Grow Healthy Oklahoma

A Guide to Community Gardening in the Sooner State

Oklahoma Public Health Leadership Institute 2012-2013
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Front Cover photo clockwise from top right: Okra flower at the Draper Park Community Garden Draper Park Christian Church, Oklahoma City; Vertical strawberry garden Urban Harvest Regional Food Bank of Oklahoma, Oklahoma City; Corn at the Okmulgee Community Garden, Okmulgee; Individual plots at the Spaulding Park Community Garden, Muskogee.
About this manual

On a wet overcast Saturday morning, three men pull out their drills and hammers and begin putting the finishing touches on a frame for a greenhouse at the Draper Park Community garden. Meanwhile, two women bend over to pick through rows of Texas cream peas. Another man walks through rows of tall okra plants and clips pods off to take to the Brand Center in Moore.

Across town, an employee with the Regional Food Bank of Oklahoma holds out a handful of worm castings to a group of pre-teens at Urban Harvest. A girl looks at them in disgust as he offers to let them smell the worm “poop”.

“What does it smell like?” he asks them.
“What!” a boy says with surprise.

140 miles to the east, a woman works in her plot at the community garden in Spaulding Park inspecting her tomatoes and peppers. She thoughtfully calculates in her mind how many jars she will need to hold the salsa she will be making from her produce.

Community gardening is taking Oklahoma by storm. With over fifteen gardens in Oklahoma City and Tulsa, and several in towns like Muskogee and Okmulgee, gardens are popping up all over the state. The common theme: Health.

“30% of Oklahoma’s population is obese,” says Reed Downey the organizer of the Draper Park community garden. “That’s why we’re working with the community to get kids involved in gardening and nutrition classes. Kids will eat what they grow.”

The purpose of this manual is to assist in the promotion of community gardening across Oklahoma. We believe that gardening can be used to increase the health of all Oklahomans by improving access to food, increasing physical activity, and creating an understanding of sustainable living.
This manual takes into account that, like plants, not all communities are created equal. Therefore, this manual should be used in conjunction with careful planning and consideration of the needs of your community. The Appendix includes various resources that could prove useful in creating your community garden, including websites on how to create a garden and information on materials and funding.

We hope that you find gardening to be an exciting and useful tool in creating a better state of health for your community, one that will teach citizens of all ages the importance of sustainable and healthy living.
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Why community gardening?

*It is impossible for any culture to be sound and healthy without a proper respect and proper regard for the soil.* ~Andrew Nelson Lytle

As of 2012, Oklahoma is ranked 43rd in the country for overall health outcomes by the United Health Foundation. The two most prevalent issues are those of obesity and diabetes (1). “Sixty-five percent of Oklahoma adults are either overweight or obese, and 31% of Oklahoma youth are either overweight or at risk of becoming overweight (2).” This issue is not going unnoticed or untreated. The Oklahoma State Department of Health has already created a comprehensive Health Improvement Plan. The Tobacco Settlement Endowment Trust is providing funding for Nutrition & Fitness grant programs, and Indian Health Services is putting a greater focus and emphasis on nutrition and diabetes education.

Community gardening is not a new idea. In fact, gardens have been used in cities since the 1890’s with some of the first gardens appearing in Detroit, Michigan (3). Currently, “There are about eighteen thousand community gardens in the United States and Canada” (Obama, 2012). While initially designed to offset food shortages, community gardens are now used for teaching the values of nutrition, health, and environmental responsibility.

Although there is not a hefty amount of research on the effects of community gardening, what little that has been done shows that, “adults with a household member who participated in a community garden consumed fruits and vegetables 1.4 more times per day than those who did not participate, and they were 3.5 times more likely to consume fruits and vegetables at least 5 times daily (4). The anecdotal evidence, however, is overwhelming. Michelle Obama’s latest book, *American Grown*, is filled with stories from gardens across the country and the impact they have on their communities. Teaching garden programs in Oklahoma, such as Urban Harvest and
Global Gardens, are growing because of the influence they have on children’s learning and eating.

All of this information is to say that while community gardens take an enormous amount of work and time, the output they give is well worth the effort. We hope that you will consider a garden for your community and that this manual will assist you in making the first steps toward change.
How to create a community garden

When I go into the garden with a spade, and dig a bed, I feel such an exhilaration and health that I discover that I have been defrauding myself all this time in letting others do for me what I should have done with my own hands. ~Ralph Waldo Emerson
Forming a planning committee

Once you have decided you would like to create a community garden, talk to members of your community – friends, neighbors, churches, associations, etc. – to determine if there is a desire for a community garden and what level of support and commitment you can expect. Even a small group of people can successfully create and maintain a community garden.

If the commitment and support are there, your next step should be to define your community garden’s purpose, values, and vision. This will help your group get organized and stay focused.

What kind of garden are you interested in planting? Most community gardens are edible vegetable gardens, but other choices might include orchard, herb, butterfly, flower, fragrant or even “art” gardens.

