Crop Planning for Beginners

An ideal location for your new garden will have the following features:

- Relatively flat (no more than 5% grade)
- Receive 8 hours of sunlight. Morning light is better than afternoon light. You can grow some crops with 6-8 hours of sunlight, but not tomatoes, peppers or cucurbits.
- Near to a water source
- A shovel goes down at least a foot before hitting solid rock or tree roots
- Is not in a flood zone nor have standing water in it after a rainfall. If there is a lot of moss, this indicates shade and bad drainage.
- Is not on top of or near to a septic tank field
- Ideally your rows are oriented East to West, if your garden area is flat. If you are on any kind of slope, your rows must orient along the contour of the slope to prevent erosion.
- Keep your garden far from the tree line as you can. Roots extend out at least as far as the branches do, if not farther. Never plant a garden anywhere near a walnut tree!
- Does anyone have a truly "ideal" location? Probably not, but do the best that you can!

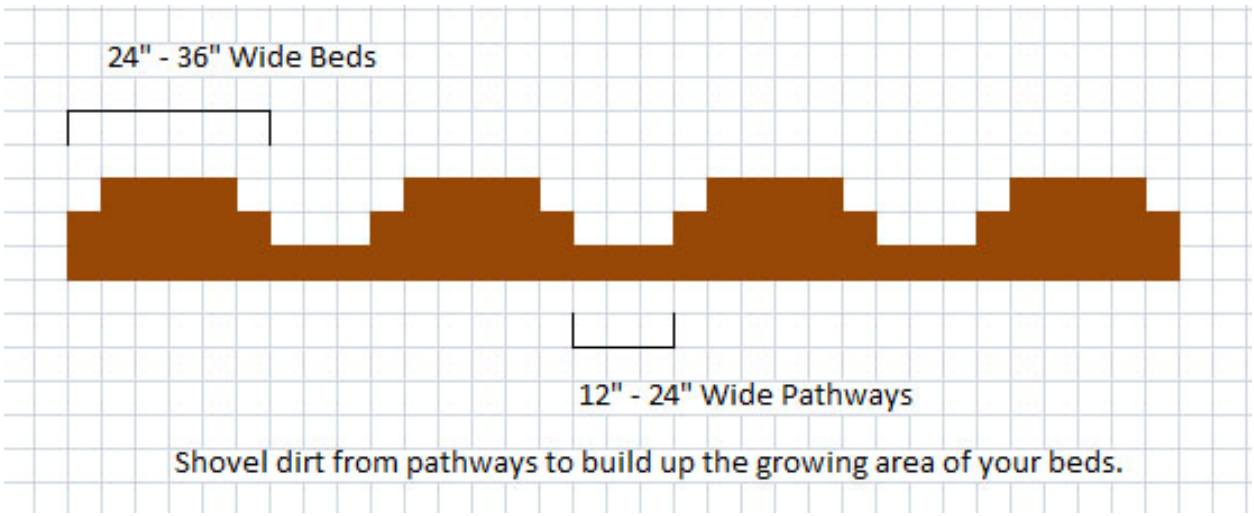
Preparing for Tilling:

If you have your garden spot picked out and are waiting for the tiller to come, there are things you can do to help prepare the soil!

- Start smothering your grass with dark tarps, layers of cardboard, or a very thick layer (8-12") of straw
- Add some compost or well-rotted manure to the spot before you till, so that it can be tilled in and incorporated well. Please ask your manure source if anything is sprayed on the field or hay that the animals are eating!!! There are persistent herbicides that survive the digestive track and will kill your garden plants if you use the manure. Compost from vegetative sources is your safest bet!
- Do a soil test! We provide test kits and instructions for you, so see that handout for more info.

Building Your Garden Beds:

When we say Raised Beds, most people envision wooden boxes filled with soil. However, the term refers to any planting area that has been raised up. Raising up the planting area improves drainage and helps soil warm up earlier. By creating separate walking paths and planting areas, you can improve the soil structure of the planting areas by not compacting it with your feet.



Planting areas should be 24” – 36” wide and pathways should be 12” - 24” wide. Smaller planting areas are not an efficient use of space and wider areas will make it too hard to reach into the planting area without stepping on the soil. If you have an especially large garden, you will likely want at least one extra wide pathway 36” – 48” wide running down the middle of your garden for wheelbarrow access. After tilling your soil, mark off where your planting areas will be with wooden stakes on either side of your garden and then run twine between them. Shovel soil out from your pathways into the planting area. Now make a solemn commitment to never step on the planting area!

