

Success with Vegetable Gardening for Beginners

Key Principles for Success:

- With proper planning and a few low-cost structures, you can have fresh vegetables from your garden 365 days a year.
- Full sun at your garden location – this means that from the time the sun rises, until it sets, there are zero shadows falling on your garden. This amounts to 14-16 hours of light, which is the ideal situation. A shadow late in the evening or early in the morning would be acceptable, but 10 hours of sunlight would be the minimum.
- Think of your gardening in terms of “Temperature Seasons”: Cool, Hot, Cool, Cold. Each vegetable fits into its place in the seasons.
- Match vegetables to the space you have available. Some, like pumpkins, require a huge amount of space, and may not be suited to all gardens.
- A small, well-weeded garden will far out-produce a large garden that is full of weeds.
- Only plant vegetables that your family already enjoys eating on a regular basis. For those you only eat occasionally, consider buying them from the farmer's market instead.
- Try and spend time in your garden every day during the summer, and three times a week during the winter. Even if it is only for 5 minutes to harvest a tomato. You will find that this daily visit will do your soul good, and will help you know what your garden needs at every stage.
- Try to eat or preserve everything you harvest. Rotted fruit on the ground can foster disease that may reduce harvest later in the season.
- Some vegetables have a narrow window of harvest, and often everything comes ripe at once. If you stagger the plantings, and plant fewer numbers in each batch, you will be able to match consumption to production. Good examples would be Summer Squash, Melons, Sweet Corn, Cabbage, Broccoli, and Cauliflower. The problem is more pronounced for vegetables that don't store well, like corn and squash.
- Think about growing varieties that can be simply preserved or stored. Winter squash, sweet potatoes, Garlic, and Onions can be stored for 3-6 months in a closet or spare room. Canning or freezing are good options for some vegetables. The local Extension Cooperative Service has excellent information on home canning.

Beans

Culture

Warm Season

Killed by Light Frost.

Direct Sown 3-4 inches apart.

Stagger Plant? Yes, every 2 or 3 weeks for Green Beans.

Storage? Stores fresh less than a week. Canning or pickling.

Beans come in a dazzling range of styles, colors, and uses. They love warmth, and should not be planted too early.

In general, green beans such as 'Provider' bear a concentrated harvest over a 2-3 week period, and should be stagger planted. Pole beans typically bear over the entire summer, but the volume will be less and thus are not suitable for canning crops. Dry beans are allowed to die and dry completely before harvest, and store dry in airtight bags or containers.

Major pests include Mexican Bean Beetles and Japanese Beetles. Control with an organic insecticide that is labelled for those pests, or hand pick 3x a week.

Corn

Culture

Warm Season

Killed by Light Frost.

Direct Sown 3-4 inches apart.

Stagger Plant? Yes, a second planting 3 weeks after the first

Storage? Stores fresh less than a week. can be frozen.

Corn is one of the classic summer crops – irresistible on the table! But corn does have some particular requirements:

Planting an adequate size to ensure pollination – corn needs to be planted in “blocks” that are at least 4 feet wide. Single rows do not give good pollination, which is done exclusively by wind. Consider a 10x10 patch to be a reasonable minimum. Each stalk will produce 1 or sometimes 2 ears.

Corn has many worms that like to eat the ears, but they usually only damage the top inch or two. Just cut them off when you harvest.

If you live in a windy area, consider building a single horizontal pole around the perimeter of the patch, at a height of 3 feet off the ground, to reduce the chance of the corn blowing over.

Cucumbers

Culture

Warm Season

Killed by Light Frost.

Transplants in early spring, direct sown after May 15.

Stagger Plant? Yes, a second planting 3 weeks after the first

Storage? Stores fresh less than a week. Can be pickled.

Cucumbers are an easy and quick producer. All cucumbers (even ones that claim to be bush type) should be trellised or trained to grow up a wire. Small tomato cages or wire mesh hung vertically down the center of the row work great. Plant 4 to 6 plants in a 3x3 area. Fruit that touches the ground sometimes rots or turns yellow, so try to get the vines to climb vertically. This is not usually a challenge as long as you provide something thin to climb.

Cucumbers are attacked by Cucumber Beetles, Squash Bugs and these two pests can often kill the plant rapidly. Stagger planting a new batch in a different area sometimes works. Also consider using sprays.

There are also some bacterial diseases that can kill the plant from inside – the effect is “sudden wilt death” for no apparent reason. Don't fret – there is still time to replant, all the way until June 30th.

Eggplant

Similar in culture to peppers, with the added pest of Flea Beetles. Consider covering your eggplant with “Remay” fabric to block out the beetles. Remay is a lightweight frost cloth that lets air, water, and sunlight through, but has holes too small for the flea beetles. When the Eggplant are bursting at the seams to get out of cloth, take cloth off. The plants are mature enough and will out-grow the beetles. Consider building a low bar 24 inches above the ground to keep the plants from flopping over.

