

COMMUNITY GARDEN MANUAL



The City of Savannah recognizes community gardens as valuable recreational and educational activities that can contribute to health, community development, environmental awareness, positive social interaction, and community education.



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Community Garden Manual

Introduction

The City of Savannah recognizes community gardens as valuable recreational and educational spaces that can improve physical and mental well-being; provide environmental education and awareness; and create opportunities for community development and sustainable food systems. As such, the City established the Community Garden Policy & User Agreement in 2011 to allow community groups to utilize vacant City-owned properties for gardening purposes and to support local efforts to establish community gardens in all forms.

The City of Savannah Community Garden Policy & User Agreement and this manual make a distinction between community gardens and urban farms. A community garden is defined as a single piece of land gardened collectively by way of designated plots, where each plot is cared for by an individual or shared by a group of people to grow vegetables, fruits, and flowers for personal use and for donation. Urban farms operate as a business for profit and grow the items listed above for sale.

The intention of this manual is to provide a foundation for individuals and organizations interested in starting a community garden in Savannah, regardless of whether it is on a City-owned lot or a privately owned lot. While much of the information included applies to either, be sure to pay attention to the requirements outlined in the City's Policy & User Agreement if you are pursuing a garden on a city lot. This document can be found on the City's Office of Sustainability's website. More complete gardening guides can be found from national organizations.

While starting a community garden is a considerable undertaking, there are multiple pathways to begin. Many community gardens successfully emerge informally and evolve into the structured organizations described in this manual. It is a good idea to begin with a clear understanding of what a community garden can look like.

Some sections of this manual were taken or adapted from the Atlanta Regional Commission's "Community Gardening Manual" and The Food Project's "Do-It-Yourself Raised Bed Building Manual."

Thank you to all the organizations doing work in Savannah to promote community gardens, healthy food access, and sustainable food systems, and to the Savannah Urban Garden Alliance and the Savannah Chatham Food Policy Council for their help in developing this manual.

Benefits of Community Gardens

The benefits of community gardens can be seen in virtually all aspects of our community, and include:

- ✚ Improving quality of life for those who utilize and/or live near the garden
- ✚ Creating space for neighbors to congregate and encourages community development
- ✚ Inspiring self-reliance
- ✚ Utilizing undeveloped urban lots
- ✚ Beautifying neighborhoods
- ✚ Producing nutritious food
- ✚ Introducing residents, particularly children, to a variety of fruits and vegetables
- ✚ Promoting healthy eating choices
- ✚ Reducing household food budgets
- ✚ Providing opportunities for residents to be outside and active
- ✚ Conserving natural resources
- ✚ Creating opportunities for recreation, exercise, therapy, and education
- ✚ Reducing crime by converting empty lots
- ✚ Preserving green space
- ✚ Reducing city heat (heat island effect) from streets and parking lots
- ✚ Reducing stormwater runoff and associated pollution
- ✚ Providing opportunities for intergenerational and cross-cultural connections

City of Savannah Community Garden Policy & User Agreement

If you are looking to start a community garden on a city-owned lot, it is required that you read through and sign our City Community Garden Policy & User Agreement. This is to ensure that you understand definitions, responsibilities and guidelines when using a city lot. Our City Community Garden Policy & User Agreement can be found on our website, or by calling the Office of Sustainability staff contact.

Starting a Community Garden?

Planning & Administrative Considerations

The first step towards starting a community garden must be to determine community interest. In determining the need or desire for a garden in the community, you will answer important questions about what kind of garden is best suited, who the garden will serve, and if the project is meant to benefit a particular group. Answering these questions may also help in choosing a site for the garden. Reach out to established community groups in the area such as neighborhood associations, churches, schools and service organizations.

Form a Planning Committee

1. Organize a meeting or social gathering of interested people
2. Choose a well-organized leadership team
 - a. Consider who will manage the administrative tasks tied to the gardens (ex. assigning lots or shared spaces, collecting fees if applicable, etc.)
3. Make a list of what needs to be done and who will complete those tasks
4. Draft a preliminary budget for building the garden and for maintaining it
5. Decide on a mailing address and central telephone number(s). Try to have at least 3 people who are very familiar with all pertinent information. Form a communication system, either phone or electronic.
6. Find a garden site (see *Choose a Site*)
7. Form committees to accomplish tasks: Funding & Resource Development, Youth Activities, Construction, Communication, and Community Outreach
8. Consider approaching a sponsor—an individual, organization, or business that contributes land, tools, seeds, fencing, soil improvements, or money
9. When your community garden has a budget, keep administration in the hands of several people
10. Choose a name for the garden
11. Agree on an approach to growing, such as chemical free or organic
12. Agree on how space will be divided – will the garden consist entirely of individual plots, or will there be some shared space?

Identify All Your Resources

Do a community asset assessment. What skills and resources already exist in the community that can aid in the garden's creation? Start with the skills of your planning committee, then look at what businesses, schools, senior centers, community groups, neighborhood associations, and churches are in the neighborhood.

These groups will be valuable resources in building community support and partnerships. Consider reaching out to groups like the Savannah Urban Garden Alliance or UGA Extension Service to connect with other community gardens, learn about gardening classes or workshops, and find out about funding opportunities.

Choose a Site

Community gardens can be sited on privately- or publicly-owned land. The City of Savannah Community Garden Policy allows residents to start gardens on vacant, City-owned lots. While you may look at both privately and publicly owned lots, there are different considerations for each.

