



**San Diego Unified School District
Food Services Department
Garden to Café Program**

www.sandi.net/food

6735 Gifford Way, San Diego, CA 92111
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**County of San Diego
Department of Environmental Health
Food and Housing Division**

www.sdcdeh.org

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Conditional Approval of a School Garden Food Source for San Diego Unified District

Name of School: _____

Address: _____

Principal: _____

Cafeteria Site Leader: _____ Phone: _____

Garden Leader: _____ Phone: _____

Garden Co-Leader (if applicable): _____ Phone: _____

Garden Location on Campus: _____

Introduction and Purpose

A growing number of schools across the nation recognize the importance of school gardens in addressing childhood obesity and creating a successful learning environment. School Food Services Departments (FSD), such as the San Diego Unified School District (SDUSD), are taking an important leadership role in the school garden movement—partnering with parents, teachers, and administrators to develop Garden to Café programs that extend the lessons learned in the garden to the school café. At its core, Garden to Café is about serving fresh and healthful garden-grown foods to students through the school meal program, specifically lunch.

Ensuring the safety of the food supply is critical to a healthy student and healthy communities. School and retail food facilities regulated under the California Retail Food Code are required to obtain their food from an “approved source,” as defined in Sections 113725 and 114021 of the California Health and Safety Code. The regulation of food sources helps to ensure a safe food supply.

Some on-site gardens that provide food for a single co-located and regulated school kitchen facility are considered by SDUSD and the Department of Environmental Health (DEH) of San Diego to be approved food sources for that food facility. Express documentation of these determinations, and of the considerations underlying these determinations, will help to ensure safe practices in school Garden to Café gardens.



This conditional approval is intended to ensure that the school garden identified above is a safe source of food for the school kitchen facility participating in the Garden to Café Program. The practices and standards required under this agreement are consistent with applicable standards for approved food sources, are in conformity with current public health principles and practices, and generally recognized industry standards that protect public health.

School gardens are often co-led by multiple school staff or parent volunteers. Hereafter, within this document when ‘garden leader’ is referenced, the standards, protocols and approvals to follow will apply to the ‘garden co-leader’ as well for school sites where garden coordination is a shared responsibility. The certifications within this agreement document that the school principal and school garden leader understand the critical factors that play a role in preventing the microbial or chemical contamination of produce. In addition it documents the school and garden leader agree to adhere to these minimum requirements. This agreement must be reviewed and re-signed whenever a garden leader or garden co-leader is replaced.

This document regulates only those foods grown in a Garden to Café garden and used in the National School Lunch Program by the identified garden and kitchen facility. The FSD does not take responsibility for the harvest and use of garden-grown foods in the school classroom, or at other non-approved serving sites. The FSD is not responsible for illness or outbreaks related to improper management of plants or produce by gardens and garden leaders. The FSD is only responsible for garden-grown foods after possession of such foods has been taken by FSD staff.

No transfer to, or use of, garden-grown food in any school food facility other than the facility identified above, is allowed under this approval. Food grown on site must be processed and used at that school site in the identified kitchen.

Garden Visit
Check List-
Boxes for
reviewer

Conditions for Use of Garden-Grown Produce in School Kitchens

Water Quality

- 1) Water used for irrigation must be obtained from a public water system or from wells that have been shown to be free from pathogens.
- 2) Gray water, or recycled water, is not an approved water source for Garden to Café gardens.
- 3) Water runoff from other irrigation practices unrelated to the Garden to Café garden, or rainfall water runoff, must be prevented from coming into contact with the Garden to Café garden.

Septic Systems

- 4) Gardens shall not be planted over septic systems or leach fields.

Protection from Contamination

- 5) Efforts shall be maintained to exclude animals, including domestic animals, from the growing area.
- 6) Gardens must be protected from contamination by an appropriate method. This may include: physical barrier, monitoring program or other effective method.



Pesticides & Herbicides

- 7) Pesticides and herbicides shall not be applied on or around Garden to Café gardens.
- 8) School garden coordinator must communicate with the District’s Integrated Pest Management Department to ensure awareness of edible school garden.

Compost

- 9) Compost applied to culinary gardens must be fully composted, and may not contain animal fecal materials. Vermicompost may be applied to culinary gardens.
- 10) Compost must be composted in an appropriate vessel or container.
- 11) Non-commercial compost produced at the school site must be less than one cubic yard of food material at any one time. Waste must be generated and used on site.

Sanitary Practices

- 12) Gardening and harvest equipment must be maintained in a clean condition and stored in a sanitary location. Garden to Café gardens must have equipment dedicated to, and shall be solely used in, the school garden and not used for other purposes on the property.
- 13) Vegetation at the edges of gardens should be maintained to prevent harborage places for rodents and insect pests.

Harvesting Garden Produce

- 14) A garden leader certified in the Garden to Café Program must be present when food is harvested.
- 15) Harvested produce must be stored in clean, non-porous, food grade containers.
Unacceptable containers include wicker baskets, cloth or burlap bags, and any containers that originally held chemicals, such as household cleaners or pesticides.
- 16) All harvested produce must be weighed prior to delivery and indicated on harvest receipts.
- 17) Produce must be delivered to kitchens, the same day it is harvested with two colored harvest receipts, see Appendix 2.
- 18) Produce must be washed in a food preparation sink by an approved method in the cafeteria.
- 19) After each use, the harvest container should be run through a dishwasher, 3-compartment sink or equivalent washing system before the next harvest, and stored in the cafeteria.
- 20) Sprouted seeds and garden harvested fresh fruits and vegetables that have been juiced will not be served at schools as part of the Garden to Café program.

Student Sanitation

- 21) Sick or potentially ill students and garden leaders exhibiting symptoms are not allowed to participate in the harvest of foods for use by the kitchen at any time.
- 22) Students, staff, garden leaders, or any gardeners harvesting produce from Garden to Café gardens, must properly wash their hands before handling produce and be free of open cuts or wounds on their extremities.
- 23) Staff or garden leader must ensure that students are following hand washing procedures, including liquid soap and single use paper towel.
- 24) Restroom facilities with water and soap must be readily accessible to anyone working in a Garden to Café garden.
- 25) Gardeners should avoid cross-contamination of produce by ensuring equipment, gloves, and other sources of contamination do not come into contact with produce after being potentially contaminated by compost or other materials.



Inspection/Notification

- 26) All garden facilities, equipment, operations, and records shall be subject to inspection by SDUSD Food Services Department staff, DEH, Agriculture Weights and Measures, and relevant government institutions at any time without prior notice.
- 27) Please fill out the Garden Questionnaire and submit it to the Farm to School Specialist. An inspection of the garden will follow the Garden Questionnaire submission, see Appendix 1.



District Garden Regulations

- 28) Any Garden to Café garden must first meet standards outlined for school garden development by Support Services at Physical Plants and Operations in the ***“School Site Garden Guidelines”*** Manual.

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A current agreement should be kept on file at the school cafe for inspection by the Department of Environmental Health (DEH).

Garden Leader Certification

I certify that I am authorized to enter into this agreement on behalf of the _____ School Site of SDUSD. I am, at this time, the garden leader for this Garden to Café garden. This garden, garden leader, and school principal agree to adhere to the requirements listed above and also agrees to implement ‘best agricultural practices’ in this culinary garden. I certify that the information in the attached Garden Questionnaire is true and correct.

_____	_____	_____
Printed Name & Title (Garden Leader)	Signature	Date
_____	_____	_____
Printed Name & Title (Garden Co-Leader)	Signature	Date
_____	_____	_____
Printed Name & Title (School Principal)	Signature	Date

Food Services Department’s Conditional Approval of Food Source

The Food Services Department of SDUSD approves the Garden to Café garden identified above as an approved food source for the school-food facility also identified above. The approval is conditioned upon the garden leaders and school site’s adherence to the requirements and ‘best agricultural practices’ described above, and shall be null and void if those practices are not followed. I certify that I have inspected the Garden to Café garden identified above and that it conforms to the regulations as outlined above.

_____	_____	_____
Printed Name & Title	Signature	Date

Cafeteria- Area Supervisor & Site Leader

I acknowledge that I have been made aware of this Garden to Café garden as an approved source of food for use in the National School Lunch Program.

_____	_____	_____	_____
Area Supervisor Initials	Date	Site Leader Initials	Date

DEH Conditional Approval of Food Source

The County Department of Environmental Health approves the culinary garden identified above as a food source for the food facility identified above. The approval is conditioned upon the operator’s adherence to the requirements and best agricultural practices described above, and shall be void if those practices are not followed.

_____	_____	_____
Printed Name & Title	Signature	Date



Garden Questionnaire

School Name: _____

School Street Address: _____

Garden Leader’s Name: _____

Phone No: _____ Email: _____

PLOT PLAN: Attach a plot plan showing the garden, as well as major structures, chemical and equipment storage sheds, and septic systems within 100 feet of the garden.

PLANT/TREE INFORMATION: Include the type and number of plants and/or trees that you expect to harvest product from for use in the cafe. Use additional sheet(s) if more space is needed.

Produce type	#	Produce type	#
_____ <input type="checkbox"/> Plant <input type="checkbox"/> Tree	_____	_____ <input type="checkbox"/> Plant <input type="checkbox"/> Tree	_____
_____ <input type="checkbox"/> Plant <input type="checkbox"/> Tree	_____	_____ <input type="checkbox"/> Plant <input type="checkbox"/> Tree	_____
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_____ <input type="checkbox"/> Plant <input type="checkbox"/> Tree	_____	_____ <input type="checkbox"/> Plant <input type="checkbox"/> Tree	_____

Water Source: _____

Fertilizer Used: _____

Compost Used: (include source) _____

Are hand washing and restroom facilities available onsite? YES NO Distance from garden: _____

ANIMALS:

1) Are measures taken to exclude wild and domestic animals from the growing area? YES NO

2) Are any domesticated animals raised at this location? YES NO If yes, answer the following:

3) Are animals separated from growing area? YES NO

i. Identify animal type(s):

ii. Do the same gardeners take care of animals and produce-growing areas? YES NO

PRODUCE:

1) Do you intend to wash produce prior to its delivery to kitchens? YES NO



GARDEN HARVEST RECEIPT

Date _____

DELIVERY #

School Name _____

Weight	Food Item Description

Garden leader initials _____

Student initials _____

Site leader initials _____

INSTRUCTIONS FOR GARDEN RECEIPT:

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4. Site Leader must initial both receipts indicating they received the garden produce as described.
5. Site Leader keeps one copy and sends the other colored copy to Area Supervisor.
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_____	_____	_____
Printed Name & Title	Signature	Date

Cafeteria- Area Supervisor & Site Leader

I acknowledge that I have been made aware of this Garden to Café garden as an approved source of food for use in the National School Lunch Program.

_____	_____	_____	_____
Area Supervisor Initials	Date	Site Leader Initials	Date

DEH Conditional Approval of Food Source

The County Department of Environmental Health approves the culinary garden identified above as a food source for the food facility identified above. The approval is conditioned upon the operator’s adherence to the requirements and best agricultural practices described above, and shall be void if those practices are not followed.

_____	_____	_____
Printed Name & Title	Signature	Date



Garden Questionnaire

School Name: _____

School Street Address: _____

Garden Leader’s Name: _____

Phone No: _____ Email: _____

PLOT PLAN: Attach a plot plan showing the garden, as well as major structures, chemical and equipment storage sheds, and septic systems within 100 feet of the garden.

PLANT/TREE INFORMATION: Include the type and number of plants and/or trees that you expect to harvest product from for use in the cafe. Use additional sheet(s) if more space is needed.

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_____ <input type="checkbox"/> Plant <input type="checkbox"/> Tree	_____	_____ <input type="checkbox"/> Plant <input type="checkbox"/> Tree	_____
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_____ <input type="checkbox"/> Plant <input type="checkbox"/> Tree	_____	_____ <input type="checkbox"/> Plant <input type="checkbox"/> Tree	_____
_____ <input type="checkbox"/> Plant <input type="checkbox"/> Tree	_____	_____ <input type="checkbox"/> Plant <input type="checkbox"/> Tree	_____

Water Source: _____

Fertilizer Used: _____

Compost Used: (include source) _____

Are hand washing and restroom facilities available onsite? YES NO Distance from garden: _____

ANIMALS:

1) Are measures taken to exclude wild and domestic animals from the growing area? YES NO

2) Are any domesticated animals raised at this location? YES NO If yes, answer the following:

3) Are animals separated from growing area? YES NO

i. Identify animal type(s):

ii. Do the same gardeners take care of animals and produce-growing areas? YES NO

PRODUCE:

1) Do you intend to wash produce prior to its delivery to kitchens? YES NO



GARDEN HARVEST RECEIPT

Date _____

DELIVERY #

School Name _____

Weight	Food Item Description

Garden leader initials _____

Student initials _____

Site leader initials _____

INSTRUCTIONS FOR GARDEN RECEIPT:

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Denver Public Schools

FOOD AND NUTRITION SERVICES

TEL 720-423-5600

FAX 720-423-5629

www.dpsk12.org



Slow Food® Denver



Denver Public School's Garden to Cafeteria Program: School Gardens

Denver Public School's (DPS) Food and Nutrition Services Department strives to "provide healthy food and nutrition education so all students will have the opportunity for success" in the classroom, in their daily lives and to set the foundation for healthy lifestyles as they grow and mature. For over a decade, Slow Food Denver (SFD), Denver Urban Gardens (DUG) and Learning Landscapes (LL) have been collaborating on the grounds of DPS to establish school/community gardens and associated education programs. This Denver School Garden Coalition has manifested itself at dozens of DPS elementary schools, and seeks to serve the unique set of needs and circumstances within each school community, with the primary focus on student education and enrichment.

The Garden to Cafeteria (GTC) program is an opportunity for DPS students to grow fresh fruits and vegetables in their school gardens with the aim of supplying some of their harvest to the school cafeterias to be used at lunch service. Beginning in 2010 with 14 school gardens participating, the program is now expanding to involve more schools as well as use produce from community gardens that are located on school grounds.

The following protocols have been put in place to assure the food safety of the vegetables harvested from the school gardens by students. Items in *italics* in the following paragraphs are safety protocols that have been adapted from Federal and State guidelines for Good Agricultural Practices (GAP) and Good Handling Practices (GHP):

1. US Food and Drug Administration-
<http://www.fda.gov/Food/GuidanceComplianceRegulatoryInformation/GuidanceDocuments/ProduceandPlanProducts/ucm064574.htm#iii>
2. Colorado Department of Agriculture-
<http://www.colorado.gov/cs/Satellite?c=Page&cid=1219832881143&pagename=Agriculture-Main%2FCDAGLayout>
3. United States Department of Agriculture-
<http://www.ams.usda.gov/AMSv1.0/ams.fetchTemplateData.do?template=TemplateN&leftNav=GradingCertificationandVerification&page=GAPGHPAuditVerificationProgram&acct=freshgrdcert>

The following protocols are divided into several major headings:

1. How to sign-up a school garden to participate in the GTC Program
2. Produce items that are eligible for the GTC program
3. Preparation by a GTC Leader for a harvest with students
4. How to harvest produce with students from a school garden
5. How to clean the produce and store it in the school kitchen
6. How to compost the produce scraps from the harvest
7. Guidelines for DUG community gardeners to participate in the GTC program

How to sign-up a school garden to participate in the Garden To Cafeteria (GTC) Program:

Please note, there are several procedures necessary in order to sign-up your school garden to participate in the GTC Program.

1. Visit the DPS Food and Nutrition Services website (<http://enterprisemanagement.dpsk12.org/food-services/garden/>) and download the “Denver Public Schools Garden to Cafeteria Registration” form. Fill out the required contact information and return the form to Anne.Wilson@dpsk12.org. Register as soon as possible to start the process. Registration will end by Sept. 10, 2015 or as approved by the Farm to School Coordinator.
2. Your registration information will go to DPS Food and Nutrition Services, SFD, and DUG, who provide training. DPS Food and Nutrition Services will contact GTC Leaders about the upcoming schedule of trainings. DPS Food and Nutrition Services will also verify the school’s participation in GTC with the principal.
3. A representative of your school garden, preferably the school GTC Leader or the individual who will be harvesting with students, must attend one training to learn about the protocols for harvesting with students. There will be several training sessions in August (schedule to be determined).
4. Per DPS policy, any GTC Leader participating in the GTC program must have filled out the necessary DPS Volunteer paperwork, including a background check form.
5. DPS Food and Nutrition Services will supply the name and contact information of the Kitchen Manager and the Area Supervisor at your school. The school GTC Leader needs to make introductions and discuss the GTC Program with the Kitchen Manager and the Area Supervisor.
6. The school GTC Leader obtains from SFD/ DUG the necessary gear for the program at the GTC training. The gear includes harvest baskets and a recording form. These materials are on loan from SFD for the harvest season.
7. The school GTC Leader recruits a group of students for the GTC Program. The students can be from one class, from a school club or some other group representing the school community. The GTC Leader should talk to the students’ teacher(s) to get permission to take the students to the garden on harvest day.
8. School gardens participating in the Garden to Cafeteria program should have the DPS required soil testing done on the garden site.

Produce items that are eligible for the GTC Program:

1. Produce items that are eligible for the GTC program include any fruit or vegetable that can be used as a raw item on a salad bar. Produce items that have proved successful in the program include:
 - a. Vegetables- tomatoes, cucumbers, lettuce, spinach, radishes, summer squash, bell peppers, jalapenos, celery, carrots, broccoli, cabbage, cauliflower, basil, onions
 - b. Fruits- melons, berries, apples, plums, peaches
2. Produce items that the school kitchens are not ready to use tend to be the vegetables that require some cooking to be served. Non-qualifying produce items include eggplant, asparagus, and tomatillos.
3. All produce must be grown on schools grounds, either in the school or community garden.
4. Only potable water will be used to grow and rinse the garden produce used in the school kitchens.
5. No pesticides will be used to grow the garden produce used in the school kitchens.
6. No pets are allowed in the garden. Please discourage any animal from visiting your garden. If animals (wild or domestic) are present in or near the garden, including chickens, contact DPS Food and Nutrition Services for further instructions (Anne Wilson, phone: 720-423-5608, e-mail: Anne.Wilson@dpsk12.org). If chickens are present near the garden, you may not be permitted to participate in the Garden to Cafeteria program.

It is ideal for the GTC Leader and Kitchen Manager to work together in the spring to plan what to grow for the GTC harvest.

