Food Waste Reduction in School Meal Programs

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School Meal Programs

- Provides nutritionally balanced, low-cost or free meals
- Must meet nutrition standards
- Committed to prevent hunger
- Responsible stewards of Federal dollars
- Child Nutrition Program policy aims to limit food waste

Food Waste in the US

- Agriculture Secretary Tom Vilsack and EPA Deputy Director Stan Meiburg announced the 1st ever national food loss and waste goal
  - 50% reduction by 2030
- Current food waste in the US:
  - Between 30-40% of the food supply
  - Approximately $161 billion worth of food
  - In 2010, the average amount of food loss per American was 429 pounds

Why Does it Matter?

- Could have helped feed the hungry
- Land, water, labor, and energy are used in producing, processing, transporting, preparing, storing, and disposing of discarded food
- Food waste is the single largest component going into municipal landfills
  - Generates methane, helping to make landfills the third largest source of methane

Food Waste Challenge

- USDA and EPA launched the U.S. Food Waste Challenge
- Farms, agricultural processors, food manufacturers, grocery stores, restaurants, universities, schools, and local governments to join efforts to:
  - Reduce food waste by improving products, storage, shopping/ordering, marketing, labeling, and cooking methods
  - Recover food waste by connecting potential food donors to hunger relief organizations
  - Recycle food waste to feed animals or to create compost, bioenergy and natural fertilizers

K-12 Schools

“I know schools are already doing so much to cut food waste and educate children about food and agriculture. It would be great if we could get hundreds of schools to join the Food Waste Challenge and spread the word about these good efforts...and stimulate more.”

– Janey Thornton, Deputy Undersecretary for Food, Nutrition, and Consumer Services, USDA –
Food Waste in Schools

- Concern for many schools
- Various stakeholders need to be engaged
  - Food service, principal, teachers, students, parents, custodians, etc.
- Students need to be frequently reminded on how to build a reimbursable school meal in a positive way

Increase Consumption

- Implement offer vs. serve
  - Make sure teachers, parents and students understand the concept
- Increase food choices
  - At least 2 fruits and 2 vegetables each day
  - Alternative entree option (deli sandwich, yogurt plate, Kidz-ables etc.)
- Ensure students have ample time to eat
  - 15 minutes for breakfast
  - 15 minutes for lunch
- Have recess before lunch

Reduce Food Waste

- Allow students to save items for later consumption
- Have a sharing table for students to place items they are not going to consume
- Measure food waste to determine which food items are most frequently wasted and make changes to the menu
- Compost food waste for school or community gardens
  - Only plant based food
- Work with a local farmer to provide food waste to livestock

Unserved Food

- Large amounts of unserved food on a regular basis
  - Review production practices and meal participation
- Alternatives permitted to eliminate waste by local health and sanitation codes should be exhausted before discarding food
- Excess food may be donated to a non-profit organization
  - Good Samaritan Laws typically provide protection from any liability of such donations

Food Safety – Cathy Strohbehn

- Key elements of sharing tables:
  - Shelf stable food packaged by manufacturer (individual portions)
  - Foods sold in Child Nutrition Programs (not food from home)
  - Unopened packages
  - Continuous monitoring of the table
  - Plan re security once accepted
  - Plan for distribution
- Sample SOP in packets

Things to Consider

- Students are generally compassionate
- Any type of food waste reduction/food rescue program should not:
  - Pressure students to donate to please others
  - Encourage students to take food they do not plan to eat
  - Prevent students from eating foods they selected for their meal
- The overall goal should be to increase consumption, which in turn will reduce waste
Action Steps

- If you are considering the re-use of food through sharing tables or donation:
  - Contact your local food safety inspector to discuss the process
  - Develop standards and policies to support the process
  - Train staff and students
  - Include guidelines for sharing tables in food service program’s HACCP plan

Composting

- Best practice: plant based foods
  - Plate waste ok, but challenge to sort
  - Avoid dairy and meat products
  - Use kitchen production scraps
- Three general types:
  - Aerobic or static
  - Bokashi
    - Formation with microorganisms
  - Vermicomposting
    - Worms

