



Gardening in the Time of COVID-19

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What a difference two months make. Ten years ago, reeling from the economic downturn, people sought food security in edible gardens and livestock. In the decade since then, buoyed by economic prosperity, many people moved away from urban farming. Now, with the rug pulled out from under them, there are a lot of people once again looking to their gardens for food security. In order for an urban farm to be most useful, it should focus on nutrient dense foods or foods that are high in calories and include foods that store well or can be canned. These would include potatoes, winter squash, beans, brassicas such as kale and broccoli and tomatoes.

Where to Garden:

Consider available land and monetary resources. If you have a yard, begin by surveying the land. Select a flat area with good drainage that gets as many hours of sun as possible. Most vegetables require a minimum of six to eight hours of sunlight a day. The best land may be on cement or you may only have a balcony. Don't despair. You can grow a lot of food in containers. And you can garden inexpensively.

The Soil:

Next look to the soil. Your success will be largely dependent upon the soil and how it is amended. If possible, select an area that has been cultivated and amended recently. To conserve money and resources, use your precious topsoil - it took 1,000 years to build an inch of topsoil and that topsoil contains the mineral nutrients and billions of microorganisms vegetables need to thrive. Raised beds are expensive, so unless the best growing area is covered in cement or the soil is contaminated, garden in the ground. Almost all soil, whether it is clay or sand, can be turned into an excellent growing medium with the removal of weeds and the addition of compost (hopefully homemade) to improve its "tilth" and make it loose and friable, able to hold the air, water and nutrients. For container gardens, use a soil mix designed for containers so they drain correctly.

Work about 4 inches of organic matter into hard or sandy soils that have not been previously amended. (1 - 2 inches for previously amended soil.) Use purchased compost if homemade is not available. Add an organic vegetable fertilizer as well.



Laying Out Beds:

Next, lay out dedicated garden beds that will not be walked on with 12 - 18 inch paths between them. Beds should be oriented from North to South so that all parts of the bed receive sunshine. Make beds 2 - 4 feet wide, so that the middle can be easily reached from both sides. Make them long enough to judiciously fill the space, but not so long that they are hard to walk around. A 3 by 6 foot bed will hold six tomato plants or (with some planning) provide a year round supply of salad greens or enough peppers or zucchini for a household all summer. Tall or vining plants like peas, pole beans, pumpkins or cucumbers can be grown vertically on trellises or tomato cages, saving room for other crops. Cover paths with wood chips or a water permeable weed barrier.



Container and Raised Bed Growing:



Almost anything will work as a container as long as it is sturdy enough to hold up for a season and has no toxic contamination. Be sure your container or raised bed is deep enough for the crop you want to grow. Beets, radishes, onions and most greens can grow in a 9 - 12 inch container, brassicas, eggplant, peas, peppers and carrots will be fine in 14 - 16 inch containers or beds, but tomatoes, beans, cucumbers, potatoes and summer squash need at least 18 inches of soil medium to grow well. Fill containers or raised beds with a light, well-draining container mix. Containers will leach nutrients every time you water, so you will need to add an inch of compost plus a complete vegetable fertilizer with each

new crop you plant. Be mindful of the sun. Black containers can overheat and kill the feeder roots that bring water and nutrients to plants. In hot summer areas, give your containers some afternoon shade. And watch the water! In the summer, you may need to water once or even twice daily. Pay attention to the soil and you will learn how often to water in your microclimate.

Saving Money:

Right now, saving money in the garden is vital for many people.

- Use inexpensive containers such as reused 5-gallon buckets or nursery pots or even a cardboard box lined with a couple of garbage bags for growing plants.
- Check to see if any of the local stables are open and if you can get a truckload of animal bedding which will provide both organic matter and nitrogen. (Compost the bedding for a week or two until it “cools” or it will burn your crops.)
- Use unpainted recycled wood to build raised beds. Buy container or raised bed mixes in bulk and share the cost of delivery with your neighbors. Note: Make sure all of these materials are free of toxins.
- Plant seeds and not transplants. A \$4 pack of lettuce seed will remain viable for up to five years and will produce hundreds of plants compared to the six plants in a 6-pack.
- Borrow or share tools - carefully cleaned - with neighbors.



Learn how to make an inexpensive tomato garden container in this how-to video from Gary Pilarchick.

Planting the Garden:

Direct seed lettuce, root crops, beans, peas, squash and corn, following seed packet directions on spacing and planting depth. Transplant tomatoes, peppers, basil, broccoli and kale. For transplants, consider the final size of the plant when planting and make sure to leave enough space for each one. Bury tomatoes deeply, because they will grow roots on their stems. Everything else should be planted at the same soil level it came at. Always water after planting and monitor soil moisture levels carefully until the plants become established. Fewer, deeper waterings are better.



With a little planning, some ingenuity and elbow grease, you can grow a bountiful vegetable garden that will help feed your family during these hard times. And you may also find some solace in your garden.

