

DOUBLE S RANCH

Organic Recovery Project



Sponsored by FORCE
Florida Organics Recycling Center for Excellence



SUMMARY

By bringing in food waste materials from food manufacturing facilities such as Domino's, Publix and Lykes to the Double S Ranch, a low cost beef feed was developed. A "tipping fee" was charged, helping reduce the feed cost to half the price of conventional feeds. The "tipping fees" were much less than landfill charges, making easy economical sense for the manufacturer to divert the material to the project.

Cattle were brought into the Double S Ranch, fed the low cost beef feed and returned to market, typically within 90 days. All cattle achieved weight gains that were consistent with cattle fed conventional feed.

Recycling has to be economically feasible to be successful. Not only does this project demonstrate the savings to the food manufacturer and the ranchers, but the largest financial impact is reducing the significant costs of siting,, permitting and building of future landfills.



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INTRODUCTION AND PURPOSE OF THE PROJECT

This project demonstrates how food waste can economically and environmentally be recycled into cattle feed through an on site mixing and blending process. The project focuses on feeding food process by-products directly to cattle.

An attractively priced feed developed that also diverts waste materials from land fills was a goal.

Education of local and state ranchers in the use and value of the feed was a focus of the project.



LOCATION, TIMELINE AND STAFF

Project Location:

Double S Ranch
4103 County Road. 526
Sumterville, Fl 33585

Project Begin Date:

January 1, 2004

Project End Date:

June 30, 2005

Project Staffing:

James (Jim) B. Stevens, President & Owner, Organic Matters, Inc.
(Resume with qualifications follow)

Bob Stossel, Ranch Manager, Double S. Ranch

Ronnie Barron, General Manager, Organic Matters, Inc.



DESCRIPTION OF PROJECT LOCATION

The Double S Ranch located at 4103 County Road. 526, Sumterville, Florida is leased by Organic Matters, Inc. of Bartow, Florida. The Sumterville location was utilized on a daily basis for feeding various feedstocks.

Its' proximity (5 miles from FORCE) to FORCE lent itself to visits by FORCE and its staff as well as demonstrations/presentations which were made to Sumter County ranchers.

Although the demonstration site was not at FORCE, Organic Matters, Inc. believes that through the association with FORCE others will be encouraged to recycle rather than landfill their food waste.



RESUME AND QUALIFICATIONS

James (Jim) B. Stevens

President of Organic Matters, Inc. and Organic Soil Builders, Inc. Organic Matters, Inc. has its food waste recycling plant in Bartow, Florida. Organic Soil Builders, Inc. has a composting site in Ocala, Florida.

Born in Miami in 1951. Graduated from the University of Florida, School of Agriculture in 1975. Major in Animal Science, with a minor in Food and Resource Economics.

In 1975, joined the family rendering business in Georgia. In 1976, the company expanded from recycling meat byproducts and restaurant grease to include bakery waste. His family sold the rendering plants in 1985 and Jim became President of a one plant bakery waste recycling operation. In ten years the company grew to twelve plants servicing most of the United States east of the Rockies. In 1995, when Jim sold the company, then known as International Processing Corporation, it was the largest bakery waste recycler in the world, processing 750,000 tons annually. International Processing Corporation was sold to Darling International, which then became the largest recycler of all types of food waste, with over \$500 million in annual sales.

After serving for six months on the Executive Committee at Darling International, Jim decided to indulge his love of horses and purchased a race horse training center in Ocala. With over 200 horses in training, the environmental issues associated with manure disposal became immediately apparent. As a result, Jim started Organic Soil Builders, Inc., which is now the largest livestock manure management and compost company in Florida, handling tens of thousands of tons annually.

Organic Matters, Inc. is a food waste company recycling materials as diverse as bakery, confectionery, salad dressings, condiments, and ice cream production waste. The company keeps thousands of tons of these food wastes out of land fills while producing high-quality animal feed ingredients.

Jim was presented with Recycle Florida Today's (RFT) prestigious Individual Sustained Commitment Award during their annual convention at Hutchinson Island, Florida in June, 2002.

Jim's companies have converted millions of tons of food processing waste into animal feeds over his 25 year career in the recycling industry. Jim is now committed to making his home state of Florida a leader in the recycling of all types of organic wastes.



