

# Urbana Park District's



## Meadowbrook Organic Garden Manual 2011

Urbana Park District  
Anita Purves Nature Center  
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217-384-4062

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## INTRODUCTION

**Welcome** to the Urbana Park District. We are pleased to have you as a participant in the Organic Gardening Service at Meadowbrook Park. The gardening service has served several thousand Champaign County residents since 1974.

Gardeners choose the service for a variety of reasons. Some lack space and/or are reluctant to dig up part of their yards. Others find that their yards are not suitable for gardening. And then there are some who simply enjoy gardening away from the city or getting the chance to meet other organically friendly gardeners. Whatever the reason, the gardeners and gardens are a positive addition to the park.

The Organic Garden Service offers several different plot arrangements to accommodate all sorts of gardeners:

- Full sized plots (17' x 30')
- Half sized plots (17' x 15')
- Perennial/No Till plots (17' x 30') \* *return gardens only*
- Raised Beds/Handicap accessible plots

The garden plots are located at Meadowbrook Park in south Urbana. Parking for the gardeners is located on Race, just south of Windsor Road.

## CONTACT INFORMATION

**Questions** and concerns regarding the Organic Garden Service should be directed to the Garden Service Supervisor at the Anita Purves Nature Center.

### **Anita Purves Nature Center**

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**Remember** this is an *organic* gardening service, and the uses of synthetic **chemical pesticides or fertilizers are not permitted** at the Meadowbrook garden site. This policy places an additional responsibility on you, the gardener. You are accepting the challenge of outsmarting pests at their own game. Though some of your produce may be blemished, it will most certainly be delicious and nourishing, plus the natural integrity of soil and surrounding wildlife will be preserved.

This manual describes the Organic Garden Service procedures and Urbana Park District guidelines and provides helpful suggestions on how to develop and maintain a good gardening technique. You may have already developed a method that works well for you, or you may be just starting. In both cases, this manual will assist you in enjoying your gardening endeavors.

In this manual you will find: general Organic Garden Service information as well as descriptions of planning tips, different types of gardens, companion techniques, time-tables for planting and harvest, gardening guidelines, suggestions for pest control and more. We hope you find the information useful and wish you a great season. Good Luck!

For questions regarding other Urbana Park District programs, refer to the Urbana Park District Program Guide, call the Phillips Recreation Center at 367-1544, or visit [www.urbanaparks.org](http://www.urbanaparks.org)

## GENERAL INFORMATION

### *When is the growing season?*

The Organic Garden Service season runs from the 1<sup>st</sup> Sunday in March to the 1<sup>st</sup> Sunday in November. Illinois's typical growing season is from April-November, depending on the dates of first and last frosts. Participants are granted access to their plot as soon as they have received their plot number confirmation. So though the ground may not be ready for veggies, you can still plan and prepare for the season. **Full and Half Plot Gardeners must have their plots cleared of all plant and non-plant material and returned to a level state by 4pm on the 1<sup>st</sup> Sunday of November.**

Perennial/No-Till Gardeners have access to their plots all year long and are not required to remove anything at the end of the season, unless they do not plan on returning the following year.

### *What does my fee cover?*

The fee to rent a garden plot at Meadowbrook covers a variety of service costs: a garden supervisor, amenities and equipment, as well as overall registration and brochure printing. The cost of water is a significant portion of the organic garden program's budget, so please help to conserve.

Fees vary depending on the plot type and residency within the boundaries of the Urbana/Champaign Park Districts.

<b>Plot Type</b>	<b>Cost</b>
• Full sized (17' x 30')	• \$50 R/\$100NR
• Half sized (17' x 15')	• \$30R/\$60NR
• Perennial/No Till (17' x 30')	• \$60R/\$120NR
• Raised Beds/Handicap accessible	• \$30R/\$60NR

*\*R/NR =Resident/Non-resident*

Gardeners also pay a deposit, which is returned at the end of the garden season, provided they abide by the Urbana Park District's Organic Garden Service Guidelines (pg. 6). The deposit helps cover the cost of labor related to plot clean-up after a gardener has left. Deposit fees are based on gardener status as well as plot type.

<b>Status</b>	<b>Deposit</b>
• New Gardener (any plot size)	• \$30
• Return Gardener (any plot size)	• \$15
• Perennial/No Till Gardener	• \$45

Gardeners who lose their deposit must register as a new gardener the following season. New gardeners must attend a new gardener meeting and must wait until the meeting to pick their plot. Gardeners who do not receive their deposit for multiple seasons may lose their privilege to register for future garden plots.

## GARDEN SUPERVISOR

The Urbana Park District employs a part-time garden supervisor to assist its participants, providing them with information concerning organic gardening, attending to their needs and concerns, and of course keeps the service running smoothly by monitoring weeds and making sure all guidelines are met.

The Supervisor holds "office hours" 1-2 times per week at the gardens plots to answer questions and assist gardeners in person. A sign will be posted at the Garden Kiosk when he/she is on duty. Of course if you miss them, they can always be reached via email and telephone (*refer to contact information on pg. 2*)

Since the Garden Supervisor only works part-time, the Park District encourages gardeners to work cooperatively, and when problems or questions arise, call the Environmental Public Program Coordinator at the Anita Purves Nature Center. The Environmental staff is available to answer questions and or leave messages for the Garden Supervisor.

## AMENITIES

### *Conveniences*

Wheelbarrows, hoses, and water are all provided for your gardening needs. Wheelbarrows can be found propped up on the west side of gardens near the parking lot. Please remember to share and return wheelbarrows to their proper place. Water spigots are located throughout the gardens and are marked by an X on the plot map. All attempts are made to keep these in good working condition. If you notice a problem with equipment please call 384-4062 as soon as possible so that they get repaired.

There are also picnic tables and grassy areas near the gardens, when you want to take a break. The nearby pavilion can be reserved and otherwise is available on a first come basis. Restrooms are located in at the pavilion. They are closed for the season between mid October and April.

Garbage barrels are also available for the disposal of small non-recyclable items. Any large containers or fencing materials must be completely removed from the park. In order to keep fees affordable, the Urbana Park District counts on its participants to take responsibility in keeping the organic gardens presentable to other patrons.

## Compost Pile

A compost pile is located behind the wooden fence on the far east side of the gardens. Gardeners may use this pile to dispose of any of plant material they may have. Please place plant material waste as close to the back of the fence as possible. This will help to contain the compost in a fairly small space.

When this plant material decays it can be used as mulch and help to build up the organic content of the soil. In fact, the Park District Staff mixes the compost into the garden plots when they till them at the end of the year. For this very reason, we ask that only biodegradable materials be placed into the compost heap.

