Carcass Composting Program Fact Sheet

Source: MDT, DEQ, Granite County carcass composting facility, Cornell Cooperative Extension Service, APHIS.

Benefits:

- *Water quality*: Sites where road kill are brought as "drag and hide" and dead piles on ranches can affect ground water and stream water quality. Central permitted facilities are approved based on impact to water quality.
- Reduce *secondary accidents* when scavenging on road-kill occurs (human safety as well as secondary road kills of listed or sensitive species: grizzly, wolves, eagles, wolverine etc.).
- Reduce *consistent food source* (road kills) to all predators (including ravens, coyotes, foxes etc.) that may result in predator pulse that could impact sage grouse survival as well as livestock loss.
- Help reduce risk of livestock/carnivore conflict but not a guarantee. Carcass removal can break the cycle of predators in close proximity to livestock via a dead pile especially in calving season.
- Ease of livestock disposal
- Can reduce taxpayer costs when there are hauling and/or tipping fees to landfills.
- Relatively low labor and management costs.
- Can be done anytime of the year even when ground is frozen.
- Saves landfill space by breaking down in compost better than the "mummify effect" of landfills.
- Less odor and flies for the volume of carcasses than uncovered dead piles
- Greatly reduces or kills most pathogens from the temperatures and microbial processes achieved during composting.
- Blackfoot Challenge seen a lasting reduction in conflicts with grizzlies after establishing co-existence programs including: livestock carcass pick-up and composting, electric fencing, and range riders.
- Creates a usable product for daily cover for landfills (takes several years to gain several hundred cubic yards)

Time needs: 1- 2 hours/week to manage compost and cover dead animals as they come in.
DEQ permit requires good records on: compost temp, number of animals, covering animals quickly after arrival (to reduce odor, flies, and avian scavengers spreading carcasses).

Site needs:
DEQ SETBACK GUIDELINES: 300ft to the nearest property line, 500ft from homes or businesses, 100ft or further potable water, 150 ft. from surface water body, and 150ft drainage. *Ideally* 2% slope to prevent ponding – not required.

- Water via a tank or well
- Loader to move and turn compost
- Starter bulking material nearby: primarily wood chips, but straw, hay, shavings can be used as well and sawdust requires a different technique.
- Use finish compost later to start new compost piles

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Two types of composting management:

Original method: Rotating pile (used at MDT sites and most county sites)

Turn compost every 35-40 days
Uses finer starter material
Store in bins made of jersey barriers
Move older compost to different bins (curing pile) keeping fresher bins more accessible
Start a new bin every month
Layer carcasses front to back or top to bottom and cover each layer with compost

Newer method: Static pile

Turn compost every 4 to 6 mos.
Uses bulkier starter material
Store in windrows instead of bins

Capacity of Compost Facilities:

Granite County Site: 1 bin is used/month in the calving season and can get 100/animals/bin, and composts a little more than 550 carcasses a year.
MDT sites: Can get 3- 4 cows/bin and 20 deer/bin
Carcass reduce by +/- 60% depending on bulking material

Site specifications:

At Granite County site: carcass composting area is in a 20' x 80' area of 4 bins and bins are constructed from 6, 10ft jersey rails (20'x20' bin).
MDT sites: 150 cubic yards is the space at one site over an 8 year composting period. It has 6 bins 3 wild and 3 domestic.

- February- May most active when carcass pick up program running –calving season, road-kill is continuous- slightly higher in fall, have never run out of room.
- Inject water into piles, all water is on timers
- Wild and domestic carcasses are kept separate; keep one bin always wild

Compost re-distribution:

- Reuse within 35 mile radius of compost site to be potential spread of diseases to local area.
- Actual product is really small and can be reused in its own facility to start new piles.
- Not for food crops.
- For aesthetics think about crushing and/or screening bones as bones bleach in the sun and become more visible.

Key to Success:

- Happy composters: composters that like to tinker, willing to try new things, keep records, and want to see success.
- No 2 sites are alike must be willing to experiment and tinker.
- Keep the process simple.

Water seasonal needs:

- In the winter snow melts from the heat of carcass and can add water to the site.
- Composting process slows down in winter so will not need to water as much.
- Adding water will decrease smell and Granite County site keeps it fairly wet even in the winter.