PROJECT GOAL

The goal for this project set forth by Organic Matters, Inc. and the Florida Organics Recycling Center for Excellence (FORCE) was as follows:

- Develop practical and economical solutions for using Florida's organic wastes.

The following pages address each objective individually and how each was accomplished or fulfilled to achieve the goal.



OBJECTIVE 1

.To conduct environmental research related to organic feedstocks, products, applications, and facility operations.

- This project determined the feasibility of turning food processing waste into cattle feed.
- The project further evaluated the suitability of using existing technology and equipment at the ranch.



OBJECTIVE 2

To develop a comprehensive range of organic products for Florida's end-use markets.

- Made a very specific economic cattle feed for half the price of conventional feed.
- The cattle feed produced a more profitable weight gain not only to our own cattle, but was able to be sold to other livestock producers who enhanced the profitability of their cattle feed operations.



OBJECTIVE 3

To conduct problem-solving research, demonstrate practical applications of organics recycling solutions, and provide research and assistance to organics product producers and end users.

- Used a wide range of food waste to incorporate into our cattle feed and as the company matures, other waste streams from Florida food processors/producers will be identified and introduced into the rations.
- We have educated other cattle ranches locally and across the state about the value and economics of the feed. This was done through demonstrations at our booth at the Florida Cattlemen's Convention in Marco Island and a Field Day offsite at Lightsey Cattle Company in Lake Wales, Florida. Lightsey Cattle Company has fed the rations since the inception of the project.



OBJECTIVE 4

To provide recommendations through research for the development of standardized processing methods for recycled organics products.

- We have developed a system of blending, grinding and mixing the food waste product into a palatable and uniform cattle feed.



OBJECTIVE 5

To develop products and identify markets for recycled organics materials.

- This project has identified cattle feed as a market for organic waste and through this project has developed a system that will keep thousands of tons of organic waste out of Florida landfills while at the same time provide an economic source of feed to the cattle industry.



OBJECTIVE 6

To facilitate the integration of technologies (i.e. in-vessel, windrow) and feedstocks (i.e. agricultural wastes, food wastes, bio-solids, municipal solid waste).

- By utilizing previously existing technologies from waste handling and cattle feed operations, we were able to successfully achieve our goal.



OBJECTIVE 7

To provide a multi-year structure to support accurate evaluation of field applications of organics recycling technologies and end products.

- With the help of FORCE's grant as seed money we were able to create a profitable business that will continue to recycle food waste for years to come.



OBJECTIVE 8

To replace a “disposal” approach to organics processing with a “recycling/marketing” approach.

- Because we can create a valuable product out of a waste stream that had previously been landfilled, we can charge a lower “tipping fee”. The waste stream producer not only saves money on his disposal costs, but also gets the satisfaction of running his business in a more environmentally responsible way.



OBJECTIVE 9

To generate and disseminate information to the public and private sectors concerning the practical application and field implementation of organics recycling technologies and products.

- Because of the project's close proximity to FORCE headquarters, this project can be an ongoing demonstration site for the positive contributions FORCE is making towards advancing its goals of recycling a larger percentage of the organic waste produced in Florida.



OBJECTIVE 10

To provide assistance with the development of practical guidelines for organics processing based on documented information generated by research and demonstrated results.

- This project demonstrated that food waste can economically be converted to cattle feed with the average daily gains and feed conversion rates being comparable to traditional cattle feeds.



OBJECTIVE 11

To establish a hospitable venue for additional funding assistance from federal, state, private and industry sources.

- Because FORCE has helped provide the seed money for this project to grow into a profitable business, the project has achieved the enviable position of being financially self sustaining.



OBJECTIVE 12

To demonstrate a variety of organics recovery technologies and feedstocks in field applications.

- No field applications of organic waste was considered during this project. The organic waste that we acquired was used to feed cattle. The feed was then converted into beef and manure. The beef was sold and the manure was used for fertilization of pasture.



