

Sarasota County Schools

GARDEN TO CAFETERIA

A STEP-BY-STEP GUIDE



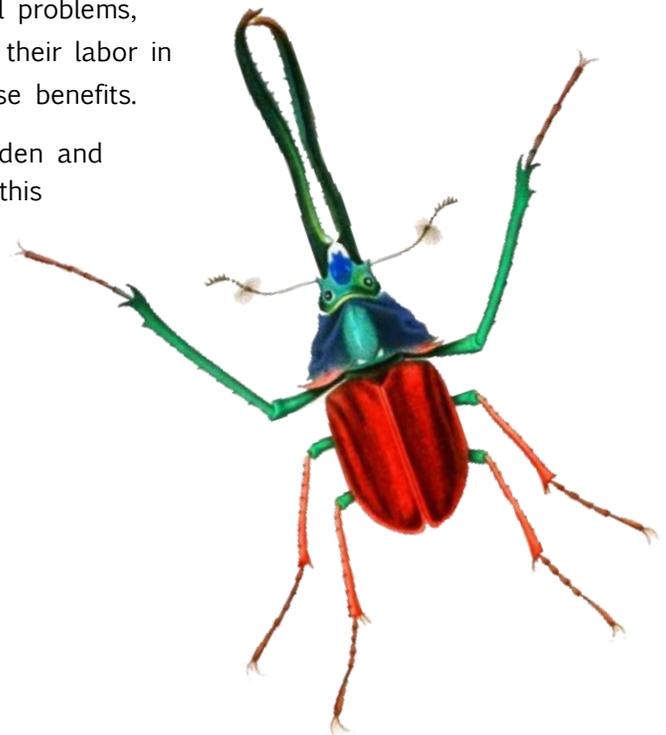
Food and Nutrition Services
Sarasota County District Schools



Garden to Cafeteria integrates hands-on learning in the garden classroom with nutritious options in the school cafeteria.

The connection to nature students make through tending plants in the garden has been shown to improve test scores, behavioral problems, and emotional issues¹. Students' experiencing the fruits of their labor in the garden via the school lunch program underscores these benefits.

When students grow regionally-specific varieties in the garden and contribute to dishes created from locally-produced items, this connection goes full circle.



Introduction

Garden to cafeteria is a part of the nationwide Farm to School initiative. While the primary purpose of school gardens is to provide students experiential learning opportunities, physical activity, and connection with the natural world, for school gardens or farms that would like to increase production, the school's cafeteria is a potential recipient of produce. This guide will walk you through considerations, steps, and examples for using school garden produce in your school's cafeteria.

A garden to cafeteria program can be tailored to fit your school's needs. There can be one specific goal in serving garden fresh produce in the school cafeteria, or the garden to cafeteria program can be just one component of an educational garden project. Regardless of the objective, school gardens require planning, involvement, and attention, and they provide hands-on learning opportunities, enjoyment, and delicious fresh food!

There is a learning curve for starting a garden to cafeteria program. If your school is new to this type of work, start small. Set incremental and measurable goals and begin by growing one or two crops to provide to your cafeteria. If your school has installed a new garden, the first one to two years may be used to prepare the garden before starting a garden to cafeteria program. Building a strong foundation for a healthy garden and establishing and nurturing trusting relationships with foodservice staff members, school administration, school garden stakeholders, teachers, and students will increase your success in developing a longstanding garden to cafeteria program.

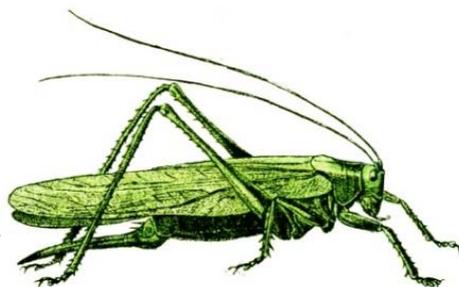
Check out more information about Farm to School at Sarasota County Schools' Farm to School page: <http://sarasotacountyschools.net/departments/fns/default.aspx?id=45858> and the National Farm to School Network: <http://www.farmentoschool.org/>.

Step 1: Getting Started Garden to Cafeteria

Once you have received approval from your school's principal, begin by contacting the Food and Nutrition Services office at 941-486-2199 to start the conversation about garden to cafeteria.

The specific fresh fruits, vegetables, and herbs listed in Step 2 are currently being used in your school's cafeteria and could be easily substituted with school garden produce. **The greatest success for garden to cafeteria occurs when produce harvests coordinates with the school lunch menu.** Start with small harvests to get to know your Cafeteria Manager and their staff. Please take the time to read and fill in the following information for garden to cafeteria planning and implementation.

