

Growing Guide 2024



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About EquiCenter

OUR MISSION

EquiCenter fosters growth,
wellness, and educational
opportunities for people of all
ages and abilities through the
power of equestrian, horticultural
and outdoor experiences.



EquiCenter is a nonprofit organization located in Honeoye Falls, NY. Our horticulture programs are a great way for participants of all abilities and experiences to learn about farming and the growing world around us. By engaging in hands-on planting, maintenance, and harvesting activities, participants in our horticulture programs experience emotional healing, improved cognitive skills and improved balance, coordination, strength and stamina. They are able to hone skills as they help grow thousands of pounds of vegetables, fruits, herbs, and flowers each year, which are used in farm-to-table cooking classes and events and donated to hunger relief efforts throughout the Rochester area.

By supporting community & school gardens through free transplants started from seed in the EquiCenter greenhouse, we hope to extend participants' on-farm experiences into their home communities and support increased access to fresh food and green spaces.

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Beans (Bush)

Temperature Preferences:

55-90F

Soil Type:

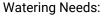
Well Draining Soil with some organic matter

Soil pH:

6.0-7.0

Sunlight Needs:

5-8 hrs daily



Beans need a fair amount of water to support their abundant foliage growth

Plant to Harvest Time:

48-55 days

Plant Spacing:

6-10" apart

Growing Tips:

Beans do not like having their roots disturbed, so are best to sow directly, rather than transplanting. Deep water the plants at least once per week and consider planting beans in areas that currently, or previously had "heavy feeders" like leafy greens.

Beans are a legume, so they will "fix" Nitrogen from the air into the soil. It's a good idea to rotate these plants through different beds - especially in places that have recently had heavy feeders (like greens or tomatoes) - so that different soils areas are getting this additional boost of Nitrogen. Multiple successions of beans can help ensure consistent harvests throughout the season!

Harvesting:

Harvest Beans regularly to encourage growth. Pods should be roughly the width of a pencil, tender, and snap easily. Harvest when seeds are still small and green - if you let beans fill out too much, they will become tough. Harvesting in the morning will give you the sweetest yields!



Carrots

Temperature Preferences:

Will tolerate cold temperatures (can even over-winter in some cases), but extreme heat can reduce quality and cause a bitter flavor. Carrots prefer moderate temperatures from 55-75 F.

Soil Type:

Because they're a root vegetable, carrots prefer well draining, sandy soil. Make sure to plant into a raised bed with enough depth for carrots to properly develop (6-10in).



Soil pH:

6.0-7.0

Sunlight Needs:

6-10 hrs

Watering Needs:

Water lightly and frequently (especially at germination) to avoid crusting of the soil surface

Plant to Harvest Time:

55-75 days

Plant Spacing:

Carrot seeds are tiny, so they're tough to spread thinly at first. Once seeds have sprouted, thin plants to 2-4 in depending on how large you'd like the finished harvest to be.

Growing Tips:

Carrots are tricky to grow, so don't be hard on yourself if you aren't successful on your first try - the good news is that the seeds are often cheap, so get a big bag and keep trying until you get the hang of it

Direct sow carrots to avoid disturbing delicate roots, but be patient germination time is highly varied, but typically takes 14-21 days. Plant just below the soil surface (¼ in) and water frequently to encourage germination and prevent crusting of the soil. Some gardeners like to cover the soil with wooden boards or other barriers to shield from the sun and protect from digging pests like squirrels.

Carrots are a great "shoulder season crop" in Rochester, because they appreciate cooler temperatures, so don't be afraid to plant your first round early, and try to stretch the season with late plantings (mid/late-August for Fall harvest). A frost can lead to sweeter carrots and some gardeners like to leave carrots in the ground through the winter for easy storage - this can be convenient, but comes with some risk of damage to the crop. If you're trying this, consider mulching heavily to insulate your carrots as much as possible.

Harvesting:

Carrot tops should be 6-12 in tall, and carrots tend to be ready for harvest around 2 months after planting. The best way to know if your carrots are ready though, is to gently feel around the top of the root to see how wide they are. Oftentimes, the top of the root will begin to push up becoming visible above the surface of the soil. Smaller carrots tend to be sweeter and less fibrous, so harvest when the tops are roughly ½-1 in in diameter. Keep in mind that you don't have to harvest all at once, so take advantage of the widely varied growing times, and harvest the biggest ones first, creating more space for the smaller carrots to grow!

Did you know?

Along with the root that many know and love, the tops are also edible. Pick the tender leaves off the more fibrous stems to enjoy fresh (blended in sauces, dips, and salads) or lightly sautéed. The leaves have a mild carrot flavor, are a great source of fiber, and can contain up to six times as much Vitamin C as the roots!

Collard Greens

Temperature Preferences:

Collards are in the Brassica Family (like Broccoli, Kale, and Brussels Sprouts), so can tolerate very low temperatures. You can plant Collards in the very early Spring, or late in the Summer for a Fall harvest. In some cases Collards will overwinter, providing fresh greens through the colder months, and giving you a jump on the spring (though these



overwintered leaves can become tough).
While many Collards will start to bolt in
the mid-summer heat, "Georgia" and other
varieties have been selected for their heat tolerance.

Soil Type:

Fertile (Nitrogen rich), well-draining soil

Soil pH:

6.0-7.0

Sunlight Needs:

Can tolerate full sun, but will do well with at least 5 hrs.

