

Community Gardens

INTRODUCTION

Community gardens have played an important role in U.S. history, particularly during times of need. The potato patch movement in the late 19th century and the relief gardens during the Great Depression are two such examples. Best known are the liberty and victory gardens that sprouted during the World Wars, helping to rally public support for war-time food conservation efforts (Lawson 2005). However, even in less turbulent times, community gardening offers its participants a source of recreation, education, nutrition, and respite from the busyness of daily life, as well as an alternative source of income and sustenance.

Community gardens typically serve those who do not have access to private garden plots. They may be defined as any piece of land gardened by a group of people, using either individual or shared plots on private or public land. The land may produce edibles, such as herbs, fruits, and vegetables, but it is very common to find ornamentals dispersed throughout a garden as well. Community gardens may be found in



MARK BAUERMEISTER, UC
Cooperative Extension Program
Liaison, Marin County;
YVONNE SAVIO, UC Cooperative
Extension Master Gardener
Coordinator, Los Angeles County;
RACHEL SURLS, UC Cooperative
Extension Sustainable Food
Systems Advisor, Los Angeles
County; and
STEVEN SWAIN, UC Cooperative
Extension Environmental
Horticulture Advisor, Marin and
Sonoma Counties

neighborhoods and schools, or connected to institutions such as hospitals, or located on the grounds of shared housing such as apartment complexes and retirement homes.

The intent of this publication is to share basic information about community gardens, including types of gardens and benefits of community gardening, and also to outline some of the pressing issues gardeners typically navigate on the path to success. Additionally, this publication seeks to help prospective and current gardeners avoid common pitfalls by offering a how-to guide for community garden development and maintenance.

TYPES OF COMMUNITY GARDENS

Virtually all community gardens fit into one (or sometimes more) of the following five categories: neighborhood, school, institutional, residential, or demonstration gardens.



Figure 1. Alhambra Community Garden, Los Angeles, California. *Photo:* Yvonne Savio.

Neighborhood gardens

Neighborhood gardens most closely resemble what people typically think of when they hear the term “community garden.” In these gardens, neighbors usually have individual plots on a larger parcel of private or public land where they grow edibles and ornamentals. Individual plots are often rented by gardeners at a nominal annual fee, and the gardens are located in or around communities with both low- and high-density populations (fig. 1).

Residential gardens

Residential gardens are typically shared among residents in apartment communities, assisted-living facilities, and affordable-housing units. These gardens are mainly cared for by residents living on the grounds, and they closely resemble neighborhood gardens where individual or communal plots are available to residents (fig. 2).



Figure 2. Residential garden, Los Angeles, California. *Photo:* Yvonne Savio.



Figure 3. Marin Brain Injury Network Garden, Larkspur, California. *Photo:* Mark Bauermeister.



Figure 4. Falkirk Succulent Garden, San Rafael, California. *Photo:* Mark Bauermeister.

Institutional gardens

Institutional gardens are those associated with private or public organizations, such as churches, hospitals, and government departments (Parks and Recreation, Housing and Urban Development, or HUD, etc.). These gardens are normally part of a larger program offering beneficial services for participants, ranging from mental or physical rehabilitation (fig. 3) to developing employment skills and providing space for low-income families to garden.

Demonstration gardens

Demonstration gardens are generally open for public visitation, and they are used in educational and recreational settings (figs. 4 and 5). These gardens are frequently used as hands-on classrooms or to host gardening workshops, native plant tours, and seminars on gardening-related topics such as water conservation, home vegetable gardening, or pollinator plantings. Many of these gardens have been developed by the University of California Master Gardener Programs located in individual counties.



Figure 5. Descanso Gardens, Los Angeles, California. *Photo:* Yvonne Savio.



Figure 6. Roy Romer Middle School, North Hollywood, California. *Photo: Yvonne Savio.*

School gardens

School gardens are not normally thought of as community gardens due to their unique locations (normally on school grounds). However, parents, faculty, and community members do volunteer their time during workdays and summer months to keep the garden vibrant as a place for students to enjoy and learn about science, math, art, and more (fig. 6).

Some community gardens are hybrids of one or more of these types. For example, school gardens sometimes provide plots for participation by the larger community, in addition to instructional plots for students, and some residential gardens may be institutional gardens as well.

Each of these garden types can be found in most California municipalities, but not all of these gardens may be considered community gardens by local community members. Residential gardens, for example, which are typically found in apartment housing and retirement communities, are not necessarily open to the greater community but instead are reserved for the residents on the premises. These gardens offer those residents an opportunity to come together as a smaller neighborhood community to garden, socialize, and learn from one another.

