Integrated Biochar Plant

Energy Utilization, Biochar processing, & Finished Goods Packaging

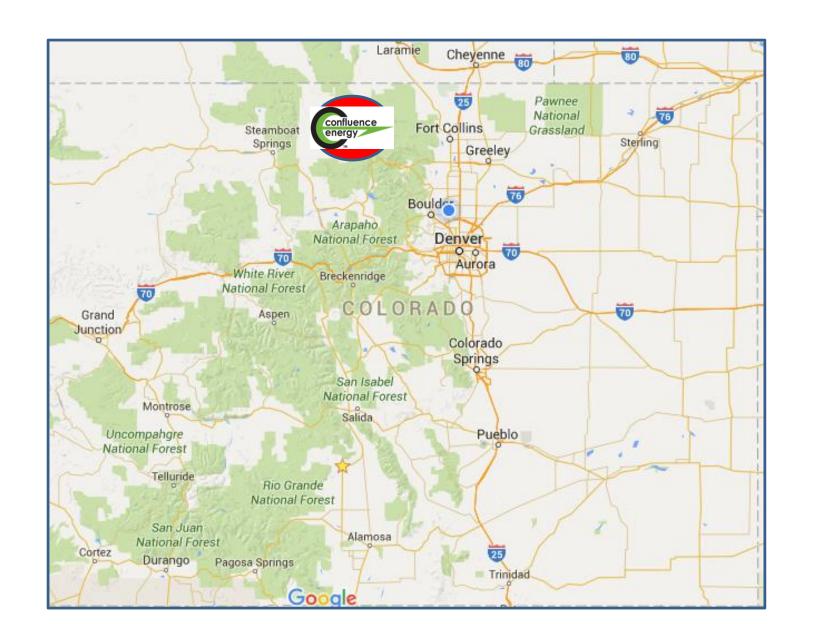
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Confluence Energy – Walden Organics – EcoPett



Production Method and Materials Confluence Energy LLC

Confluence Energy LLC – <u>www.confluenceenergy.com</u>

Integrated production style

12 truck per day mill

Primary product is densified wood fiber (PELLETS)

The heat engine for the plant is a wood gasification system

CE – installed a pyrolytic tube in the gasification system and once started the pyrolytic gas can fuel 75 % of the gassifier

Production Method and Materials Confluence Energy LLC

- Controllable resonance time
 - Typically operated between 45 and 75 minutes
- Pine chip feedstock
 — controlled to specific moisture
- HHT of 1260 C as a maximum outside temp on the surface of a heated tube
 - TGA shows char acting as a 500 degree C material
- Screened to above and below 6mm

Production Method and Materials Confluence Energy LLC

KEY POINTS-

This is an integrated facility

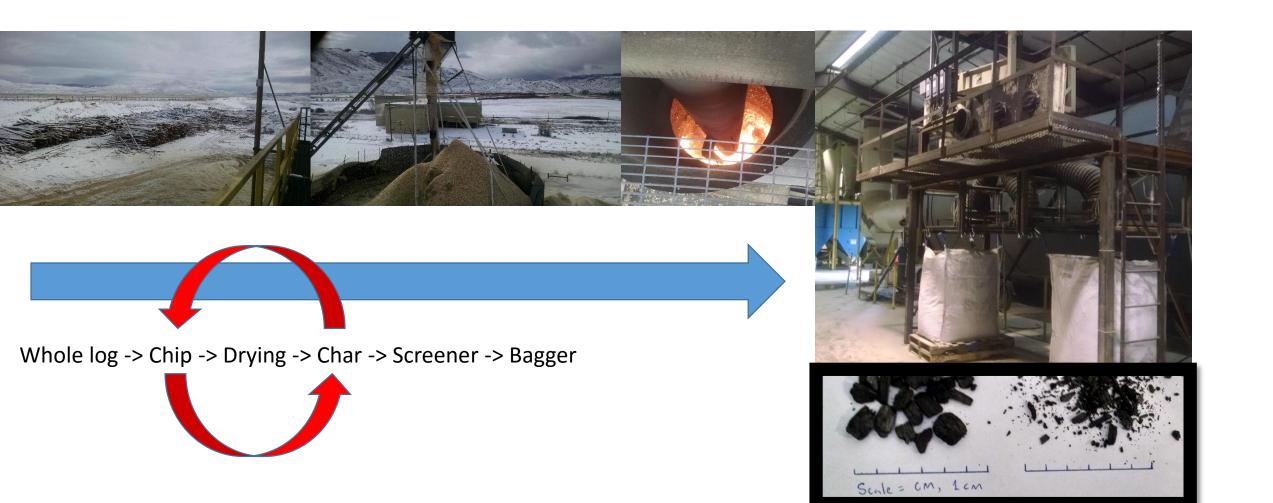
Heat (energy) is used on site

Trucking and packaging is on site

Industrial tooling and staffing are onsite

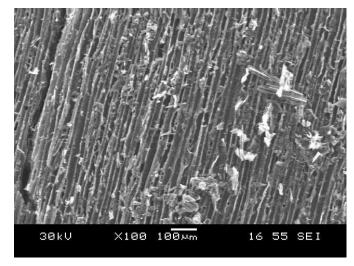
This is a big step for the development of the biochar industry- an integrated energy and production commercial scale system

