

What is a community garden? The answer may come in the form of streetside containers, vegetable plots, a transformed vacant lot—the list is as long as the interest and needs of the community developing the garden. In Minnesota, diverse plantings maintained in many communities enhance their surroundings and welcome visitors.

But there's more. A community garden becomes an inspiring project: a gathering point which continues to strengthen networks through cooperative venture, a source of pride among residents, a visible product of land stewardship and improved environment.

The Minnesota State Horticultural Society's signature outreach program, Minnesota Green, sees statewide greening (through community gardens) as an opportunity to impact physical, economic and personal lives in large and small communities. Each participating neighborhood or community plans its own self-sufficient program, driven by commitment to revitalization and civic improvement. We hope this guidebook will serve as a first step in making public plantings a reality or as a catalyst for revitalizing existing efforts.

The results? A successful greening project that brings volunteers personal satisfaction in the joy of gardening. Caring for the land through ongoing community planting is an inspiration for future generations. Elements of nature combined with brick and mortar develop an environment which best meets human needs.

The Handbook Planning Section begins with your ideas for community gardens (to get you started) and a monthly checklist (to keep you on track).

Planning

- Community garden ideas
- Start new gardens with an idea that fits the surroundings and the group's purpose

Some ideas include:

Intensive food production

- Maximum yield from limited space
- Narrow paths
- Vertical growing
- Composting area

Downtown/urban oasis

- Emphasis on trees, flowers and lawn
- Soothing elements, such as shade, water and sounds
- Private sections

The gathering place

- Comfortable seating in shade and sun
- Sand box, bulletin board, swings
- Wide paths, wandering encouraged
- Accommodations for those with special needs

Horticulture demonstration center

- Variety of sites, unified by design
- Barrier free; specialized techniques/equipment
- Designed to interact with community
- Changing plantings for educational value
- Promoting food self-sufficiency
- Landscaping plants and techniques

Small-space sites

- Areas unified by color, plant types and/or material use
- Slope treatment
- Seating areas
- Raised beds
- Walls, terraces
- Containers
- Window boxes
- Boulevard plantings
- Front-yard gardens

Edible landscape

- Food produced in addition to community enhancement
- Vegetables, fruit trees and shrubs
- Variety of cultural methods demonstrated
- Unusual varieties and combinations planted

Public parkland

- Site for relaxation and/or active recreation
- Seating area in wooded areas
- Enhanced natural setting with compatible materials
- Wooded boundary to screen from noise or view
- Edible species to help support wildlife
- Large sites good for tall trees with protected understory plantings

Urban permaculture

- Perennial Plants of ground cover, flowers, herbs
- Learn plant hardiness factors
- Tolerant of poor soil plantings
- Low-maintenance plantings
- Include windbreakers
- Hedges to offer security
- Develop cool, shady microclimate

The community farm

- An acre or larger
- Built-in water, fencing, tool storage
- On public property
- Several composting areas
- Wide paths
- Road access
- Varied size for individual rental sites
- Shared equipment

The children's garden

- Uniform planting plan works well
- Choose small vegetable plots
- Consider dwarf cultivars
- Plant diverse crops
- Recruit a flexible and patient instructor
- Stress as life-long activity

Horticulture therapy market garden

- Balance between production, demonstration, training
- Participants capabilities discover through project
- Recruit a dedicated instructor
- Use team approach to gain overall enthusiasm
- Raised beds for easy access
- Adaptive tools
- Barrier free

Community welcome

- Floral greeting at town entry
- Surround city entrance signage with plants
- Include garden components for year-round interest

- Choose plants compatible with problem areas

Monthly Calendar of Activities and Tasks

Autumn

1. Write an initial program proposal including:
 - a. Budget and possible revenue and funding sources
 - b. Sources of technical assistance
 - c. Special programs
 - d. Management of plan for site
2. Conduct a meeting of community leaders to:
 - a. Present the idea of starting a community garden
 - b. Test the level of support among leaders
 - c. Recruit a sponsor (a sponsor is not required, but helpful, because of their organizational track record. Sponsors can cover nominal costs such as copying and postage until funds can be raised. Sponsors provide a central mailing address, contact person and phone number. Potential sponsors include organizations listed in the referral section listed in the back of this guide.)
3. Open a bank account for depositing project cash donations
4. Begin a photo history (take before and after shots of the garden site) and a project journal
5. Conduct a land survey and acquire a signed site lease to use the selected land for the garden
6. Conduct a community-wide meeting to:
 - a. Present organizational plan and structure for starting the community garden
 - b. Recruit steering committee members, committee chairs and volunteers
 - c. Schedule first committee meeting
 - d. Inform media and the community about the project

January

1. Prepare budget, itemizing financial needs for aspects of gardening and any associated programs
2. Identify and approach sources of financial assistance, both public and private (ongoing)
3. Plan and begin fundraising activities and strategies (ongoing)
4. Secure assistance from horticulture experts

5. Review or renew site lease
6. Establish project goals and objectives
7. Access community resources and opportunities which may contribute garden and education programs (ongoing)
8. Plan education program and conduct education committee meetings as needed

February

1. Recruit volunteers and paid coordinators (ongoing)
2. Obtain insurance
3. Develop site plans
4. Develop guidelines and rules
5. Advertise the availability of land and programs through programs, through posters, radio, TV, newspapers and personal visits
6. If community vegetable garden prepare an enrollment form and distribute it and, establish plot free structure and membership requirements such as a clean-up deposit
7. Arrange for plowing or roto-tilling and site preparations
8. Order bulk seeds and supplies, and procure equipment and materials for site preparation and planting
9. Organize volunteers for site preparation and planting

March

1. Train volunteer site coordinators and assistants
2. Confirm plowing and site-preparation arrangements
3. Solicit donations of materials and services (ongoing)
4. Encourage participation and advertise the need for land, funds, materials and volunteer labor for the site development (ongoing)
5. If vegetable garden, record data and assign people to plots upon receipts of enrollment
6. If vegetable garden, plan recreation facilities, creative playgrounds, rest areas and close enrollment
7. Arrange for water sources, including rain barrels, hoses, buckets, etc.
8. Access needed tools, rent or purchase as required and provide for tool-sharing procedures
9. Install water system
10. Construct fixtures: flower boxes and containers, arbor, shed, compost bin, sign
11. Begin educational programs with a pre-season garden class

April

1. Hold orientation meeting with gardeners
2. Plow and disc or roto-till sites
3. Stake out individual and communal plots
4. Schedule garden maintenance committee meetings
5. Begin garden when weather permits

Summer (May, June, July, August)

1. Develop and maintain demonstration garden
2. Conduct garden class on insect and disease problems
3. Assist gardeners and outside groups with requests for special activities, programs, tours and parties
4. Prepare news releases (ongoing)
5. Arrange for gardeners to appear on local talk shows and before community groups
6. Write monthly newsletter
7. Set up distribution system for surplus produce at vegetable garden
8. Hold demonstrations on food preservation techniques
9. Plant late season and succession crops
10. Maintain site, mow borders and pathways, reassign or re-plant abandoned plots, make compost, check water system and maintain landscape plantings
11. Conduct tours and prepare gardens for awards judging

Autumn

September

1. Conduct evaluation survey of gardeners
2. Continue harvest
3. Plant fall flowers and bulbs

October/November

1. Evaluate yield
2. Continue harvest
3. Clean up site, plow and plant cover crops
4. Increase fundraising activities
5. Clean, repair and store tools and equipment for winter
6. Write annual report
7. Flush water system and store
8. Test soil and add needed soil amendments
9. Conduct fall festival or recognition even, write thank you letters to volunteers and supporters, and begin monthly pot-lucks and social gatherings

10. Begin fundraising for next season
11. Evaluate the program and plan changes for next season

Planning checklist

October-December (first year)

- Open a bank account for depositing projected cash donations
- Conduct a land survey and acquire a signed site lease
- Conduct a community-wide meeting

January

- Plan and begin fundraising activities

February

- Recruit volunteers
- Obtain insurance
- Develop site plans
- Develop guidelines and rules
- Advertise
- Plow or roto-till and prepare site

March

- Solicit donations of materials and services
- Arrange for water sources
- Access needed tools
- Install water system
- Begin educational programs with a preseason garden class

April

- Hold orientation meeting with gardeners
- Begin gardening when weather permits

May-August

- Write monthly newsletter
- Maintain site, mow borders and pathways, reassign or replant abandoned sights, make compost, check water system, maintain landscape paintings

October-November

- Clean up site, plow and plant cover crops
- Clean, repair, and store tools and equipment for winter
- Write annual report
- Test soil and add needed soil amendments

- Conduct fall festival or recognition event
- Begin fundraising for next season
- Evaluate program and plant changes for next season

Land—where to find it

A 1985 Gallop survey on community gardening indicated that an estimated twelve million non-gardening households would like to garden if space were available in their neighborhood. Land for community gardening is available if your group is persistent and follows the steps outlined below.