BENEFITS OF COMMUNITY GARDENS

Community gardens are also education centers where families, classmates, and neighbors learn from each other. Participants aren't just learning how to make cultivated plants grow; they are actively learning about

nutrition, eating new types of food, increasing their environmental literacy, learning about ecological relationships, and building social relationships. Community gardens can help provide structure that may be missing in young gardeners' lives. Gardening in a group structure can teach new gardeners to be team players in a business or community setting; together they share and adopt rules and skills to ensure long-term success of the garden.

Some benefits from community gardens are easily seen. People working in community gardens often report that they have a better understanding of the importance of a cleaner, healthier environment, and this in turn can translate into a better local economic climate (Bauermeister et al. 2010). For example, neighborhood beautification can clean up urban spaces, decreasing urban eyesores such as vacant lots and abandoned industrial zones. Research has shown that greening urban areas helps increase environmental health and residents' perceived quality of life, and it provides opportunities for gardeners to supplement household income through the sale of produce. Community gardens have also been shown to provide economic boosts for the larger community, including increasing the property value of homes and commercial lots in the immediate area (Been and Voicu 2006).

Other benefits are subtler and may be overlooked. In a time when the childhood obesity epidemic is in the forefront of nutrition and health conversations, community gardens offer additional solutions. For example, people actively growing food in a community garden have reported eating more fresh fruits and vegetables than before becoming involved in the garden (Bauermeister et al. 2010). Finally, community gardens may provide practical education, helping members develop small business skills. For example, some institutional gardens have programs with a vocational focus, training their gardeners in job skills such as landscape maintenance, horticulture, and direct marketing (Lawson 2005).

In sum, community gardens can bring social, environmental, cultural, nutritional, and financial benefits to neighborhoods and their residents. With the variety of potential benefits, community gardens would seem to be a good investment. However, there

are issues that often need to be addressed in order for many community gardens to become successful and sustainable.

WHAT ARE THE ISSUES?

The challenges that face a community garden vary, depending on where the garden is and what the requirements are for making that garden thrive. The process of establishing a new community garden typically involves technical issues such as permitting and insurance coverage, water use, environmental impact assessments, or perhaps soil and site remediation. The skills needed for handling these issues are often different from those needed for maintaining an existing garden, which more often involve challenges such as continuity of leadership and funding.

Land Use

Current policy guidelines for land use in most municipalities do not set aside public land for community gardens. As a result, residents wishing to establish their gardens on public land may have to work with zoning ordinances that were not created with community gardens in mind. Discussions with your local permitting agencies are an important first step in understanding what kinds of obstacles one may face and also what kinds of help your local planning department may be able to provide.

People hoping to establish a garden on private land do not necessarily face the same obstacles as those hoping to establish one on public land. Public Health Law and Policy (PHLP) in Oakland, California, offers a toolkit that helps garden coordinators and prospective gardeners, providing strategies for developing gardens on private land. This toolkit offers a step-by-step guide for establishing relations with landowners, developing rules for the garden, and creating a long-term lease to ensure that the land is dedicated to community gardening for many years to come, among other useful resources. For more information about the toolkit, visit the ChangeLab Solutions website. (See the online resources at the end of this publication.)

Leadership

A community garden must have a solid foundation of gardeners—for example, a garden council that it can depend on for management and for covering unforeseen drop-offs in council or garden personnel. A garden council can also serve to initiate an educational platform and fund-raising for garden needs. Ideally, gardens would have a group of coordinators dividing the labor of garden leadership to ensure that the garden is run smoothly and is able to withstand unforeseen issues that may arise. Garden coordinators are typically involved in communicating with gardeners about a number of subjects ranging from weeding, composting, paying dues, caring for tools properly, and coordinating workdays for general garden maintenance.

Programmatic Support

Establishing and maintaining a garden is easier where gardens have the support of other organizations. Nonprofits such as the conservation corps, as well as municipal parks and recreation departments, have been able to provide leadership and resources for community gardens. Organizations are also often the best route to obtain insurance, which can be prohibitively expensive for a single community garden. Other examples of things that organizations may be able to provide include general garden maintenance, such as mending fences; some organizational structure, such as mandated opening hours; or technical help for problem diagnosis. Organizations can also help train new gardeners and help enforce garden bylaws. Therefore, building good relationships with potential partners and understanding their capabilities are important first steps in establishing community gardens.

Food Safety

For gardens to provide healthy, safe foods to its members or for sale, it is important to grow, handle, pack, and possibly even store produce safely. The exact methods used may vary somewhat with the crop species and growing practices. For example, growing requirements for producing organically certified crops often

differ from conventionally grown crops, and all inputs such as soil amendments, fertilizers, and any pesticides used must be Organic Materials Review Institute (OMRI) certified. Furthermore, you will generally have to document that all inputs were OMRI certified by carefully keeping and filing all receipts. The differences in practices are more complex than might be expected, so if you're planning on getting your garden certified, be sure to check on what it will take well in advance.