If you choose to plant an edible garden, who do you wish to be the beneficiary of your harvest? Community gardens in Oklahoma are typically harvested for charities, but don’t overlook your own dinner table. If you decide to donate your food, you will want to include the recipient in all phases of your planning.

Organize a meeting between all interested parties. Publicize the meeting with phone calls, emails, flyers and visits. Make sure notes are taken and distributed to all attendees. You will want to choose one, well-organized person to coordinate the planning and maintenance of your garden. Next, you will want to form committees to accomplish
certain tasks like finding funding, construction, etc. Make a list of all that needs to be done and form your committees around that list.

Find a suitable garden site and obtain a lease agreement from the owner if necessary. More information on finding a site can be found in the “Choosing a Garden Site” section of this manual.

Choose a name for your garden. Having a mailing address and central telephone number is also important. A website can be very helpful. You will want to have at least three people that are familiar with all aspects of your garden. If money will be coming in to your community garden, keep the administration of the garden in the hands of several people. For more information see the “Setting up a New Gardening Organization” section of this manual.

Try to find one or more sponsors to help support your garden. Sponsors can provide land, tools, seeds, fencing, money or other needed items. Some of the best places to look for sponsors are churches, schools, local businesses and the parks and recreation department of your local city government.

Funding your community garden can happen through dues or finding money through your local Community Development Block Grant, community foundations, the Environmental Protection Agency, garden clubs, and many, many others. Please see the “Resources” section of this book for a more comprehensive list.
Types of gardens

*The man who has planted a garden feels that he has done something for the good of the world.* ~Vita Sackville-West

Before planting a community garden, it’s important to decide on the type of garden your community needs. Different communities have different needs, and therefore, bringing the people to the table who will be most influenced by the garden is important. Reaching out to local neighborhood associations and Parent Teacher Associations is a good starting point.

A nutrition or health assessment showing what issues your target population currently faces is also a great way of deciding the best manner to approach the issue. Most local county health departments have completed, or are working on, a community health assessment for the public health accreditation process. These assessments are a great resource and benefit to the public. After deciding what your population needs and wants, you can decide what type of garden you should create. The following are various types of community focused gardens that can be used to meet your community’s needs.

**Charity Garden**

Charity gardens focus on providing healthy food and produce to those in need. Generally, the people served by the garden are not the people working in the garden. An example is the Garden of Hope located behind the social services building in Oklahoma City which

“You should see all those old folk’s faces light up when we bring in our okra!” says Reed the organizer of the Draper Park communal garden. “We had to start dividing them up into bags so everyone could get some!”
donates most of their produce to a low-income senior citizens nutrition program.

Charity gardens work well in places like churches, senior citizen centers, and private homes or areas with home owners associations. In south Oklahoma City, Draper Park Christian Church is host to a roughly 20 acre communal and charity garden. While a part of the produce goes to those who tend the garden and the church members, there is simply too much to be eaten quickly enough. This garden donates a large portion of what is left to the Brand Senior Center in Moore, providing pounds of okra, Texas cream peas, and hopefully in the next few years, apples and pecans.

If you are interested in starting a charity garden, or if you currently have a garden and would like to plant a row for charity, a good resource for where to donate your produce is the Regional Food Bank of Oklahoma or your local food pantry.

**Teaching garden**

Teaching gardens are focused on education and demonstrations, usually the process from seed to table. They work well when used in partnership with schools or nutrition programs.

“School Gardens are living laboratories where interdisciplinary lessons are drawn from real life experiences, encouraging students to become active participants in the learning process” (5). While they are mostly focused on children, teaching gardens usually need a good amount of assistance and volunteers from the community to keep them running year round.
One example of an excellent teaching garden in Oklahoma is Urban Harvest at the Regional Food Bank of Oklahoma. The Urban Harvest garden could never be large enough to provide the millions of pounds of produce the Regional Food Bank needs for distribution, so its primary purpose is to teach children the importance of sustainable gardening and healthy food choices. Planting seeds, cooking the harvest, and composting techniques are all taught to children in the Oklahoma City School district. Urban Harvest also provides technical assistance and seedlings to other community gardens throughout central Oklahoma, as well as open house tours for the public to learn about the advantages of sustainable and organic agriculture in the city.

Another instance of teaching gardens is Global Gardens in Tulsa. Global Gardens’ goal is to provide hands on science and health education, while at the same time “challenge students to become caring, forward thinking, and confident individuals” (6). Global Gardens works with two elementary schools and one middle school in the Tulsa area to create

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**Edible landscaping**

A small project to undertake in a corporate or even residential setting is edible landscaping. “Edible landscapes combine fruit and nut trees, berry bushes, vegetables, herbs, edible flowers, and ornamental plants into aesthetically pleasing designs. (10)” Edible landscaping is perfect for small flower beds or container gardening. Consider edible foliage next time your business is redoing its landscaping.