Sources of land for community gardening include:

Public land:

City: Community Development Agency, Public Housing Agency, Park Department, Housing and Redevelopment Authority

County: County Tax Office

State: Department of Transportation

Private Land:

Utility company, railroad, church, school, hospital, airport, business, corporations, industrial park, large privately-owned backyard, senior citizens' center, Condominium association, nature center, golf course, cemetery, non-profit organization

Land—what to look for

1. Suitability of soil, sun, water and wind (more details in site implementation section to follow)
2. Neighborhood support for use of the site as a garden
3. Visibility of the site for safety and publicity
4. Safe distance away from dangerous road and factories
5. Easy access for gardeners and other volunteers
6. Easy access by delivery trucks
7. Adequate parking nearby
8. Restroom facilities and telephone nearby
9. Past uses and present condition

Land—how to get it for a community garden

1. Survey area for existing vacant land and check with public/private leaders and community organizations
2. Identify the vacant property you are interested in in one of these ways:
 - a. Address
 - b. Address of buildings on either side
 - c. NE, NW, SW, SE direction and approximate distance from the closest roadside milepost
 - d. General description of the location if specifics are not possible
3. Identify ownership of vacant land by calling the property description unit of your county Department of Property Taxation or County Clerk. They will request the specific description outlined in (2) above. They can give you ownership information over the phone, if the land can be identified; otherwise, you may refer to maps at the county property tax office.
4. Verify ownership of the vacant land by contacting the appropriate public agency or private owner. Upon verification, schedule a meeting to discuss using the land as a community garden. If possible invite a prominent member of the community who is a supporter of the project and a professional with a legal background or negotiating skills.
5. Prepare a one-page description of the project, including:
 - a. What you will be growing
 - b. Who will be gardening
 - c. Letters of support
 - d. A plan for maintenance and winter clean-up
 - e. Name, address, phone of at least two contact people
 - f. Background of the sponsoring agency or group (most landowners are more willing to lease vacant land to an organization rather than an individual)—make copies of the project description for the landowners and neighborhood adjacent to the site
6. Talk with neighbors adjacent to the site. Explain your intentions or the land and ask for their support and active involvement. Ask neighbors to sign a petition of support which includes a brief description of the project and a place for name, address, phone number.
7. Prepare a draft of the site lease, which will become the agreement in writing between the community garden sponsors and the landowner. Topics for consideration in the lease include:
 - a. General purpose
 - b. Utilities
 - c. Property description
 - d. Inspection of site
 - e. Length of lease

- f. Insurance
 - g. Fees
 - h. Lease termination
 - i. Maintenance
 - j. Lease modifications
 - k. Nondiscrimination clause
 - l. Option to renew
 - m. Hold harmless/indemnity Clause
8. A meeting with the landowner may require a presentation to a City Council committee or in front of a committee of the Board of Directors for a local company. These groups are impressed by signs of strength. Therefore, bring as many supporters as possible. A low-key, personal approach to a private landowner is the most successful strategy. The landowner must feel confident of your group's abilities before he/she will review a proposal. Meeting goals include:
- a. Negotiate the terms of the site lease. If you are offered a one-year, renewable lease, determine how long the site may be available for gardening. Make arrangements for revisions and final review, if necessary, and sign the form. Make sure the revisions for lease renewal are clearly stated.
 - b. Establish a line of communication, including contact name and phone numbers, for resolving concerns and for periodic progress reports.
 - c. Encourage the landowner to be an active participant and support the project.

Land—how to keep it

Long term site control:

Community gardens often require several years of hard work before they reach full potential. Site clean-up and preparation are the most challenging first year tasks. Soil improvements and water access are additional site development tasks. Volunteers who commit their time and effort to the community garden will want some measure of security in knowing that their hard work will make lasting community improvements.

Acquiring land:

One site control strategy that has been successful throughout the country is the formation of a Land Trust. A Land Trust is a non-profit corporation which owns land on behalf of the community. A Land Trust has tax-exempt IRS status and therefore offers a significant tax write-off to an owner who makes a whole or partial donation of land to the trust.

Acquiring surplus public land:

Ownership and maintenance of nonproductive surplus land is a drain on local government resources. Vacant land is held by local government until a developer buys the property. In many cases, the land is not desirable because the size of the parcel may be unsuitable, or the base cost is high. For instance, the price for tax delinquent property may include back taxes, outstanding fines, interest, administrative costs and special assessments such as building demolition. These costs are often greater than the market value of the property and can prohibit development at the site. Local officials may be willing to donate the land or sell it for a small fee to a non-profit community garden sponsor because:

1. The organization is working for the benefit of local residents and efforts will help improve that neighborhood.
2. The organization will clean and maintain the lot at a savings to the local government
3. The group's efforts in the community will help increase property values and return more tax revenues to local governments. (This increase, in the long run, might be more than the amount the land would have been sold for at a public auction).

Desired Site Features

- Fencing
- Storage
- Compost area
- Windbreaks
- Shade
- Sign
- Entry area
- Bulletin plots
- Water system/storage
- Meeting space
- Picnic area
- Loading/unloading space

Creative Site Control Strategies

During negotiations with the property owner, request a long term (5-20 year) renewable lease. The community garden organization may need to develop positive relations and a successful track record before the owner agrees to these terms. For this reason, be sure to add the landowner to the mailing list and include him/her in newsletter, other news articles, annual reports, special events and recognition ceremonies. Other ways to control a parcel of land include:

1. Easements or special zoning
2. Inclusion of community gardens under the city's park and open space master plan or the land use section of the city's comprehensive plan
3. Collaborate with developers to preserve the garden site or to assist in relocating the site

People

Volunteers are the backbone of any community organization. Although gardeners are the primary volunteers, it takes a diverse range of skills and interests to make a community garden successful. With strong volunteer support, the greening effect can transform a vacant lot into a beautiful garden.

However, if that support is lost, what has become a community treasure, will change back to an eyesore. In many cases, an unsuccessful community garden is worse than a vacant lot. Many people do not notice the area when the garden is created. When the garden loses volunteer support, it soon becomes overgrown. Then, those who once expected a beautiful garden are disappointed and disillusioned when they see the garden abandoned.

At each stage of the process, it is important to ask the question, "Do we have the necessary volunteers to make this next step a success?"

Working with volunteers requires coordination and open communication. Each person should know exactly what their responsibility is, why the task is necessary, when it must be completed and what resources are available to assist them. More active volunteers require brief job descriptions and a person or group to report to periodically.

A community garden includes a wide range of activities conducted throughout the entire year. A spring orientation and a fall recognition event are good ways to pull the entire group together and fully appreciate the significance of the project. These gatherings are also excellent opportunities to review the primary purpose and community benefits, to help focus the group's identity during early stages of growth, and to identify those elements that everyone has in common.