For city-owned lots:

- ↓ Visit the City of Savannah's Office of Sustainability's website to look through the Community Gardens Map and contact staff using the phone number or email address listed. Ask for a map of vacant, city-owned lots that may be available to start a
- ↓ community garden in your neighborhood
- Once you have potential sites, consider which site might be best suited for your needs
- ↓ (ex. ensuring there is 6 hours of sunlight in an area if growing vegetables)
- ↓ Consider the availability of water
- ↓ Consider whether you will need insurance
- ↓ Consider any needs to install landscaping such as screening
- Consider the need for fencing if theft and vandalism are concerns in the area

For privately-owned lots:

- ↓ Consider which site might be best suited for your needs (ex. ensuring there is 6 hours of sunlight in an area if growing vegetables)
- ↓ Determine the owner of the land
- ↓ Consider getting a soil test for nutrients and heavy metals. This will help you decide whether growing in raised beds or in-ground planting is better suited for your site and needs
- ↓ Consider past land use. Contact the Chatham County Health Department, City of Savannah Property Maintenance and Georgia Environmental Protection Division
- ↓ about past land use that may inform you of contamination or potential soil or
- ↓ drainage problems early on
- ↓ Consider the availability of water
- ↓ Obtain a lease agreement that allows the space to be used for at least three years
- ↓ Consider whether you will need insurance
- ↓ Consider the need for fencing if theft and vandalism are concerns in the area

Develop a Design

If you are starting a community garden under the City's program, you will be required to submit a garden design as part of your application. Even if your garden will be on private land, developing a garden design before you break ground is an important step in planning. Be sure to obtain accurate measurements of your lot, including any required

zoning setback from property lines, then work with your internal planning committee to identify what features should be included in the garden. When planning your design be mindful of tree cover and adjacent buildings that may leave part of the lot in shade for significant parts of the day.

You may want to develop two garden designs— one that reflects your initial construction, and one that accounts for possible expansion. Because building raised beds and filling them with soil can be costly, it is a good idea to begin with a number of beds you are sure there is interest for, with the option to expand in the future. Developing a plan for expansion early on will help use your space more efficiently.

1. Develop a site plan: many community gardens have individual plots for members ranging in size from 4'x8' to 10'x10', some include shared growing area for larger crops like corn and okra, and some are made up entirely of shared growing areas. Consider the following:
 - a. Will all plots be the same size? If not, how will plots be assigned?
 - b. How should the plots be laid out?
 - c. Will there be a children's plot?
 - d. Will there be decorative flower plots?
2. Gather your resources—try to get free building materials. Some businesses will donate supplies or offer discounts to non-profit organizations. Also consider reclaimed or recycled materials.
 - a. See Garden Resources section for places to find recycled building materials
 - b. Broken concrete or asphalt, cinderblocks, and bricks can be used to build raised beds
3. Consider an area for storage of tools and equipment and a rainproof bulletin board for announcing garden events and messages. Because storage sheds are not permitted under the City program, you should arrange for communal tools to be stored nearby and for gardeners to bring their own tools when they come to work in the garden.

Garden Organization

Building the structure of your garden organization is just as important as building the garden itself. Many garden groups are organized very informally and operate successfully. Leaders “rise to the occasion” to propose ideas and carry out tasks. However, as the workload expands, many groups choose a more formal structure for their organization. Structuring your garden organization from the start can help ensure its initial success, its ability to sustain even as there is turnover in members, and its ability to attract outside funding.

A structured program is a means to an end. It is a conscious, planned effort to create a system so that each person can participate fully, and the group can perform effectively. It is vital that the leadership be responsive to the members. Structure will help an organization to last; it will promote trust; it will help your group and create new opportunities for leaders to develop.

You should consider the structure of your garden organization in the planning process with input from interested gardeners and community members. Have several planning to discuss your program and organization. Try out suggestions raised at these meetings, and after a few months of operation, you may be in a better position to develop or amend bylaws or organizational guidelines.

The garden organization can range from federal tax-exempt status 501(C)(3), to state incorporated non-profit status, to an unincorporated group. Regardless of whether your organization is incorporated, you should consider bylaws, and at the very least develop rules and guidelines and a users' agreement.

****Note: Please share all documentation with city staff, particularly if working as a 501(C)(3) or state incorporated non-profit status group.***

Things to Consider

Generally:

- ↓ What is the purpose of the garden? What are your short- and long-term goals?
- ↓ How are decisions to be made? Who chooses leaders and how?
- ↓ How will organizational work be shared? Who does what?
- ↓ How will you raise money? Membership dues, fundraising, grants, sponsors?
- ↓ Are you open to change? Flexibility is important when goals and members change. Do you want to be incorporated or act as a club?
- ↓ Are there conditions for membership (residence, dues, agreement with rules)?

More specifically to your garden organization:

- ↓ How will plots be assigned (by family size, by residency, by need, by group i.e. youth, elderly, etc.)?
- ↓ If the group charges dues, how will the money be used? What services, if any, will be provided to gardeners in return?
- ↓ Will the group do certain things cooperatively (such as turning in soil in the spring, planting cover crops, or composting)?
- ↓ When someone leaves a plot, how will the next gardener be chosen?
- ↓ How will the group deal with possible vandalism?
- ↓ Will the gardeners meet regularly? If so, how often and for what purposes?
- ↓ How will minimum maintenance (especially weeding) be handled both inside plots and in common areas (such as fences, in flower beds, and in sitting areas)?

