

Master Gardener
University of California



The Curious gardener

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Making a Difference for California

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and the UC Master Gardeners of Placer and Nevada Counties

Pruning Ornamental Shrubs And Trees

by Lynn Lorensen, Nevada County Master Gardener

In real estate, location, location, location is everything. In pruning timing, timing, timing is all.

When To Prune?

Failure to flower is often because of pruning at the wrong time. Spring blooming plants generally flower on old wood. Pruning in the winter will result in the removal of the buds. They should only be pruned soon after flowering.

Plants that bloom on new wood should be cut back in late winter to early spring.

Why Prune?

We prune to improve the health and vigor of plants and to enhance beauty. Ban the meatball style of pruning so often seen.

Prune to Prevent and Control Disease

Many shrubs, including roses and crepe myrtle are susceptible to fungal diseases. Increasing air circulation through the shrub by thinning the interior is a key prevention practice. Other

diseases can be controlled or eradicated by pruning. Common diseases in Placer and Nevada Counties that can be controlled by eradicated pruning are fireblight, twig blight, bacterial canker, leaf gall, pitch canker, western gall rust and leafy mistletoe. Eradicated pruning can also control insect infestations in conifer species.

Prune to Renovate or Rejuvenate

Overgrown and neglected crown-sprouting shrubs can be brought back to healthy vigor and beauty by drastic pruning. This method works well with hedges, Spirea, Lilac, Flowering Quince and Heavenly Bamboo. If the shrub contains many dead stems the best approach is to cut the plant to 6 inches off the ground.

Continued on next page



*Prune to eradicate pest infestations
and diseases such as fireblight*

References:

- California Master Gardener Handbook. D.R. Pittenger editor. 2002
- Pruning Shrubs. University of Minnesota Extension. www.extension.umn.edu/info-plants/BG563.html
- Time Life Book of Pruning. J.U. Crockett. 1977.

Continued from previous page

For a less dense shrub, begin by removing all dead stems to the ground. Mark vigorous stems that will give a good balance and remove all the others. Each year remove the oldest and damage stems to keep the plant healthy.

Prune To Control Shape And Size

The right plant in the right place includes making sure the space is large enough. Frequent pruning to keep the plant small enough for the space creates forever spring. Pruning encourages new, tender growth that is susceptible to aphids, fungal disease and browsing deer.

Size can be controlled to some extent by removing the tallest branches to the main stems. Rounding over the plants creates the meatball look. If the space is significantly constricting, transplant to a suitable location.

Pruning Conifers

Conifers such as pines, cedars and junipers are best pruned in late winter/early spring to prevent beetle infestation. The best time is at the candle stage (in the late winter/early spring when young needles are in a tight cluster). Cut back 1/3rd. Pruning beyond the last living leaf will result in dead stubs.

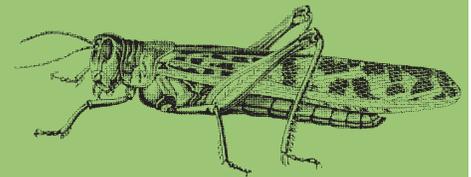
Evaluate twice, cut once. Remember each plant species has specific pruning guidelines.



Prune conifers at the candle stage, when young needles are in a tight cluster as pictured here.

Insect Trivia Quiz

From Bonnie Bradt, Entomologist and Nevada County Master Gardener



Centipede (top) and Millipede (bottom). Photo by Jack Kelly Clark Copyright 2001 Regents, University of California

1. What common bathroom item can be used in a killing jar to collect insects?
2. What must a female mosquito do before laying eggs?
3. Centipedes have one pair of legs per body segment. How many pairs of legs do millipedes have per body segment?
4. During peak production, how many eggs can a queen bee lay per day?
5. What insect was responsible for transmitting the Bubonic or Black Plague?
6. Who originally brought the European honey bee to the United States?

Answers on Page 4

Seed Catalogs – Present and Past

by Lynora Sisk, Placer County Master Gardener



References:

- Oregon State University Libraries, Special Collections and Archives Research Center, Seed and Nursery Trade Catalogue Collection, Early 19th century American catalogues <http://scarc.library.oregonstate.edu/omeka/exhibits/show/seed>
- The Kew Royal Botanic Gardens, The Shirley Sherwood Gallery of Botanical Art, <http://www.kew.org/visit-kew-gardens/garden-attractions-A-Z/shirley-sherwood-gallery.htm>
- Landreth Seed Company, <http://www.landrethseeds.com>
- Pictures of seed catalogs from the Smithsonian Libraries, The American Seed and Nursery Industry, Compiled by Marca L. Woodhams, Librarian, Horticulture Branch Library December 1999 <http://www.sil.si.edu/SILPublications/seeds/bibseednur.html>

January is my favorite month to settle down in the easy chair with a hot cup of ginger tea and peruse the seed catalogs. Holy moly....there's ten of them! How did these people find me and how many seed catalogs are out there? In a search for seed catalogs on the web, one site claims to have links to over 65 free seed catalogs. I am sure there are hundreds more.