Should you remove any diseased plant material from your plot please place it in the designated bins near the compost pile. Since gardeners use the compost on their plots throughout the growing season, it is important to keep diseased plants separate.

## Manure Pile

A manure pile is located in front of the wooden fence on the far east side of the gardens. The manure is donated by the University of Illinois, and has limited availability. To our knowledge it is free of damaging chemicals but might contain some weed seeds. Since the manure is brought in at different times, it is best to use the most decayed. The older manure will be darker in color and have white areas, which indicate calcium. Fresher manure will be too "hot" for young plants and will often kill them.

One of the best ways to use manure as plant fertilizer is by mixing it in with compost. Composting manure eliminates the possibility of burning the plants. It is preferable to apply manure in the fall or early spring and thoroughly till it into the soil so it has the opportunity to break down. It is also advised that manure be applied 120 days prior to harvest.

When using manure in your garden be sure to wash all fruits and vegetables thoroughly under running water before eating them to reduce health risks. Carrots, onions, lettuce, radishes, and other crops eaten raw should be especially well washed. Peeling vegetables also helps ensure your produce is safe.

## END OF THE SEASON

### Clean-up Procedures

The garden season ends on the **1<sup>st</sup> Sunday in November at 4pm**. Full and Half Plot Gardeners must have their plots cleared of all plant and non-plant material and returned to a level state. Perennial Gardeners that do not plan on returning must also clear their plots.

All plant material should go in the compost pile behind the wooden fence at the east end of the gardens. Please try to push the plant material as close to the center of the pile as possible. Remember that everything has to be removed from your garden plot and all non-plant material (fencing, wooden structures, stakes, etc.) needs to be completely removed from the park by you. All raised beds must be leveled.

**Please contact the Garden Supervisor ahead of time if you have any concerns about clearing your plot.**

### Refunded Deposits

As long as your plot is completely cleared by the required date, your full deposit will be returned. Look for it in the mail or on your credit card statement in early December. If your credit card has expired over the course of the past year, please call with the new expiration date so that we are able to refund your deposit. As a reminder gardeners who lose their deposits must register as new gardeners next season. This means they cannot register for a No-Till plot, and will not receive first choice of open plots or the discounted return gardener deposit.

Returning Perennial Gardener deposits will be held and put toward the next season at registration since plots are available all year round.

### Next Season Registration

Registration for the next season begins in the second week of December. Gardeners who have received their garden deposits have the privilege of reserving the same plot for the next year; however they **must register by the last Friday of January**.

Gardeners that wish to have a different or additional garden plot must make the request on their registration form. Changed or additional plots will not be assigned until the second week of February.

**If you have any questions or concerns regarding deposits, plots requests or registration please contact the Environmental Public Program Coordinator at the 384-4062.**

## POTENTIAL PROBLEMS

### *Meadowbrook Park's Climate*

Meadowbrook Park is a beautiful open area, great for gardening. However, due to its location, the gardens experience certain climate conditions not often found in town. The location provides a great deal of direct sun. However, if you want to grow plants that cannot take the hot summer sun, then shade must be provided. This can be achieved by planting tall plants to the south or west of the shade-lovers, or planting the shade-loving varieties early or late in the season when the sun is not quite so intense.

Some of the plots on the northeast side of the garden are subject to flooding. This can be beneficial to the plants during hot, dry summers, but can be troublesome in the spring. You may have to wait longer to work in your garden because of the damp, wet conditions. Gardening while the soil is still very wet can compact the soil, limiting plant growth. Setting up paths early in the season can reduce the chance of compacting your planting areas. Some of the drainage problems can be relieved by using raised beds, trenches, or mixing compost into the soil.

### *Animals*

Be aware there are many non-human visitors to the park. Rabbits, deer, raccoons and other wildlife make Meadowbrook Park their home. It isn't unusual to find them enjoying a meal at your plot. Many gardeners use human hair, soap, and other methods of deterring animals. Fencing, companion planting, and just planting a bit extra are helpful preparatory suggestions. Remember that all structures must be removed by the end of the season.

Dogs are also common visitors to Meadowbrook Gardens. All dogs are to be leashed. However, you should be prepared to deal with strays and the occasional unleashed dog walking through your plot. If the owner is present ask them to put their dog on a leash.

### *Vandalism and Theft*

Unfortunately there are risks of pilfering in a community garden setting. Since the gardens are on public land, vandalism and theft are extremely hard to control. Get to know your fellow gardeners, and help prevent this situation. All gardeners should know their plot number and have proof of identification if asked. If you think someone is tampering with a garden, get a description or the license plate number, and report the incident to the police immediately at the non-emergency number (217) 384-2320. Please also make a report by calling the nature center.

### *Insects*

Insect pests present a far more difficult task of removal, for organic gardeners. It will be especially challenging to identify the guilty pest and try to outsmart it. Keep in mind the sensible use of Bt (*Bacillus thuringiensis*), and other organically friendly pesticides are acceptable under the guidelines. However, please be sure to read all labels **carefully** and follow the suggested use. Throughout the season, check the Garden Kiosk for information about specific seasonal pest identification and control. The best way to alleviate pest problems is to stagger your planting schedule, companion plant, and plant extra. The University of Illinois Cooperative Extension Service 333-5900 or [www.extension.uiuc.edu](http://www.extension.uiuc.edu) can also help provide information on pest identification and control.

Also be aware of the large mosquito population at Meadowbrook. Due to the swampy environment, mosquitoes tend to be an issue. Since there is no way to get rid of all of the mosquitoes, you may want to plan garden visits around the time of day when pest numbers are at their lowest. Typically pest numbers are at their peak in the early morning and late evening, and are the lowest during the heat of the day; however the intense heat may not be good for you either. A windy day is the best time to avoid mosquitoes.

### *Mulch*

Most gardeners prefer to mulch crops. Mulch is anything applied to the top of the soil and put under the plant leaves. It can be leaves, straw, grass clippings (free from pesticides and herbicides), composted materials and even newspaper. This is done mainly to improve soil quality and moisture content. In hot months the soil temperature may be lowered significantly by this process. Mulch also helps to prevent the growth of weeds.

Wood chips are not recommended as mulch in your garden as they do not decay within a growing season. Though black plastic may also be used as a cover, it is recommended to use more natural and biodegradable materials. Plastic tarps have also been known to blow away into other areas of the park. If you must use plastic, keep an eye on it and be sure to remove it from the park when you are finished using it. Buried tarps can clog tilling equipment.

In most cases, it is best to mulch early in the season. Early mulching for tomato and pepper plants will help with moisture retention and weed control. Remember to check the kind of mulch you use. Mulch varies in pH, and some plants are pH specific. Most gardening books or stores can help with this kind of information.

