

# The Digging Fork

A Davis Garden Newsletter

July - August 2010



A collection of sticks – prunings from a peach tree, broken stakes, collected sticks, bamboo/stakes from purchased plants . . .  
Examples of flags – homemade flags using blue masking tape (with wire and stick), two purchased plastic flags (red and blue), masking tape on a stick.

	July	August
<b>Planting</b>	<p>Warm season vegetables: cucumbers, summer squash, basil</p> <p>Warm season annuals</p> <p>Perennials</p> <p><i>Can still plant, but need to keep plants well watered until established</i></p>	<p>Warm season annuals</p> <p>Perennials</p> <p>Cool season vegetables: Strawberries (if you can find them), potatoes (early Aug.), leeks</p> <p><i>Can still plant, but need to keep plants well watered until established.</i></p>
<b>Seeding</b>  directly into the garden	<p>Warm season vegetables: <i>These crops are best direct seeded in garden in early July-</i> snap beans, cucumbers, summer squash and corn</p> <p>Warm season annuals: sunflowers, cosmos, celosia, alyssum, marigold, zinnia</p> <p>Cool season vegetables: <i>Must shade seedlings!!</i> Brussels Sprouts, rutabaga</p>	<p>Cool season vegetables: <i>Must shade seedlings!!</i> broccoli, cabbage, leeks, carrots, cauliflower and romanesco, Florence fennel, kale, lettuce, green onions, parsnips, turnips, Swiss chard</p>
<b>Seeding</b>  in trays outside or greenhouse, to transplant later	<p>Perennials and cool season annuals</p> <p>Cool season vegetables: broccoli, cabbage, leeks, lettuce, cauliflower and romanesco</p>	<p>Perennials and cool season annuals</p>
<b>Fertilize</b>	<p>Roses after bloom</p>	<p>Citrus as needed.</p> <p>Look for nutrient deficiencies – especially iron and nitrogen.</p> <p>Soil sulfur for citrus and acid loving plants (will lower the pH of soil making iron more available to plants. Mix soil sulfur with top 6" of soil and water well)</p>
<b>Pest &amp; Disease Control</b>	<p>Tomato hornworms - pick off</p> <p>Snails, slugs and earwigs damage –use baits or traps</p> <p>Aphids –can spray off with water and watch for ladybeetles to arrive</p>	<p>Same as for July.</p>
<b>Tasks</b>	<p>Summer pruning of fruit trees will devigorate plant and help control size.</p> <p>Weed control continues</p> <p>Stake dahlias and other tall plants that need support</p> <p>Cut back berries and tie new canes to supports</p> <p>Mums, asters, perennial sunflowers, and other fall blooming plants can be cut to about 12" in early July to encourage branching and reduce plant height. This may delay the bloom time.</p>	<p>Summer pruning pruning apricot trees only in Aug. helps control Eutypa disease</p> <p>Divide and replant bearded iris.</p> <p>Weed control continues</p> <p>Order cool season bulbs and perennial plants for fall planting (see article in <b>The Digging Fork</b>, July 2007 issue)</p>
<b>Water</b>	<p>Deep water trees and shrubs.</p> <p>Water compost piles!</p>	<p>Same as July.</p>

## Sticks and Flags

Many gardening books and articles often list essential tools that every gardener needs. It's a good bet that *sticks* and *flags* don't appear on these lists, but they should!! Maybe these aren't as important as your digging fork or pruning shears but they have so many uses that just make the gardener's life a little easier.

A *stick* can be anything -- a handful of 12" sticks collected on a walk, or some branches from your fruit tree pruning or a substantial pole that can be substituted for the stakes found in garden centers and nurseries. A *flag* could be the fancy and colorful plastic ones attached to metal wire that are easily purchased to just a wooden stick with a flag of common masking tape attached. So why in the world would you want a collection of sticks and flags? Basically, sticks blend in with the landscape and colorful flags stand out from all the plants. They both have merits. Here are some of the numerous uses of sticks and flags:

**Sticks.** That bundle of small sticks can be used to protect a small plant or emerging seedlings from someone's feet or a digging cat. A few sticks around a plant will alert you to notice something important. Taller, sturdier sticks might redirect a child or dog to walk around a newly planted and fragile pepper or basil plant. A forked stick is useful for temporarily propping a blooming stem that has fallen into the path. Multi-branched prunings from both fruit and ornamental deciduous trees are great for support. Bush peas benefit from a row of branched sticks to keep them upright. A few branched sticks around eggplants and peppers keep the plants upright when the heavy fruits start to form. Bigger sticks can turn into trellis teepees, stakes and even be lashed into protective fences and gates. Sticks are incredibly useful, are mostly free and they blend in so well with the plants.



An eggplant with sticks all around. These sticks will help support the plant when it is heavy with big purple eggplants. Now that many pots have the plant tag glued to the pot, it is necessary to either cut this tag off and attach it to a stake or make another type of tag to identify the plant. The stick is holding the pot in place until a new tag is made.

