

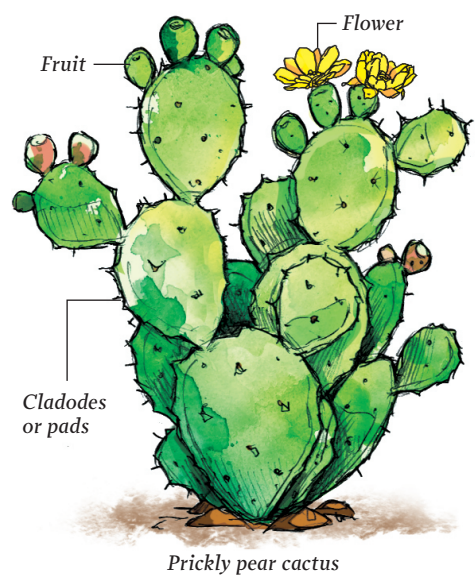
# Your guide to Tucson's native food plants

Transplants from other parts of the country might be surprised at the native foods that can be grown here in Tucson. The Sonoran Desert has supported human habitation for at least 12,000 years, so it's not surprising that there's lots of food to be found, if you know what you're looking for. Native plants have a lot of advantages. They use

far less water, are adapted to our harsh sun and difficult soil conditions, and do double duty by providing habitat for our many unique native desert critters. They are also much easier to grow here, and require far less inputs from humans – not just in terms of water, but also with regard to fertilizers, soil amendments, and similar expensive additions.

This guide includes just a few of the local plants that can be used as food items. Make sure to read about the foods before you start preparation and cooking. Some people find that too much mesquite or prickly pear juice, for example, causes mild digestive upset. Take time to experiment and try the food in small amounts to make sure you don't experience any issues.

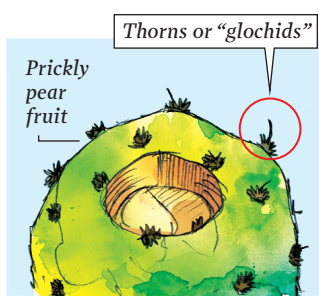
## Prickly pear



The prickly pear cactus (*Opuntia* spp.) has at least 18 species in our desert. Even if you can't grow any other plants, you can grow the prickly pear. It's a great source of food for both people and animals — although the huge spines and tiny, nearly invisible glochids can be a major intimidation factor.

Prickly pears are sources of two types of food: the fruit, known as tuna, and the pads, harvested when young, known as nopales. Both the pads and the fruits should be harvested with tongs. You can pull the fruit off with a twisting motion, or carry a small knife to help with harvesting. You will also want a bucket with hard sides so you don't get poked with the spines.

The trick with preparing these foods is to make sure you get all of the glochids (tiny hairlike spines) off. You can burn the glochids off (see diagram), but this may add a bit of a roasted flavor if you're not attentive. If you don't want to burn the fruit, you can freeze it (which softens the fruit) and then boil, mash, and strain the pulp. This will remove the glochids. Once fruits (tuna) are processed, they can be made into syrups, juice, jellies and sauces. For a great recipe for prickly pear juice, visit [tucne.ws/ppjr](http://tucne.ws/ppjr)



When harvesting nopales, choose the young and soft ones. They shouldn't have many glochids, since they haven't matured to that stage yet, but process them just to be safe. Older pads will be tough and have more oxalic acid, and require more processing. Once the glochids are burned off, scrape the pads with a knife or peeler and rinse to get rid of any remaining glochids. Dry them out before refrigerating or freezing. When cooking, cut each pad up into small strips. These can be grilled, sauteed, fried (even breaded), pickled, or marinated and taste similar to green beans but with a slight mucilaginous texture.

## Herb spiral

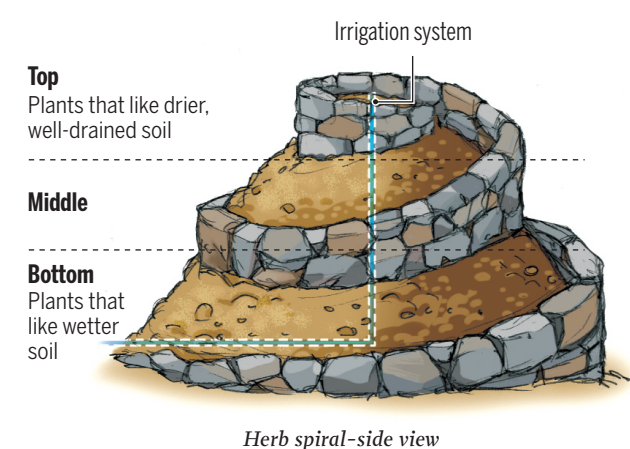
An herb spiral is a three-dimensional structure that allows you to plant multiple herbs with different sunlight and water needs in the same area. Not only is it beautiful, but it's space-saving and takes advantage of microclimates that you create when you construct the spiral.

