Composting Food Scraps



Steven Birchfield Food Composting Operations Maryland Environmental Service







Prince George's County Organics Compost Facility

- For 25 years, MES has maintained and operated the compost facility in Prince George's County.
- Traditionally, composting 40-60,000 tons of yard trim per year using the open windrow model.
- As of May 2013, the site started composting with food scraps using Gore Cover technology with a 3 heap pilot system.
- Avg. of 8,000 tons food residuals is composted each year. (Currently)







Open Windrow Model: Tried and True

- Current yard trim composting utilizes 52 acers of paved blacktop divided into 3 areas.
- From raw materials to finished product takes approx. 6 to 8 months.
- Requires a specialized machine to turn the windrows minimum of once a week.
- When product is ready for screening, the rows are pushed together or "consolidated" and the open pad space is used to "lay out" the material to dry.
- ► This model can dramatically effected by ambient temperatures and weather conditions.









Gore Cover Model: New and Improved

- Using the Gore system, the entire composting operation can be consolidated into a 1/3 of the blacktop space.
- Allows the site to accept and process food scraps as a source of nitrogen.
- Covers are designed to trap odor molecules, and keep ambient weather conditions from altering the composting process.
- From start to finish takes only 8-10 weeks.
- Enables landfill diversion for food residuals.







Carbon to Nitrogen or C:N

- Leaves and brush are hauled to the compost facility year round.
- Leaves make up the bulk of our source of carbon.
- Grass is hauled for a short time of roughly 20-26 weeks depending on summer time conditions.
- Grass is used as a nitrogen source.
- Food scraps are hauled to the facility Monday -Friday.
- Food scraps are used as a nitrogen source.







Carbon to Nitrogen or C:N

- Only leaves and grass are mixed to form windrows.
- Food, leaves and mulch are mixed to form the Gore heaps.
- A ratio of 27:1 is what we found works well for the open windrow process, using grass and leaves.
- A ratio of 30:1 is what we found works best for the Gore process, composting food and leaves.
- Why the difference?







Why Commercially Acceptable Compostable Products?

- Prince George's County passed a plastic bag ban that took effect January of 2014 for yard trim.
- To meet the needs of local businesses and the industry, food residuals are accepted in certain compostable bags.
- Along with compostable bags; special PLA products, cardboard, compostable paper products like clam shells and lunch trays are also accepted in the food scraps stream. Only at a C:N of 30:1 will these products properly compost.









Acceptable Compostable Organics

- Fruits and vegetables
 Dairy products milk, butter, cheese No containers!
- Bread, pasta, grains (no raw dough)
 Seafood (including shellfish)
- Eggs & Egg shells
 Paper towels, napkins kitchen only
- Coffee grounds, filters (no "Keurig style" cups) Paper plates and cups
- Tea bags Loose Tea
 Food-soiled newspaper
- Meat (including bones)
 Pizza boxes clean or "greasy"
- Corrugated fruit & vegetable boxes
 Paper bags (uncoated) with food scraps
- Paper ice cream containers
 Leftovers and spoiled food
- Compostable bags *
- Approved compostable tableware





Acceptable Compostable Products



































Building a greener future:

- Quality in is quality out.
- Bad loads are rejected at the haulers expense.
- Zero tolerance policy for contamination.
- Yard trim is only accepted loose or in compostable paper yard bags.









How is a GORE heap built?





















Pride and Team work!







Questions and Comments?







Contact Information:

Steven Birchfield

Field Operations Supervisor

Phone - 240.712.1021

Email- SBIRC@MENV.com

Nancy Faulkner

Marketing / Sales

Phone- 410.729.8200

Marilyn Rybak

Acting Associate Director DOE -PGC

Phone - 301.883.6081

Denice Curry

Project Manager - PGC

Phone - 301.883.6081