The biggest challenge in the group's ability to grow comes during the winter months when the continuity of the garden season is broken. Winter is an excellent time to do planning and evaluation, volunteer recruitment and training, fund raising and socializing. Schedule monthly gatherings, shared meals or recreational activities to continue contact among leaders and volunteers. Keeping people informed, interested and involved throughout the year is critical.

The primary elements of successful work with volunteers are: creating a structure of open participation and making individual fulfillment a priority within the context of teamwork.

Volunteers—how to find them

Finding volunteers for a new community garden begins with a networking process. A community forms linkages among individuals and groups just as a spider makes a web of many intersecting strands. Identify organizations whose broad purpose crosses that of the community garden.

Possible intersections are groups focused on:

1. Community beautification or pride
2. Leadership development or employment opportunities
3. Social, recreational or environmental activities
4. Hunger, food, nutrition
5. Intergenerational activities
6. Tourism or economic development

Coalition organizations which can make your networking efforts easier, include the local United Way, Council of Churches, Chamber of Commerce, etc. Whenever possible, rely on experts who can assist with your projects as a part of their work responsibilities.

Once the community garden is underway, public relations becomes an important strategy for finding volunteers. Prospective volunteers and supporters will begin to find you once they know your group exists.

Volunteers—how to get them

The three basic steps in recruiting volunteers are:

1. Clearly define your purpose and primary benefits provided for the community and for the volunteer.
2. Identify prospective volunteers' self-interests.
3. Explain how your purpose and benefits can match the volunteer's self-interest and ask the person to volunteer on a trial basis to test this match.

The key to this process is helping the prospective volunteer clearly identify primary interests. Community gardening provides numerous opportunities for growth in the form

of new challenges, exercising under-utilized skills, and providing a better balance between private and community life. The more self-interest that your project can match, the more likely that the volunteer will become a long-term and reliable part of the team.

Volunteers—how to keep them

Occasionally the match between self-interest and volunteer activity is not on track. Self-interests also change over time as people outgrow the challenge or learning opportunity that the task originally offered. It is important to monitor this match and encourage volunteers to speak out when they are losing interest.

It is often too late to reconnect with the volunteer when they do not follow through with assignments. When volunteers “drop the ball”, the coordinator must find out the underlying reason. Holding people accountable is often difficult for leaders, but knowing why volunteers fail could prevent repeated disappointments.

Give volunteers a choice among several work options and encourage them to try new tasks. Pair new and experienced workers together. Most of all, make volunteer assignments fun. Allow enough time and helpers to accomplish the task with time for breaks and a chance to enjoy conversation and good company. Take time at the end of the work project to look back on your accomplishments. Project leaders must repeatedly acknowledge their help with thank you letters and special recognition.

Recognition is essential. Two primary self-interests that we all share are the need to feel useful and the need to feel important. Be creative in letting people know how important they are. Nominate your best volunteers for state and local civic awards. Giving all volunteers the opportunity for input in planning and evaluating the project will also keep their investment high.

Public relations plays an important role in helping to keep volunteers involved promoting the community garden and recognizing volunteers can help make the project a prominent part of that success. Building a base of volunteers takes time. Be prepared to offer guidance and encouragement before reaping the benefits of many dedicated volunteers.

Organizational Structure and Responsibilities:

Strong leadership is the core of a successful community garden. A steering committee is needed to shape and develop the community as a whole. The most important leaders are the coordinators who work long hours during peak season until the garden is well

established. Committees are formed around special interests and require the attention of leaders who can coordinate the efforts of other volunteers.

Steering committee:

The steering committee must see the big picture, serve as a link between the many supporting organizations, develop long range plans and guide the project through early growing stages.

Committee responsibilities include:

1. Planning and setting goals and policy decisions such as: Do we incorporate or function as a club? Who will garden? Do we allow the use of chemicals? Do we charge fees and hire staff or interns? How do we raise Money? How do we resolve disputes that go beyond control of the site coordinators?
2. Fundraising
3. Committee and leading special functions/participation

Possible committee members:

1. Sponsoring agency/group
2. Community leaders (financial, political and community service-based leaders)
3. Advisors (administrative, technical, public relations, fund raisers and gardening experts)
4. Coordinators (managers and supervisors)
5. Liaisons (representatives of supporting organizations)
6. Site coordinators, committee chairs and gardeners

Site coordinator:

If the garden site is small, several of the functions listed below will not be required. The coordinator functions can be done by one person who wears many hats, or as project grows and more leaders are available, tasks can be delegated in the following way:

Project coordinator:	functions 1 through 5
Volunteer coordinator:	functions 6 through 8
Resource coordinator:	functions 6 through 9
Garden site manager:	functions 12 through 13

Functions:

1. Respond to questions and concerns of volunteers.
2. Represent the community garden at important events and conduct media interviews.
3. Keep the project journal and minutes of meetings filed for reference.
4. Coordinate mailings.
5. Disperse money and record expenditures.
6. Recruit and schedule volunteers to assist at the garden site and special work projects.
7. Assist committee chairs in recruiting volunteers.
8. Tabulate number of donated volunteer hours for the annual report.
9. Solicit donations for the garden site and special events such as seeds, plants, mulch, lumber, and hardware as well as refreshments and meeting space for events.
10. Survey the community to find organizations to assist the project at various stages.
11. Form cooperative relations and ventures with city agencies and other technical assistance organizations. Assist educational committee in seeking technician assistance and educational opportunities such as bulletins, magazines and books, workshops and tours.
12. Assist in planning and supervise plating maintenance and clean-up of the site.
13. Plan and supervise the special work projects.

Site coordinator skills:

Recruiting, managing and thanking volunteers, networking, community relations, media relations, coalition building, long range planning, fundraising and mediating. Horticultural knowledge is helpful but not required if technical assistance is available and there is a core group of experienced gardening volunteers.

Committees:

As the project grows and more volunteers become available, establish a committee structure to delegate responsibilities and to give more people an opportunity to contribute and become involved in decisions. Possible committees include:

Site Committee responsibilities include:

1. Spring clean-up
2. Site preparation including soil improvements and plotting of land
3. Arrange for water supply and install water system
4. Planting, mulching and maintaining (including watering, weeding and fall clean-up)

5. Special work projects such as installing fencing, signs or irrigation

Education Committee responsibilities include:

1. Develop and education plan to:
 - a. Establish horticultural and organizational expertise within the project.
 - b. Encourage self-reliance and identify the group as a resource within the community.
 - c. Strengthen the network of gardeners within the community
 - d. Form alliances with other garden organizations.
2. Coordinate selection of the following options most appropriate for the group: spring orientation or kick-off, dedication ceremony, fall recognition event, workshop series, organization of a mentor gardener project or garden club, tours and visits to other cities with community garden projects.
3. Seek opportunities for volunteers to strengthen the project.

Outreach/Public Relations Committee responsibilities include:

1. Work closely with volunteer coordinator getting the word out to neighbors about volunteer opportunities and distribute project reports through the media.
2. Write, publish and distribute a newsletter that is informative and educational, and provides a way to give special recognition.
3. Write and publish an annual report and write a regular column for the local newspaper
4. Arrange to have your project participate in on-going community events, parades and fairs.
5. Incorporate local schools and social service centers onto gardening activities.

Fundraising

1. Conduct funding prospect research and write grants and requests
2. Solicit service clubs, businesses and corporations
3. Attend special functions and meetings with funders
4. Solicit in-kind contributions
5. Plan and conduct fundraising events

Fundraising Tips for Garden Groups

Garden tours, plant sales, garden workshops and harvest festivals are effective ways to combine educational benefits with fundraising efforts on a level of difficulty most groups

can confidently accept. These projects can be done with limited money and get new people involved in supporting community gardens. In addition to learning more about gardening these fundraising events bring in money; they are good publicity for the sponsoring group and the garden itself; and they are excellent ways to publicly thank key volunteers, funders, and supporters.