Some of the herbs listed here aren't native, but they are an easy way to get into growing plants for your own

consumption with minimal garden space. If you don't have room for a spiral, these can also be grown in pots.

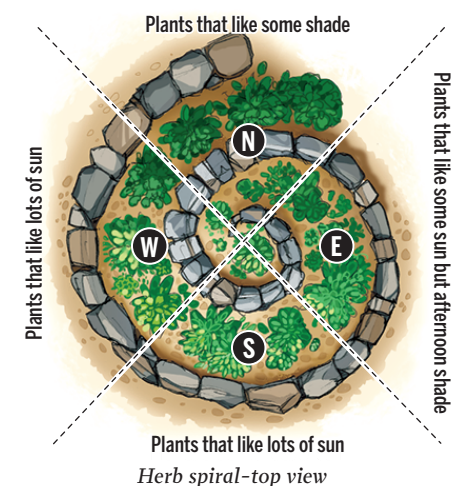
The basic idea is that you orient the spiral north-south, and you create a mound of earth to plant in. Herbs that like well-drained soil and sun go on top of the spiral on the south or west side, while herbs that like shade and more water go on the northern aspect of the bottom.

## Herbs and orientations



**Top**  
Plants that like drier, well-drained soil

**Middle**  
Plants that like wetter soil



Plants that like lots of sun

Plants that like some shade

Plants that like lots of sun but afternoon shade

### Top: Dry and sunny (south and west orientation)

- **Rosemary** (*Rosemarinus officinalis*): Plant dwarf varieties like "Blue Boy" so it doesn't overwhelm your spiral
- **Oregano** (*Origanum vulgare*)
- **Thyme** (*Thymus vulgaris*)

### Middle: Less dry and some sun (east)

- **Basil** (*Ocimum basilicum*)
- **Parsley** (*Petroselinum crispum*)
- **Cleveland sage** (*Salvia clevelandii*): Native to southern California, very aromatic. Make sure soil is well-drained; plant towards top east side of spiral.
- **Autumn sage** (*Salvia greggii*): A native sage with edible leaves and flowers.
- **Cilantro/coriander** (*Coriandrum sativum*): Plant only in the cool season and sow seeds every couple of weeks in the winter.

### Middle: Less dry and shadier (north-east)

- **L'toi onion (ee-toy)** (*Allium cepa* var. *aggregatum*): This plant comes from the Tohono O'odham people. It's a shallot-like small onion, normally grown from bulbs in the fall. The bulbs can be used like shallots and the greens like chives. Plant this towards middle-bottom of the spiral for more moisture.
- **Chiltepin** (*Capsicum annuum* var. *glabriusculum*): Plant this only if you have a large space, as it can grow a few feet tall.

### Bottom: Moist and shady

- **Yerba mansa** is a near-native herb which has medicinal uses. Seeds and roots are edible; the roots have a peppery flavor. Plant Yerba mansa (*Anemopsis californica*) on the north side in very moist, shady soil.
- **Dill** (*Anethum graveolens*)

