



EVERGREEN
COMMON GROUNDS

Bringing Nature to Our Cities

Common Grounds
Fact Sheet #6

Community Gardens Themes & Ideas

Community gardening is a great way to build a sense of community, local spirit and pride. It encourages teamwork and cooperation, provides a healthy means of getting exercise while meeting your neighbours, and provides an opportunity for all ages and skill levels to share their experience and learn from others. Community gardens are especially important in built up urban areas where people may not otherwise have access to green space or a garden of their own. They can be created in a park, along a boulevard, on an abandoned lot or on a rooftop.



Community gardens can include a combination of vegetable and herb gardens, butterfly and bird gardens, childrens' and seniors' gardens and container beds. Your gardens will be as unique as the community tending it. Gardens can be arranged as separate allotments, as one large community garden tended by all, or a combination of both. Remember, garden tours, potlucks and festivals are a great way to build community pride and build support by inviting others to celebrate your project.



This fact sheet is part of a series that provides community groups with practical hands-on information for naturalizing parks and other public spaces. The fact sheets are a companion to Evergreen's guidebook, *No Plot is Too Small: A Community's Guide to Restoring Public Landscapes*, which provides the tools to plan, implement and sustain a successful greening project.

The fact sheets in this series include:

- | | |
|--|--|
| 1. <i>Tips and Techniques for the Naturalized Garden</i> | 5. <i>Windbreaks, Corridors, Hedgerows and Living Fences</i> |
| 2. <i>Prairie and Meadow Communities</i> | 6. <i>Community Gardening - Themes and Ideas</i> |
| 3. <i>Woodland Communities</i> | 7. <i>Designing Community Spaces</i> |
| 4. <i>Pond and Wetland Habitats</i> | |

Vegetable and Herb Gardens

1

Locally grown food is becoming more common in urban areas—people can control the quality of what they are eating by using organic growing techniques. It also supports a less land and energy intensive system by creating a natural cycle for growing your own food, creating your own compost and replenishing the soil.

Preparing Your Site

- ✦ Lay out plots and paths with rope or wooden stakes.
- ✦ Orient the plots along a north-south axis, that is, with the longest sides running from north to south. This will give plants maximum exposure to the sun and minimize shading problems.
- ✦ Arrange plots in rows, squares, rectangles, circles or spirals. Be creative as long as you keep in mind the sun requirements for your plants.
- ✦ Make main pathways 1.2 metres (four feet) wide and paths between garden plots a minimum of 75 centimetres (30 inches) wide to allow for wheelbarrows.
- ✦ Till the garden plots and remove weeds (and their roots) once the soil is tilled.
- ✦ Add organic matter—compost, leaf-mould or well-rotted manure—to enrich the garden soil. Once you have been gardening for a while, the compost from your own garden can be used to provide nutrients for the next year.

did YOU know...

A tool shed to store tools and gardening equipment is a helpful addition to any community gardening project. It is also a great place to store a community garden journal and a calendar marking upcoming events and tasks.



St. James Town West Park

What to Plant and Grow?

- ✦ Try companion planting. Companion planting is the system of growing particular combinations of plants together to improve their health and growth. The following list provides a few examples:
 - ✦ Grow nasturtiums near leaf crops to act as a trap plant for aphids. Nasturtiums grown at the base of fruit trees can also drive away woolly aphids.
 - ✦ Provide shade for lettuce with tomatoes, reducing the occurrence of bolting.
 - ✦ Grow carrots, cucumbers, radishes and strawberries with leaf crops.
 - ✦ Think of growing space. Root crops do not require as much space (and sun) above ground, so grow plants with them that require less root space, but more above ground space: tomatoes with carrots, lettuce with onions, bush beans with potatoes.
 - ✦ Repel with smell! Interplant basil with tomatoes to repel aphids and tomato hornworm. For even more deterrence, chop and scatter the leaves of the basil plant around tomato plants. Growing onions with carrots can keep away carrot fly, which is fooled by the strong smell of the onions.
 - ✦ Grow brassicas (broccoli, cabbage, brussel sprouts, cauliflower, kale) with aromatic plants: potatoes, celery, dill, chamomile, rosemary, beets, onions and nasturtiums. Brassicas do not do well with strawberries, tomatoes or pole beans.
- ✦ Rotate your crops to conserve soil conditions. Crop rotation involves rotating the place where you grow certain family groups of vegetables (e.g. legumes, brassicas) yearly over a three- or four-year cycle. This helps to avoid a build up of pests and diseases and maintains a balance of nutrients in the soil.

