



University of California Cooperative Extension  
**Valley Landscape Views**

Fresno, Tulare, and Kings Counties



## Issue # 1: Landscape Trees

January 2003

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### **INTRODUCTION and WELCOME**

*Pam Geisel and Michelle Le Strange*  
*UCCE Farm Advisors*

Welcome to the first issue of what we hope will be a long line of our new regional green industry newsletter. We call this newsletter "*Valley Landscape Views*" for a couple of reasons.

First, we want to share with you the importance and relevance of changing views regarding California Landscape philosophies. We see changes on the horizon relative to water use, green waste management, and pesticide use, just to name a few. Also we envision the potential for valley landscapes to provide more scenic views by choosing a broader palette of planting materials and applying creative design techniques, while using sound horticultural practices in landscape maintenance.

In this newsletter we want to share with you new and emerging information that comes from university research that pertains to landscaping in the desert-like region we call the San Joaquin Valley. We hope to provide you with educational facts and ideas that will enhance your landscape knowledge and practices.

As farm advisors for UCCE we both have assignments to work with the landscape and turf industry. To that end, we felt that we could serve you more effectively by combining our efforts. We will be incorporating more regional meetings in our program and conducting cooperative planning to facilitate more effective outreach to you, our clientele.

The first issue of our newsletter focuses on *landscape trees*. Each subsequent edition will have its own focus, ranging in landscape topics covering plant materials, pests, natural resources, lawns and sports turf, etc. We will both contribute to and edit this newsletter, plus we will be including articles from some of our colleagues. We hope that you will find it useful.

We welcome your input. If you have ideas or needs that you would like to see expressed in the newsletter, please let us know. If you have events or activities that you would like to share with your colleagues, also let us know. If you have diagnostic or landscape problems that you need some assistance with, it is still best to contact the Advisor from the county where you live. We are here to serve you and help you be on the cutting edge of the turf and landscape industry.

# New Nursery Standards for Producing Quality Trees

*Pam Geisel*

Problems with landscape trees often start in the nursery on the propagation bench. Problems with root structure, or development of circling or girdling roots often doom a tree to failure just a few years after planting. Other above ground structural defects, such as lack of a central leader, narrow branch angle of attachment, or poor trunk taper may cause a tree to grow poorly or even fail down the road costing the homeowner or landscape manager a great deal time and money to solve the problem.

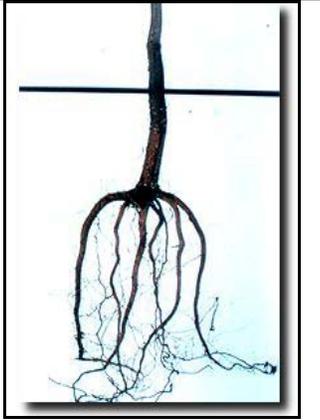
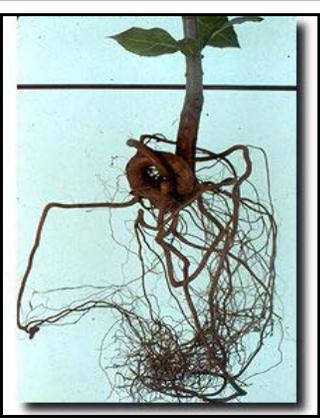
To avoid problems in both the above and below ground portions of a tree, a large committee composed of university, industry, government and community folks came together to develop a set of production standards that will ensure that a uniform set of guidelines are followed to produce the best quality trees. These standards characterize tree components like the crown size, development of a central leader, branch distribution radially around and vertically along the trunk, appropriate trunk strength, taper and caliper for the size tree, root structure and root distribution in the container

among other things. You might be surprised by the “different look” of these young trees, but once planted you’ll be delighted with their performance during establishment.

While it will take some time for the nursery industry to adopt and then produce trees using these standards, those of us in the landscape industry can increase the rate of adoption by requesting and using trees with the quality and characteristics of the new production standards. This will demonstrate to the nursery industry that there is indeed a market for this product.

To review the standards, you can go to the web at <http://www.kentdev.com/urbantree/newspecs.asp>. We encourage you to print out a copy for your files and to refer to it when ordering trees for your next landscape project.

(Photos used by permission from Urban Tree Foundation, Brian Kempf, [brian@urban-tree.org](mailto:brian@urban-tree.org).)

