Challenges and Lessons in Building a Food Scraps Composting Facility

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Introduction

Eric Walter
• Chief Composting Officer, Driver
• Founding member of VA Composting Council
• Recovering tech industry entrepreneur

Black Bear Composting
• Opened in the Fall of 2011
• Located on 47 acre farm in Crimora, VA
• DEQ-permitted facility able to accept pre- and post-consumer, source-separated food scraps
• Serving Charlottesville area and central Shenandoah Valley
Starting a compost facility requires knowledge of:

- **Siting** – Site selection is paramount
- **Engineering** – Process and stormwater management
- **Permitting** – While easier than ever, still a daunting hurdle
- **Operations** – Composting is science, art and logistics

Lucky for me and everyone in this room, we have Craig Coker of Coker Composting and Consulting in Virginia.
Finding a Location is Tough

Location is key. My situation called for:

- 40 acres or more
- Natural buffers
- Relatively flat land
- Few neighbors
- Good roads
- Enough materials within 50 mile radius
Siting a compost facility is a very public process:

- Requires a local approval meeting/hearing that is open to the public and heard by a board of elected officials
- Door-to-door canvassing
- While there are lots of well run facilities, they don't make the news
- NIMBY – Not In My Backyard
- I benefited from having DEQ attend my hearing to answer questions the local board had
The State Was Very Helpful

- Met early on in the process
- Looked at potential site for concerns
- Walked me through the permit process
- Overall, supportive and a constructive relationship to facilitate success
In 2011, permitting got a lot easier with Virginia moving to a Permit-By-Rule system.

Still needed help on putting together the permit quickly, accurately and with experience again with the help of Coker Composting & Consulting.

Civil & Environmental Services was our professional engineer of record. Key to the composting permit and integrating with corresponding permits for erosion and sediment control.
Wanted to start with a bare bones facility:
- Composting in a mowed field
- Only a 20' x 40' concrete pad
- No buildings, paving or even electricity.

What it takes to go bare bones:
- 34,000 sq ft of gravel driveway
- Stormwater controls to manage the 100-year storm
- Six vegetative swales
- Two rain gardens
- Four 1,900 gallon underground water cisterns to collect potential run-off from compost pad
- 700 ft of erosion control measures
Carbon Sourcing is Creative

Sources:
- Arborists (chipped wood)
- Landscapers (old mulch and brush)
- Lawn services (leaves)
- Landfill (ground wood waste)
- Pallet company (ground pallets)
- County (Christmas trees)
- Fellow composters (leaves, grindings)

Roughly speaking, we need 3 yards of wood chips for each yard of food scraps.
Easier to Implement Programs Than Anticipated

Common concerns:
- Not enough room
- Employees aren't going to get it
- Will slow things down
- Will stink, flies, attract wildlife

Reality:
- All you need is a 5 gallon bucket
- Employees enjoy participating in the program
- It's easy
- It's the same material they had before, it just goes in a different bin
- Most importantly: people love seeing their trash shrink
Rewards of the Job

Working with schools is fantastic – kids love recycling

The amazement of a customer when they realize how little trash they have after they pull out organics and other recyclables

Completing the food cycle with customers
Demand for Compost is Surprising

Neighbors, gardeners, collection customers, and small farms.

Thank goodness for Royal Oak Farm!
The Fleet
The Farm
Thank You

Eric Walter
434-989-5219
eric@blackbearcomposting.com