Equipment list for harvest days:

1. Harvest basket- must be made of hard plastic that is easily cleanable, with smooth surfaces and not porous. Items that are acceptable are food-grade Lexan containers, plastic bus tubs, and plastic shopping baskets; all must have smooth surfaces that are easily cleanable. Wicker baskets, cloth, plastic or burlap bags are not acceptable.
2. Scale- most DPS kitchens have a 20 lb scale. Please work with the Kitchen Manager to use the scale on Harvest Days.
3. Recording Sheet- this can be downloaded from the GTC website (<http://foodservices.dpsk12.org/menus.html>, TBD). The Recording sheet can be kept with the Kitchen Manager or the GTC Leader.

Preparation for a harvest with students

The GTC Program will start the last week in August 2015. Each school can participate as often as they wish. The GTC Leader should share the harvest schedule with the Kitchen Manager so there are no surprises. The GTC Leader should also set up a schedule with the student group and their teacher(s), and participating community gardeners, so as not to have a large impact on the academics of the day.

On the day of a harvest, the GTC Leader follows these steps to prepare for the harvest:

1. GTC Leader or volunteer checks in with the Kitchen Manager.

2. GTC Leader gets the harvest baskets, scale and Record Sheet from the kitchen. (Equipment for the harvest is kept in the school kitchen between harvests.)
3. *If available, the harvest baskets are run through a dishwasher in the kitchen by the kitchen staff. If no dishwasher is available, then ask the kitchen staff to wash the baskets in the kitchen three-compartment sink.*
4. *If there is a garden sink, the GTC Leader will pick up a wash bucket, a sanitizer bucket (tested at 200ppm), and clean cloths from the kitchen staff with which to wash, rinse then sanitize the garden sink.*
5. The GTC Leader surveys the school garden for fruits and vegetables to pick.
6. *If there is a garden sink, the GTC Leader washes with the soap water bucket, rinses with a clean damp cloth, and then sanitizes the sink with the provided sanitizer bucket.*
7. The GTC Leader turns on the potable water to the garden sink or to the hose. The GTC Leader prepares the Record Sheet for the harvest.

How to harvest with students from a school garden

Once the GTC Leader is prepared for the day's harvest, he/she follows these steps with the students:

1. GTC Leader or other volunteer gets a small group of students from the school. *Be sure to verify that none of the students are showing any signs of illness or have missed school in the past two weeks because of an illness. If a student was absent for an illness at any time in the previous two weeks, he/she can't participate in the harvest.*
2. *Students and the GTC Leader wash their hands with soap and water in the classroom sink or bathroom.*
3. GTC Leader takes students out to the garden.
4. GTC Leader shows the students what fruits and vegetables are ready to pick.
5. The harvest baskets are passed out and the students start to pick.
6. *The vegetables are washed in the harvest baskets, under potable running water in the washed, rinsed, and sanitized garden sink or under a hose. The purpose of this first wash is to remove the large visible signs of dirt.*
7. Once all vegetables are washed, the produce is weighed on the scale.
8. A student records the following information on the Record Sheet:
 - a. Weight of the vegetables
 - b. Names of GTC Leader and students involved in the harvest
 - c. Date and time of harvest
9. Students and GTC Leader take produce to the Kitchen Manager. *The Kitchen Manager signs the Record Sheet to acknowledge the receipt of the vegetables.*
10. GTC Leaders rinse any soil from the baskets with the garden hose or in the garden sink. Then the baskets are returned to the school kitchen and run through the dishwasher or three-compartment sink. The Kitchen Manager stores the baskets in a clean, dry place inside the school while not in use.

Steps for handling the garden vegetables in the cafeteria

When the Kitchen Manager receives the garden vegetables, he/she needs to wash them and refrigerate the vegetables to below 41°F prior to serving:

1. Kitchen Manager or foodservice worker should rinse the produce under cold running tap water in a clean and sanitized colander and prep sink. Thick skinned produce (such as potatoes and carrots) should be scrubbed with a brush to remove all visible dirt. If a kitchen does not have a vegetable prep sink, the manager will contact their supervisor.
2. The vegetables are removed from the sink, rinsed again and drained in a colander.
3. The vegetables are placed in a separate clean and sanitized storage container (kitchen staff can use any of their existing food grade storage containers) that is labeled “School Garden Produce” and the date of harvest.
4. The vegetables are stored in the cooler/refrigerator for one day to reduce their temperature to below 41°F.
5. The vegetables can be used in the salad bar or at lunch service the day after the harvest if the temperature of the produce is below 41°F. This temperature will be recorded on the menu production forms under the recipe the produce was used in (either the salad bar recipe, Spicy Corn Salad, Veggie Patch, Garden Salad Calabacitas, Spicy Cucumbers, Garden Chili, or the Zesty Pasta Salad recipe).
6. The produce will not adversely effect the kitchen manager’s menu plan/ ordering as the amount will be small and the produce can easily be incorporated into the salad bar or any of the following recipes that are on the menu plan: Calabacitas con Elote, Cucumber and Tomato Salad, Garden Chili, Garden Greens, Roasted Vegetables, Spicy Corn Salad, Spicy Cucumbers, Teriyaki Chicken (with onions and bell peppers), Zesty Pasta Salad or Zucchini Muffins.
7. Produce grown by a school garden will be used only in that school kitchen and not transported to other schools kitchens.
8. Kitchen Managers will post a sign to inform students which items came from the school garden.

How to compost the vegetable scraps from the harvest

If the school garden has a compost system, then these procedures can be followed with the vegetable scraps:

1. At the end of the lunch period, one or two students can retrieve the harvest tub from the Kitchen Manager with any vegetable scraps saved during preparation.
2. The students will then add these scraps to the compost pile and rinse out the tub.
3. The tub is returned to the Kitchen Manager. The Kitchen Manager or foodservice worker will clean the harvest tub as described previously in the dishwasher or three compartment sink, let it air dry, then the kitchen staff will fill the tub with the scale and harvest baskets and place the tub in storage.

Guidelines for DUG community gardeners to participate in the GTC Program:

The goal of the GTC program is to provide fresh fruits and vegetables grown on school grounds to DPS cafeterias and to provide educational opportunities for DPS students to see where the food for their lunches comes from. These protocols have been developed to ensure the safety of the produce that is grown on school grounds and that safe handling procedures are followed as the food is taken to the school kitchens.

DPS Food and Nutrition Services manages the GTC program with support from SFD and DUG. Produce donations from community gardeners at school-based community gardens are acceptable and welcomed as a way of showing support for the school. Any community gardener that wishes to support the GTC program may donate produce from their community garden plots on school grounds.

Following the approved protocols above, students pick the produce, wash off the visible dirt, weigh and record the produce, and then deliver it to the Kitchen Manager.

Community gardeners may participate in the GTC Program in either of the following ways. In both cases, students must harvest the produce.

1. The community gardener meets the GTC Leader and the students in the garden at the time of the harvest. The community gardener shows the students what items can be harvested from his/her garden plot.
2. If the community gardener can not be present for the harvest, he/she can communicate with the GTC Leader to share what items can be harvested from his/her plot. A marking system of flags or other signage can direct the GTC Leader to the appropriate produce items to be harvested.

Participating community gardeners understand that:

1. The produce provided by a community gardener is a donation to the school cafeteria.
2. Produce grown by a community gardener will only be used at the school at which the school-based community garden is located.
3. Any community gardener or GTC Leader participating in the GTC program has filled out the necessary DPS Background Check forms.
4. The produce is grown and harvested for the GTC Program according to the rules outlined in this document.

Community gardeners who would like to donate produce should contact DPS Food and Nutrition Services (e-mail: Anne.Wilson@dpsk12.org, phone: 720-423-5608), or their GTC or School Garden Leader. If a GTC Program does not yet exist at your school-based community garden, community gardeners are invited to become GTC Leaders by participating in the GTC training. See above section, "How to sign-up a school garden to participate in the GTC Program".

Links:

Denver Public Schools Food and Nutrition Services <http://foodservices.dpsk12.org/>

Slow Food Denver www.slowfooddenver.org

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Learning Landscapes

<http://www.cudenver.edu/Academics/Colleges/ArchitecturePlanning/discover/centers/LearningLandscapes/Pages/index.aspx>



Denver Public Schools

FOOD AND NUTRITION SERVICES

TEL 720-423-5600

FAX 720-423-5629

www.dpsk12.org



Slow Food® Denver



Denver Public School's Garden to Cafeteria Program: School Gardens

Denver Public School's (DPS) Food and Nutrition Services Department strives to "provide healthy food and nutrition education so all students will have the opportunity for success" in the classroom, in their daily lives and to set the foundation for healthy lifestyles as they grow and mature. For over a decade, Slow Food Denver (SFD), Denver Urban Gardens (DUG) and Learning Landscapes (LL) have been collaborating on the grounds of DPS to establish school/community gardens and associated education programs. This Denver School Garden Coalition has manifested itself at dozens of DPS elementary schools, and seeks to serve the unique set of needs and circumstances within each school community, with the primary focus on student education and enrichment.

The Garden to Cafeteria (GTC) program is an opportunity for DPS students to grow fresh fruits and vegetables in their school gardens with the aim of supplying some of their harvest to the school cafeterias to be used at lunch service. Beginning in 2010 with 14 school gardens participating, the program is now expanding to involve more schools as well as use produce from community gardens that are located on school grounds.

The following protocols have been put in place to assure the food safety of the vegetables harvested from the school gardens by students. Items in *italics* in the following paragraphs are safety protocols that have been adapted from Federal and State guidelines for Good Agricultural Practices (GAP) and Good Handling Practices (GHP):

1. US Food and Drug Administration-
<http://www.fda.gov/Food/GuidanceComplianceRegulatoryInformation/GuidanceDocuments/ProduceandPlanProducts/ucm064574.htm#iii>
2. Colorado Department of Agriculture-
<http://www.colorado.gov/cs/Satellite?c=Page&cid=1219832881143&pagename=Agriculture-Main%2FCDAGLayout>
3. United States Department of Agriculture-
<http://www.ams.usda.gov/AMSv1.0/ams.fetchTemplateData.do?template=TemplateN&leftNav=GradingCertificationandVerification&page=GAPGHPAuditVerificationProgram&acct=freshgrdcert>

The following protocols are divided into several major headings:

1. How to sign-up a school garden to participate in the GTC Program
2. Produce items that are eligible for the GTC program
3. Preparation by a GTC Leader for a harvest with students
4. How to harvest produce with students from a school garden
5. How to clean the produce and store it in the school kitchen
6. How to compost the produce scraps from the harvest
7. Guidelines for DUG community gardeners to participate in the GTC program

How to sign-up a school garden to participate in the Garden To Cafeteria (GTC) Program:

Please note, there are several procedures necessary in order to sign-up your school garden to participate in the GTC Program.

1. Visit the DPS Food and Nutrition Services website (<http://enterprisemanagement.dpsk12.org/food-services/garden/>) and download the “Denver Public Schools Garden to Cafeteria Registration” form. Fill out the required contact information and return the form to Anne.Wilson@dpsk12.org. Register as soon as possible to start the process. Registration will end by Sept. 10, 2015 or as approved by the Farm to School Coordinator.
2. Your registration information will go to DPS Food and Nutrition Services, SFD, and DUG, who provide training. DPS Food and Nutrition Services will contact GTC Leaders about the upcoming schedule of trainings. DPS Food and Nutrition Services will also verify the school’s participation in GTC with the principal.
3. A representative of your school garden, preferably the school GTC Leader or the individual who will be harvesting with students, must attend one training to learn about the protocols for harvesting with students. There will be several training sessions in August (schedule to be determined).
4. Per DPS policy, any GTC Leader participating in the GTC program must have filled out the necessary DPS Volunteer paperwork, including a background check form.
5. DPS Food and Nutrition Services will supply the name and contact information of the Kitchen Manager and the Area Supervisor at your school. The school GTC Leader needs to make introductions and discuss the GTC Program with the Kitchen Manager and the Area Supervisor.
6. The school GTC Leader obtains from SFD/ DUG the necessary gear for the program at the GTC training. The gear includes harvest baskets and a recording form. These materials are on loan from SFD for the harvest season.
7. The school GTC Leader recruits a group of students for the GTC Program. The students can be from one class, from a school club or some other group representing the school community. The GTC Leader should talk to the students’ teacher(s) to get permission to take the students to the garden on harvest day.
8. School gardens participating in the Garden to Cafeteria program should have the DPS required soil testing done on the garden site.

Produce items that are eligible for the GTC Program:

1. Produce items that are eligible for the GTC program include any fruit or vegetable that can be used as a raw item on a salad bar. Produce items that have proved successful in the program include:
 - a. Vegetables- tomatoes, cucumbers, lettuce, spinach, radishes, summer squash, bell peppers, jalapenos, celery, carrots, broccoli, cabbage, cauliflower, basil, onions
 - b. Fruits- melons, berries, apples, plums, peaches
2. Produce items that the school kitchens are not ready to use tend to be the vegetables that require some cooking to be served. Non-qualifying produce items include eggplant, asparagus, and tomatillos.
3. All produce must be grown on schools grounds, either in the school or community garden.
4. Only potable water will be used to grow and rinse the garden produce used in the school kitchens.
5. No pesticides will be used to grow the garden produce used in the school kitchens.
6. No pets are allowed in the garden. Please discourage any animal from visiting your garden. If animals (wild or domestic) are present in or near the garden, including chickens, contact DPS Food and Nutrition Services for further instructions (Anne Wilson, phone: 720-423-5608, e-mail: Anne.Wilson@dpsk12.org). If chickens are present near the garden, you may not be permitted to participate in the Garden to Cafeteria program.

It is ideal for the GTC Leader and Kitchen Manager to work together in the spring to plan what to grow for the GTC harvest.

Equipment list for harvest days:

1. Harvest basket- must be made of hard plastic that is easily cleanable, with smooth surfaces and not porous. Items that are acceptable are food-grade Lexan containers, plastic bus tubs, and plastic shopping baskets; all must have smooth surfaces that are easily cleanable. Wicker baskets, cloth, plastic or burlap bags are not acceptable.
2. Scale- most DPS kitchens have a 20 lb scale. Please work with the Kitchen Manager to use the scale on Harvest Days.
3. Recording Sheet- this can be downloaded from the GTC website (<http://foodservices.dpsk12.org/menus.html>, TBD). The Recording sheet can be kept with the Kitchen Manager or the GTC Leader.

Preparation for a harvest with students

The GTC Program will start the last week in August 2015. Each school can participate as often as they wish. The GTC Leader should share the harvest schedule with the Kitchen Manager so there are no surprises. The GTC Leader should also set up a schedule with the student group and their teacher(s), and participating community gardeners, so as not to have a large impact on the academics of the day.

On the day of a harvest, the GTC Leader follows these steps to prepare for the harvest:

1. GTC Leader or volunteer checks in with the Kitchen Manager.

2. GTC Leader gets the harvest baskets, scale and Record Sheet from the kitchen. (Equipment for the harvest is kept in the school kitchen between harvests.)
3. *If available, the harvest baskets are run through a dishwasher in the kitchen by the kitchen staff. If no dishwasher is available, then ask the kitchen staff to wash the baskets in the kitchen three-compartment sink.*
4. *If there is a garden sink, the GTC Leader will pick up a wash bucket, a sanitizer bucket (tested at 200ppm), and clean cloths from the kitchen staff with which to wash, rinse then sanitize the garden sink.*
5. The GTC Leader surveys the school garden for fruits and vegetables to pick.
6. *If there is a garden sink, the GTC Leader washes with the soap water bucket, rinses with a clean damp cloth, and then sanitizes the sink with the provided sanitizer bucket.*
7. The GTC Leader turns on the potable water to the garden sink or to the hose. The GTC Leader prepares the Record Sheet for the harvest.

How to harvest with students from a school garden

Once the GTC Leader is prepared for the day's harvest, he/she follows these steps with the students:

1. GTC Leader or other volunteer gets a small group of students from the school. *Be sure to verify that none of the students are showing any signs of illness or have missed school in the past two weeks because of an illness. If a student was absent for an illness at any time in the previous two weeks, he/she can't participate in the harvest.*
2. *Students and the GTC Leader wash their hands with soap and water in the classroom sink or bathroom.*
3. GTC Leader takes students out to the garden.
4. GTC Leader shows the students what fruits and vegetables are ready to pick.
5. The harvest baskets are passed out and the students start to pick.
6. *The vegetables are washed in the harvest baskets, under potable running water in the washed, rinsed, and sanitized garden sink or under a hose. The purpose of this first wash is to remove the large visible signs of dirt.*
7. Once all vegetables are washed, the produce is weighed on the scale.
8. A student records the following information on the Record Sheet:
 - a. Weight of the vegetables
 - b. Names of GTC Leader and students involved in the harvest
 - c. Date and time of harvest
9. Students and GTC Leader take produce to the Kitchen Manager. *The Kitchen Manager signs the Record Sheet to acknowledge the receipt of the vegetables.*
10. GTC Leaders rinse any soil from the baskets with the garden hose or in the garden sink. Then the baskets are returned to the school kitchen and run through the dishwasher or three-compartment sink. The Kitchen Manager stores the baskets in a clean, dry place inside the school while not in use.

Steps for handling the garden vegetables in the cafeteria

When the Kitchen Manager receives the garden vegetables, he/she needs to wash them and refrigerate the vegetables to below 41°F prior to serving:

1. Kitchen Manager or foodservice worker should rinse the produce under cold running tap water in a clean and sanitized colander and prep sink. Thick skinned produce (such as potatoes and carrots) should be scrubbed with a brush to remove all visible dirt. If a kitchen does not have a vegetable prep sink, the manager will contact their supervisor.
2. The vegetables are removed from the sink, rinsed again and drained in a colander.
3. The vegetables are placed in a separate clean and sanitized storage container (kitchen staff can use any of their existing food grade storage containers) that is labeled “School Garden Produce” and the date of harvest.
4. The vegetables are stored in the cooler/refrigerator for one day to reduce their temperature to below 41°F.
5. The vegetables can be used in the salad bar or at lunch service the day after the harvest if the temperature of the produce is below 41°F. This temperature will be recorded on the menu production forms under the recipe the produce was used in (either the salad bar recipe, Spicy Corn Salad, Veggie Patch, Garden Salad Calabacitas, Spicy Cucumbers, Garden Chili, or the Zesty Pasta Salad recipe).
6. The produce will not adversely effect the kitchen manager’s menu plan/ ordering as the amount will be small and the produce can easily be incorporated into the salad bar or any of the following recipes that are on the menu plan: Calabacitas con Elote, Cucumber and Tomato Salad, Garden Chili, Garden Greens, Roasted Vegetables, Spicy Corn Salad, Spicy Cucumbers, Teriyaki Chicken (with onions and bell peppers), Zesty Pasta Salad or Zucchini Muffins.
7. Produce grown by a school garden will be used only in that school kitchen and not transported to other schools kitchens.
8. Kitchen Managers will post a sign to inform students which items came from the school garden.

