



## the Composter

March, 2017  
Volume 67,  
No. 7

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Seasonal Planting Tips -- March 1 through April 15  
appears on the TOG Planting Guide as the Early  
Spring Planting period.

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PLANT NOW FROM SEED: Amaranth, basil, bush bean, sweet corn, cucumber, Jerusalem artichoke, Malabar spinach, melon, pumpkin, summer and winter squash, tobacco.

#### PLANT NOW FROM SEEDLING

TRANSPLANTS: Basil, Eggplant, Pepper, tomato and tomatillos.

**Tomatoes.** If you haven't planted your tomato starts yet plant them now! Companion plants for tomatoes: plants for tomatoes include borage, basil and marigolds. Reggie smith also recommends interspersing your tomato plants with zinnias. They will help shade your tomatoes and may make it difficult for marauding to find the fruit. You might have more success starting these companion plants indoors and then transplanting starts between mid-March and mid-April.

FLOWERS AND HERBS. Start the following indoors in late February or direct sow after March 15, herbs: basil, borage, catnip, chamomile, lemon balm, marjoram, oregano, parsley, savory, sorrel, mint, sage, tarragon, thyme, and flowers: blue flax, cosmos, dyssodia, gaillardia, marigold, nasturtium, snapdragons, sunflower, and zinnia.

LANDSCAPING PLANTS: March is a good time to plant landscaping perennials. Visit the spring plant sales listed at the end of this issue.

Most gardeners recommended sowing seed of cucumbers, squash and melon directly in the ground. To get at overview of spring planting recommendations refer to the TOG online planting guide:

[http://tog.phitestlink.com/wp-content/uploads/2016/05/TOG\\_Planting\\_Guide.pdf](http://tog.phitestlink.com/wp-content/uploads/2016/05/TOG_Planting_Guide.pdf)

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Beth McCullough  
Member at Large

BOARD MEETINGS  
ARE HELD THE FIRST  
TUESDAY OF EACH MONTH  
AT 5:30 pm and are open to  
TOG members. Please  
contact Mohye through  
our Facebook page if you  
would like to attend.

#### TOG SHOP

Frost cloth - 12' wide  
\$1 per foot

Home Composting  
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ComposterArchives on  
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Spin diggers \$6

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compost

Compost Bin \$40

Planting Guides \$7

Shop by appointment or at  
the monthly meetings.





**Presents**

## **Grow Your Own Mushrooms!**



*by*

**Erick Meza**

Erick Meza is a Sonoran Desert Native from the State of Sonora, Mexico. He started a few years ago doing experimentation and research around mushrooms while living in the Pacific Northwest and Central America. Now, as a Farm Education Coordinator at Las Milpitas Community Farm, Erick would like to share what he has learned from his experiments growing edible mushrooms in the desert using low technology techniques.

Tuesday, March 20, 2018 \* St Mark's Presbyterian Church \* 3750 E. 2<sup>nd</sup> Street (1 block west of Alvernon)