Insurance

You should consider whether your garden organization will obtain insurance. It is becoming increasingly difficult to obtain leases from landowners without obtaining liability insurance. While the City of Savannah Community Garden Policy does not require the qualifying entity to have liability insurance in order to utilize City-owned property for community gardening, the City encourages the qualifying entity to pursue waivers and/or

insurance to provide adequate protection from liability involving individual plot farmers. Garden insurance is a new thing for many insurance carriers and their underwriters are reluctant to cover community gardens. It helps if you know what you want before you start talking to agents.

Bylaws

Formal bylaws include:

- ↓ Full official name of organization and legal address
- ↓ The purpose, goals, and philosophy of the organization
- ↓ Membership categories and eligibility requirements
- ↓ When and who often regular or special meetings of the membership are to be held, as well as regular and annual meetings of the board of directors
- ↓ What officers are necessary for the group, how they are chosen, length of term, their duties and how vacancies are filled
- ↓ Identification of special committees, their purpose and how they operate
- ↓ Process for rescinding or amending bylaws (this is generally made by simple majority)
- ↓ Any official policies or practices; e.g. garden group will avoid the use of hazardous substances; group will agree to keep all adjacent sidewalks in good repair; group will make all repairs necessary to keep equipment, fences and furniture in good order and repair.
- ↓ If the garden is on private property, the bylaws may include a hold harmless clause for the property owner: Sample—"We the undersigned members of the (name) garden group hereby agree to hold harmless (name owner) from and against any damage, loss, liability, claim, demand, suit, cost and expense directly or indirectly resulting from, arising out of or in connection with the use of the (name) garden by the garden group, its successors, assigns, employees, agents and invites."

Sample Guidelines & Rules

- ↓ I will pay \$ __ to help cover garden expenses
- ↓ I will have something planted in the garden by (date) and keep it planted all summer/season/year long.
- ↓ If I must abandon my plot for any reason, I will notify the garden leaders.
- ↓ I will keep weeds down and maintain the areas immediately surrounding my plot, if any.
- ↓ If my plot becomes unkempt, I understand I will be given 1 weeks' notice to clean it up. At that time, it will be reassigned or tilled in.
I will keep trash and litter cleaned from the plot, as well as from adjacent pathways and fences.
- ↓ I will participate in the fall cleanup of the garden.
- ↓ I will plant tall crops only where they will not shade neighbors' plots.
- ↓ I will pick only my own crops unless given permission by another plot user.
- ↓ I will not use fertilizers, insecticides or weed repellents that will in any way affect other plots.

- ✿ I agree to volunteer hours toward community gardening efforts (include a list of volunteer tasks which your garden needs)
- ✿ I will not bring pets into the garden
- ✿ I understand that neither the garden group nor the owners of the land are responsible for my actions. I therefore agree to hold harmless the garden group and owners of the land for any liability, damage, loss of claim that occurs in connection with the use of the garden by me or any of my guests.

To see an example of guidelines and rules from an established Savannah community garden, visit the Skidaway Farms website.

Meetings

Many community gardens hold member meetings monthly or every other month. These meetings will help maintain a sense of community with your group and will be crucial in keeping the garden running smoothly. How formal these meetings should be is entirely up to your group—they can have a set agenda, can include a potluck dinner, or can take place on garden workdays. Some important things that can be addressed during the meetings include:

- ✿ How garden tasks are being divided
- ✿ Updates about financial and/or other administrative matters
- ✿ Concerns or issues that arise at the garden
- ✿ Plans for the future of the garden (short- and long-term)

Garden Leadership

The garden leadership team should develop a plan to address any conflicts and/or complaints that may arise over time. The plan should include a committee to consider and respond to conflicts or complaints received from outside individuals and groups, as well as any conflicts or complaints received or involving garden group members.

Your garden group may choose to elect its leaders. This can be done every year, or every two years, and will help ensure that responsibilities are divided equally, and that there is some accountability for them.

Leadership roles may include:

- ✿ President – Sets up all meetings of the community garden group, especially the regular monthly meeting. The president is a good listener and does not try to take over the meeting. He or she knows how to run a meeting efficiently and how to deal with conflict appropriately. The president helps make decisions when it is not possible for the whole group to make them.
- ✿ Vice President – Takes the president’s place when he or she is unable to attend a meeting. The vice president is responsible for reminding everyone when and where the next meeting is to be held. He or she makes phone calls, mails postcards, or

distributes flyers to all gardeners as meeting reminders. The vice president also packs up the president with information and advice to help them make decisions.

- ⬇ Secretary – Occupies one of the most important positions because he or she keeps records of all the group’s business, writes and reads minutes at each meetings, and handles all correspondence for the group (thank you letters, donation requests, etc.)
- ⬇ Treasurer – You may not need this position if you do not charge dues. It can also be combined with the secretary position. The treasurer should be someone people trust and who is responsible with money he or she collects and keeps records of dues at each meeting, reports how dues were spent, keeps track of what the current balance is, and handles donations the group might receive
- ⬇ Garden Manager – Oversees the garden itself, making sure gardeners have what they need and are keeping up with their garden as they agreed to do. The garden manager should be someone who has a fair amount of gardening experience. He or she does not take care of individuals’ gardens

Conflict and Complaint Resolution

The garden leadership team should develop a plan to address any conflicts and/or complaints that may arise over time. The plan should include a committee to consider and respond to conflicts or complaints received from outside individuals and groups, as well as any conflicts or complaints received or involving garden group members.

