continuing education opportunities such as short-term courses on dairy production. Alberta Milk, which provided the use of additional milk quota, will provide input on future courses and training opportunities.

“Alberta Milk is pleased to be working closely with Lakeland College to enhance dairy education programming in Western Canada,” said Tom Kootstra, chairman of Alberta Milk.

The federal government contributed \$3.4 million to the project.



**More and more firms just calculate numbers.  
We help calculate your next move.**

## Potential Impacts of Changing Tax Regulations on Farming Operations

On July 18, 2017, the Honourable Bill Morneau, Minister of Finance, released draft legislation and explanatory notes intended to “close loopholes and deal with tax planning strategies that involve the use of private corporations.” The legislation is still in the consultation phase, but farmers need to understand the potential impacts of the changes ahead of time in order to implement any available strategies to help reduce taxes. The federal government is accepting submissions from taxpayers with their thoughts on the proposed changes until October 2, 2017.

### WHAT CHANGES DO FARMERS WITH FAMILY FARM CORPORATIONS NEED TO BE AWARE OF?

There are three major areas of change that affect all private corporations in Canada, including agricultural corporations. These areas are income sprinkling (commonly known as income splitting), passive investment income and capital gains.

### HOW MIGHT THE CHANGES RELATED TO INCOME SPRINKLING AFFECT FARMERS?

It is very common for family members of farming operations who are under 25 years old to be partners or shareholders of the corporation. Under the proposed new rules, having a family member under age 25 as a partner or shareholder could result in the partner / shareholder paying the top marginal tax rate on earnings if the earnings exceed a reasonable amount.

In addition, members of family farm ownership groups who are under age 25 might no longer have access to the capital gains exemption. This would apply no matter how they acquired their interest, with the possible exception being if they inherited it.

Finally, the total compensation allowed to a member of a private corporation, whether an owner or a partner, is limited under the proposed changes. Total compensation under the proposed new rules is limited to the family member’s labour contribution, capital contribution and any business risk he or she has taken on, perhaps in the form of a guarantee on a loan. For a family member who purchased new common shares after a typical “freeze” transaction, this could limit the dividends on those new common shares to a “reasonable return”. Although undefined, this could be perhaps a low percentage of the issue price of those shares, with dividends to the second generation in a farming corporation in excess of that amount taxed at the top marginal rate.

## WHAT DO FARMERS NEED TO DO TO PREPARE FOR THE CHANGES?

Talk to your advisor early on to ensure you understand the impact of the proposed new rules on your current or planned ownership structure. Determine how they could affect your shareholders, especially shareholders who are not active in the farming operation. In addition, prepare compensation strategies that would be in line with the proposed changes as family members could end up with a significantly higher tax bill. The new rules take effect in 2018, so this may impact your 2017 compensation decisions.

## HOW MIGHT THE CHANGES RELATING TO PASSIVE INVESTMENT INCOME AFFECT FARM CORPORATIONS?

Under the current proposed draft, the overall tax rate (corporate and personal) on the sale of corporate-held land or corporate-held quota may more than double, going up from 26 percent to 57 percent. In addition, income from renting land (to both family members and third parties) would be taxed at a higher rate (in some cases up to 73 percent).

## WHAT CAN BE DONE TO AVOID PAYING THE HIGHER TAX?

The rules are not yet in effect, so anyone thinking of selling land or quota held by a corporation may want to do so sooner rather than later. Talk to your advisor about strategies that may mitigate the higher tax on land rental income.

## WHAT ARE THE POTENTIAL CONSEQUENCES OF THE CHANGES RELATED TO THE SALE OF THE FAMILY FARM?

The proposed rules have far-reaching implications on the sale or transfer of the family farm. Farmers have the ability to transfer the farm within the family on a tax-deferred basis, as long as the farm qualifies (this is referred to as the intergenerational farm rollover provisions). This will remain the same under the proposed changes.

However, transferring the farm to a family member who does not meet the strict definition for the farm rollover provisions would result in an increased tax cost. In some cases, the result will be that the sale is taxed to the vendor as a dividend instead of a capital gain.

In other cases, the use of corporate funds to pay for the farm purchase could result in taxable dividends to the purchaser.

The provisions make it much more advantageous to sell to an unrelated person than to sell to a family member. The tax costs on the death of a farmer where the rollover provisions do not apply will increase substantially.

The proposals also restrict the ability to claim the capital gains exemption on sales of family farm shares and partnerships where the vendor did not contribute adequate labour and capital, potentially limiting the ability for family members that are part-time farmers to access the capital gains exemption.

