Managing Livestock Mortality & Butcher Waste --- You Can Compost WHAT?

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Northern Right Whale
You Can Compost Any Size Animal!
Situation

- Lack of Services
- SRM’s-Parts That are Not Accepted
- Cost
- Access
Disposal Options

- Alkaline Digestion
- Rendering
- Mass Burial
- Incineration
- Landfill
- Compost
Risk

Animals exhibiting sign of neurological diseases before death should not be composted and should be reported to the USDA for autopsy and proper disposal.

We have no evidence that Prions such as the ones that cause Mad Cow Disease are killed in the compost process.
Well-drained, at least 200 ft from water courses, sinkholes, seasonal seeps or other landscape features that indicate the area is hydrologically sensitive.
Three-Bin Covered System
Concrete & Block
Carbon Sources

- Wood chips, Shavings, Sawdust
- Refused feed
- Spoiled Silage
- Chopped Cornstalk
- Nut Hulls
- Partially Composted Material
- Bedded Pack
- Straw/Hay
- Think about coarse, dry carbon sources in your area
Compost Bed
Recipe for Small Animals

For young animals, layer mortalities with a minimum of 2 feet of co-composting material.
Layering Medium Sized Animals
Chunky Carbon Source and Meat Waste
Butcher Residual
Lance Rumen
Cover carcass with dry, high-carbon co-composting material, like old silage, sawdust, or dry stall bedding (some semi-solid manure will expedite the process).
In Dry Climates, add Water during Pile Construction and shape piles for moisture control
Temperature 110-160 F
How Silage Is Made
Static Pile Aeration
Odor
Time it takes

- Well stacked pile should heat up in 12-24 Hours.
  - Month 1- cooked meat
  - Month 2- meat is digested
  - Month 3- clean bones
  - Mature compost 6-9 months

- Frozen Animals placed in piles- Feb 2004 piles registered 40 F (in NYS)
- Late May- reached temperatures of 130 F
PROCESS

• Let set for 4-6 months.
• Turn only if desired after 3 months.
• Reuse bones as part of next base.
Carcass Pile Temperature Curves

Temperature (Degrees Fahrenheit)

Date
Fecal coliforms and *E. coli* in Compost over Time

- **Fecal coliforms**
- **E. coli**

Graph: Fecal Coliform and *E. coli* Concentration in Compost over Time

- Concentration (log10 MPN/g)
- Time (in months)

- 0 months: High concentration
- 3 months: Decrease in concentration
- 6 months: Further decrease
- 9 months: Further decrease
- 12 months: Lowest concentration
Disposal of End Product

- Reuse as Base, don’t reuse as top layer
- Remove large bones and Land spread
- Use on feed crops harvested above ground
- Spread on forest or non human food crops
Cautions

- Regulation/Policy
- Securing Carbon Source
- Reuse Carbon source for base
- Size of Pile
- Poor coverage
- Odor
Avian Influenza Outbreak-depop
Birds died within 5 Days of Onset
Building a Windrow

Photo by Gary Flory
60,000 turkeys
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