Tips to help plan a fundraising event:

1. Start early, a year ahead if possible.
2. Get a small committee together; three to five people is best.
3. Pick a date. Try to pick one connected with another neighborhood event and seek joint sponsorship.
4. Pick a site with easy loading access and necessary equipment such as audio/visual equipment, tables, kitchen facilities, etc.
5. Recruit other volunteers for specific tasks to do on the day of the event.
6. Divide how much to charge, how to collect registrations and money.
7. Print tickets, maps, registration list and programs.
8. Make large, clear signs for easy directions.
9. Assemble the following items: adding machines, extension cords, change box and \$20 worth of change and small bills, nametags and markers, newsprint and tape, coffee urns
10. Ask volunteers to prepare refreshments.
11. Schedule a dress rehearsal at the event location.

Planning and Preparation Help: Tree Planting Resources

Arbor Moth Partnership
% DNR Metro Forestry
1200 Warner Road
Saint Paul, MN 55106
612-772-7565

Resources Include:

- A Community Planning Guide to Arbor Month
- Tree Owner's Manual
- Arbor Month Teacher's Guide
- Hosting a Regional Arbor Day Celebration
- Tree Planting and Care
- Information and Referrals

Publicity:

1. Organize publicity several months ahead
2. Include notice in Minnesota Horticulturist magazine Calendar of Events section
3. Design a poster or flyer and blanket the neighborhood and local business district.
4. Get to know local media or people and submit stories, press releases, or black and white photos of garden or plants.
5. Announce the events to other organizations such as gardening clubs, resident, and business associations, service clubs, churches.
6. Include flyer or announcement in regularly scheduled mailings such as newsletters, city announcements or utility bills, Minnesota Extension Service mailings.

Afterward:

1. Clean up site well.
2. Thank all volunteers and supporters.
3. Meet one or two weeks after the event to evaluate and begin planning next program.
4. Report results and intentions to repeat program to support organizations.
5. Run a follow-up story in local paper.

Fundraising add-ons:

1. Silent Auction or raffles; garden tools and equipment, wreaths and dried flower arrangements, invitation to special entertainment such as picnic in a person's private garden or formal garden tea party
2. Seed and bulb sales
3. Garden book sales (purchased wholesale).
4. Poster and notecard sales.

Implementation

Site Considerations

Shade, Partial shade, Full sun

The amount of sunlight reaching the garden site will determine what plants will thrive. Choose full sun for a vegetable garden; perennial and annual flower gardens may be developed for either sun or shade. Plants in hot sunny locations require more watering than those in cooler shady sites. Southeastern and southern slopes get the most sunlight while north and northwest slopes receive the least. Big trees are priceless to all types of gardens. They provide shade, lessen watering needs, reduce noise and offer cool air at the site and a focal point for planting.

Surroundings

What is the view beyond the site? A billboard, a brick wall, a farm field? Make the best use of features and views beyond the garden as a part of the overall design.

Consider where passers-by view the garden and develop a “best-foot-forward” plan. Try for a neat, pleasant vista in all seasons. If a site is viewed from front and back, planning and maintenance need special consideration on both sides.

Wind

Consider the potential summer wind direction and intensity when planning a garden. In a flat, windy area, choose strong-stalked plants, and stake tall plants. Frigid winter winds can damage flowering trees and shrubs, as well as unprotected perennial plantings. Mulch gardens in late fall to protect crowns of perennials. Even hardy flowering trees and shrubs should be planted in protected sites on the prairie. A hedge planted near a roadside entry planting can bring an important background to the garden and will provide sun protection.

Soil

Natural soil is usually predominantly clay, sand or silt. The mixture of these three is loam, which is the desired soil for successful gardens. Clay soil is dense and heavy and forms hard chunks when it becomes dry. Plants in sandy soil need much attention. Adding organic material (peat moss, leaves, compost, well-rotted manure) improves water-holding capacity and texture of any site, while creating the best opportunity for roots to use soil nutrients for optimum growth. Add organic matter each year for ongoing soil improvement.

Soil should be tested for alkaline or acidity. Preferred Soil pH for most gardens is neutral – 7.0. To increase acidity (reducing pH), use pine mulch or special acidifying nutrients. To add alkalinity lime is used (Minnesota’s soils usually need no lime). A soil test (available through Minnesota Extension Service) is an important start for every garden. The test analyzes acidity, plus nitrogen, phosphorus and potassium content.

Wet-Normal-Dry

Analyze the drainage of the proposed garden. Plants must be carefully chosen if the site is poorly drained and constantly moist. Good drainage means that rain drains away without

puddling while soil holds moisture for five to seven days between rain or waterings. Rocky, sloped, or raised areas dry out quickly, as does soil around trees with surface roots. Sub-surface compositions such as clay hardpan, high water table or rocky base will result in poor gardens.

Water

A good supply is a must for a successful community garden and is a high priority in planning. The simplest way to access water is to ask permission to use a neighbor's water supply through an outdoor faucet. Fire hydrants may be available for watering, with a special permit. Closed barrels of water, near to planting areas, are alternatives for hoses when needed. Teach gardeners how to save water through soil-building, mulching, crop selection and proper timing.

Include a permanent water supply in long range plans. Versatile PVC pipe is easily assembled to bring a water line from the metered water main to the garden. (The system must be drained each fall.) Trickle irrigation systems, covered with mulch, are excellent in areas with permanent plantings.

Site preparation for new gardens

If the community garden site has not been used for a garden site has not been used for a garden previously, several steps are usually required before plantings. Each site needs a specific site development plan, addressing areas of soil compaction, root competition, stumps, removal of brush, site clean-up, etc. As an example, if a flat, grassy area is to become a community vegetable garden, these minimum steps would be taken in preparing the site:

1. Remove trash, rocks, etc.
2. Dig out undesirable brush
3. Strip off and remove grass from the top 4" of soil or treat grassy area with glyphosate to kill growing plants
4. Wait required length of time before tilling roto-till, then remove grass residue, till again, adding compost and/or manure
5. Mark plots and paths
6. Cover path area with wood chips
7. Open for planting

Renewing an existing site

Assessing the long-term potential for existing plant materials is a challenge. Planning should include a review of mature plants at the site.

Damage from disease, insects or physical injury may or may not create a reason for removal. Shade is always desirable in a garden setting, but not of benefit as part of a garden plot. Existing shrubs can become an excellent background component or focal point for the community garden. Trees and shrubs can be pruned to provide an attractive background if they are in good health. Many neglected woody plants begin to thrive with pruning, a modest amount of water, and fertilizer.

Larger “foundation planting” evergreens (such as yew, arborvitae, Juniper) seldom respond to pruning; dig these out. Deciduous shrubs (lilac, honeysuckle, etc.) often grow back full and healthy following major pruning or cutting down to the ground.

Stump removal can be expensive, and is hard to do with volunteers, the area with the stump may be incorporated into a raised bed. The stump could be cut flush with the ground or left as a base for a seating or potting area.

Soil improvements

Begin each gardening year with a soil test, Add needed fertilizer and soil amendments such as dehydrated manure, bonemeal, alfalfa meal, etc. Next, bring in organic matter including well-rotted manure, leaves, grass clippings, straw and/or compost. Use ample amounts of organic mulch during the summer to conserve moisture, keep roots cool, and provide added organic material to the soil. A fall cover crop such as buckwheat, alfalfa or annual rye will ensure replenishing of nutrients, as it is tilled in the following spring. Record results of soil test and soil improvements added, for future reference.

Garden Care

Maintenance

Plants grow best with no weed competition, so good cultural practices bring visible rewards. Cover open soil with mulch immediately after planting to keep roots cool and conserve moisture. Beginning the maintenance cycle prevents much later work. A maintenance guidebook kept at the site to record activities makes planning for the next year easy. Besides providing better gardening results, well-kept sites increase community acceptance and interest new gardeners. In a multiple-plot vegetable garden, several incentives for maintenance have been tried. Developing pride in the project is one of the most successful ways to induce action.

