

## **Static / Windrow Composting**

Static/windrow composting piles are commonly used in Manitoba. They are less costly than other composting structures such as bin or in-vessel composting units, but require more management since weather conditions (eg. too much rainfall) that affect composting are not as controlled. This section will show you step by step how to build a static/windrow compost pile.

## Step 1

Place 2 ft (60 cm) layer of co-compost material on the ground. Ensure that the base is packed tightly and large enough to allow for a 2 ft (60 cm) clearance around the carcass. The 2 ft (60 cm) base acts as a sponge to absorb fluids. Take into consideration that the base layer will compact when the carcass is placed on top.



## Step 2

Lay the carcass in the centre of the base on its back or side, again, ensuring that there is a 2 ft (60 cm) clearance of co-compost around the carcass.



*Click to enlarge*

### Step 3

For ruminants larger than 300 lbs (136 kg), it is recommended to cut open the thoracic, abdominal cavities, viscera, as well as, slice large muscle mass to accelerate the compost process and prevent possible explosion of the intestinal cavities. For non-ruminant animals, no lacerations are required. Before the animal is covered, wet the animal hair or fur with water, this provides good carcass to co-compost contact.



### Step 4

Cover the entire carcass with at least 2 ft (60 cm) of material (straw). The 2 ft layer of material will act as a biofilter to reduce unwanted odours. Uncovered parts may attract scavengers.



### Step 5

Once the composting pile is set up, you are in the primary stage. In this stage, the temperature should increase to 40-65°C. The temperatures inside the pile should increase to 40-65°C (104-149°F) within 2 weeks. When temperatures within the pile have dropped for 10-14 consecutive days, it is time to turn the pile.



## Step 6

Once the pile is turned, you are in the secondary stage. The temperatures inside the pile should rise again to 40-65°C (104-149°F). Piles should be turned regularly once a week from this point on.

Inspect the pile. If there are no signs of flesh and very little unwanted odour, cure the pile for at least 21 days. Bones should be very brittle at this stage. Larger bones may be sieved out and placed in a new compost pile as inoculants.

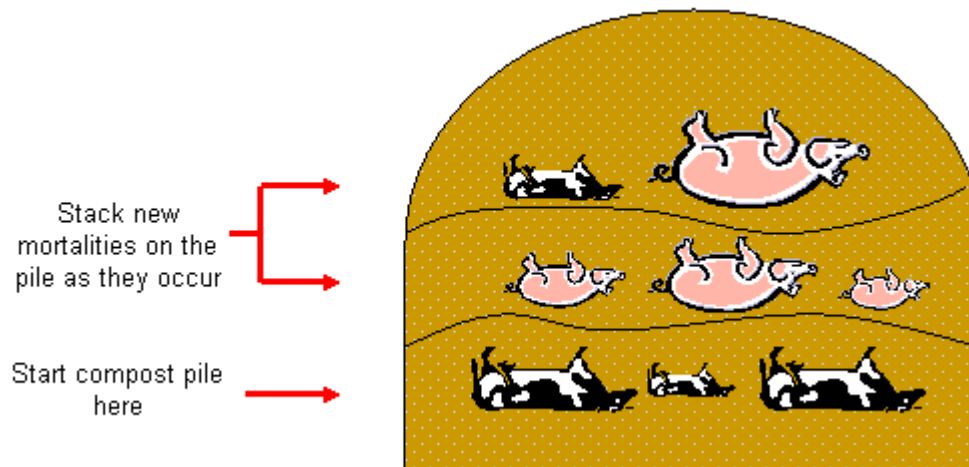
Compost is finished when:

- Compost has been cured for >21 days and shows at least a 60% reduction in weight
- Compost pile temperature should be less than 8°C higher than ambient temperature
  - Original feedstocks are difficult to identify
  - Fine texture, dark colour, "earthy" aroma are often present



**Note: For static composting mortalities are stacked, whereas for windrow composting mortalities are arranged in a row (see diagrams below).**

## Static Composting



# Windrow Composting

Start compost pile here



Add new mortalities in a row as they occur