Melons

Culture

Warm Season

Killed by Light Frost.

Transplants in early spring, direct sown after May 15. Plant no later than May 30.

Stagger Plant? Not usually.

Storage? Stores fresh less than a week. No good ways to preserve.

Melons are a real delight! However, they are large plants and require ample room to produce. Each plant will spread 10 to 12 feet from the center. Usually, 3-4 plants will be planted in a 12” x 12” hill, and the hills will be 3 or 4 feet apart in the row. A 20 foot wide area is allotted to the melon patch, with the row down the center. A 20x 20 patch will yield perhaps 15 to 20 melons, depending on size or type. Unlike in the store, not every fruit you pick will be yummy. My father's success rate is about 60 to 75% - and he is an excellent melon grower.

Okra

Culture

Warm Season

Killed by Light Frost.

Transplants in late spring. Do not plant before May 15!.

Stagger Plant? No.

Storage? Stores 2 or 3 days in refrigerator. Can be pickled.

Okra is a large, 6 foot tall by 3 foot wide, thorny plant. It may need to be staked to prevent flopping. It will need to be harvested daily to prevent the pods from getting large and woody. Wear long sleeves and gloves while picking. The pods are best picked small and tender. Has few, if any, pest problems.

Peppers

Culture

Warm Season

Killed by Light Frost. Resists light frost when mature.

Transplants in late spring, don't plant before May 1.

Stagger Plant? No.

Storage? Stores fresh less than a week. Can be frozen, canned, or pickled.

Peppers are easy to grow as long as you provide a cage or other support. They grow to 3 feet in height, and have few pest problems. They take a long time to start producing, but usually produce until frost. Fruit will rot if it touches the ground, so put down cardboard or provide a cage for support. It is a good idea to plant sweet and hot peppers at least 15 feet apart.

Pumpkins

Culture

Warm Season

Killed by Light Frost.

Direct sow after May 15.

Stagger Plant? No.

Storage? Stores for 3 months.

Pumpkins are large plants and require ample room to produce. Each plant will spread 10 to 12 feet from the center. Usually, 3-4 plants will be planted in a 12" x 12" hill, and the hills will be 3 or 4 feet apart in the row. A 20 foot wide area is allotted to the pumpkin patch, with the row down the center. A 20x 20 patch will yield perhaps 15 to 20 pumpkins, depending on size or type.

Pumpkins have a serious disease called powdery mildew – not all varieties are resistant. Most of the new ones are. Pumpkins also get stink bug and squash bug damage. Squash vine borers can kill the entire plant overnight. There is some thought that planting in Mid June bypasses the normal pest cycle, since the bugs have already scouted for food and left the area by the time you plant.

Sweet Potatoes

Culture

Warm Season

Killed by Light Frost.

Transplants in late spring, don't plant before May 15.

Stagger Plant? No.

Storage? Stores 3-6 months.

Sweet potatoes are nothing at all like Irish Potatoes – in fact, they are not related at all! Their culture is very different. Sweet potatoes love warmth, and are a large, sprawling vine. Vines will spread 6 to 8 feet from the row, so usually the patch is 15 feet wide, with a single row down the center. The transplants, called “Sets”, are planted 12” to 16” apart in the row, and watered very well for the first 2 or 3 weeks. They grow quickly. Generally the potatoes begin to form underground around August 1st, and they will continue to grow larger in size until frost. There is no specific time they are “ripe”. They can be dug anytime, usually in September or October. After digging, they need to be kept in a warm, dry room like a shed or garage for 2 to 3 weeks to allow the potatoes to “Cure”. They will not be flavorful if eaten before curing. They will store for 3-6 months in a warm, dry room (spare rooms or closets work great).

Squash

Culture

Warm Season

Killed by Light Frost.

Transplants in mid spring, direct sow after June 1.

Stagger Plant? Summer Squash - Yes, every 3 weeks

Storage? Stores fresh less than a week. Can be grated and frozen.

Winter Squash can keep for 3-6 months.

Summer squash – which includes pattypan, Yellow, crookneck, and Zucchini squash, are very fast growing and productive – for a very brief period. Then they die. So it is a very boom and bust cycle. Squash have a serious disease called powdery mildew – few, if any of the varieties are truly resistant. None of the old ones are. Squash also get stink bug and squash bug damage. Squash vine borers can kill the entire plant overnight. If you want squash all summer, plant multiple times, but try to plant in a different area each time to confuse the bugs.