Edible plants like rosemary, lavender, and ornamental peppers surround the Oklahoma City headquarters of the Regional Food Bank of Oklahoma.
Community-run gardens and an all-encompassing curriculum to connect gardening to other disciplines. Global Gardens is an excellent example of gardening in a school setting. More information on this program and Urban Harvest can be found in the Appendix under “Directory of Community Gardens”.

The American Heart Association currently provides the materials and supplies to create teaching gardens in schools for 1st through 5th grades. Of course they require a certain amount of commitment from the school beforehand (such as fundraising), but if you are looking to start one and don’t have the necessary resources, they are a good source for information and assistance. Information on how to contact the American Heart Association Teaching Garden Program can be found in the Appendix under “Resources”.

**Community Garden**
A true community garden consists of single plots for individuals or families generally in an urban setting. Plots are assigned by lottery or application, and members of the garden are responsible for maintaining their plot according to the rules established by the organizing committee. Community gardens with individual plots work well when the city government or parks and recreation department are involved.

Most supplies such as seeds, tools, and compost are supplied by the gardeners themselves. Other things like soil and water can be supplied by a grant, the city, or a parent organization.

Two examples of community gardens are Spaulding Park in Muskogee and the Okmulgee Community Garden. Debra Francis at the Spaulding Park Community Garden in Muskogee showing off her Salsa garden.
Garden. Created through the Muskogee Wellness Initiative, a partnership between the city of Muskogee, local county health department, and OSU extension, the Spaulding Park community garden allows residents to grow their own produce by supplying the land and water. Plots are distributed through a lottery system and gardeners sign an agreement to only use organic gardening practices and maintain their plots. Muskogee’s garden has been a tremendous success, and has in fact, grown from one location to three in the past year.

The Okmulgee community garden started by Dr. Ed Osborn and the Healthy Lifestyles Committee, is designed to act much like the Muskogee garden. Gardeners can fill out applications for plots. Assistance with water and soil are given, as well as sessions on planting for those new to gardening.

Community gardens not only provide a place for avid gardeners who don’t have the land area to garden, but they also stimulate social interaction, encourage self-reliance, and beautify neighborhoods (7). For more information on how to start a community garden with individual plots, the American Garden Association has an in depth website on resources and considerations for your community. See the “Resources” section of this manual for more information.
Therapy Gardens

Therapy gardens are designed to be used by the elderly, those with physical or mental disabilities, or others who might need a garden designed specifically for them. In Enid, the Garfield County Conservation District, Lowes Home Improvement, Dolese Brothers Concrete, and Senior Resources and Benefits came together to create a therapy garden for the residents of Sterling House of Enid. The garden has accessible features such as smooth concrete paths, raised beds, and the ability for the elderly residents used to a rural way of life to continue their love of gardening.

If you are considering a therapy garden or want your garden to be accessible to all community members, here are some considerations you need to make:

Water

Water should be available close to the garden site and in a paved area so the ground does not become muddy. Soaker hoses are an easy way of handling watering needs in an accessible garden as long as they are not in the way of wheel chairs, walkers, or feet.

Plant Choice

“To aid in the harvesting of plants, use contrasting or bright colors. Some plants naturally contrast their ripening fruit against their foliage, such as purple-podded bush beans or golden zucchini. Select plants that are high producers per inch of growing space, with interesting textures and fragrances. Use plants that people want to grow or eat.” (8) Plants like okra, tomatoes, or peppers are fairly easy to see and well-liked by most people. Okra and tomatoes do especially well in Oklahoma’s climate.

Emergencies

Provisions for emergencies should be considered for any type of garden but for therapy gardens especially. “A wheelchair-accessible parking space near the garden is
mandatory for public gardens, both for persons with disabilities and for medical/police access. “ (8)

Paved Surfaces
Garden path surfaces must be firm, smooth, level, and provide traction. Provide direct routes throughout the garden. Audible water features and wind chimes also help orient you through the garden. One-way traffic needs a five-foot minimum width to accommodate the turning radius of a wheelchair. Two-way traffic requires a seven-foot minimum width. (8)

If your garden is to be accessible, do the research first. There are numerous resources that can be helpful in making a fully accessible and therapeutic garden for all members of the public. Look in the resources section of this manual on how to access more information about therapy gardens.

Your community knows best
Whatever type of garden you decide to create, it is of the utmost importance to include those who will benefit from the garden in your planning committee. Not every need will fit into one of these gardens so it is imperative to be creative and bring as many people to the table as possible.

