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GARDENING IN THE WINTER:
TRY BARE-ROOTS!!

Gay Wilhelm
Placer County
Master Gardener

About January or February, I'm staring out the window longing for a little gardening time. I'll put on my boots, coat and gloves but most of the garden is asleep after a fall cleanup.



Luckily, we live in a fairly moderate winter climate. Except for the higher elevations of Placer and Nevada Counties, gardeners can get a head start on spring with bare-root plantings. Winter months are an excellent time to visit nurseries for fruit and nut trees, berries and roses.

Selection of the bare-root plant is of the most importance. Trees do best with a trunk diameter of 1/2 to 5/8 inch. These trees will become established faster than smaller or larger sizes.

Roses are sold by grade, No.1, 1 1/2, and 2. One is the best quality decreasing down to 2. The prices usually correspond to the quality of the plant. Bare-root roses should have healthy, strong canes. Avoid dry or brittle canes. Look for bright green buds on the canes, but buds of an advanced stage will grow more slowly.

Roots should be symmetrically spaced around the trunk and light in color. Avoid plants with broken, kinked, knotted or diseased roots. Trees that have been grown in containers may have roots that have grown in a circle, called girdling. If so, try to spread out the roots otherwise

the circling will continue and affect the health of the plant.

Plant the bare root as soon as possible. Good air circulation and at least 6 hours of sunlight are ideal. Never plant in saturated, wet soil. Roses need a hole at least 18 inches deep and as wide. A tree requires a hole twice as wide as the roots and only as deep as the root ball unless the soil is severely compacted.

Some areas have hardpan, an impervious layer below the soil surface 1 1/2 - 2 ft. down. Drainage of the new tree maybe compromised if this layer is not penetrated. A pick axe or other heavy equipment may be used. If not, a fruit tree may be planted in a raised bed 1-2 ft. with the caution not to saturate the soil in the root zone.

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THE CURIOUS GARDENER

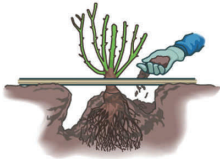
...A QUARTERLY NEWSLETTER PUBLISHED BY THE UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION AND THE UC MASTER GARDENERS OF PLACER AND NEVADA COUNTIES

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Trees do not require additional soil amendments or fertilizer.

When digging the hole, well decomposed compost may be incorporated to the native soil.

Roses too can be planted with 1/3 organic material mixed with native soil. Care should be taken not to plant any bare-root too deep, berries especially. The crown of the plant should be 1- 2 inches above the surrounding ground to prevent crown rot.



The soil at the bottom of the hole should be mounded to support the plant and the downward growth of the roots. Gently fill in the hole, packing down the soil preventing any air pockets. The soil should slope down from the trunk.

After settling occurs, the uppermost root should be just below the soil surface. Gently firm the soil in place. Create a basin for planting the new tree or rose making sure the water drains away from the trunk. The water basin needs to be wider than the planting hole, this allows water to be applied to the entire root zone and encourage roots to grow beyond. **Water** the plant thoroughly after planting.

After admiring your hard work, stand back and decide if your new addition needs **pruning**. The ideal rose cane will have 3-5 buds and be only 6 inches long. Remove any small or weak canes leaving 3-5 healthy canes. Cut ¼ inch above a bud facing away from the center at a 45 degree angle sloping away from where the bud points.

A fruit or nut tree may take a little more daring pruning than the roses. Most backyard gardeners want a small tree that they are able to pick the fruit without too much trouble.



If this is your goal, cutting back the tree to 18- 24 inches will force the tree to develop low branches. The tree can be cut at 36 inches if access under the tree is important.

Most small diameter trees have few if any lateral branches. Larger trees can have the lateral branches removed unless the branches are well spaced. These branches can be cut back to 3 inches with 2 or 3 buds. These stubs will later form the scaffolding of the tree.

Bare roots are very satisfying. Not only did you get a little gardening time in during the winter, but now you can sit back in your cozy home and watch the miracle about to unfold out the window.



References:

Fruit Trees: Planting and Care of Young Trees; UC ANR Publication #8048.

Available online at: <http://homeorchard.ucdavis.edu/8048.pdf>

Selecting and Planting Bare Root Roses, from UCCE Tulare-Kings County.