Watering Needs:

Keep soil moist. Consider mulching and watering in the morning to ensure soil stays as cool as possible through midday heat.

Plant to Harvest Time:

60-80 days for fully mature plant, but can be harvested from earlier.

Plant Spacing:

1-2ft between plants, depending on the size you plan to grow

Growing Tips:

Collards can be susceptible to powdery mildew and aphids, so it's a good practice for those dipping their toes into disease and pest management, especially since the plant is still edible with these present (up until full infestation). Consider planting Collards in a place that will receive some shade/protection during the mid-day heat, and mulch the soil to prevent dehydration and fungal splashups while watering. Perhaps most importantly, Collards are a great season extender and will actually improve in flavor after a frost. Don't give up on these hearty plants, even after all your other plants have started to die back, and keep harvesting all the way up until truly frigid temperatures!

Harvesting:

Harvest once the plant is roughly 12" high and pick/cut lowest and largest leaves first to encourage new growth.

Collard Cooking Ideas

A popular preparation of Collard Greens is to braise the broad leaves. Many people remove the fibrous central stem since it tends to take longer to cook down. The stems can be pickled using this recipe:

2 parts vinegar (any kind)

2 parts water

l part sugar

salt and your favorite spices to taste

Cut stems into bite sized pieces and pack into a jar or airtight container. Combine the vinegar, water, sugar, salt, and spices to a pot and heat until the salt and sugar has dissolved. Pour the brine into the container so that all stems are completely covered. Put a lid on the container and place it in the refrigerator.

These collard stem pickles will last in the refrigerator for a month and should develop more flavor the longer you let them sit in the brine.

Cucumber

Temperature Preferences:

65-95F

Soil Type:

Cucumbers are fairly heavy feeders and require nutrient rich soil or fertilization. Consider applying an inch or two of well processed compost to well draining soil before planting.



Soil pH:

6.5-7.0

Sunlight Needs:

6-8 hrs

Watering Needs:

While cucumbers should be grown in well draining soil to prevent a soggy, stagnant environment, they do require a fair amount of water to thrive. Water in the morning, consider mulching, and do your best not to hit leaves with water (set hose to "soaker" setting and water close to the ground) for best results. Err on the side of generous watering, since under watering can turn their fruit bitter and unpleasant.

Plant to Harvest Time:

50-70 days

Plant Spacing:

12-24 inches apart. Trellising can help reduce spacing requirements, but cucumbers are prone to disease, so good air flow is essential to healthy growth.

Growing Tips:

We highly recommend trellising any cucumbers that are not specifically marketed as "bushing" varieties. There are a number of options for trellising, including teepee frames, drop-string, cattle panel (arches), and cages. Cages are convenient, but restrict air-flow, so if using this method consider pruning leaves throughout the season to ensure proper ventilation.

In order to ensure proper nutrient flow, consider fertilizing with a moderate Nitrogen level and higher Phosphorus and Potassium content (these are the three numbers on fertilizer labels in order and are abbreviated with their chemical symbols "N-P-K")

Trellis Suggestion

Cucumbers have tendrils at the ends of their vines, which help them grab hold of vertical supports. If you have a fence along your growing area, you can plant your cucumbers at the base of fence posts and drape the vine onto the fence. The tendrils will quickly take hold and begin to grow upright. Harvest the fruits when they are small to medium size for the best flavor and to ensure they do not become too heavy for your trellis to support.

Harvesting:

It's important to harvest cucumbers early and often. Don't be tempted to wait to see how large the fruits will get, as this will lead to less production and bitter fruits. Pickling/Gherkin varieties should be roughly 2 inches long, Dill varieties should be 3-6 inches long, Slicers should be 6-8 inches long, and some large Burpless varieties can grow to 10 inches or longer. Be sure to keep track of which varieties you plant throughout your garden, and if you forget, you can always snack on a few fruits of different sizes to see when they start to pass their prime. You should be harvesting at least twice per week to ensure consistent production.

Eggplant

Temperature Preferences: 70-85F

Soil Type:

Well Draining soil that has been amended with compost. Consider adding a Phosphorus heavy fertilizer like 5-10-5 a week before planting.

Soil pH: 5.8-6.5

Sunlight Needs: At least 6-8 hours of sunlight



Watering Needs:

Water well and consistently! Like other plants in the nightshade family, fruits will be negatively impacted if they do not receive consistent watering during the fruiting stage.

Plant to Harvest Time: 65-80 days

Plant Spacing: 18-36"

Growing Tips:

Eggplants like consistency, so do your best to maintain a steady watering routine and consider mulching to make sure the soil temperature and moisture doesn't fluctuate too much. Pinching the first few blossoms of the season will encourage more vigorous growth. If the plant is allowed to fruit normally, the fruits may be smaller than what you're used to seeing at the grocery store. If you want larger fruits, continue pinching all but 5-10 fruits/flowers at a time.

Watering Tip

If there are dry spells throughout the season and you are not able to get to your growing space to water as often as you need, you can use recycled plastic bottles to create self-waterers! Carefully use a pin or nail to make small holes in the top of the bottle cap. Fill the bottle with cool water and screw on the cap. Invert the bottle and insert the cap and bottle neck into the soil next to your plants. Droplets of water will drip out of the holes in the cap, slowly watering the soil as the surrounding plant roots take in water. Depending on the size of the bottles you are using and the water needs of the plants you are placing them next to, these upcycled self-waterers can help to keep the soil moist for several days. Just remove the bottle from the soil, unscrew the cap, and refill with water to use anytime your plants need for extra moisture.

