

Appendix

Section A

Photo Sheets **RT Solutions Vermicomposting** **Facility and Process**

Photo Sheet 1



RT Solutions, LLC Vermicomposting Facility
(Left to Right)

- (1) Finished Product Processing Building**
- (2) Vermicomposting Building**
- (3) Office Trailer**
- (4) Composting Building**
- (5) Raw Feedstock Storage**

Photo Sheet 2



On-site 1,000,000 gallon manure lagoon

Satellite 7,000,000 gallon manure lagoon

Coyne Farm Dairy (1,000 head dairy operation)

Photo Sheet 3



Manure Separator Facility - Separated dairy manure solids are put through the screw-press, collected and then transported approx. ½ mile to the vermicomposting facility.



Manure Separator Facility

Photo Sheet 4



Raw Storage Building

Feedstock material (separated dairy manure and off-spec silage) is delivered to and mixed in the raw storage collection building.



Composting/Conditioning Building (Thermophilic)

Feedstock material (dairy manure and off-spec silage) is composted and meets pathogen destruction requirements (PFRP) prior to vermicomposting.

Photo Sheet 5



Vermicomposting/Processing Building

Vermicomposting digesters (120' x 8' each)

Photo Sheet 6



Environmental Controls (Water and Heating)

Overhead misting/watering system with automated controls. Overhead radiant heating system.



Vermicomposting/Processing Building

Environmental Controls

Photo Sheet 7



Environmental Controls (Moisture / Temp)

Cover system design specifically to regulate the moisture and temperature conditions across the surface of the digesters.



Vermicomposting/Processing Building

Environmental Controls

Photo Sheet 8



Environmental Controls (Temperature)

Forced aeration system (beneath the digesters) specifically designed to regulate temperatures within the digesters. System also serves to dry finished material harvested from the beds.



Vermicomposting/Processing Building

Environmental Controls

Photo Sheet 9



Finished Product Storage Building
Location of screening plant and shipping center

Appendix

Section B

Photo Sheet

Elzinga & Hoeksema Greenhouse, LLC

Photo Sheet 1



Elzinga and Hoeksema Greenhouses, LLC

Ten (10+) acre greenhouse
located in Portage, Michigan

ELZINGA &
HOEKSEMA
GREENHOUSES



Liquid Vermicompost Units

Appendix

Section C

Photo Sheets

Plant Growth & Disease Suppression

Elzinga Greenhouse

Cornell University

PHOTO SHEET 1

Elzinga and Hoeksema Greenhouse Trials Peppers (Nov. 2007)



With Worm Power

Without Worm Power



With Worm Power

Without Worm Power

Note: All work was completed by Elzinga and Hoeksema personnel.

PHOTO SHEET 2

Elzinga and Hoeksema Greenhouse Trials Tomatoes (Nov. 2007)



With Worm Power

Without Worm Power



With Worm Power

Without Worm Power

Note: All work was completed by Elzinga and Hoeksema personnel.

PHOTO SHEET 3

Cornell University Dept. of Plant Pathology
Plant Disease Suppression Bioassays (Oct. 2007)
Using Cucumber Seeds

UNINOCULATED

INOCULATED



Legend:

VC = Vermicomposted dairy manure

Uninoculated = no disease exposure

Inoculated = exposed to the disease *pythium aphanidermatum*

Key:

- (1) Germinated cucumber seed in sterile soil (uninoculated)
- (2) Germinated cucumber seed in sterile soil with 20% VC (uninoculated) - Note vigor and size of seedlings
- (3) Germinated cucumber seed in sterile soil (inoculated with *pythium aphanidermatum*)
- (4) Germinated cucumber seed in sterile soil with 20% VC (inoculated with *pythium aphanidermatum*)