Backyard Orchard Resources:

- The Home Orchard: Growing Your Own Deciduous Fruit and Nut Trees, UC ANR Publication #3485. Available online to purchase here: <http://anrcatalog.ucdavis.edu/LawnGarden/3485.aspx>

- A Guide to Home Orcharding for the Sierra Nevada Foothills, UCCE Placer-Nevada Publication #31-701. Available for purchase at our Auburn office.

Growing Roses Resources:

- Healthy Roses: Environmentally Friendly Ways to Manage Pests and Disorders in Your Garden and Landscape, UC ANR Publication # 21589. Available online for purchase here: <http://anrcatalog.ucdavis.edu/ANRPub/21589.aspx>



WEED MANAGEMENT FOR HOME GARDENERS

Connie Suddath
Nevada County
Master Gardener

What a wonderful world this would be if all of our gardens were free of weeds, all the time. This is undoubtedly a fantasy; however, there are methods of reducing the pesky weeds in our gardens.

There are an abundance of non-toxic techniques that will reduce or eliminate most of the weeds in our gardens. Before we use drastic chemical measures, let's consider some.

First, we need to know a little about the nature and life cycle of weeds in order to successfully manage their proliferation. There are three basic classifications of weeds: annuals, perennials and biennials. Each needs to be dealt with in specific ways.

Annual weeds complete their life cycle from seed to seed in one year or less. They grow, set seed, and die out completely, so that only new plants that germinated from seed appear the following year.

Biennial weeds also reproduce by seeding however, unlike annuals, they rarely flower and set seed in their first year. Dandelions are an example of biennial weeds. Methods to manage these weeds will be similar to those used against broadleaf annual weeds.



Perennial Weeds

Perennial weeds produce an abundance of flowers and thousands of subsequent seeds. They *also* reproduce and spread by fleshy underground roots and

rhizomes. Bermuda grass, bindweed, blackberries and scotch broom are examples of perennial weeds.

It becomes obvious that, when we are able to prevent the seeds from germinating, we control the proliferation of weeds. The ultimate objective is to choose the most effective methods that are the least detrimental to people and the environment.

The recommended techniques from the University of California are cultural, mechanical (or physical), and chemical controls. Chemical control should be used as a last resort after attempting the previous techniques.

Cultural Techniques

These involve improving the crop's competitive advantage by assuring that the soil has the proper pH and fertility levels that will grow healthy plants. You might think about having your soil tested professionally to assure you have the correct balance.

Select the right plants for the right place. Furthermore, plant at the right time so that they will fill in quickly, robbing sunlight from immature weeds.

Other factors to consider are reduction of soil compaction and proper watering. For lawns, thatch control, proper mowing heights, and efficient watering are essential to decrease the weed's competitive edge.

Water deeply and less frequently to

avoid weeds such as crabgrass in the lawn. Consider a drip system for borders, and beds, so that the water is applied in specific designated areas only.

Soil Solarization is a method whereby you cover the soil with clear plastic weighted down at the edges. The plastic must be left in place 8 weeks during the warmest months of July and August. The heat produced under the plastic kills the weeds underneath, roots and all.

Mechanical or Physical Techniques

Never, never allow annual weeds to go to seed! According to the California Master Gardener Handbook, Mullein weeds produce as many as 223,200 seeds from a single plant in a year! Forty eight percent are viable after 38 years. I am not sure who took the time to calculate these figures!

Lambsquarters, a weed we are all too familiar with, produce 72,450 seeds in a single year from one plant and, after 38 years, 7 percent are still viable. If you neglect annual weeds for one year, you will be struggling to rid yourself of them for many years to come.

An excellent way to control weeds in new beds is to follow this course of action. After tilling and grading to the preferred level, water the entire area. When the annual seeds sprout, cultivate them with a hoe no deeper than an inch. Repeat this process 2 or 3 times or until there are no more sprouts.

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An “organic” way to control weeds is to use **organic mulch**, which refers to materials that are applied on the surface of the soil to suppress weeds. Organic mulches break down over time and can help increase organic matter in the soil. Mulch also holds the moisture in the soil.



Mulch should be 1 to 3 inches for finer materials and 3 to 6 inches for courser materials. It should never be piled up against the stem of the plant. Mulches can be bark, straw, leaves, dried grass clippings, saw dust, compost, etc. You can even use layers of newspaper or shredded newspaper.

All of these mulches block the sunlight, depriving the weed seed of photosynthesis needed to grow.