# MEADOWBROOK ORGANIC GARDEN SERVICE GUIDELINES

The following guidelines were established to not only keep the Organic Garden Service running smoothly and effectively, but to assist you in practicing healthy and environmentally sound gardening techniques. As a participant in the Urbana Park District's Meadowbrook Organic Gardening Service, you have agreed to abide by these guidelines or are subject to relinquish your plot. It is our hope that you will explore the numerous organic gardening practices used at Meadowbrook and enjoy a harvest that is bountiful as well as healthy. Please take a moment to read the following guidelines.

## **Failure to adhere to these guidelines you will result in the following:**

- 1. You will receive a warning letter or phone call regarding the area of concern**
- 2. You will be given two weeks to correct the issue or contact your Garden Supervisor.**
- 3. After the two weeks have passed your plot will be mowed and you will lose your deposit.**

1. Do not use non-organic pesticides, herbicides and fertilizers. Rotenone, although listed as an organic method, is not allowed. If something is questionable, please ask.
2. Provide your own seeds.
3. Provide and store your own tools. The Urbana Park District cannot be responsible for loss of tools. Wheelbarrows, hoses, and water will be provided.
4. Perennial plantings are only permitted in designated plots. If something is questionable please ask.
5. Respect neighbor's plots by leaving a MANDATORY maintained edge around your garden. Anything outside of this required pathway will be mowed. Plot edge size requirements are as follows:  
  
**Leave a 1ft pathway on the east and west borders and a 6 inch pathway on the north and south borders.**  
  
Full plots w/ border will measure: 16 x 28  
Half Plots w/ border will measure: 16 x 13  
  
Keep your garden within your assigned plot area. The borders allow access to water hoses and gardens with out trampling plants, as well as clear mowing edge for maintenance of the grass paths.
6. Fences must allow for the mandatory edge outside of the fence. Fences that go to the edge of the plot will have to be removed. Keep in mind fencing is not required.
7. Thin, plastic, mesh netting will not be allowed. The light netting has been known to blow out into the rest of the park and poses a threat to local wildlife and park visitors. If you have questions regarding your fencing don't hesitate to ask.
8. Immediately remove diseased plants and dispose of them in the trash bins located on the far east of the park.
9. Transport disease-free plant material to the compost pile on far east of the gardens. Place only biodegradable materials in the compost site.
10. Recoil hoses neatly after use and return them to their posts. Report problems with hoses to the Garden Supervisor. Keep pathways free of tools and debris.
11. Remove non-biodegradable materials from the garden area. Place in trash barrels or take home. Do not put these items in the compost pile. Large items, stakes, fencing, tomato cages, etc must be removed from the park.
12. Remove all weeds in a timely manner. The Garden Supervisor will notify and send warnings to gardeners whose plots contain weeds taller than 12" and/or weeds that are going to seed. Unattended weeds can spread to other garden plots.
13. Check with the Garden Supervisor for help with unknown pests and other problems or call the Anita Purves Nature Center, 384-4062.

## END OF THE SEASON DUTIES:

14. Full and Half Plot Gardeners must clear the plot of all structures, fencing, stakes, strings, plastics, etc., and large plant material by 4:00 pm on the first Sunday in November. If a plot is not cleared by the closing date, your deposit will be forfeited.
15. Return the plot to a level state to enable fall plowing by Park District equipment. All raised beds must be returned to a level ground situation. Failure to return plots to this condition will result in forfeit of your garden deposit.

# FINDING YOUR GARDEN PLOT

**Plot Markers** are located in the SOUTHEAST corner of each plot (see diagram below). Please consult the Garden Plot Map below or at the Garden Kiosk posted at Meadowbrook to ensure you have the correct plot. If you are uncertain, call Anita Purves Nature Center at 384-4062 prior to beginning your gardening. Please do not be embarrassed to ask, as it is more embarrassing to find out you have planted in someone else's plot. (Note: Locations of half plots vary from year to year)

This is plot #	This is plot #	This is plot #
79A	79B	87

## ORGANIC GARDEN PLOT MAP:

Parking, Kiosk & Wheelbarrows

1	7	13	19	25	X	31	39	47	55	63	71	X	79	87	95	103	
2	8	14	20	26		32	40	48	56	64	72		80	88	96	104	
X						X							X				
3	9	15	21	27	X	33	41	49	57	65	73	X	81	89	97	105	111
4	10	16	22	28		34	42	50	58	66	74		82	90	98	106	112
X						X							X				
5	11	17	23	29	X	35	43	51	59	67	75	X	83	91	99	107	113
6	12	18	24	30		36	44	52	60	68	76		84	92	100	108	114
X						X							X				
												85	93	101	109	115	
												86	94	102	110	116	

Compost / Manure



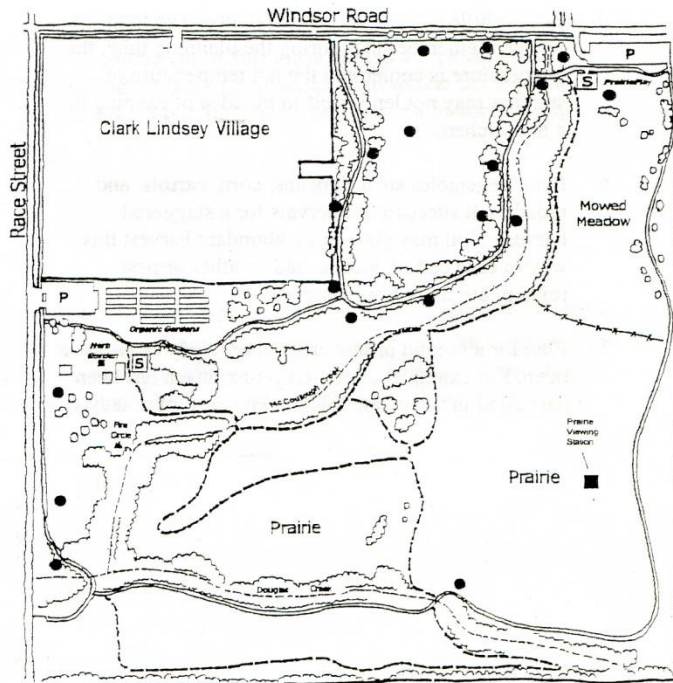
X = Water Source (approximate location)

## MEADOWBROOK PARK MAP:

- Park Rules**

  - Open from dawn to dusk.
  - Stay on paths.
  - Dogs, bicycles, roller blades and skateboards on paved paths only.
  - Dogs must be leashed at all times and their refuse promptly removed.
  - Removal of park property or natural materials prohibited.
  - Picnic shelters can be reserved at the Phillips Recreation Center, 505 W. Stoughton, Urbana.
  - Groups of 10 or more, please contact the Urbana Park District prior to arrival at: 367-1544.