1. What are you going to plant?

- What kinds of veggies do you and your family like to eat?
- What do you buy the most of?
- What are the veggies you wish you could eat but don't feel like you can afford regularly?
- What are veggies you would like to try canning or freezing for use in the winter?
- If you are returning, what did well in your garden last year and what didn't?
- What new vegetables would you like to try?

2. How much of each vegetable are you going to plant?

- Check the Plant Cheat Sheet, which has a range of how many plants per person to grow.
- If you want to eat it once or twice a week, go with the lower range. If you’d like to can or freeze enough to last you through winter, go with the higher range or even double or triple the quantity listed.
- Always plant 10-20% more than you think you will need to account for inevitable loss to disease and pests.

3. When are you going to plant it?

- There are three general planting times in the garden: early spring (March-April), late spring (April-June), and late summer (August-September).
- Certain plants like cool weather and don’t do well in the heat, plant these in the early spring or late summer for a fall harvest. Generally, these are leafy greens, peas, and many root vegetables.

- Certain plants like hot weather and don't tolerate temperatures below 40 degrees. Plant these only when all danger of frost has past, generally the first few weeks of May. These include most fruit bearing plants (tomatoes, peppers, squash, beans, etc).
- The Plant Cheat Sheet tells you which month you can start planting a certain crop in the spring and the latest you can plant them in the early fall.

4. When are you going to harvest it?

- Plants have a set amount of time that they generally produce in. A packet of seeds will give you a "days to harvest" number. This is an average for that crop, but you can generally expect that under normal conditions, it will produce its first harvest in that time. The Plant Cheat Sheet has average times for most crops.
- Some plants are harvested once and the plant is killed: lettuce, radishes, potatoes, cabbage, etc. If you want more of these crops, you will need to replant them. See below for more info on "succession sowing."
- Some plants, like beans, cucumbers, and summer squash, will produce for 3-4 weeks and then the plants get old and become less productive. They also need to be replanted, but less often than the harvest killed crops.
- Some plants are continuously harvested over a period of weeks or months. Some plants, like peppers and tomatoes will produce for the whole summer and fall up until the plants are killed by frost.

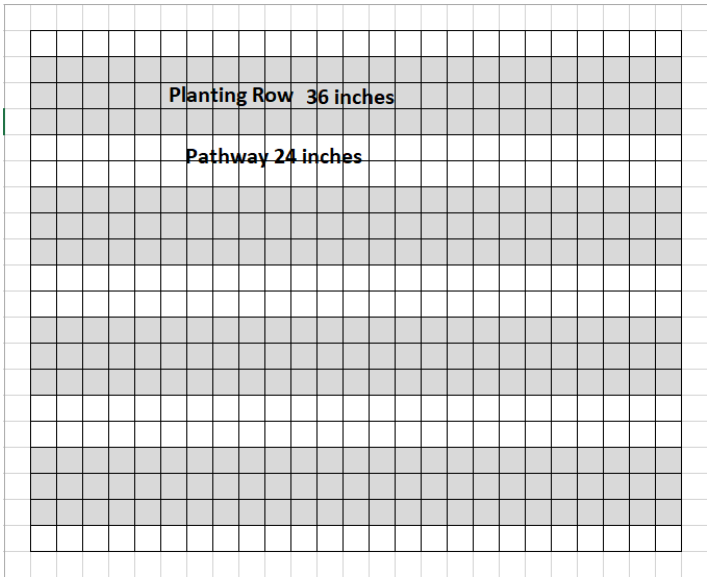
5. How often will you replant it?

- This is also known as "succession sowing."
- Some crops will need frequent succession sowing. For instance, if you would like 4 heads of lettuce each week, then you will need to plant new lettuce seeds every week. Make sure to leave room in your garden diagram to account for these successions.
- Some crops need less frequent successions. For beans, cucumbers and summer squash, plan for 2 or 3 successions each year, spaced 3-4 weeks apart. By the time your first planting gets old and unproductive, a new planting will be gearing up to produce a fresh new crop!
- The Plant Cheat Sheet has suggestions for how many successions per season you can do to create a steady supply of that vegetable for you!