Attached is a handy reference on recommendations for growing specific vegetables and herbs. You can find additional information in the “Growing Your Own Food” section of the Master Gardeners of Alameda County website. The direct link is <http://acmg.ucanr.edu/Growing Your Own Food/>.



VEGETABLE AND HERB PLANTING RECOMMENDATIONS

From North to South and East to West, Alameda County has many different microclimates. Even your own garden may have several, depending on shade, wind or proximity to a reflective wall. So use this chart as a general guide for planting times.

Remember, most vegetables like at least 6 hours a day of sun. Summer veggies like corn and tomatoes like even more, while cool season crops like chard and lettuce can tolerate a little less.

Most of these recommendations are taken from Pam Pierce's book *Golden Gate Gardening*, with input from various Master Gardeners based on their own experience.

Cool Season	Notes	When to Plant
Artichoke	Large plant—needs space. Often gets aphids. From rootstock.	Oct – Dec
Asian Greens	Bok Choy, Chinese cabbage, mizuna, etc. Best in winter and spring. From seeds or seedlings.	Aug – April
Asparagus	Perennial; don't harvest 'til 3 rd spring. Lots of space. From crowns.	Jan – March
Beets	Year round, but best in winter. From seeds or seedlings.	Year round
Broccoli	Best in winter or early spring. From seedlings.	Jul – Sept; Feb – March
Cabbage	Best in winter or early spring. From seedlings.	Jul – Sept; Feb – March
Carrots	Year round. From seeds.	Feb – Aug
Cauliflower	Best in winter or early spring. From seedlings.	Jul – Sept; Feb – March
Chard	Year round in cooler microclimates. From seeds or seedlings.	Year round
Collards	Year round, but best in winter. From seeds or seedlings.	Year round
Fava Beans	Best in winter/spring. Nitrogen producer, good cover crop.	Jan – Mar, Sep - Nov
Garlic	Winter. From certified bulb cloves	Oct – Feb
Kale	Year round, but best in winter. From seeds or seedlings.	Year round
Leeks	Year round but best in winter and spring. From seeds or seedlings.	Feb – Oct
Lettuce	Year round in cooler microclimates. From seeds or seedlings.	Year round
Mustard	Year round in cooler microclimates, but best in winter. From seeds or seedlings.	Year round
Onions (bulb)	From seeds or sets (avail in fall), harvest late spring or summer.	Aug – March
Onions (green)	From seeds or sets. Can pick bulb onions when young.	Aug – March
Peas (green/sugar)	Best in winter or early spring. From seeds or seedlings.	Sept – Nov; Feb – March
Potatoes	Need lots of space. Use nursery seed potatoes to help prevent disease.	Feb; May; Aug
Spinach	Best in spring or winter. From seeds or seedlings.	Mar – Apr; Aug – Sept
Warm Season	Notes	When to Plant
Corn	Needs sun/heat. Marginal in cooler microclimates. From seeds.	Apr – July
Cucumbers	Best if grown with support.	Apr – June



Beans (green)	Bush or climbing (needs support). From seeds.	Apr – July
Beans (shelling)	Need more heat and take longer to mature than green beans. From seeds.	Apr – May
Eggplant	Needs warm nights; results marginal in cooler microclimates.	May
Melons	Heat loving. Try only in warmest microclimates and start early.	Apr – May
Peppers (sweet)	Need warm nights, minimal protection in cooler microclimates. From seedlings.	April – June
Peppers (hot)	More productive than sweet peppers in cooler microclimates. From seedlings.	April – June
Squash (summer)	Needs lots of space & produces heavily. From seeds or seedlings.	Apr – June
Squash (winter) (Includes pumpkins)	Needs lots of space; best grown with support. Long season – plant early. From seeds or seedlings.	Apr – June
Tomato	Heat lover. Needs warm nights (60°+) for good fruit-set. Early varieties do best (not heirlooms) in cooler microclimates. Best to have support – cages or stakes. Best not to grow successive years in the same spot to prevent disease buildup. From seedlings.	April – May

Herbs	Notes	When to Plant
Basil	Likes sun and heat. From seedlings.	April – June
Cilantro	Year round in cooler microclimates, but best in winter or spring. From seeds in successive plantings & harvest whole plants. Sun or partial shade. Bolts quickly in warm microclimates.	Year round
Dill	Likes sun and heat – not good in foggy or windy gardens.	April – June
Mint	Perennial; invasive, best grown in containers. Likes some shade, especially in warm months. From seedlings.	Year round
Oregano	Perennial; plant will spread. Full sun. From seedling.	Year round
Parsley	Year round – best fall to spring. Some shade OK. From seedlings.	Aug – Oct, Feb – April
Sage	Perennial; not fussy. Full sun. From seedlings.	Year round
Tarragon (French)	Perennial; dormant in winter. From seedling. Full sun.	Year round
Thyme	Perennial; plant will spread. Full sun. From seedling.	Year round