At community greening sites, volunteer teams are needed for regular garden maintenance: watering, weeding mulching, garden clean-up and replacement planting should be regularly scheduled throughout the summer. One person or a regularly scheduled team should be charged with the responsibility of watering, to provide consistent attention. Other jobs may be covered by weekly scheduling or rotating groups for monthly blocks of time.

Fall clean-up is an important step. A neat appearance in fall and winter months is a built-in proportion for the site. Other reasons for fall clean-up; garden stubble hold airborne weed seeds that would otherwise blow past the site; you have an early start for next years' planting.

Tools, Equipment and Structures

Plan ways to keep the purchase of tools to a minimum. Begin a tool check-out system. Hand tools may be donated or purchased (used) from garage sales. Tillers are available from an equipment rental source – or someone who own tillers, mousers or lawn tractors may offer to volunteer by sharing their equipment. A nearby public building may offer secure storage.

Include fencing in the long-range plan. Fences provide garden security while offering support for vine crops and climbing plants. A fence gives a visual sense of privacy, defines the garden, and blocks wind and noise. Picnic tables and benches help create multiple uses for the garden. Sand boxes and swings may be appropriate in some settings. Such additions increase use and appeal of the site. A gathering point encourages conversation among the garden volunteers, and offers a place to pause and enjoy the garden success.

Resources

Generic resources available almost everywhere:

Manure: stables, stockyards, dairies, farmers. Processed manure available in bags at local nurseries

Leaves for mulch and composting: curbsides on garbage day in autumn; municipal leaf dumps

Grass clippings for mulch and composting: curbsides, garbage day, but beware of herbicide-treated lawns

Wood chips for mulch: power companies or tree services

Miscellaneous mulch and soil amendments: food mills/ processors, coffee grounds, rice, peanut and buckwheat hulls, apples and grape pomace. Monument companies – granite dust (potassium source), feed mills – corncobs, farmers' spoiled hay and straw, commercial construction companies, topsoil

Scrap woods: dumpsters at lumber yards and mills, especially at construction and demolition sites, old campaign posters for stakes, old pallets – great for side of compost bins

Scrap metal: (pipes for post, sheet metal yards, dumpsters, demolition and construction sites)

Fencing: scrap wood and metal railroad ties from local railroad companies, utility pole scraps for heavy duty posts from power companies, used cyclone fence (sometimes free from fence companies, who rent it to construction sites)

5-gallon plastic buckets for watering, container gardening, hauling: dumpsters, especially at construction or renovation sites, restaurants

Free seeds: local garden centers at the end of the season; seed companies, retail and wholesale; America the Beautiful Fund (800-522-3557), 50-550 packets or bulk seed available for cost of postage and handling.

Free or cheap plants: local commercial nurseries and garden centers at dumping time, wholesale greenhouse at dumping time, state and city nurseries for cheap seedlings of shade trees, windbreak plants, for wildlife, etc.

Used tools, pot etc.: garage sales, auction, second-hand stores, tool lending libraries

Trellising materials: old fence from farms, construction sites, fence companies, PVC pipe from home construction sites, plumbing contractors (they dump damaged pipe), wreath stands from funeral parlors.

Sources of financial support: Publish a wish list in your newsletter. Sometimes wishes come true!

Community Garden Wish List
Horticultural Items:

Topsoil, peat moss, compost, and potting soil seeds, bulbs, bedding plants, seeds for cover cropping

Shrubs, shade trees, and fruit trees

Fertilizer and manure

Soil testing kit

Mulching materials such as shredded leaves, cocoa bean hulls, marsh hay, shredded bark, straw, black plastic row covers

Wood chips for pathways

BT and insecticidal soaps

Pressurized sprayers

Equipment & Supplies

Hand tools: garden fork, spades, shovels, hay forks, trowels, dibbles, claws, bulb planters, compost turners, hand pruners, loppers

child sized hand tools

Wheelbarrow and garden cart

Garden hose, soaker hose, drip irrigation parts, spray nozzles, hose reels, water barrels, and water carts

Roto-tiller, chip shredder, mower, edger

Plant labels, garden plot markers, signs

Plastic or wood edgings

Flower pots and containers

Lock and chain

Shop lights, trays, and timers for starting bedding plants

Gloves, needling pads, and gardeners' name tags

Food preservation supplies: canning equipment, jars, lids

Pre-Constructed Items or Building Materials

Gates and fencing: wood, chainlink, post and wire, snow fencing

Signs and bulletin board

Tool and storage shed

Satellite toilets

Bird houses and bird feeders

Compost containers

Cold frames

Trellis and arbors

Irrigation system

Benches, picnic tables

Treated wood for making raised beds

Horticulture Garden Design

There is no “right or wrong” design. Factors of existing site, features, materials available, volunteers for planting and maintenance, cost and other resources create the basis for an individual design.

A design/planting plan helps bring a sense of order and permanence to the community garden. The plan can become the catalyst needed for community commitment. The best plan has a realistic long-range vision and includes attainable year-by-year steps.

Design Basics

Garden design follows principles of art. These principles appeal to peoples’ senses of sight, touch, hearing, taste and smell in an interesting and stimulating environment. Design principles are valid in large and small settings.

Line – The eye follows straight and curving lines at the edge or border of plants, fences, buildings or paths. A straight edge suggests direct movement from one place to another, while a curved line slows one visually and physically if a garden is meant as a place to pause and reflect, curved beds and/or plants will help define this intent. Varied views may be developed in small spaces using curved lines.

Form – The total impact or mass of one plant, or an area of plants describe form. In a garden, we think of form as horizontal or vertical. Low spreading plants create an open garden with little visual separation or definition. Tall plants or vines on a vertical support help garden space visually, to create privacy.

Texture – plant materials have fine to course texture due to varied branching habit and size of leaves. Combined textures create interest in a garden. Planning for a good combination of textures includes one dominant form. A good combination of textures includes one dominant mass with added accents.

Color – garden color is especially important in Minnesota, where good planning can bring color to the garden in all seasons. Think of winter interest (evergreens, shrub, stem color); early springtime color with bulbs and flowering shrubs and trees; attractive autumn leaf tones in addition to summer color. Colors are warm or cool. Hot reds, yellows and oranges are colors which advance to viewers’ eyes; cool blues and greens recede, to bring a calming influence to viewers. Changing color combinations to create an interesting garden throughout the year.

Variety/Repetition – combine the above design elements to create an interesting garden. Variety is an important element in planning to avoid monotony or confusion for the viewer. Repetition reduces confusion and brings order to the plan. Repeated plant color, composition and size is desirable in streetside planters, for example to emphasize a uniform theme, and to carry one’s eye down the street from one planter to the next. A large perennial garden invites more variety in use of plants, textures and colors, to create changing views from spring to fall.

Balance – The visual weight of plants growing together makes up balance. Balance includes texture, color and line influences. Think of the visual center of a site in planning for good balance. Symmetrical or formal balance is created by designing a mirror image of plants on each side of center. Informal asymmetry creates visual balance with size and mass. An example in a planting might include a tall tree form balanced visually by a massing of colorful flowers.

Emphasis – A design with emphasis brings the viewer’s eye to a certain portion of the garden through line development to a focal point. This could be a sculpture, unique plant form or group of flowers or vegetables. Emphasis builds the viewer’s interest in the garden

Evaluating a Community Garden on Design and Public Use

Planning questions:

1. How does the garden relate to the community? Does it honor someone? Does it share space with community activities, such as concerts or pageants? Has provisions been made for a sign explaining the function of the garden, who maintains it, etc.?
2. Will the garden relate to the other uses to be made of the space of the surrounding area? Does the garden relate to the natural features? Is it fitted to the site?
3. Will the site be free of hazards? Does the garden create a security problem? A litter problem? Will it clock the view of an intersection? Is the site protected from parking encroachments?
4. Will the garden invite problems? Will people (especially children?) be deprived of a path or a play spot without providing an alternative? Are there paths for viewers? Benches? Is the garden planned for ease of maintenance? Is the garbage collection adequate? Is there water?
5. Does your community have signature plants such as iris, daylilies, shrub roses, or tulips?

