Requirements for Marketing Class A Compost

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The 2012 revisions to Wisconsin's compost facility regulations create a new category of high-quality compost, known as **Class A compost** (s. NR 502.12(16), Wis. Adm. Code). Now producers have the option of manufacturing a premium compost product that meets an established state standard for stability and maturity, metals, contaminants and pathogens. Producers of Class A compost that meets state standards can advertise and label their product accordingly.

To be able to market Class A compost, you must maintain records to show the finished compost is:

1. Composed entirely of source-separated compostable material, defined as:

   "...compostable materials that are separated from non-compostable material at the point of generation for use in composting and are kept separate from municipal solid waste. Source-separated compostable material includes food residuals; farm and non-farm crop residues; botanical residuals; aquatic plants; vegetative food processing residues such as those from cannery and brewing activities; fish harvesting and processing residuals; yard residuals; farm and herbivorous animal manure, excluding deer and elk manure, and associated animal bedding; clean chipped wood; clean sawdust; non-recyclable compostable paper; and other similar materials approved in writing by the department. This term does not include biosolids, domestic wastewater, sewage sludge or septage, high-volume industrial waste, rendering or slaughterhouse wastes, animal carcasses, other solid waste or hazardous waste."

2. Produced by one of the following three processes that reduce pathogens:

   a. Non-mechanical aerated pile/windrow method: unconfined composting process (no vessel) using periodic aeration and mixing.
      i. Aerobic conditions must be maintained during the composting process.
      ii. Maintain a temp of 55^{o} C (131^{o}F) in the windrow for at least 15 days.
      iii. Turn the windrow at least 5 times during the high-temperature period.

   or

   b. Mechanically aerated static pile method: Unconfined composting process (no vessel) utilizing mechanically forced aeration of insulated compost piles.
      i. Maintain aerobic conditions during the composting process.

ii. Maintain the compost pile temperature at a continuous minimum of 55°C (131°F) for at least 3 consecutive days.

or

c. In-vessel method: confined compost process utilizing mechanical mixing of compost within a closed vessel under controlled conditions.
   i. Maintain temperature in vessel at 55°C (131°F) for a minimum of 72 hours.

Note: Monitor and record temperature and retention time each day until temperature and retention time criteria are met for whichever method you use.

3. Tested according to the following requirements:

   a. Take one sample of finished compost for every 2,000 tons or 4,000 cubic yards (minimum one sample per year) ***or*** according to the testing frequency in the U. S. Composting Council's Seal of Testing Assurance (STA) program ***or*** a different frequency approved in writing by DNR. Collect, handle and analyze the compost samples according to methods listed in "Test Methods for Evaluation of Compost and Composting" (TMECC) published in 2002 by the U.S. Composting Council or other methods approved by the department.

   b. Have the samples tested at a laboratory certified under the U.S. Composting Council's STA program (or at another laboratory approved in writing for compost testing by the department) for all the characteristics in the tables below.

      Note: "Test Methods for Evaluation of Compost and Composting" (2002) and a list of laboratories certified under the Seal of Testing Assurance program are available from the United States Composting Council, 1 Comac Loop, 14 B1, Ronkonkoma, NY 11779; 631/737-4931; http://compostingcouncil.org/seal-of-testing-assurance/. Click on "TMECC" or "Labs" in the left sidebar.

   c. Make test results available upon request to the department, potential users of the compost, and the general public.

4. In compliance with the limits in the following tables (s. NR 502.12(16)):

Table 1: Metals, Contaminants and Pathogen Testing for Class A Compost

Parameter	Limit for Class A Compost (mg/kg dry weight)	Possible Sources in Compost
Arsenic	12	Treated lumber, poultry litter
Cadmium	6.1	Painted wood
Chromium	120	Painted wood, rub-off from shredding machinery
Copper	400	Treated lumber, poultry litter, hog manure, cattle bedding, viniculture and horticulture residuals
Lead	95	Soils in urban areas
Mercury	1.2	Treated seed
Molybdenum	15	Soil constituent
Nickel	49	Rub-off from shredding machinery
Selenium	4.9	Soil constituent
Zinc	820	Hog and poultry wastes
Physical contaminants	< 1 percent	Glass or plastic packaging, street sweepings, plastic bags, other trash or debris
Pathogenic Organisms	**Either** 1000 MPN/g of total solids (dry wt) fecal coliform **or** 3 MPN/4g of total solids (dry wt) salmonella	Pet waste, manure, poultry litter, cattle bedding, non-vegetable food scraps

Table 2: Maturity and Stability Testing for Nonexempt Facilities and Class A Compost

Characteristic	Test Procedure	Limit for Class A Compost
Maturity (both methods)	Carbon:Nitrogen ratio Seedling emergence and vigor bioassay	10 – 20:1 Indices above 80%
Stability (one of the following methods)	Respirometry (carbon dioxide evolution) Dewar self-heating test Solvita test	Up to 5 mg CO_2-C/g volatile solids/day 0 – 20^{O}C temperature rise Index value 6 or greater

Contact 608/266-2111 or DNRWasteMaterials@wisconsin.gov for further information.

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