Though they do not require trellising, heavy fruiting can cause plants to lean or topple over, so consider staking early in the season to avoid plant damage during mid-summer. Light fertilizing every 2-4 weeks can help boost productivity, but consider using something low in nitrogen, since too much can reduce fruiting.

Harvesting:

Harvest early and often! Eggplants will yield well into the fall if tended to properly, so check on your plants every 2-3 days as they start to fruit and harvest as soon as the skin on the fruit turns glossy. Waiting too long can cause them to get tough. You'll know if you waited too long if you cut into your fruits and most of the seeds have turned brown.

The stems of some eggplants are quite spiny and thick. Consider using gloves when harvesting, and use a knife or snips to cut the fruit from the plant to avoid damage.

Kale

Temperature Preferences:

Kale can often tolerate warmer temperatures, but prefers cooler temperatures. They will do best in 40-75F and actually improve in flavor after a frost in the Fall.

Soil Type:

While Kale prefer well draining, loamy soil, they can be quite tolerant as long as there is some organic material and soil is not too clay-heavy.



Soil pH:

6.0 - 7.0

Sunlight Needs:

6-8 hrs

Watering Needs:

Kale likes a good deal of water, so water consistently to keep soil moist.

Plant to Harvest Time:

35-50 days

Plant Spacing:

8-12"

Growing Tips:

Kale is easy to grow and will be a rewarding experience for all gardeners! Consider using an occasional Nitrogen rich fertilizer, and use mulch to control weeds and keep soil cool during the hot summer months. Consider using a row cover if insect pests are a concern or to extend harvest into winter!

Harvesting:

Harvest from the lower leaves once they are about the size of your hand. Avoid harvesting more than $\frac{1}{3}$ of the plant at a time and avoid the top leaves so that the plant will continue to grow until temperatures drop below 20F.

Kale is a hardy leafy green that holds up in cold weather and even has some heat tolerance. The same properties that make Kale such a versatile crop to grow can result in a tougher leaf. Check out the tips below to keep your Kale tender.

- Harvest early and often.
 Harvesting earlier in the
 day can help the leaves
 retain moisture, keeping
 them from getting
 wilted.
- 2. If you do need to harvest in the heat of the day, dunk the leaves into cool water soon after harvest to remove residual heat.
- 3. Remove the central fibrous stem before cooking.
- 4. For raw preparations, like salad, cut the small into bite size pieces and then scrunch or massage with your hands. This will break down some of the leaves' cell walls tenderizing the Kale.



Lettuce

Temperature Preferences:

45-70F

Soil Type:

Well draining, rich soil

Soil pH:

6.0 - 7.0

Sunlight Needs:

5-6 hrs (ideally not direct sunlight during mid-day for summer growing)



Watering Needs:

Keep soil damp, but not soggy since overwatering can lead to diseases

Plant to Harvest Time:

30-45 days

Plant Spacing:

4-6"

Growing Tips:

Lettuce appreciates good air-flow, so try to plant in spaces that are not fully blocked from wind. Consider using floating row cover to protect from insects and mid-day sun, and add a nitrogen rich fertilizer 2-3 weeks after transplanting to encourage foliage development. It's highly recommended to mulch lettuce to help keep the soil cool and moist during the hotter days of summer.

Lettuce is a great bang-for-your-buck plant and does well as a transplant and grown from seed. It's a good crop to practice succession planting with, so you can have fresh greens to harvest throughout the season! It can also tolerate less sun and colder weather, so can be grown well into the fall after your summer crops have died back.

Harvesting:

It's best to harvest lettuce in the morning, and you can either remove outer leaves or higher portions of the plant, so that the internal portion of the plant is always preserved. This method is called "cut-and-come-again" harvesting. Some lettuces (like iceberg) are referred to as "heading lettuces" and look a bit more like cabbages; these varieties are typically harvested all at once by cutting the stem about an inch from the ground.

Added Success with Successions

Lettuce is considered a short season crop since it usually needs only 1-2 months to mature to a full head after planting -- and can even be harvested from as early as 2 weeks after planting. Instead of planting all your Lettuce seeds at once and having an over abundance of lettuce to harvest all at once, crops like this can be planted in several rounds known as "successions" throughout the outdoor growing season, which allows you to have lettuce all season long.

Consider how much lettuce you want to harvest each week. That is roughly half as much as you should be planting in each succession. Every two weeks, you can plant new lettuce next to the ones from the previous successions that are maturing. Each succession should be



enough to harvest from for about two weeks.

Okra

Temperature Preferences:

65-90F

Soil Type:

Well Draining, rich soil is preferred. Because Okra should be planted when evening temperatures are in the 60s, consider amending the soil with compost as you wait on the weather.

Soil pH:

6.5-7.0



Full Sun

Watering Needs:

Water well, especially during hot, dry spells

Plant to Harvest Time: 45-60 days and will bear fruit for several weeks

Plant Spacing:

18-24"

Growing Tips:

Okra is a sun loving plant that will add beauty, height, and variety to your garden. Add a high Phosphorus/Potassium fertilizer every few weeks to encourage fruiting.

Because of its straight and sturdy stem, okra can act as a "living trellis" for small vining plants like beans or peas. If not planning to use it as a tall trellis, consider pruning the top of the plant once it grows to 2-3 feet high; this will encourage more shoots to develop for a more bountiful late-crop.





