



# Growing Herbs In Tucson

Anne Lesenne

In Southern Arizona we are fortunate to be able to grow a wide variety of herbs year-round. Unlike some parts of the country where fall signals the end of the growing season, here in the Sonoran Desert, we have two main growing seasons, a cool-growing season that last from about October through May and a warm-growing season that lasts from May through mid-September. Different herbs thrive in each season, and a few will, with a little help, happily grow all year long.

At any time of year, you can step out your door and gather herbs for cooking a healthy tasty meal, brewing a refreshing tea, or making a fragrant potpourri. ([Parlin, 2021](#)). Some herbs have the additional benefit of keeping pests away from the other plants in your garden. With a little research and preparation, it is possible to grow a variety of tasty aromatic herbs. This article will help the desert gardener decide what herbs to plant and when and how to plant them.



Basil leaves

## Exposure

Light exposure is a big factor to consider when growing herbs in a desert environment. Plant tags may say a plant needs full sun, usually meaning 6-8 hours of full sunlight, but keep in mind those recommendations are for where the plant was grown. "Full sun" in the herb books and plant tags, may translates to ½ sun – ½ shade or dappled sunshine during the summer months in Tucson.

Some herbs, such as basil, and rosemary, are true sun lovers, but during the summer in the southwest the sun can be very intense, and temperatures can reach 105°. An eastern exposure is considered ideal, giving sun in the morning and shade in the afternoon. Other locations are quite acceptable if measures are taken to limit summer sun exposure by covering plants with 30-40% shade cloth or moving them to shadier parts of the yard. Dry hot winds can also be a problem. Taking advantage of a wall, fence, deciduous trees, or hedge will allow you to put your plants in the best location.

Winter sun and wind are not as harsh. Many herbs enjoy full sun in the winter but will need to be protected from the occasional frost. They can be covered if nighttime temperatures drop below 32°. Cold weather hardiness of herb plants and plants in general is dependent upon where you live in Tucson. The only way to find out if a particular plant will survive the winter is to try it. City location and garden placement on your property will give you some indication whether tender perennials will make it or not. There are many herbs that will grow year-round in Tucson regardless of your location.

If you grow herb plants in pots and other containers, you can control their environment more closely. The pots can be moved in and out of the sun, wind, and cold, onto the patio or into the house temporarily to protect them from the elements.



Dill in bloom



Rosemary

## Soil

Important things to consider when growing herbs are soil structure and most important drainage. Due to the heat and lack of rainfall, desert soils tend to be sandy, rocky, and lacking in organic material. Another common problem is caliche, soil that is cemented together by calcium carbonate. Caliche can impair water drainage, one of the most important factors to consider when growing herbs.

There are things you can do to improve soil structure and drainage in your garden. Dig beds at least a foot deep. Adding 2-4 inches of compost into your garden bed will improve the structure, increase water holding capacity, add nutrients and increase the number of beneficial microorganisms. Addition of sand will improve drainage in clay soil. Caliche can in some cases be broken up. ([For more information about caliche see Walworth and Kelly, 2002](#)).

Growing herbs in the ground can be hard work. Another option is to grow herbs in pots or raised beds. Remember that herbs like well-drained soil. Be sure to use a well-draining potting soil. You can create your own mix. Here is one suggestion:

- 1 part .. Coco coir – holds water
- 1 part .. Perlite – improves drainage, aerates soil
- 1 part .. Vermiculite - improves soil, moisture retention

1 part .. Coarse sand – improves drainage

1 part .. Compost – adds nutrients

This is referred to as a soilless medium or soilless mix. If you purchase a commercially packaged mix you may have to add additional sand or perlite to get proper drainage. Dampen the mix and squeeze a handful, if it stays in a clump when you open your hand it probably needs more sand or perlite. It should just fall apart. A proper mix when watered heavily will be moist but will not stay soggy from too much organic material. You may have to experiment to get the right balance of ingredients. ([Young, 2016](#)).

## Pots

Growing herbs in pots has several benefits. Pots are perfect for small yards or patios. It doesn't matter what kind of soil is in the yard. Containers can be filled with a rich free draining soil mix to fit the needs of each plant. In the summer pots can be moved to shadier spots and frost sensitive plants can be moved to a protected location in the winter.

When selecting containers there are several factors to consider. Some gardeners prefer plastic pots, others prefer clay pots.

- Plastic pots – they are lighter and more affordable; however, they can retain more water than clay pots and absorb heat especially black plastic pots.
- Clay pots – they are porous letting water evaporate. This helps keep plant roots cooler in the summer. Plants in clay pots may require more water. Clay pot soil mix should contain a little more coco coir to help compensate.
- Wooden boxes and whiskey barrels also work very well.

Whatever the container, it must have drainage holes in the bottom. Raise pots up off the ground to allow water to drain and allow air to circulate. Plants will not survive if the soil does not drain well.