Composting – When/Where

- Need location away from public
- Potential cross contamination
- Recognize not a sand pit!
- Requires time inputs, materials and record keeping
- Consider carefully

Resources

- [www.iowafoodsafety.org](http://www.iowafoodsafety.org)
- SOPs
- ISU Safe Produce Modules
  - School garden coordinators and students
  - Assess learning
  - Consider requiring prior to garden work
- [ICN Food Safety and School Gardens](http://icnfood.com)
- North Carolina School Gardens

Iowa School Food Waste Survey

- Completed by 178 food service directors
- Most common techniques implemented that has reduced food waste:
  - Implemented offer vs. serve
  - Increased the number of food choices
  - Self-serve fruit and vegetable bar
Iowa School Food Waste Survey

- Schools were interested in the following strategies to reduce food waste:
  - Working to ensure students have enough time to eat
  - Completing a food waste assessment
  - Letting students self-serve

- Greatest concerns with attempting to decrease food waste:
  - Food safety concerns
  - Time to plan and coordinate
  - Cost

Success Story – Morning Sun

- TAG students 2015-2016 – Nancy Martin
- Rotate on a daily basis
- Paper products and cold lunches are put in separate waste containers
- Natural waste was not included (banana peel, orange peel, etc.)
- Weigh total food waste each day
- Each month students compile the data and display on board

“This Hot Lunch Waste Watch Program is a win-win on many levels, but particularly in regards to good nutrition and saving important dollars in our school food budget.”

Success Story – Tri Center

- Lego League - Shiloh Corrin
- Developed a program to combat food waste locally
- Worked with a local hog farmer
- Collected food waste daily/delivered to farm
- Presented their project at a regional competition
  - Placed 1st out of 28 teams!
- Continue to work with superintendent and the cafeteria staff to help students make good food choices and eliminate food waste
Food Waste

Why is DNR interested in food waste?
- Food waste is landfilled more than any other material type
- Significant contributor to Greenhouse Gases once landfilled
- Wasted natural resources
- Support for EPA’s Food Waste Hierarchy

Food Waste

- Industrial, Commercial and Institutional (ICI) Food Waste Study – 2015
  - Interviews were conducted with 111 schools. Questions included:
    - The amount of food waste generated
    - Type of food waste
    - Post-consumer, pre-consumer, both
    - Fruits, vegetables, grains, meats, dairy, other
    - Food waste, packaged, un-packaged, both
    - Disposal method
    - Donate, recycle and/or disposal
    - Frequency of disposal
    - Miles traveled to dispose of food waste
    - Interest in obtaining free food waste assistance

School Food Waste Pilot Project

- Goal
  - To identify the types and quantity of food waste being disposed
  - Develop best practices to reduce food waste
- Participants
  - 10 elementary schools
- Timeline
  - Assessments beginning in September – project completion prior to Thanksgiving Break
- Logistics:
  - Observation/Assessment and Waste Audit
- Deliverable:
  - Tool kit for schools including but not limited to:
    - Assessment results, case studies, observations, recommendations, and resources

Application

- Deadline: September 1st
- Interest
- Tray return process
- Student involvement

School Food Waste Resources

Solid Waste Alternatives Program
- Quarterly application deadlines: January, April, July, Oct.
- Awards
  - Requests up to $10,000 are considered for.Regional/Local
  - The next $10,000 are offered as $2,000
- Award amounts above $10,000 are offered as 3% loans
- 12% cash match

Iowa Waste Exchange
- Designed to keep waste out of the landfills and in production.
- Businesses and local governments dispose of items others can use. WEF representatives available to help anyone who is looking for a specific item or has items they are willing to give away.
- No-cost, non-regulatory service matching clients that have byproduct materials with other groups interested in using or recycling these materials.
- WEF reps also provide solid waste management assistance such as with this pilot food waste reduction project.
Thank You!

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