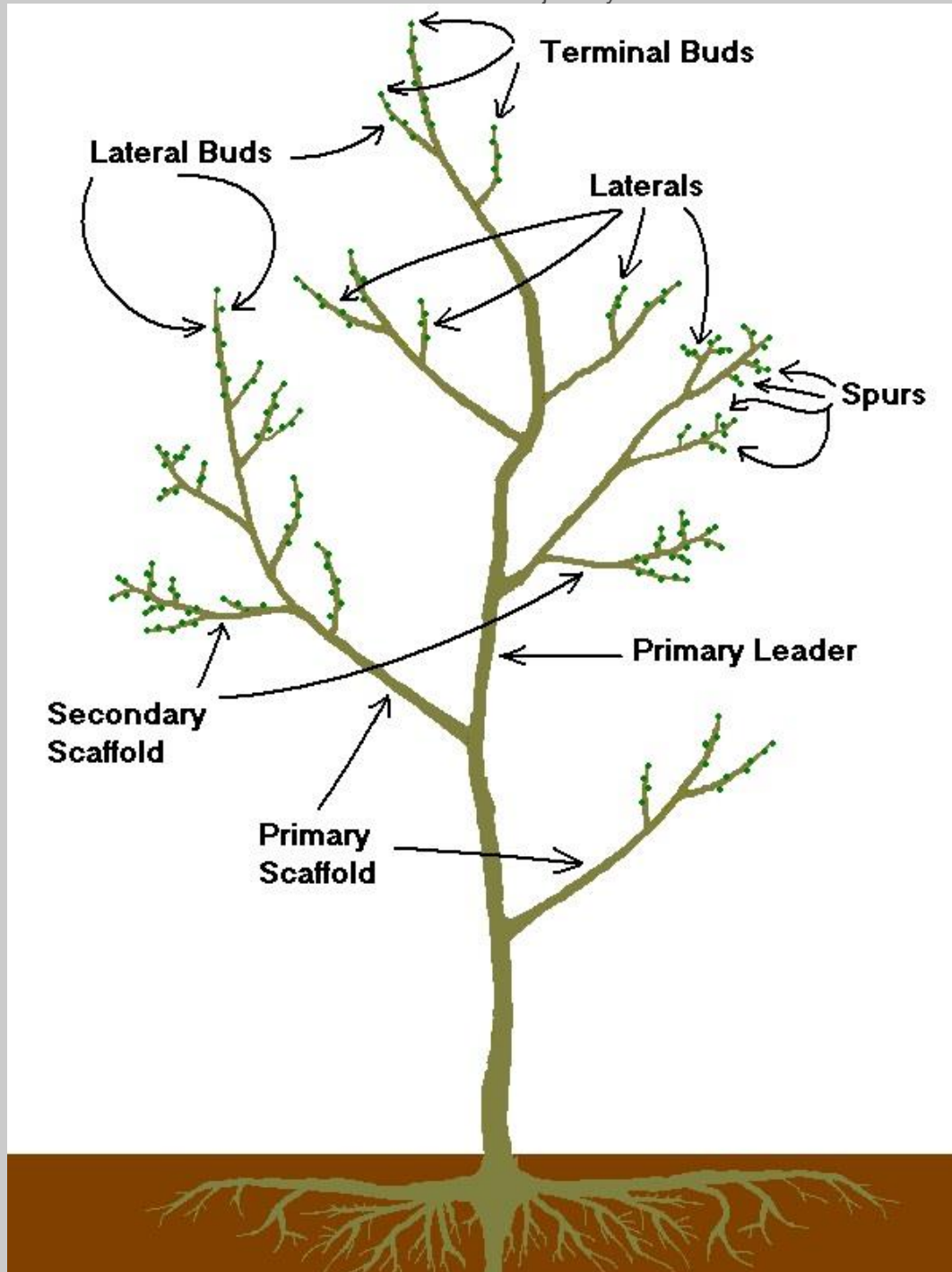
Doors open at 6:45 p.m. \* Q & A and door prizes a little after 7:00 \* Speakers start at 7:30 p.m.

**\*\*\* Free and open to the public \*\*\***

**Please join us at our Spring Garden Fair on Saturday March 17 9am-1pm**

## Pruning Deciduous Fruit Trees, Recap of February lecture by Deb North

On February 19, Deb North, Master Gardener and keeper of 65 fruit trees, shared some of her extensive knowledge. The subject of fruit tree pruning is complex so these notes will only hit on a fraction of what you need to know to become a good pruner of fruit trees. Illustrations taken from the internet are not necessarily the same that Deb used in her lecture. Bear in mind nothing beats real hands-on instruction so take a class on this subject if you can.



*Basic Terminology* <http://www.livingoffgridguide.com/gardening/how-to-prune-fruit-nut-trees/>

