HARNESSING THE POWER OF SOCIAL MARKETING:

Food Scrap Diversion

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WHY ORGANICS & FOOD SCRAPS BEING CONSIDERED?

- Citizens want recycling and diversion options
- Jobs – 10:1 recycling; 4:1 compost*
- Environmental impacts
- Largest item remaining in stream

*(Estimates ILSR)
BACKGROUND ABOUT FOOD SCRAPS

- EPA says food is 12.5% of waste stream
  - Only 3% is recovered (composted and hog fuel);
  - 5.4M tons generated in Region 5 per year (est.)
  - 141K tons recovered, 5.3M sent to landfill

GHG Impacts

- Landfills are one of the largest CH₄ emitters
- Aerobic vs. Anaerobic decomposition
- EPA estimates composting avoids .25 MTCE/Ton of food scraps (lower for yard trimmings and organics)
- Composting council estimates 25M Tons of food scraps sent to landfill in 2005 = 7.8M passenger cars of emissions

Source of statistics: Presentation by EPA / Chris Newman Region 5

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RESULTS OF THE NATIONAL SURVEY
THREE MAIN TYPES OF PROGRAMS

- After reuse / donation programs
- On-site composting
  - Variations in up-take
  - Back Yard Composting, Commercial tubs (incl. farm-to-table), grant programs
- Collection (for composting)
  - Residential & commercial
- In-sink disposers
  - Free or discounted; encouraged / education
SURVEY OF EXISTING FOOD-SCRAPS COLL’N PROGRAMS

- Over **200** programs identified in US
- WA, MN, CA, OH, VT, IA, MA, OR, ME, etc
- Mostly suburban, then urban, rural; also college & tourist; some only at schools / university campus; isolated,
- Most curbside; Some drop-off
- Most co-collect streams (some food only)
- Sizes range from 170 to nearly 900K
- States with YW bans represent good potential

Source: SERA 2011
PROGRAM GROWTH 1970 - TODAY

Blue line – recycling
1973 (1); 1993 (5400)
2009 (9000), 2012 (10K+)

Green line – food/organics
1988 (0); 1992 (~10); 2009 (~170); 2012 (>200)

Source: SERA 2011 (excludes BYC)
RESIDENTIAL PROGRAM
ATTRIBUTES - VARIES

Drop-off only or C/S
- Overall avg. 52%

Materials in stream
- Include food waste withYW
- National avg. (EPA) 34%
- Includes meat and dairy
- Avg. lbs per participating HH/week 25-35 lbs

Containers
- 32-96 carts, some bags
- Food Waste only 7-10 lbs
- Avg. Participation 35-40%

Payments and enrollment
- Voluntary added fee most common (many embedded)

Collection Frequency and Containers
- Weekly in most, EOW available
- Majority have PAYT ("next steps")

Diversion

Each program is modified and adapted to fit community resources and needs

Source: SERA 2011
COMMERCIAL ATTRIBUTES

- “Typical” commercial
  - Only targets a portion of the businesses
  - Voluntary participation for an added fee
  - Rates are lower than MSW rates
  - Commonly 64-gallon poly carts
  - Options for collection at least 3x/week
  - Includes staff education and outreach (often by the hauler)
  - Programs NOT always in places with high tip fees...

Source: SERA 2011
MOVING FOOD PROGRAMS FORWARD – BARRIERS RESEARCH

www.foodscrapsrecovery.com
SURVEY & FOCUS GROUPS – BARRIERS

COLLECTION
- Community-level
  - Political will**
  - Facility / certification issues**
  - Costs
- Generators on coll’n
  - Costs
  - Contamination
  - Yuck factor, pests & vectors

DISPOSER PROGRAMS
- Community
  - Public works**
  - Cost**
- Generators on disposers
  - Skepticism of program / “catch”, cheap model?
  - Concern about plumbing upgrades & strangers in home
  - Smell
  - Renters / permission
ADDRESSING COLL’N COSTS - EOW COLLECTION

- 3 stops / week
  - Trash weekly &
  - Recycling weekly &
  - Organics (org) weekly

- 2 stops / week
  ➔ Save ~1/3 overall, ~40-50% program $
  ➔ Trash weekly &
  ➔ Recycling weekly

- 2 stops / week – ➔ BETTER (more diverted tons, ~same $)
  ➔ Trash weekly, alternate Recy & Org
  ➔ OR BEST,
  ➔ Org weekly, Alternate Recy & Trash

Integrated Decisionmaking

(Source: Skumatz et.al, in Resource Recycling, 11/13)
COLL’N BARRIERS – CONTAMINATION & YUCK

Contamination
- Bags in stream (bio and plastic); local decision; some allow but don’t advertise to reduce
- Customer education; on processing side, staff training, what local system can handle

Yuck & pests
- BMPs suggestions; mostly perception problem
- Remind NOT new material/Just a change in containers(!);
- Education, persistent message, clarify meat/dairy helps (freeze, layers, paper towels, boxes, etc.)
- Regardless, people WON’T put all food scraps in can (sorts)

Smell
- Able to stop freezing with disposer / immediate disposal

More best practices in design, rates, containers, education at www.foodscrapsrecovery.com
CASE STUDIES IN FOOD AND SOCIAL MARKETING
TACOMA, WA CURBSIDE FOOD COLLECTION

Program Goal: Food scraps in curbside yard waste.

