



South Dade Soil & Water Conservation District

Presentation to the US Composting Council
January 30, 2013



William Townshend

(305) 242-1288

**SOUTH DISTRICT
WASTEWATER TREATMENT PLANT**
MIAMI-DADE WATER AND SEWER DEPARTMENT



Solar drying biosolids with the help of a Brown Bear turning machine.

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Solar drying beds at MDWSD South District Plant.

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Trommel screen used to properly size finished product.

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Forced air equipment for aerated static pile.

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Windrow of solar dried biosolids placed over air system.

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MIAMI-DADE WATER AND SEWER DEPARTMENT**



Temperatures in the aerated static pile.



State of Florida
Department of Agriculture and Consumer Services

FERTILIZER LICENSE

Chapter 576, FLORIDA STATUTES

FLORIDA ORGANIX

1450 NORTH KROME AVENUE, #104

FLORIDA CITY, FL 33034

License No. F1886

This is to certify that the person whose name and address are shown above, has paid the required fee of \$200.00 and is hereby granted this license to distribute fertilizer in the State of Florida as defined in Section 576.021(1), F.S. This license will expire June 30, 2012.

ADAM H. PUTNAM
Commissioner



Class AA fertilizer license from the State of Florida.



CITY OF

HOMESTEAD

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Discover the Opportunities



City of Homestead Waste Water Treatment Plant.



CITY OF

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Approximately 17% solids cake biosolids from the City of Homestead Centrifuge.



CITY OF

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Discover the Opportunities



Area for drying beds and greenhouse.



World leader in Retractable Roofs

Cravo retractable roof
greenhouse for the City of
Homestead.



SOLorganics

"AA" Bio-solids conversion...done NATURALLY



Solar Sludge Drying The world's most affordable and environmentally responsible Composting Solution

solar sludge drying resources

why solorganics?

sludge drying brochure

sludge drying video

solorganics resources

about solorganics

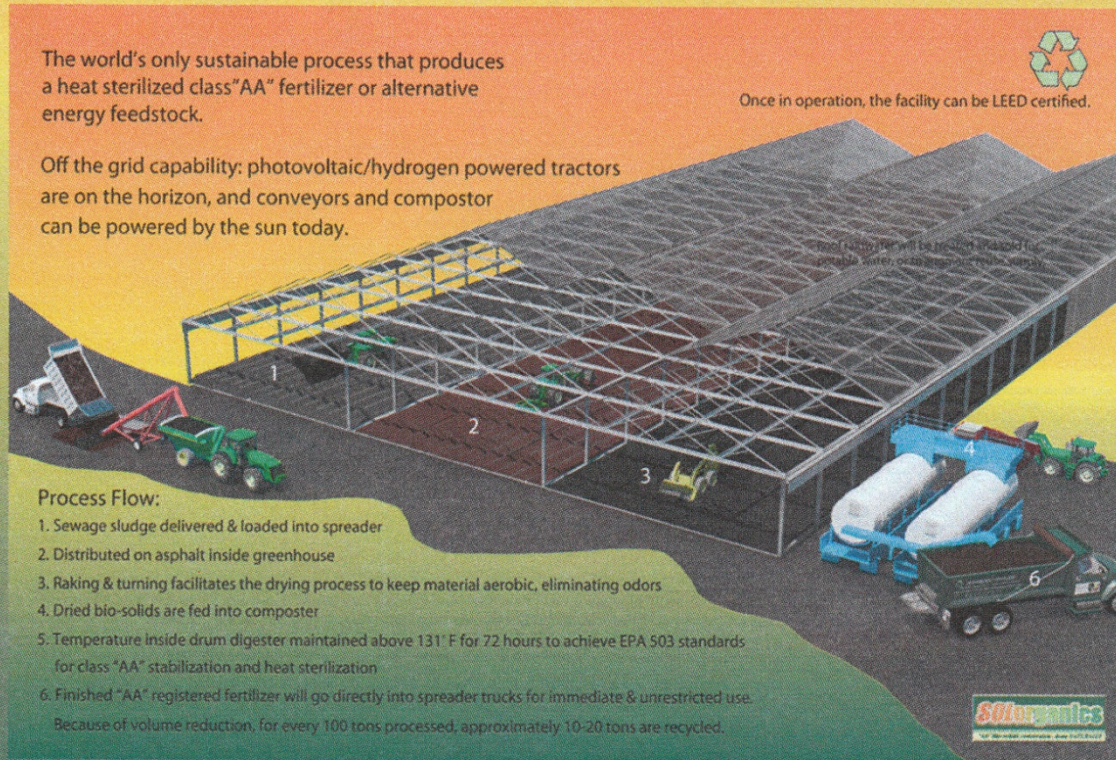
contact solorganics

Solorganics project
in Clermont,
Florida now in
production.