Okra is also a great plant to practice seed saving with. Late in the season, let your last pods grow fibrous and dry for storage. If a frost is coming, cut the plant out and hang dry to preserve the seed pods for easy storage

Harvesting:

Okra should be harvested regularly (every day or two) so that the pods don't get tough and fibrous. Pods should be 2-4" long, and cut from the plant with shears to avoid damaging the plant. Most varieties cultivated by gardeners are "spineless," but heirloom varieties may have small spines that can irritate the skin - wear gloves and sleeves when working with these varieties.

Consider cutting off leaves after harvesting the fruit from above them to encourage further growth.

Seed Saving Tip:

If you accidentally miss a pod that becomes overgrown, you can leave it on the plant to mature and produce seeds that you can save to be planted next season. Let the pod dry out completely and then store seeds in a dry, dark, and cool space until you are ready to plant. Note that if you let too many of the pods become overgrown and produce seed, that will signal to the plant that it has competed its life cycle and it will slow or stop producing new pods.



Peppers (Hot)

Temperature Preferences:

65-90

Soil Type:

Well Draining, rich soil

Soil pH:

5.5-7.0

Sunlight Needs:

Full Sun (some midday or afternoon sun is ok)



Watering Needs:

Water well (one inch per week) and consistently. It's ok for the surface of the soil to dry in between waterings

Plant to Harvest Time:

50-85 days

Plant Spacing:

18 inches

Growing Tips:

Chili peppers can be incredibly bountiful if they're managed correctly, but they're also temperamental like their sweeter cousins. Watering constantly, amending the soil with well-aged compost before

transplanting, and fertilizing every few weeks with a potassium and phosphorus heavy fertilizer can help them mature well.



Some growers like to pinch the top of the plant off after two or three true leaves have emerged, because this causes the plant to create multiple "leaders," or main stalks. It is also recommended to pinch the first several flowers off during early development. While this may be counterintuitive, it helps to signal to the plant that it needs to focus on growing taller and stronger before it begins producing fruit. As the plant *does* start producing fruit, you may want to add stakes or a cage to help prevent it from toppling over and snapping at the stem.

Lastly, consider adding any amendments that contain calcium. This could be a store bought fertilizer, egg shells, or even spraying whole milk onto the leaves on a cloudy afternoon (sounds gross, but it works!). Calcium can help reduce blossom end rot, which is very common with peppers.

Harvesting:

Harvesting chilis is exciting and signals the height of our growing season! Be conscious of the oils from the plant and fruit though, and consider wearing gloves to prevent getting their essence on your hands. We recommend using snips or a knife to harvest, as the stems can be strong and pulling or ripping can cause a wound on the plant. Peppers don't ripen very much off of the vine, so wait until they have turned the desired color before harvesting.



Food Preservation Tip

While chilis can take some time to develop mature fruits, once a plant begins producing, you can be quickly inundated with an over abundance of peppers. You can preserve the excess harvest by stringing the peppers and hanging them to dry. Once they are completely dry and brittle, remove any stems, leaves, and most of the seeds. Grind the dried peppers to make your own homemade chili powder.

Peppers (Sweet)

Temperature Preferences:

65-90

Soil Type:

Well Draining, rich soil

Soil pH: 5.5-7.0

Sunlight Needs:

Full Sun (some midday or afternoon sun is ok)



Watering Needs:

Water well (one inch per week) and consistently. It's ok for the surface of the soil to dry in between waterings

Plant to Harvest Time: 50-85 days

Plant Spacing: 18 inches



Important Planting Notice:

If you are growing both hot and sweet pepper varieties and planning to save seeds, you will need to plant the different varieties away from each other. Since these varieties share the genetic make-up found in the Capsicum plant family, the flowers are both hot and sweet peppers can easily be cross-pollinated by bees, butterflies, and other pollinators. This mixing of genetics should not interfere with this first generation of plants (the ones you are currently growing), but if you take the seeds from the peppers you grow this year, that next generation has a high likelihood of producing sweeter chilis and bell peppers with a spicy kick.

Growing Tips:

If anything, Sweet Peppers are even more delicate than chilis. Watering constantly, amending the soil with well-aged compost before transplanting, and fertilizing every few weeks with a potassium and phosphorus heavy fertilizer can help them mature well.

Some growers like to pinch the top of the plant off after two or three true leaves have emerged, because this causes the plant to create multiple "leaders," or main stalks. It is also recommended to pinch the first several flowers off during early development. While this may be counterintuitive, it helps to signal to the plant that it needs to focus on growing taller and stronger before it begins producing fruit. As the plant does start producing fruit, you may want to add stakes or a cage to help prevent it from toppling over and snapping at the stem.

Lastly, consider adding any amendments that contain calcium. This could be a store bought fertilizer, egg shells, or even spraying diluted whole milk onto the leaves on a cloudy afternoon (sounds gross, but it works!). Calcium can help reduce blossom end rot, which is very common with peppers.

Harvesting:

We recommend using snips or a knife to harvest, as the stems can be strong and pulling or ripping can cause a wound on the plant. Peppers don't ripen very much off of the vine, so wait until they have become softer (unripe peppers feel like a rock when squeezed) and started to turn color before harvesting, as this indicates that they are fully grown. Green peppers tend to be more vegetal and slightly bitter, while more ripened peppers of any color will have more sweetness to them.