Current use questions:

1. Is the flower/display garden in the right spot? Is it where it will be noticed such as along a pedestrian way or a roadway. Is the background appropriate?
2. Is there a sign/display board communicating work dates, celebrations, resources, and other news?
3. Is there a shady gathering place and play area for children?

Questions about flower gardens:

1. Is the scale right? Is the garden big enough to make a visual impression? Is the vertical scale sufficient to be seen from a distance? If people are passing by at forty to sixty miles an hour, will they see more than a blur of color or will small detail be lost?
2. Are multiple colors competing for attention or are a few primary color combinations making a bold statement? Are a limited number of species being use to help make a more cohesive statement?
3. Are informal arrangements used to make design and maintenance easier?
4. Does the garden appear to “belong to someone,” rather than being a “no man’s land?” Does it appear cared for? Is it orderly? Are there visual signs of stewardship: a mowed strip around it? Fences that are maintained? A sign identifying its purpose?

Questions about vegetable gardens:

1. Is the community vegetable garden 90% neat and tidy and not overgrown? Are ornamental vegetables planted along the public side of the site as a form of edible landscaping?
2. Are vegetable plots arranged to reduce unnecessary pathways? Are compost centrally located?

Special Plants for Special Places

Tree and shrubs tolerant to standing water in spring

Balsam Fir
River Birch
Buttonbush
Green Ash
Tamarack
Willows
American Linden
Nannyberry Viburnum

Red Maple
Hackberry
Red Twig Dogwood
Winterberry
Swamp White Oak
American Arborvitae
American Elm
Highbush Cranberry

Drought-tolerant trees and shrubs

Acanthopanax
Japanese Barberry
Siberian Peabush
Pygmy Peabush
New Jersey Tea
Gray Dogwood
Hawthorns
Dwarf Bush Honeysuckle
Russian Olive
Green Ash
Prostrate Juniper
Eastern Red Cedar
Potentilla
Ninebark
Jack Pine
Red Pine
Scotch Pine
Wild Plum
Chokecherry
Bur Oak
Fragrant Sumac
Smooth Sumac
Arctic Willow
Buffaloberry

Heat and drought-resistant perennials

Achillea
Coreopsis
Rudbeckia
Sedum

Asclepias
Gaillardia
Yarrow
Many Herbs

Heat and drought-resistant vegetables

Cucumber
Peppers
Squash
Watermelon
Muskmelon
Okra
Tomato

Heat and drought-resistant annuals

Basil (best sown indoors)
Celosia (not recommended for areas with high salts in soils)
Cleome
Cosmos
Gazania (best performance under cooler night temperatures)
Gomphrena
Helichrysum
Kochia
Marigold (best performance under cooler night temperatures)
Melampodium
Mirabilis
Morning Glory
Nicotiana (best sown indoors)
Ornamental peppers (best sown indoors)
Portulaca
Statice (best sown indoors)
Sanvitalia
Sunflower (ornamental)
Vinca (best sown indoors)
Zinnia (not recommended for areas with high salts in soils)

Composting

Every garden site needs at least one composting area. In public sites, the compost bin may be hidden with vines or shrubs. Leaves are a great resource for soil-building and mulching.

Many community gardens across the county have arranged to get tons of leaves delivered to their gardens, saving money for communities and saving landfill space. In sandy soil or compacted urban lots leaf mold added to the soil will significantly increase the water retention. Slow release of nutrients and improved soil structure also increases vegetable yields, woody plant growth and flowering.

What Is Compost?

Compost is a dark, crumbly, and earthy-smelling form of decomposing organic matter. Decomposition and recycling of organic wastes are an essential part of soil building and healthy plant growth in forest, meadows, and in your home garden.

How Can I Use Compost?

Compost can be made to enrich the flower and vegetable garden; to improve the soil around trees and shrubs; as a soil amendment for houseplants and planter boxes; and, when screened, as a part of a seed starting mix or lawn top-dressing. Before they decompose, chipped woody wastes make excellent mulch or path material. After they decompose, these same woody wastes will add texture to garden soils.

Why Should I Make Compost?

Composting is the most practical and convenient way to handle your yard wastes. It can be easier and cheaper than bagging these wastes or taking them to the transfer station. Compost also improves your soil and the plants growing in it. If you have a garden, a lawn, trees, shrubs, or even planter boxes, you have a use for compost.

By using compost, you return organic matter to the soil in a usable form. Organic matter in the soil improves plant growth by helping to break heavy clay soils into a better texture, by adding water and nutrient-holding capacity to sandy soils, and by adding essential nutrients to any soil. Improving your soil is the first step toward improving the health of your plants. Healthy plants help clean the air and conserve soil, making your area a healthier place to live.

What Can I Compost?

Anything that once was alive can be composted. However, some organic wastes should not be put in home composting systems.

Do *compost* in yard waste bins:

Grass clippings, leaves, flowers, old plants, twigs, annual weeds, old potting soil

Don't compost in yard waste bins:

Food scraps of any sort, dog and cat waste, diseased plants, weeds with seeds, invasive weeds (quack grass, morning glory, buttercup, etc.)

Bury or worm compost these food wastes:

Vegetable scraps, bread and grains, coffee filters or tea bags

Do not bury or compost these food wastes:

Meat or fish parts, cheese, butter, milk, cooking oil and oily foods

Composting Yard Waste

1. Holding Units - These simple containers for yard wastes are the least labor- and time-consuming ways to compost.

Which wastes? Non-woody yard wastes are the most appropriate.

How? Place the holding unit where it is most convenient. As weeds, grass clippings, leaves, and harvest remains from garden plants are collected, they can be dropped into the unit. Chopping or shredding wastes, alternating high-carbon and high-nitrogen layers, and keeping up a good moisture and aeration will all speed up the process.

Advantages & Disadvantages: For yard wastes this is the simplest method. The units can be portable, moving to wherever you need them in the garden. This method can take from six months to two years to compost organic materials, so you need only to be patient.

Variations: Holding units can be made of hardware cloth, old wooden pallets, or wood and wire. Sod can also be composted with or without a holding unit, by turning sections of it over, making sure that there is adequate moisture, and covering it with black plastic.

2. Turning Units - this is a series of three or more bins that allows wastes to be turned on a regular basis. Turning units are most appropriate for gardeners with a large volume of yard waste and the desire to make a high-quality compost.

Which wastes? Non-woody yard wastes are appropriate.

How? Alternate the layering of high-carbon and high-nitrogen materials to approximately a 30:1 ratio. These should be moistened to the damp sponge stage. The pile temperature should be checked regularly; when the heat decreases substantially, turn the pile into the next bin. Dampen the materials if they are not moist and add more high-nitrogen material if heating is not occurring. When the pile has heated up and starts to cool again, turn it into the third bin. After two weeks in the third bin, the compost should be ready for garden use.

Advantages and disadvantages: This method produces high-quality compost in a short time but requires a substantial amount of labor.

Variations: The unit can be built of wood, a combination of wood and wire, or concrete block. Another type of turning unit is the barrel composter, which tumbles the wastes for aeration.

3. Mulching—yard waste can be used for weed control and water retention.

Which wastes? Woody yard wastes, leaves and grass clippings.

How? Simply spread leaves and grass clippings for plants, starting a few inches away from the stem. Chipped woody wastes may be used to mulch around trees and shrubs. (Do not use woody wastes in vegetable gardens.) Tree services will often deliver free wood chips if they are in your neighborhood. Chipper/shredder units can be rented or purchased for home use.

Advantages and Disadvantages: All yard wastes will work first as mulch and then, as decomposition proceeds, as soil enrichment. A disadvantage of mulching with woody yard wastes is that you may have to buy with a tree service.