## Harvesting and preparing prickly pear cactus pads



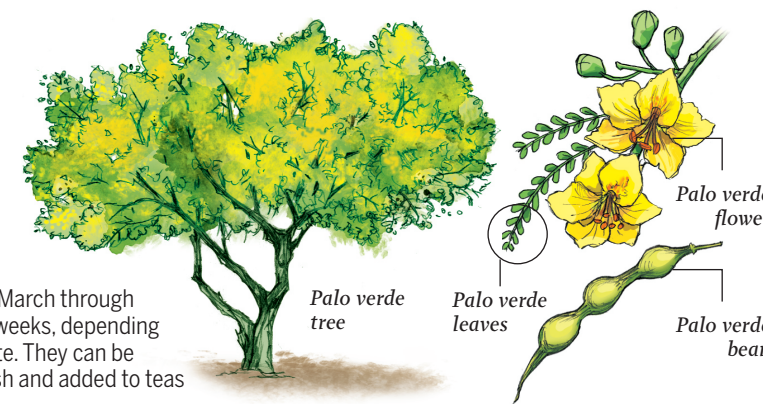
- 1 Harvest the pads with tongs using a twisting motion. If necessary, use a small knife to cut the pad from the plant.
- 2 Hold the pad over an open flame to burn off as many glochids as you can without burning the cactus skin.
- 3 Still using tongs to hold the pad in place, cut out any remaining glochids and thorns. Pay special attention to the edges of the pad.
- 4 Rinse the knife and pad and scrape the pad surface thoroughly to remove any remaining glochids. Rinse the pad again.
- 5 Cut the pads into narrow strips. They are ready to cook.

**Harvesting calendar** This calendar shows the times of the year you can harvest the foods below. Depending on your location and microclimate, your experience may vary.

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
Prickly pear cactus fruit												
Prickly pear cactus pads												
Palo verde flowers												
Palo verde beans												
Mesquite pods												
Hackberry												
Wolfberry												
Barrel cactus fruit												

## Palo verde

Palo verde trees are another vital species in our desert, and grow very easily. Our natives are the blue palo verde (*Parkinsonia florida*) and the foothills palo verde (*P. microphylla*). The flowers and the beans are edible.



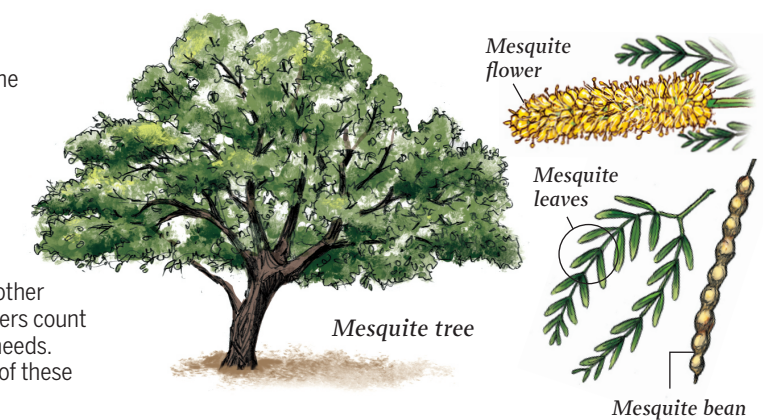
Flowers usually bloom from late March through mid-April for about two to three weeks, depending on your location and microclimate. They can be picked off the tree and eaten fresh and added to teas and salads.

Palo verde beans can be picked and prepared like peas. They make a tasty side dish. Harvest the pods when they're green. You can pick out the seeds to eat fresh or cooked; alternatively, you can blanch and then freeze seeds.

You can also harvest the pods later in the season (towards June) when they are dry, remove the seeds and eat them toasted or grind them into flour. Another option is to sprout the seeds and eat the sprouts (raw or cooked), much like you would with any other sprouted seeds.

## Mesquite

Our three native mesquites are the screwbean mesquite (*Prosopis pubescens*), velvet mesquite (*P. velutina*) and the honey mesquite (*P. glandulosa*). These trees are keystone species in the Sonoran Desert. They provide food for animals, habitat, shade, organic matter, wood and many other resources. Countless desert critters count on the mesquites for their daily needs. Humans can make plenty of use of these wonderful trees, as well.



Mesquite beans can be ground up (beans and pods together) into a tasty, sweet, gluten-free flour. Taste the pods from your tree(s) first. Their flavor varies greatly and you want a bean flavor that is sweet, not bitter or chalky. Pick them off the tree to avoid contamination with mold. When ripe, they should be very easy to pick. Store them in a dry place to avoid any mold growth. Five gallons yields about 5 pounds of flour. The Tucson nonprofit Desert Harvesters has lots of information on its website ([desertharvesters.org](http://desertharvesters.org)) on how to pick and

grind mesquite beans safely.

If that's too much trouble, there's other ways to eat mesquite. You can boil the pods down and add a mild sweetener to make it into a syrup, sauce, or marinade, depending on the amount of sweetening and other spices. Toasting or grilling the pods can add extra flavor if you want to make a marinade or broth. Broths can be used as bases for or additions to soups, stews and drinks.

