MANAGING FOOD WASTE: A MICRO-TRAINING SESSION FOR FOODSERVICE AND CULINARY PROFESSIONALS

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My Perspective

• 10 Years Advocating for Food Waste Prevention
  – Co-founder of LeanPath, creators of automated food waste monitoring systems
  – Food waste consultant for municipalities, high-volume operators, corporate dining programs and restaurateurs
  – Speaker at numerous foodservice industry events and sustainability conferences

I’ve experienced firsthand that this is a problem we can solve!
The “Story of Stuff”
The Past:

FOOD WASTE IS JUST A PART OF DOING BUSINESS
The Present:

YES, WE CAN PREVENT FOOD WASTE!
Questions We’ll Answer Today

• Why does food waste matter so much?
• What is the single most important food waste management strategy?
• What methods exist to address it?
Today’s Focus: Foodservice

Production
- Farm
- Ranch
- Packaging

Distribution
- Transportation
- Storage
- Co-Packing

Point of Sale
- Foodservice
- Food retail

Consumption
- Residential

Waste & Loss
2 Types of Food Waste

Pre-Consumer
“Kitchen Waste”

- Due to overproduction, spoilage, expiration, trim waste, etc.
- Controlled by kitchen staff

Post-Consumer
“Plate Waste”

- Due to behaviors, portion sizes, self-service, etc.
- Controlled *largely* by guests
SO WHY SHOULD WE CARE?
Because It’s a Huge Problem

**HOW MUCH OF THIS PROBLEM STEM FROM U.S. FOODSERVICE OPERATIONS?**

- **4–10%** of food purchased is **thrown out** before reaching a plate.
- **$8–20 billion** of pre-consumer waste generated by the U.S. out-of-home restaurant and foodservice industry every year.

Pre-consumer waste is the kitchen waste that occurs before the food even reaches a guest, from **overproduction, spoilage, expiration** and **trimmings**. It’s within the control of the foodservice operator and can be prevented!
Because Resources are Precious

IT’S COSTING A LOT OF MONEY... AND A LOT OF RESOURCES.

25% of all freshwater and 300 million barrels of oil are used to produce food that is wasted. $250 billion lost globally every year.

IT’S FILLING UP LANDFILLS AND TAKING A HUGE TOLL ON THE ENVIRONMENT.

FOOD WASTE is the single largest component sent to American landfills.

It’s a significant source of methane—a potent greenhouse gas with 21 TIMES THE GLOBAL WARMING potential of carbon dioxide.
Because Laws are Emerging

Image: BioCycle.net
Because Customers Care

• Study by the Sustainable Restaurant Association (UK) in 2013:
  – “Food Waste” tied for #1 issue respondents said was most important issue for restaurants to focus on
  – 43% of consumers were willing to pay up to 10% more than normal prices to eat at a sustainable restaurant

A Store-Front Sticker to Promote to Customers
Because We’re Leaking Money

The True Cost of Food Waste

1+1+1=0
WHERE TO START?
The Quest for “Zero Food Waste”

- Portion Control
- Trayless
- Food Donation
- Food Waste to Agriculture
- Energy Production
- Composting
- Pulping
- Dehydrating
- Aerobic Digestion
- Food Waste Tracking
- Guest Awareness Programs
- Garbage Disposers
EPA Food Waste Hierarchy

Source Reduction — Reduce the volume of food waste generated

Feed Hungry People — Donate extra food to food banks, soup kitchens, and shelters

Feed Animals — Divert food scraps to animal feed

Industrial Uses — Provide waste oils for rendering and fuel conversion; and food scraps for digestion to recover energy

Composting — Create a nutrient-rich soil amendment

Landfill/Incineration — Last resort for disposal

Preferred

Not Preferred
Why Prevention Ranks First?

1. FINANCIAL
Enables operators to cut down food costs, reduce disposal costs and save on labor.

2. ENVIRONMENTAL
Helps operators run a greener operation by reducing upstream and downstream adverse environmental impact.

3. SOCIAL
Resources available for highest and best use elsewhere.
Takeaway

Prevention should overshadow everything you do…
Where Does Prevention Fit in Most “Zero Waste” Initiatives?

Prevention + Diversion = Zero Food Waste Effort
Let’s Take a Fresh Look at Zero Food Waste
Question:

HOW DO WE PREVENT WASTE?
Understand Why Operators Waste Food

• It’s expensive to run out
• They must serve safe food
• Attractive merchandising increases customer satisfaction and sales
• Labor cost control encourages large batch production
• They must provide convenient service and wide choice
Address Unspoken Barriers

• Food waste myths
  – Waste is an indicator of poor performance.
  – I should have this under control already.

• Fear of failure
  – What if I DON’T succeed?
  – What if I DO succeed?

• Fear of others
  – Will my team support this?

• Can’t this wait?
  – Why now? I have a lot on my plate.
Reset Your Culture

• Open, transparent and **positive**
• **Data**-driven
• Engaged and **inclusive**
• **Goal**-focused
HOW DO WE CHANGE CULTURE?
Use Food Waste as a Critical Control Point

What Can you Learn From your Trash?