Food Garden Themes

- ✦ **Multicultural gardens**—celebrate the different foods from the various cultures represented in your community.
- ✦ **Pizza gardens**—pizza shaped and full of your favourite vegetables and herbs to top it off with. Some communities have even incorporated an outdoor wood-fired oven to bake bread and pizza dough!
- ✦ **Orchards and berry patches**—to create jams and pies and other tasty treats. Use heritage species (reproduced using open-pollination with no human modification) to help preserve a natural gene pool for future generations.



Case Study

Dufferin Grove Toronto, Ontario

The Friends of Dufferin Grove Park have transformed a forlorn space into one that neighbourhood residents actively use and take care of. Among other activities, the Friends converted part of an old rink house into a rudimentary kitchen for baking cookies. They then added a wood stove to instill a sense of coziness in the building and the park. Following that, many community members expressed interest in a traditional bake oven. A local contractor donated materials and built a massive, traditional, outdoor brick oven that is used for community pizza and bread baking parties.



Regulars and casual drop-bys gather to make their own pizzas. Often, local talents play music and groups such as school classes use the oven on a regular basis. The oven has become a magnet, not in small part because of the irresistible aroma. By providing physical spaces and activities that people can always count on happening, the Friends have been able to provide a constant presence in the park. They have captured local nuances, creating a cozy environment, emphasized by "comfort" activities like cooking and fires.

(Modified from Urban Parks Online http://urbanparks.pps.org/topics/community/thecommunity/success_toronto)

2 Wildlife Habitat Gardens



Wildlife habitat gardens incorporate features of natural communities such as meadow and woodland. These gardens provide basic needs for the wildlife you are trying to attract to your site. Have members of your group study the site and surrounding areas throughout the year and see what wildlife is present. Decide on the species you would like to attract and then research what plant species they will need. Here are a few tips to get you started.

- To attract wildlife, four essential needs—food, water, shelter and space—must be provided throughout each season.
- A diversity of plants attracts a variety of wildlife species. Provide a variety of food sources including berry, seed and nectar producing trees, shrubs and wildflowers. Leaving wildflower stems and seed heads in the winter will give birds a natural seed source and a place to rest.
- A diversity of habitat types also attracts wildlife. Include meadows, edge habitat, hedgerows and woodland areas. These areas provide open spaces to search for food, enclosed space for protection and corridors for movement.
- Include water (bird baths, ponds, puddles), feeders and nest boxes close to or in your garden to provide more opportunities for wildlife. Make sure these features are visible from the air for birds, in a sunny, sheltered location for butterflies and high in a tree for bats.
- Mammals require extensive shelter. For example, mature deciduous trees are a home for gray squirrels, coniferous trees for red squirrels and dense undergrowth is preferred by rabbits.
- Fallen logs, brush piles and rocks also provide much needed shelter and habitat.
- Do not use synthetic pesticides (i.e. herbicides and fungicides) or fertilizers in your garden. These are toxic to the animals you are attracting as well as the insects and microorganisms they feed on.

did you know...

In the larval stage, butterflies require specific host plants on which to feed. The monarch butterfly, for instance, feeds only on plants in the milkweed family such as common milkweed, swamp milkweed and butterfly milkweed, while in its larval stage. Unfortunately for monarch butterflies, milkweed species are banned in most municipalities because of provincial weed acts. Talk to your municipality and show them the benefits of wildlife habitat gardens and the need to include important species like milkweed in urban gardens.