	<p>When selecting young trees, inspect the root system around the trunk and within the center of the rootball. The soil around the root crown has been washed away.</p> <p>The root crown and large roots are not circling or kinked. Defects result when roots are not pruned when the tree is shifted to the next container.</p> <p>This root system is reasonably good.</p>
	<p>The soil has been washed away from the root crown of this tree, exposing major root defects.</p> <p>The root crown and large roots are circling and kinked. Kinked and circling roots can restrict water, nutrient, and photosynthate movement and compromise stability.</p> <p>This tree should be rejected.</p>
	<p>The roots of this oak were pruned when the plant was transferred to the next container. The roots are healthy and well formed.</p> <p>Root problems can be avoided by cutting the main roots each time the seedling is shifted to the next container.</p> <p>Studies have shown that cutting roots within a week of normal transplanting time did not slow tree growth.</p> <p>This root system is acceptable.</p>
	<p>Root problems that are allowed to develop in the container lead to poor growth, decline, or trunk or root failure down the road.</p> <p>This oak is now unacceptable because its roots were not pruned during shifting.</p>

# Staking Tips for Young Trees

*Michelle Le Strange*

Staking trees is UNDESIRABLE, but sometimes necessary.  
Staking is used to *protect, anchor, or support* young trees.  
MOST young trees can stand on their own.  
Some need support to stand against the wind.  
Some need support to allow for root anchorage.  
MANY trees need protection from mowing equipment, weed whackers, vehicles, and vandalism.  
Staking trees is done at planting (not after), so have materials handy.

## Protective Staking

*Suggested for trees that can stand without support but need protection at their base.*

- Place 2 or 3 short stakes around the tree about 1 foot away from tree trunk. Stakes should be easily visible, so that people will not walk into them.

## Anchor Staking

*Needed when a trunk can hold the top upright, but the root ball is too small to support them both.*

- Set stakes for protective staking, then tie tree trunks to stakes. Place one loop or figure-eight tie between each stake and the tree trunk. Tie material should contact the trunk with a broad smooth surface and have some elasticity to minimize trunk abrasion and girdling.

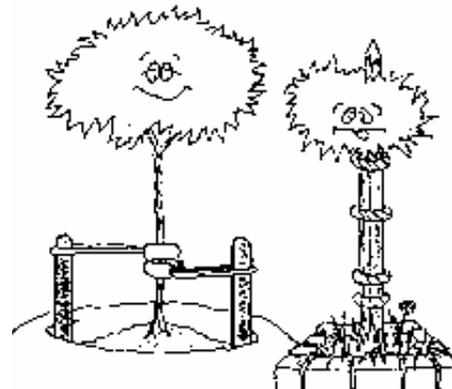
## Support Staking

*Required for trees unable to stand by themselves or unable to return to an upright position after wind. (Try pruning tree canopies to reduce wind resistance and weight prior to staking).*

- Use at least two support stakes with one flexible tie near the top of each. Some innovative single staking systems are also available and suitable for use.
- Stakes should be no taller than needed to hold the tree upright. Do not allow any branches to touch the stakes.
- Find the correct height to place the ties. Starting low on the trunk, grasp it with one hand and bend the top over with the other hand. Find the height where the top returns to an upright position when released.
- Tie the trunk to each stake at the same height. Be sure tie holds the trunk, yet allows it to flex and the top to move without rubbing against a stake. The trunk should be able to bend in the opposite direction from the top during a wind. Tie material should contact the trunk with a broad smooth surface and have some elasticity to minimize trunk abrasion and girdling.

The sooner a tree can stand alone, the sooner it will become strong.

REMOVE *support* and *anchor* stakes soon after the tree can stand on its own (usually by the end of the first growing season).



# Five Steps for Training Young Trees

By L.R. Costello, UCCE Horticulture Advisor, San Mateo County

This article outlines five simple steps that produce well-trained trees. What's your investment? It's minimal - a relatively small amount of time and some basic equipment like hand pruners, loppers, a pole pruner, handsaw, and ladder. The payoff is easy care trees. The steps apply to most deciduous and broad-leaved evergreen trees, regardless of species or use (for example, park, street, or residential) and should be followed in sequence.

**Step One:** *Remove broken, diseased, dying, or dead branches behind the point of injury.* Sometimes the whole branch should be removed; sometimes just the injured part should be cut off.

**Step Two:** *Select a leader and remove competing leaders.* The leader is the central stem of the tree. Carefully follow the trunk of the tree from bottom to top. The trunk should narrow into a single stem that is in a vertical position. This is the leader. There should be only one leader. If more than one leader exists, then the strongest and most vertical stem should be selected as the central leader and the other stems removed, cut back, or possibly selected as permanent branches (see step four).