A whole lot! Just like archeologists learn about our history from our ancestors’ trash, your trash today can reveal how well your business is doing.
Real-Time Food Waste Monitoring

Find out what’s being wasted and why so they can:

Understand & Improve
• Understand their waste
• Set goals
• Track improvement

Change Team Behavior
• Engage employees
• Raise awareness
• Celebrate progress
Food Waste Needs to Be On the Scoreboard

• Today’s restaurant “scoreboard”?:
  – Quality
  – Safety
  – Customer Satisfaction
  – Sanitation
  – Etc.
  – Waste / Sustainability
Audit ≠ Tracking

**Auditing**
- Point in time
- SSO/mingled data collected by an audit team
- Quantity and limited food detail

**Tracking**
- Continuous
- SSO data collected by employees
- Item detail, context, value, condition
Manual Data Collection (2-Step)

- Paper Log Books & PC Data Entry
- Data collected by weight, volume, count or visual estimate
- Handwritten
- Manual analysis from paper or via PC data entry (e.g. MS Excel)
Long Term: There is a Tipping Point
Automated Tracking (1-Step, Real Time)
Tracking Process

- Hot production
- Cold production
- Other areas

Tracking Station

- Garbage/Disposal
- Pot Wash

No incremental labor required;
On average, less than 1 min/per employee/day

- Hot line
- Salad bar
- Other cafes and kiosks
Example Device

Review & Send Your Report

- Quantity: 1.0
- Event Order# (Optional):
- Food: Pastry - Special
- Loss Reason: Dropped
- Container: Metal 4"

Send Report
Instant Feedback to the Front Line

LEANPATH TRACKER

TUESDAY, OCTOBER 22, 2013 4:22 PM

WEIGHT LB

3.2

Help Prevent Food Waste

15,000 LBS. OF WASTE

PREVENTED SINCE JANUARY 15, 2013

FOOD WASTE FOR LAST 14 DAYS

June 02 - June 15

Track Record Food Waste

Track Express Item Select a Tracking Shortcut

-05% -12% -54%

SINCE YESTERDAY PRIOR MONTH PRIOR 3 MONTHS
Game Mechanics; Engagement

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Data Discovery Examples

Excessive Trimmings

• Food type: Strawberry
• Loss reason: Trim Waste
• Problem: 40% of strawberry purchases discarded as trim.
• Solution: Knife skills education session for employees.
Data Discovery Examples

Spreads on our bread station were a huge waste contributor.

- Peanut butter, cream cheeses, cinnamon butter, jams, etc.
- We were discarding the product since it had been out for service and posed contamination risk
- There was a lot of food being discarded
- Simple but effective switch: moved to 2” pans

We needed to be smarter about batch cooking.

- No longer switch out full pans during last quarter of meal periods of meals, but use half-pans instead.
Data Discovery Examples

Fresh-made breads from bakery were getting tossed.
- Every day we were throwing them away
- Discovered we needed to change where we were displaying the breads to make them more prominent

Milk was a high-waste item.
- Data quantified the problem
- We discovered even though orders had been adjusted, we were still receiving the bigger quantity
- Adjusted to half pints for satellite operations
Retail Practices

• Common challenges
  – Soup
  – Salad bars
  – Breakfast
  – Desserts
  – Starches
  – Grab & Go’s
  – Pastry
• Planning and execution gaps are a significant problem

✓ Review grab & go par levels
✓ Provide variety without excess volume
Catering Practices

Common Myths

“It’s been paid for”
“We have to produce to guarantee”
“It’s in the contract”

There’s always room for improvement.
Post-Consumer Waste Prevention

• Test smaller portions
  – Delivers on healthy/wellness value proposition
  – Higher margin
  – Flavor over amount

• Avoid self-service

• Cook-to-Order; 1-piece production

• Study plate returns; change menus

• Weekly huddle with service staff
DIVERSION
A Few of Many Diversion Options

Recycling Cooking Oil
Provide used Cooking Oil (UCO) to a biofuel refiner

Food Waste to Energy or Fertilizer
Partner with a commercial biogas digester or fertilizer group

FeedStock Prep via Disposers
Use the municipal waste water system to transport food waste
Composting: On-Site or Off-Site

- **On-Site**
  - In-vessel
  - Windrow
  - Vermiculture
  - Requires space, labor, technical skill

- **Off-Site**
  - Commercial food waste composting offers scale, expertise, and distribution
On-Site Digesters

- On-site
- Aerobic digestion
- Nutrient-rich water effluent
- No energy production

Examples: BioHitech America, OrcaGreen, Bio-EZ
On-Site Reducer/Dehydrator

• Reduce volume through drying
• Create a soil amendment (not compost)

Example: Ecovim, Somat
CLOSING THOUGHTS
Food Is Money

“Measure what is measurable. And make measurable what is not so.”

Galileo Galilei
Questions?

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