How to compost the vegetable scraps from the harvest

If the school garden has a compost system, then these procedures can be followed with the vegetable scraps:

1. At the end of the lunch period, one or two students can retrieve the harvest tub from the Kitchen Manager with any vegetable scraps saved during preparation.
2. The students will then add these scraps to the compost pile and rinse out the tub.
3. The tub is returned to the Kitchen Manager. The Kitchen Manager or foodservice worker will clean the harvest tub as described previously in the dishwasher or three compartment sink, let it air dry, then the kitchen staff will fill the tub with the scale and harvest baskets and place the tub in storage.

Guidelines for DUG community gardeners to participate in the GTC Program:

The goal of the GTC program is to provide fresh fruits and vegetables grown on school grounds to DPS cafeterias and to provide educational opportunities for DPS students to see where the food for their lunches comes from. These protocols have been developed to ensure the safety of the produce that is grown on school grounds and that safe handling procedures are followed as the food is taken to the school kitchens.

DPS Food and Nutrition Services manages the GTC program with support from SFD and DUG. Produce donations from community gardeners at school-based community gardens are acceptable and welcomed as a way of showing support for the school. Any community gardener that wishes to support the GTC program may donate produce from their community garden plots on school grounds.

Following the approved protocols above, students pick the produce, wash off the visible dirt, weigh and record the produce, and then deliver it to the Kitchen Manager.

Community gardeners may participate in the GTC Program in either of the following ways. In both cases, students must harvest the produce.

1. The community gardener meets the GTC Leader and the students in the garden at the time of the harvest. The community gardener shows the students what items can be harvested from his/her garden plot.
2. If the community gardener can not be present for the harvest, he/she can communicate with the GTC Leader to share what items can be harvested from his/her plot. A marking system of flags or other signage can direct the GTC Leader to the appropriate produce items to be harvested.

Participating community gardeners understand that:

1. The produce provided by a community gardener is a donation to the school cafeteria.
2. Produce grown by a community gardener will only be used at the school at which the school-based community garden is located.
3. Any community gardener or GTC Leader participating in the GTC program has filled out the necessary DPS Background Check forms.
4. The produce is grown and harvested for the GTC Program according to the rules outlined in this document.

Community gardeners who would like to donate produce should contact DPS Food and Nutrition Services (e-mail: Anne.Wilson@dpsk12.org, phone: 720-423-5608), or their GTC or School Garden Leader. If a GTC Program does not yet exist at your school-based community garden, community gardeners are invited to become GTC Leaders by participating in the GTC training. See above section, "How to sign-up a school garden to participate in the GTC Program".

Links:

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Slow Food Denver www.slowfooddenver.org

Denver Urban Gardens www.dug.org

Learning Landscapes

<http://www.cudenver.edu/Academics/Colleges/ArchitecturePlanning/discover/centers/LearningLandscapes/Pages/index.aspx>



Austin ISD School Garden to Cafe Program

Conditional Approval of a School Garden Food Source for Austin ISD

A current approval signed by each garden leader should be kept on file at the school café.

Name of School:

Address:

Principal:

Cafeteria Manager:

Phone:

Garden Leader:

Phone:

Garden Co-Leader (if applicable) :

Phone:

Garden Locations on Campus:

Introduction and Purpose

A growing number of schools across the nation recognize the importance of school gardens in addressing childhood obesity and creating a successful learning environment. Austin ISD is taking an important leadership role in the school garden movement by partnering with students, community members, teachers, and administrators to develop a Garden to Café program that extends the lessons learned in the garden to the school café. Garden to Café is about serving healthy, fresh garden grown foods to students through school meal programs.

Ensuring the safety of the food supply is critical to student health. School and retail food facilities regulated under the Texas Food Establishment Rules are required to obtain their food from an approved source. The regulation of food sources helps to ensure a safe food supply. Gardens approved for the Garden to Café program through this form are considered to be approved food sources.

This agreement is intended to ensure that the school gardens identified above is a safe source of food for the participating Garden to Café school kitchen facility. The practices required in this agreement are consistent with standards for approved food sources, in conformity with current public health principles and practices and generally recognized industry standards that protect public health.

School gardens are often led by multiple school staff or community volunteers. Hereafter, when garden leader is referenced, the standards and protocols to follow will apply to all garden leaders. This agreement certifies that the school principal and garden leader understand the critical factors that play a role in preventing microbial or chemical contamination of produce. In addition, it documents that the school and garden leader agree to adhere to these minimum requirements.

This agreement must be reviewed and re-signed whenever a garden leader is replaced.

This document regulates only those foods grown in an approved Garden to Café garden and used by the Nutrition and Food Service Department for school meal programs. The Nutrition and Food Service Department does not take responsibility for the harvest and use of garden grown foods in the school classroom or at other non-approved serving sites. The Nutrition and Food Service Department is not responsible for illness or outbreaks related to improper management of plants or produce by gardens and garden leaders. The Nutrition and Food Service Department is only responsible for garden grown foods after possession of such foods has been taken by Nutrition and Food Service Department staff.

Conditions for Use of Garden-Grown Produce in School Kitchens and Garden Profile

Garden Leader to initial each area to indicate compliance.

Water Quality

- 1) Water used for irrigation must be obtained from a public water system or from wells that have been shown to be free from pathogens. **Initial:**
- 2) Gray water, or recycled water including captured rainwater, is not an approved water source for Garden to Café gardens unless the cistern is certified by a licensed plumber as a potable water source. **Initial:**
- 3) Water runoff from other irrigation practices unrelated to the Garden to Café garden, or rainfall water runoff, must be prevented from coming into contact with the garden. **Initial:**
- 4) Water used for pre-washing the harvest must come from an approved water source. Water baths are not an approved method of pre-washing. **Initial:**

WATER SOURCE:

Protection from Contamination

- 5) Gardens shall not be planted over septic systems or leach fields. **Initial:**
- 6) Raised garden beds shall use only non-toxic, non-leaching materials for the frame such as untreated lumber or limestone blocks. **Initial:**
- 7) Efforts shall be made to exclude animals, including domestic animals, from the growing area. **Initial:**
- 8) Gardens must be protected from other forms of contamination by an appropriate method. This may include: a physical barrier, monitoring program or other effective method. **Initial:**

PLOT PLAN: Attach a plot plan showing the garden, as well as major structures, chemical and equipment storage sheds, and septic systems within 100 feet of the garden.

Plot plans can be obtained from Sustainability Coordinator or Outdoor Curriculum Specialist.

DOMESTICATED ANIMALS RAISED AT THIS LOCATION:

METHOD FOR EXCLUDING ABOVE LISTED ANIMALS FROM GARDEN:

Inputs: Pesticides, Herbicides, Compost, and other Soil Amendments etc.

- 9) Synthetic pesticides and synthetic herbicides shall not be applied on or around Garden to Café gardens. **Initial:**

10) Compost or other soil amendment applied to culinary gardens must be fully composted in an appropriate vessel or container, and may not contain animal fecal materials. Dillo Dirt is not an approved input. Vermicompost may be applied to participating gardens. **Initial:**

11) Commercially produced compost or non-commercial compost produced on campus that follows USDA National Organic Program best practices are approved inputs. Non-commercial compost produced off campus is not an approved input. **Initial:**

INPUTS USED:

Sanitary Practices

12) Gardening and harvest equipment must be maintained in a clean condition and stored in a clean and enclosed location. Garden to Café gardens must have equipment dedicated to the school garden and not used for other purposes on the property (i.e. animal pens). **Initial:**

Dedicated vegetable garden tools can be checked out from the science department.

13) Keep area surrounding gardens free of debris to prevent harborage places for pests. **Initial:**

Harvesting Garden Produce

14) A Garden to Café Program garden leader must be present when food is harvested. **Initial:**

15) After washing, harvested produce must be stored in clean, non-porous, food grade containers. Unacceptable containers include wicker baskets, cloth or burlap bags, and any containers that originally held chemicals, such as cleaners or pesticides. Kitchens can provide food grade containers such as stainless steel bowls. **Initial:**

16) All harvested produce must be weighed and indicated on harvest receipts. **Initial:**

17) **Produce must be delivered to kitchens pre-washed and whole on the harvest day or the morning after harvest if cafe is closed at time of harvest with a harvest receipt.** **Initial:**

18) Produce must be re-washed in a food preparation sink by an approved method in the cafeteria kitchen by Nutrition and Food Service staff. **Initial:**

19) After each use, the harvest container should be run through a dishwasher, 3 compartment sink or equivalent washing system before the next harvest, and stored in the cafeteria. **Initial:**

20) Sprouted seeds and garden harvested fresh fruits and vegetables that have been juiced will not be served at schools as part of the Garden to Café program. **Initial:**

Sanitation

21) Sick or potentially ill students and garden leaders exhibiting symptoms are not allowed to participate in the harvest of foods for use by the kitchen at any time. **Initial:**

22) Students, staff, garden leaders, or any gardeners harvesting produce from Garden to Café gardens, must properly wash their hands including use of liquid soap and single use paper towel, before handling produce and be free of open cuts or wounds on their extremities. **Initial:**

23) Hand washing facilities must be readily accessible to anyone working in the garden. **Initial:**

24) Gardeners should avoid cross-contamination of produce by ensuring equipment, gloves, and other sources of contamination do not come into contact with produce after being potentially contaminated by compost or other materials. **Initial:**

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The following guidelines have been developed for Sodexo operators to ensure Good Agriculture Practices (GAP's) are effectively maintained for unit level garden grown produce that may be used in food production at Sodexo operated foodservice locations. These guidelines are not to be used outside of Sodexo operated or Sodexo client locations.

This guideline is not an endorsement by Sodexo Supply Management or any other Sodexo department as an alternative means of procuring fresh produce outside of the approved contracted supplier network.

First Steps

1. Request and retain a documented request from your client (if the garden is a client request). An e-mail approval is acceptable.
2. Check with the public health authority (e.g. Dept of Health) to determine if using unit level garden grown produce in foodservice is acceptable per the applicable federal, state and/or local regulations.
3. Division VP must know about, approve and sign off on the garden project. An e-mail approval is acceptable.
4. Contact Sodexo Legal to confirm insurance and indemnity requirements adequately protect both the client and Sodexo.
 - a. If it is a client managed garden, and the produce will be used in foodservice by Sodexo, additional client indemnification will be needed.
5. Maintain a file for all of your request and approval documents.

Basic Requirements

1. Follow these guidelines carefully
2. Implement and complete the "Garden Guideline Weekly Checklist".
 - a. *For client managed gardens, the client representative in charge of the garden or client employed designee must complete this checklist weekly and provide a copy to the Sodexo manager on site.*
 - b. *For Sodexo managed gardens, the Sodexo person in charge of the garden or their Sodexo designee must complete the checklist weekly.*
3. Adhere to the "Banned Products List" as required.
4. Adhere to the Sodexo "Food Safety Guidelines - Fresh Fruits and Vegetables".
5. All completed garden checklists (completed by client and/or Sodexo staff) must be kept on file with other food safety / HACCP documents at the unit for internal food safety audit review and for NSF Auditor review.

Important

- There will be **no requirement** for the Sodexo standard food supplier 3rd party audit with the implementation of these guidelines.
- Additional client location produced food items (e.g. Dairy and meat products produced at a campus location) are not covered by this guideline. Items of this type will be evaluated and considered on a case by case basis if the client is requesting Sodexo to prepare and/or serve them.
- **These guidelines cannot be used outside of Sodexo operated or Sodexo client locations. Do not provide these guidelines to prospective suppliers and/or farmers.**

Sodexo will not be liable for any direct, indirect, consequential, special, or other damages arising from the use or interpretation of any information contained herein.

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Guideline Details

A. Personal Hygiene

- 1. Restrooms and hand washing facilities are available for garden workers.**
 - a. Do not use the growing field(s) as a restroom.
 - b. Hands must be washed after using the restroom.
- 2. Proper personal hygiene practices are being followed.**
 - a. Hands should be washed frequently.
 - b. Proper clothing suitable for gardening should be worn.
 - c. Sodexo foodservice employees should follow personal hygiene practices per HACCP Manual (Part I, Section IV) if visiting or working in the garden(s).
- 3. Ill persons are prevented from working and handling food.**
 - a. Workers should not be allowed to work in the garden(s) or handle raw produce if they:
 - i. have any of the following symptoms associated with an acute gastrointestinal illness such as (a) vomiting, (b) diarrhea, (c) fever, (d) jaundice, (e) sore throat with fever;
 - ii. have lesions containing pus (such as boils and infected wounds that are open and draining) on the hands, wrists and on exposed portions of the arms or other exposed body parts;
 - iii. are diagnosed with an illness due to (a) Hepatitis A virus, (b) *Shigella* spp., (c) Shiga Toxin-Producing *Escherichia Coli*, (d) *Salmonella* Typhi, (e) Norovirus, or (f) other communicable diseases transmissible through food, as required by your state, county and / or city / town public health authority.

B. Plot Location and Soil Treatment

- 1. Growing plot is positioned so that it is not in the path of runoff from agricultural areas, parking lots and roads, or other sources of potential contamination.**
 - a. Run-off from these areas can contain chemicals or dangerous pollutants that are not desirable or safe for irrigation water.
- 2. Growing plot is properly protected from domestic and/or wild animals.**
 - a. Fencing off growing areas is encouraged.
 - b. Domestic pets are not allowed.
 - c. Growing areas should also be protected from people who may intentionally contaminate the area.
- 3. Biosolids, septage, municipal solid waste, or animal manure is not being used.**
 - a. Untreated biosolids and manure contain dangerous bacteria that can contaminate growing areas, plants and external areas of produce.
 - b. Compost of this nature can be used on non-food gardens.
- 4. Compost and/or fertilizer that is sanitized and stable is being used; typically this is commercially prepared.**
 - a. Improperly produced compost and/or fertilizer may contain dangerous bacteria that can contaminate growing areas, plants and external areas of produce.

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- b. Compost prepared on site (e.g. University campus) must be tested to verify that it is equal or better than commercial grade for safety. Refer to Sodexo Food Waste and Compost Handling Guidelines ([Food Waste and Compost Link](#))
- c. Compost of this nature can be used on non-food gardens.

5. Compost made on your own site from yard waste, clippings and food waste are not being used.

- a. Compost prepared on site (e.g. University campus) must be tested to verify that it is equal or better than commercial grade for safety. Refer to Sodexo Food Waste and Compost Handling Guidelines ([Food Waste and Compost Link](#))
- b. Compost of this nature can be used on non-food gardens.

6. Label instructions for the use of soils and fertilizers are being followed.

- a. Not following label instructions may result in the improper and/or unsafe use of the product(s).

7. Food scraps / food waste is not being added directly to the garden soil.

- a. Materials of this nature used directly in the garden may create unsafe soil and may draw wild or domestic animals into the garden and may also attract insects.

8. Paper or bio-degradable waste is not being added to the garden soil.

- a. Materials of this nature used directly in the garden will add no direct value for the crops and create visible pollution.

C. Plants and Seeds

1. Plants and/or seeds are procured from reputable sources.

- a. Recognized retail and wholesale stores are acceptable sources (e.g. Home Depot, Lowes, Wal-Mart).
- b. Regional farm and garden stores should be used only when they are known to be reputable.

2. Sprouts for harvesting are not being grown (raw sprouts are “Banned Products” per Sodexo policy).

- a. Due to the increasing number of illnesses associated with eating raw sprouts, the Food and Drug Administration has advised all consumers - especially children, pregnant women, the elderly, and persons with weakened immune systems - to not eat raw sprouts as a way to reduce the risk of foodborne illness.
- b. Micro-Greens are considered sprouts and should not be used.

D. Water / Irrigation

1. Only potable water (drinking water) is being used for irrigation.

- a. Water can be a significant source of contamination.
- b. If well water is used, it must be tested according to local health authority requirements to confirm that it is appropriate for garden irrigation purposes.

2. Gray water, waste water, recycled water or runoff water from parking lots is not being used.

- a. Water from sources of this type can contain dangerous pollutants that are not desirable or safe for irrigation water.
- b. Water of this nature can be used on non-food gardens.
- c. “Rain barrels” to capture water used specifically for food garden irrigation will be acceptable if authorized by the regulatory authority.

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E. Insecticides / Pesticides

- 1. Insecticides and/or pesticides are not be used by unauthorized personnel.**
 - a. Regulations require that only licensed pest control operators (PCO's) apply insecticides / pesticides in agricultural settings.
- 2. If insecticides and/or pesticides are being used, they are applied only by a licensed pest control operator.**
 - a. Sodexo prefers that insecticides / pesticides not be used.

F. Harvest and Preparation

- 1. Containers used to transport harvested items are food-grade, properly cleaned and in good condition.**
 - a. Wash and sanitize containers between uses.
 - b. Dispose of containers that cannot be effectively cleaned due to damage.
- 2. Sodexo “Food Safety Guidelines for Fresh Fruits and Vegetables” (vegetable cleaning) procedures are being followed for all garden items used in recipes.**
 - a. Do not handle ready to eat fresh produce with bare hands in the foodservice area (kitchen).
 - b. Do not soak or store fresh produce in standing water.
- 3. Ecolab Victory® Vegetable Wash is being used for all raw garden items that will not be further cooked.**
 - a. Victory® vegetable wash must be used for all fresh produce items produced under these guidelines that are not going to be cooked.
 - b. If the produce items are going to be cooked, Victory® wash is not necessary.
- 4. Harvested items are labeled and properly stored prior to use in recipes.**
 - a. Harvested items should be clearly labeled that they are from the unit level garden.
 - b. Harvested items should be transported to the unit as quickly as possible.
 - c. Store prepared fresh produce at 40°F or below.
 - d. Use fresh produce items within 72 hours (3 days) of receipt at the unit.
 - e. Do not use produce that shows visible signs of decay or has an off odor.