## WHAT DO FARMING CORPORATIONS NEED TO DO AS A RESULT OF THIS CHANGE?

First, make sure your family farm qualifies under the rules by ensuring that at least 90 percent of your farm corporation's assets qualify as farm property. The types of assets that will disqualify your farm are land that is continually rented to third parties and term deposits or other types of passive investments owned by the corporation. Secondly, when you make your farm transition plans, you need to understand who qualifies for the transfer.

If your farm doesn't qualify or if you don't have a qualifying family member to transfer your farm corporation to, your tax bill may be higher. Make sure you talk to your advisor to avoid a double taxation situation.

## WHAT CHANGES DO FARMERS WITH PERSONALLY HELD LAND NEED TO BE AWARE OF?

The proposed legislation may also impact a farmer's access to his / her capital gain exemption on land sales. Any gain on land realized while the farmer was under age 18 may not qualify for the exemption any longer. However, the government is introducing a one-time election in 2018 to help alleviate some of the impacts of this new legislation. Farmers will need to meet with their advisors this fall to gain an understanding of the rules, the impacts an election may have on their current and future tax liabilities, and then determine if an election would be beneficial for them.

### ABOUT MNP

MNP is a leading national accounting, tax and business consulting firm for Canada's agriculture industry. We have invested more time and resources into understanding agriculture than any other firm. With more than 15,000 agriculture clients and a team of over 600 agriculture specialists, MNP delivers a diverse suite of services to protect farmers and maximize results.

For more information contact your local MNP Advisor.

4851-18



# Clubroot climbs up into Peace region

By [Staff](#)

Published: August 24, 2017



(Alberta Farmer Express photo by Jennifer Blair)

One of Canada's northernmost farming areas has picked up a case of a disease well known to canola growers further south.

Alberta Canola on Wednesday announced the Peace region has reported a case of clubroot in canola, in Big Lakes County, which surrounds much of Lesser Slave Lake in the region's southeast.

The disease has been well known in central Alberta since the early 2000s and had already been detected in canola fields in Big Lakes' neighbouring counties to the south and east, including Lesser Slave River, Woodlands and Yellowhead.

Alberta Canola said Wednesday it's working with the Canola Council of Canada and extension partners to "reinforce grower awareness of the clubroot management fundamentals" such as crop rotation and equipment sanitation.

A [clubroot information session](#) for local growers is also scheduled for 10 a.m. on Thursday, Aug. 31 at Guy Community Hall. (Guy is about 50 km northwest of High Prairie, on Township Road 760 just east of Highway 49.)

A soil-borne disease of cruciferous crops, clubroot is caused by a fungus-like organism, *Plasmodiophora brassicae*. There are no known economically feasible controls to get it out of an infested field.

In clubroot-infected canola, swellings or galls appear on roots, cutting off a plant's water and nutrient supplies so it prematurely ripens and dies. Typical yield losses run around 50 per cent but can run up to nearly 100 per cent in fields under severe clubroot pressure.

“If clubroot has not yet been found in your community, that does not mean it is not present,” Alberta Canola said on its website Wednesday.

“A buildup of clubroot spores eventually leads to visual symptoms, yield loss and reduces the durability of variety resistance.”

To help prevent clubroot spore buildup, canola producers are urged to use clubroot-resistant varieties, and if clubroot is already present in the area, those varieties should be used in a rotation interval of at least three years.

Clubroot-resistant varieties can help reduce disease loss to as low as zero, but the resistance isn't considered durable when used in short rotations in heavily-infested areas. Fields known to be heavily infested shouldn't be seeded to canola.

Growers should also scout for clubroot in canola fields — even in fields seeded to resistant varieties.

Growers will also want to follow a crop rotation with at least a three-year interval of canola crops, to reduce pressure from clubroot and other diseases and pests. Volunteer canola should also be controlled in all crops.

Growers are also urged to clean equipment between fields, in order to “minimize soil movement” from field to field, and to reduce tillage and other soil disturbance, so as to cut down soil movement via wind and water.

Clubroot is established in Canada mainly in vegetable-growing regions of Quebec, Ontario, Atlantic Canada and British Columbia. Its first appearance in Canadian canola was in Quebec in 1997, but it took until 2003 to appear on the canola-rich Prairies, near Edmonton.

Cases have since been confirmed in thousands of canola fields elsewhere in Alberta, mainly in central regions and particularly around Edmonton, but also as far south as Medicine Hat, as well as in canola fields in Saskatchewan, Manitoba and Ontario.

Areas with warm soils, high soil moisture and acid soil (pH under 6.5) are known to favour infection and show more severe disease development.

More information on clubroot is available on the Canola Council of Canada's [clubroot website](#).

