Diverting pre-consumer food waste to composting
1/3 of food purchased will be wasted
Estimates of potentially compostable materials in the U.S.

Agriculture and forestry = 645 million tons/yr
Municipal waste = 137 million tons/yr
Industrial by-products = 95 million tons/yr

TOTAL: 877 million tons/yr

SOURCE: www.pollutionissues.com, adapted from Barker, 1997
U.S. MSW waste by category

Source: Ohio EPA/US EPA
Food waste

Restaurants
Hotels and event centers
Institutional food service
Residential

Food scraps in the MSW stream = 11.7%
Food system waste stream

Pre-consumer
Production, processing, prep

Post-consumer
Prep, plate waste

All food waste/by-products

Rendering

Composting

Anaerobic digestion

Products

Products

Products
• 370,000 total tons processed annually by McGill in the U.S.

• About 27% is food-related waste
Food waste is blended with a variety of materials prior to composting.
Indoor operations

Open-bay processing
Static pile, forced aeration composting

Stale air to biofilter

Recycle air to intake fan

Temperature sensors
McGill feedstock sources

All food-related residuals and by-products

- Farm
- Processing
- Farmers markets
- Distributors
- Grocery
- Commercial kitchen
- Restaurant and institutional food service plate waste
McGill food waste recycling

100,000 tons/year

99%

Pre-consumer

< 1%

Post-consumer
McGill food waste recycling

- Pre-consumer:
  - 55,000 Food processing residuals
  - 25,000 Scraps & culls
  - 20,000 Restaurant grease trap waste

- Post-consumer:
  - 0 TONS
We say “yes” to all biodegradable
Tankers, trailers, roll-off boxes
Food waste service requests going up
Grocery stores

2005  End of 2010  Spring of 2011
Kitchen prep and plate waste

2008  
End of 2010  
2011
Zero waste has focused attention on landfill alternatives.
But recycling decisions are based on economics.
Economic drivers

Landfill tipping fees
Collection costs
Transportation costs
Other value considerations
Average landfill tipping fees

Washington = $52.65/ton
North Carolina = $35/ton
Alabama = $25/ton
U.S. = $44.09

Economic drivers

Landfill tipping fees
Collection costs
Transportation costs
Other value considerations
No curbside

- Commercial
- Residential

Low generation volumes
High numbers of stops
Expensive to collect, transport
High contamination
Pre-consumer sources

- Agriculture
- Food processors
- Supermarkets
- Rendering
- Anaerobic digestion
- Zero waste programs

High generation volumes
Single-account service
Low contamination
No contamination
No quality compromise
Economic drivers

Landfill tipping fees
Collection costs
Transportation costs
Other value considerations
Generation rates and local laws also impact transportation costs.
Economic drivers

Landfill tipping fees
Collection costs
Transportation costs

Other value considerations
Green has dollar value
Volume generators
The higher the generation volume, the higher the potential economic benefit of diversion.
Business value comes before green value.