**Step Three:** *Select the lowest permanent branch attached to the trunk that will remain on the tree throughout its lifetime.* The location and use of the tree usually determine the position or height of the lowest permanent branch.

For a street tree, the lowest permanent branch over the sidewalk might be 8 feet, while over the street at least 14 feet of clearance may be required. The lowest permanent branch for a tree in a park or yard often will be lower than that for a street tree, but the amount of clearance depends on specific use and maintenance considerations.

Look for a vigorous branch with a strong attachment that meets the height requirement. Its stem diameter should be one-half (or less) of the trunk diameter where the branch attaches to the trunk. If the tree is too small for you to select a branch at the desired height, then you'll have to wait until the tree grows taller. Save some temporary branches (see step 5).

**Step Four:** *Select scaffold branches and cut back or remove competing branches.* Scaffold branches are the permanent branches of the tree and

constitute much of its framework. Scaffolds are located above the lowest permanent branch and are selected based on spacing and size considerations.

Vertical spacing between scaffolds depends on the expected size of the tree at maturity. Scaffold branch spacing should be 18 inches or more for large trees and 12 inches or more for small to medium size trees.

Scaffold branches also should be spaced radially around the trunk. Select scaffold branches starting with the lowest permanent branch and proceed up and around the trunk. If scaffold selection is difficult because of the selection of the lowest permanent branch, then it might be better to determine which vertical and radial branches will provide the best overall scaffold system.

In some cases, it is necessary to go back to step three and select another lowest permanent branch based on the best combination of scaffolds. Selected scaffolds should have strong attachments. Branch diameter should be no more than one-half of the diameter of the trunk at the point of attachment. Remove branches that are close to the scaffolds (within 4 inches) and are of equivalent size.

If competing branches are needed to maintain canopy size, reduce their length by 50% or more to subordinate and reduce growth. Leave small-diameter branches as temporaries. Be prepared to reevaluate scaffold selection as the tree develops.

**Step Five:** *Select temporary branches below the lowest permanent branch.* Some or all branches located below the lowest permanent branch can be retained as temporary branches. Remove branches with a diameter greater than one-third of the diameter of the trunk at the point of attachment. Shorten the length of temporary branches to 2-4 buds.

**What About Next Year?** *You probably won't be able to develop the tree's permanent framework (central leader and scaffold branches) in the first year. In fact, you may not even be able to select the lowest permanent branch or scaffolds. Pruning in subsequent years is necessary in almost all cases. Plan to go through all steps each year until good structure and form are achieved.*

# Fertilizing Landscape Trees

*Pam Geisel*

Nutrient deficiencies, particularly nitrogen, phosphorous and potassium are uncommon in landscape plants. *While some plants may show some deficiency symptoms, when lab analysis is performed on leaf tissue, those nutrients are usually in the acceptable range.* Typically what happens is the deficiency of these particular nutrients occurs because of some other root or soil problem, such as root disease, insects, root pruning, soil compaction or low oxygen.

With other nutrients such as iron, manganese or zinc, leaf tissue analysis is an effective tool to determine if a true deficiency exists.

A soil analysis may help determine the elements available in the soil, but it has limited value because it rarely correlates to the nutrient status of the plant. Soil analysis is best performed to determine other soil characteristics such as pH, total salts, organic matter content and what the levels are of the more toxic nutrients such as boron, sodium or chlorides.

*Believe it or not, the general recommendation for fertilizing landscape trees and shrubs with nitrogen, phosphorous or potassium is “DON’T!”* Research by UC Farm Advisors, Hickman and Perry, et al, found no statistically positive response to fertilizing trees with nitrogen, even during early growth years!

When a deficiency is suspected, a leaf tissue analysis is recommended before applying any fertilizer treatment. In this way we avoid applying excess nitrogen to the soil and creating a problem with nitrates leaching into the water table.

For more information you can download a free UC publication. Go to: <http://anrcatalog.ucdavis.edu>, search “Free publications” for #8045, Fertilizing Landscape Trees. It contains a table showing the established range of values for leaf nitrogen in 25 landscape trees. To develop the table, leaf samples for each species were taken from 20 mature, healthy trees in the landscape and analyzed for total nitrogen.