We are very fortunate (and sometimes overwhelmed) to live in the age of so many different sources of seeds, from hard copy catalogs, to shelves of seeds at the nursery or box store, and then there's the internet. These are all are good sources for purchasing seed. It's really a matter of personal preference. I find seed catalogs can be very inspiring with their glossy photos and beautiful descriptions (I can practically taste that ripe tomato now). Many of them have excellent narratives on how, when and where to plant and offer quick tip growing guides. However, if you'd rather hold that seed packet in your hand and read about the plant or maybe talk with a gardening expert, then nurseries and stores are for you. If you're into the "electronic information age" there are many great websites for purchasing seeds that also have helpful tips and great pictures of their vegetables and flowers. Most of the seed companies now have a website in addition to their hard copy catalogs. Just search for seed catalogs and you'll find a wealth of information.

Seed catalogs have been the go to source for gardeners for centuries with many of their "roots" in England and Europe. According to the University of Oregon Special Collections and Archives Research Center, during the late 16th century it was "fashionable for kings and wealthy aristocrats to outdo one another in amassing large collections of exotic plants." To add to the prestige, some owners had their collections 'catalogued in elaborately illustrated books call florilegia." The Kew Royal Botanic Gardens website discusses how these botanical illustrations date back to the 15th century, "when herbals (books describing the culinary and medicinal uses of plants) were printed containing illustrations of flowers." These early botanical illustrations helped develop scientific records through which plants were named and classified.

Seed companies and catalogs started up in the US as early as the 1700s. Some of the early catalogs were printed on broadsheets or booklets and usually did not contain illustrations or descriptive information.

In 1784, David and Cuthbert Landreth started America's oldest seed company in Philadelphia. According to their website and articles written in the press, they were responsible for introducing many new flowers and vegetables in the US including the zinnia, white potato, various tomatoes and "Bloomsdale" spinach. In 2010, the seed company ran into some hard times and nearly closed. One of the changes that helped them survive was to launch a Facebook campaign "Save America's Oldest Seed Company" and charge \$5 for their seed catalog. Obviously it worked because they're still in business today.

The Landreth Seed Company is a good example of how seed companies and catalogs have had to evolve and provide the public with more in-depth information about their seeds and plants with easier access to sort through the volume of seeds available. So sit back and enjoy perusing your seed catalogs or logging into your favorite seed company website. We've come a long way in 400 years!

Happy Gardening.



Insect Trivia Answers

1. Nail polish remover can be used on a moistened tissue in a jar to kill insects for collections.

2. Female mosquitoes must eat a blood meal before laying eggs. The males emerge before the females do and are mature by the time the females are ready to mate. The males and newly hatched females look for a sugar (nectar) meal to give them the energy to fly and find each other for mating. After mating, the female looks for a blood meal. Only adult females take blood meals and use the protein for egg development. Most females die before taking a second blood meal, but those who live long enough are the ones capable of transmitting diseases as they have contacted more than one host. These critters can carry diseases that affect either humans or their pets and livestock (West Nile virus, Western and Eastern Equine Encephalitis, malaria, dog heartworm, etc.).



Adult Mosquito

3. Millipedes have two pairs of legs per body segment. Although the word "millipede" comes from Latin roots meaning "thousand feet" they don't really have that many. The

common species have from 34-400 legs although there is one very rare species that has up to 750 legs. And yes, it is found in central California. Look it up. It is called *Illacme plenipes*.

4. A queen bee can lay 1,500 eggs per day during peak production. One HECK of a busy lady.

5. The rat flea was responsible for transmitting the Bubonic Plague. Fleas can smell exhaled CO₂ from mammals and jump rapidly toward the host to feed on their blood. They do not have wings to fly but can jump efficiently and often feed on several hosts. The plague was transmitted to humans when the rat fleas picked up the disease from rat blood and then jumped onto a human and fed on their blood. Diseases can even be transmitted from one generation of fleas to the next, through their eggs. YIKES.

6. The pilgrims originally brought the European honey bee to the United States. I guess they just couldn't face life in the new world without honey for their biscuits in the morning. They brought whole colonies in the bee skeps that were commonly used for beekeeping in Europe at the time. Over the centuries, European bees have been imported to the US many separate times.



Rosmarinus officinalis 'Mozart'

by Elaine Applebaum, Placer County Master Gardener

One of the characteristics of Arboretum All-Star plants is having multiple functions in the garden. This issue's featured plant certainly meets that criterion. Not only is it a beautiful flowering landscape shrub, it also attracts beneficial insects and is useful as a culinary herb.

