**Garden Planning Workshop**

**Soil Prep:** If you didn’t turn, fertilize, and mulch your garden space last fall, you’ll need to prepare your soil before planting. Turning the soil can simply mean loosening the soil with a spade or shovel. You don’t need to double dig or sieve/screen the soil. It is important to remove weeds and grass and the largest rocks; but, if you work your soil too much, you risk losing its “structure” and disturbing/killing the soil microorganisms and creatures that help your vegetables to grow and ward off disease and pests.

One of the first planning steps you need to consider is your own time. How much time do you have to devote to you garden space? All gardens need to be watered, weeded, and mulched but different vegetables require different amounts of caretaking and harvesting throughout the growing season. Winter squash, once started, requires little upkeep until the fall harvest. Green beans, on the other hand, require almost daily picking once they start to produce.

In considering your time, here are some general guidelines:

 **Watering:** 2 to 3 times per week, to a depth of six inches or so. If, when poking into the soil it is still moist 1-2 inches down, there’s enough moisture in the soil to wait a day or two. Plants need water the most when they are germinating (just after seeds have been planted and when they are flowering and producing). Too much water actually “drowns” their root systems and can cause poor production or die-offs.

 **Weeding**: this is an ongoing process. Ideally, if you’ve prepared your soil, you will catch the worst of the weeds before they take hold. You will need to weed throughout the growing season to some degree.

 **Mulching**: mulching is covering soil with straw, leaves, or pesticide/herbicide/weed free grass clippings to retain soil moisture and to keep weed seeds from germinating. I often mulch with weeds I pull as long as they haven’t set seeds. Mulching will reduce your overall watering and weeding time commitment. I suggest mulching after your seeds are up and you can identify the vegetables. If you mulch deeply, be sure when you water that the water penetrates the mulch and gets to the soil!

 **Planting**: usually done in stages, cool season plants/seeds first with warm season plants/seeds to follow.

 **Harvesting**: weekly or daily once plants are established with some plants only requiring a fall harvest. Note: if you can’t consume or process all the vegetables you’re producing, the Missoula Food Bank and the Poverello Center accept fresh vegetables. Giving away your bounty is also a great way to meet your neighbors.

**Factors to consider** before you plan and plant your garden:

1. What vegetables do you and your family like to eat?

2. What’s expensive at the store that you can grow yourself? (Basil comes to mind).

3. Generally at the GCH gardens, gardens are a 15 x 15 foot space. How much room does each individual plant need to produce? For example, giant pumpkins are fun to grow, but the plant itself can sprawl across an entire garden space and into your neighbor’s space in order to produce one huge pumpkin (which isn’t very palatable). Two bush pie pumpkins can fit in a 4x4 space in your garden and give you 5 to 6 pumpkins each, providing most families with plenty to eat and some left over to freeze or store. Tomatoes (what’s the difference between determinate and indeterminate tomatoes?) and tomatillos often need cages or supports as they grow, plan for this in you spacing.

How much space will the vegetables you want need to grow?

4. Do you want vegetables just for fresh eating and cooking? Or do you also want extra for freezing, canning, or drying?

 Fresh eating:

 Freezing, canning or drying:

5. Seeds or already started sets? In Missoula’s approximately 90 day growing season, short season crops can be very successful from seed. Longer season crops, such as tomatoes, peppers, and broccoli, are usually more successful planted out as sets. Per plant, seeds are usually cheaper than sets. If you know you want only a limited amount of a vegetable, sets can be useful for short season crops like spinach and lettuce. Look for healthy sets: green, stocky rather than elongated, free of mildew, free of visible insect pests, no deformed or curled up leaves, no dead root matter coming out of the bottom of the pot, not yet producing flowers. If a few flowers are present, pinch them off at transplanting so the plant will develop a healthy root system – you’ll get more food later!

 Seeds to purchase:

 Sets to purchase:

6. ­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­ All vegetable plants will require at least 2 to 3 waterings per week in Missoula’s dry climate. Watering early in the morning ensures less evaporation, meaning more water will go to your plants and less to the air. Group plants that need less water together – think garlic and onions, they may only need one watering per week once established. Plant vegetables requiring more water together – say cucumbers and lettuce, they will need 2 or 3 waterings per week. Newly planted seeds may require daily watering. What watering days/times can you fit into your schedule?