Summer Squash

Temperature Preferences: 55-85

Soil Type:

Well Draining, rich soil. Some growers plant squash into mounds in order to ensure proper drainage

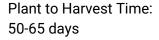
Soil pH: 6.5-7.0

Sunlight Needs: Full Sun

Watering Needs:

Avoid watering on the leaves. Give the soil a good soaking every time

you water. Squash appreciate a fair amount of water and have a deep taproot, so make sure you're watering enough to penetrate below the first few inches.



Plant Spacing: 24-36 inches

Growing Tips:

Summer Squash is a blanket term that can include zucchini, crooked neck, yellow squash, patty pan and other squashes that don't have thick skin for long-term storage. They tend to grow in more compact domes than their winter squash counterparts, which often sprawl across larger areas.

Squash produce large, fan-like leaves that require lots of nitrogen, so fertilize occasionally with a nitrogen heavy blend. Squash are also targeted by several pests and diseases, so keep an eye out for



Squash Borers, Squash Bugs, and Powdery Mildew. Utilizing row cover can help with insect pressure, but may also reduce pollination. Consider using Neem Oil for Squash Bugs and use tin foil to wrap the stems of the plants during their early stages in order to prevent pesky squash borers from destroying the stem. Treating powdery mildew is often more about delaying the inevitable, but damage can be reduced by cutting the affected leaves off (carefully), and spraying the plant with a mixture of dawn soap, baking soda, and water (½ teaspoon, 1 tablespoon, and one gallon respectively)

Harvesting:

Harvest Summer Squash early and often to continue productivity throughout the season. Use snips or a knife to reduce damage to the plant, as some of their vines will produce roots for additional resources. Don't be tempted to see how large the fruits will get, since as they grow larger, the skin tends to get tough and unpleasant. Harvest baby squash early in the season, and then small to medium fruits later in the season for the best results.

A Note About Summer Squash Varieties:

We have mentioned throughout this guide that irregular textures and discoloration on the leaves of plants can be a sign of stress or disease. A notable exception to this rule is for our summer squash varieties. Please see the photos and descriptions below:



Dunja Zucchini
Dunja has deep
green leaves with
lighter veining and
an almost waxy
coating . Some
gardeners get this
confused with
powdery mildew. As
long as leaves are
not yellowing or
limp/drying out, the
plant should be
healthy.



Yellowfin Squash
Yellowfin has lighter
colored and sometime
speckled leaves,
especially along its
edges. Some
gardeners get this
confused with heat
stress or lack of water.
As long as leaves are
not turning brown or
crispy/drying out, the
plant should be
healthy.

Tomatoes (Cherry & Slicer)

Temperature Preferences: 65-85

Soil Type:

Well Draining, rich soil - consider mixing compost into the soil a week or two before planting

Soil pH: 6.2 - 6.8

Sunlight Needs: Full Sun

Watering Needs:

Avoid watering on the leaves and consider covering the ground with mulch to avoid splashing soil up onto leaves. Tomatoes like a bit more water than many other plants, but be sure to be consistent! Suddenly





watering too heavily during the fruiting stage will lead to the skin on their fruits cracking. While this doesn't immediately impact whether they're edible, it will invite bacteria and the fruit will start to mold if it isn't used right away.

Plant to Harvest Time: 60 - 100 days

Plant Spacing: 24-36 inches

Growing Tips:

Tomato stems will grow roots if they come into contact with the soil, so it can be helpful to pinch off the first set of leaves and bury the plant a little deeper than the initial root ball. This will encourage a

nice, healthy root system and allow the plant to access more resources from your soil right from the jump!

Tomato plants become quite heavy as they fruit, so think ahead and install your trellising while the plants are still young to reduce the damage to the root and branch structure. Tomato cages can be useful and are widely available, but can also compact the plant and restrict airflow, leading to disease. Consider using alternative trellises, like droplines, cattle panel, bamboo sticks, or the "Florida Weave" method!

Tomatoes are heavy feeders and one of the staples in every garden, so it's a good idea to fertilize them with a blend that is heavy in Potassium and Phosphorus at least once or twice throughout the growing season. Some Nitrogen is ok, but if you give them too much, they will grow leafy and large, but wont produce as many fruits.

Pruning tomatoes is also highly recommended in order to keep plants healthy, upright, and productive. Generally you want to keep branches that grow at right-angles off of the stem, and snip out any "suckers" that grow at 45 degrees, or or of the corners between branches. We also suggest pinching the first few flowers to encourage leaf and stem development during the 2-3 weeks. Lastly, prune back all the lower leaves as you harvest, since they eventually become wasted resources and will be the first to yellow and invite disease into the plant. By the end of the season, there should be at least a foot of bare stem from all the pruned lower leaves.

Harvesting Tips:

Harvest tomatoes when they're fully ripe, if possible. Though they will ripen off-vine, their flavor is better when left to ripen naturally, and they will not begin to rot like those that are taken off early and left in a window sill. Know the color that your tomato is supposed to take on, and harvest once it has fully turned.

Refrigerating tomatoes can actually spoil their flavor a bit, so whenever possible, harvest them as you use them, and eat while they're garden fresh!

Herbs

Basil	27
Chamomile	29
Chives	30
Parsley	32
Rosemary	34
Sage	36







Basil

Temperature Preferences:

50 - 90

Soil Type:

Well Draining, rich soil, but does fairly well in pots

Soil pH:

6.0 - 7.5



Full Sun, but can thrive with mid-day dappled light



Watering Needs:

Basil requires about one inch of water per week, the same as most plants on this list, and a bit less than tomatoes.