The Gardener of Record is responsible for all aspects of garden operations, including the resolution of conflicts and /or complaints involving the garden. If the Gardener of Record is unable to resolve conflicts and/or complaints, the City may get involved in mediating a resolution or enforcing the resolution of a non-compliance or code violation issue. The City reserves the right, in its sole discretion, to terminate and revoke garden agreements in situations where conflicts and/or complaints cannot be satisfactorily resolved.

Prepare & Develop a Site

If you are starting a community garden under the City of Savannah Community Garden Policy, be sure to pay special attention to the site design and construction requirements for the program outlined in the Policy & User Agreement listed on our website.

General Preparation

- ↓ Clean the space: in an urban environment, pay special attention to broken glass and old nails.
- ↓ Contact Dig Safe (<https://georgia811.com/the-811-process/> or by calling 811) to locate any buried utility lines before breaking ground.
- ↓ Organize volunteer work crews to help with the initial construction of the garden. School groups, church organizations, Boy Scout and Girl Scout troops, and university organizations are always looking for service projects.
- ↓ Depending on your site, you may or may not already have access to a water source for irrigation. To find out about having a water account set up in the City of Savannah, contact www.savannahutility.com and in Chatham County, contact the area's water utility. You may also consider entering into an agreement with a neighboring homeowner to use their water for a fee.

Requesting Supplies

The City of Savannah can provide some financial aid to start a new garden and/or to provide supplies for existing gardens including:

- ↓ Planting containers
- ↓ Mulch/soil
- ↓ Seeds
- ↓ Gardening tools
- ↓ Rental equipment

To submit a request for supplies, please fill out the Supply Request Form on our website. If you require supplies or materials that not listed above, you may still submit a request and a staff member will contact you for more information.

Building Raised Beds

Gardening in raised beds can have many benefits. If you are starting a community garden under the City of Savannah Community Garden Policy, raised beds are required. However, you should consider raised beds even if you are not growing on a city lot. Growing food in an urban, industrial, or formally industrial environment can have added concerns about soil contamination. Using raised beds with healthy soil brought from offsite will not only ensure the safety of your soil but will likely require less compost and fertilizers than Savannah's naturally sandy soil.

Once you begin growing, you will find that raised beds maintain better soil moisture, reduce soil compaction, fewer weeds, warmer soil early in the season, and less soil erosion.

Raised beds can be constructed from wood, cinder blocks, stones, or even metal sheeting. To keep costs down for your garden, try to find these materials second hand. Wooden raised beds are the most common, and will be explained here, but a simple Google search will provide instructions for building beds with other materials.



Wood raised bed



Cinderblock raised bed



Brick raised bed

Before Building:

- ↓ Bare soil around the outside perimeter of the bed should be avoided, especially if you are concerned about contaminated soil. Create ground cover around the bed to maintain healthy soil within the bed: landscaping cloth, woodchips, crushed stone, straw or pine straw, or even a thick layer of compost. This cover will also help keep grass from growing up into your bed.
- ↓ Leveling the area with a shovel or rake will make it easier to build the bed frame. When the entire frame is flush to the ground there will be less soil loss and fewer weeds will grow up into the bed.
- ↓ Make sure there is nothing blocking sunlight to the bed area.
- ↓ Decide on the height of the frame: 6" is the minimum for most crops while 10-12" will allow for some root crops such as carrots, radishes, and beets. Consider having a few tall frames (2-3') for handicap access or for growing potatoes.

How to Build a Frame:

The measurements below are for a 4x8' wooden frame that is 10" deep.

Materials:

- ↓ 3 pieces of 2"x10"x8' wood, 1 piece cut in half into 2"x10"x4' pieces. Common types of wood used are untreated pine, which is the cheapest option, spruce, redwood, or cedar.

- ↓ For attaching corners, you can use
- Z-max brackets
 - Scrap wood (such as 2"x4" pieces cut into 8 or 9-inch lengths) and 3" screws. Align each 2x4 piece of wood onto the ends of the 4' boards. Drill about 5 screws into place. Then hold an 8' board so its end is flush with the 4' board, and insert screws (from the outside of the frame) through the 8' board into the 2x4 piece and into the end of the 4' board. Pay attention to where the screws are line up to avoid screws running into each other. Repeat on all corners.

Consider putting a water permeable membrane, such as landscaping fabric, in the bottom of the frame—it will help keep out weeds and will prevent mixing of the soil brought in with the soil already there. This is required under the City of Savannah Community Gardens Policy.

Soil

Some experts recommend a 1/3 compost, 1/3 peat moss, and 1/3 vermiculite or perlite for growing in raised beds, but this soil mixture can be cost prohibitive for most community gardens. A 1/2 compost and 1/2 loam or fine sand mixture can also be used, as can compost-loam mixtures with a higher percentage of compost. When choosing your soil, you should consider the organic material content, which will control how much nutrients the soil has, how long it will stay moist, and how compacted it will become.

The 4'x8'x10" bed outlined above will require about 1 cubic yard of soil. A soil calculator can be found by searching for "[Gardener's Supply Company Garden Soil Calculator](#)" for soil required for other sized beds.

Growing a Community Garden

What to Do and When to Do It

This section is meant to be a starting place for new gardeners, not a schedule to be strictly adhered to. Gardening is all about learning as you go and figuring out what works for you and for your garden! Look for books such as Month-by-Month Gardening in Georgia by Walter Reeves and Erica Glasener for a complete guide on gardening schedules.