Production Method and Materials #1 Confluence Energy LLC



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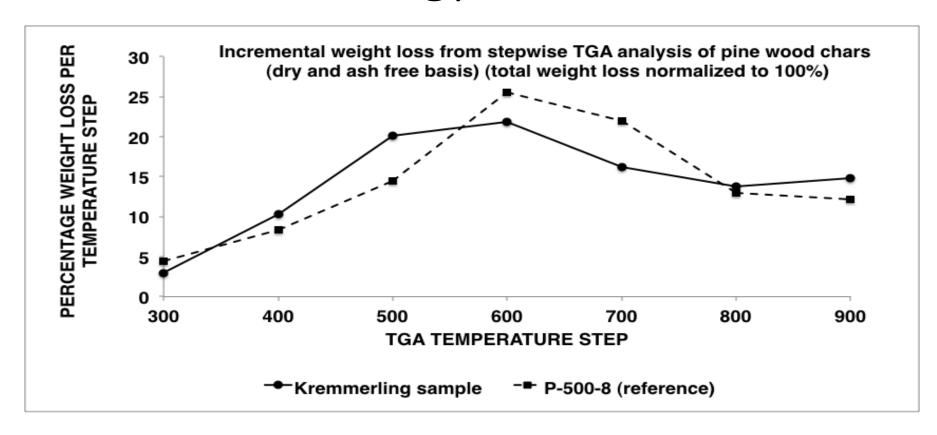




Soil Control Lab 3rd party Results								
1/27/2015								
General specs								
Fixed Carbon Content		85%						
Total H		5.20%						
Total N		0.50%						
рН		8-9						
Butane		11.5	g/100g					

Soil Control Lab 3rd party Results 1/27/2015						
			Starting mg/L	Ending mg/L	Unit change	Percent Reduced
1	Arsenic	As	2.07	0.005	2.065	99.8%
2	Cadmium	Cd	1.84	0.01	1.8	99.5%
3	Chromium	Cr	1.77	0.004	1.8	99.8%
4	Copper	Cu	1.45	ND	< MDL Below MDL	< MDL Below MDL
5	Lead	Pb	0.123	0.002	0.1	98.4%
6	Zinc	Zn	4.28	0.035	4.2	99.2%
7	Nickel	Ni	0.019	0.019	0.0	0.0%
8	Molybdenum	Мо	0.65	ND	< MDL Below MDL	< MDL Below MDL
9	Selenium	Se	2.31	0.011	2.3	99.5%

Production Method and Materials #1 Confluence Energy LLC



TGA reference- Dr. David Rutherford, dwruther@usgs.gov









Garden Mulch





Garden Mulch

Ideal as a Weed Barrier & for Moisture Control



- ALL NATURAL
- TOP LAYER WEED CONTROL
- PROMOTES RETENTION OF MOISTURE
- HELPS PROTECT PLANTS

39 Dry Quarts



Ideal as a Weed Barrier & for Moisture Control

Key Features

- Agronomical valuable mulch!
- 5 Year Aged Forest Humus
- Screened to 3/8th inch
- 80:1 C:N Ratio
- Recommended for outdoor use
- To be added each year
- Best for mulching planting areas after planting and as a blanket for garden areas during winter
- Late season sales-biggest months May and June
- Comprised of our aged forest humus
- Sold in 1.5 cubic foot bags/50 bags per pallet
- Suggested retail price-\$6.00
- Available in Bulk Tote and Bulk Bag

Outdoor Garden





Outdoor Garden Mix

Ideal for All Outdoor Gardening



- ALL NATURAL & ENVIRONMENALLY SUSTAINABLE
- CONTAINS TRUECHAR™ BIOCHAR
- FOR FLOWERS, VEGETABLES, TREES & SHRUBS
- SUPPORTS SOIL STRUCTURE
- & MOISTURE RETENTION