All schools interested in participating in Garden to Cafeteria are required to send at least one garden leader to the University of Florida IFAS Extension's Gardening 101 class to participate in food safety training. Gardening 101 is offered at the UF IFAS Extension Office at Twin Lakes Park, 6700 Clark Rd, Sarasota, FL 34241. For current class schedule, visit <http://sarasota.ifas.ufl.edu/> and click the "School Gardens" link on the left side navigation panel.



Step 2: Deciding What to Plant

The following chart lists produce items that are currently purchased and served in your school cafeteria. Please check the items you are interested in growing in the school garden for the cafeteria:

Vegetables	Season	Fruit	Season
Broccoli	Fall – Spring	Banana	Year-round
Kale	Fall – Spring	Blueberry	Spring
Romaine	Fall – Spring	Cantaloupe	Summer
Tango Lettuce	Fall – Spring	Grapefruit	Fall – Spring
Red leaf Lettuce	Fall – Spring	Orange	Fall – Spring
Baby Swiss Chard	Fall – Spring	Pineapple	Spring - Summer
Carrots	Fall – Spring	Tangerine	Fall – Spring
Red Bell Pepper	Summer	Strawberry	Winter – Spring
Green Bell Pepper	Summer	Watermelon	Summer
Tomato (Slicer)	Summer		
Tomato (Cherry)	Summer	Herbs	
Tomato (Grape)	Summer	Basil	Summer
Corn	Fall – Spring	Chives	Year-round
Potato (Red)	Spring	Cilantro	Winter – Spring
Potato (White)	Spring	Dill	Winter – Spring
Sweet Potato	Fall	Mint	Year-round
Cauliflower	Fall – Spring	Oregano	Year-round
Celery	Winter – Spring	Parsley	Fall – Spring
Cucumbers	Summer	Rosemary	Year-round
Green Beans	Summer	Sage	Fall – Spring
Radish	Winter – Spring	Thyme	Year-round
Yellow Crookneck Squash	Summer		
Zucchini	Summer		
Onion	Year-round		
Pumpkin	Summer – Fall		

Step 3. Garden Scale and Sourcing Impact

If you are planning a **new** garden or **expansion** for garden to cafeteria, you can access resources and assistance from Sarasota County UF/IFAS Extension School Gardens Program by contacting 941-861-9900. You can use the following examples or your own research to determine how large your new garden should be to produce the desired quantity of fruits and vegetables.

- Lettuce salad mix: Sprinkle lettuce seeds using a spice shaker with large holes or broadcast them by letting the seeds fall from your hand, in 2- to 4-inch wide bands. Target 10 seeds per square inch. When planting more than one row, space rows 2 inches apart. Lettuce will produce approximately $\frac{1}{4}$ pound per row foot when seeded at this density. For example, you would need to plant 80 row feet to produce 20 pounds of lettuce.
- Baby spinach: Plant spinach seeds in 2- to 4- inch wide bands, spacing seeds $\frac{3}{4}$ of an inch apart. You will use about 40 seeds per foot. Spinach will produce about 1 pound per row foot when seeded at this density. For example, you would need to plant 20 row feet to produce 20 pounds of spinach.
- Carrots: Plant carrots in 2-inch wide bands, spacing seeds $\frac{3}{4}$ of an inch apart. Carrots will produce approximately $\frac{1}{4}$ pound/foot when seeded at this density. For example, you would need to plant 25 row feet to produce 20 pounds of carrots.



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¹ Baker, Ann F., Jessica Brainard, Chika Kurotaki, Donald Sibbett. 2009. "Honey Bee Haven Garden Harry H. Laidlaw Jr. Honey Bee Research Facility." Design Competition Submission. January 30.

Step 4: Five Keys to Successful Florida Ecological Gardening

Florida is a unique place to garden, especially if you are accustomed to gardening in other parts of the country. As you may have noticed, Florida soil is mostly sand, so soil improvement is imperative to grow healthy plants. Incorporate these steps as you are able to increase success:

