Story of a Food Waste Generator: Tips & Tools for Starting from Scratch

Emily Fabel
Program Lead
Center for EcoTechnology

Ava Labuzetta and Missy Hall
P2 Engineers
Technical Co-Leaders - Food Program
NYSP2I
NYS Pollution Prevention Institute

- HQ at RIT
- Established in 2008 “NYSP2I”
- Beginning 5th year of second 5 year contract
- Focus on reduction of natural resource consumption (water, raw material, energy) and elimination of waste and hazards
- P2 research, technical assistance, education and outreach
- 15+ full-time staff
Guide NYS and its stakeholders to a more sustainable food system by providing the information and tools necessary to reduce and recover food resources.
Center for EcoTechnology (CET)

The Center for EcoTechnology helps people and businesses in the Northeast save energy and reduce waste.

we make green make sense℠
Presentation Content

• How to start diverting food scraps
  • Fictional restaurant
• Case study review
  • Real life success stories
• Q & A
Establish Goals

Keep going

Assess internal factors

Implement phase in

Assess external factors

Analyze the pilot

Make a plan

Perform a pilot

Keep going
Establish Goals

Keep going

Assess internal factors

Implement phase in

Assess external factors

Analyze the pilot

Make a plan

Perform a pilot

Keep going
The Business

Knope’s Waffle Shop

About Knope’s:

- Medium sized restaurant
- Sit-down, full service
- Single location in a suburban area
- Motivated by a pending organics ban
  - Not subject, but wants to get out ahead of the curve
Slide Legend

Assessed External Factors – 1 week

Knope’s Activities
- Talked with current hauler
- Looked into our municipality’s and other business’s efforts in the area with food waste
- Researched online about funding, food waste diversion best practices, etc.

Knope’s Notes
- Current trash hauler doesn’t offer organics hauling – connected with another online
- Minimal information found out about food waste management locally
- Great resources discovered online about best practices and finding an organics hauler

Knope’s list of actions by her team

Knope’s observations from actions taken
## Slide Legend

### Assessed External Factors – 1 week

- **Tying into larger community efforts**
- **Doing research early to take greatest advantage of resources/funding available**

**Type's Notes**
- Minimal information found out about food waste
- Trash hauler doesn’t offer electronics hauling – connected with another online

**Knowle's Activities**
- Tallied significant haulers
- Listed possible companies and organizations and discovered one hauler

**Can use P2I's list of haulers and Organic Resource Locator map**
- Resources/funding available:
  - SU EFC funding guide
  - ESD funding
  - Support from member associations

---

**Best practices to take away from this step**

**List of relevant resources**

To avoid redundancy, most resources are only named once during and then are summarized towards the end of the presentation.
Established goals – 2 weeks

Knope’s Activities

✓ Met with management to discuss how to introduce the effort with the least disruption
✓ Established cross-functional team to oversee effort
✓ Documented goals
✓ ID’ed next steps and action items

Knope’s Notes

• Staff need to be involved to make this successful
• Goals:
  • Separate and divert organics from back of house within 6 months
  • Implement in FOH within 1 yr
  • After establishing a baseline of waste generation, put a focus on source reduction and set goals
Established goals – 2 weeks

Knope’s Activities
- Met with management to discuss how to introduce the effort with the least disruption
- Established a cross-functional team to oversee the effort
- Documented goals
- ID’ed next steps and action items

Knope’s Notes
- Staff need to be involved to make this successful
- Cross-functional team effort
- Didn’t “get into the weeds too early”
- Left the meeting with action items
- Evaluated how it fits with existing efforts.

- Separate and divert organics from back of house within 6 months
- Implement in FOH within 1 yr
- After establishing a baseline of waste generation, put a focus on source reduction and set goals
Assessed Internal Factors – 1 week

Knope’s Activities

✓ Walked the restaurant

Knope’s Notes

- Sufficient space to house small bins at work stations
- Contamination a high possibility
- Some staff have expressed concerns – remember to listen
- Space outside for totes but limited
- Concern about vermin and smell
- Try to address issues during pilot
Assessed Internal Factors – 1 week

Knope’s Activities
- Walked the restaurant

Knope’s Notes
- Many resources online can provide guidance
- Several groups may provide this service in person too: organics haulers, non-profit groups, municipalities, and others

- Sufficient space to house small bins at work stations
- Contamination a high possibility
- Some staff have expressed concerns
- Space outside for totes but limited
- Concern about vermin and smell
- Try to address issues during pilot

Walking the walk
Getting staff involved
Not avoiding challenges
Assessed External Factors – 1 week

Knope’s Activities

✓ Talked with current hauler
✓ Looked into our municipality’s and other business’s efforts in the area with food waste
✓ Researched online about funding, food waste diversion best practices, etc.