Inorganic mulches can be used also. Black plastic (also available in different colors) is best for weed control in home gardens and landscapes. Weed block fabrics can also be used and usually last more than a season. Inorganic mulches also affect the moisture levels and temperature. You may find organic mulches more attractive visually.

Chemical Control

When all else fails, after you have tried the methods discussed here, you may want to take more drastic measures and use chemical “herbicides”.

In order to select the most effective herbicide and method of applying, one needs to know if the weed is annual, biennial or perennial, and

the stage of growth. **Is it a seed, seedling, or an established plant?**

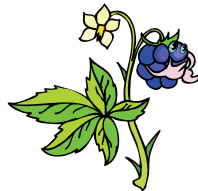
The most important thing to remember is that timing is fundamental to the success of any herbicide.

Pre-emergent herbicides affect only the seeds in the soil and only in the top inch or so of the soil. This product must be applied before the seeds begin to sprout. It must be in place before the sun warms the soil allowing germination. If you wait too long the seeds will have already taken root and “emerged”.

Pre-emergent herbicides work very well if applied correctly. Remember, read the label and follow the manufacturer’s directions.

Post-emergent herbicides are applied after the seed has germinated and a seedling has emerged.

These types of herbicides generally fall into two categories. Some are contact herbicides that only kill the green parts of the plant that are covered by the herbicide when sprayed. This results in the dieback of the observable plant but may not totally eliminate the weed, especially some of the tougher perennial weeds like blackberries and poison oak.



Other post-emergent herbicides can be applied to the green parts of the plant and move through the plant (translocate) to the roots and completely kill the plant.

It is important to do a little research on the weed you are trying to

eradicate to best determine what kind of control method to use. So, where can you go??

UC IPM

The University of California Integrated Pest Management (IPM) website is the place to go!

www.ipm.ucdavis.edu

At this website, you can not only research the weeds you are trying to control, but also the herbicides that you may want to use. It is truly a wealth of information with good pictures, research-based information and suggestions.

After considering all the variables it seem as though the best way for the home gardener to control weeds in the garden is the old fashioned hand pulling!

There is a certain satisfaction at the end of the day, looking at your garden and seeing it free from weeds.

References

California Master Gardener Handbook. 2009. Pittenger, R. Dennis, ed. UC ANR Pub #3382.

Weed Management for Organic Crops. 2000. R. Smith, W.T. Lanini, J. Mitchell, S. Koike, C. Fouche. UC ANR 7250. <http://ucanr.org/freepubs/docs/7250.pdf>

Weed Management in Landscapes. 2007. C.A.Wilen. UC ANR 7441. <http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7441.html>

BULLETIN BOARD

Sierra College Community Education

Classes for 2012 are now posted
www.sccommed.org

Wine Grape Pruning

Landscape Basics

Build a Greenhouse

Establishing a Small Vineyard

Organic Vegetable Gardening

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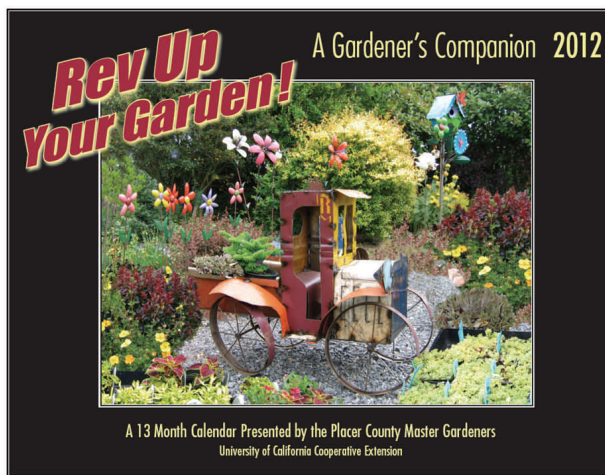
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PEACH LEAF CURL

Dr. Mary Lou Flint
Associate Director Statewide IPM
University of California

Winter slows down many garden pest problems, but it is also a key time for gardeners to take actions to prevent certain pest problems next spring.

One of the most important of these preventive practices is application of dormant treatments for **peach leaf curl**.

Caused by the fungus *Taphrina deformans*, peach leaf curl is a very serious disease, which affects only peach and nectarine trees. Its most distinctive symptom is distortion, thickening, and reddening of foliage as trees leaf out in the spring.