Further information on how to create a planning committee can be found in the “Forming a Planning Committee” section of this manual. We also suggest speaking with a few successful community garden organizers in Oklahoma before starting your garden. These community members have a wealth of knowledge on what can and cannot work when trying to create a garden. A directory of some of the community gardens in Oklahoma can be found in the Appendix.
Choosing a garden site

We obviously can’t grow everything that we put on our tables ourselves. But even the most humble garden—a pot in the window or a few staked plants in the backyard—can have an impact on our health and our enjoyment of the meals we serve our families. ~Michelle Obama

To have a successful garden, a site must be carefully considered before planting. There must be enough room for growth and for gardeners to access the plants safely. For individual community gardens, plots should be no larger than three feet wide by six feet in length. This is not to say you cannot plant small gardens; small gardens work very well in corporate and communal settings using pots or medians in parking lots. Deciding on what your garden is going to grow will give you more insight into how much space you will need. Some produce like corn, for instance, need large amounts of land to produce enough to make an impact. While others like beans, peppers, and okra can produce a good amount of food in a smaller area. The following are some considerations you need to take when choosing a site for your garden.

**Soil**

For a successful garden, it is important to do a soil test before doing any planting. Getting the soil tested will save a lot of time and money. Not only does it show what additional nutrients your soil may need to produce quality plants, it protects the environment by reducing over-fertilization and identifies polluted or contaminated soil. Soil should be tested every three to four years to ensure continued fertility.

The Oklahoma State University (OSU) Cooperative Extension program offers soil testing through their lab for a small fee. Individuals can get assistance with how to complete soil testing through their local County Extension Office. More information on OSU’s Soil, Water, and Forage Analytical Laboratory can be found in the Appendix under Resources.
**Light**
For most plants, particularly fruits and vegetables, you will need a site exposed to full or near full sunlight. Take note of the location of any buildings or trees that may be near your garden that will compete with the garden for light.

**Drainage**
Many plants cannot tolerate very wet soil for a prolonged period of time. You should see no standing water on your site after heavy rains. Moisture plays a consistent role in the natural process of rot. Well drained fertile soil is the best for gardening. Ideally, you will want a site that is protected from high winds, which can rob soil of moisture, erode topsoil, and damage delicate plants.

![Draper Park Community Garden is located in a large open area of land. They have fixed any drainage issues by installing a French drain and water the plants with long soaking hoses hooked up to water pumps around the property.](image)

**Slope**
Steep slopes can make it difficult to work a garden because bare soil will be washed off after heavy rains. You should look for land that is as level as possible, and watch for any low spots that may puddle during rainstorms. If you have to build on a slope, build beds or terraces that run across the slope.

**Surrounding vegetation**
Look for a site that does not have a lot of trees. They can create shade and compete with crops for water and nutrients. Also, look out for plants that may prove problematic when clearing the site, such as poison ivy or poison oak.
Water
Your garden should be located close to a water supply. Adding an underground pipeline to carry water from a distant source is possible, but also impractical and expensive. Soaker hoses are a less expensive option. “By allowing water to seep directly into the soil, soaker hoses put water exactly where your plants need it—at the root zone” (8). Soaker hoses should be no longer than 100 feet and placed on a level surface in order to be the most effective.

Wildlife
It is beneficial to have a site that is protected from wildlife. In rural Oklahoma, deer can be an issue for gardens. If deer or other large animals are present, fencing may be necessary, which can be costly to install.

Plan, then plant
Whether your potential site is located at a park, vacant lot, or private property, planning and research are key. Consider asking a master gardener from your local cooperative extension office for assistance in choosing a site and deciding on plants. In addition to good soil, water, and light, another consideration should include location. Is the garden in a convenient location to those who will be using it? Does it feel safe during most hours of the day? If the land is privately owned, will I need liability insurance?

Container Gardens
No room for a full garden? No problem! Vegetables, herbs, and flowers can all be grown in containers that can be moved to any spot with full sun. “They are an ideal solution for people in rental situations, with limited mobility, or with limited time to care for a large landscape (12).” Vegetables suitable for growing in containers include: beets, beans, cabbage, carrots, cucumber, eggplant, green onions, lettuce, collards, bok choy, spinach, kale, tomatoes, peppers, and radishes. Make sure to review labels on plants before purchasing them to ensure they do not need more space than what is available in the container.
Work closely with the members of your planning committee to find the answer to these questions. More information on liability insurance can be found in the “Insurance and Liabilities” section. A web link to an excellent planning checklist from the Let’s Move campaign can be found in the resources section of this manual.
Organizing and Managing the Garden

_Gardening requires lots of water - most of it in the form of perspiration._ ~Lou Erickson

It’s important to decide how your garden will be organized before beginning to plant. Some questions to ask your planning committee include: considerations for membership, who will complete maintenance, how plots are to be assigned, and is insurance required?

In order to offer a high quality community garden program, good management techniques are essential. The most important technique to consider is having written rules. Rules or guidelines spell out what is expected of a gardener and make it much easier to deal with challenges as they arise. Your rules will vary depending on the size, location and members.

Here is a list of the most common topics covered by rules:

- Application and membership fees (if any)
- What to do in case a gardener fails to plant. Will the plot be reassigned? Will the dues be refunded?
- Will chemical fertilizers be allowed?
- Will there be a list of prohibited plants?
- What may and may not be composted?
- Will tools be shared?
- Are there any size restrictions on the plants? Will commercial growing be allowed?
- Will pets be allowed?
- Will there be regularly scheduled meetings?
- Are children allowed?
- Who will resolve conflicts?
- Will there be any restrictions on the type of mulch?