Knope’s Notes

• Current trash hauler doesn’t offer organics hauling – connected with another online
• Minimal information found out about food waste management locally
• Great resources discovered online about best practices and finding an organics hauler
Tying into larger community efforts

Doing research early to take greatest advantage of resources/funding available with food waste

Researched online about food waste diversion best practices and finding an organics hauler

Can use P2I’s list of haulers and Organic Resource Locator map

Resources/funding available:
- SU EFC funding guide
- ESD funding
- Support from member associations
Make a Plan – 1 week

Knope’s Activities

- Met with core team
- Discussed investigation results
- Made a plan for implementation

Knope’s Notes

- Remember to listen to staff feedback - especially during the pilot
- It is ok to make mistakes, we just need to learn from them
Make a Plan – 1 week

Knope’s Activities

- Having check-ins
- Adapting processes to staff suggestions
- Recognizing it won’t be perfect right from the start

Knope’s Notes
- Met with core team
- Discussed investigation results
- Made a plan for implementation
- Keep going
- Assess internal factors
- Implement phase in
- Analyze the pilot
- Perform a pilot

- Remember to listen to staff feedback – especially during the pilot
- It is ok to make mistakes, we just need to learn from them

Any opinions, results, findings, and/or interpretations of data contained herein are the responsibility of Rochester Institute of Technology and its NYS Pollution Prevention Institute and do not represent the opinions, interpretation or policy of the State.
Knope’s Activities

- Chose a staff champion
- Explained to staff what was going on and gave the basic training
- Started separating food scraps in BOH (still throwing away)
- Started dialogue with haulers
- Weighed food waste before throwing away

Knope’s Notes

- Clear buckets in BOH make it easy to see
- Immediately noticed some prevention opportunities (keep in mind for later)
- Hauler wants to know more info on waste amount.
- Keep note book next to scale for recording weights & notes
- Tacking training onto pre-service meeting was effective to get everyone there.
Perform a Pilot – 1 month

Knope’s Activities

- Starting small helps work out the kinks
- Making notes will help in future steps
- Nothing wrong with starting process without an outlet
- Get staff involved early

Knope’s Notes

- Chose a staff champion
- Explained to staff what was going on and how they could help
- Started separating food scraps in BOH (still throwing away)
- Started dialogue with haulers
- Weighed food waste before throwing away

- Resources/funding available:
  - Repeat of support mechanisms already shared

- Hauler wants to know more info on waste amount
  - Tacking training onto pre-service meeting was effective to get everyone there.

- Starting small helps work out the kinks
- Immediately noticed some prevention opportunities (keep in mind for later)
- Clear buckets in BOH make it easy to see

- Nothing wrong with starting process without an outlet
- Get staff involved early

- Resources/funding available:
  - Repeat of support mechanisms already shared
Knope’s Activities

- Visual audit
- Held staff meeting to get feedback
- Trained staff to fully close bins
- Added wheels to larger outdoor bins (considered ESD funding)
- Improved signage on bins
- Grouped bins consistently and rearranged to be intuitive/convenient

Knope’s Notes

- There is a definite learning curve. Contamination is apparent.
- When we were busy contamination got worse. Bins need to be EASY to find and in the intuitive place
- Staff complained about heavier containers now that food is concentrated in one bin.
- Raccoons were getting into bins outside
- Wait to see what else is needed before applying for ESD funds
Analyze the Pilot—1 month

Knope’s Activities

- Staff feedback is very valuable
- Address hiccups now before moving on
- Consistent and convenient bins are key

Knope’s Notes

- There is a definite learning curve.
- Contamination is apparent.
- When we were busy contamination got worse. Bins need to be EASY to find and in the intuitive place.
- Raccoons were getting into bins outside.
- Wait to see what else is needed before applying for ESD funds.

- Resources/funding available:
  - Repeat of support mechanisms already shared
  - Example signage online
  - Talk with other businesses

- Visual audit
- Held staff meeting to get feedback
- Trained staff to fully close bins
- Added wheels to larger outdoor bins (considered ESD funding)
- Improved signage on bins
- Grouped bins consistently and rearranged to be intuitive/convenient
- Staff complained about heavier containers now that food is concentrated in one bin.
- Staff feedback is very valuable
- Address hiccups now before moving on
- Consistent and convenient bins are key

Funding provided by the Environmental Protection Fund as administered by the New York State Department of Environmental Conservation. © 2018 Rochester Institute of Technology.