**Flags.** Now, if you really need to draw attention to something, a colorful flag is the answer. The purchased plastic flags aren't environmentally friendly, but they do come in many colors and sure are convenient. They are usually sold in bundles of 100 but are sold individually as well at Hibbert Lumber. Eventually the plastic starts to disintegrate and/or rip but the metal wire lasts a long, long time. A metal wire without a flag is difficult to see and is dangerous -- it should be quickly removed from the garden. But don't toss it out! The plastic can be removed and a new flags made with colorful duct (ugh, plastic again) or masking tape. Metal wire is often easier to push into the ground than a wooden stick. However, flags made with masking tape on recycled sticks can just be tossed into the compost pile when they finally fall apart or rip.

Plants that have been newly planted but aren't yet established may need a little extra attention and water for awhile. A blue flag might remind the gardener. Or a blue flag might signify an irrigation problem that needs to be fixed. Some gardeners use bright red flags for problems! If you have found some Burmuda grass or bindweed invading a flower bed, a red flag will remind you to keep an eye on the problem until it is solved. It is easy to write on flags with permanent marking pens. What if you have decided on a certain plant for an area but can't yet find the plant. A flag with the name of the plant you are looking for written on it will remind you to keep looking. White flags stand out the least in the garden and why some gardeners prefer them over the bright colors.

So, start that stash of sticks of all sizes and shapes -- also a collection of flags of many colors.

## Local sales, events & workshops

### UCD Arboretum

Lots of great guided tours and workshops coming up!!  
 Call for a monthly reminder of events emailed to you  
 For information 752-4880  
<http://www.arboretum.ucdavis.edu/calendar.aspx>

### Ceanothus California Field Botanists Association

Learn to key plants. July 17 and August 21  
 UC Davis Center for Plant Diversity  
 Information [www.ceanothusfieldbotanist.blogspot.com](http://www.ceanothusfieldbotanist.blogspot.com)

### Plant Sales at The Gifted Gardener

July 17 and 18 10 am to 4 pm 35% off  
August 21 and 22 10 am to 4 pm 40% off  
 18<sup>th</sup> and J Streets, Sacramento. Sales benefits local charities  
 Information [GardenNotes@sbcglobal.net](mailto:GardenNotes@sbcglobal.net) (916) 923-3745

### Three Palms Nursery

Summer Blowout Sale – 30% off  
 August 7-8, 9am to 5 pm  
 Information <http://www.3PalmsNursery.com> 756-8355

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## **Deep summer is when laziness finds respectability. -- Sam Keen**



A fence made of used grape stakes wired together with tie wire. Saved sticks also make an interesting and inexpensive fence. A blue flag is marking a new plant that needs extra water.

## **How much water do my plants need?**

It is summer and our plants need water. But not all plants require the same amount of water! Emily Griswold, from the UCD Arboretum, did a great talk last spring on plant water needs. The chart below was adapted from the information she gave us about water requirements of different types of plants.

Water evaporates from the soil and transpires from the plants as well. This lost water needs to be replaced if the plant is to thrive. **Davis Reference Evapotranspiration (ET)** is measured locally and shows, on the average, how much water is lost each

month. Due to the differing climates, water loss will be different all over California. Obviously, this is only a guideline or estimate since many factors can make this number increase or decrease. Is it hotter or cooler than normal for the month? Are your plants well mulched and established, with a dense or sparse canopy? Do you have raised beds, slopes or pots? Do microclimates protect your plants? And the list goes on. But, the information in this chart gives us a good starting point when deciding how much water our plants need.

Rainfall must also be factored in. If more rain falls than is lost to ET then all is well and there is no need to water. This is why we generally don't need to water from November through March. Again, we are assuming months with typical rains.

There are now fancy irrigation timers on the market with sensors built in that can monitor water loss and then automatically apply the water as needed. If you don't have this type of timer then the chart, that shows the estimated water needs for different types of plants, might be useful. There is quite a difference between the water needs of a typical Davis lawn (about 80% of the Davis reference ET) and a garden of low water plants (only about 35%). Dr. Robert Norris, a local vegetable expert, recommends watering the vegetable garden about every 4 days and putting on 1½ to 2 inches of water a week during the hot summer. Granted, not all vegetables require the same amount of

water, but if all vegetable plants are grouped together in the same bed, then you must water for those with the greatest water needs. This illustrates why it is so important to group plants based on their water requirements.

*It is best to water deeply and less often.* This encourages roots to go deep into the soil so they can better cope with periods without water. Notice that low water plants can usually be watered every two weeks if they are established and have been mulched. It is best to start this watering schedule in the spring after the winter rains – not in the middle of summer. Most lawns won't be happy being watered every two weeks, but they definitely shouldn't be watered daily!