JANUARY

- ↓ Take soil samples, if you have not already done so, to determine what nutrients need to be added to your soil
- ↓ Apply and soil amendments you may need
- ↓ Add compost or manure to soil and till it under to improve the soil structure
- ↓ Gather tools and equipment for the upcoming season
- ↓ Start planning your garden for the year. Choose vegetables that you and your family like to eat
- ↓ Order seeds
- ↓ On a nice day, turn compost pile if it has not been turned in a few months

FEBRUARY

- ↓ Draw up a garden plan for the spring and summer so you know where in the bed to plant the first seeds and transplants
- ↓ Start planting cool season crops such as carrots, collards, lettuce, mustard, English peas, Irish potatoes, radish, spinach, Swiss chard and turnips
- ↓ Start your garden transplants at the end of the month (4-6 weeks before they are to be set out) for warm season crops (tomatoes, peppers, eggplant)
- ↓ Start a journal of your garden; include your plan, planting dates, insect problems, etc.

MARCH

- ↓ The last frost is usually by late March so do not plant anything that hates cold (tomatoes, okra etc.)
- ↓ Make second plantings of turnips, mustard, radish and spring onions
- ↓ Thin plants that you seeded last month so they have room to grow
- ↓ Prepare the beds that will be used for summer crops. Planting of summer crops can begin at the end of March or early April depending on the weather

APRIL

- ↓ Plant transplants of warm season crops weather permitting. Be sure that transplants you are started from seed have a chance to harden off, or become accustomed to cool outside weather, before being planted out in the garden

MAY

- ✚ Make additional plantings of beans, corn and squash. Plant as much as you think you will eat and enough to preserve for eating next winter
- ✚ Install trellises and stakes for pole beans, tomatoes, and vining crops to climb and thereby save space in the garden
- ✚ Be on the lookout for insect and disease problems
- ✚ Finish mulching around all plants

JUNE

- ✚ Harvest crops as they are ready. Harvest onions and Irish potatoes when two-thirds of the tops have died down
- ✚ Rip out any spring crops that are spent. Compost disease-free plants
Plant sweet potatoes
- ✚ Keep garden mulched and weeded
- ✚ Water as needed being sure to water deeply once or twice a week
- ✚ Continue keeping your journal. Record what grew well when you harvested, weather conditions, etc.

JULY

- ✚ Make additional plantings of crops that will grow through to cool weather, such as tomatoes, squash, cucumbers, beans
- ✚ If you have the space, plant pumpkins for Halloween
- ✚ Keep harvesting crops that are ready, so they will keep producing
- ✚ Side-dress heavy-feeding vegetables with fertilizer as needed
- ✚ Continue to water as needed and weed
- ✚ Start planning your fall garden

AUGUST

- ✚ Plant snap beans, cucumbers and squash seeds by August 15 for a fall harvest
- ✚ Start seeds for cool season transplants, such as broccoli, cabbage, cauliflower, collards, kale and onions in a half-shaded, cooler area
- ✚ Prepare soil for fall planting of cool season crops
- ✚ Continue harvesting, weeding and watering

SEPTEMBER

- ✚ Plant fall garden seeds and transplants during mild weather. Transplants will do best if planted on a cloudy day or shaded for a few days until they are adjusted
- ✚ Add more mulch as needed around plants
- ✚ As summer crops die, pull up and add to compost pile. They will decompose faster if cut up into small pieces rather than put in whole. Turn compost as needed
- ✚ Start collecting leaves to add to compost pile
- ✚ Make notes in your journal regarding what produced well, what you had problems with

OCTOBER

- ↓ Continue pulling out spent summer crops and adding them to the compost pile
- ↓ Remember that although the first frost date is not usually until early-November, an early frost could occur. Be prepared to harvest all peppers and green tomatoes before frost
- ↓ Sow a cover crop in beds that are not planted

NOVEMBER

- ↓ Harvest fall crops as they are ready
- ↓ Fall is a good time to build up the soil for next year. Add lime, manure and organic material to the soil and turn it under. Cover crops should be planted in all empty beds to help improve soil structure and fertility

DECEMBER

- ↓ Cold weather crops can be grown through December
- ↓ Clean up the garden
- ↓ Turn the compost pile if needed
- ↓ Clean all tools and note which ones need to be replaced
- ↓ Review your journal and make notes about what you would do differently next year. It is not too early to think about next year's garden

Crops for Georgia Gardens

Not all vegetables grow well under the same conditions. Some grow only when the weather is cool and are therefore called cool season crops. Others grow only when the weather is hot and are called warm season crops. In the Savannah area, early spring and late fall are considered cool seasons. The planting of cool season crops in the spring can begin as early as January or February. Our last frost date is late-March, so do not plant any warm season crops before then that may be hurt by cold weather. Crops like okra demand that the soil be warm before germinating, so wait until April or May to plant them. Cool season fall crops can be planted when night temperature starts falling into the 60s, generally in October. Some of these crops must produce before the first frost which is usually in late-November. Others, like kale or brussels sprouts, will survive a heavy frost. It is common to harvest collards, kale, spinach and leaf lettuce all winter long. Below is a list of warm and cool season crops.

NOTE: The following information was compiled for Georgia as a whole or for the Atlanta area. In South Georgia, planting/harvest times may vary by a few weeks (2-3 weeks earlier for spring planting and 1-2 weeks later for fall planting dates).