Pots should be at least 14 inches in diameter. Larger pots give roots space to develop, protect the roots from extreme temperatures, and require less frequent watering than smaller pots. Containers in direct summer sun tend to “cook” the roots and any pot under 14” in size will be very difficult to keep moist. Large pots can be heavy and difficult to move. Consider putting larger pots on wheels.

All containers must be thoroughly clean when planted and should be soaked for a short time in a 10% bleach solution to sterilize them and kill any harmful organisms if they were used previously.



Garlic chives grow great in a pot

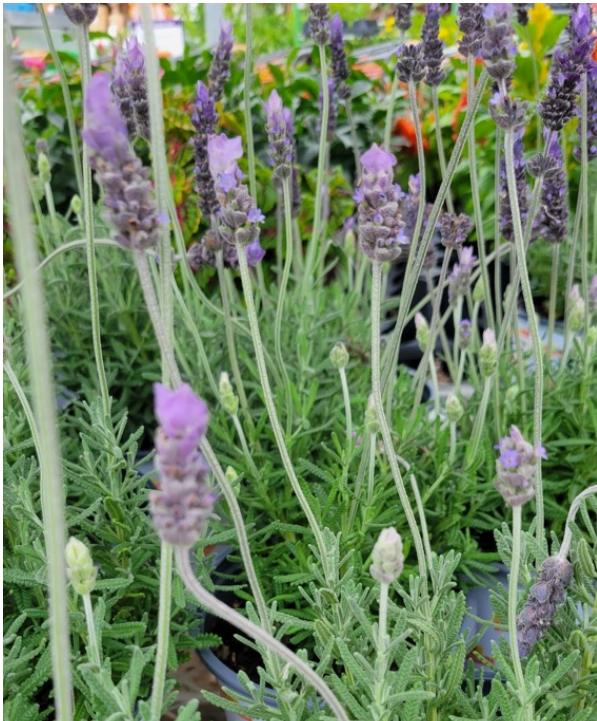
## Water

Water plants often enough to keep them moist but not soggy – proper soil drainage is the secret. In summer this may mean watering pots twice a day. If plants need water more than twice a day, then chances are the pot is getting too much sun or the plant is pot bound. Container placement will help to reduce the amount of water they need. If a reference source says a plant should have direct sun this may not be necessarily true for Tucson. The plant may grow well in partial shade and its water requirements will be much different.

For plants in the ground, it is better to water deeply and less often. Daily, shallow irrigation can stunt and kill plants in the ground. The garden can be watered manually by hose, drip irrigation, or soaker hose making sure the water soaks in at least 12 inches. As a rule, water should not be applied to the foliage because it can cause sunburn and the minerals in our water can cause leaf damage. If using drip irrigation, make sure emitters are strategically placed especially for herbs that increase by creeping along the soil surface such as thyme, prostrate rosemary, and catnip.



Mint should be grown in a pot with a saucer underneath so they don't spread.



Young lavender in pots is already blooming

## Fertilizer

Garden soils for herbs can be prepared using the same recommendations for fertilizer as are used in vegetable planting. However, herbs do not need heavy or frequent application of fertilizer. Perennial herbs will benefit from the application of compost or organic amendments such as fish emulsion, bone meal and blood meal in the spring.

If a soilless potting mix is used, then the fertilizer requirements are different because this may be a sterile medium which contains no nutrients (check the package). Therefore, it will be necessary to fertilize your pots on a regular schedule – usually once a week. Use a balanced fertilizer that contain nitrogen, phosphorus, and potassium (NPK). There are many water-soluble plant foods on the market, and it is not critical which one is used but it must include all elements. A more convenient way to feed pots is to add a slow-release fertilizer to the soil mix that only needs to be applied every three months. Always make sure to follow package directions.

## Pests

Insects, generally, do not bother herbs as often as they do most other plants. It is best not to use systemic insect controls on food plants. A few insects will not harm plants and many insects are predators and should not be killed under any circumstances. If there is a harmful infestation, insecticidal soap usually works very well. Make sure to follow the directions on the container. Leaf chewing caterpillars can be picked off by hand or controlled with

a natural bacteria, *Bacillus thuringiensis* (Bt). It can be purchased in garden supply stores and is safe for all living things except caterpillars. ([National Pesticide Information Center](#)).

## Beneficial Insects

Herbs can benefit other garden plants by attracting insects that feed on you garden pests. The green lacewing, for example, feeds on aphids, thrips, and other annoying soft-bodied insects. Flowers of dill, yarrow, and cilantro attract the green lacewing, as well as hoverflies, lady bugs, and parasitic wasps. When it flowers basil becomes a bee heaven.

## Growing From Seed

Most herbs can be easily grown from seed. There are benefits of growing your own herb plants:

- Many seed companies sell a wide variety of interesting herb seeds. You can explore a whole range of herbs that you can't get at the local nurseries.
- It is much more economical to grow plants from seed or to make cuttings and divisions of plants you already have. It can also be very rewarding to share your baby plants with other herb gardeners.
- When you propagate and grow your own plants, you have total control of the growing conditions. You choose the soil and fertilizer.

