IMPLEMENTING RESEARCH

GEORGIA TAKES MANY ROUTES TO RECYCLE FOOD RESIDUALS

Juice company, school system, farm and university team up to divert an array of food residuals into the compost pile.

Britt Faucette

A full-scale operation for composting residuals from the 19,000 meals served daily to university students and staff will be managed at the Bioconversion Center (shown below), which includes an indoor bin system with leachate drainage (right).

At the University of Georgia, food residuals from cafeterias are delivered to the Bioconversion Research and Education Center for composting.

The many approaches being taken to utilize food residuals generated by processors, cafeterias and households are evident throughout Georgia. Near Atlanta, Arden’s Garden Juice Company is cooperating with a nearby farm and staff at the University of Georgia to divert pressed juice pulp from the landfill. Once a week, East Lake Farm manager Ryan Cohen drives a pickup truck to the juice processing plant, where employees put the pulp into the back of his truck instead of the dumpster. Feedstock is easy to handle because it has been dewatered and ground into small particles in the juice pressing process. Then the juice residues are mixed with residential yard trimmings picked up by Cohen at curbside and composted; in as little as two months, the compost is ready to fertilize garden and farm soils.

Arden’s Garden is a fresh fruit and vegetable (smoothie) juice company that caters to the health conscious community. According to owner Leslie Zinn, besides reducing disposal costs, “recycling the juice waste and returning it to the farmer creates excellent public relations with our consumers.”

Total time spent on picking up the feedstock, mixing, filling bins, and monitoring older piles averages two hours per week. Cohen explains: “This feedstock is perfect for composting. We are lucky that our farm is located around so many potential sources of free organic feedstock. East Lake Farm is a great example of how urban farms can play a major part in the solution to divert organics from the landfill.” The University of Georgia and the Pollution Prevention Assistance Division of the Georgia Department of Natural Resources are providing technical assistance to create an on-farm demonstration facility to educate the public on industrial by-product recovery through composting. Self-guided tours through the farm will feature educational signs on the basics, benefits and opportunities for composting.

East Lake Farm (Gaia Gardens), located three miles outside Atlanta, is part of the
“Recycling the juice processing pulp and returning it to the farmer creates excellent public relations with our customers,” say the owner of Arden’s Garden Juice Company.

larger East Lake Commons Community, where townhouses have been built alongside the five-acre organic farm to create a neighborhood green space in this environmentally conscious urban neighborhood.

OTHER PROJECTS IN ATHENS AND JASPER COUNTY

Results of a three-month aerated container pilot study are being used to expand the University of Georgia’s food residuals composting program into a full-scale operation. Collected materials will be incorporated into yard trimmings windrows at the university’s Bioconversion Research and Education Facility. At 19,000 meals a day, the biggest challenge is keeping the feedstock free of plastic contaminants and inerts. Specifically, straws and condiment packages are the impediments. We are analyzing the cost difference between using biodegradable food service items and having the material source separated at the cafeteria level. The feedstock is great for handling and transport because the pulping process it undergoes not only reduces the high moisture content (typically 90 percent), but reduces and homogenizes particle size. The food residuals provide an excellent source of nitrogen (five percent) to the carbon-rich yard trimmings for land application on university grounds. The pilot study found the university will save $12,000/year in tipping fees once it begins recycling its food residuals full-scale.

At another project in the Athens/Clark County region, food residuals from commercial generators are being collected by a non-profit organization called Organic Diversions Recyclers, which was founded by Mark McConnell. Materials are collected from 35 area coffee shops, restaurant chains and supermarkets, averaging 1,000 lbs/day. Food residuals are mixed with woody materials and paper mill sludge using static piles on a 22-acre site. Finished product is sold through Creative Earth Company, also founded by McConnell. The University of Georgia is providing technical assistance.

Located in central Georgia, the Jasper County school system is completing construction on a new elementary school that will include a food residuals composting program. Students will be involved in monitoring the compost through the county 4H/Youth Development Program and various science classes with assistance from the University of Georgia’s Cooperative Extension Service. Washington Park Elementary will use a three bin system that will also include the school’s yard trimmings and grass clippings. Educational signs will be posted around the site to further explain the importance, aspects and uses for compost. There has been interest in expanding this program to all the schools in the county system.

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