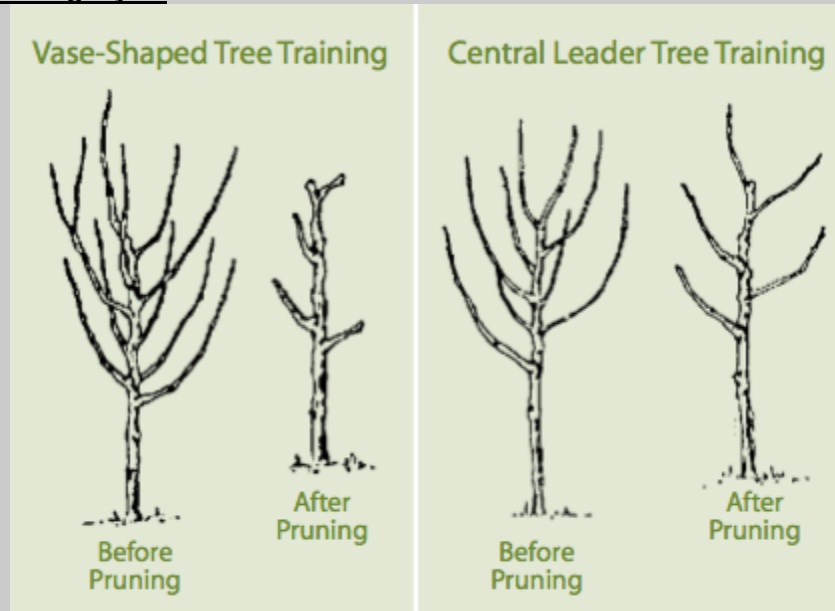
Buds may be potential fruit.

Flower buds on pit fruit tree appear along stems. Buds can be active or latent, vegetative or flowering. Flower buds on apple trees cluster in groups of five at the ends of spurs. A good apple spur is a few inches long and has wrinkles. You want to keep only the best single flower of each apple spur, called the "king flower."

**Pruning objectives** - When pruning fruit trees you should be **pruning for fruit not for beauty**. Traditional wisdom is that it's best to prune while dormant, but Dave Wilson, of Dave Wilson Nursery says the time to prune is anytime you can. Pruning for height should be done either while the plant is dormant or in the summer.

**Hygiene**- Clean pruners with alcohol or diluted Hydrogen peroxide, not with bleach. Remove diseased cuttings and clumps of sap and dispose immediately in trash bin (not in your compost bin).

### **Two basic pruning styles**



<https://www.starkbros.com/growing-guide/article/successful-tree-pruning>

*Vase-Shaped pruning is used for Apricot, Japanese Plums, Nectarine and Peach.*

*Central Leader pruning is used for Apple, Pear, Quince and European blue plums.*

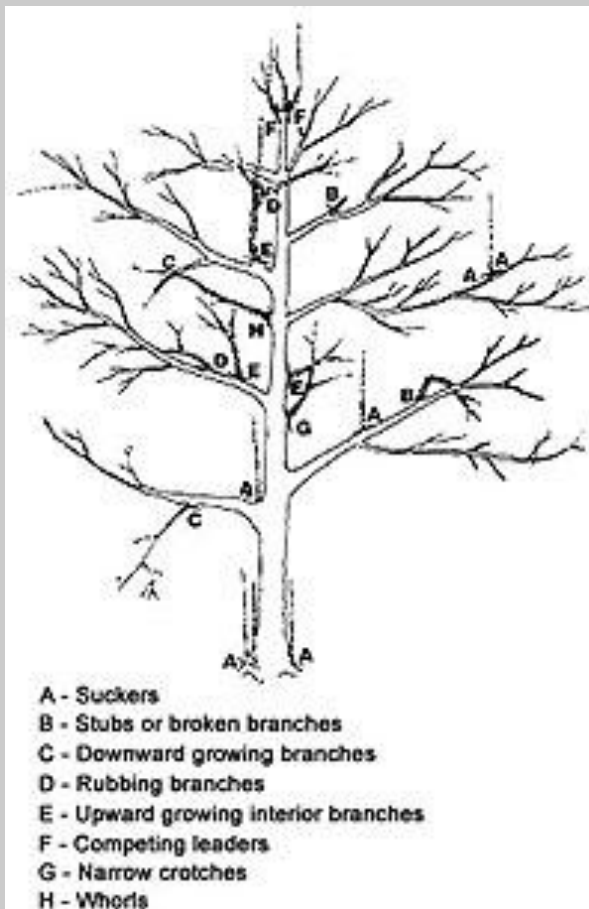
### **Planting and pruning a new deciduous fruit tree**

When planting your fruit tree make sure to orient your graft away from the sun to protect the graft from sun-scald. Chose two lateral lower branches and cut them back to 8 inches leaving the central leader.