The world's only sustainable process that produces a heat sterilized class "AA" fertilizer or alternative energy feedstock.

Off the grid capability: photovoltaic/hydrogen powered tractors are on the horizon, and conveyors and compostor can be powered by the sun today.

Once in operation, the facility can be LEED certified.



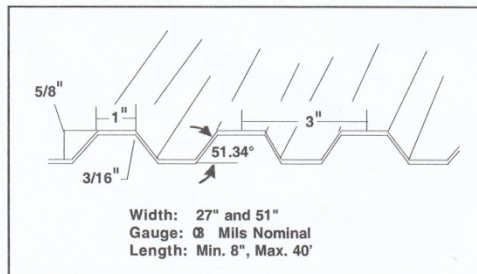
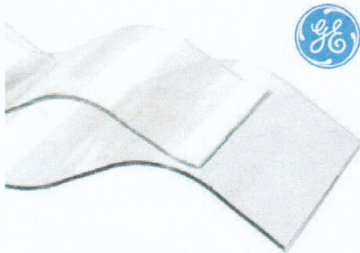
A recycled / recyclable operation...

- Asphalt drying pad (made from recycled road material)
- Greenhouse framework (made from recycled metal)
- Polycarbonate roofing panels (recyclable)



Internationally, greenhouses (appropriately sized) have proven year round drying capability during inclement weather. Once a critical mass of dried material is reached, Solorganics has refined the technique of mixing wet bio-solids with this hot dried material to provide capacity during rainy weather.

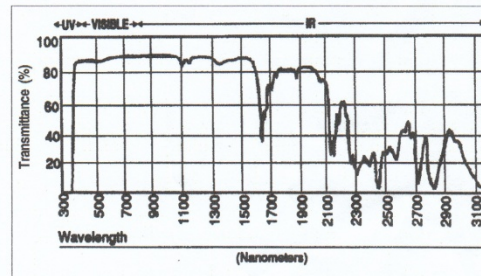
Clear LEXAN® Corrugated sheet is the product of choice for cost effective, impact resistant, crystal clarity, long-lasting applications.



LEXAN Corrugated Sheet Profile and Dimensions

Property	Eng. (SI) Units	1/4" Single-Layer Glass	LEXAN Corrugated Sheet
Impact Strength		Very Poor	Excellent
Heat Deflection Temperature per ASTM D648	°F (°C)	484 (240)	257 (125)
U Value	Btu/sq.ft./hr. (°F/in.)	1.13	1.2 (.70 with curtain)
Visible Light Transmittance per ASTM D1003	%	90	90
Weathering (Light Transmission) After Aging		Excellent	Excellent
UV Transmission	%	80	<3%

Comparison of Glazing Materials



LEXAN Corrugated Sheet Wavelength Transmission



SOLorganics

"AA" Bio-solids conversion...done NATURALLY

Greenhouse used by Solorganics project.

The Process...

1



Blending wet bio-solids with dried solids provides inclement weather capacity

2



Raking & mixing wet material with dry accelerates the drying process (even on rainy days)



SOLorganics

"AA" Bio-solids conversion...done NATURALLY

Is Simple

3



80% volume reduction in 3-7 days
(Depending on the % solids of incoming material)