Warm season crops that you can plant in the spring and harvest in the fall:

Artichokes
Beans
Broccoli
Carrots
Cauliflower

Corn
Eggplant
Field Peas
Gourds
Okra

Peanuts
Peppers
Pumpkins
Sunflowers
Sweet Potatoes

ARTICHOKES – Plant in April, harvest in late August early September. For best results, plant artichokes in the ground as soon as the weather warms up. Artichoke seeds look like cantaloupe seeds, and they sprout vigorously. The only trouble with growing artichokes is helping them survive the winter. Prior to the first frost, prune the leaves and put sand and saw dust around the base.

BEANS – It is very important when planting beans not to plant them prematurely. It is best to plant them in late April or early May. Beans are a part of the legume family and can fix nitrogen for themselves. Organic fertilizers such as manure and compost are recommended with planting beans.

BROCCOLI – Broccoli can be grown in both fall and spring. When preparing to plant broccoli, you can either plant the seeds indoors or transplant them when they have six leaves or plant them in rows in a prepared garden bed. Broccoli can be planted in February and harvested in May or June.

CARROTS – Carrots are planted during the warm season. Carrots are usually planted in a loose, sandy, loamy type soil or in a clay soil fertilized with organic material. For best results carrots should be planted in a raised bed no more than two and a half feet wide. Carrots need an abundance of potassium; a good source of this nutrient is wood ash.

CAULIFLOWER – Cauliflower is another one of those crops that can be planted in the fall and in the spring. Timing is important because cauliflower likes a little cool land and a little warm weather. Therefore, you must plant by mid-March in the spring and early September in the fall.

CORN – The best time to plant corn is in April or May. Corn requires a lot of space and fertilizer. It needs a large amount of nitrogen and micronutrients. Manure is a good organic fertilizer to use when planting. Corn should be altered with other crops like squash or beans so that it does not deplete your garden of essential nutrients.

EGGPLANT – Seeds should be started inside, just before the last frost in mid- to late March. Once seeds germinate, they need plenty of sunlight. Eggplants should be transplanted outdoors in late April or early May. This crop is harvested in late summer.

FIELD PEAS – Field peas are warm season crops that should be planted in late May or early June. Field peas are very sensitive to cool weather and require warm nights for survival. Field peas are also drought resistant and able to absorb nitrogen from the air and store the nitrogen in its root system.

GOURDS – Plant gourd seed in late April or early May. They should be planted alongside a fence to support the vines. Large amounts of fertilizers will increase the yield at harvest time. Use manures and compost to fertilize the soil. Mulch the plants with straw or

newspaper to reduce weeds. Gourds have a long growing season and need to be in the ground by the middle of May to harvest by the end of September.

OKRA – Okra is a warm season crops that requires Mother Nature to do all the work. Okra thrives during the summer when it is hot and muggy. Crops should be planted in mid-May or early June. Small amounts of compost or manure should be worked into the soil. Plant okra in rows to ensure a good harvest.

PEANUTS – Peanuts require a long hot growing season. Peanuts grow best on warm soils after the harvest of a spring crop. They have capabilities to absorb nutrients from the soil quite well. Therefore, if they are planted in a spot where a crop was well fertilized, the peanuts will not require any fertilization. Peanuts love warm soil for seed germination. The area where they are planted requires constant weeding. This crop is pretty drought resistant. However, there are two crucial moments when watering is necessary: 1) just before flowering and 2) just after the pegs enters the ground. Peanuts grow best on sandy soil and can tolerate clay soils as well. They need to be planted in the month of May.

PEPPERS – Peppers are perennial plants that are easy to grow, providing that the grower has a great deal of patience. Peppers need warm, clay soils to retain moisture. Dig a hole for each plant. Make sure the hole is big enough to allow the roots adequate space. Fill each hole with compost or manure. Once peppers begin to grow, you can mulch with hay or straw.

PUMPKINS – Pumpkins should be planted in a warm soil during the month of May. Pumpkins require a little more than one hundred days until they are ready to be harvested. Pumpkin seeds planted in May will be ready to harvest in late August. You can also wait until June before planting to allow the seeds to mature.

SUNFLOWERS – Plant sunflower seeds in April or May. Stick them an inch deep into a soil mixed with compost or manure. This will enable the plants to grow taller and produce more seeds. Once the plants have sprouted, thin them so that each plant is at least 12 inches apart.

SWEET POTATOES – Sweet potatoes grow best in hot humid weather. Unlike most plants, they prefer acidic soils. They do not require large amounts of nitrogen. However, they do require large amounts of phosphorus. A good source of phosphorus comes from rock phosphate and wood ash. These fertilizers should be worked into the soil. Once the plants have become established, mulch them with hay or grass clippings to help retain moisture.

Cool season crops that you can plant and harvest during the school year:

Beets

Irish Potatoes

Radishes

Brussel Sprouts

Kale

Spinach

Collards
Garden Peas

Kohlrabi
Onions

Turnips

BEETS – Beets are cool weather plants that can be planted in the early spring and fall. Beets can tolerate the frost and have no problem germinating during cold weather. The roots of beets should be harvested when they are the size of a ping pong ball. Be sure not to leave them in the ground too long or they will have a displeasing taste.