Map Legend	
●	Sculptures
- - -	Dirt footpath
- - - - -	Creek
=====	Paved footpath
-x-x-x-	Fence
S	Sheltered Pavilion with restrooms
P	Parking



## PLANNING YOUR GARDEN

Each growing season is different and exciting, and brings the opportunity to experiment, learn new techniques, and try new varieties. Therefore, your successes are not measured just by the amount or quality of produce, but by the whole gardening process.

Any garden starts with a plan. Some plans can be as simple as a map showing what was planted where or as elaborate as a garden drawn to scale with lovely colored pictures of the produce. Make a plan to fit your needs and interests. At the end of this manual you will find a plot diagram to help you get started. Before you begin your plan, visit the gardens and locate your plot(s), the manure pile, and the composting area. This may help you decide what and how much to plant.

### Planning Guidelines:

1. Read and develop a plan that follows the guidelines of the Meadowbrook Gardens (*page 6*).
2. Plan a map beforehand and draw a map after the plants or seeds are in the ground so you will know where the patches or rows are and what was actually planted there.
3. Use rows, raised beds, one-foot squares, or whatever other planting method that appeals to you. However, leave space to walk so that the soil around the plants will not get compacted. Remember to leave a border around the whole garden according to the garden guidelines.
4. Assume that pests will consume some of the produce and plant a little extra.
5. Plant a little extra if you intend to preserve food for winter. Remember that during the planning time, the temperature is cooler and the hot temperature of summer may not lend itself to the idea of canning in a hot kitchen.
6. Plant vegetables such as beans, corn, carrots, and radishes at successive intervals for a staggered harvest. You may get a more abundant harvest this way in case certain weeks, bad weather or pest related, are more troublesome.
7. Plan for a second or late crop where early crops have been. For example, after a crop of spinach has been harvested in the spring, plant a late crop of potatoes.
8. Interplanting of crops is a useful way to save space. Try planting carrots and radishes in the same row. The radishes will come up quickly and define the row, and then when they are harvested, the carrots will have more space to mature. Eating the young carrots throughout the season will thin them also.
9. Companion gardening is a way of arranging the plants to the mutual advantage of both plants. This can be done to help ward off pests. See the planting suggestions in the pages that follow.
10. Try different varieties of certain types of plants. It is recommended that you buy disease and/or pest resistant varieties when possible.
11. Try planting some herbs or flowers for variety. A summer salad or even canned tomatoes will taste so much better with some freshly grown herbs thrown in.
12. Try planting flowers among the vegetable crops. Some will help drive away pests, and all add a touch of beauty to a garden. Nasturtium and alyssum are both great examples.
13. Make sure your full-grown corn or sunflowers will not shade your neighbor's plot. Plan to plant your taller crops on the side furthest away from your surrounding neighbors. Plant shade tolerant plants near your own corn or sunflowers.

## GARDENING METHODS

When planning your garden, you may want to consider one or more of these kinds of gardening methods. See illustrations for examples of these methods.

### *Traditional Row Gardening*

This is the most familiar method of gardening for newcomers. Single, straight rows of vegetables, herbs, and flowers are spaced as recommended on seed packets.

### *Wide Row Gardening*

This method eliminates the pathways between rows by planting one wide row, rather than several narrow rows. This is achieved by broadcasting seeds in rows 6 inches to 5ft wide. The wide row method maximizes the use of space in the garden and reduces soil compaction by eliminating pathways through the garden.

### *Square Foot Gardening*

This method is a modification of the wide row method. Divide your garden into 1ft X 1ft squares. Each square is treated as an individual planting unit.

### *Raised Beds*

This is also known as the French Intensive Biodynamic Method. This method is an extension of the wide row planting, because it encourages the incorporation of organic matter into the planting area. It is recommended to double dig the bed to increase air and water penetration into the sub-layers of the soil.

Double digging is a method that is achieved by digging a 1ft wide furrow and removing 1ft of soil. Then dig down another foot to cultivate the undersoil. Begin another furrow next to the first. The 1ft of soil from the second can be put in the first furrow along with composted material. Continue this furrowing process until the garden is completely dug up. The extra soil from the first furrow can be put in the last furrow.

Once the bed is well prepared, the plants can be planted closer together than with other planting methods, creating a complete cover, which is sometimes called a 'living mulch'. This may retard weed growth and aid in the retention of soil moisture. The garden plot must be returned to a flat condition at the end of the each growing season.

### *Covered Raised Beds*

This method is similar to the raised bed method, but incorporates a different use of the top of the soil. The top of the bed is layered with straw or leaves and the plants are planted just under the mulch. The dug area is only used for root growth. This method is especially good for plants, which develop tubers or underground

stems. Plants that are not very heat tolerant such as potatoes will also benefit by the slowed heating of the soil top.

### *Vertical Gardening*

Vining crops can be grown with the aid of trellises, stakes, and other vertical supports. This is a great space-saving technique, but be careful that the structures do not shade nearby plants or neighbors.

## TOOLS

As an organic gardener with the Urbana Park District you have access to wheelbarrows, garden hoses, water, and compost material. However, you will need to supply your own gardening tools. The following descriptive list will help you to decide which tools to obtain. A good selection of sturdy tools not only saves time, but also reduces aches and pains.

**SQUARE-BLADED SPADE:** The essential digging tool. If kept sharp, it will slice through any soil with ease.

**FOUR-TINED SPADING FORK:** Ideal for digging and turning over looser soils. Excellent for incorporating manure and other organic matter.

**HAND TROWEL:** The most important tool for setting in transplants and planting bulbs. A trowel is properly used with a stabbing motion, concave side toward you.

**IRON RAKE:** Essential for leveling out soil in final preparation of the seedbed.

**HOE:** Useful for shallow tilling and cutting off weeds at ground level.

**PITCH FORK:** Helps turn over and aerate soil and mix composted matter into soil.

**SHOVEL:** Used mainly for scooping soil, not digging. Very useful for moving soil from place to place.

**HOSE NOZZLE:** A nozzle that spreads the water more evenly or allows the water to be dispersed more widely and specifically may be useful.

**SHEARS & CLIPPERS:** Great for pruning, trimming, and shaping your plants and garden edge.

**SOIL TESTING KIT:** It is important to test the pH of your soil, because some plants will not grow well under certain pH levels. Kits are available at most places where seeds are sold and several private businesses will even test your soil for a small fee. Your seed packets should tell you what kind of soil your plant needs.