Rosmarinus officinalis 'Mozart', or Ed Carman's rosemary, is an evergreen shrub that requires little water. It grows in full sun or part shade to about 3 feet tall and 6 feet wide. This variety blooms from spring through summer with one of the darkest blue flowers of any rosemary; it often reblooms in the fall. The dark green, aromatic leaves are prized for cooking. If all that weren't enough, like all rosemarys, it is also deer resistant.

This variety is a selection by Ed Carman, a 2nd generation nurseryman with over 50 years in the industry. From the 1970's to his death in 2002 he operated Carman's Nursery on Mozart Ave. in Los Gatos. He was actively involved in many Horticultural Societies, the Peninsula Chapter of the California Nurserymen's Association, and the International Plant Propagators' Society, where he published a paper on the propagation of kiwi, a fruit he helped popularize. Regarded as a gifted propagator, especially of rare and unusual plants, Carman was named California Nurseryman of the Year in 1995.

References:

- UC Davis Arboretum website http://arboretum.ucdavis.edu/allstars_detail_78.aspx
- <http://www.pacifichorticulture.org/articles/ed-carman/>

USDA Observes Kick Off of International Year of Soils

USDA Press Release No. 0001.15

2015
International
Year of Soils



On January 6, 2015, the U.S. Department of Agriculture (USDA) began its celebration of the [International Year of](#)

[Soils](#) to highlight the importance of healthy soils for food security, ecosystem functions and resilient farms and ranches.

“Healthy soil is the foundation that ensures working farms and ranches become more productive, resilient to climate change and better prepared to meet the challenges of the 21st century,” Agriculture Secretary Tom Vilsack said during an event at USDA headquarters. “We join the world in celebrating this living and life-giving resource.”

With an increasing global population, a shrinking agricultural land base, climate change and extreme weather events, the nations of the world are focusing their collective attention to the primary resource essential to food production—the soil. The United Nation’s Food and Agriculture Organization (FAO), working within the framework of the [Global Soil Partnership](#), spearheaded the adoption of a resolution by the UN General Assembly designating 2015 as the International Year of Soils. The year of awareness aims to increase global understanding of the importance of soil for food security and essential ecosystem functions.

“Most people don’t realize that just beneath our feet lies a diverse, complex, life-giving ecosystem that sustains our entire existence,” said Jason Weller, chief of USDA’s Natural Resources Conservation Service (NRCS). “We are helping producers unlock the power of soil health as part of an important and very successful national campaign. Our campaign demonstrates our renewed commitment to soil conservation and soil health.”

NRCS is coordinating activities to mark USDA’s involvement in the International Year of Soils. Nearly 80 years ago, NRCS, formerly the Soil Conservation Service, was created to improve the health and sustainability of our nation’s soils. The agency’s original mission continues to this day – providing assistance to producers looking to improve the health of the soil on their land.

Conservation that works to improve soil health is one of the best tools NRCS has to help landowners face these impending challenges – and maintain and improve their productivity with the use of soil management systems that includes cover crops, conservation tillage and no-till and crop rotations. These systems reduce sediment loss from farms and ranches, buffer the effects of drought, flood and other severe weather; sequester carbon and create biodiversity in our rural landscape.

“International Year of Soils provides an opportunity for us to learn about the critical role soil conservation and improved soil health play in the economic and environmental sustainability of agriculture,” Weller said.

Working with the [Soil Science Society of America](#) (SSSA) and other partners, NRCS will be showcasing the importance of soil with monthly themes created by SSSA:

January: Soils Sustain Life

February: Soils Support Urban Life

March: Soils Support Agriculture

April: Soils Clean and Capture Water

May: Soils Support Buildings/Infrastructure

June: Soils Support Recreation

July: Soils Are Living

August: Soils Support Health

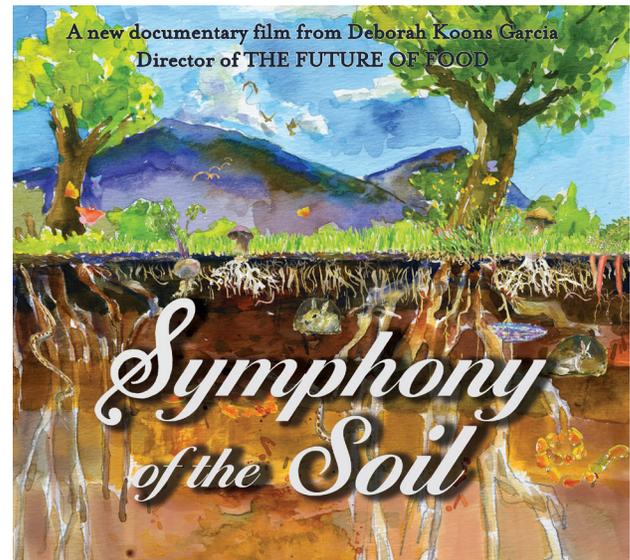
September: Soils Protect the Natural Environment

October: Soils and Products We Use

November: Soils and Climate

December: Soils, Culture and People

For more information, visit [NRCS’s soil health webpage](#) or the [International Year of Soils webpage](#).



