

Opportunities to Reduce Wasted Food in K-12 Schools

Preventing food from being wasted and diversion of food scraps are great opportunities for schools to reduce the amount of solid waste produced onsite and sent offsite. In this summary there are many strategies, technologies, and tools available to utilize in an effort to reduce wasted food.



Strategies in Food Waste Reduction

Source Reduction is the practice of reducing the amount of waste that is generated at the source. It is the most preferable strategy to reduce the amount of wasted food and food scraps sent to landfill.

A first step in assessing food waste amounts is to implement a food waste audit. A food waste audit is an analysis of the food wasted and helps identify how much and why food waste is generated. The U.S. Environmental Protection Agency (EPA) provides resources to schools wishing to conduct waste audits such as a guidebook to assess baseline food waste.¹ After conducting a food waste audit, the areas that are generating the most waste will be easier to identify.

Implementing an in-house computer based ordering method for food along with a computerized inventory (such as one developed through a spreadsheet or other software) can reduce the amount of over stock created from ordering on a pre-set schedule.

Working with suppliers to restrict "quality" date encoding and clearly labeling safety-based dates on merchandise can help reduce food waste. Implementing "first in, first out" procedures with products offered to students and used in the cafeteria can reduce food thrown out due to safety concerns and reduce the amount of food purchased every order.²

Other opportunities for source reduction in schools:

- Implementing a "share table" for students' packaged or pre-portioned food, beverages, or fruit, making sure to check with the local health departments to ensure safe food handling procedures are followed.³
- Reducing batch sizes in batch cooking so that unused meal prep food can be easier to convert into a different meal or given to donation.⁴
- Asking students which food item they would like when more than one option is available instead of serving without offering the alternative choice.³
- Making fruit and vegetables more appealing by cutting into pieces.^{3,5}
- Scheduling students' recess before lunch and for at least 30 minutes has been shown to reduce plate waste up to 30 percent.^{3,5}
- Salad bars have been shown to both increase students' consumption of vegetables and increase the overall amount of food eaten and not wasted.⁵
- Offering students a chance to try food before buying in the cafeteria can reduce the amount of food that ends up in the trash due to students' dislike.⁵

For more information on these tips and for even more tips, the EPA has created tip sheets for a variety of sectors to prevent wasted food through source reduction including both grade schools and universities. Likewise, the USDA also provides fact sheets on wasted food reduction in schools.^{3,4} Smarter Lunch Rooms provides more tips and links to finding financial support.⁵



Food Waste Diversion

Donation to People in Need— Instead of sending wasted food to landfills, excess food that is unspoiled and edible can be donated to local food banks. Often food banks will pick up food donations free of charge, therefore saving facilities disposal fees. There are even non profit organizations that will help schools design food donation programs, such as Food Bus. Food Bus worked with Sandpiper Elementary School in Scottsdale, AZ to solve the issue of food recovery in their school and donated 2700 pounds of food due to this partnership.⁶

The Bill Emerson Good Samaritan Act⁷ protects corporate food donors from liability. The University of Arkansas has created a food recovery legal guide to help facilities understand the legalities of food donations.⁸ To learn how to safely donate food, read this Food Safety Basics report⁹, or see Food Donation Guidelines from Feeding America.¹⁰ To get started, facilities should contact Arizona food banks.¹¹

Donation to Animals — Another way to prevent excess food being sent to landfills is to find local farms willing to accept food scraps. A notable example of schools and farmers interacting to divert food waste can be seen in Cumberland, RI. Schools in the area partnered with a local pig farm to divert some of their food scraps for feeding the swine.¹² While following the Swine Health Protection Act, schools can donate or sell food scraps to be used as swine food. See Leftovers for Livestock for more information.¹³

Industrial Uses for Wasted Food¹⁴ — Food scraps and fats, oils and grease (FOG) can be converted into biogas that can be used as an alternative energy source through anaerobic digestion.

Composting¹⁵, the lowest tier of food recovery, is the process of combining organic waste such as food waste, yard trimmings and manure with bulking agents such as wood chips to create soil amendment. On-site composting reduces the cost of waste collection and can provide a unique learning opportunity for students. Organizations like Compost Cats in Tuscon, AZ will help educate students and provide a location for composting. You can also look for local composters on the website "Find a composter".¹⁶

Benefits of Reducing and Diverting Food Waste

- Waste less and spend less by preventing waste in the first place and subsequently spending less by buying only food cafeterias will use.
- Pay less for trash pickup by keeping wasted food out of the garbage. Compost companies and food banks can also collect wasted food that is separated from the trash.

The EPA has created Food Recovery Guides for a variety of cities including "Links and Resources About Food Recovery in the Phoenix Area" to help businesses find local options for source reduction, donation to people, food scraps for animals, industrial uses and composting.¹⁷

The USDA Food Waste Challenge and the EPA Food Recovery Challenge

The USDA Food Waste Challenge and the EPA Food Recovery Challenge are voluntary environmental programs that offer facilities the opportunity to be recognized for their efforts in reducing food waste. By joining these programs, facilities pledge to set food waste goals and monitor their progress. In order to assist facilities in reaching their goals, the USDA and EPA offer a variety of tools such as webinars,¹⁸ a food waste management cost calculator, a waste reduction model,¹⁹ and others. In addition to offering tools, the EPA Food Recovery Challenge gives regional and national awards to organizations that show leadership in reducing food loss and waste. The USDA Food Waste Challenge and the EPA Food Recovery Challenge list participants on their websites.

References

- ¹ EPA. *A Guide to Conducting Student Food Waste Audits: A Resource for Schools.*
- ² NRPA. *Eight Steps to Successful OST Food Waste Reduction.*
- ³ EPA. *Food Loss Prevention Options for Grade Schools.*
- ⁴ USDA. *Join the U.S. Food Waste Challenge!*
- ⁵ Smarter Lunchrooms Movement. *Smarter Lunchrooms Strategies.*
- ⁶ Food Bus. *Annual Collected Weights.*
- ⁷ Good Samaritan Act. *Public Law*
- ⁸ University of Arkansas. *Food Recovery Legal Guide.*
- ⁹ Food Recovery Committee. *Comprehensive Guidelines for Food Recovery Programs.*
- ¹⁰ Feeding America. *Food Donation Guidelines.*
- ¹¹ Association of Arizona Food Banks. *Find a Food Bank Near You.*
- ¹² Valley Breeze. *Recycling Food Waste From the Town's Schools Helps Feed the Pigs at Pascoag Farm.*
- ¹³ Harvard Law School. *Leftovers for Livestock.*
- ¹⁴ EPA. *Industrial Uses for Wasted Food.*
- ¹⁵ EPA. *Reducing the Impact of Wasted Food by Feeding the Soil and Composting.*
- ¹⁶ Find a Composter. *Find a Site.*
- ¹⁷ EPA. *Links and Resources About Food Recovery in the Phoenix Area.*
- ¹⁸ USDA. *Office of the Chief Economist: K-12 Schools Reducing Recovering and Recycling Food Waste*
- ¹⁹ EPA. *Tools for Preventing and Diverting Wasted Food.*