Winter Squash – Includes Acorn, Hubbard, Spaghetti, Butternut, Delicata, Buttercup, and Kabocha. They are actually not all the same species, but they are similar in their culture and care needs. Most have the same pest problems as summer squash but sometimes are slightly more resistant. They usually can produce a few fruit even under severe pest pressure. They should be planted after soil has warmed, and get very large, similar to pumpkins (but not quite as large). Harvest in fall, before the first frost. Must be “Cured” similar to sweet potatoes: they need to be kept in a warm, dry room like a shed or garage for 2 to 3 weeks to allow the fruit to “Cure”. They will not be flavorful if eaten before curing. They will store for 3-6 months in a warm, dry room (spare rooms or closets work great).

Tomatoes

Culture

Warm Season

Killed by Light Frost.

Transplants in mid spring.

Stagger Plant? Yes, but not common.

Storage? Stores fresh less than a week. Can be canned.

Tomatoes are the main attraction in most gardens – and for good reason! There are a few things that a beginner should know about tomatoes:

- Tomatoes are NOT a 'Vine' – they cannot climb. They must be supported by a cage. Tomatoes are a large plant (6 feet tall), so the cage must be large (4 feet tall at minimum) to grow the plant to proper size. I am not a fan of staking, trellising or pruning tomato plants as those methods require too much work and may not increase yields.
- Tomatoes come in two broad categories: Indeterminate means that the plant produces fruit over a long growing season. Determinate means that all the fruit will ripen approximately at the same time. Many canning types are determinate so that a large volume will be available to can.
- For most families, 4 to 6 tomato plants is adequate. If you intend to can, and you really LOVE tomatoes, here is what I recommend: 2 cherry tomatoes, 5 tomatoes for fresh eating/sandwiches, and maybe 5 to 10 canning tomatoes. Very rarely should you need to plant more than 20 plants.
- Keep tomato plants well-watered, weeded, and mulched and your harvest will be abundant.
- I am very skeptical about “pruning” tomato plants. I have yet to see any side-by-side comparison of yields. You are far better off to devote your time to weeding, watering. Build a big cage and let the plant go crazy.
- Tomatoes have several serious disease problems – Late Blight, Early Blight, Fusarium, Alternaria, and Fusarium. Don't be scared – just get a diversity of varieties. Many varieties are resistant to some, but not all, of the major diseases. So don't put all your eggs in one basket.
- Blossom-End Rot is a problem on the fruit. The bottom side of the fruit turns rotten and the fruit falls off prematurely. This is not a disease, but rather a lack of calcium in the soil. Prevent this problem by adding 2 dozen crumbled up egg shells in the bottom of each hole. Even better, add calcium chicken grit (Sold at farm stores to feed to chickens to make their eggs thicker). Add 1 cup per hole.

Tomatillos are similar in care to tomatoes, and sometimes suffer the same disease problems. They do have a few other insect pests, and sometimes are not very long-lived in the garden. But the fruit is delicious in salsa or in making green salsa (Salsa Verde). Has a unique fruity and acidic taste.

The Salad Greens

Lettuce, Kale, Spinach, Collards, Swiss Chard

| Name | Cold Hardiness | Heat Hardiness |
|-------------|----------------|----------------|
| Collards | A+ | B- |
| Lettuce | B+ | B+ |
| Kale | A+ | B+ |
| Spinach | A+ | C+ |
| Swiss Chard | B+ | A- |

With a simple cold frame, it is possible to have Lettuce from September – early June. Swiss Chard does OK in the summer, and can overwinter in a cold frame if sowed in August. The super cold-hardy Collards, Kale, and Spinach can survive down to 10 degrees in a cold frame, and to 25 degrees in regular garden beds, but will peter out once it gets hot.

Watch for caterpillars on Collards and Kale, particularly in May/June and August/September

The Winter Storage Roots

Beets, Carrots, Onions, Radishes, Turnips

| Name | Plant | Harvest | Store in... |
|----------|-------------|-----------|-------------|
| Beets | Aug/Sept | As needed | Coldframe |
| Carrots | Aug/Sept | As needed | Coldframe |
| Onions | March/April | July | Dark/Dry |
| Radishes | Aug/Sept | As needed | Coldframe |
| Turnips | Aug/Sept | As needed | Coldframe |

With cold frames, it is possible to have fresh root vegetables all winter. Simply sow the seed in the fall and let the plants overwinter in the cold frame. Dig and use the roots as needed. The sweetness of a winter carrot will blow your mind!

Most will be direct-sown and later thinned to 3 inches apart to allow adequate room to develop.

The best Turnip by far is a variety called 'Hakurei', only available from Johnny's Seeds.

Some varieties of carrots are more cold-tolerant – check the catalog to confirm.

Onions are the odd one on this list because they grow during the summer, and are harvested when the tops begin to die or flop over (usually in July, but sometimes can be earlier or later). Let onions dry for 2 weeks in a dry place, then keep dark, cold and/or dry. Some varieties store better than others. Some varieties will need to be kept in refrigeration to prolong their storage.