## PLANT PLACEMENT

Once you decide on the method/s you will use, it is time to think about the spacing of your plants. Optimum use of the area can be achieved by successive plantings, inter-planting, and companion gardening.

### Successive Plantings

This method involves planting on top of other plants at intervals to ensure a constant crop. By grouping quick maturing crops together, and planting small amounts of seed at 2-week intervals, you can get the most space with less wait in-between growing times. Later crops can be placed in the area as the more mature crops end their production. This also keeps weeds from taking over an inactive part of the plot. Make sure not to plant types that are not 'agreeable' to each other.

### Companion Gardening

Organic gardeners generally agree that some plants are aided by the presence of others. The following list will assist you with planning based upon generally recognized ideas of companion gardening. You may want to try this technique of gardening to reduce the damage of pests and increase your yields by non-chemical means. The following vegetables, herbs and flowers are listed with both companion and non-compatible plants.

### Inter-planting

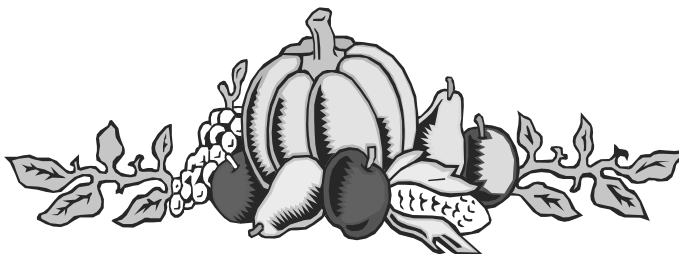
Consider planting two different plants in the same space at the same time. By interspersing different vegetable or flower plants you may be able to achieve better quality and higher yields than if you have planted only one variety in that space. Consider matching the following characteristics:

1. Plants with differing nutrient need (i.e. corn and beans).
2. Plants with root systems that compliment each other (i.e. taproot plants like carrots with fibrous rooted plants like lettuce).
3. Plants that are shade loving beneath taller plants which will provide shade; this technique can be used when planting cool-weather crops when it is still very hot. (spinach, broccoli under taller plants)
4. Plants with vertical growth habits along with plants that have a low or vining habit (like corn with pumpkins, beans or squash).
5. Plants with short-term maturity with plants that have a long-term maturity; one will mature and be harvested well before the other (i.e. radishes with carrots).
6. Plants that have pest-repellent properties with those that are vulnerable to pest damage (i.e. marigolds or basil with tomatoes).

### How Many Plants Should You Plant?

Crop	Number of plants/person recommended	Averag. Yield / 1 Plant
Beans	15	.38 lbs
Beets	20	
Cabbage	4	2.7 lbs
Carrots	30	
Cucumber	4	
Eggplant	2	
Kale	3	
Lettuce	12	2.2 lbs
Melons	5	
Peas	50	.25 lbs
Pepper	5	
Potato	25	1.6 lbs
Radishes	10	
Spinach	12	
Summer Squash	2	6 lbs
Tomato	2	6 lbs
Winter Squash	2	6 lbs

If you are planning on preserving or canning, plan on a number of plants based on the number of pounds of food you would like to preserve. "Plan a Great Garden," Organic Gardening, Feb. 1994.



## DIGGING IN

### *Preparing the Seed Bed*

Seeds like a loose, easily broken soil in which to germinate. The deeper you dig in the soil, the easier it will be for the roots to penetrate it. The addition of organic matter into the soil also improves soil structure.

A word of caution: do not be over-eager and work the soil before it is dry enough. Working the soil when it is too wet can destroy the air spaces it contains. To test whether the soil is ready to be worked, take a small clump from about 6 inches deep. Squeeze it in your hand, and then thump the ball that results. If it crumbles and falls apart easily, the soil is ready. If it remains in a ball or is at all gooey, wait a few sunny days for it to dry out. The finishing touch is to rake the area smooth. If you leave too many big clods, they may end up baking into hard soil rocks.

### *Tilling*

It is highly recommended that you work your soil by hand digging. Hand digging ensures a more complete mixing of organic mulch in your soil. If you prefer to have your plot rototilled, please refer to the Meadowbrook bulletin board for phone numbers of people who are offering a rototilling service. The Park District does not provide this service. When hiring someone to till your garden, you must be present to show garden boundaries.

When tilling, be careful to search the plot for harmful debris before hand. Occasionally metal baskets, inadvertently left in the gardens the previous year, can get cut up during the fall plowing. By completely digging and working the soil, you may find inorganic substances, which are unwanted and/or dangerous.

### *Planting Seed*

There are many crop-specific tips and tricks, but let's start with a few good general rules. The size of a seed determines two things--how finely the seedbed must be prepared, and how deep the seed should be planted. Small seeds such as radish, carrot and lettuce need a pulverized seedbed, while larger seeds can withstand rougher conditions. A general rule is to plant the seed no deeper than three times its greatest dimension. After planting, gently firm the soil with your hand, foot or flat surface of an implement.

## WHEN TO PLANT?

This question is best answered by weather conditions. The following table will give general guidelines, but use common sense, too. Seeds planted too early in cold,

damp soil may rot before germination. If you can't wait to plant, start the seeds indoors, in a cold frame, or mini-greenhouse made from an old plastic milk jug. Also consider harvest time. Most catalogs or seed packets will give some idea as to the probable length of time between planting and harvest. The gardening season at Meadowbrook begins around the first of March and the crops need to be removed by the beginning of November. Keep this in mind when planting. NOTE: Average frost-free date for our area is April 25<sup>th</sup>

## Early Spring - Cool Season Vegetables

### **Very Hardy**

(plant outside 4-6 weeks before average frost free date)

<u>Seed</u>	<u>Transplants</u>
kale	broccoli
kohlrabi	brussel sprouts
leaf lettuce	cabbage
onion	onion sets
pea	parsley
rutabaga	potato
salsify	
spinach	
turnip	

### **Frost Tolerant**

(plant outside 2-3 weeks before average frost-free date)

<u>Seed</u>	<u>Transplants</u>
beet	cauliflower
carrot	Chinese cabbage
chard	some herbs
herbs	
mustard	
parsnip	
radish	

## Late Spring - Warm Season Vegetables

### **Tender**

(plant outside on average frost-free date)

<u>Seed</u>	<u>Transplants</u>
bean, snap	tomato
corn	
New Zealand spinach	
squash, summer	

### **Warm Loving**

(plant 1-2 weeks after average frost free date)

<u>Seed</u>	<u>Transplants</u>
bean, Lima	eggplant
cucumber	pepper
muskmelon	potato
okra	
pumpkin	
squash, white	
watermelon	