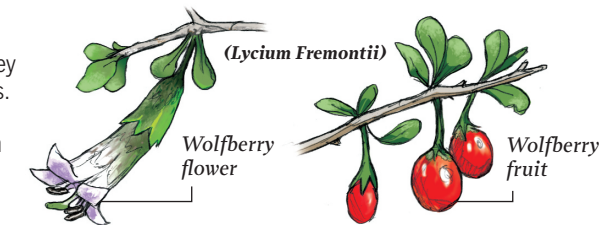
## Wolfberry and hackberry

These native trees and shrubs produce edible berries which are also valued by birds and other small animals. They are pretty thorny and can get large, so leave plenty of room for growing and harvesting them if you plant them in your yard. They can look pretty dead during their winter dormant period, and can also drop

leaves in the summer, so be prepared for this when considering your garden aesthetics. They grow particularly well with mesquites and palo verde trees, possibly taking advantage of the shade and nitrogen fixation provided by these plants.

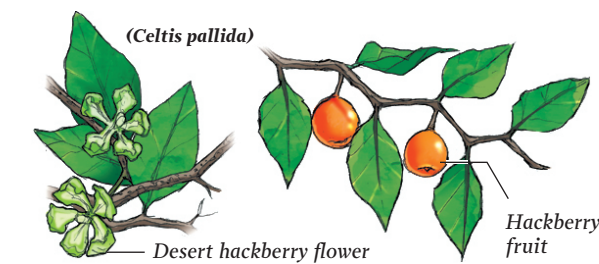
### Wolfberry (*Lycium* spp.)

Try growing *L. fremontii* and *L. pallida*, as they are reported to have the largest, tastiest berries. They are usually too tart to eat fresh, but make tasty jams, jellies, chutneys and syrups and can be added to various foods as dried berries.



### Desert hackberry (*Celtis pallida*)

This particular hackberry is a shrub. Don't confuse it with the canyon hackberry (*C. reticulata*), which is a large tree, although it, too, produces tasty berries — just ones that are harder to harvest. When well-watered, it produces lots of very tasty berries which can be eaten fresh. These can also be made into jams, jellies, chutneys, and the like, and also can be frozen for later.

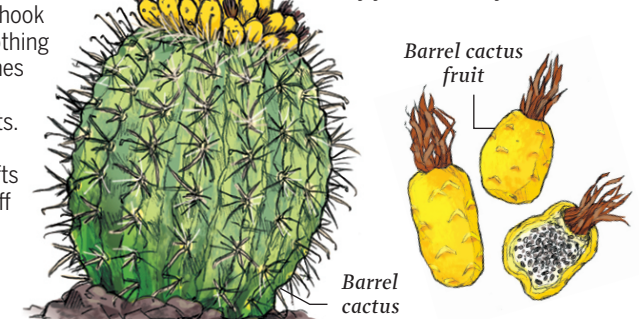


## Barrel cactus fruit

Barrel cacti are commonly seen in the Sonoran Desert. They grow slowly, and live for up to 100 years. The most common native barrel cactus is the fishhook barrel (*Ferocactus wislizeni*). True to its name, it grows large spines that hook round like a fishhook and can penetrate clothing and skin. However, its fruit do not have spines or glochids, which makes them easier to harvest and prepare than other cactus fruits.

and other recipes. The fruit can be eaten raw or dried, pickled, turned into sauces or jellies and jams, and generally eaten in the same way you would any fruit.

The fruits are light yellow and have little tufts on the tops that you can use to pull them off the plant. You may want to use tongs, due to the fishhook spines, though. The skin of the fruit is tart, and the pulp contains nutty seeds that can be added to salads



## More info

- Desert Harvesters: [desertharvesters.org](http://desertharvesters.org). For recipes, more native food plant ideas, and safe harvesting techniques, check out the nonprofit's book "Eat Mesquite and More: A Cookbook for Sonoran Desert Foods and Living" at [tucne.ws/dhnewbook](http://tucne.ws/dhnewbook)
- Download the Linking Edible Arizona Forests Network's edible tree guide at [leafnetworkkaz.org/guide](http://leafnetworkkaz.org/guide)
- To try some of these foods before committing, take a look at the Sonoran Pantry selections on the Native Seeds SEARCH website: [tinyurl.com/nsspantiry](http://tinyurl.com/nsspantiry)

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