The Cole Crops

Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Kohlrabi, Pac Choi

| Name | Spacing | Speed to Harvest | Last Fall Harvest |
|------------------|---------|------------------|-------------------|
| Broccoli | 24x24 | 65 days | Dec 20 |
| Brussels Sprouts | 24x24 | 110 days | Dec 20 |
| Cabbage | 16x16 | 65 days | Feb 28 |
| Cauliflower | 24x24 | 65 days | Dec 20 |
| Kohlrabi | 12x12 | 45 days | Dec 20 |
| Pac Choi | 12x12 | 45 days | Nov 15 |

All the Cole crops can also be spring planted, and all share the same pest problems: Cabbage worms are a major pest and can be sprayed with “Bt” or “Spinosad” when caterpillars are small. Slugs can sometimes be a problem in wet years.

Brussels Sprouts have such a long crop time that they must be planted in spring for fall harvest.

Pac Choi is the least cold tolerant, and will need to be harvested before freezing temperatures below 25 degrees.

Other Crops

Asparagus

Perennial that is best planted in spring. Will live and produce for many years if properly weeded.

Harvest usually starts in 3rd year, and lasts from April – May. Plants will need to be harvested daily during peak. No major pests other than weeds.

Leeks

One of those vegetables that feels very indulgent – warm leek soup on a cold fall day is amazing and would be expensive if purchased from a fine cafe. Why not grow them yourself? Plant in spring for Late summer harvest, or fall for winter/spring harvest. May need a cold frame or simple low tunnel greenhouse if the winter is very cold. Long crop time – 100 days in summer, longer in winter. To get the stalks pure white you will need to pile dirt or straw up around stems to keep them out of sunlight.

Green Onions

The essential ingredient for potato soup and many other recipes! Sow in early spring for summer harvest, or sow in late July/August for fall/winter/spring use. Some varieties are very cold hardy.

Garlic

Garlic is simply amazing – it is easy to grow, has numerous health benefits, and can store in a closet, attic, or dry room for 6 to 9 months! Plant in the fall (September through October), and harvest the following summer. Ready to harvest when the tops turn brown. Can be planted 6 to 8 inches apart. Save kernals from healthiest bulbs and replant to save on seed costs.

Peas

Snow peas, Shelling Peas, and Sugar Snap peas have the same culture. The only difference is the shape of the pod and the use. They love cool/cold weather and can take frost if protected with a sheet of plastic. Some years I have direct-sown seeds March 1st and harvested Mid May, but this is only possible if you have a way to warm the soil, like a cold frame. Late March would be a more typical sowing time for garden beds. They don't like hot weather and are often finished by mid June. They require a low trellis or something to attach to. They will send out tendrils and grab onto wire fencing etc. Be sure to harvest 3 times a week to prevent overripe pods, they mature very quickly in April/May.

Potatoes (Irish or Regular)

Called "Irish" but actually from mountains of Peru. Likes cool weather, but not extremes of hot or cold. Think high elevation mountains. Most people plant in March, and harvest in June/July. Plant in "hills", with tuber pieces that are 12 inches apart. Cut apart the seed potatoes so that each piece has an "eye" bud and let sit for an hour or two so that the cut area can harden and heal. Plant 6 to 8 inches deep. If a frost occurs after plants have sprouted, cover with fluffed-up straw or hay the night before frost. Mulch well with straw or hay to prevent weeds and to prevent sunlight from getting on tubers. Tubers form near the soil surface and turn green if exposed to sunlight. Harvest when the tops die off. Wash and store in a cool, dark place. Avoid storing below 35 degrees for extended periods of time.

Potato beetle larva are a major pest. The grub is orange/red and the adult is black and white striped and looks like a large ladybug. Three times a week scout the plants and knock adults and grubs into bucket of soapy water to drown.

Rhubarb

Like asparagus, Rhubarb is a long-lived perennial that starts bearing year 2 or 3 and will continue for many years if properly cared for. Pick a sunny location with rich soil. Rhubarb loves compost and rich soil. Heavy clay soils will need to be enriched with large amounts of compost. Consider planting on a slight mound or a low raised bed to encourage good drainage. Rhubarb will rot if planted in a depression where water settles in the winter. Plants will send up leaves in early spring and can be harvested for about a month or two in spring. Very vigorous plants can be harvested in fall as well. In summer they tend to be too bitter. The part we use is the large, thick stalk of the leaf. The leaves can be huge, but are poisonous. The stalks are the only edible part, and are bitter until cooked. Each stalk can be an inch in diameter and 12 inches long. Chop into half-inch chunks and boil in water for 10 minutes. Drain, chill, and mix with strawberries, whole cranberries, walnuts, apple bits, and sugar for a delightful spring fruit salad.