Any opinions, results, findings, and/or interpretations of data contained herein are the responsibility of Rochester Institute of Technology and its NYS Pollution Prevention Institute and do not represent the opinions, interpretation or policy of the State.
Implement Phase-in- 2 months

Knope’s Activities

✓ Communicated shift to all staff
✓ Picked best quote and started service with new hauler
✓ Set up new totes outside
✓ Staff continued pilot process (but stopped removing to trash)
✓ After 6 weeks, lowered frequency of trash pick up
✓ Continued staff meetings

Knope’s Notes

• Hauler was willing to provide us with their own totes for outside storage (don’t need to apply for ESD funds)
• Contamination is way down now
• Weights from pilot came in handy for contract negotiation
• We are nervous to drop frequency of trash pick up right away.
Implement Phase-in - 2 months

Knope’s Activities

✓ Communicated shift to all staff
✓ Picked best quote and started service with new hauler
✓ Set up new totes outside
✓ Staff continued pilot process (but stopped removing to trash)
✓ After 6 weeks, lowered frequency of trash pick up
✓ Continued staff meetings

Knope’s Notes

• Staff feedback is valuable
• Wait until everyone is comfortable with new process before changing trash contracts

Notes

• Resources/funding available:
  • Repeat of support mechanisms already shared
  • Hauler can sometimes provide equipment and/or training

• Hauler was willing to provide us with their own totes for outside storage (don’t need to apply for ESD funds)
• Contamination is way down now
• Weights from pilot came in handy for contract negotiation
• We are nervous to drop frequency of trash pick up right away.
• Staff feedback is valuable
• Wait until everyone is comfortable with new process before changing trash contracts
• Hauler was willing to provide us with their own totes for outside storage (don’t need to apply for ESD funds)
• Contamination is way down now
• Weights from pilot came in handy for contract negotiation
• We are nervous to drop frequency of trash pick up right away.
• Staff feedback is valuable
• Wait until everyone is comfortable with new process before changing trash contracts
• Hauler was willing to provide us with their own totes for outside storage (don’t need to apply for ESD funds)
• Contamination is way down now
• Weights from pilot came in handy for contract negotiation
• We are nervous to drop frequency of trash pick up right away.
• Staff feedback is valuable
• Wait until everyone is comfortable with new process before changing trash contracts
• Hauler was willing to provide us with their own totes for outside storage (don’t need to apply for ESD funds)
• Contamination is way down now
• Weights from pilot came in handy for contract negotiation
• We are nervous to drop frequency of trash pick up right away.
• Staff feedback is valuable
• Wait until everyone is comfortable with new process before changing trash contracts
• Hauler was willing to provide us with their own totes for outside storage (don’t need to apply for ESD funds)
• Contamination is way down now
• Weights from pilot came in handy for contract negotiation
• We are nervous to drop frequency of trash pick up right away.
• Staff feedback is valuable
• Wait until everyone is comfortable with new process before changing trash contracts
• Hauler was willing to provide us with their own totes for outside storage (don’t need to apply for ESD funds)
• Contamination is way down now
• Weights from pilot came in handy for contract negotiation
• We are nervous to drop frequency of trash pick up right away.
• Staff feedback is valuable
• Wait until everyone is comfortable with new process before changing trash contracts
• Hauler was willing to provide us with their own totes for outside storage (don’t need to apply for ESD funds)
• Contamination is way down now
• Weights from pilot came in handy for contract negotiation
• We are nervous to drop frequency of trash pick up right away.
• Staff feedback is valuable
• Wait until everyone is comfortable with new process before changing trash contracts
• Hauler was willing to provide us with their own totes for outside storage (don’t need to apply for ESD funds)
• Contamination is way down now
• Weights from pilot came in handy for contract negotiation
• We are nervous to drop frequency of trash pick up right away.
• Staff feedback is valuable
• Wait until everyone is comfortable with new process before changing trash contracts
• Hauler was willing to provide us with their own totes for outside storage (don’t need to apply for ESD funds)
• Contamination is way down now
• Weights from pilot came in handy for contract negotiation
• We are nervous to drop frequency of trash pick up right away.
• Staff feedback is valuable
• Wait until everyone is comfortable with new process before changing trash contracts
• Hauler was willing to provide us with their own totes for outside storage (don’t need to apply for ESD funds)
• Contamination is way down now
• Weights from pilot came in handy for contract negotiation
• We are nervous to drop frequency of trash pick up right away.
**Knope’s Activities**

