



# BATCH COMPOSTING TEMPERATURE CHART

*Diversity in microbial communities & decomposers adds quality/value to compost*

Sources: University of California, University of Wisconsin

Date/  
notes

over 160F: compost quality suffers

150F

Some weeds, including oxalis bulbs, seeds of burr clover, some amaranthus seeds and seeds of cheeseweed, are not killed by the high temperatures in a compost pile.

**135–155F: weed seed/pathogen-killing zone**

140F

Heat-producing (thermophilic phase lasts from a few days to several weeks)  
 Bacteria break down proteins, fats, cellulose, hemicellulose.

130F

"Heat" generated in composting is by-product of microbial metabolism.

120F

110F

**68–113F**

Low-temperature (mesophilic phase lasts for a few days)  
 Bacteria break down soluble, readily degradable compounds (sugars, starches).

**Ideal batch size at least 4' x 4' x 4' or LARGER**  
 ABSOLUTE MINIMUM size 3' x 3' x 3'

**Browns Greens**  
 in equal volumes

- soiled stall bedding      grass clippings
- soiled paper      fresh manures      pond weed
- stemmy plants      veg./fruit waste
- wood chips/sawdust      coffee grinds/teabags
- straw      hair/fur/toenails/urine
- brown leaves/pine needles      eggshells

100F

Fungi and actinomycetes (filamentous bacteria) important during curing phase in attacking most resistant compounds.

90F

Snails, slugs, mites, sowbugs, worms, springtails, ants, centipedes, millipedes, nematodes & beetles (mesofauna) mechanically break down organic materials into smaller particles.

80F

**55–77F: Red Wigglers most productive**

Allow 2+ mo. cool down/curing period for highest quality compost.

70F