



# LEPS

Langley Environmental Partners Society



## Horse Manure Composting Program System Selection Tips

There are many different styles of compost systems to choose from. When selecting a system you must consider your individual needs, the needs of your farm and your budget.

The following are several important considerations you must keep in mind when selecting a composting system:

### System materials

You must consider what kind of materials do you intend to use to build your compost system. Your choice of materials can have significant influence on your budget. A poured concrete, sloped slab with either poured walls (from forms) or cinder block walls can be costly but is strongly recommended as it prevents the release of leachate into the environment, maintains optimal composting conditions, and is more durable so will require less maintenance over time.

Other building material options include using wood for the framing, or a wood frame with chicken wire for the walls. Your imagination is the limit! Though budget may be the driving force when considering your choice of materials, keep in mind that you will be managing a system that promotes deterioration of organic matter, this includes wood. Consider how often you will need to replace wood and the costs associated with doing so versus a more permanent structure.

If you are planning to cover the system with a structure more permanent than a tarp, how do you plan to cover it? Will you build a shed-type covering or explore the option of a semi-permanent structure such as a coverall building?

### System size

In order to determine the size of your compost system you must accurately determine the amount of out-put the farm generates on a daily basis. You also must consider how many times per year you will be spreading the compost to determine the storage capacity you will require. It is also important to take into account the possibility of an increase in the number of horses on your property. In the horse industry, I can almost guarantee for some reason you will end up with an extra horse! Given this, you want to make sure you can accommodate the additional waste. You must also consider changes in season. Compost is not generated as quickly in the winter as in the summer due to temperature. In the summer you may be able to generate compost in as few as three weeks whereas in the winter it can take much longer. Building a capacity greater than what you expect is strongly recommended. Having adequate over-flow space guarantees you will not out-grow your system.

## System Selection Tips...continued...

### Compost usage

How you plan to use your compost has significant influence over the style you choose. The first question you need to ask yourself is, do I want to access finished compost at all times of year? If you do, you will need to have easy access to finished compost so for example if you build one large, roofed building with three walls, it will be very difficult to access any finished compost as you will be continuously dumping at the front of it.

The next question you need to ask yourself is, how often do I want to access the compost? This question is an important one as it determines how much finished compost you want to access at one time. If you want to continuously mulch your fields with compost you will need to have a constant supply of small batches available. If you expect to only spread in the spring and fall you will need larger quantities available at those times. This can be the difference between a multiple bay system or a long, narrow system with access on each end (front to dump fresh and back for composted material).

### Other considerations

Tractor traffic on the compost system access points can be very heavy. It is important to consider this when designing a system. If you are pouring a slab, it is recommended to pour a large enough area for the tractor to work on, particularly for when it is pulling in and out of the system to load the system or load a manure spreader. If you are not pouring a slab, consider putting gravel in front of the system to handle the tractor traffic.

Another consideration is the prevention of runoff of leachate. If you are pouring a concrete slab, the slab should be sloped in a fashion to prevent the escape of any leachate. If you cannot install a concrete slab, our recommendation is to berm the storage area to divert clean runoff from penetrating the system and to contain system leachate.