Variations: use chipped materials for informal garden paths.

Composting Food Wastes

1. Soil Incorporation – burying your organic waste is the simplest method of composting.

Which wastes? Kitchen scraps without meat, bones, or fatty foods.

How? Everything should be buried at least eight inches below the surface. Holes can be filled and covered, becoming usable garden space the following season.

Advantages & Disadvantages: This is a simple method, but because of the lack of air some nutrients will be lost. Rodents and dogs can become a problem with wastes buried less than eight inches deep.

Variation: Using a pothole digger, wastes can be incorporated into the soil near the drip line of trees or shrubs and in small garden spaces.

2. Earthworm Composting – feeding worms is a good way to make high-quality compost from food scraps.

Which wastes? Kitchen scraps without meat, bones, or fatty foods.

How? Use a bin with solid sides, drainage holes, and a tight-fitted lid. Fill the bin with moist leaves, shredded newspaper, or cardboard “bedding.” Add a pound or more of red worms (from a compost pile or local worm supplier). Rotate the burial of food wastes throughout the bin. Every three to six months push the old bedding to one side of the bin, rebed the empty side, and start burying wastes in the fresh bedding. Allow composted wastes to cure for a month before harvesting.

Advantages and Disadvantages: This is an efficient way to convert food wastes into high-quality soil for houseplants, seedling transplants, or general garden use. The worms themselves can be used for fishing bait. However, worm composting is more expensive and complicated than soil incorporation for dealing with food wastes.

Variation: A stationary outdoor bin can be used in all but the coldest months, or a portable indoor/outdoor bin can be used year-round.

Troubleshooting Guide

The following troubleshooting chart is a guide to more efficient composting using a turning unit.

Symptoms

The compost has a bad odor.

The center of the pile is dry

The compost is damp and warm in the middle, but nowhere else.

The heap is damp and sweet-smelling but still will not heat up.

Cause

Not enough air; pile too wet.

Not enough water; too much woody, coarse material.

Pile is too small.

Lack of nitrogen.

Solution

Turn the compost; add coarse, dry materials such as straw, dorn stalks.

Turn and moisten materials; add fresh green wastes, chop or shred coarse wastes.

Collect more materials & mix the old materials into a new pile.

Mix in a nitrogen source such as fresh clippings, fresh manure, blood meal.

The Essentials of Composting

With these principles in mind, anyone can make excellent use of organic wastes.

Biology

The compost pile is really a teeming microbial farm, Bacteria start the process of decaying organic matter. They are the first to break down plant tissue, and also the most numerous and effective composters. Fungi and protozoans soon join the bacteria and, somewhat later in the cycle, centipedes, beetles, and earthworms do their parts.

Materials

Anything growing in your yard is potential food for these tiny decomposers. Carbon and nitrogen, from the cells of dead plants and microbes, fuel their activity. Microorganisms use the carbon in leaves or woodier wastes as an energy source. Nitrogen provides the microbes with the raw element of proteins to build their bodies.

Everything organic has a ratio of carbon to nitrogen (C:N) in its tissues, ranging from 500:1 for sawdust to 15:1 for table scraps. A C:N ratio of 30:1 is ideal for the activity of compost microbes. This balance can be achieved by mixing two parts grass clipping (which have a C:N ratio of 20:1) with one part fallen leaves (60:1) in your compost. Layering can be useful

in arriving at these proportions, but a complete mixing is preferable. Other materials can also be used, such as weeds and garden wastes. Though the C:N ratio of 30:1 is ideal for a fast, hot compost, a higher ratio(i.e. 50:1) will be adequate for a slower compost.

C:N Ratios of Common Materials

<u>Material</u>	<u>C:N Ration</u>
Livestock manure.....	11
Table scraps.....	15
Grass clippings.....	20
Rotted manure.....	20
Fruit wastes.....	35
Leaves, corn stalks...	60
Straw.....	80
Paper.....	170
Sawdust.....	500
Wood.....	700

Surface Area

The more surface area the micro-organisms have to work on, the faster the materials are decomposed. It's like a block of ice in the sun – slow to melt when it's large, but faster-melting when broken into small pieces. Chopping your garden wastes with a shovel or machete, or running them through a shredding machine or lawnmower, will speed composting.

Volume

A large compost pile will insulate itself and hold the heat of microbial activity. Its center will be warmer than its edges. Piles smaller than three feet cubed (27 cubic feet) will have trouble holding this heat, while piles larger than five feet cubed (125 cubic feet) don't allow enough air to reach the microbes at the center. These proportions are important only if your goal is a fast, hot compost.

Moisture & Aeration

All life on Earth needs a certain amount of air and water to sustain itself. The microbes in your compost pile are no different. They function best when the compost materials are about as moist as a wrung-out sponge and are provided with many air passages. Extremes of sun and rain can adversely affect this moisture balance in your pile.

Time & Temperature

The faster the composting, the hotter the pile. If you use materials with a proper c:n ratio, provide a large amount of surface area and a big enough volume, and see that moisture and aeration are adequate, you will have a hot, fast compost(hot enough to burn your hand!) and will probably want to use the turning unit. If you just want to deal with your waste in an inexpensive, easy, non-polluting way, the holding unit will serve you well.

Seattle Tilth's Innovative Composting Program Helps Spread the Word

This special composting section is reprinted with permission from the ACGA *Community Greening Review* from a brochure developed by the Seattle Tilth Association and the Seattle Engineering Department's Solid Waste Utility.

You can order a camera-ready mechanical of the brochure from the Seattle Tilth for \$125 (prepaid). Simply change the addresses and phone numbers, add a credit line, and you are ready to take it to the printer! Seattle Tilth can also provide a Composting Manual(\$35 prepaid) and two slide shows(\$125 prepaid). If you live in Seattle, some of the group's materials are available free.

Seattle Tilth has established itself as an innovative national information resource on home composting. Since 1985, the group has produced educational materials and trained volunteer Master Composters for the city of Seattle. The program was prompted by the city's ban on dumping yard wastes in landfills. Over the last six years, the group has trained over 125 Master Composters, who receive basic training in composting techniques. After training and an internship, the Master Composters spend at least forty hours doing public education, spread the word about composting.

Studies indicate that the program has diverted at least 5,300 tons of yard waste annually from the city's waste stream – saving taxpayers over \$350,000.

For more information on Seattle Tilth, contact: The Master Composter Education Program, Seattle Tilth Association, 4649 Sunnyside Avenue North, Seattle, WA 98103; Phone 206-633-0451.

Special Challenges for Community Gardens

Garden Maintenance

Angry neighbors and bad gardeners pose problems in a community garden. Usually the two are related. A neighbor calling the city council member to complain about a messy garden or inappropriate behavior causes poor relations which most groups can ill afford. In a flower garden maintained collectively, organize a maintenance schedule for the entire growing season; assign two or more volunteers to weed and water the site each week or delegate an entire month to several separate garden clubs. During the assigned period, pick up litter and remove dying flowers twice a week. The coordinator must visit the site at least once per week, and make friendly reminder calls if necessary.

Abandoned plots present serious problems in a community vegetable garden. Schedule weekly weed checks. Violators are called and sent a postcard if not contacted. If the plot is not weeded within ten days, clean, roto-till and re-plant a cover crop. If the vegetables are already growing, then weed and maintain the garden and donate produce to the local food shelf. Those leaving on vacation and others who are unable to care for their gardens are expected to contact the coordinator and make arrangements with a fellow gardener to weed and water while away. Follow rules on maintenance carefully and eject members who fail to keep the garden clean or put them on the bottom of the waiting list for new plots.