The fundamentals of clean gardening include starting with clean soil, a clean water source, and clean surfaces, including hands and tools. These factors need to be considered through the preplanting, production, harvest, and postharvest phases of gardening, and some of them may not initially seem obvious. For example, it is important to ensure that the soil is free of contaminants such as heavy metals. Soil testing is a must for any garden that intends to produce fruits and vegetables for consumption. For more information about soil testing, visit the Marin County Cooperative Extension website. (See the online resources at the end of this publication. Also, be sure to contact the local UC Cooperative Extension office if you need more information.) Similarly, irrigation water for food production areas must be pathogen-free. Rainwater coming in from other areas of the garden that are not held to this standard cannot be allowed to flow into food-producing areas—in other words, you cannot have potentially contaminated water flowing into vegetable gardens. If you're using mixed-source irrigation, vegetable production areas must be uphill from ornamental production areas.

Of particular concern is the potential for disease organisms to be brought in through animal wastes. Barriers must be in place to limit animal access (including dogs and cats) to food production areas of the garden. Many gardens simply prohibit animal access; others restrict access to certain low-risk areas. Manure used as fertilizer is another potential source of contamination. If your garden plans to incorporate food production for resale (for example, at a farmers' market stand), it is recommended that the compost used for the plots come from a commercially approved source. Please contact your local agricultural commissioner if

you are planning to donate or sell food to local restaurants or other wholesale or retail operations, including farmers' markets. Similarly, if you are going to use pesticides (even organically certified pesticides) on food that will be used for any purpose other than personal consumption, you will need to inform your county agricultural commissioner. Your fellow gardeners will also likely want to know. For more information on food safety, please see the references and online resources at the end of this publication.

STARTING A COMMUNITY GARDEN

Get Your Neighbors Involved

A lot of work is involved in starting a new garden. Make sure you have several people who will help you. Survey the residents in your neighborhood to see if they are interested and would participate. Hold monthly meetings of the interested group to develop and initiate plans, keep people posted on the garden's progress, and keep them involved in the process from day one.

Form a Garden Committee

Getting neighbors and extended community members involved in the project will help gather the necessary human resources. One goal should be to bring individuals to the table to formally organize a group. This helps divide up the work effectively and facilitate the decision making. It also ensures that everyone has a vested interest in the garden and can contribute to its design, development, and maintenance. Such a group can be formed at any time during the process of starting a community garden; however, it's wise to do so early on. This way, members can share in the many tasks of establishing the new garden. The typical committee will have many functions, including

- establishing garden rules
- accepting and reviewing garden applications
- making plot assignments
- collecting garden dues (if there are any)
- paying water bills and other expenses
- resolving conflicts



Figure 7. Finding garden space. *Photo: Yvonne Savio.*

The garden committee normally has at least two officers—a president and a treasurer—although some may have more. In the event of committee turnover, it is helpful to have additional board members as a pool from which to fill vacated positions. Elections for garden officers usually are held annually.

Find Land for the Garden

Look around the neighborhood for a vacant lot that gets plenty of sun—at least 6 to 8 hours each day. A garden site should be relatively flat, have a viable water source, and ideally come with a fence around it with a gate wide enough for a vehicle to enter (fig. 7). The potential garden site should be within walking distance or no more than a short drive from you and the neighbors who have expressed interest in participating. If the lot is not already being used, make sure the community supports establishing a garden there; neighbors of the garden may not see the benefits of the community garden, and it is important that they feel comfortable with the project.

It's best to select three potential sites in the neighborhood and write down their address and nearest cross streets. If you don't know the address of a vacant lot, get the address of the properties on both sides of the lot; this will give you the ability to make an educated guess about the address of the site. We suggest that you identify at least three potential sites because one or more might not be available for various reasons, and you want to end up with at least one that works out.

If the only available site for the garden is covered in asphalt, do not be discouraged. It is possible to work with a site that is paved with concrete or asphalt by building raised beds that sit on the surface or by using containers. The asphalt or concrete can be removed to create areas for gardens, but such a garden will be much more difficult, expensive, and time consuming to start. A site without paving—and with soil relatively free of trash and debris—is best.

Find Out Who Owns the Land

It is illegal to use land without obtaining the owner's permission. In order to obtain permission, first determine who owns the land. Take the information about the location of the sites to the county tax assessor's office. At this office, maps are available with the name and address of the owner of the sites you are interested in.

Determine If the Proposed Site Has Water

While you are researching site ownership, contact the local water district to find out if a water meter exists for your potential site(s). Call their customer service department and ask them to conduct a site investigation. They will need the same location information that you took with you to the tax assessor's office.