**Thinning out** reduces the number of branches. This will be your first step when pruning your tree. Thinning cuts generally are made at crotches. Thinning allows light to enter center of tree and to boost fruit production often means removing 20-25 percent of canopy.

Start your thinning by first observing the 4 D's rule. Remove any wood that is:

- Dead, including branch stubs
- Dying/diseased
- Damaged
- Dysfunctional



<https://themoderngardener.wordpress.com/2010/01/24/pruning-a-mature-apple-or-pear-tree/>

Dysfunctional growth includes: crossing branches, suckers from root stock and water sprouts, closely spaced branches. Cut long branches to favor short branches. This is referred to as a crotch drop.

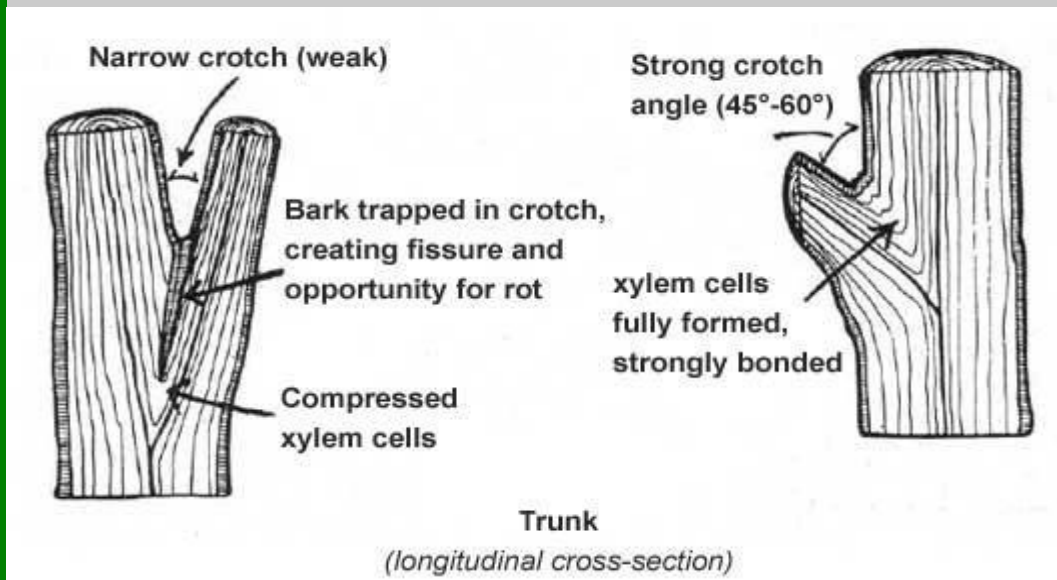


An example of crotch drop pruning <http://www.livingoffgridguide.com/gardening/how-to-prune-fruit-nut-trees/>

### 45 Degree Rule

When selecting branches to save, look for crotches that are angled at 45 degrees or more for these reasons:

- a. more angled branches produce more fruit-producing hormones
- b. A tight crotch angle will retain moisture and promote disease (see illustration below).



*Why a crotch of less than 45 degrees is a bad idea.* <https://www.phillyorchards.org/2016/01/21/pop-pruning-guide-fruit-trees/>

Tucson-Specific Tip: When researching pruning of pit fruit trees you will generally be advised to open tree up to the sunshine, but in Tucson where our sun is so very bright it is a good idea to leave some foliage to protect fruit.

**Heading Back** -- reduces height while encouraging more branching. You generally do this after completing your thinning out. Make your cuts just above a bud.