Depending on what type of garden you are planning, an application for each participant may be necessary. Contact information, plot preference, and whether they will be doing year round gardening or seasonal are all important things to know.
To prevent vandals, post a sign on your garden stating who the garden is for. It’s also helpful to make friends with the neighbors around the garden so they can keep a watchful eye. Including as many people as possible in the gardening process will help deter vandals and protect your garden.

You can find examples of community garden rules and applications on the American Community Garden Association website. Look in the Resources section of this manual for more information.

Member of the Draper Park Community Garden picking Texas Cream Peas.

Setting up a new gardening organization
A community garden does not necessarily require a charter and bylaws, but there will be times when having an official organization will be very beneficial to the success of your garden.

By forming a committee, it will take the burden off of one individual to be responsible for the total management of the garden. The committee can share in the responsibility as well as the gardeners themselves. Decisions, meetings, site agreements, equipment
resources, sponsorship, funding or fund raising, is all better handled when shared with the committee rather than left to one individual to be accountable, though one address is needed as the designated location for communication.

If you choose to set up a new gardening organization, set up a meeting to discuss the purpose of your garden. Discuss the long and short-term objectives. From this, you can create a mission statement that will become the foundation of your charter and bylaws.

Your charter should include:

- The makeup of the executive board. Those positions are typically the president, vice president, secretary and treasurer. You will need to decide how the leaders are chosen and what they have the power to do, like creating an annual budget.
- You will need to decide on who will be eligible for membership.
- What is your organization’s tax status? Bylaws and charters are required for non-profit status.

Your bylaws should include:

- The legislative procedures your group would like to adopt.
- How elections will be held and the terms of service.
- Outline the duties of each member of the executive board and how they will be removed (if necessary).
- How money will be raised and spent.
- How meetings will be structured, who’s in charge of the meetings and whether or not the executive committee can or will meet privately.
The more people from your community involved in this process the better! Not every garden needs a formal organizational structure but having one can prevent any future conflicts from taking place.
Insurance and Liability considerations

"Population will increase rapidly, more rapidly than in former times, and 'ere long the most valuable of all arts will be the art of deriving a comfortable subsistence from the smallest area of soil."
- Abraham Lincoln

Depending on where your garden is located, you may consider adding liability insurance. There are two general types of insurance community gardens should consider: property and general liability insurance. Property insurance will cover the equipment & belongings. Liability insurance will protect both the organization and the owner from a lawsuit if someone is injured within the garden.

Most of the interviewed coordinators for the community gardens indicated that they did not have insurance on the community gardens for which they had oversight, pointing to the required liability release that has to be signed by gardeners. Property which is used by most of the community gardens is owned by government agencies or non-profit organizations which carry their own liability insurance. Insurance is obtained by those organizations that need protection from potential lawsuits.

Liability insurance can become costly. “Therefore, if you are a single garden suffering from sticker shock, the best avenue may be to ask a larger organization that already has liability coverage to sponsor the garden. Such organizations might include community groups, churches, horticultural/agricultural organizations, or anything else that might work in your locale (14).”

The location, road frontage, and property description may affect the cost of coverage as well. Insurance can also be obtained through a local insurance agency, although they may not have previously had experience in insuring a community garden.

If your land is owned by the city such as a public park, liability insurance may already be taken care of. However, your city may require members of the garden to sign a release of liability. This is
what the Muskogee Community gardens have done to protect the City of Muskogee from any liability.

There are many different types and options when it comes to liability insurance. The most important thing to remember is to discuss all options with your community garden organization and/or any organizations that might be sponsoring your gardens. For more information on liability insurance for gardens, see the list of resources in the Resource section of this manual.
Preparing and developing a site

Now that you have created your planning committee, picked your type of garden, chosen a site and tested the soil, it is time to get started! The following are some of the ways you can prepare your site for a garden. It is important to do some research before beginning. Use resources such as the Farmer’s Almanac, the National Garden Association website, and your local county extension office for assistance.

Clearing your land
The first step is to clear the land of any trash, rocks, or brush. Cut back brush and trees to the fence line or border of the property. All rocks should be removed from the garden if possible. “To see how big a rock is, hit it with a crowbar. If it makes a high-pitched *DING* that normally indicates a larger rock that needs to be dug or pulled out; if it makes a duller sound it should be a rock that you would be able to handle with a normal shovel or even your bare hands (9).” It’s important to make sure your area is safe for gardening. This is also a good time to call out your local utility companies to mark off pipes and lines that could cause problems when digging.

Preparing plots
The next step in preparing your garden is to measure out plots. Plots should be no wider than three feet so they can be worked in without risking trampling. Ensure that there is enough space available to walk between plots and enough sunlight reaching all plants.