Existing access to water will make a critical difference in the expense of getting the project started (fig. 8). Depending

Figure 8. Youth watering transplants. *Photo: Yvonne Savio.*



on the size of the garden site, a ½- to 1-inch water meter will be required. If water service has been provided to the site in the past, it is relatively inexpensive to get a new water meter installed (if one doesn't already exist). If there has never been water service to that site, it will cost much more for a water provider to install a lateral line from the street main to the site and install a new meter.

Contact the Landowner and Obtain Lease Agreements

Once the potential site is feasible, write a letter to the landowner asking for permission to use the property for a community garden. Be sure to mention to the landowner the value of the garden to the community and that the gardeners will be responsible for keeping the site clean and weed-free. (This saves landowners from having to maintain the site or pay city weed-abatement fees.)

Establish a term for use of the site, and prepare and negotiate a lease. Typically, groups lease garden sites from landowners for \$1 per year. Attempt to negotiate a lease for a minimum of 3 years (or longer if the property owner is agreeable). Many landowners are worried about their liability for injuries that might occur at the garden. Therefore, you should include a simple “hold harmless” waiver in the lease and in gardener agreement forms. This type of waiver can simply state that should one of the gardeners be injured as a result of negligence on the part of another gardener, the landowner is held harmless and will not be sued. Each gardener should be made aware of this waiver and should be required to sign an agreement in order to obtain a plot in the community garden.

Obtaining Liability Insurance

Landowners may also require that the community garden group purchase liability insurance. The role of liability insurance is to protect the organization or individual landowner from legal action on the part of another party. It protects gardeners and volunteers indirectly only if the insured organization or individual landowner stands between them and a potential lawsuit. It does not protect individuals from legal action, nor does it necessarily pay individuals for injuries or damage that occur while at the garden. Most gardens have insurance because they have an organization to protect or

because some other entity requires coverage in order for the garden to exist. Just as group health insurance is much less expensive than individual coverage, insurance purchased by a larger organization to cover a multitude of risks will be less expensive per coverage than the same insurance purchased piecemeal. Typical organizations providing insurance might include community groups, churches, and horticultural or agricultural organizations. A good source of information on liability insurance for community gardens is the American Community Garden Association (ACGA) website. (See the online resources at the end of this publication.)

If the parcel is located within city limits, check and see what municipal ordinances say regarding community gardens. All towns usually have a risk manager whose job is to protect the municipality against all types of risk. It is not uncommon for the risk manager to say that you need to buy insurance. If the group is unable to acquire insurance through the municipality, consider looking into local organizations that can provide insurance. If that is not a viable option, inquire about insurance coverage through a local carrier that may be able to offer low annual rates. **Taking care of insurance is one of the main obstacles to overcome in establishing a garden.** Once a lease is signed by the landowner and liability insurance is acquired, it is time to move forward with planning and planting the garden.

Planning the Garden

Community members should be involved in the planning, design, and setup of the garden. Before the design process begins, measure the site and make a simple site map to scale. Hold two or three garden design meetings at times when interested participants can attend. Make sure that group decisions are recorded in official minutes or that someone takes accurate notes. This ensures that decisions made can be communicated to others and that progress will not be slowed. A great way to generate ideas and visualize the design is to use simple drawings or photos cut from garden magazines, representing the different garden components—flower beds, compost bins, pathways, arbors, etc.—that can be moved around on the map as the group discusses layout.



Figure 9. Early garden planning. *Photo: Yvonne Savio.*

BASIC ELEMENTS OF A COMMUNITY GARDEN

Although exceptions exist to every rule, the planning of community gardens (fig. 9) should almost always include the following elements and adhere to the guidelines below.

- At least 15 plots should be assigned to community members. These should be placed in the sunniest part of the garden. Without plots for individual participation, it is very difficult to achieve long-term community involvement.
- The soil at the site should be tested for fertility, pH, and the presence of heavy metals or other contaminants, depending on the history of the site. Contact the local UC Cooperative Extension office to inquire regarding a list of soil testing services.
- Raised bed plots, which are more expensive, should be no more than 4 feet wide (to facilitate access to plants from the sides without stepping into the bed) and 8 to 12 feet long. (For converting U.S. customary units to metric units, see the table at the end of this publication.) It is advisable to construct the raised beds in sizes determined by lumber that is readily available or that can be cut without too much waste (fig. 10). Note that the lumber should not be treated with any dyes, stains, paint, or other applications.
- In-ground plots can be from 10 by 10 up to 20 by 20 feet. Pathways between beds and plots should be least 3 to 4 feet wide to allow space for wheelbarrows.
- The soil in both raised-bed and in-ground plots should be amended with aged compost or manure to improve its fertility and increase its



Figure 10. Garden parcels. *Photo: Yvonne Savio.*

organic matter content. Check with other community gardens in the area about where they get their soil and compost amendments. Local landscape supply companies are typical sources. The local Master Gardeners chapter of the UC Cooperative Extension will also have information. Be aware that imported soils can mean imported weeds.