Garden Guidelines Weekly Checklist

Garden Location Name: _____ Date: _____

Checklist Completed By (Name): _____

		YES	NO
A	Personal Hygiene		
1	Restrooms and hand washing facilities are available for garden workers		
2	Proper personal hygiene practices are being followed		
3	Ill persons are prevented from working and handling food		
B	Plot Location and Soil Treatment		
1	Growing plot is positioned so that it is not in the path of runoff from agricultural areas, parking lots and roads, or other sources of potential contamination		
2	Growing plot is properly protected from domestic and/or wild animals		
3	Untreated (or improperly composted) manure is not being used		
4	Using only commercially prepared compost and/or fertilizer		
5	Compost made on your own site from yard waste, clippings and food waste are not being used		
6	Label instructions for the use of soils and fertilizers are being followed		
7	Food scraps / food waste is not being added to the garden soil		
8	Paper or bio-degradable waste is not being added to the garden soil		
C	Plants and Seeds		
1	Plants and/or seeds are procured from reputable sources		
2	Sprouts for harvesting are not being grown (raw sprouts are "Banned Products" per Sodexo policy)		
D	Water / Irrigation		
1	Only potable water (drinking water) is being used for irrigation		
2	Gray water, waste water, recycled water or runoff water from parking lots is not being used		
E	Insecticides / Pesticides		
1	Insecticides and/or pesticides are not be used by unauthorized personnel		
2	If insecticides and/or pesticides are being used, they are applied only by a licensed pest control operator		
F	Harvest and Preparation		
1	Containers used to transport harvested items are food-grade, properly cleaned and in good condition		
2	Sodexo "Food Safety Guidelines for Fresh Fruits and Vegetables" (vegetable cleaning) procedures are being followed for all garden items used in recipes		
3	Ecolab Victory® Vegetable Wash is being used for all raw garden items that will not be further cooked		
4	Harvested items are labeled and properly stored prior to use in recipes		

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Purpose:

The following “Banned Product List” has been developed to clearly identify products that may present a food safety risk if used in Sodexo foodservice locations. The products on this list should not be used in Sodexo operations at this time. The Quality Assurance & Food Safety Department will review this information periodically with Supply Management and update the list, as needed.

- **Raw sprouts (ALL varieties, i.e., alfalfa sprouts, mung bean sprouts, radish sprouts, etc.). Micro-greens are considered sprouts and should not be used raw.**
Due to foodborne illness outbreaks linked to contaminated seed sprouts (i.e., Salmonella, E. coli 0157:H7).
Reference: HACCP Manual, 1.2.5.10 – Raw Sprouts Policy
- **Raw / unprocessed Yuca (Cassava) Root**
Due to the potential for this product in a raw state to contain harmful toxins it cannot be served raw or unprocessed.
- **Un-pasteurized milk and milk products**
Reference: U.S. FDA Food Code, 3-201.13 and U.S. FDA “Grade A” Pasteurized Milk Ordinance
- **Ground beef from un-approved suppliers**
Not to be purchased or used in Sodexo or Sodexo Signature Brand recipes.
Reference: HACCP Manual, 1.2.5.11 – Ground Beef Policy. Exceptions procedure is outlined in this policy
- **Non-USDA shielded shell eggs (U.S.) or Non-Grade A eggs (Canada)**
Pasteurized shell eggs do not have the USDA shield; they are regulated by FDA.
Reference: HACCP Manual, 1.2.6.12 – Egg Safety Guidelines
- **Un-pasteurized liquid and frozen eggs / egg products**
Reference: HACCP Manual, 1.2.6.12 – Egg Safety Guidelines
- **Un-pasteurized apple juice or juice blends that include apple juice**
Reference: HACCP Manual, 1.2.5.12 – Unpasteurized Apple Juice Policy
- **Un-pasteurized juices for use in facilities serving a highly susceptible population**
Reference: U.S. FDA Food Code, 3-801.11
Highly susceptible population means persons more likely than other people in the general population to experience foodborne disease because they are:
(1) immune-compromised, pre-school aged children, or older adults, and
(2) obtaining food in a facility that provides services such as custodial care, health care or assisted living, such as a child or adult day care center, kidney dialysis cent, hospital or nursing home, or nutritional or socialization services such as a senior center.
- **MSG (mono sodium glutamate)**
Not to be added as a seasoning in Sodexo or Sodexo Signature Brand recipes. At the same time, we acknowledge the Food and Drug Administration (FDA) ruling that MSG is a safe product and continues to be a safe product when used according to manufacturing guidelines.
Reference: HACCP Manual, 1.2.6.1 – What You Should Know About MSG
Reference: U.S. FDA Food Code, 3-302.14

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- **Lemon juice or lime juice with sulfites**
Not to be used for the purpose of preserving fresh cut fruits and vegetables.
Reference: U.S. FDA Food Code, 3-302.14
- **Non-commercially caught fish and shell fish**
Reference: U.S. FDA Food Code, 3-201.14
- **Vacuum packed fresh raw fish (except as noted below)**
Reference: U.S. FDA Fish and Fishery Products Hazards and Controls Guidance, Chapter 13.
 Fresh raw fish that is vacuum packed carries a risk of developing Clostridium botulinum toxin and should not be purchased or used.
Exception: Vacuum packed fresh fish that is clearly identified on the packaging “10K OTR” (representing a 10,000 cc / m² / 24 hours Oxygen Transfer Rate) and not packed in oil can be used. The product must be kept at 40°F or less. If the packaging is not clearly marked “10K OTR” it should not be purchased or used.
- **Escolar and Oilfish**
FDA advisory – The consumption of this fish species can cause a lower intestinal illness called Gempylid Fish Poisoning due to the strong purgative oil found in the fish.
- **Fresh gulf oysters**
 Due to the high bacteria levels in the warm Gulf waters, purified or pasteurized oysters are recommended.
- **Non-commercially raised game animals**
Reference: U.S. FDA Food Code, 3-201.17
- **Non-inspected wild mushrooms**
Reference: U.S. FDA Food Code, 3-201.16
- **Home-canned foods**
Reference: U.S. FDA Food Code, 3-201.12. Food in a hermetically sealed container shall be obtained from a food processing plant that is regulated by the food regulatory agency that has jurisdiction over the plant.
- **Latex food handling gloves**
Sodexo announced its ban of latex gloves for use in foodservice in July 2004.
Reference: HACCP Manual, 1.1.4 – Food Safety Standards and Requirements, point A.4



Eat What You Grow!

A School Garden Food Safety Manual
for Chicago Public Schools

A Project by FamilyFarmed.org
in collaboration with
Academy for Global Citizenship,
The Chicago Botanic Garden,
and Chicago Public Schools



CHICAGO BOTANIC GARDEN

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Cover photo: Chicago Botanic Garden, Photo this page: Chicago Botanic Garden at Decatur School



Letter from the Mayor of Chicago

Dear Chicagoans,

The link between good eating and good health is clear. The Let's Move initiative is helping children across the nation embrace more physical activity and better nutrition. Here in Chicago we recognize that school gardens can support this initiative by offering students an opportunity for outdoor physical activity and nutrition education by teaching them how food is produced and where it comes from. These lessons not only nurture the body and mind but also set the foundation for academic achievement and success.

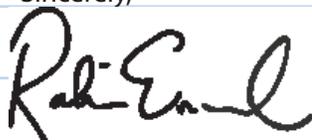
The City of Chicago is leading the way for a better future for our communities and our children's well-being by supporting the growth of school and community gardens throughout the city. Growing School Gardens, an initiative spearheaded by Chicago Public Schools and the City of Chicago, is working to develop active gardens in all Chicago Public Schools that will produce healthy food as well as provide a learning landscape for teachers and students.

Chicago Public Schools' foodservice provider now sources some of its produce from local farmers. Let's include another local component to the menu and offer the produce grown in the garden that is only a few steps away from the school cafeteria. There is nothing fresher than eating produce straight from the garden, and many school and community gardens in Chicago have the capacity to offer this food in school lunches.

Eat What You Grow!, an initiative developed by FamilyFarmed.org in partnership with the Academy for Global Citizenship, Chartwells-Thompson Hospitality, the Chicago Botanic Garden, Chicago Public Schools, with support from School Food FOCUS includes a comprehensive list of required food safety protocols for garden operators. By having a set of approved guidelines that all garden participants and foodservice staff implement, school gardens in our city can safely supply our school cafeterias with student and community grown produce and will assure school administrators, teachers, parents and students that the produce grown is handled with the utmost attention to safety.

As mayor of Chicago, I fully endorse the Eat What You Grow! Program. We are excited about the new possibilities in store for our city and will continue to support projects that are promoting a healthier future for Chicago.

Sincerely,

A handwritten signature in black ink that reads "Rahm Emanuel". The signature is written in a cursive, flowing style.

Mayor Rahm Emanuel

Photo: Chicago Botanic Garden at Gunsulus School



Acknowledgements

FamilyFarmed.org collaborated with Chicago Public Schools and their foodservice provider Chartwells-Thompson Hospitality, the Academy for Global Citizenship, and the Chicago Botanic Garden to develop the School Garden Food Safety Manual. Andy Nowak of Slow Food Denver and Denver Public Schools Garden-to-Cafeteria Program was a helpful advisor to this project. Financial support was provided by Healthy Schools Campaign and School Food FOCUS (www.schoolfoodfocus.org), a national collaborative that leverages the knowledge and procurement power of large school districts to make school meals nationwide more healthful, regionally sourced, and sustainably produced. We would also like to thank Chipotle Mexican Grill, the Clif Bar Family Foundation, and an Anonymous Donor for their support.



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Photo: Clayton Miller

Why Care About Food Safety in School Gardens?

School gardens have long been recognized as one of the most powerful teaching engines that schools can offer students of any age. Alice Waters' Edible Schoolyard has its roots in the mid-19th century practice that required school gardens throughout much of Europe. The importance of gardening for the education and social development of children was endorsed by America's most famous educator, John Dewey, and taken up nationally starting in the early 20th century.

School gardens are outdoor classrooms that connect children with nature and food. School gardens encourage healthy eating habits by bridging the gap between the soil and the lunch tray. For many children, gardens provide an opportunity for hands-on learning in math, science, literacy and creative arts. School gardens in particular can challenge a child's perception of vegetables and encourage them to make healthy choices.

The growing trend to bring healthier food into schools is coupled with the need to ensure that food grown on site is healthy and safe. Using the principles of Good Agricultural Practices (GAPs), which are guidelines that exist for production farms, and proper food handling procedures, this manual has been designed to provide safe oversights for school gardens.

From soil preparation to planting, harvesting and preparing the fresh fruits and vegetables, this manual guides the users through best practices to ensure a safe system. At each point in this system, students can learn valuable lessons that can be tied into curriculum and learning objectives.

Record keeping templates are included to help document trainings, harvesting activities, etc. In addition to addressing food safety risks, this manual encourages natural growing methods since growing organically helps minimize health risks and the impact on the environment.

How to Use this Manual

Developing a food safety program for your school garden may seem like an overwhelming task at first sight, but this manual is here to provide you the information you need to succeed in getting healthy produce into your school cafeteria.

This manual is broken down into five informative Process Areas that will give you the tools to understand good food safety practices and implement your program. The companion Food Safety Field Guides break down the tasks for each responsible party in your food safety team. In addition, there are Record Keeping Templates to help you document that you are implementing the program you've developed.

PROCESS AREAS

This manual is divided into five stages of the food safety process: Getting Started, Health and Hygiene, The Garden, Harvesting and Post-Harvest Handling, and Foodservice Handling. Each process area includes guidelines for safe growing and handling.

FOOD SAFETY FIELD GUIDES

Use the Food Safety Field Guides for handy checklists of food safety task responsibilities.

RECORD KEEPING TEMPLATES

It is important to keep records for the different steps in the process both as a checklist and an assurance that the proper precautions have been taken. Each process area includes form templates found in the appendix of this manual. These forms are intended to serve as templates to cover most of the documentation and record keeping that are part of a fresh produce food safety program. Not every size and type of school garden operation will need to use every form, but most operations will want to try and use the information these sheets are designed to document. It is expected that these sheets will serve as a foundation and inspiration for further customization. Don't be afraid to experiment to find out what works best for your school garden.

RESOURCES

There are additional resources at the end of the manual including a crop profile of common garden produce.

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SECTION 1: Getting Started

This section will cover the following topics:

- Gain and Maintain Support
- Your Food Safety Team
- Food Safety Training
- Record Keeping

GAIN AND MAINTAIN SUPPORT

If you have started a school garden, you already know that it takes time, commitment, and support. Now, you have stepped up to the next challenge: GETTING THE SCHOOL GARDEN PRODUCE IN YOUR SCHOOL CAFETERIA!

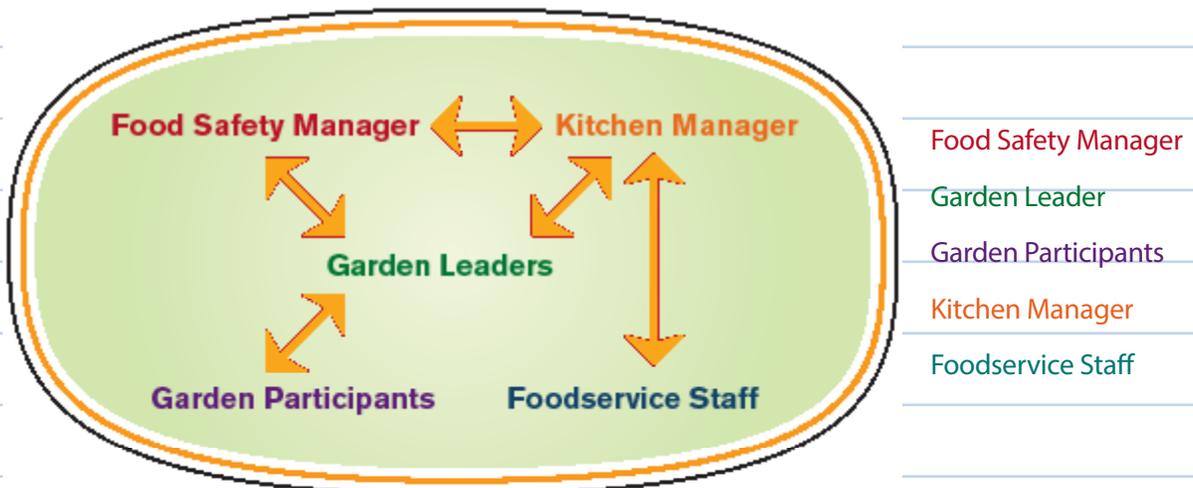
In order to make this a reality, you will first need to gain support from key personnel at your school including the principal, your school engineers, teachers and foodservice staff. Once you have gained support, it is important to maintain support by forming a committed food safety team and developing a thoughtful food safety program. It is also important to communicate your food safety initiative with students and garden volunteers. Student and volunteer involvement is fundamental to sustaining your school's food safety program.

YOUR FOOD SAFETY TEAM

Who is responsible for food safety at your school garden?

The number of individuals who are responsible for food safety accountability depends on the size and manageability of your operation. Accountability can be with one person or a number of individuals with designated responsibilities³. For any school garden, it is very important that there be at least one person who is committed to that garden's food safety program. Below is an example of how your garden can assign food safety responsibilities.

Your Food Safety Team





Food Safety Manager

Your garden committee needs to select a food safety manager who oversees the entire food safety program ensuring that the food safety plan is properly implemented. School gardens are usually led by parents who are volunteering their time or teachers who already have an overwhelming work load; so, it is important to choose an individual who is committed to the garden's food safety program. In addition, the food safety manager must be a CPS employee. Throughout the manual, wherever you see **Food Safety Manager**, this denotes this role's responsibilities.

Below is a list of food safety manager responsibilities:

- Becomes trained in Good Agricultural Practices (GAP) pertaining to school gardens.
- Delegates and documents those responsible for each food safety risk area covered.
- Ensures Garden Leaders are thoroughly trained in food safety best practices.
- Oversees Garden Leaders to ensure food safety best practices are implemented.
- Communicates with the Kitchen Managers ensuring the food safety plan is properly implemented.
- Manages all garden related food safety documents and tracks any necessary updates.
- Ensures garden staff and garden participants are familiar with food safety protocols.

Garden Leader

The primary role of the Garden Leader(s) is to oversee the preparation and work in the garden. They need to be familiar with the food safety protocols outlined in the Food Safety Field Guide for Garden Leaders. Garden Leader(s) who are trained on food safety best practices must be on-site on harvest days. Throughout the manual, wherever you see **Garden Leader**, this denotes this role's responsibilities.

Below is a list of **Garden Leader** responsibilities:

- Becomes trained in Good Agricultural Practices (GAP) pertaining to school gardens.
- Ensures all **Garden Participants** are following food safety best practices.
- Completes any necessary food safety documentation (e.g., Harvest Activity Log, CPS Verify Incident Reporting System, etc.).
- Communicates with **Food Safety Manager** and **Kitchen Manager**.



Kitchen Manager

The Kitchen Manager must be trained in all foodservice food safety protocols including how to properly handle fresh produce. Throughout the manual, wherever you see **Kitchen Manager**, this denotes this role's responsibilities.

Below is a list of kitchen manager responsibilities:

- Ensures all foodservice staff implement food safety best practices.
- Communicates with the **Food Safety Manager** and **Garden Leader(s)**.
- Completes all necessary food safety documentation.
- Manages all foodservice related food safety documents and tracks any necessary updates.

4 Appendix A – Food Safety Team Form

FOOD SAFETY TRAINING

The **Food Safety Manager** and **Garden Leaders** assigned to oversee CPS school gardens must participate in an approved training to ensure that they are familiar and comfortable with the protocols and expectations. The person assigned as your school garden's **Food Safety Manager** must undergo training conducted by the CPS Office of Student Health and Wellness and develop a personalized food safety plan to be kept on record and updated annually. The **Kitchen Managers** must have a valid Food Services Sanitation Manager Certification issued by the Illinois Department of Public Health and should receive and handle garden produce deliveries in the same manner as any other incoming product.

All trainings must be documented.

RECORD KEEPING

IF YOU DID NOT RECORD IT, YOU DID NOT DO IT!

Developing your garden's record keeping strategies will likely be the most time-consuming part of your food safety program and one of the most important. Keeping these records will act as a reminder and to-do list as well as an assurance the appropriate precautions have been taken, in the unlikely event that there is a food safety issue. It is recommended that all your documents are filed together in a food safety binder. The **Food Safety Manager** must ensure this binder is updated.

Here is a list of Good Food Safety Practices to keep in mind:⁵

- Documents, records, and policies should be included in your food safety files.
- All documents should be readily accessible for review/inspection and kept up-to-date. All documents should be kept for a minimum of four years. Please note that charter schools are not required to follow the Board document retention policy and can follow their own policies.

If you have questions concerning document disposal, please contact the Enterprise Records Manager. Susan Izban, 773-553-1679

- A self-audit of your food safety manual should be performed annually. The assigned Food Safety Manager should document that the audit was performed and record any corrective actions required. Appendix E (Food Safety Plan Review) can be used to record this information.