For information on natural communities and how to create them, see the fact sheets, #2 *Prairie and Meadow Communities*, #3 *Woodland Communities* and #4 *Pond and Wetland Habitats* in this series.

Container Gardens

3

Containers are a great solution for difficult areas like gravel or asphalt lots, balconies, rooftops or small sites. Anything that will grow in a regular garden can be grown in containers; the size and depth of the container will dictate the type and number of plants feasible. Most crops can also be grown in containers, however, compact tomato varieties, radish, lettuce, spinach, small bean varieties, strawberries and herbs all tend to do very well. Here are some tips for successful container planting.

did you know...

Plastic containers do not dry out as quickly as clay or wood planters making them ideal for hot, sunny locations.

- Group plants with similar needs in the same container. Don't put shade plants with sun-loving plants; drought resistant species with plants that require lots of water; or every type of vegetable together. Try planting a combination of shallow and deep-rooted plants to minimize competition for water and nutrients. Take time to learn what works for you.
- Use the right soil mix. Plain garden soil is too heavy and dense for use in container planting. You can buy pre-mixed growing medium or create a soil mix yourself by combining one part potting soil with two parts organic matter, such as compost, peat moss or composted manure. To improve drainage, builder's sand is a good addition. Remember, always tailor the soil mix to the plants' needs; the proportions of the mixes will vary depending on the plants.

Consider using cold frames and greenhouses to extend the use of the garden throughout the year and grow your own plants for the gardens.

Native wildflowers that have been successful in containers include columbine (*Aquilegia canadensis*), harebell (*Campanula rotundifolia*), wild bergamot (*Monarda fistulosa*), smooth beardtongue (*Penstemon penstemon*), foxglove beardtongue (*Penstemon digitalis*), Virginia mountain mint (*Pycnanthemum virginianum*), and early goldenrod (*Solidago juncea*).



Materials to Use

Container gardens can be built from wooden timbers or a variety of re-used materials such as wooden packing crates, plastic pails, stacks of old tires, concrete sewer tiles, hollow logs, large fruit baskets or even old shoes! The size of the container will depend on what you are planning on growing. Remember to line re-used containers with landscape fabric or plastic and provide drainage holes at the bottom side of the container.

Maintaining Your Container Garden

- Container gardens need more water than plants in the ground. The amount and frequency of watering will depend on the type and size of your container and its location. Generally, container gardens require watering once a day and sometimes twice per day in hot weather.
- Water thoroughly (until water comes out of the drainage holes) so the plants always have moist soil.
- Monitor your container gardens carefully to develop a watering schedule that is based on the needs of the plants.

Avoid using pressure treated lumber for garden edging or container beds. The treatment, designed to inhibit rot, seals the wood's outer surface with several toxic chemicals, including arsenic, posing a health risk to anyone who comes into contact with it. The long-term risk of contamination in your garden renders it an unsuitable building material for container gardening.

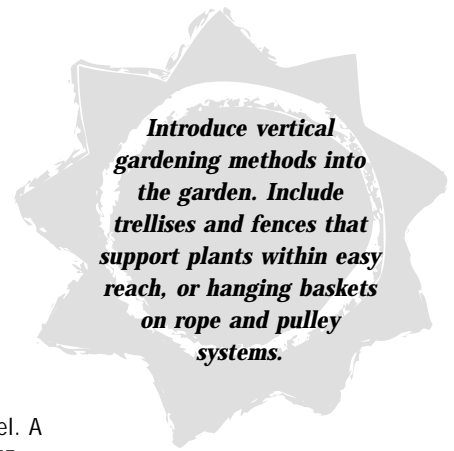


4

Seniors' Gardens

Gardening offers therapeutic benefits for people of any age or ability. With a few simple considerations you can provide a barrier-free garden for everyone's use and enjoyment. Sharing garden space with the seniors in your community will also create the opportunity for information sharing among the ages.

