



VOLUME 20, NO. 1  
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## DAFFODILS! FOR THE SIERRA FOOTHILLS AND VALLEY

*Charlotte Germane*  
Nevada County  
Master Gardener

**D**affodils (*Narcissus*) are joyful flowers that make people happy. Did you ever hear anyone say, "I hate daffodils"? The embodiment of springtime, daffodils reaffirm that life goes on, and they're tough too -- give them a Nevada City snowfall and they bounce right back.

What's not to like about a bulb that is deer resistant, gopher proof, and drought tolerant? There's a lot to be said for poisonous plants. Roman soldiers used to carry daffodil bulbs into battle; if a soldier was badly injured on the battlefield he could bite into the bulb and die without lingering.



What to add at the bottom of the planting hole? The Northern California Daffodil Society recommends some bone meal (but this can attract voles which will dig, but not eat, the bulbs). International expert Brent Heath, aka "Mr. Daffodil", currently swears by only a bit of compost. Both agree that commercial Bulb Food is for top dressing after planting, and when leaf tips show.

For a group of bulbs, dig a short trench with a shovel and spread in the bulbs. If you want to get fancy, throw in some soil and add a layer of *Muscari armeniacum* 'Christmas Pearl', then fill the trench with soil. The purple muscari will bloom at the same time as mid-season daffodils, making a happy contrast.

No spot for daffodils? Put them in a pot.

Even planting daffodils as late as December will be fine (or January, not that I'm admitting anything).

*(continued on page 2)*

### Where to Plant Daffodils

Daffodils want full sun while growing and blooming, excellent drainage, and *no* water in the summer. Placing them under deciduous trees allows them winter sunshine. Sunny slopes are ideal. Dot them in your irrigated garden beds too, but they may rot with summer watering.

### How to Plant Daffodils

Planting daffodils is easy as can be. Put your trowel in the ground, tip it toward you to open a small hole, drop the bulb in (pointy end up) and that's it. Typically, you want a hole six inches deep (3 times the height of the bulb). Do not water the bulbs at planting time.

## INSIDE

What's in that Bag?	3
Bulletin Board	4
Mistletoe	5
Calendar of Events	7

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THE  
CURIOUS  
GARDENER

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I plant daffodils in small clumps or drifts of one variety, which I like better than the “scrambled eggs” look of a mixed group. For a natural looking drift, taper your bulb placement from a rounded edge to a point at the other edge.

Post-bloom care: Don't worry about deadheading the flowers; it won't make a huge difference in the hybrid bulb's vitality. Please do not braid the leaves; this will interfere with their job of feeding the bulb. Save yourself the work and simply cut off the leaves and flower stems after both have turned yellow.

### Best Performing Daffodil Varieties

If you're ready to plant 20 or so daffodils, I suggest you avoid the pre-packaged mixes. It's more fun to grab 5 of this and 5 of that, label them when you plant them, and see which ones steal your heart in the spring. Then you can plant more of the daffodils you love, and you'll know not to waste your money on the others.

Speaking of money, these bulbs are wonderful bargains. You can get excellent bulbs at your garden centers in the fall, and if you want to see even more, go to the sites of some of the stellar bulb catalogs, like Brent and Becky's Bulbs, and John Scheepers.

I forego the traditional King Alfred types or 'Dutch Master' and enjoy the first-to-bloom daffodil that is another yellow trumpet -- the aptly named 'Rijnveld's Early Sensation'. The lower elevations of Placer County may not be cool enough for them, but give a few a try.

In my garden, men seem particularly attracted to daffodils with

orange, and women often go for the "pink" daffodils.

The American Daffodil Society helps us choose among the over 40,000 daffodils in the world by giving the annual Wister Award to a daffodil that not only looks good but endures in the home garden. The lower part of Placer County is on the warm end of the daffodil climates and some of the Wister Award winners that do well in areas as hot as the Central Valley are:

'Barrett Browning' (orange!)  
'Falconet' (orange again!)  
'Sweetness'  
'Dreamlight'  
'Intrigue'  
'Stratosphere'

The cooler temperatures in the foothills let gardeners push out further into the range of USDA zone 7 daffodils.

Classics that will thrive in the upper foothills are:

'Misty Glen'  
'Fragrant Rose'  
'Camelot'  
'Thalia'

'Actaea' might not live forever in your garden, but it's worth growing even a few of this ancient “Poet's Narcissus” with its flatter form. The tiny red rim on its cup is the color source of the modern pink daffodils.