\*Fun Fact: You can use your Pima County Library card to checkout plant seeds.



Oregano

## Harvest

Herbs respond well to being pinched or trimmed back. Pruning will encourage new and vigorous growth. Trimmings of culinary plants can be used fresh in the kitchen, frozen or dried for future use.

Harvesting can be done in all seasons, not just fall. Cut the stems or leaves in the early morning or evening as there are less oils present in the leaves during the heat of the day.

There are several ways to dry herbs:

- Dry in bunches upside down in a dark place (2 weeks) or on a screen covered with cheesecloth.
- Small bunches may be dried in a microwave oven. Lay the cleaned leaves in a single layer between two pieces of paper towel. Microwave them in 30-second sessions, turning the leaves over between each session. Repeat until the leaves are completely dry and brittle.
- Herbs can also be spread on a cookie sheet and dried on the “warm” setting in the oven.
- Large leaved herbs such as sage or basil should be stored whole and crumbled when used to retain peak flavor. Keep leaves whole for tea.

To reduce herbs to powder, put in blender. Store jars, plastic bags, or tins in a dark cupboard. Store up to a year then replace. In cooking, use 1/3 to 1/2 more fresh herbs than when using dry herbs. ([Herman, 2021](#))



Fuzzy sage leaves

## Seasonal Guide

In the desert southwest, herbs can be grouped into cool-season annuals, warm-season annuals, and perennials. Annuals live for one season and then die. Cool-season annuals grow from October to May, and warm-season annuals grow from April to November.

Perennial herbs live for several years, but some prefer the heat of summer while others can't survive our hot dry summers.

### Cool-season annual herb

Fall is the best time to plant cool-season annual herb. (see planting calendar) They prefer to grow in the cool to mild days and chilly to cold nights we have in Tucson during the cool season. Planting herbs in the fall when temperatures are cooler relieves them of heat stress and allows their roots to get well established. Just remember, not all cool season herbs are cold hardy. They will have to be protected if there is frost.

Cool-season annual herb transplants can also be put out in spring, but spring gardens require extra attention because of longer hotter days and strong drying winds. Your plants may dry out rapidly and a temporary protective wind screen may be necessary until the plants become established and mature. Plant the largest transplants you can find. Any plants lost in the spring can be replanted in the fall.

### Warm-season annual herbs

Spring is a good time to plant warm season herbs such as basil and summer savory. The temperatures are still cool enough to let the plants get established before summer heat sets in.

### Cool-season perennial herbs

Fall is a good time to start perennial herbs that prefer cooler weather such as French tarragon, lemon balm, marjoram, mint, oregano, and chamomile. Most perennial herbs can put up with some cold weather.

### Warm-season perennial herbs

Heat loving perennial herbs such as Mexican tarragon, lemon verbena, lemon grass and society garlic prefer to be set out in the spring. Planting in the spring gives herbs time to get established so they will be in a much stronger position to deal with summer heat. If you do any planting in the summer, watch your watering carefully. Plants in pots may need to be watered twice a day and almost all herbs prefer a little afternoon shade during the hottest part of the summer.

## Herb Planting Calendar for Tucson

Herb	Annual Perennial Biennial	When to Plant			Protect From Frost
		Oct - Nov	Feb-Apr	May- Jun	
Anise	A	•	•		
*Basil	A			•	
Bay	P		•		
Borage	A	•	•		
Catnip	P	•	•		
Chamomile	A	•			•
Chervil	A	•			
*Chives	P	•	•		
*Cilantro	A	•	•		•
*Dill	A	•	•		•
Epazote	P			•	
*Fennel	A	•	•		•
French Tarragon	P		•		
*Garlic (clove)	A	•			
*Garlic Chives	P	•	•		
Hyssop	P		•		
*Lavendar	P	•	•		•
Lemon Balm	P	•	•		
*Lemon Grass	P		•		
Lemon Verbena	P		•		
*Marjoram	P	•	•		
*Mint	P	•	•		
*Oregano	P	•	•		•
*Parsley	A	•	•		•
*Rosemary	P	•			
*Sage	P	•	•		
Salad Burnet	P	•	•		
Savory (winter)	P	•	•		
Savory (summer)	A		•		
Shiso	A	•	•		
Shungiku	A	•	•		
Sorrel	A	•	•		
*Thyme	P	•	•		
*Yarrow	P	•	•		
*herbs for the beginning gardener					

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THE UNIVERSITY OF ARIZONA  
Cooperative Extension

### AUTHORS

**ANNE LESENNE**  
*Assistant Agent, Horticulture*

### CONTACT

**ANNE LESENNE**  
[annelesenne@email.arizona.edu](mailto:annelesenne@email.arizona.edu)

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