4



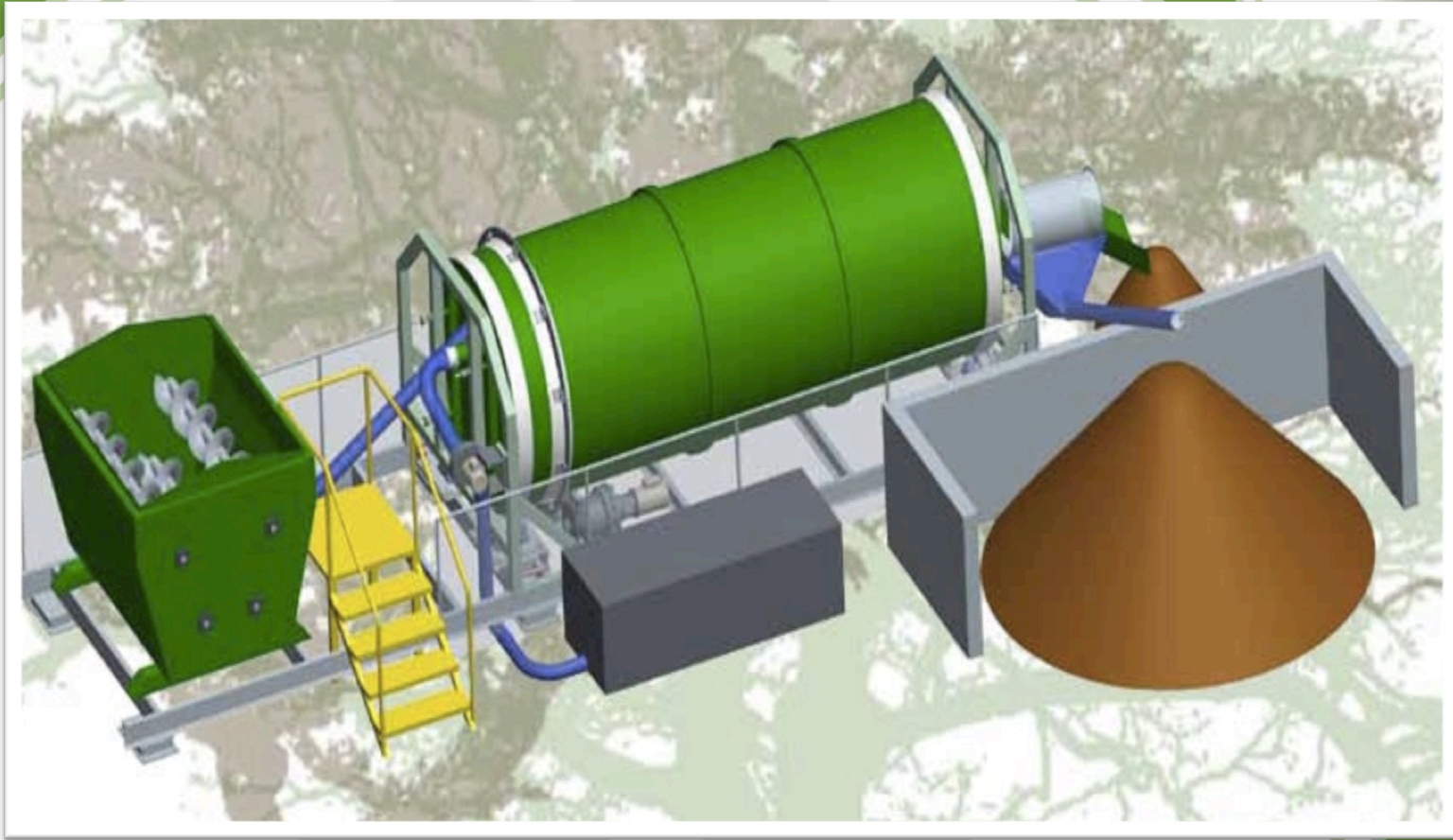
Friendly microbes inside the drum create heat sufficient to meet EPA 503 time and temperature requirements for stabilization.



SOLorganics

"AA" Bio-solids conversion...done NATURALLY

DariTech Inc.



Compost vessel used by Solorganics project.

DariTech Inc.



Large Scale Layout for Multiple Vessels

Broken Sound Club



Food waste in-vessel composting at the Broken Sound Facility in Boca Raton.

DariTech Inc.



**DariTech in-vessel composter for food waste at
Charlotte Airport in North Carolina.
64ft X 26 ft space requirement 40 cy capacity**

Butler Oaks Farm



Cow manure composting at Butler Oaks Farm in Lorida, Florida.



South Dade Soil & Water Conservation District

1450 North Krome Ave. Suite 104

Florida City, FL 33034

Office: (305) 242-1288

Fax: (305) 242-1292

www.southdadeswcd.org

Email: southdadeswcd@southdadeswcd.org

THANK YOU!