- 1. Mulch: DO use:** hay, straw, grass cuttings, leaves. **DO NOT use:** woodchips. Mulching serves many functions in the Florida garden including: protecting plants' roots from hot sun, retaining water, and eventually breaking down to add organic matter and improve soil. Use woodchips only for areas you **do not** want plants to grow, such as paths. Non-composted wood chips are very high in carbon and therefore absorb nitrogen from the soil, which your plants need to grow. It is easier to mulch the entire bed before planting, then plant starts into beds than to mulch after planting around each delicate seedling.
- 2. Amend:** Add organic matter to amend soil, increase water-absorbing capacity of soil, and add nutrients. Organic matter suitable for school gardens include mulch (see above), composted aged manure, composted worm castings, composted kitchen scraps.
- 3. Cover Crop:** In order to grow healthy plants, we need to cultivate healthy microbial life in the soil. **In order for the soil to grow healthy plants, it must be alive; in order for the soil to be alive, it must be covered (with plants or mulch).** We know gardeners love to see that dark, freshly tilled soil (see no-till below); however, when the soil is disturbed and exposed to the strong Florida sun, it kills the microorganisms plants need to take up nutrients. Cover cropping not only preserves microorganisms over the summer (as opposed to other off-season methods like solarizing), it adds nutrients like nitrogen to the beds, and prevents unwanted weeds. Cover cropping and mulching help keep soil covered, alive, and healthy! For more information contact your UF/IFAS Extension office at 941-861-9900 or sarasota@ifas.ufl.edu.
- 4. No-Till:** Many gardeners are accustomed to tilling at the beginning of each planting season to remove weeds and prepare beds and at the end of the season to remove leftover plants and weeds. In school gardens rototillers are often used, but they are expensive, heavy, and uncomfortable to manage. The good news is – you don't need to till! In fact, tilling is harmful to beneficial soil microbial life, decreases soil

What is Organic Matter?

Organic matter is decomposed, stable plant and animal materials which have created soil humus. It helps soil to hold water and nutrients, prevent erosion and improve soil structure for happy plants.²

“Soil organic matter stores a huge amount of atmospheric carbon. So by increasing soil organic matter, more carbon can be stored in soils, reducing the global warming potential.”³



² Funderburg, Eddie. 2015. “What Does Organic Matter Do In Soil?” The Samuel Roberts Nobel Foundation. <http://www.noble.org/ag/soils/organicmatter/>.

³ Magdoff, Fred, and Harold Van Es. 2009. “Building Soils for Better Crops Sustainable Soil Management Third Edition.” Waldorf, MD: Sustainable Agriculture & Research Education. <file:///C:/Users/9021fosterm/Downloads/Magdoff%20Van%20Es%202009.pdf>.

Step 6: Establishing a Flourishing School Garden

These questions will help you identify a few essential considerations for building a healthy school garden program.

- The most successful long term school gardens are backed by **programming within the school**. Does your school have or would your school be interested in starting a Future Farmers of America (FFA) program, horticulture wheel class, and/or wellness and gardening wheel class?
- Are there additional stakeholders in the school and community interested in this project? For instance, have you considered reaching out to parent groups, neighborhood organizations, or local and/or regional non-profit organizations?
- Maintaining a garden requires dedication. The ideal situation is to have a school garden champion dedicated to the project **and** incorporate the garden into school curriculum such as a horticulture or wellness wheel track. Check out these Life Lab suggestions for funding a school garden coordinator: <http://www.lifelab.org/2012/12/funding-garden-coordinators/>
- Will students assist with garden maintenance? If yes, through which venues or programs, such as classes, afterschool programs, student groups, etc.?
- Do you have access to garden tools and supplies? Do you have access to water?
- Have you considered applying for school garden grants? Check <http://grants.kidsgardening.org/> and <https://communitygarden.org/resources/funding-opportunities/> for current funding opportunities.

Food Safety Resources:

- Florida Department of Agriculture and Consumer Sciences: <http://www.freshfromflorida.com/Divisions-Offices/Food-Nutrition-and-Wellness/Nutrition-Education-Resources/For-Sponsors/School-Gardens>
- Five Tips for Food Safe School Gardening: <http://www.sde.ct.gov/sde/LIB/sde/pdf/DEPS/Nutrition/OPmemos/10/5stepsOM1010.pdf>

Other Resources:

- UF *Grow to Learn* Guide: <http://farmtoschool.ifas.ufl.edu/docs/pdf/resource-guide-grow-to-learn-color.pdf>.
- School Composting Guide: http://www.ct.gov/deep/lib/deep/compost/compost_pdf/schmanual.pdf.
- *Building Soils for Better Crops* by Fred Magdoff and Harold Van Es, Sustainable Soil Management: <file:///C:/Users/9021fosterm/Downloads/Magdoff%20Van%20Es%202009.pdf>.
- “School Gardens” page of UF/IFAS’ website, visit sarasota.ifas.ufl.edu and clicking the “School Gardens” link on the left side navigation panel.



This guide was adapted from Michigan State University Center for Regional Food Systems mifarmtoschool.msu.edu foodsystems.msu.edu