For zone 9 gardeners, learn to love the daffodils with multiple flowers on each stem. Those families of narcissus thrive in the warm climates. Look for anything in the groups called Jonquil or Jonquilla, Tazetta, or Triandrus. If you're determined to have other varieties you can pre-chill them for several weeks in the refrigerator, then plant

them for what might be their only season in your garden.

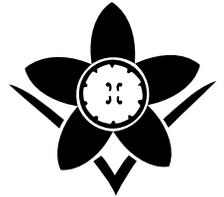
### The Best Naturalizers

Wister Award winners 'Ice Follies' and 'Salome' just won't go away in Nevada City. Both have creamy outer petals and centers that are pale yellow or peach. The King Alfred types persist up here too, but why be boring?

If you're hoping to naturalize bulbs (expecting that they will multiply in place over the years), then you should add some low-nitrogen fertilizer in the soil at planting time.

### Favorite Place to Visit Daffodils in the Gold Country

For an eye-popping experience, drive down to Calaveras County and the daffodils at Ironstone Vineyards in Murphys, where they've planted daffodils all along the curving road to the winery and filled half barrels with different, labeled varieties. It's a real treat on St. Patrick's Day weekend when there's a Northern California Daffodil Society show there (the show has hundreds of varieties of daffodils, from heirlooms to the latest green daffodils). The NCDS is packed with world-renowned experts who are happy to talk with other daffodil fans.



### References:

Northern California Daffodil Society  
<http://www.daffodil.org>

American Daffodil Society <http://www.daffodilusa.org>

# WHAT'S IN THAT BAG?

## THE DIRT ON BAGGED SOIL AMENDMENTS

*Chuck Ingels*  
Sacramento County  
Farm Advisor

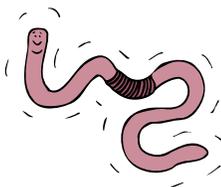
**O**rganic soil amendments are products that are mixed into soil for the overall purpose of benefiting plant growth and crop production.

Contrast that with mulch, which is placed on top of the soil surface to reduce soil moisture loss and water runoff, prevent weeds, and moderate soil temperatures.

Soil amendments improve coarse-textured (sandy) soils mainly by improving the water and nutrient holding capacity by the addition of organic matter. Fine-textured (clayey) soils are improved by creating larger soil pore spaces and improving soil aeration, which leads to better water infiltration and drainage.

Organic soil amendments contain plant nutrients, but most are not considered fertilizers because their nutrient content is often quite low, and because release of the nutrients to plant-available forms can take weeks, months, or longer depending on the product.

The most important benefit of the organic matter additions is to provide an important energy source for bacteria, fungi and earthworms that live in the soil.



From an environmental standpoint, using amendments from a local source can reduce fossil fuel use and air pollution compared to shipping products across the country.

Consider producing compost at home, using well broken down local manure, or growing cover crops to add organic matter.

### Soil Amendment Analyses

In July 2012, UC Master Gardeners purchased nearly two dozen organic soil amendments, also known as soil conditioners, from several retail outlets in Sacramento County. Samples were bagged the next day and taken to Sunland Analytical Lab in Rancho Cordova, who provided a discount on our analyses in support of Harvest Day at the Fair Oaks Horticulture Center. A soil analysis panel was selected that included the following tests.

**% N**—percent total nitrogen. Products ranged from 0.7 to 2.1% N. There is no threshold for how much N should be in a product. More important is the C/N ratio.

**C/N ratio**—carbon-to-nitrogen ratio. Ratios above about 30 (30% C to 1% N) result in nitrogen "tie-up" in the soil because soil microorganisms such as bacteria and fungi require both carbon and nitrogen in their diet. They feed on the carbon source (soil amendment) and extract nitrogen from the soil when the C/N ratio is over about 30. This temporarily deprives plants of nitrogen until the microbes begin to die off which often takes about 2-3 weeks. With amendments below about 30, the amendment will readily begin to release its nitrogen to the soil. The lower the C/N ratio the faster the release.

**pH**—the measure of acidity or alkalinity of the amendment, with pH 7.0 being neutral. A pH of about 6.5 to 7.0 is ideal, but pH 5.0 to 8.0 may be acceptable depending on the pH of your soil. Low pH materials such as sphagnum peat moss are best for blueberries and some ornamentals such as azaleas and camellias, but there are questions about the sustainability of increased harvesting of peat bogs in Canada and the northern US.

**% Organic Matter**—the measure of carbon-based materials in the product. Ingredients other than organic matter may include soil, nutrients, and other inorganic particles. There is no threshold for % organic matter.