4 Appendix E – Food Safety Plan Review



Photo: Chicago Botanic Garden at Henson School

SECTION 2: Health and Hygiene

This section will cover the following topics:

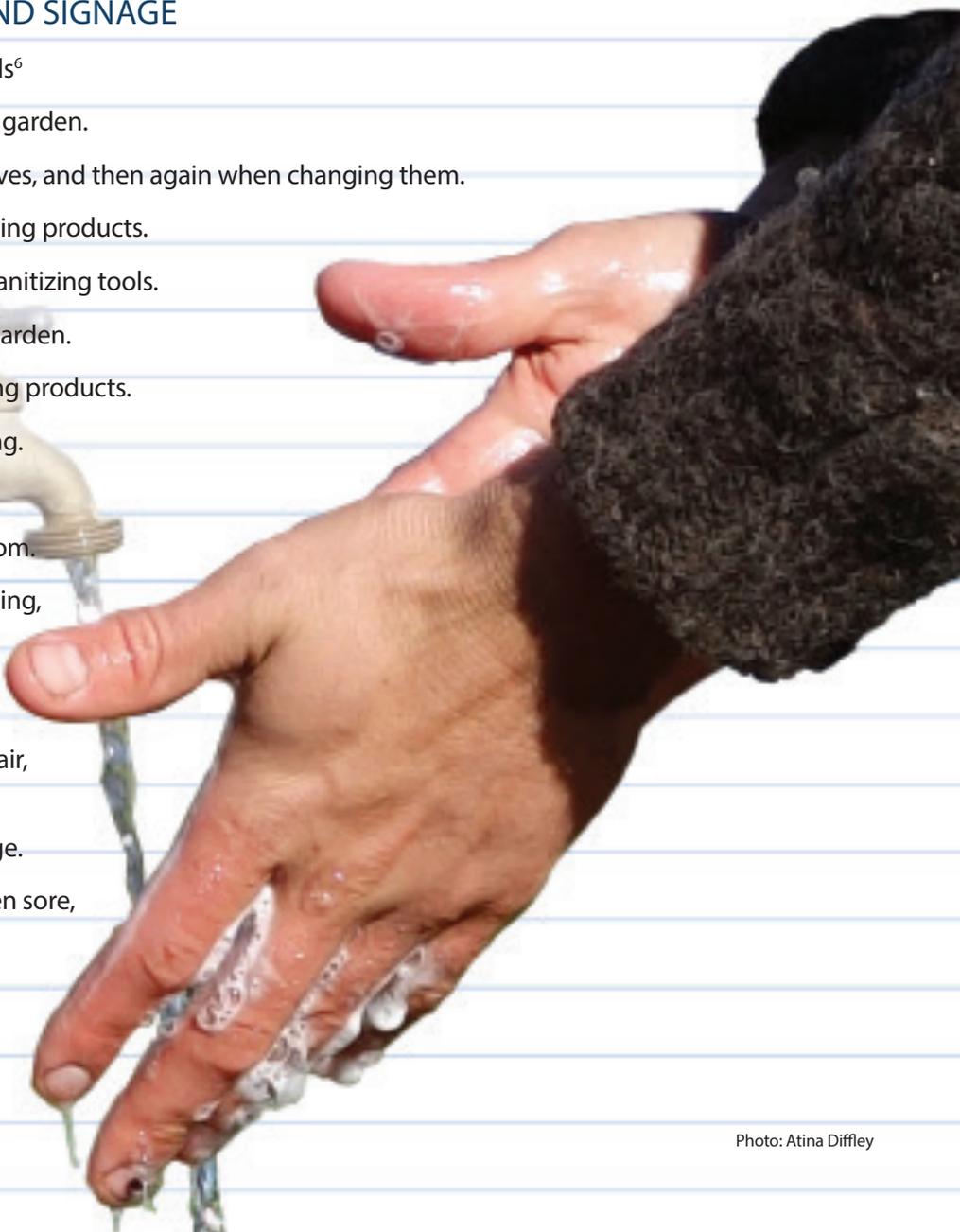
- Hand Washing & Signage
- Participant Health
- Good Health & Hygiene Training

The health and hygiene of garden participants directly impacts the safety of produce grown and served from your school garden. Fruits and vegetables from your school garden will be harvested by hand; so, it is very important that garden participants know and understand that proper hygiene practices must be used in every process from working in the garden to harvesting produce.

HAND WASHING AND SIGNAGE

WHEN to Wash Your Hands⁶

- BEFORE working in the garden.
- BEFORE putting on gloves, and then again when changing them.
- BEFORE handling cleaning products.
- BEFORE cleaning and sanitizing tools.
- AFTER working in the garden.
- AFTER handling cleaning products.
- AFTER eating or drinking.
- AFTER taking a break.
- AFTER using the restroom.
- AFTER sneezing, coughing, blowing your nose, or using a tissue or handkerchief.
- AFTER touching your hair, face, body, or clothing.
- AFTER handling garbage.
- AFTER touching an open sore, cut, or pimple.



HOW to Properly Wash Your Hands³

1. Wet your hands with clean water (warm water is preferred if available), apply soap, and work up a lather.
2. Scrub your hands for at least 20 seconds. Don't forget to scrub under your fingernails and between your fingers. Rub fingertips of each hand in suds on palm of opposite hand. Wash your arms up to your elbows if exposed.

TIP: Sing "Happy Birthday" to yourself while scrubbing. It takes 20 seconds!

3. Rinse your hands and arms under clean water.
4. Dry your hands using single-use paper towels. Do NOT use a paper towel more than once or share towels with others.
5. When possible, turn off the faucet with the single-use towel instead of directly with your hand.
6. The garden leader should be notified if soap or paper towels need replenishing.

It is important that all participants are trained on the proper hand washing technique. **Garden Leader(s)** and the **Food Safety Manager** must ensure all **Garden Participants** are trained. The Harvest Activity Log in the appendix includes a column to check-off participants who have washed their hands before harvesting

4 Appendix C – Harvest Activity Log

Post good hygiene signage at all hand washing stations where they can be clearly read. Proper hand washing signs are available in the Appendix of this manual. It includes the above information as a reminder of proper hand washing techniques.

It is also recommended that your garden post a "good health and hygiene" sign at the entrance of the garden. It will remind garden participants and visitors that they must be aware of these practices.

4 Appendix H – Hand Washing Signage

4 Appendix I – Garden Rules Signage

Use of Hand Sanitizers

Hand sanitizers can be used in addition to good hand washing, but NOT as a substitute. Current research indicates that proper hand washing with soap and water is the most effective method of removing potential pathogens from the hands. Soil and dirt on hands may actually decrease hand sanitizer's effectiveness. Frequent use of hand sanitizers can also strip the outer layer of oil from hands, leading to cracking and dryness. This can then trap germs and bacteria.

PARTICIPANT HEALTH

Illness

Participant health can also affect produce safety. Be sure to verify that none of the garden participants are showing any signs of illness or have recently been ill. If a garden participant is ill, he or she cannot participate in the harvest. **Garden Participants** will only be allowed to help in the garden 48 hours after symptoms have ended. One exception is illness due to Norovirus, which has been found to be the leading cause of foodborne disease outbreaks in the United States. Norovirus is also commonly known as the stomach flu or viral gastroenteritis. In this case, participants will only be allowed to help in the garden 72 hours after symptoms have ended.

1. **Garden Participants** MUST notify the **Garden Leader** (or other person in charge) if they have any of the following symptoms or conditions. In these instances, participants will NOT handle fresh produce³:

- They have been diagnosed or were recently ill with a foodborne illness or communicable disease.
- They have an infected sore or cut that is open or draining on your hands, wrists, or the exposed areas of your arms.
- They are suspected of causing or being exposed to a foodborne illness outbreak.
- They live with a person diagnosed with a foodborne illness, or a person who attends or works where there is a foodborne illness outbreak.
- They have any of the following symptoms:
 - Diarrhea
 - Fever
 - Vomiting
 - Jaundice (a yellowing of the skin and eyes)
 - Sore throat with fever
 - Persistent sneezing, coughing, or a runny nose



2. Participants who have only mild symptoms but are still healthy enough to help with garden activities can participate where there is NO contact with produce. They must be appropriately covered with bandages and/or gloves to reduce the risk of contamination.

3. In the case the participant has mild symptoms and there are no tasks available where one can avoid contact with produce, then the participant will NOT be allowed to assist with garden duties.

Blood and Bodily Fluid³

If blood or bodily fluid ever comes in contact with the soil or produce, it must be immediately reported by whoever finds the contamination; however, if that person cannot immediately address the situation, the **Garden Leader** must take the appropriate action. If blood or bodily fluid is found on the soil, all contaminated surfaces must be removed into a plastic bag with a shovel or gloved hands and then placed in a waste basket. All affected soil will be shoveled up around and under the area and removed.

If a participant is bleeding, make sure they have been provided first aid or 911 has been called if it is a serious injury. All illnesses and injuries must be reported using the CPS Verify Incident Reporting System.

First Aid Procedures³

A first aid kit must be kept on site, or the Garden Leader must have one on hand. CPS Safety and Security have approved first aid kits available. Everyone should know the exact location of the first aid kit. Supplies should be checked and restocked on a regular basis. The first aid kit Inventory sheet found in the Appendix can help you keep track of first aid needs. Make sure to also check expiration dates and replace used or out-of-date contents.

Dial 911 first for serious injuries and asthma or allergy related incidents. Have a list of emergency phone numbers available.

Cuts, abrasions and other injuries that occur at the garden site must be tended to immediately for the well-being of the participant and to minimize the risk of contamination to produce.

Photo: Chicago Botanic Garden at Murphy School



HEALTH & HYGIENE TRAINING

All **Garden Participants** must be trained on the above good health and hygiene practices before they can take part in garden activities. At the beginning of the garden season, schedule a training for garden participants. However, an effective health and hygiene program can only occur if these practices are continuously reinforced. Here is a review of the topics you will cover in your Health and Hygiene Training:

1. Proper hand washing techniques
2. Procedures in the event of participant illness or injury
3. Handling of blood and bodily fluid in the garden site
4. First aid procedures and identifying first aid kit location(s)

Here is a list of required Good Food Safety Practices¹:

1. All **Garden Participants** must complete an annual training focused on good personal hygiene and daily hand washing.
2. The **Food Safety Manager** and **Garden Leaders** will maintain records assuring that all garden participants have completed a training session.
3. Hygiene signage is posted at all hand washing stations and includes clear instructions on when and how to properly wash hands.
4. All **Garden Participants** are required to report illness to the **Garden Leader** on duty.

4 Appendix D – Garden Food Safety Training Log



SECTION 3: The Garden

This section will cover the following topics:

- Siting and Soil
- Water Quality
- Grow Naturally
- Animal and Pest Control
- Risk Assessment

SITING AND SOIL

The location of the garden must be carefully selected as it can impact food safety. The location must be away from dumpsters, underground tanks or other underground sources of contamination, and any area near a facility that houses livestock. The area should be free of overhead trees and tree limbs where animal droppings can contaminate the garden. Fencing should be adequate to deter animals such as deer, rabbits, groundhogs and pets. Fence openings should be no greater than one (1) inch. Consider installing a barrier using chicken wire, but consult with your school's principal and engineer before installing a fence.

Unwanted visitors can become the source of intentional and unintentional contamination leading to serious illness or injury. The location should be an area where the garden is fenced in to deter unwanted visitors.

All new CPS gardens used for food production must be planted in raised beds. All soils and growing media imported onto the school site shall meet one of these standards:

- Imported soils must be analyzed and approved by the CPS Environmental Service Manager. An analysis of the soil can be done by CPS at the school's expense or the provider of the soils can provide an analysis that is less than 6 months old and includes all parameters for clean soil.
- Commercial soil amendments or compost is acceptable in school gardens. It must be tested to meet IEPA standards or, if bagged, be certified by the Mulch & Soil Council (MSC) (<http://mulchandsoilcouncil.org>).
- Imported compost that meets IEPA General Use Compost performance standards (35 ILCS Part 830.503) may also be used.

Laboratory analysis of bulk imported growing media, in the form of an Materials Safety Data Sheet (MSDS), must be provided to the CPS Environmental Services Manager prior to importing the materials onto CPS property. Bagged growing media are allowed without an MSDS. Please find the CPS Environmental Services Managers contact information on the following page.

Schools with existing gardens that want to begin food production must first contact the CPS Environmental Services Manager for permission to test soils. Soil testing will be done by CPS Environmental Consultants at the school's expense. Soil testing protocols should then be followed to meet IEPA standards.

SOIL CONTAMINANTS

When evaluating your garden site's soil, these contaminants will be tested for by an IEPA approved laboratory:

1. Semi-Volatile Organic Compounds (e.g., benzo(a)pyrene)
2. Chemicals (e.g., herbicides and pesticides)
3. Heavy Metals (e.g., lead)

NOTE: Any soil testing on Chicago Public Schools' property must first be authorized by the CPS Environmental Services Manager.

Lead is an example of a heavy metal that can be found in the soil and has been found to be toxic to the nervous system⁷. Lead can be absorbed into the plant tissue and also be found in the produce grown in your garden. Contaminated soil particles are more likely to be imbedded in leafy greens or root crops rather than fruiting vegetables such as tomatoes and cucumbers¹⁰. Properly washing your vegetables before it is served is a key step to reducing health risks.

Heavy metals found in soil are a common problem in urban areas⁷. All soils will have a natural lead level between 5 ppm and 40 ppm; however, Chicago Public Schools require soils to have a lead level of 23 ppm or less²². For a sample soil test result from an IEPA approved laboratory, refer to Appendix K.

4 Appendix K – Soil Test Results Examples

In addition to lead, other important soil contaminants to look out for include arsenic and organic contaminants such as benzo(a)pyrene that are considered carcinogenic.

SOIL TESTING

Laboratory testing will determine your soil's nutrient status as well as identify possible carcinogenic or heavy metal contaminants. As a reminder, any soil testing on Chicago Public Schools' property must first be authorized by the CPS Environmental Services Manager.

Once approved for testing, collection of soil samples must be done by environmental professionals with Occupational Health and Safety Administration (OSHA) 40 hour HAZWOPER training. CPS maintains a list of prequalified Managing Environmental Consultants who will collect and transport samples for analysis to an approved laboratory. All soils analysis must be done by an Illinois Environmental Protection Agency approved laboratory.

For more information about soil testing and/or purchase, contact Chicago Public Schools Environmental Services:

Lynn Crivello
CPS Environmental Services Manager
(773) 553-3113 lacrivello@cps.k12.il.us

RAISED BEDS

All edible school gardens must be planted in raised beds to minimize soil contamination risk. Raised beds can be built from one foot to approximately waist high and must be accessible to students with disabilities and must be ADA (Americans with Disabilities Act) compliant.

Use non-toxic, non-leaching materials for raised-bed gardens, containers, stakes, or trellises. Cedar or composite recycled timbers are considered good materials to use⁸. Hollow tiles, stone, bricks, logs, "plastic lumber" made of recycled plastic and unpainted concrete blocks can be used. DO NOT use pressure-treated wood, used tires, single-use plastics, or old railroad ties. The holes in concrete blocks can be filled with dirt to seed vine crops such as squash or pumpkins²⁷.





SOIL AMENDMENTS

Soil amendments are added to improve your soil's physical properties whether it's aeration, water retention, or nutrient-holding capacity. Soil amendments include the following:

1. Compost
2. Manure (Do NOT use raw manure. Use ONLY commercial composted manure that has been properly treated.)
3. *Fertilizers

*Chicago Public Schools prohibits the use of harmful chemicals on CPS property. CPS promotes natural growing methods in school gardens. This section will discuss alternatives to using chemical fertilizers in your school's garden.

Commercial soil amendments must be certified by the Mulch & Soil Council (MSC) and applied in accordance with applicable federal, state, and local regulations. You must have Material Safety Data Sheets for all commercially obtained soil amendments and keep these MSDS with the garden records.

Compost

Composting creates a beneficial product out of organic waste that would have otherwise ended up in the landfill. Compost involves the decomposition of organic matter such as brush, tree prunings, and acceptable grass clippings and fruit/vegetable scraps.

Microorganisms break down the organic matter to create a nutrient-rich material, called humus. Humus helps improve soil quality and should be incorporated into soil every year.

There are many benefits to using compost that include¹³:

1. Improving soil structure, which supports root development;
2. Providing plant nutrients to the soil, which allows an increased uptake of nutrients by plants;
3. Helping absorb and retain water in the soil.

However, you must ensure your compost is free of potential pathogens. You also need to make sure that it is stored and handled properly. Here are a few items to consider when using compost in your school garden:

1. If your school purchases commercial grade compost:
 - a. A good resource for approved compost suppliers is <http://www.omri.org> (Organic Materials Review Institute or OMRI).
 - b. The **Food Safety Manager** is responsible for choosing a supplier and keeping relevant compost documentation on file.
 - c. When choosing a supplier, you should have documents on file that detail composition and the method of treatment including temperature and moisture management. The producer should also be able to verify that the pile was protected from recontamination¹. Here is a list of IEPA compost standards to consider²:
 - i. Must be free of any materials which pose a definite hazard to human health due to physical characteristics, such as glass or metal shards;
 - ii. Must not contain man-made materials larger than four millimeters in size exceeding 1% of the end-product compost, on a dry weight basis;
 - iii. Must have a pH between 6.5 and 8.5;
 - iv. Must have reached stability, as demonstrated by one of the methods prescribed by the Illinois Pollution Control Board (IPCB) and Illinois Environmental Protection Agency (IEPA);
 - v. Must not exceed, on a dry weight basis, the inorganic concentrations set forth in Section 830. Table A by the IPCB and IEPA;
 - vi. Must not contain fecal coliform populations that exceed 1000 MPN per gram of total solids (dry weight basis), or Salmonella species populations that exceed 3 MPN per 4 grams of total solids (dry weight basis).
2. If your school is producing or wants to produce its own compost:
 - a. Although composting provides an excellent learning tool for your students, compost produced on-site can ONLY be used in CPS ornamental gardens and NOT in edible gardens. Please note that this applies to schools who are participating in the Eat What You Grow Program. Compost made from food scraps cannot be adequately monitored, controlled or tested to ensure the final product is safe for growing food served to our students and customers.

Despite only being used in ornamental gardens, composting procedures must still comply with state and local regulations. Refer to the City of Chicago Composting Ordinance, Chapters 7-28 of the Municipal Code. The ordinance allows a maximum of 5 cubic yards of compost in an enclosed container.



Manure

Commercial manure that has been properly treated at the correct temperature range can be used for school gardens⁷. Schools should NOT use farm manure or pet waste. With each purchase of manure, documentation of analysis should be received and filed with your other soil amendment records. Again, OMRI (www.omri.org) is a good resource for organic products.

Fertilizers

Chemicals

The Chicago Public School Integrated Pest Management Policy²¹ prohibits the use of any harmful chemicals on CPS property including chemical fertilizers. Read on for recommended methods.

