Feeding Animals—
The Business Solution to Food Scraps

New Jersey's Rutgers University has been a leader in food scraps diversion for so long that Jim Vernere, Facilities Supervisor, can't recall the start date of the program. "Steve's grandfather used to come here in a horse and buggy," jokes Vernere, referring to Steve Pinter, owner of Pinter Farms, who collects food scraps from Rutgers' four main dining halls and feeds it to his hogs and cattle.

How Does It Work?

Rutgers University is home to the third largest student dining operation in the country. Dining facilities serve over 3.3 million meals and cater more than 5,000 events each year. Rutgers boasts one of the best and oldest food recovery programs in the country, beginning in the 1960s, when dining operations generated more trash than facilities could contain, even with daily pickup. The solution? Divert food scraps to a local farm for use as animal feed.

After every meal, the staff takes trays from the busing stations to the kitchen and scrapes food from the dishware into a trough. The trough moves the food, as well as used napkins, into a pulper.[1] The pulper pulverizes the food scraps and removes excess water, reducing the volume by up to 80 percent. The reduced quantities of waste are deposited in barrels that are stored in a refrigerator until Pinter hauls them to his farm. Water from the system is recycled to transport more scraps to the pulper.

Pinter's farm is less than 15 miles away. He uses the pulverized food scraps, averaging 1.125 tons per day, to feed his hogs and cattle, just as his grandfather did almost 50 years ago. For his services, Pinter charges $30 per ton, as opposed to the approximately $60 that Rutgers pays to haul a ton of trash to the landfill.

The Rewards

In 2007, Rutgers' partnership with Pinter Farms saved Dining Services more than $100,000 in avoided hauling costs. While Rutgers incurs added maintenance costs from using the pulpers and refrigerated storage areas, pulping food scraps on site decreases the labor and storage space needed for waste management. Beyond these practical considerations, the university community takes great pride in doing its part to protect the environment.

Feeding food scraps to animals avoids methane, a greenhouse gas, generation from landfill disposal. Also, using food waste for animal feed preserves valuable resources, such as fresh water and arable land, since less feed needs to be produced. As Joe Charette, Dining Services Associate Director, explains, "We're not adding to problems; we're keeping them at a minimum. And we save money. That's always a good thing."

How has Rutgers been so successful? To Charette, it's plain and simple: "You find that you have a problem, and you look around and say, 'Well, what can we do about this?' If it makes sense and works, then logically it will happen."



[1] The purchasing cost of each pulper machine is roughly $45,000 and the maintenance cost is roughly $500 per year.

The Challenges

Vernere and Pinter identified three challenges to starting a similar food recovery program:

Finding a Farmer

Rutgers has been working with Pinter Farms for three generations, but interested local animal farmers can be hard to find, especially near large urban areas, where the food scraps supply is more abundant. Given the cost and environmental impact of transporting goods over long distances, other food recovery programs, such as food donation and composting, may be more feasible in certain areas.

Capturing Food Scraps

Dining facilities that encourage grab-and-go eating will have trouble controlling the disposal of their food scraps. Dining halls that use non-compostable dishware must convince patrons and employees to scrape food scraps off the dishware rather than throw out everything together. Rutgers captures most of the food scraps it generates because students consume food on reusable dishware and bus their trays in the dining halls.

Refrigerated Storage Area

"Refrigeration is the key," emphasizes Vernere, because it preserves the food scraps, prevents odors and keeps out rodents. Refrigeration ensures that the food recovery program will function without disruption to the existing day-to-day operations of the university. Vernere admits, "There's a pretty good initial investment in costs, but it would be worth it" over time.

Despite the challenges, Rutgers has found its situation to be well-suited for a food recovery program. In Rutgers' sit-down dining facilities, food waste is generated during meal preparation and when students bus their trays. Since virtually all food waste is captured within the dining facilities, Rutgers staff can oversee its proper disposal. As Jim describes it, "We either control [the waste stream] in the kitchen or it comes back from the dining room… so it's a very easy program." And farmers like Pinter offer dependable, high quality service.

Starting your Own Program

- Contact local zoos, in addition to farms, to find out if they accept food scraps to feed their animals.
- Check your local and state regulations to determine if there are limits on what types of food waste are acceptable for donation. In an effort to keep animals safe and healthy, some communities restrict the types of food scraps that can be fed to animals. A good resource for information on acceptable practices is your county agricultural extension office (www.csrees.usda.gov/Extension/).

Steps to Less Waste

In addition to its partnership with Pinter Farms, Rutgers:

- *Discourages grab-and-go eating and only makes disposable dishware available when absolutely necessary*
- *Purchases fair trade coffee and cage-free eggs, and buys local produce whenever it is available*
- *Requires its vendors to use 100 percent recyclable packaging*
- *Recycles cardboard, plastic, glass, and metal*



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