**Conductivity**—indicates the amount of salts present, also called electrical conductivity or EC. Many salts are essential for plant growth, but excess salts in soil may be detrimental to plant health, especially for seedlings, transplants, and salt-sensitive plants. The threshold of salts in amendments depends on many factors, especially the salinity of your soil and water. If you have soil or water with elevated salt content, use amendments with lower conductivity - about 3.0 or lower. In most of the Sacramento area, water is low in conductivity, so the threshold is higher - perhaps up to 10.0.

To see the results of the testing of of the bagged soil amendments, please get the PDF here:

[http://ucanr.org/sites/sacmg/Soil\\_Amendments/](http://ucanr.org/sites/sacmg/Soil_Amendments/)

## BULLETIN BOARD

The Placer County Master Gardeners Present  
**The 6th Annual Gardeners' Gathering**

Saturday, March 2, 2013  
at the Blue Goose Fruit Shed in Loomis  
8:30am to 3:30pm

Pre-registration is **REQUIRED!**  
Online and walk-in registration opens February 1, 2013.  
Cost is \$30.00 per person and includes lunch

<http://pcmg.ucanr.org>

This year we have another wonderful lineup of speakers including  
Joanne Neft and Carolyn Singer!

### Sierra College Community Education

<http://www.sccommed.org/>

- Build A Greenhouse, March 9, 2013, from 9am to Noon, Rocklin Campus
- Establishing a Small Vineyard, Two sessions on March 12 and 14, 2013 from 6pm-9pm, Secret Ravine Vineyards
- Organic Vegetable Gardening, Two sessions on March 16 and 23, 9am-1pm, Rocklin Campus

*Laurie Meyerpeter*  
Placer County  
Master Gardener

## MYSTERIOUS MISTLETOE

**M**istletoe. It's weird, it's poisonous, it's a parasite, and yet we love mistletoe so much we manufacture plastic likenesses of the plant to hang it in our homes every winter! Is that weird or what?

Mistletoe is an evergreen semi-parasitic plant that attaches itself to its host, stealing nutrients and moisture from the limbs that it is attached to. It is considered a hemiparasite, a "partial parasite", because its green leaves photosynthesize, producing some of its own food.



The berries, highly poisonous to humans, are quite tasty to birds, who spread the sticky seeds through their droppings from host to host. The name mistletoe means "dung on a twig" and is a reference to its method of dispersal.

Once upon a tree host, the seed sprouts and anchors itself into the host's bark with a root-like structure called "haustoria". These roots gather water and nutrients for the mistletoe, and the mistletoe begins to grow its own green leaves for photosynthesis. Initial growth is slow and it may take years for the mistletoe to mature enough to flower and produce berries.

### Types of Mistletoe

There are many different species of mistletoe. We have three species in our area. *Phoradendron macrophyllum* or Big Leaf Mistletoe

primarily affects landscape trees. Common hosts for this mistletoe include 'Aristocrat' flowering pear, ash, birch, box elder, cottonwood, locust, silver maple, walnut, and zelkova.

*Phoradendron villosum* or Common Mistletoe (also called Oak Mistletoe and Hairy Mistletoe) is found in our native oak population.

*Arceuthobium campylogoum* or Western Dwarf Mistletoe is less noticeable, differs in appearance, and is found in some of our native pines. Each mistletoe species has different preferences as to its host. Mistletoe growing in one tree won't necessarily spread to different species of trees in the landscape.

### Does Mistletoe Kill Trees?

Most trees can tolerate a few mistletoe plants growing in the branches but infestations may weaken the tree and kill individual branches. This may be the tree's defense against mistletoe—a sloughing off of its infested branches since mistletoe needs to be attached to living tissue to survive.

Although mistletoe infestations are associated with higher mortality rates for the tree host, it is not necessarily the primary cause of death of an infected tree.

Biologically, it is not in the parasitic plant's best interest to kill its host as that would hasten its own demise.

Some biologists have suggested that mistletoe is often blamed

falsely as a cause of tree death, simply because the mistletoe is much more visible after the loss of leaves when the tree dies.

Mistletoe is an important plant in our woodlands and wild areas providing food, shelter, and nesting sites for numerous bird species including Western Bluebirds, Cedar Waxwings, Phainopeplas, and Robins as well as insects such as the Great Purple Hairstreak Butterfly.



Recent research suggests mistletoe may be a keystone plant in some ecosystems. Parasitic plant activity has a profound effect on plant species dynamics, affecting surrounding vegetation and wildlife, much of it in a surprisingly positive manner!

Even so, it is not acceptable to allow mistletoe to grow and spread in most of our communities. The possibility of mistletoe seeds being spread from your tree to a neighbor's vulnerable tree is high. Dead mistletoe-infested limbs may fall from the host tree and are a hazard in populated communities.