## Training Young Trees for Structure and Form A Teaching Video Available from UC ANR

*A video is now available from UC’s Agriculture and Natural Resources publication catalog, titled “Training Young Trees for Structure and Form (#V99A). Developed by UC Cooperative Extension Horticulture Advisor, Larry Costello, for professionals in the tree care industry, this training video is a valuable learning tool. The 38-minute video is available from the UCCE Offices in Fresno and Tulare counties and is well worth the \$50.00 price (#V99A). The following synopsis and review of the video appeared in a recent issue of Western Arborist magazine.*

### **SYNOPSIS**

This instructional videotape was developed to teach the basics of pruning young trees. It documents a 5-step process for training young trees. The video, shot over a 4-year period, shows the annual pruning response of young Raywood ash (*Fraxinus oxycarpa*) ‘Raywood’, Norway maple (*Acer platanoides*), southern live oak (*Quercus virginiana*), and sweetgum (*Liquidamber styraciflua*). In addition, trees that were either not pruned or pruned incorrectly are shown.

To illustrate how to prune trees for clearance the video takes you to trees along streets, in parking lots, and parks and yards. The video covers all the pertinent questions related to pruning young trees. It emphasizes three primary reasons to train young trees: improve structural strength, reduce maintenance costs, and increase tree longevity. It provides guidelines on how much to prune and when to prune. Pruning conifers requires some modifications to the 5-step process and these are presented. A 4-page supplement summarizes key points, contains a glossary and references, and lists 30 review questions.

*-By Greg McPherson, Western Center for Urban Forest Research and Education*

# 5 Things You Should Know About Caring for Trees



## 1

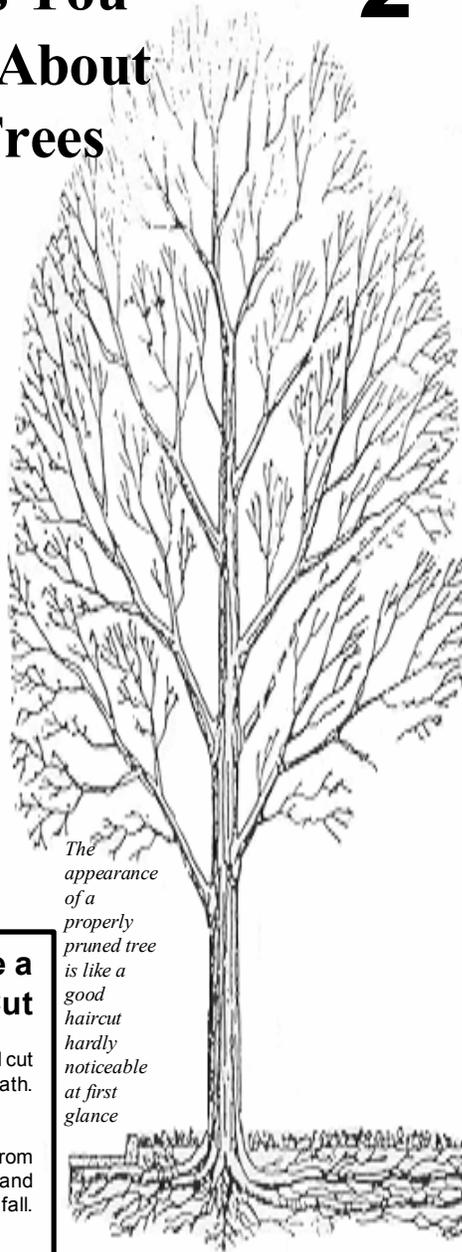
### Don't Top Trees!

Never cut main branches back to stubs. Ugly, weakly attached limbs often grow back higher than the original branches. Many arborists say that topping is the worst thing you can do for the health of a tree.

## 2

### Use the 1/3 Rules for Pruning

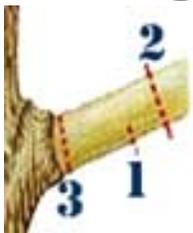
- Never remove more than 1/3 of a tree's crown.
- Where possible, try to encourage side branches that form angles that are 1/3 off vertical (10:00 or 2:00 positions)
- For most species, the tree should have a single trunk.
- Ideally, main side branches should be at least 1/3 smaller than the diameter of the trunk
- If removal of main branches is necessary, cut them back to the trunk to avoid leaving stubs.
- For most deciduous (broadleaf) trees, don't prune up from the bottom any more than 1/3 of the tree's total height.