Damaged leaves often die and fall off trees but will be replaced with new, usually healthy leaves once the weather turns dry and warmer. A leaf curl infection that continues untreated over several years will contribute to a tree's decline and reduce fruit production.

To prevent peach leaf curl, peach and nectarine trees must be treated with preventive fungicides during the dormant season.

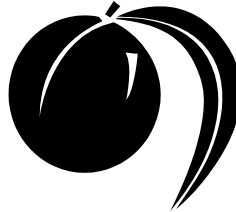
The best time is after leaves have fallen, usually in **December**. In wet climates or during a wet winter, a second application can be made in late winter or early spring just before buds swell.

If the December treatment wasn't made, it can be applied in January or February as buds begin to expand.

Although gardeners won't notice the symptoms until spring, there is little that they can do at that time to

reduce leaf curl. Treatment applied after trees leaf out or after symptoms appear won't be effective. Removing affected leaves or shoots will not reduce the problem.

There are a few peach varieties that are resistant or partially resistant to leaf curl. These are Frost, Indian Free, Muir, and Q-1-8. Your local nurseries may feature these varieties for customers who prefer not to apply the dormant spray.



Dormant Treatment Materials Recently Discontinued

Two important fungicides traditionally used to treat peach leaf curl were withdrawn from the market in the last year. **Lime sulfur** (calcium polysulfide) was cancelled for backyard uses by the U.S. EPA, effective Dec. 31, 2010.

Tribasic copper sulfate (sold as Microcop by Lilly Miller) has been discontinued by the manufacturer, although existing supplies can be sold and used.

As a result, the options for dormant treatments for preventing peach leaf curl in backyard trees are limited and less than ideal.

Copper ammonium complex is still available but is only 8% copper. It can be made more effective by applying it with 1% oil in the solution.

The fungicide chlorothalonil is effective, and several trade named products are available.

However, care must be taken in handling chlorothalonil, since it is listed as a likely carcinogen and can also cause severe eye or skin irritation if applied improperly or proper protective clothing and equipment isn't worn.

Bordeaux mixture, which gardeners can mix up themselves by following the directions in the UC IPM publication *Pest Note: Bordeaux Mixture* (<http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7481.html>), is also effective, but most gardeners will find the process of finding the ingredients and mixing up Bordeaux more work than they are willing to do to protect one or two backyard trees.

For gardeners wishing to take the extra time to make Bordeaux mixture, be sure to have goggles, gloves, and a dust and mist-filtering respirator when working with hydrated lime and mixing up the solution.

For more information about this disease and its management, see the UC IPM publication *Pest Note: Peach Leaf Curl*.

Master Gardener HOTLINE

Placer Co—530-889-7388

Nevada Co—530-273-0919



WINTER 2011-12 CALENDAR



JANUARY

Saturday, January 7th from 10am-11:30am at RUEC (1501 Pleasant Grove Blvd. Roseville):
Selecting and Planting Bare-root Fruit Trees

Saturday, January 14th from 10am-2pm at RUEC (1501 Pleasant Grove Blvd. Roseville):
Ask an Expert! Placer Master Gardeners will be there to answer your questions!

FEBRUARY

Saturday, February 4th from 10am-11:30am at RUEC (1501 Pleasant Grove Blvd. Roseville):
Composting Basics

Saturday, February 11th from 10am-2pm at RUEC (1501 Pleasant Grove Blvd. Roseville):
Ask an Expert! Placer Master Gardeners will be there to answer your questions!

Saturday, February 25th from 9am-11am at PC Master Gardener Garden (11477 E Ave. Auburn):
Composting and Vermiculture

MARCH

Saturday, March 3 from 10am-Noon at NC Master Gardener Garden (1036 W. Main, GV):
Spring Forward with Cool Season Vegetables

Saturday, March 3 from 9am-3pm at the Historic Blue Goose Fruit Shed in Loomis:
4th Annual "Gardeners' Gathering" - Registration required

Saturday, March 10 from 9am-11am at PC Master Gardener Garden (11477 E Ave. Auburn):
Composting and Vermiculture

Saturday, March 17 from 10am-Noon at NC Master Gardener Garden (1036 W. Main, GV):
Totally Tomatoes

Saturday, March 24 from 10am-Noon at NC Master Gardener Garden (1036 W. Main, GV):
Seeing the Dirty Picture: Working with Foothill Soils



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