Survey team at the Okmulgee community garden.
To clear plots of grass and prepare the soil, there are a few options depending on the size. For plots that are less than 100 square feet, you can cover the area with newspapers or sheets of cardboard. Then cover with a layer of shredded leaves and grass clippings and top it off with a layer of compost. This process takes about four to eight weeks and is ideally done in the fall but can be done in early spring (10).

Another option is to remove the sod covering the soil. A sod stripper can be rented or it can be removed by using a sharpened shovel which can take longer if the area is large. Remove the sod just below the root so as not to take too much topsoil. Stack the sod, soil side up with ammonia sulfate between layers and cover with black plastic to begin decomposition (11).

**Adding to the soil**

Using the results of your soil test, it is time to think about what additives need to be given to the soil. For most soil, compost is a good start, but your soil test will help you decide if anything else needs to be added.

The following is a list of fixes and amendments for soil from the 2012 Old Farmer’s Almanac. For more exact information on when to fertilize vegetables, see the web link to the Vegetable Garden Planner from the Farmer’s Almanac in the Resources Section of this manual.
Soil Amendments and Benefits
Bark, ground: made from various tree barks and improves soil structure.
Compost: excellent conditioner.
Leaf mold: decomposed leaves that add nutrients and structure to soil.
Lime: raises the pH of acidic soil and helps loosen clay soil.
Manure: best if composted. Good conditioner.
Peat moss: conditioner that helps soil retain water.
Sand: improves drainage in clay soil.
Topsoil: usually used with another amendment. Replaces existing soil.

Soil Fixes
Clay Soil - add coarse sand, compost, and peat moss.
Sandy Soil - add humus or aged manure, peat moss, or sawdust with some extra nitrogen. Heavy, clay-rich soil can also be added to improve the soil.
Silt Soil - add coarse sand or gravel and compost, or well-rotted horse manure mixed with fresh straw.

Fertilizers
Nitrogen (N) is needed for leaf growth and is responsible for making plants greener.
Phosphorus (P) is associated with root growth and fruit production.
Potassium (K), also known as potash, helps the plant fight off diseases and keeps it vigorous (12).

Worm compost bin at Urban Harvest. Worms are given a 'bed' of leaves and coffee grounds and fed with organic matter such as old watermelons. Kept warm they provide worm casings to be used as compost on the Urban Harvest Garden.
Spade or rototill the earth about six to eight inches deep. Then level and compact the soil so it is as uniform as possible to reduce erosion and encourage even water distribution. Two to three inches of organic matter and additives should be incorporated six to eight inches deep (11). These additives should be incorporated into soil when first starting a garden and additionally to keep the soil healthy every year.

**Research! Research! Research!**

There are various books and resources on preparing your garden, some of which are listed in the Resources section of this manual. Do as much research as possible before beginning the process. Your most valuable resources of course will be those individuals in your community that already have experience in gardening. These individuals can play an important role in your garden and keep your group from making costly mistakes.

The most important step in creating a garden is the preparation that comes before planting. If you stay organized and take your time, the process is successful and you may find that the learning experience for your community can become far more important than the garden itself.

**Composting**

An inexpensive and natural form of adding nutrients to your soil is composting. Composting improves the health and appearance of the garden and landscape plants. It saves money on fertilizers and expensive soil conditioners. Composting is good for the environment! Up to 75% of materials in typical landfills could be composted. There are various methods of composting: trench, bin, sheet, and worm are just a few. A great resource is the Maryland Cooperative Extension article on composting. Information can be found in the resources section of this manual.
A garden requires patient labor and attention. Plants do not grow merely to satisfy ambitions or to fulfill good intentions. They thrive because someone expended effort on them.

-Liberty Hyde Bailey
Directory of community gardens

The following is a list of community gardens that were located in Oklahoma. Not all community gardens in the state may be listed and as seasons change contact information may change also. If in doubt about the accuracy of the contact information, please contact Urban Harvest in Oklahoma City or the Tulsa Community garden association to find a more accurate list of local community gardens.

Global Gardens, Tulsa
http://www.global-gardens.org/

Muskogee Community Gardens, Muskogee
Muskogee Parks and Recreation
837 E Okmulgee Ave.
Muskogee, Oklahoma 74403
http://muskogeewellness.org/eatbetter/communitygardens.aspx

Urban Harvest, Oklahoma City
http://www.regionalfoodbank.org/Programs/Urban-Harvest

Tulsa Community Garden Association, Tulsa
http://www.tulsacga.org/

Okmulgee Community Garden
Ed Osborn
BEOsborn1@sbcglobal.net

Blanchard Community Garden Church of Christ, Blanchard
http://www.blanchardchurchofchrist.org/ministries/communitygarden.php

Central Park Community Garden, Oklahoma City
http://www.centralparkcommunitygarden.org/