- Assess the gardeners needs and abilities, including eye-hand coordination, visual impairment, strength, balance and mobility. You will need to know height and reach measurements for those with walking challenges as well as the space requirements for navigating a wheelchair or walker.
- Provide access to and around the garden. This will involve the right type of path to suit individual needs. Woodchips work well for gardeners that can walk but are not functional for wheelchair use. See the accessible path section in Fact Sheet #7 *Designing Community Spaces* for more details.
- Consider colours and textures for those with visual impairments.
- Provide containers and raised beds for people in wheelchairs and for those that cannot garden comfortably at ground level. A final soil height of 45 to 75 centimetres (18 to 30 inches) suits the range of most seated gardeners. The maximum width should be determined by the person's ability to reach to the centre or rear of the container.
- Provide smaller-bladed, longer-handled tools with foam rubber padding. They reduce the force needed to move the tool through the soil, increase leverage, enhance limited reach and improve comfort and traction.
- Supply watering wands, shorter hoses and soaker hoses for ease of watering.
- Provide a number of seating options throughout the site for those that require frequent rests.



Children's Gardens

5



Introducing children to gardening at an early age helps them to develop an understanding and appreciation of the natural world. This is especially important in urban areas where many children do not have access to natural areas. Most children love all forms of gardening from planting to watering. Make it fun. Focus less on what they are planting and more on the process of learning about and caring for a garden of their own. Here are a few tips to keep gardening a fun and safe learning experience.

- Create theme gardens. For instance, alphabet gardens (plants starting with each letter of the alphabet) ghost gardens (all white flowers), giant plant gardens (where they can run and hide) or create individual plots where they can grow vegetables and plants of their choice.
- Make children's garden plots a maximum of 1.2 metres (four feet) wide so they can be easily worked from both sides. Put stones or a border around the plots so they have a sense of ownership and boundaries.
- Create a small sign and let the child name their garden.
- Create tool rules—tools are not toys. Use the appropriate tool for the task, use proper-sized tools, clean all tools when finished and store tools in a safe, designated place (i.e. the tool shed). Do not use plastic tools designed for sandbox play. They are not sturdy and will break easily, possibly causing injuries.
- Teach basic community garden etiquette in shared spaces—don't walk in someone else's garden and never pick anyone else's plants, unless invited.
- Help prepare the soil (cultivate and work in the compost), but let them break up small pieces of soil.
- Help in the selection of plants by pointing out those that are fast growing, hardy and can withstand over or under watering such as nasturtiums, beans, peas and sunflowers, but let the final decision be the child's.
- Grow plants that the children can use—nothing beats picking flowers and eating vegetables that were grown by you.
- Show children how to plant by starting with large seeds like beans, peas or sunflowers. Clearly mark out the furrow and help them place the seed in the bottom and cover with soil. Gradually progress to medium sized seeds like radish and spinach and let them mark the rows and furrows.
- Encourage close observation as the plants are growing. Investigate weeds, insects, buds and flowers so children can see for themselves how plants grow and where fruit and vegetables come from.
- Encourage smelling, touching and tasting, but teach children to never taste any part of a plant unless an adult says it is safe to do so. Better yet, avoid the risk by not using plants that have poisonous parts (e.g. castor beans) or may pose allergy problems (e.g. nut trees).
- Include children in garden celebrations and community festivals.

6 Rooftop Gardens

Rooftops are one of our cities' greatest untapped resources.

They account for hundreds of acres of empty, under-utilized space, contributing to problems like the urban heat island effect and increased stormwater runoff. But rooftops could easily be turned into valuable green spaces, by creating green roofs of wildflowers, trees and shrubs or vegetables on public buildings, apartments, homes and workplaces throughout the city.

Green roofs can be divided into two types: the vegetation-covered or "inaccessible roof" where the soil and plants form another layer of the roofing system and the rooftop garden or "accessible" roof that is an outdoor space for growing plants, watching wildlife, participating in community activities or for reading and quiet reflection.

