

Planning and Starting the Spring Vegetable Garden

By Mark S. Brunell, Master Gardener

December is a great time to plan and plant your spring vegetable garden. Most home vegetable gardeners grow only warm-season crops like tomatoes and squash, and the thought of gardening in the winter might seem unusual; however, it is rewarding, nutritious, and economical. Gardeners with experience in the summer garden will find many similarities in the cool-season crops, but there are also differences. Cool-season crops are generally smaller plants with smaller, shallower root systems, and the organ of the plant that is consumed is a real vegetable (root, leaf, shoot) compared to warm-season crops where the “vegetable” consumed is usually a fruit, like the tomato and cucumber. The pea and fava bean are exceptions, being cool-season fruits and seeds.



Lettuce seedling showing two oval cotyledons with the first true leaf emerging between them.
Photo by Mark Brunell

Typical crops grown in spring are the brassicas (also called mustards, coles, or crucifers), which include kale, collard, cabbage, cauliflower, Brussels sprouts, kohlrabi, turnip, rutabaga, mustard greens and the related radish and arugula. Also popular are the chenopods, which include beet, chard, and spinach. Other choices include alliums, such as garlic, shallots, and onions; composites like lettuce, endive, and escarole; legumes like peas and fava beans; and the carrot family like carrot and parsnip. Decide which crops you would like to try, and purchase the seeds.

Some crops, like the root vegetables, peas and fava beans, are generally direct-seeded, that is, placed directly into the garden soil. In gardens near the coast, there is a lot of flexibility in the timing of planting for these crops. Further inland, cold weather could inhibit germination and promote rotting, so direct-seeding these crops is better done in the late summer. Leaf crops, like kale and cabbage, are usually grown indoors for the first 4 to 6 weeks, and then are placed into the garden as transplants. Indoors, a warm environment promotes seed germination; seeds generally prefer a temperature of 70 to 80 degrees for germination. Such conditions are easily created indoors by using a heating mat designed for seed germination, or growing in a heated room or near a windowsill. Seeds will germinate at lower temperatures; however, it will take a lot longer and there is a risk of the rotting.

Indoor seed planting can begin in December. To grow indoors, you will need containers and seedling mix. Containers vary greatly in design, and can be as

simple as a yogurt cup with holes poked in the bottom. Any container is fine provided there is good drainage. Seedling mix can be home made (1:1 milled peat moss: perlite) or purchased ready-made. Make sure the containers are clean. If used for growing previously, soak them in 10% bleach solution for a few minutes and rinse them thoroughly. Fill containers with seedling mix that has been soaked previously in water (use 5 gallon bucket) and wrung out. Then use a pencil to poke shallow holes into the mix surface no deeper than twice the diameter of the seed, drop in the seed, and cover with more mix or fine vermiculite. It is important that the seeds are kept moist at all times. The containers may be placed on a heating mat (commercially available) to hasten their germination, but even without extra heat the seeds will likely germinate in a few days. If using a heating mat, it is very important to remove the plants from the heat after germination, because heat will cause the seedlings to grow tall and spindly.

Once the seeds have germinated, lighting is needed and can be provided by a sunny windowsill or artificial lighting. Hover the lights just above the plants to give them maximum light intensity, but not so close that the plants are heated. For most seeds, the first sign of germination is the appearance of two cotyledons, which look like two tiny leaves. In a few days, when true leaves appear from between the cotyledons, start applying very dilute fertilizer and continue raising the lights as the plants get taller. In about 4 to 6 weeks, the plants will be strong enough to be placed in the garden. They will need to be acclimatized first, a process called "hardening-off," before they can go outside full-time. Over the span of a few days, bring the plants outside into indirect sunlight for an hour or two, and increase the time outside each day. Soon the plants will be ready for full sun and cold weather. A future article will cover the basics of transplanting and direct-seeding the spring crop, and will discuss potential cool-season pest problems.