Organic Fertilizers

Blood meal, dried blood, fish emulsion, and kelp are safe to use as natural fertilizers and animal repellents. All can be found at your local nursery. Look for OMRI approved fertilizers and amendments. These products comply with USDA organic standards.

If you are looking for natural alternatives to improving your plant's health, other methods include²⁰:

1. Choosing plants suited for your site and soil.
2. Starting with healthy seeds and plants.
3. Growing disease resistant cultivars.

Use the Soil Amendment Log (included in the Appendix) to record the types fertilizers used in your garden.



WATER QUALITY

Healthy water is an essential element to safe produce. From pre-harvest to post-harvest, ONLY clean, potable water must be used¹⁷.

All CPS school gardens use municipal water. All water supplied by the City of Chicago Department of Water is required by Federal and State law to meet stringent water quality standards. Testing should be requested only where water service has been interrupted or where construction to the system has occurred. The Chicago Department of Water does not have the capacity to test every school with a garden.

Rain Barrel Water

Many school gardens utilize rain barrels to help conserve water by collecting and storing water from rooftops. Rain barrels are a great way to save water for bouts of dry weather. This water is NOT potable. Rain barrel water may only be used to water ornamental plants or trees.

If rain barrels are used, they must be designed and constructed to prevent and control mosquitoes from breeding. Mosquitoes are attracted to standing water and therefore a fine mesh screen should cover all open-ended rain barrels. Rain barrels are not meant to serve as permanent or long-term water storage and should be emptied once every seven days. Consistent emptying will prevent mosquitoes from entering and breeding in the water.

Irrigation Method

Watering by hose or sprinkler should be scheduled in the morning. Following this schedule will not only help conserve water but also speed-up leaf drying time, which will help reduce the survival of pathogens on the crop¹. Also make sure to use food grade containers when transporting water.

GET INVOLVED

To further help and protect your water sources, consider joining your local watershed group to participate in decisions and increase your awareness of water use in your area.

GROW NATURALLY

The Chicago Public School Integrated Pest Management Policy²¹ prohibits the use of any harmful chemicals on CPS property including chemical herbicides and fertilizers. Read on for recommended methods.

Natural growing methods are encouraged in school gardens since it minimizes the health risks of Garden Participants and the impact on the environment. Instead of using conventional fertilizers and pesticides, here is a list of recommended practices:

- Synthetic herbicides, fungicides, or insecticides (with the exception of mosquito repellent) are prohibited for use in the garden.
- There are many insects that can be found in the garden, and the majority of them are beneficial. A small number, however, do damage crops, but these can be successfully managed using organic pest management techniques, such as companion planting or Integrated Pest Management, which is described below. Chemical pesticides should not be used in school gardens
- Instead of using herbicides, weeds can be controlled by mulching, hand weeding and weeding tools.

INTEGRATED PEST MANAGEMENT¹⁶

Integrated Pest Management, or IPM, is an environmentally sensitive approach to pest management using practices focused on preventing the root causes of infestations.

How Does It Work?

IPM is not a single control method, but rather a combination of pest management controls. Practices include limiting pest infestations by creating physical barriers to pests (fencing, bed covers, etc); reducing the food, water and harborage available to them; and routine inspection and monitoring.

For additional information about pest infestations at your garden, contact the School Garden Coordinator.

ANIMAL & PEST CONTROL

Although the risk of potential pathogens found in domestic animal manure is a major concern, wild animals, including rodents, deer, geese, and even flies have been found to carry harmful human pathogens such as E. coli 0157:H7. Of course, it is nearly impossible to eliminate all animal influences from garden sites and produce handling areas, but there are steps you can take to minimize their presence or activities. A well-managed animal and pest control program will help reduce pest infestation problems

Animal and Pest Control in the Garden^{1,7}

- **Garden Leaders** need to ensure that produce is harvested regularly and compost or rotting vegetables are properly disposed.
- Keep cats, dogs and other pets out of the garden, as animal waste can be a source of bacteria, parasites and viruses.
- Do NOT feed birds near the garden. Bird feed can attract rodents.
- Restrict nesting and hiding places for rodents by mowing grass and tall vegetation that is around the garden.
- Cover the ends of stakes and posts with plastic or metal cones to keep birds from resting and defecating in or near the garden.
- It is recommended that a fence be installed around the garden site. A fence will reduce the risk of harvesting produce contaminated by animal droppings. Please note that the City of Chicago Municipal Code requires decorative fencing be installed in areas that face the street. Consult with your school's principal and engineer before installing a fence.
- If serious infestations occur, please contact the CPS School Garden Coordinator.

Animal and Pest Control in the Produce Handling Areas^{1,3}

- Traps should be inspected daily. The **Food Safety Manager** should keep a map of all trap locations with all other food safety records.
- If serious infestations occur, please contact the CPS School Garden Coordinator.



SECTION 4: Harvest and Postharvest Handling

This section will cover the following topics:

- Garden Harvest
- Post-Harvest Handling

GARDEN HARVEST

The **Food Safety Manager** must provide training and review to both **Garden Leaders** and **Garden Participants** on the following harvest related food safety risks:

1. Health and Hygiene
2. Tools and Equipment Maintenance Management
3. Proper Harvest Handling

The **Garden Leader** should lead by example and make sure that participants are properly implementing food safety best practices. The **Garden Leader** must make sure all record keeping forms relevant to the garden harvest are properly completed. **Garden Participants** can assist with inspection and record keeping as long as they are properly trained. It is best to assign participants to this duty so that it becomes a routine. Once forms are filled, The **Garden Leader** needs to return all forms to the **Food Safety Manager**.

Health and Hygiene Review

When it is time to harvest, it is important that all garden participants follow the good hygiene practices that were mentioned in the Health and Hygiene section. The **Food Safety Manager** needs to make sure that all **Garden Leaders** and **Garden Participants** have been trained on good health and hygiene practices. **Garden Leaders** need to make sure that these practices are implemented whenever participants are helping in the garden, especially when harvesting fresh produce.

Tools and Equipment Maintenance Management

When working with gardening tools and other harvesting equipment, the following must be implemented in your food safety plan and must be monitored by the **Garden Leader** and **Garden Participants**:

1. Tools and equipment, such as harvesting containers, should be made of materials that can be easily cleaned and made of a non-porous material (e.g., metal, stainless steel, or plastic)⁹. Harvesting containers should be made of food grade materials that are designed to safely hold food. These are NOT food grade containers:

- a. Garbage bags
- b. Garbage cans
- c. Containers that originally held chemical products

Tools and harvesting containers should be sanitized thoroughly using a foodservice approved sanitizer. One example is the non-toxic, biodegradable cleaner Simple Green[®]. They should then be rinsed with potable water.

2. The **Garden Leader** needs to develop a schedule for cleaning and repairing tools to reduce the potential for contamination.
 - a. It is recommended that the tools be cleaned, repaired and/or inspected weekly. This activity should be recorded on the Appendix C - Harvest Activity Log.
 - b. If participants bring their own tools for use in the garden, these tools should also be cleaned weekly and before use in the garden.
3. Have a designated storage area for all tools when not in use. When Garden Participants take a break, use the restroom, or leave for the day, tools should be kept in a designated area as to minimize contamination.
4. If using vehicles, such as motorized carts or utility vehicles, to transport harvested produce, these vehicles should be inspected for leaks, necessary repairs, and a maintenance checklist kept on file.
5. There should be designated bins for compost and harvested produce. The bins should not be used interchangeably.
6. Harvesting bins should not be used for any other purpose other than carrying produce.

4 Appendix C– Harvest Activity Log

Proper Harvest Handling

When it comes time to harvesting your garden produce, the **Garden Leader** needs to gather the following items:

- Sanitized Harvest Containers (e.g., food grade plastic baskets)
- Sanitized Produce Storage Containers with Labels
- Harvest Activity Log
- Scale (also properly sanitized)

A Harvest Activity Log can be found in the Appendix. Use the harvest activity log to record date of harvest, participants assisting with harvest, list of produce harvested, weight of harvest, and recipient of harvest

All participants should be trained how to record harvest activities and proper harvesting procedures.

A note for **Garden Leaders**, when harvesting, these procedures should be followed ^{2, 19}:

1. As a reminder, all participants must wash their hands before and after harvesting.
2. If participants use gloves to harvest, they must be clean. However, the best practice is to use single-use disposable gloves when harvesting.
3. Harvest as early as you can in the morning.
4. Ideally, pick only dry fruits and vegetables.
5. Produce should not be eaten while harvesting.
6. Remove as much dirt and debris from the produce as possible in the garden site.
7. **DISPOSE OF ANY PRODUCE THAT HAS FECES ON IT OR IS DAMAGED/DISEASED.**
This produce should be transported to a remote cull pile to avoid attracting pests or creating a susceptible environment for both human and plant pathogens.
8. **HANDLE WITH CARE!** Handle the produce as little as possible making sure not to bruise or damage the produce. Punctured or bruised produce are more susceptible to harmful pathogens. Once inside, these microorganisms cannot be removed or killed by washing or sanitizing agents.
9. Produce must be kept in a shaded area of the garden and cooled immediately. This will reduce heat gain from the sun.
10. If there are multiple gardens in which produce is being harvested, the Garden Leader needs to ensure produce from different gardens are not mixed together. Each garden produce delivery needs to be clearly labeled providing the name of the garden, date of harvest, produce name(s) and weight.

A Crop Profile of Common Garden Produce is included in the Resource section. It includes recommended harvesting methods.

[4 Appendix C – Harvest Activity Log](#)

[4 Crop Profiles of Common Garden Produce](#)



POST-HARVEST HANDLING

Once produce is harvested, it is important that the **Garden Leader** monitor the temperature of harvested produce. Produce should be promptly cleaned and cooled after harvesting. It includes recommended harvesting methods as well as storage and transporting information. Record time and produce temperature on Appendix C - Harvest Activity Log.

Steps to Remove Debris from Harvested Produce

The **Garden Leader** needs to ensure these procedures are followed when removing debris from harvested produce:

1. Sanitize all processing areas (e.g., sorting area, food contact surfaces, and scales) and produce storage boxes (e.g., coolers, wax boxes, or storage bins) using a foodservice approved sanitizer and preferably one that is non-toxic and environmentally safe. Cleaning these areas and items should be done on a daily basis or as necessary and should only be sanitized in the school cafeteria, NOT in the garden.
2. Containers used for harvesting should be labeled "UNWASHED". In addition, please include PRODUCE NAME, HARVEST DATE, ROW/BED/or PLOT on the container label. This will help identify where the produce came from.
3. Do not use compost containers for storing produce, even temporarily.

4. Please note, at harvest and/or in the garden, produce must NOT be washed, hosed or sprayed. Produce washing should ONLY take place in the school kitchen. The foodservice staff will wash produce following the proper foodservice handling procedures.
5. If produce contains excessive dirt such as root vegetables or leafy greens, simply wipe off dirt with clean paper towels or shake off debris. Do NOT use wet rags or paper towels to wipe off produce.

Steps to Cooling Produce¹⁹

1. The produce should be refrigerated immediately and should be cooled to a temperature that is appropriate to the crop.
2. If it is not possible to move the harvested produce to a refrigerated area within one hour of harvest; instead, place the produce in coolers with ice. The ice should come from a potable water source.
3. All cooling equipment should be sanitized before storing produce. Record cleaning on the Appendix B – Harvest Activity Log to document that these areas have been properly cleaned.
4. Upon delivery to a school, produce must be placed in refrigeration.
5. If produce is temporarily left in the cooler and placed in refrigerated storage, the ice needs to be removed from the cooler.
6. ALL produce should be stored in refrigerators and not left out overnight. Discard produce that has been left out.

TRANSPORTING PRODUCE¹⁷

Most school gardens will only have enough garden produce to serve their own school. In this case, there is no need to consider transporting produce, and it is advised that school garden produce remain at that school. If transportation from a garden or farm site to another facility is required, contact the School Garden Coordinator for necessary cooling information.



SECTION 5: Foodservice Handling

This section will cover the following topics:

- Training Foodservice Staff
- Receiving Garden Produce
- Washing Produce
- Proper Storage
- Preparing and Serving Produce
- Trace Back and Recall Procedures
- Corrective Action Procedures

TRAINING FOODSERVICE STAFF

All kitchen staff must be properly trained on how to handle fresh garden produce and follow the same requirements enforced by the foodservice provider or stricter health department guidelines. The **Food Safety Manager** should work with the **Kitchen Manager** to plan what to grow for the season. The assigned **Food Safety Manager** and **Kitchen Manager** should ensure that all kitchen staff are trained on the following:

- Receiving Garden Produce
- Washing Produce
- Produce Storage
- Produce Preparation



RECEIVING GARDEN PRODUCE²

- The **Kitchen Manager** and **Foodservice Staff** need to be properly trained on how to receive garden fruits and vegetables and should have a Service Sanitation Manager Certification issued by the Illinois Department of Public Health. School garden produce should be received and inspected using the same system that is used for all other incoming food products.
- Before the harvest can be received by the **Foodservice Staff**, the **Garden Leader** or **Food Safety Manager** must approve the quality of the harvested produce and communicate this to the **Kitchen Manager**.
 - A completed Harvest Activity Log must accompany every garden produce delivery.
 - The **Kitchen Manager** or trained **Foodservice Staff** must check that the **Garden Leader** or **Food Safety Manager** has initialed the Harvest Activity Log.
 - The **Kitchen Manager** or trained **Foodservice Staff** will receive the produce by checking the produce against the produce listed on the Harvest Activity Log and inspect the cleanliness of the product.
 - The **Kitchen Manager** will then initial the Harvest Activity Log.
 - The Harvest Activity Log should then be returned to the **Food Safety Manager** where it will be filed accordingly with all other food safety records.
- Produce must be used within 2 days of being received.

WASHING PRODUCE

Follow these steps when washing garden produce:

- When washing produce, all **Foodservice Staff** must properly wash their hands using the techniques discussed in the Health and Hygiene section.
- Garden produce must be washed separately from other school produce and washed the SAME day that it is served. Unwashed garden produce must NOT be mixed with other school produce.
- It is acceptable to give produce a triple wash if it has excessive sand, dirt or soil. Be sure sinks are washed and sanitized in between.
- Use a sanitized sink to wash produce. It is recommended that a kitchen have a designated food preparation sink. If the kitchen does not have a designated food preparation sink (and only a sink that is used for pot and pan washing is available), make sure there are no cleaning chemicals attached directly to the water faucet at this sink. You must be able to dispense clean, clear tap water. If this is not possible, you may use large food containers that have been properly sanitized.
- Keep a cleaning log near the sink to ensure it is properly cleaned before washing produce.
- Fill the sanitized sink with tap water. For certain types of produce (e.g., apples, celery, and tomatoes) wash water temperature should be warmer or no more than 10°F cooler than that of the produce.
- Produce with thick skins, such as potatoes, can be scrubbed with a vegetable brush to remove all visible dirt.
- Remove the produce from the sink, rinse again and drain excess water in a colander.
- You can air-dry or use a clean paper towel to remove excess water.

4 Appendix D – Harvest Activity Log

4 Crop Profiles of Common Garden Produce



Photo: Atina Diffley

PROPER STORAGE

Storage Bins

- Produce must be stored separately from other school produce.
- The **Food Safety Manager** and **Garden Leader(s)** should develop an organized labeling system with the **Kitchen Manager** to identify garden produce.
 - Label storage bins (e.g., “School/Community Garden Vegetables”).
 - Include the date of harvest and produce harvested.
- In order to avoid damage to produce, **Foodservice Staff** must keep fruit and vegetable off of the floor. Keep produce stored in storage bins in the refrigerator, which should be kept sufficiently clean.
 - Keep a cleaning log to ensure regular produce storage maintenance and cleanliness.
 - The **Kitchen Manager** needs to check this log daily.
 - When all entries have been filled, the completed log should then be returned to the **Food Safety Manager** where it will be filed accordingly with all other food safety records.

Temperature Control

- Cold Storage is a Critical Control Point meaning that foods can become unsafe if they are not kept at proper cold storage temperatures. You must have a thermometer to check that your refrigerator is at the proper temperature. The **Kitchen Manager** is responsible for making sure refrigerators are kept at the correct temperature range.
 - When placing a portable thermometer in a refrigerator, put it in the warmest part of the unit, which is usually near the door.
 - Proper Refrigerator Temperature: 40°F or less¹⁸.
 - The vegetables should be stored in the cooler/refrigerator for one day to reduce their temperature to below 40°F².
- A Cold Storage Temperature Log will help record this information.
 - The **Kitchen Manager** or an assigned **Foodservice Staff** needs to check and update this log twice a day. It's best to make it a routine by checking the thermometer first thing in the morning and at the end of the day. Assigning the same staff to this task may also help make sure that it is done.
 - Important Note – USDA Forms – In some states a USDA form may be required to be used for storage area temperature checks. In this case you must use the USDA form instead of the Cold Storage Temperature Log. Your foodservice director should provide the **Kitchen Manager** with the required forms.
- The **Kitchen Manager** needs to post Cold Storage Signage to remind staff about critical food safety rules for cold storage.
 - Important: Never leave refrigerator doors standing open for any reason!
 - The **Kitchen Manager** needs to be immediately notified if¹⁸:
 - Unsafe temperatures are noted.
 - A refrigerator is not working properly.
 - Water or ice is building up in or around the refrigerator.



Photo: Atina Diffley

PREPARING AND SERVING PRODUCE¹⁸

All **Foodservice Staff** must have a Service Sanitation Manager Certification issued by the Illinois Department of Public Health. If teachers, parents or students are helping with the preparation in a school cafeteria, they should be supervised by a trained food safety staff person and follow the food safety instructions of the certified staff person. Garden produce must be served separately from other school produce. Garden produce will often be served raw; so, implementing best practices in food safety is very important when preparing and serving fresh fruits and vegetables, especially raw produce. All **Foodservice Staff** must be trained on how to properly prepare and serve produce.

Follow these steps to help minimize food safety risks:

Practice Good Hygiene and Sanitize Work Area

- Wash your hands! All **Foodservice Staff** MUST wash their hands before handling raw fruits and vegetables using the techniques discussed in the Health and Hygiene section. Hands must be washed before and after handling produce.
 - Single-use gloves MUST be worn when handling ready-to-eat produce and should be replaced using the same rules used for hand washing.
- **Foodservice Staff** must clean all food-contact surfaces before washing and preparing produce.
 - **Foodservice Staff** should complete cleaning log whenever food-contact surfaces (sinks, utensils, cutting boards, countertops, etc.) are cleaned.
 - Clean work surfaces and utensils before and after handling produce.
 - Use a foodservice approved sanitizer for cleaning work surfaces. Let utensils and surfaces air dry.

