



Woods End
Laboratories

April 1, 2010

Susan Blackburn
Baskin Livestock, Inc.
9778 Creek Rd.
Batavia, NY 14020

Dear Susan:

This letter awards your Cattle Compost (I.D.7660.0) the Woods End Best Use Seal as a Nutrient Compost, and has been registered with a rank score of 81.7 out of a possible 100 points. Use as a Garden Compost is also recommended (score of 79.4)

This product has the following overall traits: All of its measured traits are within good quality compost standard levels. Higher than often seen in compost, the nutrient levels are also revealed in the exceptional plant performance: the quality of seedling growth when compared with that in professional growing media was very high. No herbicide-related effects were seen in plant-testing. Because moderate levels of fecal bacteria are present, we recommend NOT using it for compost tea and mixing it thoroughly with soil when applied near crops eaten raw.

This award is valid for 1 year or the same batch of compost, whichever is sooner. A new batch/year of compost must be similarly tested, and a new certificate sought at that future time.

In addition you may post a Certificate for an additional \$250.00. You are also entitled to use the Seal of Best Use logo as a sticker or imprint on any bag or flyer about this product. The adhesive, highly weather-resistant labels are sold in rolls at a fee of \$17/100 stickers. Alternately, you may elect to use the digital Insignia imprint in the actual print/bagging process at a cost of \$25.50/1000 imprints up to 50,000, then \$18.50/1000 over that. To protect the quality of the Seal program, we appreciate corroboration of the quantity of bags ordered with an imprint.

For an additional fee, an agronomist at Woods End is prepared to draft a letter report on the high points of your product, independent of certification.

Congratulations, and welcome to the Woods End Seal of Quality program.

Sincerely,

William F. Brinton Ph.D.
President and Director

MATRIX Classification- Compost classification is performed by means of a statistical multi-array using actual analytical test results. This is one of the only means to determine what a compost is best used for. The array scores the goodness of fit or “match” within a best use category. There are 6 types of use recognized. The minimum level score to meet any category is 75%. Multiple category listings are possible. Scores <75% are registered as Quality Control composts. Please request separate information for this.

CATEGORY or Grade	SIGNIFICANCE OF CATEGORY	Testing typically required for
<i>Nutrient (fertilizer)</i>	high analysis product, somewhat unstable useful for field application	N-P-K moisture pH
<i>Garden Grade</i>	moderate analysis with stable traits and no pathogens used at fairly high rates safely in gardens and as a blend for other mixes.	OM, stability nutrients
<i>Potting Mix Grade</i>	High porosity very stable with moderate available nutrients for starting seedlings	salinity, nutrients stability
<i>Container Mix Grade</i>	More dense but well drained, moderately stable and low-salinity for use in large pots	density, drainage, stability salinity
<i>Top-Soil Replacement</i>	Dense, very stable, low salinity and low OM content useful for soil replacing	density, salinity stability
<i>Mulch Grade</i>	Very course, low nutrient low pH and high CN used as soil cover	CN, OM, pH, salinity

COMPOST ANALYTICAL PROCEDURES

Physical Parameters	Units	METHOD REFERENCE ¶
Density	lbs/yd ³ g/cc	ASA-41
Water Holding Capacity (WHC)	g 100g as is	WEL method
Total Solids (alt. Moisture Content)	g 100g TS	MAP
Dewar Self-Heating	Tmax in °C	BGK; WEL
Man-Made Inerts, Plastic, Glass, metal	g 100g TS	CSU
Chemical Parameters		
pH, saturated paste	- log H	EPA 150.1; MAP
Volatile Organic Acids (VOA, VFA)	mg kg TS	SM 5560C / HPLC-UV
Cation Exchange Capacity (CEC)	cmol / kg	ASA 41-2.2
Conductivity (EC), saturated paste/slurry	dS m	MAP; BGK
Volatile Solids (VS) (Loss on Ignition)	VS dm	<i>modified</i> TMECC 03.02
Organic Matter (OM)	VS-TKN%	(LOI - Total-N)
Total Nitrogen (TN)	TKN% dm	Combustion ASTM, MAP
Ammonium Nitrogen (NH ₃ + NH ₄)	NH ₄ -N ppm	SM4500-NH3G
Nitrate and Nitrite Nitrogen	NO ₃ -N, NO ₂ -N ppm	MAP
P K Ca Na Mg Cl Fe Mn Cu Zn Cr Pb Cd Ni Al As B Hg Mo Se	mg kg TS mg kg TS	SM, MAP
Biological & Microbiological Parameters		
Respiration Rate (CO ₂ -Evolution)	CO ₂ -Cmg g TS day	BGK, ASA-SSSA
DRI-ASTM (Oxygen Consumption)	mg O ₂ g VS hr	ASTM-5975-96
Oxitop	mg O ₂ g VS 3d	CEN Draft
Solvita Test for CO ₂ -respiration and NH ₃ -volatilization**	0 - 8 CO ₂ 1 - 5 NH ₃	Approved in CA, CT, TX, FL, IL, ME, MN, NJ, NM OH, WA
<i>Salmonella</i> (EPA 503)	MPN 4g TS	EPA #1682
<i>Fecal Coliform</i> (EPA 503)	cfu g TS	EPA #1680
<i>E. coli</i>	MPN g TS	EPA 1680 + SM9221F
<i>E. coli</i> 0157:H7	MPN g TS	<i>modified</i> FDA BAM
<i>Fecal Streptococcus</i>	MPN g TS	SM9230B
<i>Clostridium perfringens</i>	cfu g TS	<i>modified</i> FDA BAM
<i>Listeria</i> spp.	MPN g TS	<i>modified</i> FDA BAM
Cress Test, Phytotoxicity	% of Fafard Control	OECD, ACSO, BGK
Disease Suppression	% inhibition	Hoitink, Krause et al.
Lemma spp. (Duckweed) Toxicity Test	% inhibition	<i>modified</i> after SM 8211-A.
Viable Weed Seeds	>0.8 / liter	BGK
Herbicide BioAssay	0 - 5 severity scale	Bull. Env. Contam. Tox., CSU 2006

TEST METHOD REFERENCES

AOAC - Official Methods of Analysis 17th Edition (2004) Official Fertilizer Tests	ASA-SSSA - Methods of Soil Analysis, American Society of Agronomy, Soil Sci. Soc., Madison WI
ASTM- American Society of Testing Methods, Philadelphia published on-line: <i>Biodegradability Tests, Stability tests</i>	BAM- Bacteriological Analysis Methods On-Line
ACSD - Association of Swiss Composters, Methods Manual (2003)	EPA-600 - Methods for Chemical Analysis of Water and Wastes. US EPA (RCRA)
BGK - Bundesgutegemeinschaft Kompost (Germany Compost Association) Test Methods Manual 1998; <i>Biological tests, Self-heating, Cress/Barley tests</i>	OECD - Guidelines for Seedling Emergence and Seedling Growth Test #208, phytotoxicity
MAP- Manure Methods of Analysis. NCR-13, Univ of Wisconsin A3769 (2003) <i>pH, salinity, minerals</i>	SW-846 - Test Methods for Evaluating Solid Waste USEPA 1987 (NPDES)
SM - Standard Methods for the Examination of Water & Wastewater, 20th ED. Water Env Federation. fatty acids, TDS, phytotoxicity, lemma toxicity	WEL - Woods End Laboratories Standard Operating Procedure Manual - Internal Document
TMECC- Test Methods for Examination of Compost. (2002-DRAFT) Privately published Industry manual from U.S.Compost Council	Peer Review journals: CSU - Compost Science Utilization; Bulletin Environmental Contamination and Toxicity