Key Things to Consider in the Design of Your Rooftop Garden

When creating a rooftop garden, here are a few issues you need to address:

a) Safety — Inaccessible green roofs are regulated under provincial building codes as part of the roofing system. However, because rooftop gardens are built as outside spaces on your building they have specific restrictions with respect to public safety. You will need a building permit from the municipality before creating your rooftop garden. To obtain a permit, you will have to address certain issues in the design and construction of your rooftop garden, including: occupant load; load bearing and structural capacity of the building; size of the garden; exiting requirements for fire and other safety considerations; barrier free design and accessibility; enclosure requirements (guards, railings, walls, terraces); and drainage and waterproofing requirements.



Photo by Monica Kuhn

b) Loading Capacity — Can your roof support a rooftop garden? You will need to assess the amount of weight your roof can support. The weight of soil, decking, people and planters—and where they are placed—will all depend on the load-bearing capacity of your roof. Typically, roofs are designed for a combined load of 40 pounds per square foot. Wet soil weighs 100 pounds per cubic foot, so six inches of soil across a roof would add a load of 45 to 63 pounds per square foot. If your roof cannot support the added weight associated with a rooftop garden, you can build a green roof. Green roofs are lighter in weight since they use less soil, do not require the use of planters and are not designed for access by people.

c) Roofing Structure — What kind of roofing system do you have?

- Will it withstand being continuously wet? You may need to provide protection with a drainage course of gravel or expanded clay pellets.
- How and where does the water drain? Keeping access to the drainage system free and clear is a priority. This can be done on green roofs by maintaining a gravel ring and filter cloth layer around roof drains and overflow scuppers. On rooftop gardens, ensure that any deck strapping or containers are aligned in such a way that they don't block the flow of water to the drain or eavestrough.
- Can your roof be walked on? You may need to protect it with wood decking, pavers, rigid insulation, gravel or grass.
- Will plants penetrate the roof membrane? For instance, bitumen is a food source for micro-organisms as well as for plants; therefore any roofing product that contains bitumen is subject to root damage and penetration. You may need to use elevated planters.
- What condition is your roof in? If you need to replace or repair it in the next five years you may need to install your rooftop garden in sections. This can easily be done using containers of any height or size, arranged in sections on your roof. Or, you may choose to install a green roof that will protect your roof, reduce the need for maintenance and extend its life span.

did YOU know...

The urban heat island effect is the difference in temperature between a city and the surrounding countryside. It is mainly due to the expanse of hard and reflective surfaces, such as roofs, which absorb solar radiation and re-radiate it as heat. On a summer day, the temperature of a gravel roof can increase by as much as 25 degrees Celsius, to between 60-80 degrees Celsius. Covered with grass, the temperature of that roof would not rise above 25 degrees Celsius, resulting in energy cost savings.

d) Rooftop Microclimate — Gardening on a roof is quite different from gardening at ground level. Rooftops have unique and often extreme microclimates. The amount of sun and wind your roof receives will have a direct effect on what will grow, how often you have to water and whether your plants will survive the winter. You will need to take these conditions into consideration when selecting plants for your rooftop garden. You may want to try a few of these ideas to temper the effects of heat, cold and dryness, but remember sticking to plants that thrive in the conditions provided on your roof, including soil depth, exposure to sunlight and soil moisture, will create a low maintenance rooftop garden.

- ☛ Use plastic containers that retain moisture better than clay.
- ☛ Insulate your planters.
- ☛ Use mulch.
- ☛ Mix moisture-retaining additives (i.e. vermiculite) into your soil.
- ☛ Layer plants to provide shade for shade-loving varieties.
- ☛ Build trellises and shade structures. Or, build cold frames and greenhouses.
- ☛ Collect rainwater in rain barrels for easier watering and distributing to plants.



Where to *gO* from here?

Sources for this fact sheet

Berman, Laura. *How Does Our Garden Grow? A Guide to Community Garden Success*. Toronto, Ontario: FoodShare Metro Toronto, 1997.