Theft and Vandalism

The prospect of garden theft and vandalism can be frustrating, but don't let it stop gardening efforts. Fences discourage vandals, but encouraging area youth and adults to participate in the garden is a better alternative. For example, providing small plots for children encourages their involvement in the garden and heightens respect for the work of others. Practical suggestions to prevent theft and vandalism:

1. Locate the garden close to homes/businesses, asking the owners to join your group or keep an eye on the garden; reward them with produce and flowers.
2. Know who belongs and who doesn't – exchange names and phone numbers. Pass out membership cards or bandanas to wear while in the garden.
3. Keep the garden well-maintained to show you care about space and repair damage immediately to send a strong message that the garden is in control.
4. Display a sign saying who the gardens are for and how to participate.
5. Ask police to check the garden during the late evening. Remind members to pass by the garden as they drive through the area.
6. Replant annuals using bedding plants when flowers are damaged.
7. For vegetable gardens: during peak season rotate hours when gardeners can be at the site and harvest produce daily.
8. Avoid planting high risk crops like corn and watermelon.
9. Discourage theft by sprinkling wood ash, lime, flour or talcum powder on plants.

10. Plant more vegetables than needed and hide valuable plants by design.
11. Collectively plant and maintain one garden plot near access, and add a sign saying “if you need vegetables please join our community garden ; we will help you grow a garden. If you need food today, then please pick from this plot only.”

Lead

Lead poisoning, from ingesting lead-containing elements (in soil or garden produce), can affect all gardeners, but young children are most susceptible. Dangerous levels of lead have been found in many garden soils, especially in city areas, but also in suburban and rural settings. A soil test to determine lead levels is needed for all community gardens, because lead may be taken up by plants and through direct soil contact. Soil amendments and compost additions will reduce lead levels gradually, but severely contaminated soils must be replaced to grow edibles. Vegetables may also be grown in containers containing clean topsoil if lead is present at the garden site.

A lead testing kit may be ordered from the Soil Testing Laboratory, Suburban Experiment Station, 240 Beaver Street, Waltham, MA 02254. Send \$5 to cover the cost of the test. Mailing cost is extra. Services include soil acidity test, nutrient levels, trace element levels, toxic metals test, and educational information.

Salt Damage

Tons of salt (sodium chloride or calcium chloride) are applied to roads and intersections during the winter to keep roads and intersections free from ice. Injury to plants can occur from contact of salt-carrying water on stems, buds or needles, or from salts leaching into the root zone. The damage may be dieback in affected areas, needle browning in evergreens, or death in sensitive species. The Minnesota Department of Transportation attempts to minimize use of concentrated salts by mixing with sand, ash and other abrasive materials.

Use of Chemicals

The Minnesota State Horticultural Society recommends practicing integrated pest management techniques. For more information on IPM, contact MSHS or your local Extension Service office. If chemicals are allowed, the safe application, clean-up, and disposal of containers is important. For vegetable gardens, it is possible to segregate chemical gardens from organic gardens however caution must be used to prevent chemical drift.

Technical Assistance

The Minnesota State Horticultural Society (MSHS) is a nonprofit organization dedicated to developing the art and science of horticulture in the State of Minnesota. Currently, MSHS affiliated garden organizations maintain nearly 500 planting projects throughout Minnesota, through community service projects. With more than 15,000 members throughout the state, its potential base of volunteers can offer gardening expertise to future community greening efforts. MSHS programs, available to members and non-members, bring important resources to potential community gardening projects.

Educational Programs & Tours

Through the MSHS district and garden club system, numerous seminars and workshops are offered each year in Minnesota. The statewide educational conference weekend offers over fifty sessions on horticulture-related topics. The Art of Specialty Gardens seminar series, co-sponsored with the MN Landscape Arboretum each winter, brings nationally-known experts to Minnesota. In the Twin Cities, Coordinated Community Education Services matches the expertise of local gardeners with basic gardening needs of residents through classes at local school district's adult education sites. Garden tours offer hands-on learning about gardening. Volunteers answer the MSHS information line to answer gardening questions. For information on MSHS publications, see page 26.

Publication

Thousands of resources to support anyone growing in USDA Hardiness Zones 3, 4 and 5 are available through MSHS' online Northern Gardener™ Resource Hub, webinar shop and print publication, *Northern Gardener®* magazine. The magazine offers articles on all aspects of gardening in four, seasonal issues each year and is a benefit of MSHS membership.

MSHS' **Minnesota Green** community outreach program coordinates resources of horticulture-related organizations, local and state government and businesses to support visible community improvements and encourage land stewardship with landscape improvements in a variety of settings. Minnesota Green can help develop a wide range of activities and services to support ongoing greening efforts. Technical assistance in planning, land utilization and horticultural training combine with access to needed planting and construction materials. What can this technical assistance do for a greening project? Services include:

1. Consulting on specific problems
2. Linking donation and low-cost opportunities with needed products and services

3. Providing information on community gardening programs
4. Opportunities for community gardening education
5. Yearly awards and recognition events
6. Minnesota Green Community Gardening conference scheduled every year on the last Saturday of February. Conference includes keynote address, workshops, displays, awards and networking opportunities
7. Newsletter includes a cover story on a timely community gardening topic, horticultural information, site in the spotlight, and the calendar.

To participate in Minnesota Green, groups follow an application procedure. The program is open to all Minnesota communities and neighborhoods, but the level of Minnesota Green resources limit the number of communities currently participating fully. Minnesota Green's application stresses strong local commitment as the key to a successful, ongoing project.

Minnesota Green has developed an assistance referral service, within the MSHS district system. Requests for contact names of specific referral organizations within each district are available upon request from MSHS. Fill in the request form in this guide using the following map of Minnesota for the appropriate district.

For more information about Minnesota Green, return the request form at the end of this guide.

Minnesota Green's Key Strategies

- Promote community revitalization
- Maximize volunteer involvement
- Leverage broad-based resources
- Revitalize public parks and open spaces
- Expand natural resources education
- Develop awareness of land stewardship
- Convert vacant land into green spaces
- Improve environmental quality through cooperative efforts

Minnesota Green wishes to thank the organizations that helped us get started:

Minnesota State Horticultural Society
Federated Garden Clubs of Minnesota
University of Minnesota
Waseca Minnesota Beautiful
Several Speciality Plant Societies
Saint Paul Garden Club

Minnesota Beautiful
Minnesota Beautiful Pride
Minnesota Nursery & Landscape Association
Washington County Chapter / Minnesota State Horticultural Society
Minnesota Department of Natural Resources
Minneapolis Committee on Urban Environment
Center for Community Studies, University of Minnesota
Landscape Architecture Program, University of Minnesota
Minnesota Extension Service
Minnesota Landscape Arboretum

Sources used to prepare this guide:

- *Resource Minnesota*, Minnesota Department of Trade and Economic Development
- *Citizen's Action Manual*, U.S. Department of the Interior
- *Community Greening Review*, American Community Gardening Association
- *Development Guide*, Philadelphia Green—Pennsylvania Horticultural Society
- *Starting a Community Garden Organization*, University of Wisconsin Extension
- *Guide to Community Garden Project*, The Community Food & Nutrition Program
- *How To: Composting*, Seattle Tilth
- *Illustrations*, All- American Selections, *Northern Gardener*® magazine (formerly *Minnesota Horticulturist*), U.S.D.A. Soil Conservation Service, University of Minnesota Center for Community Studies, Department of Landscape Architecture

Why Plant Community Gardens?

Community pride

- Enhance parks and public places
- Beautify entryways, front yards, boulevards and business districts

Food and nutrition

- Expand family food budget
- Improve diet and learn about food preservation

Neighborhood cooperation

- Encourage cooperation among diverse groups

- Strengthen ties to businesses, schools, city agencies and community organizations

Environmental education

- Learn about soil and water conservation
- Have a piece of the earth to care for and call your own

Community development

- Improve community identity and ownership
- Cultivate new leadership and get more volunteers involved

Learn about gardening

- Friendly and fun way to learn from others
- Develop new interests and specialties such as perennials, tree plants, or bulbs

Gain the benefits of linking people and plants to improve your community!