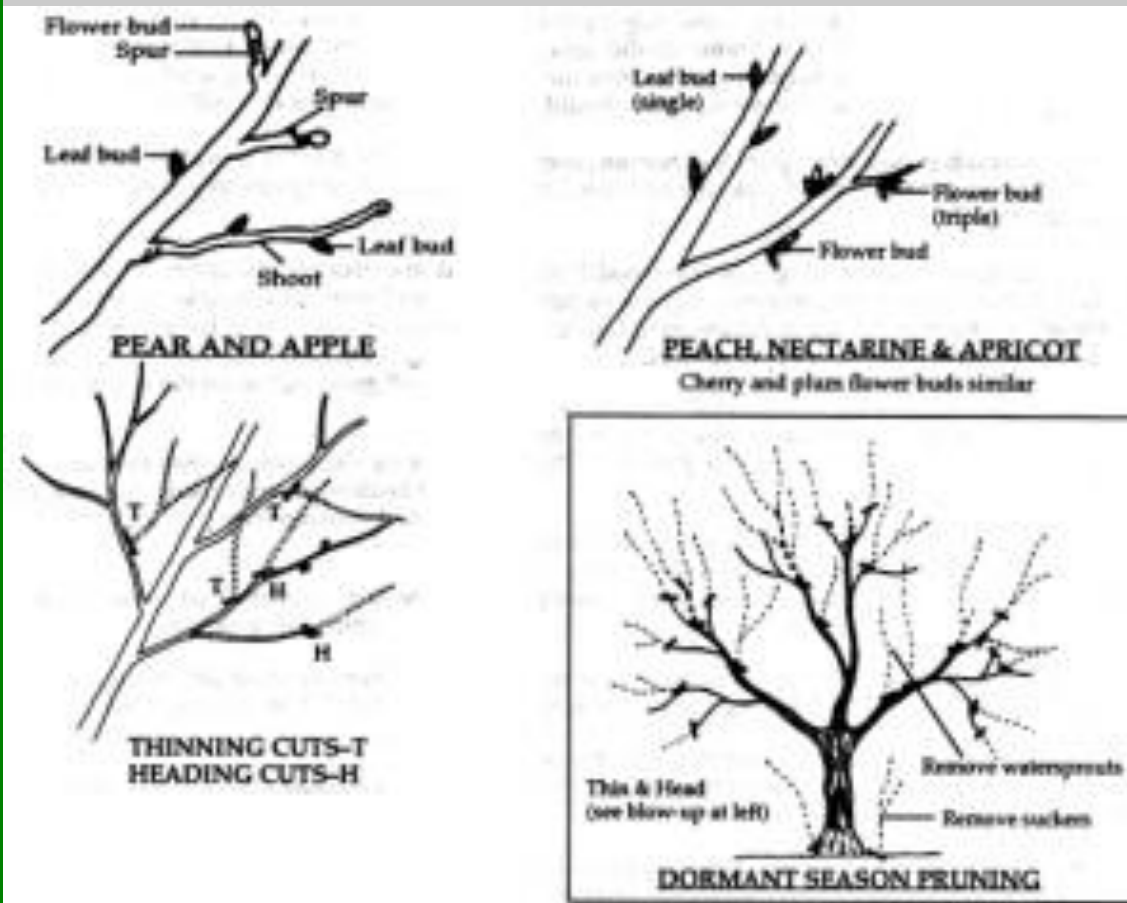


Diagram showing the difference between thinning out and heading back  
<https://nmfruitgrowers.wordpress.com/2014/03/16/fruit-tree-pruning/>

#### **Thinning fruit is critical.**

Strip all fruit from trees for the first 2-3 years after planting. You want the trunk to attain good caliper before allowing fruit to develop. Thin fruit so that there is a minimum of 6 inches between fruits. If you have particularly heavy fruit allow no more than two or three fruit per branch to prevent damage to the branches; alternatively you can prop heavily laden branches with a V-stake. Remember that fertilizer recommendations are based on well pruned trees with properly spaced fruit.

### **Special Pruning Techniques and Exotics**

If you are short on space consider espaliering your fruit trees along a wall or fence or even over a ramada. Espaliered trees can bear considerably more fruit than those allowed to grow in a more natural tree form. At her place Deb has espaliered a pomegranate over an arbor.



**Just one of many options for espaliering a fruit tree.** <http://freshpatio.com/espaliered-fruit-trees/>

Fig - The fruit is really an inverted flower. Prune 2-year-old growth to maintain size and to promote new growth. Fruit grows on 1-year-old growth which is about the diameter of a finger. Fig trees are easy to grow from cuttings inserted into moist sand. Kadota fig (the Fig Newton fig) are a smaller cold hardy variety. Black Mission fig trees can get quite large. Sap can be irritating to skin so wear gloves and long sleeves while pruning if you are sensitive. Fig trees can bear severe pruning.