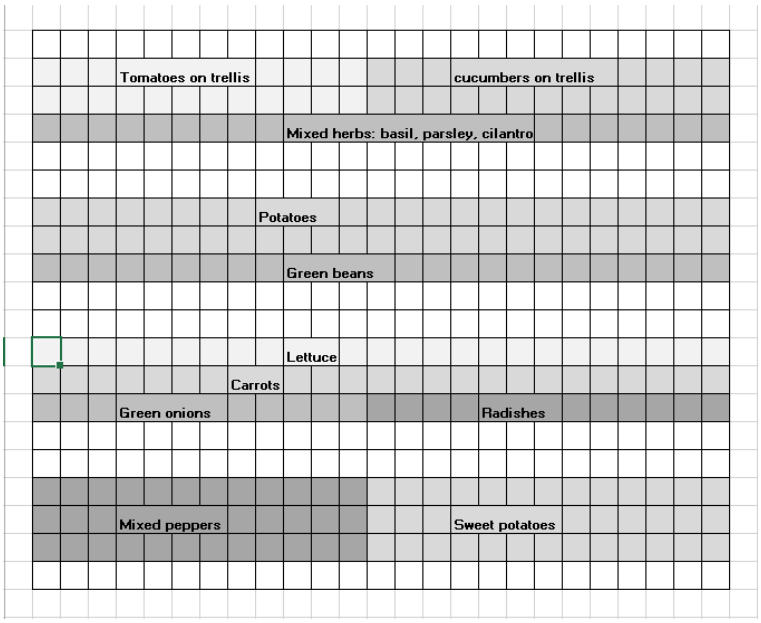
Where will it grow?

- This is the fun part where you draw out your garden map for the year!
- You can do one map; 3 maps for spring, summer and fall; or a map for each month if you're really looking to maximize your garden's growing potential! FYI, I do three for my garden. It's okay to start with one during your first year.
- You need to start with your garden's dimensions. For this example, we will talk about a 20 foot by 25 foot garden (20' x 25'). Next identify where in your yard the sun rises and sun sets. The sun rises in the East and sets in the West. Orient your rows East to West as best you can. IF your garden is on a SLOPE, then you need to orient your rows along the contour of the slope.
- How wide are your rows? We recommend rows that are 24" to 36" wide, with 30" being the standard for organic farms. There should be at least 18" between rows, more if you have

trouble walking or kneeling and need to be able to sit down to work in the garden. Using the grid paper, draw out your rows. To make this easy, we're going to do 36" rows with 24" between each row. This means we can fit 4 rows and 3 paths in our 20' wide garden.



- Now decide where you are going to plant all of the crops you want to include. In general, tall crops or crops that are trellised, should go toward the Northern side of the garden because they will create shade if they are toward the Southern side.
- Crops come in different sizes and spacing needs. A radish plant only needs a couple of inches between it and its neighbor. A winter squash vine can need up to 5 feet between plants! The Plant Cheat Sheet has general spacing information about different crops.
- If your row is 25 feet long and a potato plant needs 12" of space, then you can fit 25 potatoes in that row. Tomatoes need 18" or 1.5 feet of space each, so you can only fit 16 plants in a 25' row. Radishes need 3" of space, so you could fit 300 of them in a row that is 12" by 25' long.
- Keep in mind that your row are 24-36" wide, so in many cases you can plant more plants in a row than you could if it was only 1 foot wide. This is similar to Square Foot Garden methods. Tomatoes need 36" between rows, so you can only plant one row of plants in each garden bed. Potatoes need 24" so you can get two rows per bed, if your beds are 36" wide. With radishes, you could plant 600 plants in a 36" by 25' bed.
- Once you've mapped out where everything is going, you can check your crop plan for any holes. If you've got extra space, put something in it or note where it is and leave it empty to allow for succession sowing of another crop. Just keep in mind that bare ground invites weeds to grow and it's always better to have something growing than not!



Step By Step:

1. Decide which varieties you would like to grow.
2. Decide how many plants of each variety you want to grow. Then add 10% to this number to account for disease and pests.
3. Decide when to plant your crops, keeping in mind that some plants need to be planted in certain seasons (spring, summer or fall).
4. Write down the "Days to Harvest" for each variety.
5. Decide how many successions of each crop you are going to plant.
6. Mark down the spacing requirements for each crop you are growing.
7. Calculate how much row feet each crop will need in your garden (Number of plants X spacing requirements I.E. Tomatoes need 18 inches each and you want to grow 10 of them, so your tomatoes need 15 feet of space in your garden).
8. Draw out your garden area and planting beds to scale on a sheet of graph paper. Mark the cardinal directions (north, south, east and west).
9. Map out where you want to plant your crops, keeping the spacing requirements to scale.