

Dead Animal Management

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Dead Animal Management

- Regulatory
- Practical
- Options

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Regulatory

- Health Hazard Regulations
 - In a manner approved by the local authority
- Environmental Management and Protection Act
 - In manner which does not cause pollution
- Agricultural Operations Act
 - ILO Provisions - according to approved plans
 - Nuisance Provisions - according to normally accepted agricultural practice
- Municipal Bylaws

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Practical

- Dead Animals are:
 - 32% Dry Matter
 - ♦ 52% protein
 - ♦ 41% Fat
 - ♦ 6% Ash
- Protein and nutrients
- Pathogens

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Potential Impacts

- Disease Transmission
- Water Pollution
 - Nutrients
- Nuisance
 - Smell
 - Rodents, birds, scavengers

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Practical

- Must be both safe and acceptable
 - Safe means
 - ♦ destroys or contains pathogens
 - ♦ does not contaminate water
 - ♦ stabilizes the product
 - ♦ no dangerous by-products
 - Acceptable means
 - ♦ seen to be green
 - ♦ discrete
 - ♦ does not create a nuisance

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Acceptable Means of Disposal

| <i>Alberta</i> | <i>Sask.</i> | <i>Manitoba</i> |
|----------------|--------------|-----------------|
| Burial | Burial | Burial |
| Render | Render | Render |
| Compost | Compost | Compost |
| Incinerate | Incinerate | Incinerate |
| Natural | | |

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Separation Distances Burial Pits

| | Alberta | Sask. | Manitoba |
|---|--------------------|------------------|---------------------------------------|
| Water course | 100 m | 90 m | 100 m |
| Well | 100 m | 90 m | 100 m |
| Water Bearing Zone (bottom of pit) | >1 m above zone | > 1 m above zone | Stay away from high water table areas |
| Roadway (Primary, Secondary, Allowance) | 300 m, 100 m, 50 m | | |
| Soil Cover | >0.6 -1 m | > 0.6 m | >1 m |
| Distance from residences | > 100 m | | |
| Time | Within 48 hrs. | Within 48 hrs. | Within 48 hrs ⁸ |

Burial – Saskatchewan Guidelines

- Clay soils
- 1 meter above water bearing formation
- 90 meters from water course or body of water
- 0.6 - 1.0 meter of soil cover
- Lime discourages predators, delays decomposition, sanitizes

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Incineration

- Incinerators require approval of Sask. Environment
- Can be convenient depending on size and amount of material
- Several commercial units available
- Proper sizing is important

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Processing

- Rendering
- Composting
- Emerging Technologies

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Rendering

- Reduces Volume
- Controls or eliminates pathogens
- Stabilizes
- Valuable by-products
- Publicly acceptable - out of sight out of mind - good job by rendering industry

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Composting

- Reduces volume
- Stabilizes nutrients
- Controls or eliminates pathogens
- Requires additional management
- “Publicly Acceptable” - Seen as Green
- May not compliment all disease scenarios

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Emerging Technologies

- Hydrolysis and Anaerobic Digestion
 - break down carcass using pressure, heat and chemicals
 - use resulting by-product as input to anaerobic digestion / methane generator
- Seen as Green

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Conclusion

Preferred Option Depends on the situation

- time of year
- number of animals
- condition of the animals
- cost
- risk
- location, location, location

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