Berman, Laura. *Simple Steps to Successful Container Gardening*. Fact Sheet. Toronto, Ontario: FoodShare Metro Toronto, 1997.

Brown, Maggi. *Growing Naturally: A Teacher's Guide to Organic Gardening*. Crediton, Devon: Southgate Publishers Ltd., 1996.

Canadian Wildflower Society and Rouge Park.

Butterfly Gardening: Attracting Butterflies to Gardens in the Great Lakes Watershed. Fact Sheet 3. March 1999.

Kuhn, Monica. "Rooftop Gardens". An article in Grant, Tim and Littlejohn, Gail, eds.

Greening School Grounds: Creating Habitats for Learning. Gabriola Island, British Columbia: New Society Publishers, 2001.

Kuhn, Monica. "Roof Greening". *Ontario Eco-Architecture*.

Rooftop Gardens Resource Group. *Fact Sheet Series*. 1994-1995.

Rothert, Gene. "Enabling Gardeners." *Community Greening Review*, 1994.

Example projects

Community Gardens

Alex Wilson Community Garden, Toronto, Ontario: (416) 498-3150

Dufferin Grove, Toronto, Ontario: (416) 392-0913

Strathcona Community Gardens, Vancouver, British Columbia: (604) 253-4718

Where Edges Meet Moss Park Kitchen Garden, Toronto, Ontario: (416) 596-1495

Rooftop Gardens

Mountain Equipment Co-op, Toronto, Ontario: (416) 340-2667

Princess Margaret Hospital, Toronto, Ontario: (416) 946-4582

Vancouver Public Library, Vancouver, British Columbia: (604) 331-3600

Organizations

Canadian Horticultural Therapy Association: www.rbg.org

City Farmer, Vancouver, British Columbia: www.cityfarmer.org

Green Roofs for Healthy Cities: www.peck.ca/grhcc/main.htm

Naturescape British Columbia: www.hctf.ca/nature.htm

Rooftop Gardens Resource Group: www.interlog.com/~rooftop; rooftop@interlog.com

Toronto Community Garden Network and FoodShare, Toronto, Ontario: www.foodshare.net/grow.htm

Published by Evergreen

Evergreen is a national non-profit environmental organization with a mandate to bring nature to our cities through naturalization projects. Evergreen motivates people to create and sustain healthy, natural outdoor spaces and gives them practical working tools to be successful through its three core programs: **Learning Grounds** (transforming school grounds), **Common Grounds** (working on publicly accessible lands) and **Home Grounds** (for the home landscape). We believe that local stewardship creates vibrant neighbourhoods, a healthy natural environment and a sustainable society for all.

Evergreen's Common Grounds Program

Common Grounds brings land use planners, landscape architects and community members together to restore public land. By supporting community greening initiatives, Common Grounds enriches ecological diversity, fosters healthy, sustainable communities and increases environmental awareness.

Part of the Tool Shed Series

The Tool Shed is an integrated collection of resources designed to inspire, educate and guide students, teachers, planners, community groups and individuals through all stages of a school, community or home naturalization project. The Tool Shed series includes guide books, instructional and inspirational videos, fact sheets, case studies, newsletters, research reports and an on-line registry. For the latest information on Evergreen's Tool Shed resources, check out our website at www.evergreen.ca.

Copyright © 2001 Evergreen.

Reproductions of this fact sheet for use in community meetings or for workshop purposes is permitted and encouraged, provided appropriate acknowledgement is given to Evergreen.

Illustrations: Samara Newman

Printed in Canada on 100% post-consumer recycled paper.

Evergreen is funded by the generous support of individual Canadians, foundations, businesses and various government agencies. Major funding partners include:



www.evergreen.ca

355 Adelaide St. West, 5th Floor,
Toronto, ON M5V 1S2
Tel: 416-596-1495 Fax: 416-596-1443

#404-134 Abbott St.,
Vancouver, BC V6B 2K4
Tel: 604-689-0766 Fax 604-669-6222

1-888-426-3138 toll free in Canada - outside Toronto and Vancouver