Garden of Hope, Oklahoma City
Oklahoma County Social Services
7401 Northeast 23rd St
Oklahoma City, OK 73141
OSU/OKC John E. Kirkpatrick Horticulture Center Community Garden, Oklahoma City
http://www.osuokc.edu/horticulture/community.aspx
Shawnee Community Garden, Shawnee
http://shawneesustainability.blogspot.com/
St. Charles Community Garden
http://www.thedorothydaycenter.com/resources/The_Community_Garden.htm
Resources

American Community Garden Association
Organization and website designed to assist those interested in creating a community garden
Website: http://communitygarden.org/
Contact: info@communitygarden.org

Americans with Disabilities Act
Information on ADA design standards and technical assistance
Website: http://www.ada.gov/

American Heart Association Teaching Garden Program
Program partners with schools and communities to create teaching gardens. Includes curriculum, assistance with supplies and materials, and technical assistance.
Website: http://www.heart.org/teachinggardens
Contact: teachinggardens@heart.org

Information on Insurance and Liability
Fresno County Community Garden Toolkit
Gardening Matters Information on Insurance for Gardens

Let’s Move Community Garden Checklist
Checklist provided by the USDA’s People’s Garden Initiative to assist in planning a community garden.
Website: http://www.letsmove.gov/community-garden-checklist

National Garden Association KidsGardening.org
Information on how to create school gardens, available grants, and other resources for schools and families.
Website: http://www.kidsgardening.org/
Oklahoma State University Soil, Water, and Forage Analytical Laboratory
Individuals can send soil samples for testing through the OSU Cooperative Extension for a small fee.
Website: [http://www.soiltesting.okstate.edu/](http://www.soiltesting.okstate.edu/)

Tobacco Settlement Endowment Trust Healthy Communities Grant
The Tobacco Settlement Endowment Trust is offering grants to certified healthy communities. Communities must go through the application process to become certified through the Oklahoma Turning Point Council before applying for grants through TSET.
Website for certified healthy communities: [http://www.okturningpoint.org/chp/cht/cht.html](http://www.okturningpoint.org/chp/cht/cht.html)
Website for grant application through TSET: [http://www.ok.gov/tset/Programs/Healthy_Communities_Incentive_Grants/index.html](http://www.ok.gov/tset/Programs/Healthy_Communities_Incentive_Grants/index.html)
Contact: Connie Befort, Program Manager connieb@tset.ok.gov

Tobacco Settlement Endowment Trust Healthy Schools Incentive Grants
The Tobacco Settlement Endowment Trust is offering incentive grants to school districts who have successfully had half of their schools apply and become Certified Healthy Schools through the Oklahoma Turning Point Council.
Website for certified Healthy Schools: [http://www.okturningpoint.org/chp/chs/chs.html](http://www.okturningpoint.org/chp/chs/chs.html)
Website for grant application through TSET: [http://www.ok.gov/tset/Programs/Healthy_Schools_Incentive_Grants/index.html](http://www.ok.gov/tset/Programs/Healthy_Schools_Incentive_Grants/index.html)
Contact: Sharon Howard, Program Manager sharonh@tset.ok.gov

Urban Harvest – Regional Food Bank
Partners with schools on seed to table programs. Provides open house tours to the public and often technical assistance to local community gardens.
Website: [http://www.regionalfoodbank.org/Programs/Urban-Harvest](http://www.regionalfoodbank.org/Programs/Urban-Harvest)
Contact: Mason Weaver, Director mweaver@regionalfoodbank.org
Vegetable Garden Planner from the Old Farmer’s Almanac 2012
“Different vegetables require different conditions to thrive. Plan your garden accordingly with our guidelines for growing vegetables.”
Website: [http://www.almanac.com/content/vegetable-garden-planner](http://www.almanac.com/content/vegetable-garden-planner)
Recipes from the garden

Tomatoes and squash

Ingredients
1 tomato
1 squash
1 onion
½ tsp liquid smoke
4 tbsp butter
1 tsp sugar
1 tsp salt

Directions
Preheat oven to 350°
Dice tomato, squash, onion (roughly equal parts) and butter and place in baking dish. Mix in liquid smoke, sugar and salt. Stir, cover and bake for approximately 30 minutes.

We love to eat this over pasta and served with grilled or baked chicken.

Nutrition Facts: Calories, 87.1; Total Fat, (g) 7.8; Cholesterol, (mg) 20.7; Sodium, (mg) 391.7; Potassium, (mg) 162.4; Total Carbohydrate, (g) 4.3; Dietary Fiber, (g) 0.9; Protein, (g) 0.9

Tomatoes and squash never fail to reach maturity. You can spray them with acid, beat them with sticks and burn them; they love it.
~S.J. Perelman, Acres and Pains, 1951
Heirloom Tomato and Goat Cheese Tart

**Ingredients**

1 17.3 - ounce package frozen puff pastry (2 sheets)
1 egg yolk
1 teaspoon water
1 cup finely shredded or grated Asiago or Parmigiano-Reggiano cheese
2 4 - 4 1/2 - ounce tub goat cheese, softened
2 cloves garlic, minced
1 tablespoon snipped fresh lemon thyme or thyme or 1 teaspoon dried thyme, crushed
2 pounds assorted heirloom tomatoes or tomatoes, cut into 1/4-inch-thick slices
2 tablespoons olive oil
1/4 cup snipped fresh basil or flat-leaf parsley
Coarse salt (optional)

