

Can School Gardens Impact Food Waste in America?

Experts estimate that 30 to 40% of food in America goes to waste. It's not hard to imagine how each of us contributes to this tally — the forgotten broccoli at the bottom of the vegetable bin, the uncovered potatoes in the pantry that turned green, the "I'm not hungry" plates scraped into the garbage disposal. At the same time, one in seven Americans lives in a food-insecure household, including 13 million children. School gardens have the power to change lives. Are there ways they can help reverse these trends, too?



Many of us haven't thought much about food waste. Yet, according to one study, schools generate an average of 36.5 pounds of food waste per student per year. You can spark curiosity by starting a discussion. These questions are a good jumping-off point:

- *What happens to the food that's left on your plate after you're done eating lunch in the cafeteria? How about at home?*
- *What about the food scraps used in preparing the food — vegetable peels, carrot tops, etc.?*
- *What happens to fruit with a few brown spots, or carrots with splits or forks?*

Become an Observer — Without Judgment

The first step toward making changes — in ourselves, among our family and friends, in our schools and communities — is to observe without judgment. Consider ways to spark their curiosity. Ask students to start with themselves: *Pause for a moment before beginning to eat your school lunch. What's on your plate? What do you think you will eat? What will be tossed?* Then have them look around the cafeteria and notice what others are eating, and tossing. Ask students to do the same at home. *Is there a pattern to the food being wasted?*

If it's feasible, have students make lists of food being discarded during one or more school lunch periods. If possible, have them survey why the food was thrown out. Was the portion too big? Did the student change his/her mind? Was there not enough time to eat it all?

Some schools are even able to go beyond a simple survey and plan a controlled waste inventory. During the inventory students weigh the food waste on one day or over multiple days. They can record the amount of waste as a lump sum, or they can sort the waste into categories for an even more accurate measurement of the average waste per lunch period.

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Where Does All That Food Waste Go?

Most likely, the landfill. While some schools may have composting programs, and some municipalities require them, by far most food scraps end up in landfills. There, they decompose very slowly. Landfill-bound food waste is also responsible for releasing additional greenhouse gases that contribute to climate change.

What About Imperfect Produce?

Have you ever noticed the pristine appearance of the produce at the grocery store? Gardeners know better than anyone that fruits and vegetables are very rarely the picture of perfection. Ask students to take note next time they go to the grocery store: *What does the produce on the shelves look like? Can you find a bruised apple or forked carrot among the bunch?* See if they can find out from a farmer or grocery store manager what happens to the “less than perfect” fruits and vegetables.

Garden-Grown Lessons

Once students begin to understand the magnitude of the impact of food waste, the next step is to look together for practical and accomplishable solutions. At the top of the list you will probably find the need to change our attitude toward our food so that we are properly motivated to change our behaviors. Here are some ideas for ways working in a garden can impact how your students view the value of food and motivate them not to waste it:

The delight of pulling his or her first carrot from the garden will overcome any child’s disappointment that the carrot is crooked or has a fork. This is the start of a child’s understanding of what “real” food looks and tastes like.

Kids who grow vegetables are much more likely to eat vegetables (and try unfamiliar ones) — both garden-grown and those served at school and home. The toil of planting, weeding, watering, and harvesting vegetables from the garden builds appreciation for the value of those foods — it’s a much different experience than simply grabbing a tomato at the store. When something attains value — like fruits and vegetables — kids (and adults!) are much less likely to squander and waste it. A school garden can be a reminder to students that even if *they* didn’t grow the food themselves, *someone* did — and their toil in producing it deserves respect. It can turn around the stigma of imperfect produce: “Yuck” turns to “yum” when the blemished part of a fruit is cut away, leaving the perfectly delicious remainder.

These can all serve as reminders that food is as precious (arguably more precious!) than any gemstone. It’s what sustains us and keeps us alive and healthy. So how can we treat it with respect? By not wasting it!

Once you have worked on attitude, the next step is to devise ways to improve our behaviors. Here are some ways to put this new perspective into motion:

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Create a Share Table

Some schools, seeing how much food gets wasted, have set up “Share Tables.” These are designated areas where uneaten foods can be left, so others can use them. Shared foods are restricted to unopened, non-contaminated foods such as whole fruits and packaged foods. An ice bowl or refrigerator shelf can be reserved for foods that require chilling. These foods can be used by students as snacks or to bring home, or they can be donated to a food shelf. Find the USDA regulations for Share Tables here: https://fns-prod.azureedge.net/sites/default/files/cn/SP41_CACFP13_SFSP15_2016os.pdf

Set Up a Composting Site

Savvy school gardeners know that compost is “black gold.” The decomposition process transforms garden trimmings, foods scraps, fallen leaves, and other organic materials into dark, nutrient-rich compost that builds soil health. And healthy soil is the foundation of a bountiful garden.

Some communities provide options to have your food waste picked up by professional composters. If your community does not offer this opportunity, consider starting a school composting program. Composting provides free nutrients for garden plants — nutrients that would otherwise go to waste at the landfill. It reduces the volume of waste filling up landfills, and reduces the greenhouse gases that landfills emit. It’s win-win! Less waste hauled off to the landfill (saving hauling fees), nutrients recycled for garden plants, and lessons galore for students. Check out our Composting article.

[\(https://kidsgardening.org/gardening-basics-composting/\)](https://kidsgardening.org/gardening-basics-composting/) The section How to Begin Composting at School describes different ways to approach a composting program.

From Waste to Wow

Consider intercepting some “waste” before it ends up in the compost bin:

Oversized zucchini? Make zucchini bread! Or halve lengthwise and carve out the seeds to create a canoe. Then fill with a mixture of sautéed veggies and rice and bake.

Bananas past their prime? Make banana bread or freeze them for making smoothies!

Keep an eye out for red cabbage leaves, avocado skins and seeds, and onion skins — they can all be used to dye fabric. *Learn more:* [Exploring Plant Dyes](#)

Carrot tops, bruised sweet potatoes, sprouted garlic cloves — they’re all candidates for creating new plants! *Learn more:* [Kitchen Scrap Gardening](#)

Share Your Knowledge

Awareness of the issue is half the battle. Busy lives have led our society to choose convenience over

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conservation. Have student brainstorm ideas for spreading the word and getting families and community members on board with committing to finding ways to reduce food waste.

Additional Resources to Check Out:

- Food Waste Warriors (World Wildlife Fund): <https://www.worldwildlife.org/stories/food-waste-warriors>
- Understanding Food and Climate Change (Center for Ecoliteracy): <https://www.ecoliteracy.org/download/understanding-food-and-climate-change-interactive-guide>
- School Food Recovery Handbook, A How-to Guide to Reduce Wasted in Maine's K-12 Schools (Natural Resources Council of Maine) <https://www.nrcm.org/wp-content/uploads/2018/09/schoolfoodrecoveryhandbook2018.pdf>

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