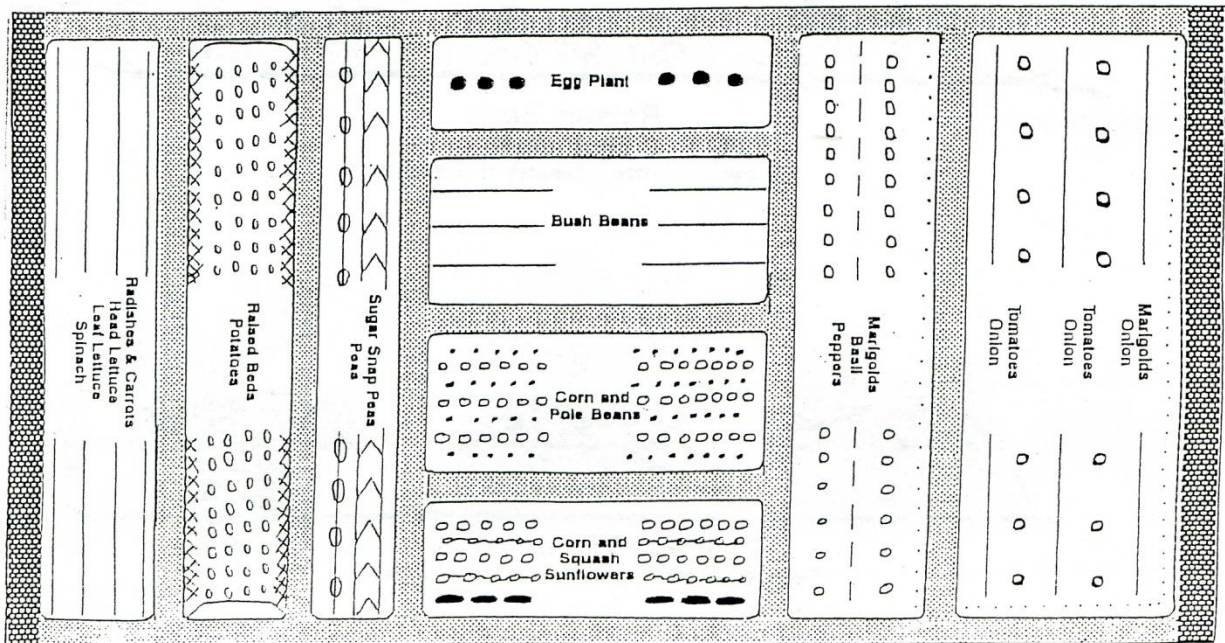
## COMPANION GARDENING GUIDE:

PLANT	GOOD COMPANIONS	DO NOT PLANT NEAR	PESTS REPELLED
Basil	Pepper, Tomato, Marigold	Rue	Basil Repels Flies & Mosquitoes, Thrips
Beans (Bush)	Beets, Cabbage, Carrots, Celery, Corn, Cucumbers, Eggplant, Lettuce, Pea, Radish, Strawberry, Savory, Tansy, Marigold	Onions, Garlic, & Chives	
Beans (Pole)	Carrots, Corn Cucumber, Eggplant, Lettuce, Pea, Radish, Savory, Tansy	Kohlrabi, Sunflowers, Beets, Onions	
Beets	Bush Beans, Onions, Kohlrabi, Lettuce	Pole Beans	
Cabbage Family (Broccoli, Cauliflower, Brussel Sprouts, Kale, Cabbage, Collard, Kohlrabi, Radish, Turnip)	Nasturtium, Dill, Bush Beans, Beets, Celery, Onions, Marigold, Mint, Thyme, All Strong Herbs	Pole Beans, Strawberry, Tomato, Potato  Avoid planting competing root plants with radishes or turnips.	Tomatoes repel Diamond Back Moth larvae.  Dwarf Zinnias attract Ladybugs.  Thyme helps control Flea Beetles & Cabbage Butterfly Larva (caterpillars).
Carrots	Bush Beans, Pole Beans, Lettuce, Onion, Peas, Radish, Tomato, Sage, Chives	Competing root plants, Dill	Onions and chives help control Carrot Rust Flies.
Celery	Bush Beans, Cabbage, Onion, Spinach, Tomato		
Corn	Bush Beans, Pole Beans, Cucumber, Melons, Peas, Squash, Radishes	Tomato	Allow radishes to go to seed to help protect from corn borers.
Cucumbers	Nasturtium, Bush Beans, Pole Beans, Corn, Lettuce, Onions, Peas, Radish, Marigold, Savory	Potatoes, strong herbs	Radishes help control Cucumber Beetles.  Nasturtiums repel pests of the cucurbit family.
Dill	Cabbage Family, Lettuce, Onions, Cucumbers	Carrots, tomatoes	Dill attracts hover flies (for pollination) and predatory wasps.  NOTE: Dill attracts tomato hornworms.
Eggplant	Bush Beans, Pole Beans, Spinach, Marigold		
Lettuce	Bush Beans, Pole Beans, Carrots, Cucumbers, Onion, Radish, Strawberries		
Garlic	Tomatoes	Peas, Beans	
Leeks	Onions, Carrots		
Lettuce	Onions, Carrots, Radishes		
Melons	Corn, Nasturtiums, Sunflowers, Radishes, Potatoes		
Okra	Tomatoes		

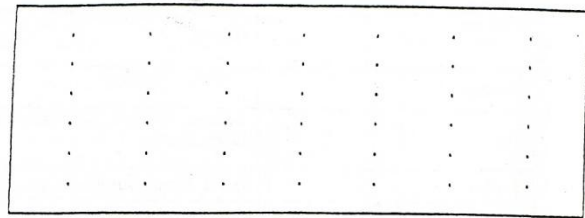
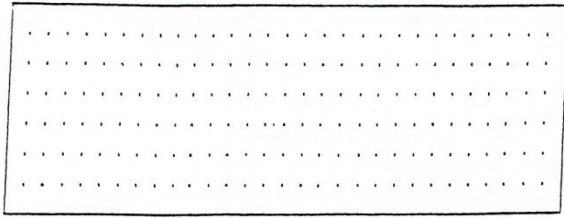