Pomegranate - Fruit grows on new wood and the plant responds well to severe pruning; you can even cut your pomegranate down to 18 inches every year. Prune as tree, shrub, arching shrub or espalier and prune any time of year, even in the summer.

Culinary tip: to remove seed from fruit, cut it in half and whack it with a rolling pin.

Persimmon -- Deb prefers the Black Texana variety for taste, but it is very slow growing.

Pineapple Guava - also takes years to produce fruit.

Loquat - not recommended as they require too much water.

### **Feeding your Fruit Trees**

Deb recommends BioLive for feeding both fruit and vegetables.

Schedule for feeding all deciduous pit and seed fruit trees: Feb 14, Feb 28, March 14 and March 28, then you are done for the entire year.

Fig and pomegranates need only one feeding per year but pomegranates require more nitrogen so consider adding worm castings to the fertilizer.

## ***Keyhole Gardening, by Beth McCullough***



***A typical circular keyhole garden with dry rock walls. Note the compost basket at the end of the access slit.***

***<http://www.offgridquest.com/green/keyhole-garden>***

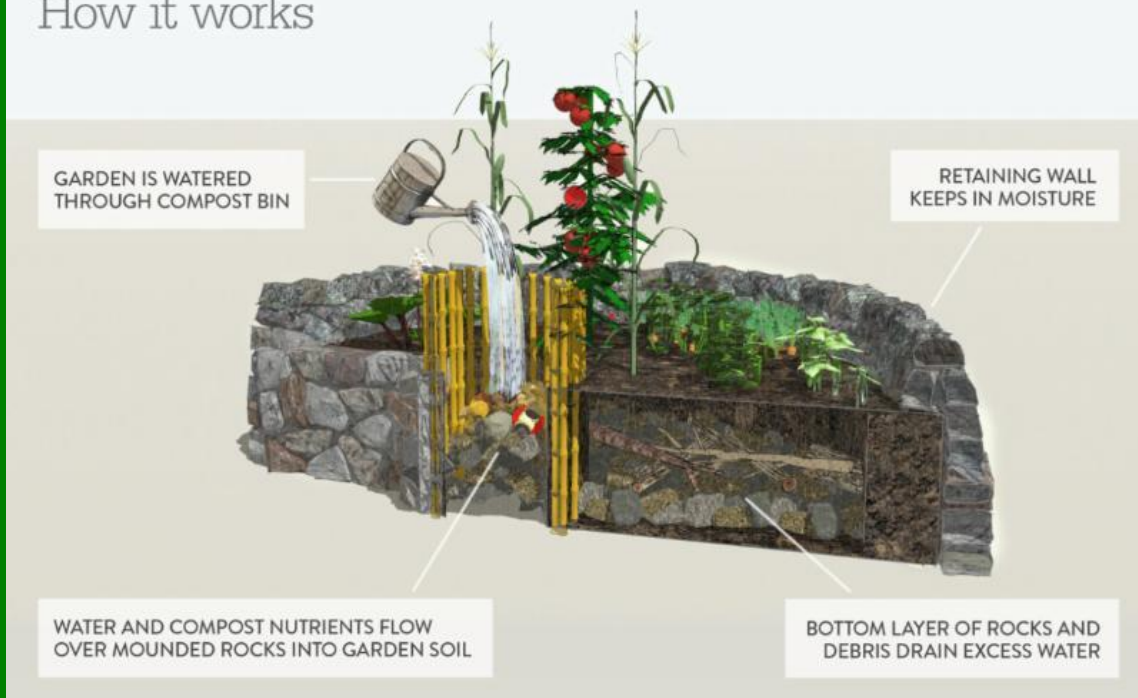
***A keyhole garden is raised bed garden, usually circular in shape, wrapped around a central compost basket, and notched like a pie with a slice cut away. The centrally placed composting basket moistens and nourishes the soil. The entire structure, usually 6 feet in diameter and waist-high, can be built with recycled materials and requires less water than a conventional garden. Walls can be made of materials like rocks, old bricks, concrete blocks, or old lumber; some gardeners have even used materials such as old boats, bathtubs, or cattle troughs, to build their keyhole gardens. In the Sonoran Desert one might start with a wooden floor to exclude tunneling Round-tailed Ground Squirrels before adding layers of newspaper, manure, straw and the topsoil.***

