

Composting Food Waste and Food Service Products

A Pilot Project of the
U.S. Department of the Interior



Today we will address:

- How we got into this effort
- How we found our “partners”
- The Pilot Project
- Results
- Follow up to Pilot Project

--Disclaimer--

Nothing in this presentation should be construed as an endorsement of any product mentioned herein.

Early Awareness Leads to Action

- Late 1980's, Secretary of the Interior bans the use of “non-biodegradable” food service items
- Some paper products performed poorly
- Contractor promises post-consumer polystyrene recycling
- Initiated a major polystyrene recycling effort

Administration Provided Additional Momentum

- Executive Orders 12873 and 13101
 - Provided renewed emphasis on pollution prevention
 - Sought broader use of “Environmentally Preferable Products”
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Look for a Better Way

- Contractor was landfilling our recycling efforts!
 - Determined to find an alternative
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What to look for?

- The alternative to polystyrene had to:
 - Perform as well
 - Be better for the environment
 - Be cost competitive
 - Acceptable to food service workers & patrons
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What we found.



What we found..

- Claimed admirable attributes
 - Made from readily available and renewable natural resources (limestone & starch)
 - Used clean and energy efficient manufacturing process
 - Produced fewer greenhouse gas emissions

Findings (Cont.)

- Biodegrades in compost & marine environments
- When (if) landfilled, uses 1/3 space of fluted paper and 1/8 volume of polystyrene packaging*



The problem was...

- The product we found could not be bought
- It was not available commercially
- Still in the “R&D” stages

The Beginning of a Partnership

- Objectives:
 - EarthShell
 - To test their product in a “real life” environment over a long period of time
 - DOI
 - An alternative that had no, or low, negative impact on the environment
 - Create a shift in thinking for all of our food service contractors, workers and patrons.
 - Set a precedent that could be used elsewhere

Earth Day - Earth Day

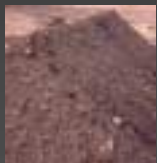
- Pilot ran for full year
- Totally replaced all 9" plates & 6" bowls
- Used biodegradable trash bags
- Redesigned source separation area

Earth Day (Continued)

- Developed a plan to educate patrons
 - Large educational display
 - Announcement memos
 - Splash screens
 - Posters & examples in recycling area
 - Table tents
- Orientation for cafeteria and cleanup staffs
- Solicited feedback
- Both partners issued press releases

Key Component – Composting

- USDA Agricultural Research Service
- Windrow, static pile and in-vessel
- Tested with a variety of green waste



Composting (Cont.)

- Contamination a problem due to:
 - Non-compostable cafeteria items still in use
 - Some thought all polystyrene had been changed

The Search Goes On

- Successfully replaced other food service items:
 - Carryout trays made of recycled paperboard
 - Recycled, unbleached paper napkins

The Results!

- Cafeteria workers report satisfaction with the product
- Used for hot and cold items
- Successfully used in steamer for reheating
- Manager reports increase in business.
 - 27% increase in plate usage (Related?)
 - Good food and good things for environment!

More Results...

- Patrons liked the idea of the project
- And, they were pleased with the product
 - Good in-house comments; wanted to do more
 - Calls and email from all over the U.S. and beyond

Composting a Success

- Composting tests were very successful
- Diverted 24% of cafeteria waste
- Earth Shell product broke down very well
- Carryout trays and napkins, too
- Final tests as growing medium conducted
- Chemical analyses on mature compost

Next Steps

- Continue to look for replacement products to complete the “greening” of cafeteria
 - Compostable sandwich wrap by DuPont
 - Biobased and Biodegradable Cutlery by Signature Works
- Establish composting as common practice
 - Partner with other agencies to collect food waste

More Next Steps

- Replicate pilot at additional DOI food service operations Nationwide
- -Many of our large food concessions are “greening” their operations
- Issue DOI policy on food and other organic waste disposal

In Summary...

- Food residuals account for a large part of our waste stream
- We can and should look for greater opportunities to “green” our food service operations
- Compost!
- Support the development of new, bio-based, compostable products