**Directions**

1. Thaw the pastry sheets at room temperature for 1 hour.
2. For tart shells, in a small bowl, mix egg yolk with water. Set aside. Unfold the pastry sheets on a lightly floured surface. Roll gently to flatten creases (you should have a 10-inch square). Cut 1/2-inch strips from all 4 sides of each pastry sheet. Brush the edges of the pastry sheets with the egg mixture. Place the cut strips on top and along edges of the pastry sheets, gently pressing in place to form a raised edge; trim ends. Place pastries on 2 parchment paper-lined baking sheets. Brush pastries with egg mixture. Prick pastry with a fork. Sprinkle with Asiago cheese. Bake, 1 sheet at a time, in a 425 degree F oven for 15 to 20 minutes or until puffed and golden brown. Cool on baking sheets on wire racks.
3. In a small bowl stir together goat cheese, garlic, and the thyme. Spread over bottom of tart shells.
4. Arrange tomato slices on top of the goat cheese mixture, overlapping slightly. Drizzle with 2 tablespoons olive oil. Sprinkle with basil and coarse salt, if you like. Slide onto
cutting board or serving platter, cut each tart into serving-size pieces. Makes 8 servings.

**Make Ahead Tip:** Tart shells may also be baked up to 4 hours ahead; cover and store at room temperature.

**Nutrition Facts**
Dietary Fiber, (gm) 1, Carbohydrate (gm) 28, Protein (gm) 11, Vitamin C (mg) 22, Calories (kcal) 468, Vitamin A (IU) 777, Iron (DV %) 1, Saturated fat (gm) 7, Cholesterol (mg) 48, Calcium (DV %) 151, Fat, total (gm) 35, Sodium (mg) 702
Easy Roasted Vegetables
1 ½ pounds new potatoes scrubbed and chopped into quarters
1 Tbsp Olive oil
3 medium zucchinis chopped into large pieces
3 red sweet peppers seeded and sliced
1 onion chopped into large pieces
1 tsp chili powder
3 garlic cloves minced
1 tsp cumin
1 tsp salt
1 tsp pepper
1 tsp dried thyme crushed

Preheat oven to 450°F.
Place potatoes in 9 x 13 inch baking dish. Drizzle and mix with olive oil. Place in oven and bake for 15 minutes. Remove from oven. Add zucchini, peppers, and onion. Sprinkle with seasonings and garlic mix well. Return to oven for 25 minutes or until vegetables are tender. Makes 6 1 ¼ cups per a serving

Tips: You can add any other vegetables you have laying around the house. Yellow squash, asparagus, broccoli, sweet potatoes etc. would be great additions to this dish.

Nutrition Facts: Calories, 133.6; Total Fat, (g) 2.7; Cholesterol, (mg) 0.0; Sodium, (mg) 150.5; Total Carbohydrates, (g) 24; Dietary Fiber, (g) 3.6; Protein, (g) 3.1
**Summer Corn, Bacon and Potato Chowder**

1 Medium uncooked Yukon gold potato
1 spray cooking spray
½ cup uncooked celery, chopped
¼ cups chopped uncooked onion (or 1 large shallot)
4 pieces corn on the cob, kernels removed with a knife
1 cup sweet red peppers, diced
4 oz uncooked Canadian-style bacon, diced
2 cups fat-free skim milk
½ tsp table salt
¼ tsp black pepper
1/8 tsp hot pepper sauce, or to taste

Instructions:
Pierce potato in several places with a fork; microwave on high power until tender, turning over once, about 8 minutes. Allow to cool; peel and mash.

Meanwhile, coat a large saucepan with cooking spray. Add celery, onion, corn and pepper; sauté over medium-high heat for 5 minutes.

Stir bacon and milk into saucepan; stir in mashed potato and mix well. Season with salt, pepper, and hot pepper sauce; stir to combine. Cover and simmer 10 minutes (do not allow to boil).

Yields about 1 ½ cups per serving

Notes: Feel free to substitute your favorite fresh vegetables like asparagus and broccoli for the red pepper. Or to save time, substitute 2 cups of frozen corn and 1 cup of frozen, diced bell pepper for the fresh corn and red pepper.

Nutrition Facts: Calories, 143.3; Total Fat, (g) 2.3; Cholesterol, (mg) 11.7; Sodium, (mg) 524.1; Potassium, (mg) 575.6; Total Carbohydrate, (g) 22.8; Dietary Fiber, (g) 3.0; Protein, (g) 9.8
Special thanks

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http://www.almanac.com/content/reclaiming-your-garden-soil.
http://www.almanac.com/content/preparing-soil-planting.
http://www.ext.colostate.edu/pubs/garden/07238.html.