32 Dry Quarts

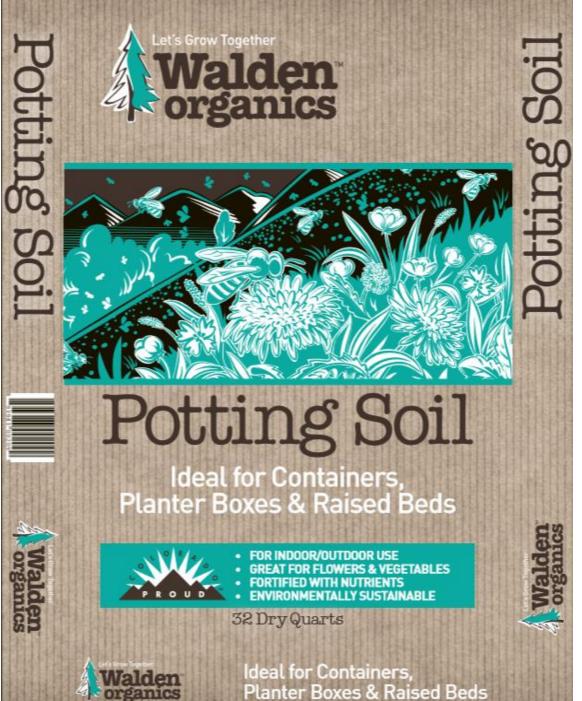


Ideal for All Outdoor Gardening FLOWERS, VEGETABLES, TREES & SHRUBS

Key Features

- · Recommended for outdoor use
- Best for amending garden soils prior to planting and adding organic matter back to native soils
- Should be added each year to garden
- Early season sales-April/May
- Comprised of our aged forest humus, compost and TrueChar ™
- Sold in 1.25 cubic foot bags/60 bags per pallet
- Suggested retail price-\$7.00
- Available in bulk tote and bulk bag





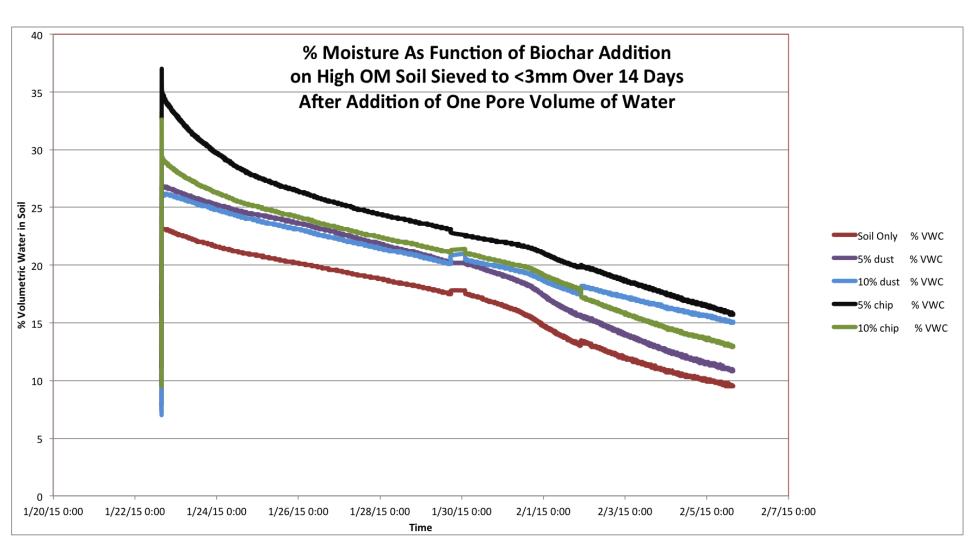
Key Features

- Ideal for both indoor and outdoor use
- Used primarily for container gardening
- Year round sales-biggest months April through July
- Quality sensitive category
- Comprised of our aged forest humus, compost, peat moss, perlite, TrueChar
 ™ and a broad spectrum nutrient package
- Our potting soil has good porosity, high CEC, pH balance with 90 day starter nutrients included.
- Sold in 1.25 cubic foot bags/60 bags per pallet
- Suggested retail price-\$12.00

Materials Utilization -- Lab Work Moisture Control

After applying the same volume of water to soil and allowed to dry for 14-days, the soil only control contained 39.5% less water than the soil with 5% chipped biochar.

Morgan Williams- Applied Soils LLC



Additional resources working in this direction – Potential Use of Biochar in Growing Media- by M. Reza Nemati Et Al. Vadose Zone Journal, June 2014; Biochar-Induced Changes in Soil Hydraulic Conductivity and Dissolved Nutrient Fluxes Constrained by

IDEAL FOR COOPS AND SMALL ANIMALS

THE ECOPETT DIFFERENCE

ENIRONMENTALLY FRIENDLY INGREDIENTS

Recycled beetle-kill pine trees • Activated carbon traps and eliminates odors

PROMOTES CHICK HEALTH

Quick absorbency resulting in reduced ammonia levels and spreading of wet spots . Reduces chick mortality . Provides natural material for dusting

POWERFUL, LONG LASTING PERFORMANCE

Expands up to 5 times its size when exposed to moisture • Pound for pound it is the most absorbent bedding you can find . Reduces cleaning by 50%

PACKAGING 35 lb. bag

55 bags per pallet

MADE FROM RECYCLED, BEETLE KILL PINE TREES

MANUFACTURED IN THE USA

State Tax Exempt for Colorado Purchases

EcoPett™ Natural Pine Coop Bedding is a highperforming, super absorbent product with powerful odor control. It out performs and lasts longer than hay, wood shavings and other products on the market. 100% natural, compostable and environmentally sound - this bedding is the best choice for healthier chickens and small animals.

