

Bernalillo County Extension Master Composters

Cold Composting in the Desert Guide

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This method is also referred to as: *simple, easy, dump and run, or slow* composting.

Locations: pit, trench, sheet, open pile, container/bin which are conveniently located for the composter with an available water source. Place bins on the soil in maximum shade during the hot season.

Container: A low porosity bin (fewer air holes) is recommended in a desert environment. A cold composting operation can be sized to the needs of the composter. Bin/container sizes vary from small up to 5'x5'x5'.

Additions: Often ongoing additions of organic matter at various times - dump and run. Ideally a mix of green and brown materials of various sizes and textures. This method is not limited by a specific C:N ratio, but by what organic material is available to add to the pile. Cover the pile after each addition to moderate evaporation and decrease flying insects.

Goal: Set up the conditions for aerobic decomposition of added organic matter.

C:N Ratio: It is not required that particular attention be paid to the ideal C:N ratio of 30:1. Any dead organic material on hand may be moisturized and added. It is the choice of the individual composter.

Moisture: Ideally moisture level should be 50% throughout the process. Use an appropriate desert bin design (low porosity), which moderates air flow to decrease evaporation. Soak dry material in water before adding to the pile. Sprinkle water on a pile if it's too dry. Always cover the top of the pile.

Management: A cold pile may be maintained as a static operation (no turning) as long as bulking material is added intermittently, but regularly to the layers. Or it can be lightly managed by churning/turning the ingredients. Moisture needs to be

maintained at 50%. Organic matter is added as it becomes available. Ultimately management of the art of composting is an individual choice.

Bulking Material: Sticks, twigs, corn cobs, pine cones, wood chips, straw, corn stalks should be added intermittently, as the pile is built, to maintain air spaces and decrease compaction. This allows for airflow throughout the layers, which is an imperative when composting in the desert.

Aeration: A layer of bulking material is first added at bottom of any bin. Using a low porosity bin as recommended for the desert it is imperative that bulking materials be added regularly to maintain spaces for air flow to all layers of added organic matter. A chimney effect occurs - air comes in at the bottom and goes upward through the layers.

Temperature: Cold piles slowly equilibrate with the ambient air temperature. If the pile temperature goes below 50 F microbial action will slow. A specific attempt to increase or preserve heat due to bacterial action in the pile is not required for cold composting.

Microbial Action: The environment of a cold pile often favors decomposers like fungi, molds, actinomycetes and those bacteria that appreciate cooler temperatures. Beneficial insects eat the organic materials adding to the whole decomposition process. Composting worms may migrate toward a pile if they are present in the soil, if not, they may be added by the composter.

Time to Product: Variable, about 12 - 24 months. Slower than hot composting.

Product Volume: 1/2 - 1/3 of original size