- A simple irrigation system should be provided, with one hose bib or faucet for every four plots. Hand-watering with a hose is the most practical and affordable method for individual plots (and it's almost a necessity when you start plants from seed). Drip and soaker-hose irrigation can be used in all areas of the garden for transplanted and established plants, but especially for deep-rooted fruit trees and ornamentals.
- If none of the available gardeners are knowledgeable about irrigation, seek out assistance in designing the garden's irrigation system. Landscape contractors, nursery or garden center professionals, and irrigation supply firms are all sources that can help develop a basic understanding of needed designs and list of materials.
- An 8-foot fence should encircle the perimeter and include a drive-through gate. Fencing will help keep deer from decimating the garden. The gate must be large enough to accommodate the occasional introduction of vehicles or heavy equipment, as needed.



Figure 11. Starts on garden racks. *Photo: Yvonne Savio.*

- A tool shed or other structure should be provided for storing tools, supplies, and materials (fig. 11).
- A bench or picnic table should be placed where gardeners can sit, relax, and take a break—preferably in shade. If no shade trees exist on the site, a simple arbor can be constructed from wood or pipe, and planted with chayote squash, bougainvillea, grapes, kiwis, or some other vine.
- An area for youth should be designated, where they can participate in the garden, learn, and play.
- A sign should be posted with the garden's name, sponsors, and a contact person's phone number for more information. If gardeners are bilingual, include information in each language.
- A shared composting area should be established for the community gardeners. Virtually all gardeners generate green waste of some kind, in the form of weeds, diseased or rodent-damaged fruits or vegetables, and similar debris. Unless the garden pays for a green waste bin, it will be important to have a designated green waste pile. This can normally be composted to kill weed seeds and disease-causing organisms. Wood pallets are easy to come by and make excellent compost bins when stood on end, attached in a U-shape, and covered inside with galvanized rabbit wire. For more information on building and operating a compost pile, see the online resources at the end of this publication.

Other Considerations for the Garden Plan

The following elements can also enhance your community garden:

- A small fruit tree orchard (fig. 12). The care and harvest of these trees can be shared by all the members. The orchard can also create shade for people as well as for shade-loving plants.
- A water fountain. This can be a simple drinking fountain attachment to a hose bib (or faucet), which can be purchased at a hardware store. Note that many hoses are impregnated with lead and therefore should not be used as a drinking fountain.
- Perimeter landscaping. This can focus on drought-tolerant flowers, shrubs, and plants that attract bees, butterflies, hummingbirds, and other pollinators. Also, some of these bushes, such as roses and other flowers, can be suitable for cutting bouquets. Herbs are also well suited to perimeter landscaping and may help suppress unwanted pests.
- A meeting area. This could range from a semicircle of hay bales or tree stumps to a simple amphitheater. Building a shade structure overhead would be beneficial as well.
- A community bulletin board. This is where rules, meeting notices, and other important information can be posted.

Figure 12. Spiraling orchard. *Photo: Yvonne Savio.*



Creating a Garden Budget

Develop a materials list and estimate project costs. A community garden with just the basic elements (listed above) may cost several thousand dollars to start up. It is rarely possible to foresee every need during the planning phase. If there are extra resources beyond the bare minimum, it is advisable to hold some in reserve; these can be spent as the garden begins to operate and funding needs make themselves apparent.

Tapping into neighborhood resources, such as community members with skills in carpentry, irrigation, landscape design, or other areas, can help curb costs. Using recycled materials rather than purchasing new items can also help keep budgets under control.

Gathering Resources

While many start-up needs can be met through determination and hard work, some materials will also be required. Attempt to obtain donations of materials for the project. Potential sources of funding for anything from lumber to plants include community businesses, local nonprofits, and foundations. Develop a letter describing to merchants the importance of the project for the community and explaining how their support will promote their business in the local community. Attach a wish list as an example of things needed, but keep in mind that modest requests are more likely to be met. Try to personalize this letter for each business approached, and personally deliver the letter to the store manager. You can then follow up by phone. Be patient, persistent, and polite; efforts will pay off. Be sure to thank these key supporters and recognize them on the garden sign, at the garden's grand opening, and at other opportunities involving the garden's story of success.