BRUSSEL SPROUTS – Begin cultivating seedlings indoors in the presence of sunlight in large Styrofoam cups. It is very important that seedlings receive light evenly on all sides. Therefore, you must rotate the seedlings each day when they begin to grow. Before transplanting the Brussel sprouts to the garden, make sure you have adequate spacing. Individual holes should be filled organic fertilizers and watered.

COLLARDS – Collard greens are very heat tolerant and require a lot of nutrients. For good growth, mix compost into the soil bed where you will be planting. Collard greens can be planted twice a year, once in the spring and once in the fall. **GARDEN PEAS** – Peas are cool season crops that endure cold weather. Peas usually germinate when the temperature drops down to about forty degrees. There are three varieties of peas 1) snow peas, 2) English peas and 3) sugar snaps. Peas have the ability to create nitrogen for themselves from the air and require little or no fertilizer at all.

IRISH POTATOES – Irish potatoes grow best during the cool, wet season. March is probably the best time to plant while it is still cool. However, potatoes can also be pre-planted in the fall if the weather is too wet in the spring. Seed potatoes should be cut into pieces and planted. Once potatoes begin to mature, they should fall to the ground. Potatoes swell in the area where the main stem turns to roots. This is the area that should be protected by covering with mulch.

KALE – Kale is a fall crop that can be harvested in the winter. Seeds should be cultivated in late August and planted in areas where other brassicas (cabbage, broccoli, and collards) were previously planted. Add an inch of compost to the planting bed to increase nutrient availability. During the middle of winter, kale will receive some damage from frost. However, do not be alarmed. Kale will eventually grow new leaves.

KOHLRABI – Kohlrabi is a member of the brassica family. These plants mature in a short period of time. Spring planting can be done in February to late March. These seeds can be planted into the ground or grown from seedlings. Kohlrabi does not require special attention because it can adjust to poor conditions. However, to ensure a good harvest you should spread a little compost in the planting area.

ONIONS – Onions grow best in the northern states due to cooler temperatures. However, onions can grow in the southern states, but they require careful preparation. There are seven different categories of onions that one can grow: 1) bulb onions grown from seeds or seedlings, 2) bulb onions grown from sets, 3) green onions or scallions grown from

seeds, 4) leeks, 5) shallots, 6) Egyptian multiplying onions and 7) bunching multiplying onions.

RADISHES – In the South, radishes can be planted from mid-February to April. Plant them along with carrots and spinach. This crop matures fast and produces an abundance of seeds. They should be thinned at least two inches apart.

SPINACH – Spinach can be planted three times a year, early-fall, mid-fall and the first of spring. Spinach is a water crop that likes cold weather. This crop should be planted in a well-drained bed mixed with organic fertilizers. Sow seeds and plant them about ½ inch deep. Watering is required only if rain is scarce.

TURNIPS – Plant turnips in late August or early September. These plants love cool weather. Lower temperatures will even improve the taste and texture of the leaves and roots. Therefore, you may want to wait until the temperatures drop into the 40s before you begin to harvest them. Although turnips like cool weather, they cannot withstand a cold freeze. Thus, they should be picked before this occurs.

Unwanted Pests in the Garden

APHIDS – If there is a colony of ants' present, you can almost be sure that aphids are too. Ants colonize aphids. The two insects depend on each other for survival. Aphids love to suck the juices from plants. They carry bacterial and viral diseases that could infect the plant. Using a spray made mostly of water and a few drops of detergent can control aphids.

BLISTER BEETLES – This insect feeds on potatoes, tomatoes, eggplants, beans and other crops. Blister beetles are black with a yellow stripe. They usually feed in groups and leave a black deposit behind. Do not squash them on the plant because their body fluid can cause blisters on the plant. Freshly cut cedar branches can be used as a remedy for repelling the blister beetle.

CABBAGE WORMS – These worms feed on the brassica (cabbage, broccoli, collards, etc.) and other leafy vegetables. *Bacillus thuringiensis* is a common insecticide used to kill cabbageworms. This biological control is effective and harmless to humans. Spray weekly to kill the eggs that the cabbage worm has laid.

COLORADO POTATO BEETLES – These insects are yellow with black stripes down their back. The adults feed on leaves. However, most of the damage comes from the larvae stage. The adults lay eggs on the underside of the leaves. After the eggs hatch, the larvae feed heavily on the leaves of the potatoes. *Bacillus thuringiensis* is effective in controlling the insect during the larvae stage. However, the best way to control beetles is to hand pick them off the leaves every couple of days. Planting potatoes with beans reduces the presence of the beetle as well.

CUCUMBER BEETLES – Cucumber beetles are the size of ladybugs. However, unlike ladybugs, these insects can severely damage cucurbits (melons and cucumbers). They are light green with yellow stripes or spots. Painting a yellow board and covering it with a sticky substance like honey or glue can trap the cucumber beetles. The yellow board will attract them to the sticky substance. Wet the leaves and the insects will fly away.

CUTWORMS – These worms live in the ground and eat green plant material. They include larva from over two hundred moths. At night they love to come out and feed on tender seedlings. Watering seedlings during the day will bring them to the surface and make them easy prey for birds. Furthermore, tilling the soil in the fall and leaving it exposed will help the birds find the worms easily.

FLEA BEETLES – Flea beetles thrive in hot humid weather. They feed on numerous garden vegetables, and they love to destroy eggplants. They leave tiny holes in the leaves. Control these beetles by spraying the leaves of the plant with water regularly during drought periods and remove all dead foliage.

