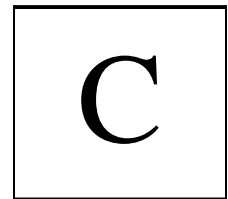




CORNELL NUTRIENT ANALYSIS LABORATORY

G01 Bradfield Hall, Ithaca, NY 14853
 Phone: (607) 255-4540; Fax: (607) 255-7656
 Email: soiltest@cornell.edu; Web: http://cnal.cals.cornell.edu



Compost/Biofuel Feedstock Analysis

Contact Information

Name _____ Company/Department _____
 Address _____ Telephone _____
 City _____ Fax _____
 State _____ Zip _____ E-mail _____

Sample Information

Sample Description _____
 Submission Date ___/___/___ Number of Samples _____

Cornell researchers please contact the lab regarding special arrangements prior to sample submission.

Potentially hazardous samples. Details _____.

Email results fax results mail results

Additional sample processing required. Please contact lab with details. (\$35/hr; 30 min increments)

Retain samples for 1 month after samples are received. (no charge)

Special report formatting. Please contact lab with details. (\$50/hr; 30 min increments)

Please mark your samples/containers with consecutive #'s for lab to use as your sample identification. Use sample ID form attached. After filling out the sample ID form please sent it to soiltest@cornell.edu, save a copy for your records, and mail a copy along with your sample & submission form.

NOTE: Compost analysis results are reported on a weight basis. To receive results on a volume basis (lb/yd³), please provide the bulk density for the sample or request the laboratory bulk density test. (See back for the procedure for determining on-site bulk density.) On-site bulk density = _____ lb/yd³

Payment Information

Total Amount Owed: \$ _____.

Our payment policies have changed – please see below.

Please indicate your method of payment below. If none of these choices apply to you, you will be given the option to pay by Credit Card (providing your cost totals **\$50 or more**), using the link on your invoice notification.

Checks made payable to CNAL, or Account/PO information due upon sample submission.

Check # or Business/University Account # _____

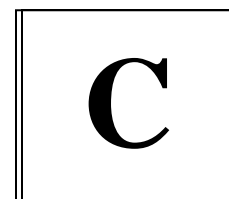
Purchase Order (P.O.) Number _____

Please select types of analyses from list on the reverse side.



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Compost/Biofuel Feedstock Analysis

Test Type *	Cost per Sample
<input type="checkbox"/> 3010 Percent solids, percent organic matter, pH, soluble salts, total nitrogen, total carbon, C:N ratio.....	\$60.00
<input type="checkbox"/> 3020 Test 3010 plus: ammonium, nitrate, phosphorus, potassium, calcium, magnesium, sodium, iron.....	\$85.00
copper, manganese, zinc, and aluminum, total ash content	
<input type="checkbox"/> 3201 Bulk density	\$10.00
<input type="checkbox"/> 3209 Nitrate-nitrogen	\$15.00
<input type="checkbox"/> 3210 Calcium carbonate equivalence (CCE)	\$30.00
<input type="checkbox"/> 3220 Total metals (Al, As, B, Ba, Be, Ca, Cd, Co, Cu, Fe, Hg, K, Mg, Mn, Na, Ni, P, Pb, S, Se, Si, and Zn)	\$30.00
<input type="checkbox"/> 3230 Biofuel Pkg.: water extractable chloride, total metals, ash/organic matter, CN	\$30.00
<input type="checkbox"/> Customized Analysis.....	Please fill out (NEW) CA Submission form

* No recommendations or interpretations. Please consult your local Cooperative Extension office for additional information.

Instructions

1. Collect approximately 2 cups (1 pint) of material from each of the locations (below the surface of the windrow, midway to the center of the windrow, and from near the core of the windrow). Place the samples in a clean 5 gallon plastic bucket.
2. Repeat this process at each of the sampling locations in the windrow or pile, adding the samples to the 5 gallon bucket.
3. Spread the material on a plastic sheet and mix it thoroughly to ensure homogeneity prior to taking a composite sample for analysis.
4. The number of sampling points depends on the size and configuration of the pile or windrow. Material should be collected from at least 5 locations around the pile or windrow and from three depths at each location. Separate composite samples should be collected from different windrows or piles.
5. Collect a composite sample (approximately 1 pound) from the mixed material. Place the material in a suitable clean container or Ziploc bag for shipping. Label the container or bag to identify the sample. Complete the compost sample analysis submission form. Mail the form, the labeled sample, and a check or a money order for the appropriate amount payable to Cornell University. Samples should be mailed directly to the laboratory as rapidly as possible.

On-Site Determination of Bulk Density

Materials: Sampling Shovel, 5-gallon bucket, scale (common bathroom scale is acceptable).

Procedure:

1. Weigh an empty 5-gallon bucket (W_b) _____ lb.
2. Fill the bucket half way, taking samples from various depths within pile.
3. Drop bucket 10 times from height of 6 inches.
4. Fill remaining portion of bucket approximately half way again and repeat dropping process.
5. Fill bucket to the top and repeat dropping process.
6. Fill bucket to the top one more time. Do not drop.
7. Weigh the bucket and compost and record weight: _____ lb

Calculations:

1. Subtract the weight of the bucket (W_b) from the weight of bucket and compost (W_{b+c}) to obtain net sample weight: _____ lb
2. Multiply net sample weight by 40 to convert to pounds/cubic yard: _____ lb/yd³
3. Record this number on the front of this form.

References

1. Test Methods for the Examination of Composting and Compost, USDA and U.S. Composting Council. 2002.
2. EPA Method 3051+6010. USEPA. 1986. Test Methods for Evaluating Solid Waste. Volume IA: 3rd Edition. WPA/SW-846. National Technical Information Service. Springfield, Va.
3. Standard Methods for the Examination of Water and Wastewater. 1992. 18th Edition, American Public Health Association, 1015 Fifteenth Street, NW, Washington, DC 20005.

****Anticipate 2-3 weeks for the completion of tests.**
 Please anticipate one month to complete pkgs. 3010+3020.**