*The appearance of a properly pruned tree is like a good haircut hardly noticeable at first glance*

## 3

### How to Make a Pruning Cut



1. Make a partial cut from beneath.
2. Make a second cut from above several inches out and allow the limb to fall.
3. Complete the job with a final cut just outside the branch collar.

## 4

### The Value of Mulch

A tree's best friend is mulch. It insulates soil, retains moisture, keeps out weeds, prevents soil compaction, reduces lawnmower damage, and adds an aesthetic touch to a yard or street.

Create an area around the tree trunk from 3 to 10 feet in diameter, depending on tree size. Remove any grass within the mulch area as it slows down the growth of the tree. Pour wood chips or bark pieces 2 to 4 inches deep within the circle, but not touching the trunk.

Because roots need oxygen they don't normally grow in compacted soil, especially under paved streets.

The framework of major roots usually lies less than 8 to 12 inches below the surface.

Roots often grow outward to a diameter one to two times the height of the tree.

We don't always appreciate how far roots can extend. Understanding how and where roots grow will help you avoid damage from trenching and construction.

## 5

### Plant Trees Where Roots Can Grow

## PEST WATCH on Landscape Trees

*The more you know about a pest and its host plant, the easier it is to practice IPM*

### DISEASE: Fire blight

*Michelle Le Strange (taken from UC Pest Note Publication 7414)*

Fire blight is a common bacterial disease in ornamental pear, quince, and crabapple trees. It also affects shrubs like pyracantha, spirea, cotoneaster, hawthorn, and even photinia. The bacterium (*Erwinia amylovora*) attacks blossoms and is spread by splashing rain or insects, especially honeybees. Infected flowers, stems, and branch tips wilt and turn black, giving a scorched appearance. Infections may extend into branches, trunks, or roots and kill susceptible trees, if not removed.

The disease is influenced by weather. When 75° to 85°F temperatures are accompanied by intermittent rain and hail, conditions are ideal for disease development. Wet spring weather is often perfect for disease spread in the valley and that is the time of year when pear trees are in bloom. Chemical sprays of a Bordeaux mixture or other copper fungicide applied several times may prevent new infections, but will not eliminate wood infections; these must be pruned out.

Eliminate fire blight infections by pruning out diseased branches. Always cut at least 8 to 12 inches below the visible injury or canker. The appearance of new infections below a pruning cut

indicates that the cuts were not made far enough below the infection.

If fire blight infection occurs on a trunk or major limb, the wood can often be saved by scraping off the bark down to the cambium layer in infected areas



(i.e., removing both the outer and inner bark - see figure). When scraping, look for long narrow infections called stringers, which may extend far

beyond the margin of the canker or infection site. Remove all discolored tissue plus 6-8 inches more. If the limb has been girdled with the disease, then scraping will not work and the whole limb must be removed.

To avoid spreading bacteria during pruning, dip or spray the pruning tool before each cut with a 10% solution of bleach or bacterial disinfectant. Dry and oil tools after use to prevent rust.

### INSECT: Using Imidacloprid (Merit) to Control Insect Pests in Trees

*Pam Geisel and Michelle Le Strange*

Imidacloprid (Merit, Imicide, and Bayer Advanced Garden Tree & Shrub Insect Control) is being recommended for a number of landscape pests affecting trees. When used properly, this material is very effective in controlling many insects, however there are some that show only marginal or zero control even when applied correctly. Woodborers fall into the latter category and imidacloprid is not recommended for their control.

Drs. Dan Herms and Dave Nielsen of Penn State University have been evaluating imidacloprid on a variety of pests. Following is a synopsis of their experience with scale insects. Other insect pest work has been conducted in California by several university researchers.

**Scale Control:** *At present, only soft scales, not armored scales appear to be controlled with imidacloprid applications.* This would include lecanium, calico, magnolia and cottony cushion scales.

While there is evidence that imidacloprid may provide some control of adult scales, the best targets are settled crawlers and second instars.