Save the Date:

Wednesday, April 22, 7:00 pm

Placer County Master Gardeners
and California Native Plant Society
Redbud Chapter present:

**Symphony of the Soil
Film and Lecture**

Auburn Placer County Library
350 Nevada Street



Events Calendar

Nevada County Demo Garden

1036 W. Main St., Grass Valley (on NID Grounds)

Placer County Demo Garden

11477 E. Ave., Auburn (Senior Garden, DeWitt Center)

February

February 14

10:00 am-noon

Drought Proofing Your Garden and Property

Elks Lodge, lower level meeting room
109 S. School St., Grass Valley

February 21

10:00 am-Noon

The Joy of Vegetable Gardening, Especially for Beginners

Elks Lodge, lower level meeting room
109 S. School St., Grass Valley

February 28

10:00 am-Noon

Landscape Planning on Paper

Elks Lodge, lower level meeting room
109 S. School St., Grass Valley

* During inclement weather months, Nevada County workshops may be moved indoors to either the NID annex room, 1036 W. Main St. or the lower level meeting room at the Elks Club, 109 S. School Street, Grass Valley, as indicated in the listing. Seating may be limited due to fire marshal regulations.

▶ Nevada County events in green boxes

▶ Placer County events in yellow boxes

March

March 7

10:00 am-noon

Totally Tomatoes: From Seed to Seed

Elks Lodge, lower level meeting room
109 S. School St., Grass Valley

March 14

10:00 am-noon

Basics of Flower and Vegetable Seed Germination

Elks Lodge, lower level meeting room
109 S. School St., Grass Valley

March 14

8:30-10:30 am

Beginning Composting

Roseville Utility Exploration Center
1501 Pleasant Grove Blvd., Roseville

March 21

Seasonal Gardening Workshops:

Topics and times TBD
Placer County Demo Garden

March 21

10:00 am-noon

Strategies for Dealing with Poor Soil, Weeds & Other Realities in the Vegetable Garden

Elks Lodge, lower level meeting room
109 S. School St., Grass Valley

March 28

10:00 am-noon

Irrigation Logic

Nevada County Demo Garden
(In case of bad weather: NID annex*)

April

April 4

10:00 am-noon

Ready, Set, Grow Your Vegetable Garden

Elks Lodge, lower level meeting room
109 S. School St., Grass Valley

April 11

10:00 am-noon

Attracting Native Bees and Other Pollinators

Nevada County Demo Garden
(In case of bad weather: NID annex*)

April 11

10:00 am-4:00 pm

Visit Nevada County Master Gardeners at the Home & Garden Show
Nevada County Fairgrounds

April 11

8:30-10:30 am

Advanced Composting

Roseville Utility Exploration Center
1501 Pleasant Grove Blvd., Roseville

May

May 1, 2, 3

Visit Placer County Master Gardeners at the Auburn Home Show
Gold Country Fairgrounds

May 2

10:00 am-noon

Build a Raised Garden Bed

Nevada County Demo Garden
(In case of bad weather: NID annex*)

About Master Gardeners

Our mission as University of California Master Gardener volunteers is to extend research-based gardening and composting information to the public through various educational outreach methods. We strive to present accurate, impartial information to local gardeners so they have the knowledge to make informed gardening decisions in regard to plant choices, soil fertility, pest management, irrigation practices, and more.

The Master Gardener volunteer program was started in the early 70's at the University of Washington. Farm Advisors became overwhelmed by all the incoming calls from home gardeners and homesteaders so they trained volunteers to answer these questions and the "Master Gardener Program" was born. The first University of California Master Gardener programs began in 1980 in Sacramento and Riverside counties. The Nevada County and Placer County Master Gardener Associations began soon thereafter in 1983.

Over 30 Years of Serving Placer and Nevada Counties

Production Information

The Curious Gardener is published quarterly by the University of California Cooperative Extension Master Gardeners of Placer and Nevada Counties.

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Community Education Specialist: Home Horticulture and Composting Education, Master Gardener Coordinator

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Placer County Master Gardener

Have a Gardening Question?

Call our Hotline

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Nevada County Residents

530.273.0919

Master Composter Hotline

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