

Square Foot Gardening Class Handout-March 29, 2008

A uniquely simplified method of gardening that produces 100% of the harvest in only 20% of the space requiring less work.



Building a Square Foot Garden

My suggestion to start with only one 4-foot square per person is often met with disbelief, until it is actually tried. Before you scoff, take a moment to consider what can be grown in just one square with a vertical frame at one end.

4 plants Ruby lettuce }
4 plants Salad Bowl lettuce } or 12 plants of any other leaf lettuce
4 plants Oak Leaf lettuce }
16 carrots
16 beets
24 bunches beet greens
6 pounds beans
16 radishes
16 onions
Continuous harvest of Swiss chard, chives, marigolds, nasturtiums for salads,
tomatoes and cucumbers through the summer.

Not bad for a year and 16 square feet, is it?

Each Square will Hold

You can mix and match crops as you choose. Each 1-foot by 1-foot square will hold any of the following crops:

<u>Small Plants</u>	<u>Large Plants</u>	<u>Vertical Plants</u>
16 radishes	1 cabbage	1 tomato
16 carrots	1 broccoli	2 cucumbers
16 onions	1 cauliflower	8 pole beans
9 spinach	1 pepper	
9 beets	1 eggplant	
4 Swiss chard		
4 lettuce		
4 parsley		
4 marigolds		

Garden Size and Maintenance Time

Below is a chart that you can use to help you plan a garden for one, two or four people.

Minimum harvest means enough fresh vegetables for salads.

Maximum harvest means enough fresh vegetables for all kinds of dishes, but not enough to freeze.

Number of Blocks*	Harvest for	Total Maintenance Time (per week)
1	minimum for 1 person	1 hour
2	maximum for 1 person	1 1/2 hour
3	minimum for 2 people	2 hours
4	maximum for 2 people	2 1/2 hours
6	minimum for 4 people	3 hours
8	maximum for 4 people	4 hours

*A block is equivalent to a one four foot square

Soil Preparation

Our heavy clay soil is difficult to work for both plants and people. First, dig to break the soil surface and remove any grass and weeds. A frame for your garden is optional but very helpful to hold the soil amendments and help drainage. Next, add compost, greensand, and improved soils. Below is an example of layering soil amendments to improve the soil structure that will support your vegetables.

Lasagna Gardening

No more tilling to prepare your soil! Create new soil and plant the SAME DAY!

According to Patricia Lanza's book, Lasagna Gardening, here is how to build your soil by making the following layers:

1. Newspaper: a layer of 7-8 sheets with overlapping edges, spray with water
2. Humus: 2-3 inches
3. Organic mulch or manure: 4-8 inches
4. Compost: 4-6 inches
5. Humus: 2-3 inches
6. Grass: 4-6 inches
7. Humus: 2-3 inches
8. Leaves: 4-6 inches
9. Humus: 2-3 inches
10. Wood Ashes (potassium) and Bone Meal (phosphorus)

Suggestions

- Start small beginning with a 4 x 8 foot patch.
- The layers will be about 18-24 inches high. The height of the layers will reduce when watered.
- Also add either greensand, lava sand and molasses or a combination of molasses, corn meal and wheat bran. (Avoid corn gluten meal that will prevent seed germination.)
- You can cook the layers by covering with black plastic weighed down on the edges with rocks and bricks for 6 weeks before planting.

Rule: Have 4 times as much Browns as Greens.

- Browns: hay, straw, leaves, stalks, and twigs
- Greens: grass, kitchen scraps, fresh manure

Planting

If the layers are new, spread fine compost and set seeds on surface. Cover the seeds with fine humus and press down. When you have two "true leaves" on your plants, pull mulch around the new plant but do not let it touch the stem.

Crop Rotation

Traditional wisdom and common-sense tell us that crop rotations are important for preventing disease and insect infestation problems. A problem that attacks one member of a plant family frequently will infect other members of that family or group. Crop rotation requires not replanting a vegetable or member of its family in the same place within a 3-year period, if possible.

Crop rotation also helps keep soil nutrients in balance over time. Heavy feeders, such as tomatoes and lettuce, can be followed the next year by legumes, such as peas and beans, which actually return nitrogen to the soil through microorganisms on their roots. The third year, you could let the soil "rest" by planting light feeders in that spot, such as carrots or beets.

Allium Family	Cruciferae or Brassicaceae Family	Cucurbit Family	Goosefoot Family	Grass Family	Legume Family	Solanaceous Family
Chive	Alyssum	Cantaloupe	Beet	Corn	Alfalfa	Angel's Trumpet
Garlic	Broccoli	Cucumber	Spinach		Beans	Eggplant
Leek	Brussels Sprout	Squash	Sugar Beet		Clover	Nicotiana
Lily	Cabbage	Honeydew	Swiss Chard		Peas	Pepper
Onion	Candytuft	Pumpkin				Petunia
Shallot	Cauliflower	Watermelon				Potato
	Collard					Texas Thistle
	Mustard					Tomatillo
	Radish					Tomato

Companion Planting

Many plants have natural substances in their roots, flowers, and leaves that enhance the growth rate. Other plant varieties repel or attract insects. In essence companion planting helps bring a balanced eco-system to your landscape, allowing nature to do its' job.

Companion planting can combine beauty and purpose to give you an enjoyable, healthy environment. Some possibilities would be using certain plants as a border, backdrop or inter-planting in your flower or vegetable beds where you have specific needs. Use plants that are native to your area so the insects you want to attract already know what to look for!

Some companion planting suggestions:

Plant nasturtiums close to beans, cabbage, and all squash

Radishes may repel the cucumber beetle

Plant flax and radishes with carrots

Rosemary may repel the carrot fly

Plant flax and marigold with potatoes

Sage may protect plants against the cabbage butterfly

Tomatoes planted near cabbage might repel the cabbage butterfly

Plant summer savory with beans

Carrots like tomatoes, parsley, and sage

Cucumbers like radishes and nasturtiums

Plant garlic with tomatoes

Do not plant garlic or onions near beans or peas

Plant basil among ornamentals to discourage aphids

Plant garlic around your roses

Under fruit trees plant garlic, chives, leeks, spinach, leafy vegetables, cabbage, lettuce

When to Plant

You will hear the rule of thumb for starting your summer vegetable garden is to know the last “average” frost date for the year is March 23. *Detailed planting dates can be found on the following website:*

<http://www.coppellcommunitygarden.org/downloads/Vegetable%20Planting%20Calendar%209-1-2007.pdf>

If you have been a long term resident, then you know sometimes you may get duped into planting too early or too late.

NOTES:

- Beans will not tolerate any frost and may have to be planted again if the temperature goes below freezing
- Tomatoes, eggplants and peppers are slow-growing and take many weeks to grow to the stage where you can plant them out in the garden, so you might want to purchase these seedlings from your local garden center. On the other hand, squash, cucumbers and corn grow quickly and are easier to start from seed.

4 Foot by 4 Foot Diagram

Mark in the diagram margins the North, South, East, and West directions and/or nearby landmarks, such as garage, patio, etc.

Note within the squares the plant name, date planted, number planted, and other key information.

Tip

Plant a vegetable or one of its family members in the same place only once every 3-4 years to apply plant rotation to prevent disease and insect infestations.

Resources

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

Coppell Community Gardens, every Saturday morning from 8:00 -10:00 pm

<http://coppellcommunitygarden.org>