Washing and Preparing Produce¹⁹

- The produce can be used in the salad bar or at lunch service the day after the harvest if the temperature of the produce is below 40°F².
- Bruised or damaged parts of fruits and vegetables should be cut away before eating or preparing. Throw moldy produce away⁷.
- The produce will not adversely affect the Kitchen Manager's menu plan/ordering if the amount is small and the produce can easily be incorporated into the salad bar or any of the following recipes that are on the menu plan².
- Again, produce must be washed in the school kitchen following the proper foodservice handling procedures. Wash produce thoroughly to remove dirt and germs. Produce washing instructions should be posted in the kitchen.
 - Always wash produce before:
 - Cutting or chopping
 - Adding as a recipe ingredient
 - Cooking
 - Serving
 - Displaying whole fruit, such as apples or pears, for service
 - Use a sanitized sink to wash produce. It is recommended that your kitchen have a designated food preparation sink. If a food preparation sink is not available (and only a sink that is also used for pot and pan washing is available), make sure there are no cleaning chemicals attached directly to the water faucet at this sink. You must be able to dispense clean, clear tap water. If this is not possible, you may use large food containers that have been properly sanitized.
 - If you must use the same sink that is used to wash pots and pans, do not wash produce at the same time.
 - Select a specific time to wash all produce, such as the morning.
 - Never use soap, detergent, or bleach solution to wash fruits and vegetables. These products are not meant for washing produce and may not be safe to ingest. They can also adversely affect the flavor.
 - Wash all fruits and vegetables even if you don't eat the skin or rind.
 - Prepare produce on a clean work surface making sure all contact surfaces (e.g., cutting boards, knives, countertop, etc.) are properly sanitized using approved foodservice sanitizers.

Follow these easy steps to 'double-wash' all raw produce for safety:¹⁹

- Again, clean and sanitize your two sink compartments*.
- * Or other containers your supervisor tells you to use.
- Add cold water to both sinks until they are about half full.
- Remove outside leaves and trim product as needed.

Photo: Atina Diffley



- Put produce in the first wash sink. Make sure it is completely covered with water.
- Give the product a good shake under the water to loosen dirt.
- Use a vegetable brush on the surface of items like cantaloupe and potatoes.
- Remove produce from the first sink and place it in the second wash sink, again making sure it is completely covered with the cold water and not too full.
- Let the produce soak in this rinse water for at least 1 minute.
- Remove produce from the second sink, and drain, shake, or spin it to remove water.
- Produce has been 'double-washed' and is now ready for use.
- Properly store washed fruits and vegetables.
 - NEVER return washed fruits or vegetables to their original boxes.
 - ALWAYS store washed fruits away from unwashed raw produce to prevent cross-contamination.
 - If you have leftover produce that has been cut, sliced, or cooked, store it in a clean, air-tight container in the refrigerator at 40°F or less. To be safe, do not use fresh, cut-up fruits and vegetables if they have been held longer than 2 hours at room temperature or longer than one hour at temperatures above 90°F, unless you intend to cook them.

TRACEBACK AND RECALL PROCEDURES

Traceback Procedures

In the event that it is proven that your garden produce is the source of a foodborne illness outbreak, you need to have a system already in place to trace the product in order to effectively identify the source of the contamination³. Again, here is an example where record keeping is essential. You can create this traceability system simply by identifying the product using a basic Harvest Activity Log. Please see Appendix B for a Harvest Activity Log example. It is recommended to have a system in place when harvesting. During each harvest, the garden leader must record the following information²:

- Produce harvested
- Weight of produce
- Names of participants who harvested and packed the produce
- The plot it came from
- The date it was harvested and packed
- The date of sale or distribution (if applicable)

[4 Appendix C – Harvest Activity Log](#)

Best Practice

- The **Food Safety Manager** should annually conduct a trace back and trace forward exercise that will test how easily produce can be traced using the harvesting documentation on file.
- It is helpful to ask someone not familiar with your system to undertake the trace back check as it will allow your system to be reviewed by a new set of eyes to assess availability, legibility and interpretability of your trace back system

Recall Procedures

Again, most schools do not have the capacity to transport garden produce. However, if your school garden is distributing its produce to third parties, it is especially important to have a recall procedure in place. In the event of a recall, it is important to keep accurate and complete records during this process. Please refer to the Appendix for the following recall forms:

[4 Appendix F - Recall Communication and Retrieval Form for recording communication with the parties concerned and retrieval confirmation.](#)

[4 Appendix G- Follow-Up Plan Form to determine preventive plans.](#)

CORRECTIVE ACTION PROCEDURES

Corrective action is required whenever an observation or audit indicates a non-conformance with CPS food safety policies. ALL **Garden Participants** and **Foodservice Staff** must be trained on what they must do if there is an observed non-conformance. Non-conformances can either be MINOR or MAJOR. If it is minor, then immediate corrective action should be taken.

Minor Non-Conformance

Here is a list of possible MINOR non-conformance issues in the garden or in the foodservice kitchen:

- Equipment used to harvest produce is not properly sanitized.
- Produce accidentally dropped on the floor.

For a MINOR non-conformance, what do you do?

1. Take immediate corrective action; for example, if produce drops on the floor, dispose of the potentially contaminated produce.
2. If a MINOR non-conformance is observed by a **Garden Participant** or **Foodservice Worker**, they must communicate the issue and corrective action to the **Garden Leader** or **Kitchen Manager**.
3. Documentation is not necessary.

Major Non-Conformance

Here is a list of possible MAJOR non-conformance issues in the garden or in the foodservice kitchen:

- Animal fecal matter is present.
- Garden produce has been stored at an unsafe temperature.

For a MAJOR non-conformance, what do you do?

1. When these non-conformances are observed, they must be reported immediately to the **Food Safety Manager** or the **Kitchen Manager**.
2. The **Food Safety Manager** and/or **Kitchen Manager** (wherever the issues are observed) must assess the non-conformance and:
 - a. Determine the required corrective action.
 - b. Determine the cause of the issue.
 - c. Determine the required preventive action.
 - d. Determine new food safety procedures if found necessary.
 - e. Train staff and garden participants on new procedures.
 - f. Document the non-conformance, corrective actions, and preventive actions in the food safety records. The Food Safety Policy and Plan Review Form can help you to document corrective and preventive actions throughout the year.



The Food Safety Field Guide for Food Safety Managers

A Project by FamilyFarmed.org
in collaboration with
Academy for Global Citizenship,
The Chicago Botanic Garden,
and Chicago Public Schools



CHICAGO BOTANIC GARDEN

Photo: Chicago botanic Garden at Henson School



The Food Safety Field Guide is adapted from the Eat What You Grow! School Garden Food Safety Manual and the USDA Food Safety Tips for School Gardens and is a convenient food safety checklist. For detailed information, please refer to the school garden food safety manual.

Below is a list of food safety manager responsibilities:

- Delegates and documents those responsible for each food safety risk area covered.
- Ensures Garden Leaders are thoroughly trained in food safety best practices.
- Oversees Garden Leaders to ensure food safety best practices are implemented.
- Communicates with the Kitchen Managers ensuring the food safety plan is properly implemented.
- Manages all garden related food safety documents and tracks any necessary updates such as corrective actions.
- Ensures garden staff and garden participants are familiar with food safety protocols.

Getting Started

YOUR FOOD SAFETY TEAM

- Assign and document those responsible for each food safety risk area covered. Use Appendix A to document those accountable for food safety.
- Ensure Garden Leaders are thoroughly trained in food safety best practices and are implementing the food safety plan.
- Make sure Kitchen Managers and all foodservice staff have been properly trained in food safety best practices and are implementing the food safety plan.
- Manage all garden related food safety documents and track any necessary updates such as corrective actions.

FOOD SAFETY TRAINING

- Attend and successfully complete a food safety workshop or training. Food Safety Managers must attend a training conducted by the University of Illinois Agriculture Extension Service.
- Develop food safety trainings that include all the relevant risk areas.
 - Trainings include information from Health and Hygiene; The Garden; Harvesting, Post-Harvest Handling; and Foodservice Handling.
 - Trainings will be used to teach Garden Participants about food safety risks in their areas.

RECORD KEEPING

- Create a binder or file folder that houses all food safety information including all documents and your food safety plan.
- Make sure this binder is updated regularly. For CPS participants, keep documents for a minimum of four years. For questions concerning document disposal, please contact the CPS Enterprise Records Manager, 773-553-1679.

Photo: Chicago Botanic Garden





Health and Hygiene

HAND WASHING AND SIGNAGE

- Make sure proper health and hygiene signage is available to Garden Leader(s) to post on-site.
- File all health and hygiene documentation in the food safety binder or file folder.

HAND WASHING STATIONS AND TOILET FACILITIES

- Must ensure those working in the garden have access to a hand washing station and toilet facilities. If there is no access to the school's bathroom facilities, there must be an alternative hand washing station and portable toilet available.

GOOD HEALTH AND HYGIENE TRAINING

- Must ensure ALL Garden Participants are trained on Good Health and Hygiene Practices including:
 - Proper hand washing techniques
 - Procedures in the event of participant illness or injury
 - Handling of blood and bodily fluid in the garden site
 - First aid procedures and identifying first aid kit location(s)

The Garden

SITING AND SOIL

- Locate gardens away from potential contamination sources (garbage, utilities, animals, water runoff, flooding, etc.).
- All new food production gardens must use raised beds. Expansion of existing food gardens is limited to raised beds.
- Soil testing is required for all imported growing media including soils and compost. Soil sampling must be done by environmental professionals approved by CPS. Analysis of soils must be done by laboratories approved by the Illinois Environmental Protection Agency. For more information about soil testing and/or purchase, contact Chicago Public Schools Environmental Services: Lynn Crivello, CPS Environmental Services Manager: (773) 553-3113, lacrivello@cps.k12.il.us
- Record accredited laboratory soil test results in food safety files.

RAISED BEDS AND OTHER GARDEN MATERIALS

- Use non-toxic, non-leaching materials for raised-bed gardens, containers, stakes, or trellises. Do not use pressure-treated wood, used tires, single-use plastics or old railroad ties.

SOIL AMENDMENTS

- If your garden purchases soil amendments, choose a supplier that can provide documentation that details compost analysis, composition and method of treatment.
- Although composting provides an excellent learning tool for your students, compost produced on-site can ONLY be used in CPS ornamental gardens and NOT in edible gardens.
- DO NOT USE RAW MANURE as it may increase the risk of contamination from pathogens.
- DO NOT USE COMPOSTED MANURE due to increased risk of contamination from pathogens that are not completely destroyed.

ANIMALS & PEST CONTROL

- Create reasonable barriers to keep wild animals away from the garden. Examples include fencing or cages over produce items such as strawberries, leafy greens, etc. Check with your school's facility operations department before installing fences.

RISK ASSESSMENT

- A qualified resource must conduct an independent Risk Assessment based on Good Agricultural Practices to validate that food safety policies and procedures are in place. Contact the CPS School Garden Coordinator at the CPS Office of Student Health and Wellness for a list of third party risk assessment resources.

Harvesting and Post-Harvest Handling

GARDEN HARVEST

- Must ensure ALL Garden Participants and Garden Leader(s) are trained on the following harvest related food safety risks:
- Participant Health and Hygiene
- Tools and Equipment Maintenance Management
- Proper Harvest and Post-Harvest Handling
- File all harvest and post-harvest documentation in the food safety binder or file folder.

Foodservice Handling

TRAINING FOODSERVICE STAFF

- Plan what to grow with your Foodservice Manager.
- Inform foodservice staff to receive garden produce using the same process as any other incoming food product.
- File all foodservice handling documentation related to garden produce with all other food safety records.

TRACE BACK PROCEDURES

- Develop a trace back procedure.
- Use Appendix B for trace back records (Harvest Activity Log).

RECALL PROCEDURES

- Develop a recall procedure.
- Use Appendices D and E for recall records.

CORRECTIVE ACTION PROCEDURES

- For major non-conformances, document the non-conformance, corrective actions, and preventive actions in the food safety records.



The Food Safety Field Guide for Garden Leaders

A Project by FamilyFarmed.org
in collaboration with
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The Chicago Botanic Garden,
and Chicago Public Schools





The Food Safety Field Guide is adapted from the Eat What You Grow! School Garden Food Safety Manual and the USDA Food Safety Tips for School Gardens and is a convenient food safety checklist. For detailed information, please refer to your school garden food safety manual.

This Field Guide is intended for Garden Leaders. The Garden Leader is responsible for the following:

- Ensuring all garden participants are following food safety best practices.
- Completing any necessary food safety documentation (e.g., Harvest Activity Log, Illness/Injury Report Form, etc.).
- Communicating with the Food Safety Manager and the Kitchen Manager.

Getting Started

FOOD SAFETY TRAINING

- Garden leader(s) must attend and successfully complete a food safety workshop or training.

Health and Hygiene

HAND WASHING AND SIGNAGE

- Post hygiene signs where they can be clearly read.
- Assign a garden participant(s) to help maintain and replenish supplies at hand washing station(s).

PARTICIPANT HEALTH

- Do not allow anyone to work in the garden while sick, or until 48 hours after symptoms have ended, such as vomiting or diarrhea, have subsided. For illness due to Norovirus, the rule is 72 hours after symptoms have ended.
- Report any illness/injury incidents using the CPS Verify Incident Reporting System when necessary.
- Make sure first aid kit inventory is checked and restocked regularly.

GOOD HEALTH AND HYGIENE TRAINING

- Must make sure ALL Garden Participants are implementing Good Health and Hygiene Practices including:
 - Proper hand washing techniques
 - Procedures in the event of participant illness or injury
 - Handling of blood and bodily fluid in the garden site
 - First aid procedures and identifying first aid kit location(s)

The Garden

ANIMALS & PEST CONTROL

- Oversee garden harvest and make sure that produce is harvested regularly and that compost or rotting vegetables are disposed of properly.



Harvesting and Post-Harvest Handling

GARDEN HARVEST

- Make sure all harvesting containers are made of food grade materials that can be easily cleaned and are properly sanitized. Use Appendix C to keep track of harvest container cleaning activities.
- On harvest days, collect the following items:
 - Properly sanitized harvest and storage containers
 - Harvest Activity Log (Appendix C)
 - Scale (must also be sanitized)
- On harvest days, follow these procedures:
 - As a reminder, all participants must wash their hands before harvesting.
 - Harvest as early as you can in the morning.
 - Ideally, pick only dry fruits and vegetables.
 - Remove as much dirt and debris from the produce as possible in the garden site.
 - Never harvest any produce that has feces on it.
 - **HANDLE WITH CARE!** Handle the produce as little as possible making sure not to bruise or damage the produce. Punctured or bruised produce are more susceptible to harmful pathogens.
- Produce must be kept in a shaded area of the garden and cooled immediately. This will reduce heat gain from the sun.

POST-HARVEST HANDLING

- Monitor the temperature of harvested produce.
- Ensure these procedures are followed:
 - Sanitize all processing areas (e.g., sorting area, food contact surfaces, and scales) and produce storage boxes (e.g., coolers, wax boxes, or storage bins) using a foodservice approved sanitizer and preferably one that is non-toxic and environmentally safe. Cleaning these areas and items should be done on a daily basis or as necessary and should only be sanitized in the school cafeteria, NOT in the garden.
 - Containers used for harvesting should be labeled "UNWASHED." In addition, include PRODUCE NAME, HARVEST DATE, ROW/BED/or PLOT on the container label. This will help identify where the produce came from.
 - Do not use compost containers for storing produce, even temporarily.
 - Please note, at harvest and/or in the garden, produce must NOT be rinsed or washed. Produce washing should ONLY take place in the school kitchen. The foodservice staff will wash produce following the proper foodservice handling procedures.
 - You should communicate with your Foodservice Manager to make sure they approve receiving produce that may have excessive dirt such as root vegetables. If produce contains excessive dirt such as root vegetables or leafy greens, simply wipe off dirt with clean paper towels or shake off debris. Do NOT use wet rags or paper towels to wipe off produce.

STEPS TO COOLING PRODUCE

- If it is not possible to move the harvested produce to a refrigerated area within one hour of harvest, place the produce in coolers with ice
- All cooling equipment should be sanitized before storing produce.
- Before placing the cooler in refrigerated storage, the ice should be removed.
- Bacteria can grow on produce that is stored at above 40 degrees; so, all produce should be stored in refrigerators and not left out overnight. Otherwise, this produce needs to be discarded.

TRANSPORTING PRODUCE (if applicable)

- Whenever produce is shipped, record its temperature in a log.

Foodservice Handling

GARDEN PRODUCE POST-HARVEST HANDLING

- Develop an organized labeling system with the Kitchen Manager to identify garden produce.
- Make sure excess dirt is removed.



The Food Safety Field Guide for Food Service Managers

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and Chicago Public Schools





The Food Safety Field Guide is adapted from the Eat What You Grow! School Garden Food Safety Manual and the USDA Food Safety Tips for School Gardens and is a convenient food safety checklist. For detailed information, please refer to your school garden food safety manual.

Below is a list of kitchen manager responsibilities:

- Ensure all foodservice staff are implementing food safety best practices.
- Communicate with the Food Safety Manager and Garden Leader(s).
- Complete all necessary food safety documentation.
- Manage all foodservice related food safety documents and track any necessary updates.

General Requirements

FOOD SAFETY TRAINING

- Develop any necessary food safety trainings for Foodservice Staff that include all the relevant risk areas.

Health and Hygiene

GOOD HEALTH AND HYGIENE TRAINING

- Make sure ALL Foodservice Staff are implementing Good Health and Hygiene Practices including:
 - Proper hand washing techniques
 - First aid procedures and identifying first aid kit location(s)



Foodservice Handling

TRAINING FOODSERVICE STAFF

- Train Foodservice Staff on how to properly receive garden produce:
- A completed Harvest Activity Log must accompany every garden produce delivery.
 - The Kitchen Manager or trained Foodservice Staff must check that the Garden Leader or Food Safety Manager has initialed the Harvest Activity Log.
 - The Kitchen Manager or trained Foodservice Staff will receive the produce by checking the produce against the produce listed on the Harvest Activity Log and inspect the cleanliness of the product.
 - The Kitchen Manager will then initial the Harvest Activity Log.
 - The Harvest Activity Log should then be returned to the Food Safety Manager where it will be filed accordingly with all other food safety records.

WASHING GARDEN PRODUCE

- Train Foodservice Staff on how to properly wash produce.
- If possible, designate one sink as the food preparation sink. Use this sink to wash produce.