HARLEQUIN BUGS – These bugs have a colorful black, red or yellow pattern on their backs. They eat mostly collards, turnips and potatoes. These bugs hide or hibernate in dead plant material, so maintain the garden area by removing all dead plant material.

JAPANESE BEETLES – These beetles normally feed on peaches, blackberries and other fruits. However, they will feed on corn silks and leaves of various vegetables. These beetles are active during mid-June to the middle of August. Japanese beetles cannot tolerate hot dry summers and will not usually be a problem.

Furthermore, dusting the leaves with rotenone during the morning, every two days will also prevent large outbreaks of Japanese beetles. These beetles are active during the mid-day and applying the dust in the morning will give the dust time to react. **MEXICAN**

BEETLES – These beetles look like ladybugs, but they have pinkish brown color, and they are slightly larger. They are not active each year, but this does not mean they are not present. Female Mexican beetles can lay up to 500 eggs on the underside of leafy plants. When the female lays her eggs, it is the larva that does the damage to the plants. Therefore, if you spot a Mexican beetle, move it from your garden.

NEMATODES – These soil-inhibiting organisms that feed on the root of plants limit the plants ability to gather nutrients. If nematodes are present on your site, it is probably best to move your garden to another area. **SPIDER MITES** – These insects only cause damage during very dry summers. Spider mites are microscopic and are hard to see with the naked eye. These insects cannot tolerate wetness, and watering with a forceful spray will help to alleviate the problem. These insects attack mostly eggplants, tomatoes, squash and peppers.

SQUASH BORERS – Squash borers are larval worms that cause plants to wilt. These borers leave a greenish yellow substance as evidence on the stem of the plant. The most effective way of controlling squash borers is to inject bacillus thuringiensis into the holes that the squash borers left.

SQUASH BUGS – These bugs are about half an inch in length and are brown. Squash bugs attach to melons, cucumbers and sometimes tomatoes. Spraying the foliage of the plants with water will force the bugs to flee to the top of the plant where they can easily be hand-picked. Also, rotenone is an effective control spray for squash bugs in the larvae stage.

Beneficial Creatures

BATS – Bats do not come out during the day. However, at night they hunt for insects and other prey. Bats are helpful to gardens because they like to eat many of the unwanted pests present. If you have a lot of insects in your garden, you may want to build a house with a water supply to attract bats.

BEES – Although many people view bees as harmful because they may sting, bees are helpful in the garden. Bees assist in transferring pollen to other plants, which help fruit and vegetables to grow. If bees are present in your garden, this is an excellent sign that your garden will produce a good harvest.

BUTTERFLIES – Butterflies are beautiful creatures that help transfer pollen to fruits and vegetables, like bees. Children love to catch butterflies and keep them in jars.

EARTHWORMS – Some people may view earthworms as yucky, but they are very beneficial to gardens. Earthworms help to aerate the soil by losing soil particles. This makes it easy for the roots of vegetables to move through the soil and collect water and nutrients. Earthworms excrete waste called worm castings. This excretion is very fertile and is considered an organic fertilizer.

LADYBUGS – Ladybugs are usually pinkish red with black spots. These bugs are helpful to a garden because they eat a large number of aphids. This is one insect that is your friend, and you should be happy that ladybugs are present. **PRAYING MANTIS** – This insect acts like a policeman in the garden. This fellow patrol the garden and looks for insects that are harming vegetables and eats them.

SNAKES – The sight of a snake frightens many people. However, most snakes found in the garden are harmless. Nevertheless, keep a safe distance from them. Snakes like to prey on some of the insects that are destroying the vegetables in the garden.

SPIDERS – Spiders are very helpful to gardens because they trap and eat many of the harmful insects. Spiders rest in the comfort of their woven web. Their web is very hard to see, and many insects walk right into them. Therefore, if possible, try not to disturb a spider’s resting area.

TOADS – Toads have long, snappy tongues and love to eat various insects.

Composting

Broadly described, composting describes a method and an end-product in which organic debris is transformed into a valuable soil container. What compost does for the soil is invaluable. When acted upon by microbes, fallen leaves and stalks pass on their nutrients to future plants. Composting methods may vary, but all use oxygen- consuming bacteria, fungi, actinomycetous, nematodes, millipedes and a multitude of other organisms to break down organic materials into what is often referred to as “brown gold.” It maintains general soil health, boosts growing power, makes optimal use of water and air, limits run off and erosion and limits chemical inputs.

A composting structure for a children’s garden can be as simple as a round wire bin or a four-sided bin made with whatever materials are available. If a four-sided bin is used, one side should be removable in order to facilitate the mixing. The bin must have enough holes to admit air into the pile. Almost any organic matter can be composted. Both carbon and nitrogen materials are layered in the pile. Turning the pile is important in order to allow for necessary air and moisture and to expose all parts of the heap to bacterial action. This information includes examples of materials to be used, ratio of materials and the size of the pile and identifies some of the organisms living in the composting community.

Contact your nearest Cooperative Extension Office for more detailed information on composting structures and methods.

Composting can be a part of good citizenship training for children in that it addresses many environmental concerns such as redirecting wastes from landfills, producing fertilizers of non-fossil fuel origin and conserving soil and water.

Gardens under the City program must provide a composting plan in their application if they intend to compost on site.



Starting a community garden can be intimidating. The good news is Savannah has many resources to help your community garden get going. For questions or more information, please reach out to the City of Savannah’s Office of Sustainability.