— *AGCanada.com Network*

# Efforts to keep out invasive mussels working — for now

A dozen contaminated boats have been found so far this year and officials warn zebra and quagga mussels are cunning hitchhikers



By [Alexis Kienlen](#)  
Reporter

Published: September 13, 2017



This model shows how quickly mussels grow. Lake Mead, located southeast of Las Vegas, is the largest reservoir in the U.S. *Photo: Alexis Kienlen*  
Zebra and quagga mussels are not in Alberta yet, but the threat continues to grow.



*Keeping invasive mussels out of Alberta is critical, says Janine Higgins of Alberta Environment and Parks. photo: Alexis Kienlen*

“This is becoming a huge issue in our world — the more we travel and carry things around — whether we know it or not,” said Janine Higgins, community engagement lead with Alberta Environment and Parks.

The two invasive species, originally from Russia, made their way into the Great Lakes in the 1980s in the ballast water and bilges of cargo ships. They’ve since spread across the continent, with zebra mussels confirmed in Lake Winnipeg in 2013.

“That was a really big heads-up to us, now that we know they can survive in Canada,” said Higgins.

Since then, Alberta has bolstered its invasive species program.

People can stop the spread of aquatic invasive species — including mussels and whirling disease (a microscopic parasite that infects trout, whitefish, and other species) — by cleaning, draining and drying their boats. Removing drain plugs is critical.

“If you are transporting a boat, you need to actually remove the drain plug while you are transporting it,” Higgins said at a recent West County Ag Tour. “It is now a law and we have that law so you don’t end up moving any water around.”

Zebra and quagga mussels can survive attached to a boat for up to a month.

“So if you can imagine how far people are driving their boats in a month, these zebra and quagga mussels are surviving. Then, when people launch their boats back into the water, we have an infestation.”

The larval form, called a veliger, can’t be seen with the naked eye and the mussels have no natural predators in Alberta. While zebra and quagga mussels have not been found in B.C. and Alberta yet, they have been detected in Montana, about 45 kilometres from the border.

“It is very close to us, which raised the flag for us,” said Higgins. “We need to keep working to keep these species out.”

People can help prevent the invasion of the mussels by making sure they don’t move any water, plants, or mud, and by going through boat inspection stations. Anyone whose boat leaves the province, or who takes their boat into a provincial park, may have to go through a boat inspection. This includes a boat check, questioning, and a search for mussels.

Inspection stations have been set up around the borders of the province, and 12 boats have been found with mussels attached to them this year.

The mussels hide in dark, damp places in the boat. In a recent case, mussels were found hiding in areas where screws attach onto the boat. Alberta inspectors also have a team of three sniffer dogs that are trained to find mussels. In addition, Alberta Environment and Parks has tested more than



100 water bodies in search for the mussels and has been working closely with the irrigation districts.

The mussels are prolific — one female can lay a million eggs in a year.

“If these mussels were to get in all of our irrigation pipes that we use for watering our crops, for watering our cattle, everything like that, we’re estimating that it would cost us \$75 million annually in losses from revenue, in maintenance, in boat loss — all that sort of stuff,” said Higgins.

At boat inspection stations, inspectors collect standing water inside boats and send samples to labs to look for veligers. Any boat with standing water is washed immediately. If the boat is really dirty or looks as though it contains mussels, it will be quarantined for 30 days — the length of time it takes for the mussels to die.

It is mandatory to stop at inspection stations when they are open, but some people are still skipping them. Anyone caught bypassing a station faces a fine as high as \$100,000 or up to one year in jail.

# September 2017

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4 <i>Labor Day Office Closed</i>	5	6	7	8	9
10	11	12 <i>Council Meeting</i>	13	14	15	16
17	18	19 <i>Committee of the Whole</i>	20 <i>ASB Meeting Cattle Market Out- look—Rycroft</i>	21	22	23 <i>Peace Country Farmer Mixer— Goodfare</i>
24	25	26 <i>Council Meeting</i>	27	28	29	30

# October 2017

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3 <i>2017 CASA Conference</i>	4 <i>2017 CASA Conference</i>	5 <i>2017 CASA Conference</i>	6	7
8	9 <i>Thanksgiving Office Closed</i>	10 <i>Council Meeting Advance Vote</i>	11	12	13	14
15	16	17 <i>Committee of the Whole Livestock Gentec Conference—Edmonton</i>	18	19	20	21
22	23	24 <i>Council Meeting</i>	25 <i>.ASB Meeting</i>	26	27	28
29	30	31				

# November 2017

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21 <i>Producer Meeting APG, ABC, AWC— Grande Prairie</i>	22 <i>Producers Meeting ACPC—Falher</i>	23	24	25
26	27	28	29 <i>ASB Meeting</i>	30		