



COMPOSTING MANURE

Composting is a science, and an art. Compost is a rich, humus-like material valued for its soil conditioning qualities, occurring when organic materials, such as manure and bedding, decompose in the presence of oxygen. The microbes causing decomposition occur naturally in stall waste. A pile of manure, added to, but not otherwise managed, is NOT the same as a compost pile.

Finished compost is more organically stable, presenting less of a pollution threat.

Composting reduces the volume of waste by 40-70%.

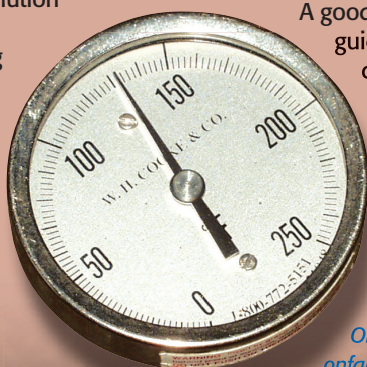
Horse manure and bedding have the appropriate levels of nitrogen (from manure) and carbon (from bedding).

Pathogens and fly eggs are killed by composting's high temperature on the inside of a properly composted pile. The necessary high temperatures are not reached on the pile exterior, so a compost pile should be periodically mixed and turned so the exterior material is incorporated into the middle for full composting. Waste from stalls composts well in piles that are at least 3 feet square by 3 feet deep. Smaller piles will not retain enough heat to reach the proper internal temperature.

A good and thorough guide to on-farm

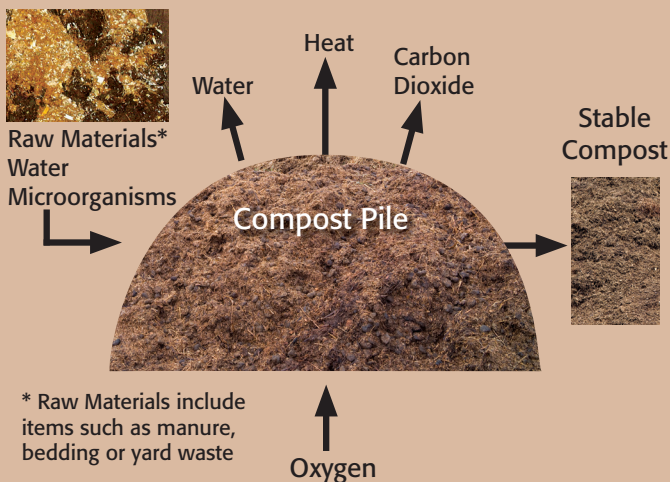
composting (On-Farm Composting Handbook, NRAES-54, 1992) is available at

http://compost.css.cornell.edu/OnFarmHandbook/onfarm_TOC.html



Using a thermometer helps monitor the progression of the composting process.

COMPOSTING DIAGRAM



According to Rutgers University Bulletin E307, horse manure compost applications and use varies depending on compost maturity, soil test results, and crop needs.

- Maturity= how stable or decomposed the organic matter is
- Soil test results= the fertility of soil and what nutrients can be gained by the compost
- Crop needs= nutrients needed to help the crop/grass grow optimally

Generally, compost can be used as mulch, or on pastures, after 3 months. Since the compost is still maturing, it might absorb nitrogen from the soil, therefore that nitrogen won't be available to the crops/plants. For other uses, the compost needs to be matured 6 to 9 months. For composts whose carbon source was wood chips, composting for more than 9 months might be necessary. Generally, turned compost takes 9–12 months to mature, stacked will take up to 2 years, due to less aeration.

Compost that has not matured, is not suitable for direct contact with garden or nursery plants. Detailed instructions can be found at <http://cwmi.css.cornell.edu/farmwaste.htm#other>

Intentionally managed manure can become compost. Instructions can be found at <http://cwmi.css.cornell.edu/farmwaste.htm#other>