Mistletoe weakens a tree and may make it more susceptible to other pests and disease. Trees heavily infested with mistletoe are unsightly. Regular removal and management of mistletoe is recommended.

*(continued on page 6)*

Continued from page 5

### Management of Mistletoe

The most effective method of mistletoe management is to remove infected branches, cutting back at least one foot beyond the mistletoe to a lateral branch.

This is best done when the mistletoe is young but can be done when the mistletoe is mature as well. Think of this as weeding the pest (mistletoe) along with its roots!

If this is not possible, cut the mistletoe flush with the branch, wrap layers of black plastic around the limb and secure with twine or tape, tight enough to exclude light but not so tight that it girdles the branch. This works like a weed mulch and prevents the mistletoe from photosynthesizing and growing.

If neither of these management methods is feasible, simply cutting the mistletoe back frequently will help prevent its spread.

Since it takes several years for a mistletoe plant to mature enough to bloom, flower, seed, and spread, this may lessen its impact upon neighborhood trees. This is equivalent to hoeing weeds in the garden but leaving the roots; the weed is still there but it can't produce seeds or spread.

A chemical growth regulator is also available, but since it must be sprayed on each individual mistletoe plant and is not significantly more effective than simply cutting growth off, it has few advantages.

By far the most preferred method of mistletoe management is to plant resistant trees such as 'Bradford'

flowering pear, Chinese pistache, crape myrtle, ginkgo, golden rain tree, liquidambar, sycamore, and conifers such as redwood and cedar.

This virtually eliminates both the effort of managing mistletoe in the landscape and it prevents the spread of mistletoe to other trees. When planting new trees in areas with abundant mistletoe populations or when replacing a tree infested with mistletoe consider choosing these trees.

Winter is the best time to survey the mistletoe infestations in your yard and to develop a plan for its management.

Of course, anytime of the year is acceptable but with the trees bare of leaves, it's simpler to see the mistletoe and easier to access and cut.

Most homeowners can deal with mistletoe by themselves but if you call a professional, you may want to ask your neighbors if they wish to share the service since mistletoe management may be better controlled on a community level.

Whether you view mistletoe as a menace or a fascinating plant, it's certain that few other parasites are as loved during the holiday season as mistletoe! It's weird. And happy holidays!

### References

UC IPM Pest Note: Mistletoe, <http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7437.html>

California Master Gardener Handbook, UC ANR Pub# 3382.

<http://www.calflora.org>

The 2013 Placer County Master Gardener Annual Calendar is now available for purchase!



Garden Myths: Busted!!

Find out where to buy here:  
<http://pcmg.ucanr.org>

- For **first-time gardeners** wondering where to start, it includes a "What to Plant" list every month.
- For **novice gardeners**, the Master Gardener Hotline number and the University of California Integrated Pest Management website are listed each month as resources.
- For the **avid gardener**, reminders of important gardening tasks to be performed each month are included.

For **all gardeners**, the articles, references, and "In Season at the Market" section provide a wealth of practical, research-based garden information specifically for our region!



# WINTER 2013 CALENDAR



## FEBRUARY

Saturday, February 16th from 10am-Noon at Grass Valley Veteran's Building (255 S Auburn, GV):  
***Spring Forward with Cool Season Vegetables***

Saturday, February 23rd from 10am-Noon at Grass Valley Veteran's Building (255 S Auburn, GV):  
***Creative Composting—the best results for the least effort!***

## MARCH

Saturday, March 2nd from 8:30am-3:30pm at Blue Goose Historic Fruit Shed (Loomis, CA)  
***6th Annual "Gardeners' Gathering" presented by the Placer County Master Gardeners***

Saturday, March 2nd from 10am-Noon at Grass Valley Veteran's Building (255 S Auburn, GV):  
***Totally Tomatoes: From Seed to Seed***

Saturday, March 9th from 10am-Noon at NC Master Gardener Garden (1036 W. Main, GV):  
***Water Management: To Drench Or Not To Drench***

Saturday, March 16th from 10am-Noon at Grass Valley Veteran's Building (255 S Auburn, GV):  
***Selection, Planting and Care of Roses***

Saturday, March 16th from 9am-10am at Placer MG Demonstration Garden (11477 E Ave. Auburn)  
***Composting Basics***

Saturday, March 16th from 10am-11am at Placer MG Demonstration Garden (11477 E Ave. Auburn):  
***Vermiculture: Composting with Worms***

**For More Information, call  
Placer MG Hotline (530)889-7388 or  
Nevada Co MG Hotline (530) 273-0919**





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