Money will be needed to purchase items that were not donated. This money can be obtained through community fund-raisers such as car washes, craft and rummage sales, pancake breakfasts, and bake sales. Funding can also be obtained by writing grants. But be aware that grant-writing efforts can take 6 months or longer to yield results, and you must have a fiscal sponsor or

agent with tax-exempt, 501(c)3 status (such as a church or nonprofit organization) that agrees to receive and administer the funds.

Make Sure Your Garden Infrastructure Is in Place

Begin having regular meetings during the design phase of the garden, and establish garden rules early. Develop a garden application form for those who wish to participate, set up a bank account, and determine the amount of garden dues if these things have not already been done. Also, contact a city councilperson; he or she can be helpful in many ways, including helping your group obtain city services such as trash pickup. City council staff can also help with community organizing and soliciting material donations.

Get Growing!

Many new garden groups make the mistake of remaining in the planning, designing, and fund-raising stage for an overly long period of time. A fine line exists between planning well and overplanning. After several months of the initial research, designing, planning, and outreach efforts, group members will very likely feel frustrated and begin to wonder if all their efforts will ever result in a garden. That's why it's important to prepare growing beds and plant something as soon as possible (fig. 13). People need to see visible results or they

Figure 13. Preparing growing beds. *Photo: Yvonne Savio.*



will begin to lose interest in the project. To keep the momentum going, initiate the following steps (but not until you have signed a lease and obtained insurance).

Site Preparation

One of the most important methods for keeping the momentum moving forward is to schedule community workdays to clean up the site. This allows everyone to appreciate the full development of the garden as they invest their time and energy into making it a reality. The size of the site and the amount of required cleanup will determine the frequency of workdays scheduled.

Install the Irrigation System

The garden cannot start growing without an adequate water supply and irrigation system. It should be an immediate goal to get this key element in place, and plenty of opportunities exist for community involvement—from digging trenches to laying out pipes. If preparing an irrigation system is beyond the skill capacity of community garden members, be sure to consult your county's UC Cooperative Extension Master Gardeners and ask them for advice. It is also a good idea to make a connection with other community gardens in the area and ask for guidance. It is always advisable to build these relationships in case any questions arise in the future, because it is very likely that other community gardens have had to deal with similar issues in the past.

Plant Something

Designate beds and pathways by marking them with stakes and twine. Mulch pathways and build raised beds, if necessary. Put in the perimeter fencing to dissuade curious herbivores and vandals. Plant shade and fruit trees, and begin to landscape the site with drought-tolerant natives and annual flower seeds, which will grow quickly and can be replaced later. Continue to construct the garden as materials and funds become available.

Celebrate!

At this point, the ideas and hard work have finally become a community garden! Be sure to take time to celebrate. Have a grand

opening, barbecue, or some other fun event to give a special thank you to everyone who helped make this happen. This is the time to give all those who donated materials or time a special certificate, bouquet, or other form of recognition. Be sure to invite the local media as well; every new garden that brings a community together and beautifies the neighborhood is naturally newsworthy and will help build interest in other communities.

TROUBLESHOOTING AS THE GARDEN DEVELOPS

All community gardens will experience problems somewhere along the way, which is why it is important to be organized. The key to success for community gardens is not only trying to prevent problems from occurring but also working together to solve them when they do. The following are problem areas that most community gardens experience, along with some suggestions for overcoming the problems.

Vandalism

Most gardens experience occasional vandalism (fig. 14). The best action to take is to replant immediately. Generally the vandals become bored after a while and stop. Good community outreach, especially to youth and the garden's immediate neighbors, is also

Figure 14. Graffiti on community board. *Photo: Yvonne Savio.*



helpful. It is important not to become discouraged as vandalism is a common issue. It is not recommended that gardens be equipped with extreme preventative measures such as barbed or razor wire. Such measures are bad for community relations, aesthetically unappealing to the eye, and ultimately will cost the garden needed resources since a permit may be necessary for installation of such fencing. If you need more physical deterrents to keep vandals out, plant bougainvillea, trifoliolate orange, or pyracantha along your fence. The plants are a welcoming addition to the garden, and the thorns will act as a natural deterrent.

Security

Depending on the location of the garden, it may be necessary to invite the community officer from the local precinct to a garden meeting to get their suggestions on making the garden more secure. In larger metropolitan areas it is difficult to avoid the odds of vandalism and illicit behavior. Community officers can also be a great help in solving problems with garden vandalism, drug dealers, or gang members in the area.

Communication

Clear and well-enforced garden rules and a strong core of garden leaders can go a long way toward minimizing misunderstandings in the garden. But communication problems do arise. It is the responsibility of the garden club or committee to resolve such issues. If the problem is the result of something not clearly spelled out in the rules, the members can take a vote to add new rules and make modifications to existing rules.