PLANT	GOOD COMPANIONS	DO NOT PLANT NEAR	PESTS REPELLED
Onions	Beets, Cabbage, Carrots, Celery, Cucumber Lettuce, Pepper, Squash, Strawberries, Tomato, Savory	Bush Beans, Pole Beans, Peas	
Parsley	Carrots, Tomatoes		
Peas	Carrots, Turnips, Radishes, Cucumbers, Corn, Beans	Onion, Garlic, Potatoes	
Peppers	Basil, Okra, Onion	Rue	
Potatoes	Marigold, Eggplant, Sweet Alyssum, Horseradish, Spotted Dead Nettle (Lamium Maculatum), Coriander	Pumpkin, Squash, Cucumber, Tomatoes, Sunflower	Sweet alyssum attracts beneficial insects. Potted horseradish, dead nettle or coriander helps repel Colorado potato beetles.
Spinach	Celery, Eggplant, Cauliflower, Strawberry		
Soy Beans	Corn, Black-eyed Peas		
Squash	Radishes, Corn, Onion, Mint, Nasturtium	Potato	Mints deter squash bugs. Radishes can help protect from squash borers.
Strawberry	Bush Beans, Lettuce, Onion, Spinach	Cabbage	
Summer Savory	Beans, Onions		
Sunflower	Corn, Cucumbers	Potatoes, Pole Beans	
Tomatoes	Basil, Chives, Onions, Marigold, Carrots, Nasturtium, Mint, Cabbage, Parsley, Petunias, Cucumber	Corn, Fennel, Potato	Petunias and basil help control Tomato Hornworms. NOTE: Marigolds can attract spider mites and slugs to the area.

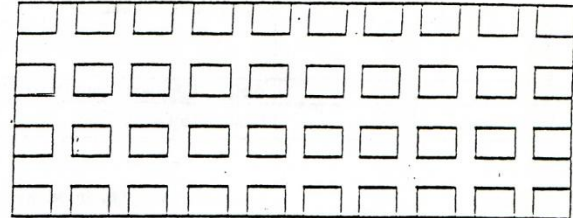
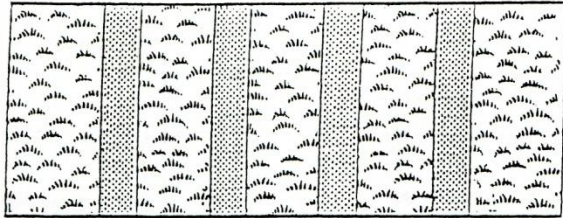
## COMPANION PLANTING PLAN



**GARDENING METHOD EXAMPLES:**

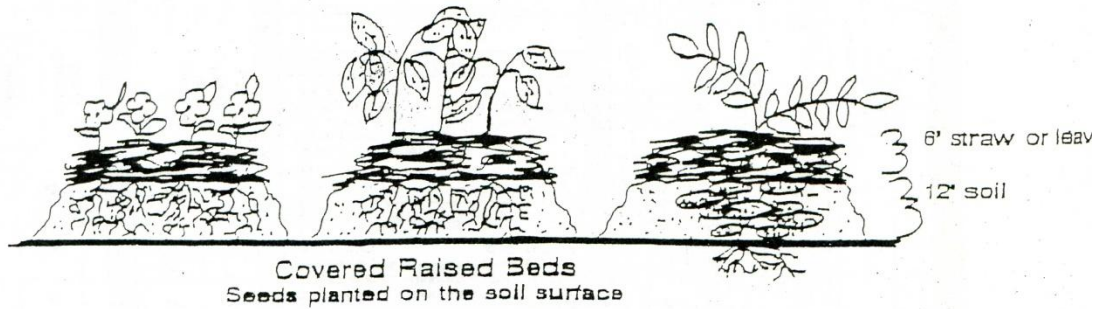
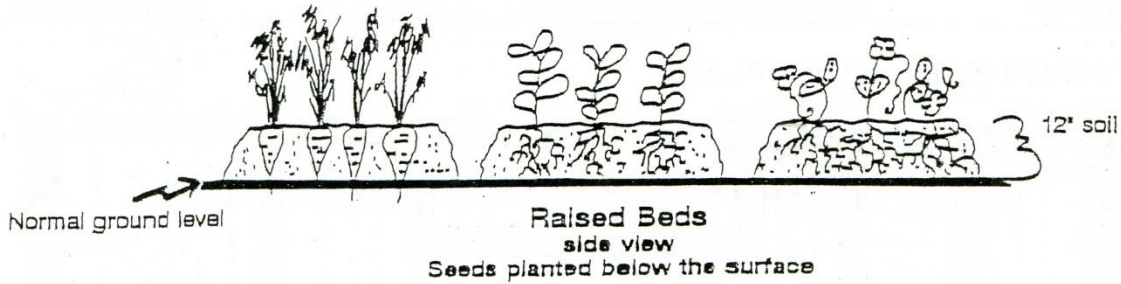


Traditional Row Method



Wide Row Method

Square Foot Method



## RESOURCES

In planning and planting your garden there are many local sources for information. Some places to look include:

Anita Purves Nature Center. 1505 N. Broadway, Urbana, 384-4062. The Nature Center houses a reference library with an extensive gardening section. These books can be checked out for a small deposit.

University of Illinois Cooperative Extension Service. 801 N. Country Fair Drive, Suite D, Champaign, 333-7672. Master Gardeners will assist you in identifying and controlling pests and diseases. They will send you information of specific topics or refer to other places that may help you. Call or walk in. The Cooperative Extension also offers periodic gardening workshops and garden tours. <http://web.extension.uiuc.edu/state/>

Parkland College. 2400 W. Bradley Ave., 351-2544. Parkland offers non-credit classes on various gardening topics both as part of their general interest program and their Lifelong Learning Institute (for those over 55). <http://www.parkland.edu/>

WILL, local radio stations, nurseries and greenhouses offer gardening programs. Watch local listings and call local gardening business as the schedules, topic and listings change seasonally and yearly.

Both the Champaign and Urbana Libraries and the Anita Purves Nature Center have large selections on gardening. There are many books that deal with organic and companion gardening. These books can answer lots of your basic questions.

Of all the types of books published each year, gardening books are among the top, at least for quantity. Local libraries are well stocked with very helpful volumes. You will find most of these books around the 635 section. There are books to help with small and large projects and with any method you desire. Many local bookstores carry a wide variety of gardening books as well. Booksellers will often order a special book if it is still in print.

Rodale Press is one of the best and most extensive publishers of organic gardening resources. Two items you may want to start with are:

*OG*: This magazine is published 6 times a year and is found in many magazine racks and the libraries. It includes articles on a variety of organic gardening topics, such as new and/or interesting varieties, gardening techniques and tips for specific geographic areas, composting, pest control, recipes and much more.

*Encyclopedia of Organic Gardening*. By the staff of Organic Gardening. Rodale Press, Inc. Emmaus, PA. VERY comprehensive.

## SEED SOURCES

Below is a list of reliable seed companies. This list is by no means comprehensive, and many other specialty catalogs are available.

