



Midwest Bio-Systems

Compost Value Sampling and Submission Instructions

Forms and Instructions Available at www.midwestbiosystems.com

1. First **remove any debris** or large pieces from the sampling area that would distort the representation of the windrow.
2. Avoid taking samples when compost is **saturated** or when compost has **not been aerated** for a while. It is best, if possible, to **pull samples immediately following turning**.
3. Each compost sample should consist of **6-12 random sub-samples** taken down one side of the windrow and up the other side, gathering 4 quarts of material.
4. Take samples using a **clean** device. Place all sub-samples in a clean (no previous contamination) plastic bucket.
5. **Mix** all combined sub-samples well in the bucket.

6. FOR:

All Tests on **Compost Lab Test** \$90.00

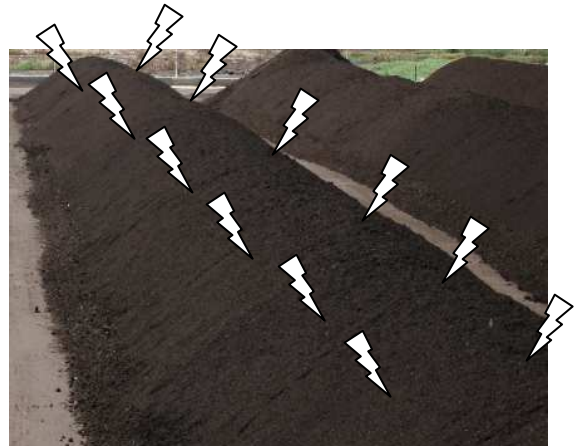
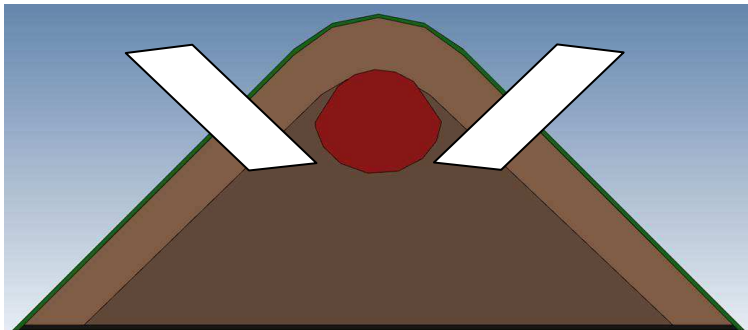
Send 1 quart of material to Midwest Laboratories in a labeled soil bag with the **MBS Compost Lab Test Submission Form**, including an authorization number obtained from MBS. Call 815-438-7200 to get an Authorization number for each sample that you will send to the lab. **Please fax the filled out submission form to (815)-438-7028 before you send a copy with the sample.** Ship the "Soil Sample Bag" AND "MBS Compost Lab Test Submission Form" to:

Attn: Robert Ferris
Midwest Laboratories
13611 B Street
Omaha, NE 68144

NOTE: Sampling Instructions and Submission Forms can be obtained by:

- Calling Midwest Bio-Systems at 1-800-689-0714 and we will fax or mail them to you.
- Email your request to Info@MidwestBioSystems.com for delivery by fax, mail, or PDF files of the forms and instructions by return email (Adobe Acrobat Reader is required to open and print the PDF files).
- Visit www.midwestbiosystems.com, download instructions and forms as PDF files.

Note: Windrows need to be turned within 1-2 weeks of taking a sample. Caution: But when turning the windrow after it has not been turned for a month or longer, you need to be careful and check the very bottom of the windrow to see if the bottom is soggy, anaerobic, or somehow undesirable to turn into the rest of the windrow. It may be necessary to turn the windrow just high enough off the ground to avoid the undesirable layer underneath.





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Compost Value Test Descriptions

Forms and Instructions Available at www.midwestbiosystems.com

ACS Compost Lab Test – (Chemical Mineral Profile) = \$90.00 (Results - If a preliminary report is needed, its in 5 days, final report in 15 business days (if requested) & guaranteed at 17 days.)