PROPER PRODUCE STORAGE

- Develop an organized labeling system to identify garden produce.
- Train Foodservice Staff to regularly clean produce storage.
- Keep a Cold Storage Temperature Log to make sure refrigerator and freezer are at food safe temperatures. Train and assign Foodservice Staff to record this information first thing in the morning and at the end of the day.
- Post Cold Storage signage to remind Foodservice Staff the critical food safety rules for cold storage.

CORRECTIVE ACTION PROCEDURES

- For major non-conformances (e.g., produce that was improperly stored), document the non-conformance, corrective actions, and preventive actions in the food safety records.



APPENDICES: Record Keeping Templates and Signage

A Project by FamilyFarmed.org
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APPENDIX A - School Garden Food Safety Checklist

Food Safety Manager is _____ phone: _____

Food Service Manager is _____ phone: _____

Garden Leader is _____ phone: _____

Soil is from _____ checked on _____

Water is from _____ checked on _____

Location of handwashing station and toilet _____

Location of first aid kit _____

General Supplies & Equipment:

- First aid kit
- Shovel
- Watering can

Harvest Supplies & Equipment (only required during harvest):

All materials touching produce need to be properly sanitized (include dates completed):

- Harvest labels
- Harvest bin
- Scale
- Scissors/harvesting knife
- Thermometer

Reference Materials

Ensure that the following logs/appendices are being utilized/reviewed:

Appendix C - Harvest Activity Log: | yes | no

Appendix H - When to Wash Your Hands: | yes | no

Appendix I - Garden Rules: | yes | no

Appendix K - Soil Amendment Log: | yes | no

APPENDIX B - Food Safety Team

Date ____/____/____

Use this form to document the names of persons responsible for food safety at your school garden. There should be at least one Food Safety Manager who oversees the entire food safety program at your garden site. There should be assigned Garden Leaders on-site who are responsible for specific duties such as Harvest Supervisors. Include their names, titles and responsibilities. If applicable, also include the name of the Kitchen Manager. This form should be filed with other food safety documents and updated as needed.

Garden Name: _____

Garden Address: _____
Street Address City State Zip

Food Safety Manager: _____
Name Phone E-Mail

Garden Leader: _____
Name Title Phone or E-mail

Responsibilities (For example: Harvest Supervisor): _____

Garden Leader: _____
Name Title Phone or E-mail

Responsibilities (For example: Harvest Supervisor): _____

Kitchen Manager: _____
Name Phone E-Mail

APPENDIX C - Harvest Activity Log CONTINUED

Date	Garden Participant Name	Participant Properly Washed Hands	Participant Properly Cleaned Garden/Harvest Tools
		YES / NO	YES / NO
		YES / NO	YES / NO
		YES / NO	YES / NO
		YES / NO	YES / NO
		YES / NO	YES / NO
		YES / NO	YES / NO
		YES / NO	YES / NO
		YES / NO	YES / NO
		YES / NO	YES / NO
		YES / NO	YES / NO
		YES / NO	YES / NO
		YES / NO	YES / NO

Food Safety Manager: _____ Date: _____

Print

Signature

APPENDIX D - Garden Food Safety Training Log

Training Topic(s): _____

Date/Training Time: _____

Trainer: _____

Training Material (Please attach any written materials to this log with a staple.)

FULL NAME of those present for training (please print)

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

APPENDIX E – Food Safety Plan Review

The table below can be used to review your food safety program. It can be used to track non-conformances and corrections made for each risk area. It is recommended the Food Safety Manager review the policy and program annually.

	Reviewed (4)	Date Completed	COMMENTS (Non-Conformances, Corrections, etc.)
General Requirements			
Health and Hygiene			
The Garden			
Harvesting and Post-Harvesting			

Food Safety Manager: _____ Date: _____

Print

Signature

APPENDIX G – Follow-Up Plan Form

1. Why was there a recall? (e.g., What was the source of the problem?)

2. What corrective action(s) was/were taken? (List and describe)

3. What ongoing procedures did you put in place to prevent the recurrence of the problem?

4. Identify the person(s) responsible for ensuring the above actions and procedures are monitored and implemented.

Food Safety Manager: _____
Print Signature

Date: _____

APPENDIX H

WHEN to Wash Your Hands

- **BEFORE** working in the garden.
- **BEFORE** putting on gloves, and then again when changing them.
- **BEFORE** handling cleaning chemicals.
- **BEFORE** cleaning and sanitizing tools.
- **AFTER** working in the garden.
- **AFTER** handling cleaning chemicals.
- **AFTER** eating, drinking, or smoking.
- **AFTER** taking a break.
- **AFTER** using the restroom.
- **AFTER** sneezing, coughing, blowing your nose, or using a tissue or handkerchief.
- **AFTER** touching your hair, face, body, or clothing.
- **AFTER** handling garbage.
- **AFTER** touching an open sore, cut, boil, or pimple.

**EVEN HEROES HAVE TO
WASH THEIR HANDS.**



Illustration by Marcelina Suchocka, William H. Taft School - Academic Center

APPENDIX I

GARDEN RULES!

Food Safety is IMPORTANT!
Read this before entering GARDEN:

- ALL Garden Participants must properly wash their hands before and after working in the garden.
- Garden participants MUST notify the garden leader (or other person in charge) if they have any of the following symptoms or conditions. In these instances, participants will NOT handle fresh produce:
 - They have been diagnosed or were recently ill with a foodborne illness
 - They have any of the following symptoms:
 - Diarrhea
 - Fever
 - Vomiting
 - Jaundice (a yellowing of your skin and eyes)
 - Sore throat with fever
 - Persistent sneezing, coughing, or a runny nose
 - They have a boil, or an infected sore or cut that is open or draining on your hands, wrists, or the exposed areas of your arms
 - They are suspected of causing or being exposed to a foodborne illness outbreak
 - They live with a person diagnosed with a foodborne illness, or a person who attends or works where there is a foodborne illness outbreak
- **PLEASE, NO pets in the garden.** This will help reduce animal droppings on produce.
- If blood or bodily fluid ever comes in contact with the soil or produce, it must be immediately reported by whoever finds the contamination.

APPENDIX J – First Aid Kit Inventory

Use this form to manage first aid kits. A first aid kit must be located at the garden site. Refer to www.redcross.org for recommended First Aid Kit items.

Quantity	Item Description	Checked and/or Restocked	Initials
25 or 1 box	Adhesive Bandages (assorted sizes)		
1	Adhesive Cloth Tape (10 yards x 1 inch)		
12	Antibiotic Ointment Packets		
12	Antiseptic Wipe Packets		
1 box	NonLatex Gloves		
12	Hydrocortison Ointment Packets		
1 roll	Roller Bandage (3 or 4 inches wide)		
12	Sterile Gauze Pads (3 x 3 inches wide)		
1	Scissors		
1	Tweezers		
1	Breathing Barrier with One-Way Valve		
1 bottle	Aspirin		

First Aid Kit Location _____

Food Safety Manager: _____ Date: _____

Print

Signature

APPENDIX K- Soil Test Results Example



GREAT LAKES ANALYTICAL
Environmental Design International, Inc.
200 S. Michigan Ave., Suite 700
Chicago IL, 60604

1260 Birch Parkway
Buffalo Grove, Illinois 60089

Project: 1100.071
Project Number: 051300 0118
Project Manager:

Email: info@glalabs.com
(847) 808-7700 FAX (847) 808-7772

Reported: 05/20/09 17:19

General Chemistry

Great Lakes Analytical--Buffalo Grove

Analyte	Result	Sampling	Units	Dilution	Batch	Proposed	Analytical	Method	Make
CS-1 (B060146-41) Soil	39.25	051300	ppm	1	391204	051403	051403	EPA 821-C	
pH	6.91		pH Units	1	391204	051403	051403	EPA 821-C	
CS-2 (B060146-42) Soil	41.47	051300	ppm	1	391204	051403	051403	EPA 821-C	
pH	7.15		pH Units	1	391204	051403	051403	EPA 821-C	

Great Lakes Analytical--Buffalo Grove

Andy Johnson

Andy Johnson, Project Manager

The results in this report apply to the samples analyzed in accordance with the values of methods referenced. This analytical report may be reproduced in its entirety.

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GREAT LAKES ANALYTICAL
Environmental Design International, Inc.
200 S. Michigan Ave., Suite 700
Chicago IL, 60604

1260 Birch Parkway
Buffalo Grove, Illinois 60089

Project: 1100.071
Project Number: 051300 0118
Project Manager:

Email: info@glalabs.com
(847) 808-7700 FAX (847) 808-7772

Reported: 05/20/09 17:19

Total Metals by EPA 6008/7090 Series Methods

Great Lakes Analytical--Buffalo Grove

Analyte	Result	Sampling	Units	Dilution	Batch	Proposed	Analytical	Method	Make
CS-1 (B060146-41) Soil	16.39	051300	ppm	1	391204	051403	051403	EPA 821-C	
Mercury	ND		ppm	1	391204	051403	051403	EPA 821-C	
Arsenic	ND		ppm	1	391204	051403	051403	EPA 821-C	
Berium	ND		ppm	1	391204	051403	051403	EPA 821-C	
Cadmium	ND		ppm	1	391204	051403	051403	EPA 821-C	
Chromium	8.38		ppm	1	391204	051403	051403	EPA 821-C	
Lead	44.1		ppm	1	391204	051403	051403	EPA 821-C	
Selenium	ND		ppm	1	391204	051403	051403	EPA 821-C	
Silver	ND		ppm	1	391204	051403	051403	EPA 821-C	
CS-2 (B060146-42) Soil	11.42	051300	ppm	1	391204	051403	051403	EPA 821-C	
Mercury	1.23		ppm	1	391204	051403	051403	EPA 821-C	
Arsenic	10.8		ppm	1	391204	051403	051403	EPA 821-C	
Berium	498		ppm	1	391204	051403	051403	EPA 821-C	
Cadmium	2.46		ppm	1	391204	051403	051403	EPA 821-C	
Chromium	12.2		ppm	1	391204	051403	051403	EPA 821-C	
Lead	1268		ppm	1	391204	051403	051403	EPA 821-C	
Selenium	ND		ppm	1	391204	051403	051403	EPA 821-C	
Silver	ND		ppm	1	391204	051403	051403	EPA 821-C	

Great Lakes Analytical--Buffalo Grove

Andy Johnson

Andy Johnson, Project Manager

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APPENDIX L - Soil Amendment Log

Use this form to record soil amendments used (e.g., commercial compost, commercially composted manure and fertilizers). All soil amendments must be produced and applied in accordance with applicable federal, state, and local regulations. You should have documentation that verifies that soil amendments have been treated to adequately minimize pathogen risk. Documentation can be a letter of guarantee, a certificate of analysis (COA), or test results such as a compost time and temperature log. Keep this documentation with your food safety records. It is not necessary to record each application, only the types of soil amendments used.

Soil Amendment Used	Name of Soil Amendment Supplier(s)	Do you have documentation that your soil amendments are produced in accordance with applicable federal, state, and local regulations?

Food Safety Manager: _____ Date: _____

Print

Signature

Crop Profiles of Common Garden Produce

This guide includes recommended harvesting methods, harvesting tips, storage and transportation required temperatures. This list is not comprehensive, but includes common fruits and vegetables grown in school gardens

	Harvest Methods and Conditions	Storage & Transport (Cooling Temperature in Fahrenheit)
FRUITS		
Apples	Avoid bruised or unripe fruit; Pick when ripe. Twist apples to harvest. Should come off of tree easily when ripe.	Cool at 32-40 degrees depending on variety, cool as quickly as possible; store in cooler in crate, isolate if possible to avoid ethylene exposure to other vegetables.
Beans (green and snap varieties)	Avoid breaking stem off fruit; Harvest before they are large and tough.	45 degrees; in cooler in covered container.
Big Tomatoes	Pick fruit that is firm and without signs fruit gently to avoid bruising, break stem of injuries, shriveling, or decay. Grasp off to avoid puncturing.	60-70 degrees; do not store in cooler; line crate with newspaper; stack stem-side down and in single layer to avoid bruising.
Cherry Tomatoes	Avoid harvesting split fruit.	60-70 degrees; do not store in cooler. Use small containers to avoid crushing or splitting the fruits.
Cucumber	Avoid breaking stem off fruit; harvest before they are large or when fruit is overripe (skin starts yellowing and seeds are large and hard).	50-55 degrees; avoid damaging fruit; store in cooler in covered container.
Eggplant	Harvest fruit when shiny and firm, but not rock hard; avoid breaking stem off fruit; If eggplant is pithy or bitter, it is over mature.	46-55 degrees; store in cooler in covered container; extended exposure to dry air will cause fruit to soften.
Peas	Avoid breaking stem off fruit; harvest before they are large.	32 degrees, store in cooler.
Peppers (Hot and Sweet)	Avoid breaking stem off fruit; Peppers that are shriveled should be avoided.	45-50 degrees; store in cooler in covered container.
Cantaloupe	Cantaloupe is ready when fruit easily slips off of the vine; Also ready when color changes from green to yellow in rind and the fruit is fragrant in smell; avoid breaking stem off fruit.	36-41 degrees; store in cooler in covered container to avoid ethylene exposure to vegetables.
Watermelon	Harvest when vine tendril has dried on the melon; there is a bright yellow spot on bottom of melon; and a resonant thud or thump is made when tapped.	50-60 degrees; store in cooler in covered container to avoid ethylene exposure to vegetables.
Okra	Harvest when fruit is 2-5" long and before they are large and woody.	45-50 degrees; store in cooler in covered container.
Pears	Pick when firm and seeds are black or brown; texture should be somewhat soft and juicy.	32 degrees; store in covered container to avoid ethylene exposure to vegetables.

	Harvest Methods and Conditions	Storage & Transport (Cooling Temperature in Fahrenheit)
FRUITS		
Grapes	Harvest when fully colored and sweet; avoid harvesting fruits that are cracked or sun scalded.	32 degrees; store in covered container to avoid ethylene exposure to vegetables.
Summer Squash/ Zucchini	Avoid breaking stem off fruit. Harvest when shiny and before they are and overgrown; zucchini, yellow squash, crookneck varieties should be 5-7"; patty pan should be 3-4" in diameter; remove blossom if still attached.	41-50 degrees; store in cooler in covered container; avoid scratching.
Winter Squash	Harvest when rind is hard and solid external color; cut with pruning clippers and leave a short stem.	50-55 degrees; Can be sold immediately without curing, or can be cured for longer storage. To cure, place in a warm, ventilated, dry area for 8-10 days.
Corn	Harvest when kernels are sweet, plump, well developed and uniform in size.	32 degrees; The faster corn is cooled, the better it will hold sweetness.
ROOTS & BULBS		
Beets	Avoid breaking stems and leaves; remove leaves if stored for long periods of time.	32 degrees; store in cooler in covered container.
Carrots	Avoid breaking stems and leaves; remove tops if stored for long periods of time.	32 degrees; store in cooler in covered container.
Celery	Harvest when tender, light green, and crisp; avoid breaking stems and leaves.	32 degrees; store in cooler in covered container.
Fennel	Harvest when uniform in color and crispy; avoid breaking stems and leaves.	32 degrees; store in cooler in covered container.
Garlic	Use trowel to avoid breaking the bulb from the stem; Don't damage bulb with trowel.	32 degrees; store in cooler if uncured. Cooling is not necessary if cured. Cure in bundles of 10-12 in a warm ventilated environment for 10 days.
Leeks	Use trowel to avoid breaking the bulb from the stem; Don't damage bulb with trowel.	32 degrees; store in cooler in covered tote.
Onions	Harvest when tops begin to dry naturally; Use trowel to avoid breaking the bulb from the stem; Don't damage bulb with trowel.	32 degrees; store in cooler if green and uncured. To cure: knock down tops and let sit in field for 3-5 days(as long as it doesn't rain). Then put onions in a warm, ventilated place for 2-3 weeks to finish curing. Tops should be cut to 1-2" after curing.
Potatoes	Harvest when plant yellows and starts to die and potatoes are fully sized; Use pitchfork to harvest; avoid hitting potatoes with fork.	40-60 degrees; store in cooler
Radishes	Avoid breaking stems and leaves.	32 degrees; store in cooler in covered tote.
Turnips	Avoid breaking stems and leaves.	32 degrees; store in cooler in covered tote.

	Harvest Methods and Conditions	Storage & Transport (Cooling Temperature in Fahrenheit)
HERBS		
Basil	Use clippers to cut upper branches to encourage bushiness and side growth; try to harvest before flowering.	55 degrees; do not store in cooler as leaves may blacken.
Cilantro	Cut 4-6" stems and bunch with rubber band or twist tie; harvest before plant goes to seed.	35 degrees; store in cooler, set upright in ½" water in a bucket.
Dill	Cut 4-6" stems and bunch with rubber band or twist tie; harvest before plant goes to seed.	40-45 degrees; store in cooler, set upright in ½" water in a bucket.
Parsley	Cut 4-6" stems and bunch with rubber band or twist tie.	40-45 degrees; store in cooler, set upright in ½" water in a bucket.
BRASSICAS		
Broccoli	Harvest when head is firm, dark blue or green, and 4-6" in diameter; harvest before buds start to flower; cut main stalk with knife.	32 degrees; store in cooler.
Cauliflower	Harvest when head is white to cream in color, firm, and compact; cut main stalk with knife.	32 degrees; store in cooler.
Brussel Sprouts	Harvest when sprouts are 1-2" in diameter; Pinch off the top of the plant when lower sprouts are ½" in diameter to allow better sprout growth.	32 degrees; store in cooler.
Cabbage	Cut main head with knife. The cabbage should feel very firm and the cabbage head's leaves should be tight.	
Kohlrabi	Cut the bulb from the root; avoid harvesting mature kohlrabi as it can be tough and woody; remove leaves from bulb.	32 degrees; store in cooler.
Greens (Chard, Collards, Kale, Asian, Mustard)	Harvest only the bottom outside leaves; Don't cut new growth; avoid harvesting old and yellow leaves.	32 degrees; store in cooler.
LETTUCE AND MIXES		
Cutting Greens and Leaf Lettuce	Use knife to cut lettuce leaves; Cut section evenly leaving at least 2-3" at the base for new growth. Harvest as early in morning as possible.	32 degrees; store in cooler.
Head Lettuce	Use knife to cut off at roots; pull off yellow or damaged leaves; harvest as early in the morning as possible.	32 degrees; store in cooler.
Spinach	Use knife to cut large outside leaves; Don't cut new growth; harvest as early in the morning as possible; avoid harvesting yellow or damaged leaves.	32 degrees; store in cooler.

CONTACTS

For more information about the Eat What You Grow Program:

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Food Safety Program Assistant
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