Language barriers are a very common source of misunderstandings. Garden club leadership should make every effort to have a translator at garden meetings where participants are not native English speakers. Family members of those within the multilingual gardening community can be invaluable where language barriers exist.

Trash

The garden rules will likely address the issue of trash. It is important to develop a compost system early on, and provide training for

gardeners on how to use it. If gardeners do not compost, it is possible that large quantities of waste will begin to build up in a relatively short time. In addition to promoting pest problems within the garden, excess waste can be an eyesore, a fire hazard, and harmful to garden-neighbor relationships. It can also jeopardize your relationship with the property owner. Make sure gardeners know how to sort trash properly, what to compost, and what to recycle. Trash cans placed in accessible areas help to keep a neat and tidy garden.

Gardener Dropout

A high rate of turnover can happen in some community gardens, especially as they are becoming established. Often people sign up for plots and then do not follow through with their commitment. Be sure to have a clause in the gardener agreement stating that gardeners forfeit their right to their plot if they do not plant it within 1 month or if they fail to maintain it. While gardeners should be given every opportunity to follow through, if nothing changes after several reminders (preferably by letter), it is time for the club to reassign the plot. If the garden has extra plots available, consider conducting a community outreach campaign aimed at churches and other groups in the neighborhood to let them know about the garden and the available plots.

Weeds

Gardeners tend to visit their plots less during the winter time. Lower participation, combined with rain, tends to create a huge weed problem in January, February, and March. Remember, part of the agreement with the landowner is maintaining the lot and keeping weeds from taking over. In the late summer and early fall, provide gardeners with a workshop or printed material about what can be grown in a fall and winter garden. Also, schedule garden workdays in advance for the spring, since there will be a need at the end of winter to clear weeds. If you anticipate that plots will be untended during the winter months, apply a thick layer of mulch to the beds and paths to reduce weed proliferation.

CONCLUSION

Community gardening is more than residents growing plants on a piece of land; it is a chance to build community relationships, pass on cultural practices, grow food, and beautify neighborhoods. For a successful outcome, some of the key components needing special attention are

- acquiring land and the permits to use it as a garden
- developing sound education and communication among gardeners and community members
- having good leadership in the garden
- obtaining programmatic support for things like insurance and water
- understanding the basics of community garden development to avoid common pitfalls

While issues like obtaining permits are most relevant to those trying to start a new garden, leadership and programmatic support can be ongoing challenges even for established gardens. Building strong relationships with potential partners can make it simpler for the leadership to establish and maintain a community garden. It can also make it more enjoyable for the community of gardeners that ultimately makes the garden a rewarding and productive place to be.

ONLINE RESOURCES

American Community Garden Association (ACGA) website, <http://www.communitygarden.org/>.

Food Safety

Geisel, P. M., and D. C. Seaver. 2009. Food safety in your home vegetable garden. Oakland: University of California Division of Agriculture and Natural Resources Publication 8366. UC ANR Communication Services website, <http://ucanr.org/freepubs/docs/8366.pdf>.

On-Farm Food Safety website, <http://onfarmfoodsafety.org/>.

Organic crop production, post-harvest handling, and certification. UC ANR website, <http://ucanr.org/freepubs/freepubsub.cfm?cat=9>.

Food Policy Innovation

Change Lab Solutions website, <http://changelabsolutions.org/>.

Legal Toolkit for Community Gardens

Change Lab Solutions website, <http://changelabsolutions.org/content/digging-liability-concerns>.

Safe Use of Pesticides

University of California Integrated Pest Management (UC IPM) website, <http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn74126.html>.

Soil Quality and Testing

Small-Scale Intensive Farm Training Program (SIFT) website, <http://sift.ncat.org/blog1.php/sift-main/the-importance-of-soil-testing>.

UC Cooperative Extension Marin County website, <http://cemarin.ucdavis.edu/files/138066.pdf>.

A Starter's Guide to Composting

UC ANR Catalog website, <http://anrcatalog.ucdavis.edu/pdf/8037.pdf>.

UC ANR Catalog website, <http://anrcatalog.ucdavis.edu/HomeVegetableGardening/8037.aspx>.

University of California Cooperative Extension (UCCE) Programs

UCCE Los Angeles Common Garden Program, UCCE Los Angeles County website, http://celosangeles.ucdavis.edu/Common_Ground_Garden_Program/.

UCCE Marin Community Gardens Program, UCCE Marin Master Gardeners website, http://ucanr.org/sites/MarinMG/Community_Service_Projects/Marin_Community_Gardens/.