If you use sprinklers or drip mini sprayers then it is easy to use shallow cans to measure how many inches of water your system is putting on during each irrigation. <http://www.ipm.ucdavis.edu/TOOLS/TURF/MAINTAIN/output.html> If you use drip emitters however, which are usually measured in gallons applied per hour, then this is a bit trickier. Besides the information about how much water each emitter delivers, you need to know how far apart the emitters are spaced in the garden and the efficiency of the irrigation system. Here is a great reference for estimating how long to run drip emitters. <http://ag.arizona.edu/pubs/water/az1430.pdf> The article is a bit mathematical, but the formulas given are very useful for estimating how much water you are actually applying in *inches*, not gallons/hour.

<b>Water Needs for Different Types of Plants</b>	% of ET	Monthly water in inches (black)													Total
		Water applied in each irrigation in inches (red)													
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Davis Reference ET		1.0	1.7	3.4	5.5	6.9	8.1	8.5	7.5	5.8	4.2	2.0	1.2	55.8	
Davis Average Precipitation		3.9	2.9	2.6	1.1	0.3	0.1	0.0	0.1	0.3	1.1	2.8	2.9	18.1	
Drought tolerant and very low water plants. Best watered monthly	20					1.1	1.5	1.7	1.4	.9				6.6	
Low water plants (like the UCD Storer Garden), also most woody shrubs. Best watered every two weeks	35				.8	2.1	2.7	3.0	2.5	1.7	.4			13.2	
Warm season grasses, typical garden of annuals and perennials (like Patricia's) Best watered weekly	60				2.2	3.8	4.8	5.1	4.4	3.2	1.4			24.9	
Cool season grasses, vegetable gardens, redwood trees and other high water plants. Best watered about twice a week	80			.1	3.3	5.2	6.4	6.8	5.9	4.3	2.3			34.3	

This chart was adapted from a handout and talk by Emily Griswold at the UCD Arboretum Spring 2010

Davis Reference Evapotranspiration (ET) is the water lost from evapotranspiration, both from the soil surface and from plant transpiration. Resource: CA Irrigation Management Information System (CIMIS) [www.cimis.water.ca.gov](http://www.cimis.water.ca.gov)

% of ET is divided by 100 and then multiplied by the Davis Reference ET to determine the plant water needs in inches for different types of plants. Resource: Water Use Classification of Landscape Species (WUCOLS) [www.water.ca.gov/wateruseefficiency/docs/wucols00.pdf](http://www.water.ca.gov/wateruseefficiency/docs/wucols00.pdf)

# More gardening tips!

## Cleaning-up bearded iris

It is time to clean-up all the bearded iris (if you haven't already). Cut all the dead flower stalks to the ground and pull off the leaves that are browning. This is easy to do by pulling down on the outermost leaf. Sometimes the leaves are horizontal rather than standing upright. These will never stand vertically again, so just cut them to about 3 inches and the new leaves will again grow upward. Since the plants are somewhat dormant, it is also a great time to divide crowded plants and share with friends.



Bearded iris with dead flower stalks, old leaves, etc.  
On right, the plants have been cleaned-up.

## Digging Fork vs Potato Fork

Digging forks, sometimes called garden forks, are difficult to find locally. A **digging fork** has 4 square tines that are great for cultivating our clay soil -- assuming the soil is at a perfect moisture for digging. Sometimes you can find them at local nurseries and garden centers. But unfortunately, what you mostly find is a **potato fork** with flat, wide tines that is probably great for digging up potatoes and other root crops but doesn't work as well for cultivating our soil.



Potato and digging forks

Digging forks come in all sizes and shapes. Forks can be about waist high with D-shaped, T-shaped or circular ergonomic handles. Some gardeners prefer a long handled fork that reaches to about chest height. Remember, we don't need to turn the soil over by bending and lifting. We only need to push the fork



into the soil and then rock it back to loosen it, keeping the layers of the soil unchanged.

Tines on all forks will bend, given enough force, and handles do break!! Wooden handles are lighter in weight but rot if they are left outside. Good forks are expensive. Manufacturers will often give the pound of force that can be applied at the end of the handle without breakage. The most expensive fork tines are made from carbon steel, however stainless steel tines



are becoming more and more common. Below are a few sources for digging forks.

1. Potato fork
2. Digging fork with metal handle
3. Stainless steel digging fork with wooden handle
4. Smaller digging fork, sometimes called a border fork
5. Pitchfork – not for digging

Lee Valley 1-800-871-8158 [www.leevalley.com](http://www.leevalley.com)

Peaceful Valley 888-784-1722 [www.GrowOrganic.com](http://www.GrowOrganic.com)

Redwood Barn Nursery in Davis 758-2276

## Vegetable garden harvest



This early July harvest is a mix of cool season and warm season crops. Garlic, onions, shallots, carrots, beets, wheat, and potatoes were planted last fall or this past spring. Summer squash, peppers (yes, a purple bell pepper), and tomatoes were planted in May. Some cool season crops are seeded/planted again starting in July and August for a fall harvest. Since it is so hot this time of year it is important to provide shade for young plants and seedlings.

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