Plant to Harvest Time:

25-100 days Harvest early and often!

Plant Spacing:

10 -14 inches

Growing Tips:

Basil is often grown between tomato plants, and some gardeners think this improves the flavor of both. They do pair well in the kitchen and the garden, as their soil and sun requirements are similar, and the tall tomato plants will shade the basil from the extremes of the midday sun. Just be sure to space your tomatoes out a bit more if you're going to use this companion planting pair. Marigolds also go well with both of these plants, and Do help prevent harmful nematodes.

Consider giving a little boost with a balanced fertilizer part-way through the growing season.

Harvesting Tips:

Basil can be harvested just a few weeks after planting, when plants are 6-8 inches tall, harvest the top 3-4 to encourage the plant to branch out and create multiple "leaders." Continue harvesting by pinching the stem back, rather than picking individual leaves. Basil may start to flower part-way through the season, so cut back any stems that start to flower to prevent spoiling the flavor.

A Perfect Pairing

Combining basil and tomatoes in cooking is a popular combination, but did you know that planting basil and tomatoes next to each other in your garden is also beneficial for the plants' growth? This method of



planting crops that help each other to grow is called "companion planting." The strong fragrance of the basil attracts pollinators to this area of the growing space and tomato blossoms are more readily pollinated by the frequent visits necessary for fruit development. As the tomato vines grow tall in the heat of summer, they offer some needed shade to the basil plants, keeping them from developing flowers ("bolting").



Chamomile

Temperature Preferences:

55-100, but thrives between 60-68

Soil Type:

Well Draining, rich soil.

Soil pH: 6..0-7.0

Sunlight Needs: Full Sun/Partial Shade



Watering Needs:

Chamomile doesn't require as much water as most plants and can be fairly drought tolerant. Don't neglect the plant, as prolonged drought will attract pests, but if you're pressed for time and need to skip something during your watering, this is a good option!

Plant to Harvest Time:

56 -64 days

Plant Spacing:

8-10 inches

Growing Tips:

Chamomile grows fairly well in most environments and can be considered a "set it and forget it" plant. No need to fertilize, and chamomile will either over winter in our zone (if it's Roman Chamomile), or will self-seed and come back in the spring (if it's German Chamomile). If Chamomile starts to get leggy, prune back the whole plant to 3-4" from the ground.

Harvesting Tips:

You only want to harvest the flower for tea and there are some handy tools that make harvesting chamomile Much more efficient, but they can be expensive, and only makes sense if you're growing in large quantities. For a cheaper option, get yourself a broad-tooth comb and use that to brush flowers off to use fresh, or dry for long-term storage!

Chives

Temperature Preferences: 55-85

Soil Type:

Well Draining, rich soil.

Soil pH: 6.0-7.0

Sunlight Needs: Full Sun/Partial Shade

Watering Needs:

Chives will appreciate a regular watering, but will also tolerate short dry-spells as long as it isn't peak summer

Plant to Harvest Time: 30-40 days

Plant Spacing: 6-8 inches

Growing Tips:

Chives are another fairly care-free plant that won't require much time and attention throughout the season. Consider applying a Nitrogen rich fertilizer in the beginning of the season to encourage green growth, and be sure to remove flowers after they bloom (before transitioning to seed stage) unless you want to be weeding chives out of your garden next year!

Chives are perennial in our zone, so if you have chives in your garden that are several years old and starting to take up too much space, you may want to consider digging most of the plant up and either planting clumps of the little bulbs in new areas, or sharing with neighbors. Chive plants will eventually start to compete with themselves when they get too big, so dividing every 3-4 years is recommended.





Harvesting Tips:

Be sure to cut as much of the green growth as possible when you harvest, getting within an inch or two of the ground. In the first year, you may want to be a bit more conservative and harvest 3-4 times throughout the season, but more mature plants can be cut-back monthly. If you have new plants and want to harvest more regularly, just cut back small portions of the plants at a time, rather than clear-cutting.



Using Chives in Your Cooking

A member of the allium plant family, chives have a sweet, raw onion flavor. When harvested in the heat of summer, the stems and flowers tend to have a sharper bite. To mellow out this flavor, you can rinse or submerge the chives in cold water and chop into small pieces.

Parsley

Temperature Preferences: 45-85

Soil Type:

Well Draining, rich soil. Some growers plant squash into mounds in order to ensure proper drainage

Soil pH: 5.5-6.7

Sunlight Needs: Partial Shade/Full Sun



Watering Needs:

About an inch per week, but consider giving a little extra water during peak summer to help keep the soil cool and delay bolting

Plant to Harvest Time:

30-50 days (once there are 8-10 good stems)

Plant Spacing:

8-10 inches

Growing Tips:

Like most herbs, parsley is not a very fussy plant. The biggest concern for keeping it productive and healthy is to make sure you're conserving water in the soil, and keeping temperature stress as minimal as possible. More frequent waterings can help keep the soil cool, as will a good mulching to prevent the sun from directly hitting soil to heat it and evaporate water from the surface.

Fertilizing parsley is not essential, but if you want to accelerate growth, a little bit of balanced or Nitrogen rich fertilizer won't hurt. If you don't have lots of fertilizer on-hand though, definitely prioritize other plants, since parsley will likely grow well one way or the other.