Program Steps:

- Customer service staff informed of all program changes and outreach
- Multiple mediums, print, tv, utility bills, events, YouTube
- Use Community representatives to provide credibility
- Anticipate common barriers and provide solutions (yuck factor)
- Make program convenient/ current yard waste cart
TACOMA, WA CURBSIDE FOOD COLLECTION

- Have program star- the “little brown bucket”, advance advertising
- They’re coming;
- They’re here;
- They’re hungry!!

Delivered in house buckets to 54,000 residents
TACOMA, WA CURBSIDE FOOD COLLECTION

Evaluation:
- Phone survey halfway through program
- “Walk and Talk”

Results:
- 48% participation
- Almost double the 10% diversion goal of 1400 tons
NORTH SHORE RECYCLING BYC PROGRAM, CANADA

- Some level of existing Back Yard Composting (BYC), but amount unknown
- 2008-2009 set up program; small sample BYC HHs
  - Asked HH to record volumes & behaviors, and gave coaching on BY composting methods (2010-2011)
  - Tracked organics & yard waste
  - Evaluated results
NORTH SHORE RECYCLING BYC PROGRAM, CANADA

2011 wrap-up visits and survey / data / reward
- Pre/post surveys on comfort with composting (food / yard)
- 79% said they diverted more material.
- 68% rated coaching as very successful (100% recommend)

Tonnage changes
- Organics diverted with coaching is 994 lbs; 794 lbs without coaching (25% increase)
- Garbage decreased 55%.
- $35/hh/yr savings in trash, YW collection fees
- 1500 avoided truck trips avoided.
Program Goal:
- Assess to what extent food waste disposers could reduce the amount of food scraps disposed in the landfill

Program
- Installed 173 free disposals in two distinct neighborhoods
- Provided outreach for proper usage
- Asked to change behavior and no longer put food scraps in trash, but to put all down disposal

Several rounds of outreach
- Including door to door, neighborhood meetings, flyers
- Worked with neighborhood community action agencies
**IN-SINK FOOD DISPOSAL PROGRAM**

- **Evaluation**
  - 75 Post surveys assessing self-reported activities and behavioral changes
  - Focus groups
  - Waste comp and comparison in progress

- **Results**
  - ~75% put *all* food scraps down disposal
  - 88% put more than half down disposal
  - (86%) reported a decrease in the amount of trash they throw away; Average reported 33% decrease in bags
  - Bags of trash decreased from 2.4 to 1.5 per household per week.
  - 32% said they increased their recycling
IN-SINK - REPORTED BENEFITS TO BEHAVIOR CHANGE

- “I used to put out trash every day and now I only put it out every other day”.
- ‘It was a blessing to me’
- ‘Once you have a disposer you can’t live without one’.
- “They are beautiful.”

- Reduced trash
- Easier kitchen clean up,
- Reduced odors and smells in the house and neighborhood
- Limited pests associated with trash collection.
IN-SINK - MESSAGING & OUTREACH

Successful
- 75% said personal door-to-door outreach most effective
- 66% said flyers
- 39% said neighborhood meetings
- Contact from associated neighborhood organizations essential
- Working closely with neighborhood organizations and block captains is recommended.

Less Successful
- Only 16% said robo calls were motivational
- Messages from City, unknown third parties, or corporations viewed with skepticism/ evoke ‘what is the catch?’
- Environmental benefits not a motivator
IN-SINK - REASONS FOR HH PARTICIPATION

- Thought that they could reduce trash
- The program was free
- Help reduce odors in the trash / kitchen / house
- Stop freezing food before setting it out for trash day
- Buy less bleach for the trash cans
- Reduce issues with pests and rodents

- Waste comp under way for tonnage impacts
- Wrap-up – disposers left in place
FOOD SCRAPS COLLECTION PROGRAM - COLORADO

- Existing food / YW collection program
- Working with hauler / city
- Test / control routes to test effects of social marketing – particularly door-to-door component
- 300+ households each route; carefully chosen
- Focus groups, pre-post sort, surveys
- Project delayed-floods (sorry!)

Keep Watching!
SUMMARY
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Food a significant stream (one of last double digits)
- Organics diversion growing (20% more than last year common, but **capacity shortfalls** a problem!)
- Can be pulled efficiently IF YW already, IF processing available
- Very cost-effective; combo helps formula
- Consider EOW – tradeoffs in collections for C/E

Barriers can be addressed by programs

Social marketing a powerful tool for food – can address yuck, other personal barriers
- Collection
- Back yard composting
- In-sink disposal program examples.
- Try it!
THANK YOU!!

Questions?

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Thanks for filling out surveys; reports at www.foodscrapsrecovery.com