REFERENCES

- Alaimo, K., E. Packnett, R. A. Miles, and D. J. Kruger. 2008. Fruit and vegetable intake among urban community gardeners. *Journal of Nutrition Education and Behavior* 40(2): 94–101.
- Bauermeister, M., S. Swain, and E. Rilla. 2010. Marin community gardens needs assessment. UC Agriculture and Natural Resources (ANR) website, http://ucanr.org/sites/Community_Gardens/files/75850.pdf.
- Been, V., and I. Voicu. 2006. The effect of community gardens on neighboring property values. *Real Estate Economics* 36(2): 241–283.
- Lawson, L. 2005. *City bountiful: A century of community gardening in America*. Berkeley: University of California Press.
- McMillan, T. 2008. Urban farmers' crops go from vacant lot to market. *New York Times* website, (<http://www.nytimes.com/2008/05/07/dining/07urban.html?sq=Urban%20Farmers%20Crops%20Go%20From%20Vacant%20Lot%20to%20Market&st=cse&adxnnl=1&scp=1&adxnllx=1311298315-XfaBJ3puCTjSM0uAZgNnJw>).
- Nestle, M. 2002. *Food politics: How the food industry influences nutrition and health*. Berkeley: University of California Press.
- Schukoske, J. E. 2000. *Community development through gardening: State and local policies transforming urban open space*. ACTrees Alliance for Community Trees website, <http://actrees.org/files/Research/schukoske.pdf>.
- Slama, J., ed. 2010. *Wholesale success: A farmer's guide to selling, postharvest handling and packing produce*. FamilyFarmed.org website, <http://www.familyfarmed.org/wp-content/uploads/2011/04/Wholesale-Success-Manual.pdf>.
- Surls, R., and Y. Savio. 2001. *Community gardens start-up guide*. University of California Cooperative Extension Los Angeles website, <http://celosangeles.ucdavis.edu/files/97080.pdf>.
- Waliczek, T. M., R. H. Mattson, and J. M. Zajicek. 1996. Benefits of community gardening on quality-of-life issues. *Journal of Environmental Horticulture* 14(4): 204–209.
- Winne, M. 2008. *Closing the food gap: Resetting the table in the land of plenty*. Boston, MA: Beacon.

Measurement Conversion Table

U.S. customary	Conversion factor for U.S. customary to metric	Conversion factor for metric to U.S. customary	Metric
inch (in)	2.54	0.394	centimeter (cm)
foot (ft)	0.3048	3.28	meter (m)

FOR MORE INFORMATION

To order or obtain ANR publications and other products, visit the ANR Communication Services online catalog at <http://anrcatalog.ucanr.edu> or phone 1-800-994-8849. You can also place orders by mail or FAX, or request a printed catalog of our products from

University of California
Agriculture and Natural Resources
Communication Services
1301 S. 46th Street
Building 478 – MC 3580
Richmond, CA 94804-4600
Telephone 1-800-994-8849
510-665-2195
FAX 510-665-3427
E-mail: anrcatalog@ucanr.edu

©2013 The Regents of the University of California
Agriculture and Natural Resources
All rights reserved.

Publication 8499

ISBN-13: 978-1-60107-853-7

The University of California Division of Agriculture & Natural Resources (ANR) prohibits discrimination against or harassment of any person participating in any of ANR's programs or activities on the basis of race, color, national origin, religion, sex, gender identity, pregnancy (which includes pregnancy, childbirth, and medical conditions related to pregnancy or childbirth), physical or mental disability, medical condition (cancer-related or genetic characteristics), genetic information (including family medical history), ancestry, marital status, age, sexual orientation, citizenship, or service in the uniformed services (as defined by the Uniformed Services Employment and Reemployment Rights Act of 1994: service in the uni-

formed services includes membership, application for membership, performance of service, application for service, or obligation for service in the uniformed services) or any person in any of its programs or activities.

University policy also prohibits retaliation against any employee or person participating in any of ANR's programs or activities for bringing a complaint of discrimination or harassment pursuant to this policy. This policy is intended to be consistent with the provisions of applicable State and Federal laws.

Inquiries regarding the University's equal employment opportunity policies may be directed to Linda Marie Manton, Affirmative Action Contact, University of California, Davis, Agriculture and Natural Resources, One Shields Avenue, Davis, CA 95616, 530-752-0495.

For assistance in downloading this publication, telephone 530-754-3927.

To simplify information, trade names of products have been used. No endorsement of named or illustrated products is intended, nor is criticism implied of similar products that are not mentioned or illustrated.

An electronic copy of this publication can be found at the ANR Communication Services catalog website, <http://anrcatalog.ucanr.edu/>.



This publication has been anonymously peer reviewed for technical accuracy by University of California scientists and other qualified professionals. This review process was managed by ANR Associate Editor for Environmental Horticulture Janet Hartin.

web-9/13-LR/CR