Harvesting Tips:

Parsley is a wonderful fresh herb that can help reduce the amount of salt you need to put in a dish to enhance flavors. Harvest small amounts as needed, or in larger bunches, but be sure to cut or pinch full stems from the outside of the plant first. Once the plant has developed 8-10 good stems, you can begin harvesting, and if you want to keep parsley fresh for multiple days, you can always put the stems into a glass of water and stick it in your fridge - just make sure to cut the stems again if it's been more than a few minutes since you've harvested, as the pores will have started to scab over.

Tender Herb Cooking Tips

Parsley is considered a tender herb, meaning that its leaves and stems remain flexible throughout the season; unlike hardy herbs like rosemary and sage, which have tougher leaves and branch-like mature stems. Here are some ways to incorporate tender herbs into your cooking:

Add Tender Leaves to Salad

Parsley and other tender herb leaves are a flavorful addition to fresh salads and a great way to increase your intake of nutritious dark leafy greens.





Add Stems in Stock

Use the stems for seasoning broth, stock, and marinades. Collect all the unused stems once you have cut off the leaves, tie them into bundles, and add them to marinades or broth and stock. Pull out the herb bundle once the flavors have infused and then discard in the compost or trash.

Rosemary

Temperature Preferences:

65-90

Soil Type:

Extremely well draining, rich soil, but Rosemary can do quite well if soil is a bit more on the sandy side. Stones being in the soil is also not a problem at all for rosemary, as long as they aren't large enough to block root development.

Soil pH: 6.0 - 7.5

Sunlight Needs:

Full Sun



Watering Needs:

Rosemary is another good time-saver when it comes to watering your garden! While it shouldn't be neglected entirely, rosemary is very prone to "root rot" if the soil is left damp for too long. Water it well on occasion, but let the soil dry out completely in between watering. Consider these needs as your selecting its location in your garden, since you may not want to put it around other plants that need lots of regular watering.

Plant to Harvest Time:

30-50 days (once sprigs are 8 inches tall)

Plant Spacing:

18-36 inches (depending on how large you want it to grow)

Growing Tips:

Rosemary is a sun-loving herb that will thrive in the warmest places in your garden! Herbs are a great bang-for-your-buck choice for any

gardener, and this semi-hardy plant will typically survive over winter in our zone, as long as it's mulched with leaves or compost in the fall to give it a nice "jacket" for the coldest parts of the Rochester winter.

You can "train" some of the outer sprigs to the side and weigh them down with a stick, stone, or stake to encourage the plant to expand in size more quickly!

Other than that, the most important tip is not over watering your rosemary. Because it comes from a semi-arid environment, it likes to completely dry out in between waterings, so save yourself some time and skip this plant at least every other watering (especially if it's been raining that week).

Harvesting Tips:

Rosemary should be harvested when the sprigs are at least 8 inches, and cut back 4-6 inches at a time. Each time you cut,

the sprig should sprout at least two new "leaders," increasing the size of the plant over time. Cut back a few sprigs at a time, so there's always something to harvest during the growing season, then cut back the whole plant in the fall before a frost and make small bundles to hang and dry for home grown herbs all through the winter months!



Sage

Temperature Preferences: 15-85, but thrives between 60-70

Soil Type:

Extremely well draining, rich soil. Like rosemary, sage does well with a little bit of sandiness to the soil to promote extra drainage

Soil pH: 6.5-7.0

Sunlight Needs: Full Sun

Watering Needs:

Sage isn't as prone to root rot as rosemary can be, but it still doesn't like

its soil to be constantly moist. If it's been rainy, or you've been watering consistently, feel free to skip this plant when you need to save time at the garden.

Plant to Harvest Time: 30-45 days

Plant Spacing: 12-24 inches

Growing Tips:

Sage is very easy to grow and will almost always over-winter in our zone. Water transplants regularly until they're established, then switch to a much lighter watering schedule. In the Spring, pruning back the woody branches will help encourage new, tender growth for better summer harvests.

Harvesting Tips:

Pinch or snip back small (3-6 inches) stems as needed, or bundle and dry if you're harvesting in bulk.



Flowers

Bee Balm (Wild Bergamot)	38
Marigold	40
Sunflower	42
7 innia	44







Bee Balm (Wild Bergamot)

Temperature Preferences:

Thrives in 60-70 degrees, but is native to our zone, so will come back every year

Soil Type:

Well Draining, rich soil. Some growers plant squash into mounds in order to ensure proper drainage



Soil pH: 6.0-7.0

Sunlight Needs:

Full Sun

Watering Needs:

Water well every 7-10 days to avoid over watering, which can encourage powdery mildew

Plant to Harvest Time:

Flowers first emerge in July

Plant Spacing:

18-24 inches

Growing Tips:

Bee Balm actually thrives when it doesn't get additional nutrients, and does not need to be fertilized, unless you want to provide a very small amount of balanced fertilizer in the spring. Be sure to give it a good spot in the garden with plenty of air flow, like the edge of your beds.

Harvesting Tips:

Bee Balm makes an excellent cut flower, and both the leaves and flowers can be used for teas! For flowers, cut the main stem as soon as the flowers begin to open for maximum vase life, and pick leaves as needed for delicious teas. Stems will branch off after cutting, growing new flowers, so cutting actually encourages growth.