- Visual audit performed daily
  - Check signage & bin placement
  - Check for contamination (increases may indicate re-training necessary)
- Share diversion data with staff
- Staff champion documented the diversion protocol to use for new hires
- Whiteboard added to kitchen for tips/suggestions on an on-going basis
- 1 X per month – staff meeting to review & answer any new questions

**Knope’s Notes**

- We want to make sure the program doesn’t fizzle out with staff turnover
- Getting all staff together can be difficult, so we need a place where staff can provide feedback at any time
Knope’s Activities

- Visual audit performed daily
- Check signage & bin placement
- Check for contamination (increases may indicate re-training necessary)
- Share diversion data with staff
- Staff champion documented the diversion protocol to use for new hires
- Whiteboard added to kitchen for tips/suggestions on an on-going basis
- 1 X per month – staff meeting to review & answer any questions

Knope’s Notes

- Don’t let your hard work go to waste!
- Make a plan for keeping everyone (management and staff) accountable & communicate it clearly
- Plan does not have to be complicated, just consistent.

Resources/funding available:

- Repeat of support mechanisms already shared
- Many best practices available through lean & performance management guides
Key takeaways from Knope’s story

• Do your homework before jumping in
• Take advantage of available resources
• Set achievable goals & start small
• Management presence is key to success
• Get employees involved & listen to their feedback
• Make sure to keep everyone accountable after the process is set up
Summary of Supporting Resources

• NYSP2I Clearinghouse
  • List of haulers
  • Organic resource locator
  • Step by step guide to managing food waste
• Center for Eco-technology
  • Wasted Food Solutions
  • Massachusetts Recycling Works
• NYSAR3 – Food Recovery Information
  • Strategies for Commercial & Institutional Wasted Food
  • NYS Food Recovery Campaign
• ReFED
• USEPA
  • Resources for Assessing Wasted Food
  • Food Recovery Challenge
• USDA
  • Food Loss & Waste Challenge
• Cornell University
  • Composting Resources
  • Cornell Cooperative Extension
• Further with Food
• Trade Associations
  • New York State Restaurant Association
  • Grocery Manufacturing Association
  • National Restaurant Association
  • NYS Health Facilities Association
• Syracuse University Environmental Finance Center
  • Funding Guide
• Organics haulers
CASE STUDIES
Saus Restaurant – Boston, MA

- Wanted to divert and reduce food waste
- Noticed lots of potato peels!
- Started serving fries with peels on
- Compost remaining food scraps

*Image courtesy of Saus*
Ancolie – New York City

- Waste reduction at heart of operations
- Creative dishes repurpose leftovers and scraps
- Donate surplus bread and jar meals
- Wasted food composted

Photos courtesy of Ancolie
The Lenox Hotel – Boston, MA

• Considered on-site system
• Trial with organics hauler successful
• Overcame stair challenge
• Adjusted trash pick-up saving $2,000/year

More info online: Video Case Study and Written Case Study
Fresh Market – Avon, CT

- Subject to CT Commercial Organics Recycling Law
- Met with CT DEEP about compliance
- Donate surplus to Foodshare – 25,000 meals per year
- Compost remaining food scraps
Cooley Dickinson Hospital – Northampton, MA

- Composting BOH since 2009, including patient tray returns
- Expanded to FOH
- Use compostable liners, added elastic bands
- Freeze and donate surplus food

More info online: Written Case Study
UMass Amherst – Amherst, MA

- Composting food scraps for 20 years
- Track both BOH and FOH food waste
- Adjust operations to reduce waste
- Saved $750,000 over 3 years

More info online: Video Case Study and Written Case Study
More Case Studies

• CET Wasted Food Solutions Case Studies

• RecyclingWorks Case Studies
Questions?

Contact:

Email: food.p2i@rit.edu
Food Clearinghouse: https://www.rit.edu/affiliate/nysp2i/food/

New York State Pollution Prevention Institute
Rochester Institute of Technology
111 Lomb Memorial Drive, Bldg. 78-2000
Rochester, NY 14623

Follow us: Facebook, Twitter, LinkedIn