



K-12 Schools: Outreach to Prevent and Reduce Food Waste

MELCHER-DALLAS ELEMENTARY SCHOOL



The Iowa Waste Reduction Center (IWRC) received grant funding from the United States Department of Agriculture's Office of Rural Development to assist K-12 schools throughout rural Iowa. The goal of the project is to help K-12 schools and districts reduce the amount of food waste currently headed to the landfill.

ASSISTANCE TO REDUCE FOOD WASTE AT K-12 SCHOOLS

The wide-array of assistance provided by the IWRC includes the following:

- Measuring pre-consumer kitchen food waste
- Training kitchen staff to measure, record, and analyze food waste being tossed from the kitchen
- Measuring student food waste by conducting waste sorts but also including beverage waste, trash, plastics, cold lunch waste, and edible leftover foods normally thrown away by students
- Providing cost / benefits analyses of current disposal practices
- Analyzing environmental, social, and economic benefits of preventing and reducing food waste
- Promoting donation of edible whole, uneaten, and unopened foods to local non-profit organizations
- Implementing food waste composting with proper siting and techniques
- Providing regulatory counsel regarding donation of food and food waste composting both on-site and offsite
- Distributing age-appropriate posters developed by the IWRC to K-12 schools to hang in lunch room; posters create awareness of issues surrounding food waste
- Furnishing K-12 schools with fact sheets and training guides so they can conduct waste sorts, kitchen food waste tracking and analyses, and strategies to prevent and reduce food waste
- Uploading all materials developed for the project available on the IWRC's website to reach a broader audience
- All information provided has been made available to each school / district in a customized report complete with recommendations to prevent and reduce food waste based on the on-site assistance provided

K-12 schools have been eager to learn how much food waste and beverage waste they are sending to the landfill. It varies from school to school and by age range, but by conducting waste sorts to measure different waste streams, then extrapolating the food waste data, K-12 schools can get an estimated snapshot of how much food waste each student in their district is throwing away daily and yearly. This number is much more important to gauge success when implementing strategies than only looking at the tonnage that is tossed by district or school yearly.

The IWRC has worked with some really great students, teachers, staff, and administration from rural schools and districts all over Iowa. Many of them are already doing amazing things to prevent and reduce food and beverage waste.

MELCHER-DALLAS ELEMENTARY SCHOOL

Mr. Mike Horstman, Principal at Melcher-Dallas Elementary School signed up for the project and requested that students have the opportunity to help with the waste audit. The IWRC visited the school in May, 2018 and five students (student council) helped their peers sort waste from their trays into categories including left-over beverages, food waste, recyclables, cold lunch waste, trash, and also counted unopened, whole and uneaten foods ripe for donation.

Once breakfast and lunch concluded, the students weighed each category and recorded their findings. Most students were not aware of the issues surrounding food waste and were surprised by how much food was being thrown away. While students were required to dump unfinished milk into a bucket so beverage waste could be measured, one student that helped with the waste audit was surprised by how much perfectly good milk was being discarded. She stated, "The left-over milk in this bucket smells just like pudding or strawberry milkshakes." This student also offered the bucket to other students sorting waste from their trays after lunch to...."Take a sniff; doesn't it smell good?!" She was busting the "gross" stigma of food and beverage waste!

The school serves about 260 meals per day for both breakfast and lunch. Melcher-Dallas Elementary School had not implemented any strategies

The Iowa Waste Reduction Center and the University of Northern Iowa are equal opportunity providers and employers.

to prevent or reduce food waste. With the ease of implementing a share table where students can place whole, unopened foods, this strategy would make a big difference in the amount of food waste headed to the landfill while helping feed the community's food insecure people. The school was provided with a rolling cart to help implement a share table where students can place foods for donation, such as whole apples, unopened bags of crackers, chips, milk, juice, and yogurt to name a few. Scales and tracking sheets were also left with the school so staff can continue to track food waste to gauge success of implemented strategies.

Furthermore, if the school were to provide a bucket for students to pour unfinished beverages, staff could pour this down the drain rather than send it to the landfill. Beverages tossed in the garbage contribute significantly to the weight of trash headed to the landfill and increased disposal costs. This strategy only requires a bit of training each school year to teach students that throwing partially full containers of milk and juice should first be dumped into a bucket rather than in the trash.

The cafeteria waste audit at Melcher-Dallas Elementary School indicated that food waste makes up 37% of trash while beverage waste is 45% of trash being disposed from the cafeteria and into the landfill. The strategies mentioned above are easy to implement and cost effective. Not only could implementing these strategies reduce costs associated with disposal, but the food and beverages will not be in the landfill generating methane and could instead, help feed the community's food insecure population by donating food from students trays that hasn't been opened or eaten.

One of the most unique things about Melcher-Dallas Elementary School was the principal, Mr. Mike Horstman who encouraged students to learn more and participate in the waste audit at the school. Not only did students learn about the social, economic, and environmental issues surrounding food waste, they had fun too! Their jovial presence created a positive environment for all students sorting waste from their trays.

RESULTS OF WASTE AUDITS AT THE DISTRICT

The IWRC has conducted over 30 waste audits at K-12 schools throughout Iowa and has found the extrapolated average is 0.3 pounds of food waste that students toss after lunch. This does not include food waste after breakfast or any beverage waste. Dallas-Melcher Elementary School is doing better than the IWRC's extrapolated average of 0.3 pounds tossed by each student after lunch. Students in this district are tossing less at 0.2 pounds of food waste after lunch.



Students at Melcher-Dallas Elementary School helped their peers sort waste from trays after both breakfast and lunch.

There are also other techniques that can help prevent and reduce food waste including the following:

- Schedule recess before lunch to help expend excess energy and create a calmer lunch environment while stimulating appetites.
- Extend meal times to at least 25 minutes so students have time to finish eating.
- Check food deliveries for freshness before accepting them.
- Order inventory more often – less food at once is easier to manage and use.
- Repurpose left-overs into new recipes; turn burgers into chili or stale bread into croûtons.
- Create an appetizing and visually appealing presentation of foods.
- Store foods so that shelf life is optimized.
- Keep track of foods that end up in the garbage more frequently and understand when a recipe change may be in order.
- Donate left-over edible foods from students' trays. Foods that haven't been opened or eaten can be donated to local non-profits that feed the community's food insecure.
- Compost food waste.
- Get students involved in preventing and reducing food waste by helping plan menus, naming foods items, and measuring food waste.

The project is in full swing through September, 2018. Once the project concludes, the IWRC will continue to offer assistance to any K-12 school or district in Iowa that is interested in preventing and reducing food waste. *"It's been an absolute delight working with so many kids eager to learn more about food waste! And I feel like we are tipping the scale in our state!"* stated Jenny Trent who has been conducting on-site assistance to help entities prevent and reduce food waste for the last 6 years.

This material is based upon work supported under a grant by the Rural Utilities Service United States Department of Agriculture. Any opinions, findings, and conclusions or recommendations expressed in the material are solely the responsibility of the authors and do not necessarily represent the official views of the Rural Utilities Service.

WANT MORE INFORMATION?



For more information or to request assistance, please contact Jenny Trent at Jennifer.trent@uni.edu.