**Keyhole gardens were developed by a humanitarian group in sub-Saharan Africa where materials and water are at a premium. The advantages of this system include:**

- 1. greater yield of produce in a small space,**
- 2. less water use**
- 3. no bending required for tending the garden**
- 4. conversion of kitchen waste into fertilizer.**

## **Keyhole Garden**

How it works



<http://homedesignimage.net/keyhole-garden-design.html#>

**Follow these guidelines to get started:**

- 1. Measure a 6-foot diameter circle to define the inside wall of your garden.**
- 2. Notch the circle (like cutting a wedge of pie) so you can access the basket at the center.**
- 3. Construct the exterior wall about 3 feet high using rocks, metal, timbers or any material that can support the weight of wet soil.**
- 4. Use wire mesh to create a tube about 1 foot in diameter and about 4 feet high. Stand the tube in the center of the circle.**

5. Line the outer walls with cardboard and fill the garden area (but not the wire mesh tube in the center), with layers of compostable materials, wetting it down as you go. Fill the last few inches with compost or potting soil. The soil should slope from a high point at the top of the center basket downward to the edges of the garden.
6. Fill the center basket with alternating layers of compostable material, along with layers of kitchen scraps and herbaceous weeds that provide the plants with moisture and nutrients.
7. Water the center basket and the garden only when the plants will not survive without it. This forces the plants' roots down toward the center basket.
8. Feed the garden by adding more kitchen scraps, lawn clippings, etc., to the center basket.
9. Consider arching a framework of thin wires over the garden. During the hottest months, the wires can support a shade cloth, and in winter, plastic sheeting creates an instant greenhouse.
10. Enjoy the fruits (and vegetables!) of your labor.

#### Online resources

For illustrated instructions:

<http://www.growrealfood.com/gardening/how-to-why-you-should-build-a-keyhole-garden/>

Also look for You Tube videos on building keyhole gardens. Remember to adapt what you see for our drier climate and be aware that the addition of wood ash to compost piles is not recommended for our high pH soils. Here are links to a few videos to get you started:

<https://www.youtube.com/watch?v=ykCXfjzfac0>

[https://www.youtube.com/watch?v=wf\\_umm0KYWY](https://www.youtube.com/watch?v=wf_umm0KYWY)

<https://www.youtube.com/watch?v=kNT9-6RggNE>

## **Borage Family in and around Your Garden, by Melody Peters**

Springtime is when we see members of the borage family (*Boraginaceae*) blooming in Tucson gardens and during our visits to the desert. Various members of the borage family, and its waterleaf subfamily, are useful to gardeners, farmers and vineyard and orchard keepers. Others are annoying weeds that can quickly become invasive if you don't eliminate them in a timely fashion. On the hiking trail when you find lots of hairy tear-shaped seeds sticking to your socks, you have most likely walked through a patch of plants in the borage family. Boraginaceae is also known as the forget-me-not family.

**Patterns for identification:** Members of the borage family are most readily identified by their flowers as their foliage varies greatly throughout the family. Flowers have five separate sepals, and five united petals with five stamens often attached to the petals. Leaves are alternate and the plants are often hairy, even to the point of being rough.

Below is a gallery of borage plants that are more likely to appear, invited or uninvited, in the southwestern garden. Unless otherwise noted all photos were taken by me in the past week in central Tucson.



Borage (*Borago officinale*), is an edible herb native to Europe. It is often recommended as a companion plant for tomatoes as it deters pest insects while attracting pollinators. Plant borage early in the spring. It doesn't do well in extreme heat but can survive into early summer in the shade of your

tomato plants. Edible leaves that taste like cucumbers can be included in salads and flowers can be frozen in ice cubes to dress up summer drinks.



**Fiddleneck.** Many borage family native species of the weedy *Amsinckia* genus go by the name due their curved *racemes*. A raceme is an inflorescence characterized by a stalk on which individual flowers lower on the stem are the first to mature. A spiral shaped raceme can be observed in many other members of the borage family. Photo:

[https://csuvth.colostate.edu/poisonous\\_plants/Plants/Details/40](https://csuvth.colostate.edu/poisonous_plants/Plants/Details/40)



**Popcorn Flowers.** Various native species of the genus *Plagiobothrys* called by this common name may be encountered in the wild, on disturbed land in the city or in urban gardens. The plant is rough and hairy to the touch and bears many seeds. Look carefully on the left side of the photo where a raceme silhouetted against the rock shows the characteristic fiddleneck form.