Chicks Dig It!



OUR COMMITMENT

We are committed to protecting our planet Earth by utilizing local beetle-kill pine and other natural ingredients to produce our products and by using our innovative, patent-pending, sustainable manufacturing process. With this, we are reducing our carbon footprint by 25% through the production of biochar, which sequesters carbon, and by deriving 50% of our energy from renewable, biomass sources.

CONFLUENCE ENERGY - MAKING A GREEN PRODUCT EVEN GREENER.

VISIT confluenceenergy.com/goingcarbonnegative for more of our story.



ConfluencyEnergy.com 970.724.9839

ATURAL PINE (OOP BEDDING



- SUPER ABSORBENT
- GREAT ODOR CONTROL
- EASY TO USE & TO CLEAN
- PROMOTES CHICK HEALTH

Also great for household pets







COOP BEDDING

100% Organic & Environmentally Friendly MADE FROM RECYCLED, BEETLE-KILL PINETREES

NET WT 35 LBS (15.9 KG) Salid by weight, not by valures. Some settling may occus



MANUFACTURED IN THE USA

Pett EASY TO USE & CLEAN 100% Organic & Environmentally Friendly

NATURAL PINE COOP BEDDING

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www.confluenceenergy.com - 970-724-9839

EcoPett ™ - Natural Pine Coop Bedding

From the manufactures of:

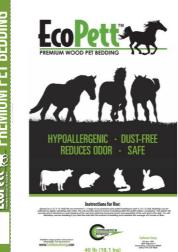
PINE COOP BEDDING

EcoPett ™ Premium Wood Pet Bedding Crumbles EcoPett ™ Premium Wood Pet Bedding EcoPett ™ Pine Cat Litter

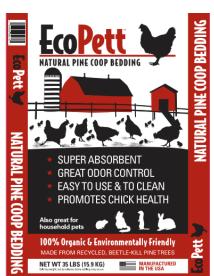




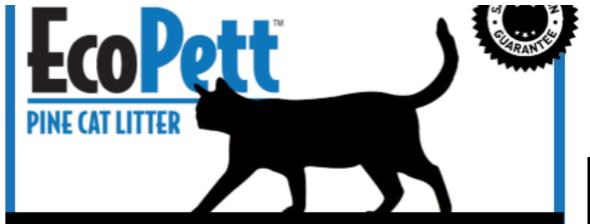












CONSCIOUSLY CREATED FOR A HEALTHIER CAT & HOME

THE ECOPETT™ DIFFERENCE

★ SUSTAINABLY PRODUCED

The only cat litter on a path to a carbon-negative manufacturing process.

★ HEALTHIER CAT & HOME

100% organic • Clay-Free (no harmful silica products) • Dust-Free • Fragrance-Free • Toxin-Free

* ENVIRONMENTALLY FRIENDLY INGREDIENTS

Recycled, beetle-kill pine trees • Activated Carbon trapping & eliminating odors • Biodegradable

PACKAGING

20 and 10 lb. BAG8

MADE FROM RECYCLED, BEETLE KILL PINE TREES

MANUFACTURED IN THE USA

State Tax Exempt for Colorado Purchases

EcoPett™ Pine Cat Litter is a high-performing, quick-clumping, super absorbent product with a powerful odor control. It out performs and lasts longer than other pine, nut, corn and clay-based litters on the market. 100% natural, biodegradable and environmentally sound – this cat litter is the best choice for a healthier cat and home.

OUR COMMITMENT

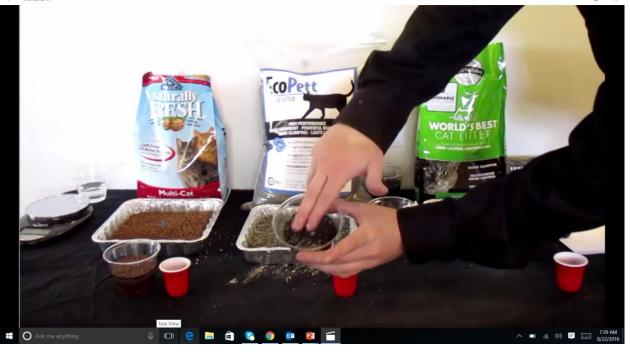
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Questions and Comments Please

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