Even if you don't have any use for the flowers or leaves, it is still recommended to cut off the flowers after they begin to wilt - this is called "dead heading" - in order to encourage new blooms throughout the late summer and early fall.

Fresh Herbal Teas

Herbs like bee balm, chamomile, and marigolds can be used to make tea. In fact, bee balm, also known as "wild bergamot," leads a citrus-y orange spice flavor similar to Earl Grey tea. Herbs have the best flavor for teas in late spring to early summer before flowers fade. Use the recipe below to make herbal teas fresh from the garden.

<u>Oswego Tea</u>

1 cup hot water

3-4 fresh picked or dried bee balm leaves *(or use as many as you like for desired flavor)

4-5 bee balm flower petals

When making teas from chamomile and marigolds, use only the flowers. Stems and leaves have a tendency to be bitter and should be removed before steeping.

If you have more herbs than you can use for fresh tea, collect the herbs in paper bags to dry out fully and use the dried pieces for tea throughout the year.

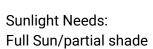
Marigolds

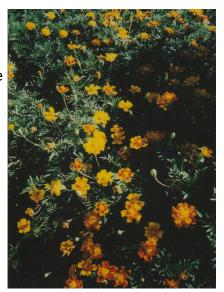
Temperature Preferences: 65-85

Soil Type:

Well Draining, rich soil will maximize their blooms, but marigolds aren't picky. Soil composition should be considered if they are being used in raised beds though, since the roots of their companions will likely intersect with their space.

Soil pH: 6.0-7.0





Watering Needs:

Marigolds only need watering during dry spells. Other than that, they are very self-sufficient!

Germination time:

4-10 days for germination and will bloom in about 8 weeks

Planting depth:

Sow on soil surface and lightly agitate soil or press them into the ground to ensure good surface contact

Plant Spacing:

8-12 inches

Growing Tips:

Marigolds are easy to grow and are one of the most common flowers in a garden because they are great companions for so many veggies! Their roots emit a chemical that repels nematodes, and they are a great way to draw additional pollinators into your garden space. Their low laying growth habit makes them perfect for planting among taller plants like tomatoes.

Harvesting Tips:

Harvest for summer arrangements or dry by hanging them upside down for a long lasting pop of color! Marigolds should be dead headed like most flowers once their blooms begin to die back, but they're also a great plant to practice seed saving with, so if you miss a few blossoms, collect the seed and store somewhere dry for next year!







Sunflowers

Temperature Preferences: 50-90

Soil Type:

Well Draining, rich soil, consider preparing soil a bit deeper, if your garden struggles with compaction. Sunflowers are also heavy feeders, so consider adding compost to soil before planting.



Sunlight Needs:

Full Sun

Watering Needs:

Water regularly until the plant is around six inches tall, then switch to less frequent, deep watering to encourage root development

Plant to Harvest Time:

70-95 days (direct seeding is recommended, since they don't like having roots disturbed)

Plant Spacing:

6-12 inches

Growing Tips:

Sunflowers are fun to grow and do not require fertilization (though you may want to fertilize whatever you plant after them!). Because they are so tall, they are often blown over in windy areas, so consider tying or staking if this is a concern for you.





Consider planting in a circle and making a "sunflower fort" if you have children who utilize your garden - just be sure to check that area frequently to make sure things that could be dangerous haven't been left there!

Harvesting Tips:

Cut the flower before the bud has fully opened and ideally in the morning. Strip stem of all leaves and make a new cut at about 45 degrees (to increase the surface area) and place in water as quickly as possible! Blooms should last for about a week.

If you have lots of sunflowers with partially developed seeds left at the end of the season, you can cut them off the stem and hang them from trees and fences around your growing space to act as natural bird feeders throughout the winter.







Zinnia

Temperature Preferences:

60-85

Soil Type:

Well Draining, rich soil.

Soil pH:

5.5-7.5

Sunlight Needs:

Full Sun



Watering Needs:

Avoid watering on the leaves. Give the soil a good soaking every time you water. Squash appreciate a fair amount of water and have a deep taproot, so make sure you're watering enough to penetrate below the first few inches.

Plant to Harvest Time:

50-60 days

Plant Spacing:

6-18 inches

Growing Tips:

Zinnias are a pretty easy flower to grow, and are a wonderful cut flower that will draw lots of pollinators to your garden space! They can be prone to powdery mildew, so consider giving them a little extra space if there isn't good air flow in the space they'll be planted. Consider fertilizing once or twice with a light, balanced fertilizer once or twice if you want to maximize blooms.

If you are not harvesting regularly, cut back old flowers ("dead head") to keep plant active and producing until the first frost! Some growers

also "pinch" or cut the lead stem when the plant is between 8-12 inches tall to encourage a bushier growth pattern with more long flower stems.

Harvesting Tips:

Harvest early and often! Cut stems to your desired length, depending on the container. Zinnias are also great for drying, so try hanging a few on a string throughout the season and enjoy a pop of color all year round!

Tips for Maximizing Vase Life for Fresh Cut Flowers

- Start with clean buckets, snips, and vases
- Remove all leaves and petals that fall below to water level
- Cut the end of each stem at an angle, so it can take in the most water possible
- Place the vase out of direct sunlight and away from ripening fruit
- Change the water in the vase every couple of days
- Remove flowers from you arrangement as they wilt or fade
- If you are picking flowers for a special occasion a few days in advance, you can store your arrangement in water in a cool, dark space -- inside your refrigerator works great!





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