**Boraginaceae, Waterleaf subfamily (*Hydrophyllloideae*)**



**Baby Blue Eyes (*Nemophila phacelioides*) is a flower native to the southwest. Its seed are often included in wildflower mixes.**



**California Bluebells, *Phacelia campanularia*, another southwest native that like other members of the waterleaf family has a bisected pistil. Note that the fine hairs (trichomes) on the sepal in the upper left corner are tipped with visible glands. Like trichomes on the tomato plant, these glands bear chemicals that can cause contact dermatitis in sensitive individuals. This native plant is planted as an ornamental from seed in the late autumn and is most impressive planted in large drifts. This photo is a detail of a large plant that was covered with foraging honeybees.**



**Lacy Phacelia, *Phacelia tanacetifolia*, another southwestern native planted not only as an ornamental but also as a cover crop, its seed is often included in wildflower mixes sown in the fall for spring bloom. As its nectar rich flowers attract multitudes of bees, it is extensively used as a cover crop on farms, orchards and vineyards to attract pollinators. It is also used as a cover crop to remediate cropland compromised by excessive artificial fertilizer as the plant can absorb excess nitrites and calcium from the soil. Photo: [http://www.territorialseed.com/product/lacy-phacelia-seed/op\\_cover\\_crops](http://www.territorialseed.com/product/lacy-phacelia-seed/op_cover_crops)**

## March Weed-O-the-Month

Barley Grass,  
*Hordeum murinum* L. *Ssp leporinum*  
aka Foxtail, or Hare Barley.

Native to the Mediterranean, this cool season species is widespread in much of western USA. and commonly found on roadsides and other disturbed sites. It is an agricultural pest that infiltrates crop like grains and alfalfa while its mature seed heads with their sharp seeds are dangerous to grazing cattle. Seeds can also lodge in your dog's skin or ears and may have to be surgically removed by your veterinarian. Better to remove the grass and spare both your pet and your wallet.



## Upcoming Events

### 2018 Spring Plant Sales

**Pima County Master Gardeners Spring 2018 Plant Sale.** Saturday, April 7, 8 to 11 am. This is the source for great bargains on plants grown by the master gardeners themselves. Prices are low and attendance is high. Plants tend to sell out fast so arrive early for the best selection and be prepared for a crowd. Sale located at Pima County Cooperative Extension Demonstration Gardens. 4210 N. Campbell Ave

Native Seed Search, Spring Plant Sale April 6, 10 am to April 8, 5 pm.  
at the **NS/S retail store, 3061 N. Campbell Ave, Tucson, AZ 85719**. Spring has sprung in the Old Pueblo (Tucson) and we are excited to offer a great selection of Veggie starts from growers in our region. We will have Tomatoes, peppers, melons, cucumbers, herbs and much more, both from our collection and staff or vendor favorites. We will open at 9:00 AM on Friday 4/6/18 for current members only, and at 10:00 AM for the general public all three days. As always Members get 10% off their whole purchase. If you sign up the day of the sale, you will get a one-time 15% off deal. Stay tuned to our Facebook page or stop into the store for plant variety lists as they become available from our growers.



\*Adults must be accompanied by a child. Children must be supervised by an adult.

\*\*Do you know of other organizations that have an earth-friendly message or exhibit? Please let them know registration is free: [tucsonearthday.org/register.html](http://tucsonearthday.org/register.html)

\*\*\*\*\*

## Sustainable Tucson monthly meeting


### **Gardeners! Are you worried about water?**

You're invited to join Sustainable Tucson at our April meeting to explore key issues around water in Tucson and the Southwest. There will be informative presentations from a panel of experts and follow-up discussion examining options and objectives for ensuring a sustainable water supply for Tucson.

Tuesday, April 9, 6 pm (doors open at 5:30), Ward 6 Council Office, 3202 E. 1st Street (one block east of Country Club, one block south of Speedway)



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