### Organic Seed/Plant Sources

#### Johnny's Selected Seeds

Johnny's Selected Seeds is a mail order seed producer and merchant located in Albion, Maine, USA. Founder and Chairman, Rob Johnston established the company in 1973. Products are vegetable seeds, medicinal and culinary herb seeds, flower seeds. Many organic varieties available. (207) 437-9294. 184 Foss Hill Road, Albion, Maine, 04910.

<http://www.johnnyseeds.com/>

#### The Natural Gardening Company

The Natural Gardening Company was started with the belief that gardens and landscapes should be models of environmental integrity. One of the USA's oldest certified organic nurseries. Order by phone: (707) 766-9303, Order by FAX: (707) 766-9747, Order by mail: P.O. Box 750776, Petaluma, CA 94975-0776. <http://www.naturalgardening.com/>

#### New England Seed Company

A provider of quality, chemical-free seed products since 1987. New England Seed Company, 3580 Main Street, Hartford, CT 06120. Phone 800-783-7891, Fax 860-724-1273. <http://www.neseed.com>

### Seeds of Change

Offers 100% Certified Organic seeds, plants and foods. Established in 1989, they grow all their seeds on their own research farms. Seeds of Change, PO Box 15700, Santa Fe NM 87506. 1-888-762-7333 <http://www.seedsofchange.com/>

### Sow Organic

Provider of open pollinated, certified organic garden seeds. Sustainable genetic varieties. No genetically modified varieties. Ninety percent Oregon grown. Sow Organic, PO Box 527, Williams, OR 97544. Phone (888) 709-7333. Email: [organic@organicseed.com](mailto:organic@organicseed.com)

### Territorial Seed Company

Founded in 1979 by Steve Solomon. Territorial Seed Company, PO Box 158, Cottage Grove, OR 97424-0061. Phone Orders (541) 942-9547, Fax Orders (888) 657-3131. <http://www.territorialseed.com/>

## **Other Seed/Plant Sources**

### Ferry-Morse Seed Company

Since 1856. Ferry-Morse Seed Company, P.O. Box 1620, Fulton KY 42041. Phone (800) 283-3400, Fax 270-472-3402.

### Illini FS Farmtown

1509 E. University Ave. Urbana, IL 61802. (217) 384-8308, (217) 384-8300-*Delivery*. E-mail: [farmtown@illinifs.com](mailto:farmtown@illinifs.com), website: <http://home.illinifs.com/>

### Park Seed

The free Park Seed Flower & Vegetable catalog has accurate information and color photography for over 1500 varieties of seeds, plants, bulbs, seed-starting supplies, and accessories. Park Seed Company, 1 Parkton Ave, Greenwood, SC 29647-0001. Phone: 1-800-845-3369, Fax to 864-941-4206. <http://www.parkseed.com/>

### Pinetree Garden Seeds

P.O. Box 300, Rte. 100, New Gloucester, ME 04260. Phone (207) 926-3400.

### R.H. Shumway's

Lots of heirloom varieties. P.O. Box 1, Graniteville, SC 29829. Phone (803) 663-9771, Fax (888) 437-2733.

### Vermont Bean Seed Company

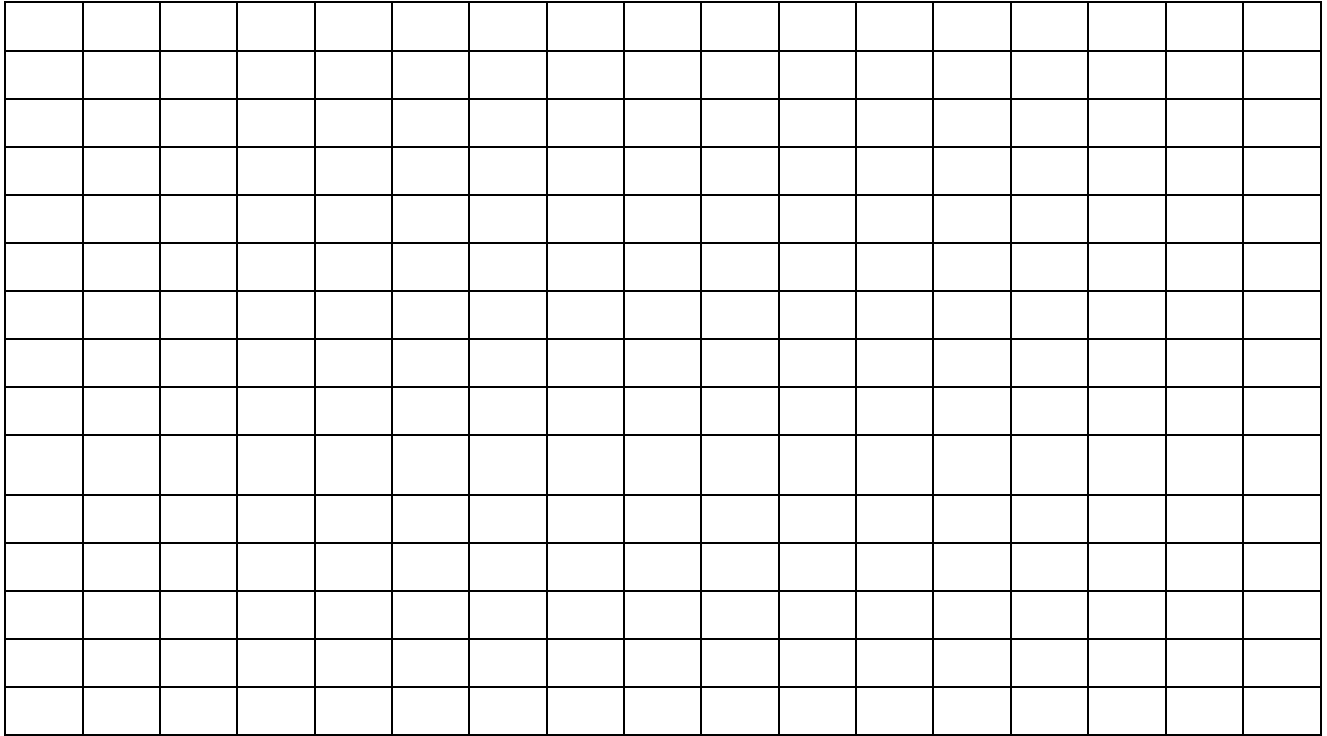
Quality vegetable, flower and herb seeds. Home to the world's largest bean collection. Vermont Bean Seed Company 335 South High Street, Randolph, WI 53956. Phone (802) 273-3400.

### W. Atlee Burpee & Co.

Headquartered in Warminster, Pennsylvania. To place an order by phone, call 1-800-888-1447. Customer service: 800-333-5808. <http://Burpee.com>

# HALF PLOT TEMPLATE

15 X 17 ft



**FULL PLOT TEMPLATE**

17 X 30 ft