WELCOME TO A TOUR OF THE DOUBLE S RANCH ORGANIC RECOVERY PROJECT

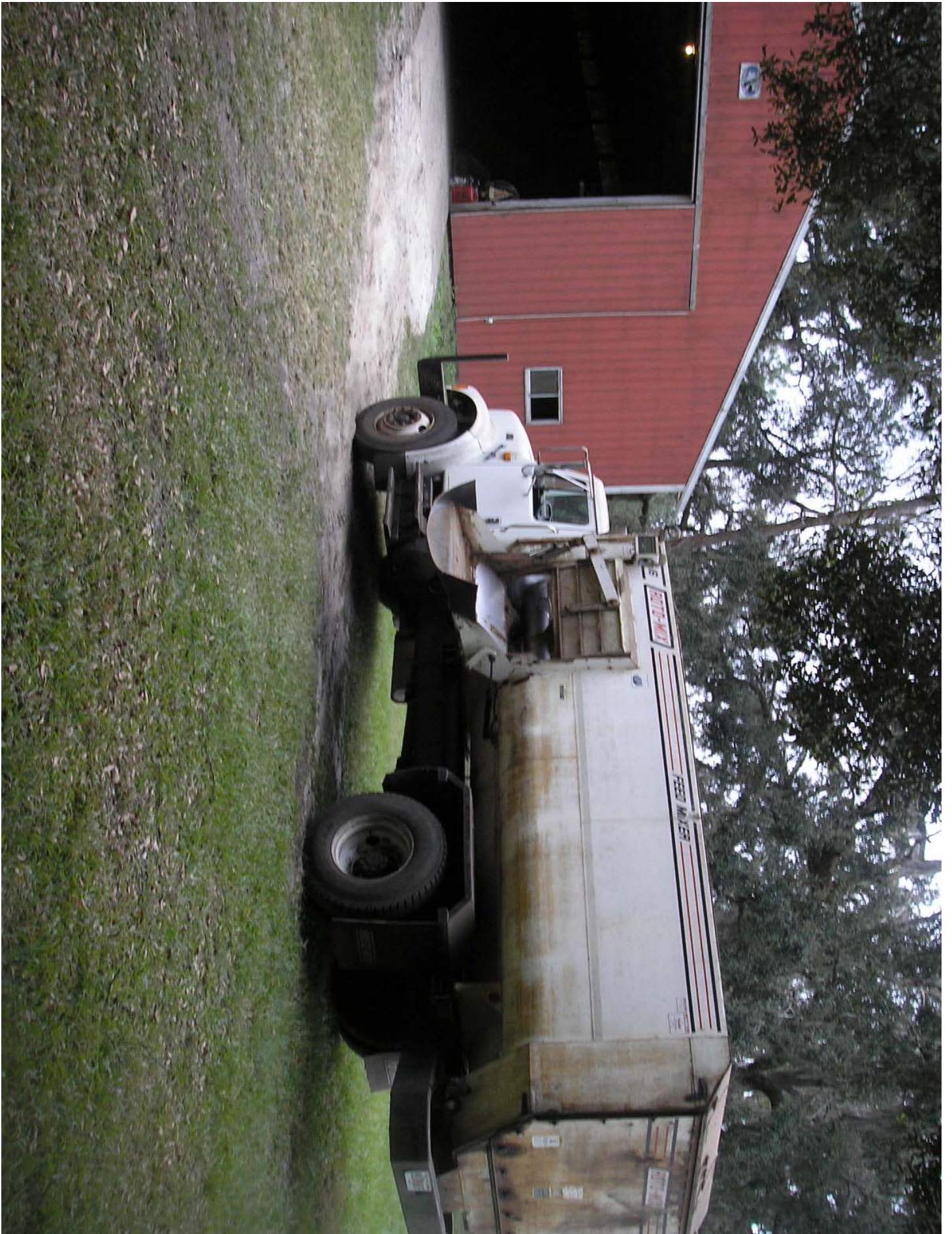
PHOTOS

- 1: Entrance to Double S Ranch
- 2: Mixer Wagon
- 3: Mixer Wagon with Bob Stossel Ranch Manager
- 4: John Deere Loader and Commodity Barn
- 5: John Deere Loader
- 6: Cowpens
- 7: Cow Recyclers
- 8: Cows at Pasture
- 9: Bull

4103

Double SS Ranch





















RECOMMENDATIONS FOR FURTHER STUDY AND DEVELOPMENT

- Organic Matters, Inc. invites FORCE to develop tours at Double S Ranch involving interested parties, such as student groups, other counties, and landfill groups. They can observe first hand how waste reduction can be accomplished.
- Recognition by FORCE (awards, etc.) for food processors who participate would help stimulate their continued support to projects such as this.
- For growth, continued contact with other food processors as well as current supplies to divert other organic waste streams. Also, food distributors should be contacted for case goods that may be destined for landfills due to out of date, damage, etc.