7. Some plants need “picking” to produce like peas, green beans, cucumbers, and summer squash. Others, like carrots, cabbage, and winter squash can flourish without continual harvesting, just requiring one or two harvesting sessions at the end of the growing season. How often do you want to harvest?

8. Succession planting and inter-planting. Succession planting means replacing one, quick season crop, with another. Cilantro, lettuce, even green beans can be succession planted to ensure a steady harvest. You can also harvest one crop, example: baby beets, and then replace with another, example: lettuce. Inter-planting is simply mixing two (or more) short and long season vegetables. As you harvest the short season vegetable, you make room for the long season vegetable to grow. Radish and carrot are a very successful inter-planting.

9. Consider crop rotation when planting. Don’t plant the same plant (and ideally plant family) in the same place year after year. It is useful to follow nitrogen fixing plants (peas, beans) with heavier feeders (tomatoes and peppers). If you have root crops in one area this year, plan to have a non-root crop like squash in that area next year.

10. I suggest you try at least one plant or small row of something you’ve never eaten before: a few arugula plants, purple beans, yellow beets, round carrots, Hungarian peppers, etc. What haven’t you ever eaten as a homegrown vegetable or tried at all?

**Planting options:**

Single Rows – will create many paths, works well for peppers, green beans, peas.

Blocks (3-4 feet, can have rows within the blocks or can be scattered) – that can be reached from all sides: tomatoes, eggplant, bush squash, lettuce, spinach.

No matter what method or combination of methods you use for planting (single row or blocks) make sure that your paths are defined and mulched. You don’t want to walk on your growing beds/areas as walking compacts the soil, making it more difficult for many plants to grow and for water to be absorbed.

Do mark your rows or planting blocks. Wooden “popsicle” sticks work well or make your own plastic “sticks” from empty milk jugs. In addition to writing the plant name, add the date planted. This will give you an idea of when to expect germination and when to expect mature, ready-to-eat plants. (How long to germination/sprouting is noted on the back of seed packets).

**Other Tips:**

Read your seed packets!! They contain useful information. If the sets you purchase provide informational tags, read them too!

Learn the North, South, East and West. Mark the directions on your garden planning map (or just keep in your mind).

Plant tall crops such as corn, sunflowers, trellised vining plants such as beans, cucumbers, and squash on the North side of garden to avoid shading the rest of your plants. Special note for corn: corn is wind pollinated and does best in a “block” rather than a single, long row.

In the heat of summer, some crops, especially lettuce and spinach, appreciate a little shade. Plant them next to a crop that will give them a little sun relief in the middle of the day.

One or two zucchini plants will provide all the squash most families of four can eat.

Tomatoes need at least a square foot of space to thrive. I often give them a 2x2 space.

Color splashes: grow edible flowers to draw bees and other beneficial insects to your garden. Edible suggestions: nasturtiums – they taste like a mild hot pepper, Johnny jump-ups, marigolds – petite if you don’t want shade or full sized to the south of your lettuce for shade.

The average **first frost free date for Missoula is May 19th**, and the **last average frost free date is September 27th**.  This information is based upon thirty year averages from the Missoula International Airport, compiled by the National Climatic Data Center.

Resources:

[www.missoulaeduplace.org](http://www.missoulaeduplace.org) (Missoula County Extension Service) Horticulture tab/information, look for the Garden Calculator, input Missoula, and you’ll get great planting, transplanting, first harvest and last harvest information for artichokes to watermelons. There are many free, downloadable fact sheets on soil management, composting, gardening, and specific vegetables.

[www.gardeners.com](http://www.gardeners.com) (Gardener’s Supply Company) has free square foot garden plans you can download. Some are pre-planned for you and one is do-it-yourself.

*Remember:*

**There are as many kinds of gardens and ways to organize a garden as there are people.**

**“The only wrong way to garden is to not garden at all!”** – Patrick Long