Includes: % Nitrogen, Nitrite N, Nitrate N, Ammonia N, C:N Ratio, % Moisture, Humus, Sulfate Sulfur, Sulfides, Sodium, pH, Conductivity (Ergs), Redox Potential, Organic Matter

Phytotoxicity Response: 7-Day Seed Germination and 14-Day Vigor

Additional Analysis Options (when added to a package above):

- Building Block Analysis (% dry basis - Phosphorus, Potassium, Calcium, Magnesium) **\$ 35**
- EPA Heavy Metal Analysis (ppm) **\$140**
(Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Selenium, Zinc)
- Trace Element Analysis (ppm) **\$50**
(Zinc, Manganese, Iron, Copper, Boron)
- Weed Seed Germination (30 days required) **\$30**
- E. Coli **\$35**
- Salmonella **\$135**
- Fecal Coliform **\$40**

Feedstock Analysis

Maximize your options in recipe building and process control

Send 1 quart of material to Midwest Laboratories in a labeled soil bag with the **MBS Feedstock Submission Form**, including an authorization number obtained from MBS. Call 815-438-7200 to get an Authorization number for each sample that you will send to the lab. **Please fax the filled out submission form to (815)-438-7028 before you send a copy with the sample.** Ship "Feedstock Sample Container" **AND** "MBS Feedstock Submission Form" to:

Attn: Robert Ferris
Midwest Laboratories
13611 B Street
Omaha, NE 68144

Feedstock Quality = \$75.00

(% Moisture, % Nitrogen, C:N Ratio, Density, Structure Rating for Porosity, Sodium, pH, Conductivity, Redox Potential)

Example of a Comprehensive Compost Analysis

Midwest Bio-Systems

28933 35 E. St. Tampico, IL 61283

(815) 438-7200 Fax: (815) 438-7028

MBS@emypeople.net

www.midwestbiosystems.com

Sample Desc: **Batch 16 NS**
 Lab # C444
 Date Received: 3/26/2004
 Date Completed: 3/26/2004

Received From:

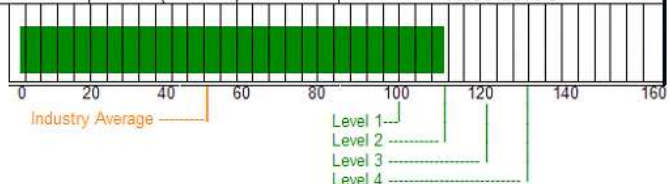


Comprehensive Package

Compost Test Results

	Desirable Level	Your Results	Your Points	Total Potential Points		Value Chart				
Nitrogen Cycle										
% N (Dry Basis)	0.6 - 1.2	1.5%	25	45	Nitrogens					
NH ₃ - Ammonia	< 50	51 ppm								
NO ₂ - Nitrite Nitrogen	0	0 ppm								
NO ₃ - Nitrate Nitrogen	600 - 900	578 ppm								
pH	7.3 - 8.1	8.2su	4	7	pH					
Salts										
Sodium	125 - 200	312 ppm	10	14	Salts					
Conductivity	2000 - 3500	1,750 Ergs								
Sulfur										
Sulfate	100 - 500	36 ppm	7	14	Sulfurs					
Sulfide	0	0 level								
Germination										
7 Day Germination %	> 80	100.0 %	14	14	Germination					
14 Day Vigor %	> 70	95.0 %								
Humic Ions										
	50 - 80	240.0	-2	7	Humic Ions					
Redox Potential										
Oxygen Potential	26.5 - 29	30.5								
Moisture %										
Moisture %	40 - 50	47.9 %								
Organic Carbon										
Organic Carbon		18.4 %								
C:N Ratio										
C:N Ratio	15 - 20	20.4:1	4	7	C:N Ratio					
Pathogens										
E. Coli	neg (=< 3 MPN/g)	neg	7	7	Pathogens					
Salmonella	neg (=< 0.5MPN/g)	neg								
Microbe Profile & Diversity Analysis										
Aerobic Count	100M - 10B	540 M	40	45	Microbes					
Anaerobic Bacteria	10:1 to 39:1	15,000 K								
Yeasts and Molds	1K - 100K	35 K								
Actinomycetes	1M - 100M	4 M								
Pseudomonads	1K - 1M	15,000 K								
N-Fixing Bacteria	1K - 1M	740 K								
Aerobic:Anaerobic Ratio	10:1	36 :1								
Diversity	>6.5	5.4								
Maturity Index	>50	77								
Stability	<20	7							Overall	
* NT indicates "Not Tested"			Total Score:	109	160					

Notes:



Every effort is taken to provide an accurate analysis of your sample. For reasonable cause a sample can be retested, but due to factors beyond our control in sampling procedures, our liability is limited to the price of the tests.

Reviewed/Approved by: Lab Manager