



Intuitive Inoculation

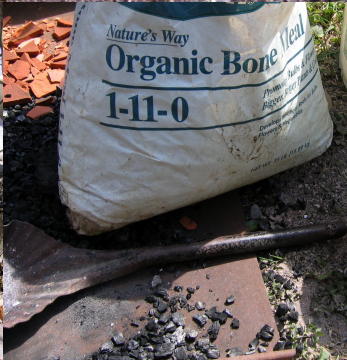
Dale Hendricks and Doug Clayton
2013 USBI North American Biochar
Symposium

early inspirations



2007-2009

Stumbling along and building awareness



2010

It's the compost, stupid!
Finally, some results!



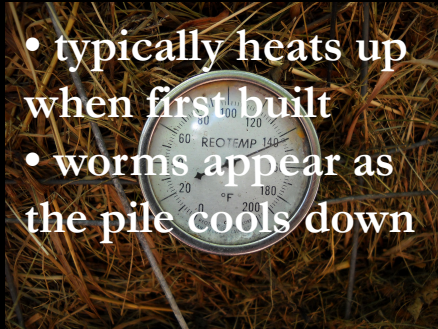
Using all the ways

- Hot
- Cold
- Vermiculture

Additions:

- dynamic accumulator teas





Feeding the worms ----- tens of thousands of them



uh-oh *Amyntas agrestis*

"crazy snake worm"



ANALYSIS REPORT FOR COMPOST

04/20/12

SOIL AND PLANT TISSUE TESTING LABORATORY
WEST EXPERIMENT STATION
UNIVERSITY OF MASSACHUSETTS
AMHERST, MA 01003

Lab Number: C120410-109
Bag Number: 107406

SAMPLE INFORMATION

DOUG CLAYTON
50 BULLARD ROAD
JAFFREY, NH 03452

COMPOSTING METHOD: HAND TURNED
AGE: 9 MONTHS
INTENDED USE:
COMPONENTS: MANURE, HAY, LEAVES, KI
TCHENWASTE, BIOCHAR

COMPOST ANALYSIS REPORT

SAMPLE ID: BIOCHAR ONE

Moisture As Received: 45.7 %
Moist Bulk Density: 0.56 grams/cm3 (0.47 tons/yd3)
Coarse Fragments: 24.5

pH (v:v): 6.8
Soluble Salts (Elec. Cond.): 2.71 dS/M

Total Nitrogen: 1.50 % (7.7 lbs/yd3)
Nitrate-N: 757 mg/kg (0.39 lbs/yd3)
Ammonium-N: 6 mg/kg (0.00 lbs/yd3)

Organic Matter: 33.2 %
Estimated Organic Carbon: 17.9 %
Carbon/Nitrogen Ratio: 12.0

NUTRIENT RATING

NUTRIENT LEVELS: PPM	LOW	MEDIUM	HIGH	VERY HIGH
Phosphorus (P) 555	XX			
Potassium (K) 3154	XX			
Calcium (Ca) 5305	XXXXXXXXXX			
Magnesium (Mg) 1380	XXXXXXXXXXXXXXXXXXXX			

EQUIVALENT BASE CATION PERCENTAGES
Ca =57.8 Mg =24.7 K =17.6

POTENTIAL ACIDITY
0.0 lbs CaCO3/yd3

EXTRACTABLE MICRONUTRIENTS

MICRONUTRIENT	mg/kg	COMPOST RANGE
Boron (B)	3.1	(0.5-20)
Manganese (Mn)	33.1	(5-200)
Zinc (Zn)	14.3	(5-50)
Copper (Cu)	0.4	(0.5-5)
Iron (Fe)	5.2	(5-200)

SOIL AND PLANT TISSUE TESTING LABORATORY
WEST EXPERIMENT STATION
UNIVERSITY OF MASSACHUSETTS
AMHERST, MA 01003

Lab Number: C120531-106
Bag Number: 109689

SAMPLE INFORMATION

DOUG CLAYTON
50 BULLARD ROAD
JAFFREY, NH 03452

COMPOSTING METHOD: HAND TURNED
AGE: FINISHED
INTENDED USE: GARDEN
COMPONENTS: C120410-109 AGED/EXP
OSED TO WEATHER

COMPOST ANALYSIS REPORT

SAMPLE ID: BIOCHAR-2

Moisture As Received: 51.8 %
Moist Bulk Density: 0.55 grams/cm3 (0.46 tons/yd3)
Coarse Fragments: 10.9

pH (v:v): 7.2
Soluble Salts (Elec. Cond.): 0.93 dS/M

Total Nitrogen: 1.21 % (5.4 lbs/yd3)
Nitrate-N: 156 mg/kg (0.07 lbs/yd3)
Ammonium-N: 0 mg/kg (0.00 lbs/yd3)

Organic Matter: 35.2 %
Estimated Organic Carbon: 19.0 %
Carbon/Nitrogen Ratio: 15.8

NUTRIENT RATING

NUTRIENT LEVELS:	PPM	LOW	MEDIUM	HIGH	VERY HIGH
Phosphorus (P)	536	xx			
Potassium (K)	1817	xx			
Calcium (Ca)	5343	xxxxxxxx			
Magnesium (Mg)	1320	xxxxxxxxxxxxxxxxxxxxxxxx			

EQUIVALENT BASE CATION PERCENTAGES
Ca =63.4 Mg =25.7 K =11.1

POTENTIAL ACIDITY
0.0 lbs CaCO3/yd3

EXTRACTABLE MICRONUTRIENTS

MICRONUTRIENT	mg/kg	COMPOST RANGE
Boron (B)	3.0	(0.5-20)
Zinc (Zn)	13.3	(5-50)
Copper (Cu)	0.4	(0.5-5)
Iron (Fe)	3.2	(5-200)











ITALIAN

Red Wing

RED WING
BIOCHAR

RED WING
BIOCHAR

COFFEE
BIOCHAR

COFFEE
BIOCHAR

X

Red Bull
BIOCHAR

Red Bull
BIOCHAR

X



MIRACLE-GROW

BIO-LAR

DILETT

BIO-LAR





Preparing a pepper bed with
1" of biochar compost cut
into the top 6"



Brand X compost

Urine/biochar compost







Thank you for your interest
and thanks to all who have inspired our biochar endeavors