

QUARTERLY PROGRESS REPORT

September 1, 2011 – November 30, 2011

PROJECT TITLE: Diverting Food Waste from Landfills

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COMPLETION DATE: November 30, 2011

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PROJECT WEBSITE ADDRESS: <http://biogas.ifas.ufl.edu/foodwaste/>

OBJECTIVES:

1. Continue lab-scale experiments to optimize food waste digestion.
2. Conduct food waste audits at local schools.
3. Demonstrate anaerobic digestion at local schools.

WORK ACCOMPLISHED DURING THIS REPORTING PERIOD:

Objective 1:

Experiments for this objective were completed in previous quarters. Data analysis and write-up is currently ongoing.

Objective 2:

Waste audits at three local schools were completed in previous quarters. Data analysis and write-up is currently ongoing.

Objective 3:

We have developed an online instructional guide based on our design and construction of the teaching-model biodigester in the previous quarter. This guide includes pictures of each step of construction, as well as an explanation of the procedure and materials needed. The instructional guide will allow school children and teachers to see in detail the steps necessary to construct a biodigester unit for a school or class project.

We have continued to use the portable digester to demonstrate anaerobic digestion of food waste at various events, as listed below.

INFORMATION DISSEMINATION ACTIVITIES:

- We have continued to update the project website with details of upcoming events, news, and recent photos, presentations, and posters.

- September 27-28, 2011

We presented a poster entitled “Diverting Food Waste for Local Bioenergy through Anaerobic Digestion” at the *2011 Florida Energy Systems Consortium (FESC) Summit* in Gainesville, FL. FESC is a collaborative effort between the 11 public universities to assist the state of Florida in developing a strategic plan for sustainable energy. We shared our research on food waste digestion in order to ensure that anaerobic digestion is included in Florida’s sustainable energy plan.
- October 15, 2011

We exhibited the portable food waste digester at the *Fall Natural Foods Gala* at Crones’ Cradle Conserve, a small organic farm in Citra, FL. The Gala is an annual event showcasing local, sustainable, and organic food production. The portable digester was featured as an educational and functional tool at the Gala. We discussed the role of food waste digestion as an integral part of sustainable food systems and the potential for small-scale digestion at local farms, restaurants, and schools. We also gave a cooking demonstration using biogas produced by the digester. The digester was also used to reduce the Gala’s carbon footprint by collecting and digesting any food waste produced at the event.
- October 26-28, 2011

Dr. Wilkie displayed a project exhibit at the *Florida Fuel Summit* in Orlando, FL. The exhibit included our project banner and other information presented in a display booth. Project brochures were also distributed to conference attendees.
- November 8 and 9, 2011

We hosted laboratory tours for two classes in Environmental Sciences and Humanities Lab (EES 3000L). Each tour was 2 hours and consisted of 14 undergraduate students. The tour included demonstrations of the portable food waste digester and the educational-scale digester and discussions about the role of food waste digestion in sustainable waste management and bioenergy production.