Therefore, applications on spring egg laying scales (everything except tuliptree scales) should be most effective, if applied 30 to 60 days prior to egg hatch. *In the valley egg hatch usually occurs in March-April, so January-February are target application times.*

**Oak Pit Scale:** Natural enemies of the pit scale are uncommon in California, although parasite exit holes may sometimes be observed. Insecticide application is the only tool currently available for managing these pests. Because heavy infestations over several years can kill young trees and weaken older ones, consider management actions as soon as problems are detected. *Soil injections of the insecticide imidacloprid will give the best control with least environmental impact.*

**Eucalyptus Long-Horned Borer:** Early work from California and other regions where beetles have become established demonstrates that insecticides are not suitable for management of eucalyptus long-horned borers. *Contact and systemic insecticides are ineffective, costly, or environmentally inappropriate because of the potential for drift, effects on beneficial or non-target insects, and risk of exposure to human populations in urban environments.*

**Eucalyptus Red Gum Lerp Psyllid:** According to UC Entomologist, Don Dahlsten, the natural enemy introduced into CA to control this pest is now established in 10 counties. Progress is slow however, and valley counties are not as successful as coastal ones in establishing the tiny parasitic wasps. *Soil injections/drench applications of imidacloprid in January-February are effective in managing the psyllid in spring and summer.* Apply now so that tree roots can absorb and translocate it throughout the tree canopy. This process takes several months, but is expedited by the natural tendency of this evergreen tree to push a flush of growth in spring. Applications may be too costly for all trees.

**Whiteflies:** Insecticides have only a limited effect on whiteflies. Most kill only those whiteflies that come in direct contact with them. For particularly troublesome situations, try insecticidal soap or neem or narrow-range oil. Because these products only kill whitefly nymphs that are directly sprayed, plants must be thoroughly covered with the spray solution. Be sure to cover undersides of all infested leaves; usually these are the lowest leaves and the most difficult to reach. *Avoid using other pesticides to control whiteflies, including imidacloprid; not only do most of them kill natural enemies, whiteflies quickly build up resistance to them, and most are not very effective in garden situations.*

**Lacebugs:** Landscape managers can apply azadirachtin (Safer, BioNeem), insecticidal soap (Safer), narrow-range oil (Green Light, Volck), or neem oil (Green Light Rose Defense) to temporarily lower lace bug abundance. Additionally, abamectin (Avid) and imidacloprid (Merit) are available. These IPM-compatible insecticides have very low toxicity to humans and a less adverse impact on natural enemies than more persistent, broad-spectrum insecticides.

If lace bugs have previously been a problem, thoroughly spray leaf undersides when lace bug nymphs are first observed on foliage in spring. Because these insecticides leave little or no persistent residue on foliage and lace bug eggs are protected within plant tissue, application may need to be repeated several times at intervals of about 2 weeks to maintain good control. *Imidacloprid can be drenched or injected into the soil beneath the plant and may provide season-long control, but must be applied early in the season before populations dramatically increase.*

**New Hackberry Aphid:** Last August the Asian Woolly Hackberry Aphid was discovered in California for the first time. The noticeable white, fuzzy aphid secretes copious amounts of honeydew as thick as maple syrup. While the honeydew is a great nuisance, control is probably not needed to protect the long-term health or survival of otherwise healthy hackberry trees.

In response to complaints from citizens, the Cities of Modesto and San Mateo sprayed trees with insecticidal soap and narrow range oil in efforts to wash the leaves and remove honeydew more than to control the aphids. Even though these low-toxicity materials are not as effective as harsher insecticides, they are safer in the environment. Spray drift to humans poses a bigger hazard than aphid damage.

**Avoid injecting or implanting into hackberry trees.** Hundreds of Chinese hackberry trees in Davis, CA have been killed by an unknown malady. The suspected cause is a vascular wilt pathogen and some are convinced that it is mechanically spread by unsterile tools that contact internal parts of multiple hackberry trees. *A soil application of imidacloprid in February-March is a wiser choice, if treating for this aphid.*

*\*\*Recommendations from IPM Pest Notes, available on the web at [www.ipm.ucdavis.edu](http://www.ipm.ucdavis.edu)*

## Weed: Mistletoe

*Michelle Le Strange (adapted from UC Pest Note Publication #7437)*

Broadleaf mistletoe is an evergreen parasitic plant that grows on a number of landscape trees including alder, 'Aristocrat' flowering pear, ash, birch, box elder, cottonwood, locust, silver maple, and zelkova. Conifers are rarely attacked by broadleaf mistletoes, however they are more susceptible to dwarf mistletoe infestations at mountain elevations.

Mistletoe plants are either female (produce berries) or male (produce only pollen). The berries are small, sticky, and whitish. Birds feed on and digest the pulp of the berries, excreting the seeds that stick tightly to any branch on which they land. Birds play a major role in the development and spread of mistletoe infestations. The rapidity with which mistletoe spreads is directly related to the proximity and severity of established infestations. Newly planted trees can become quickly infested, if they are growing near old, heavily infested trees.

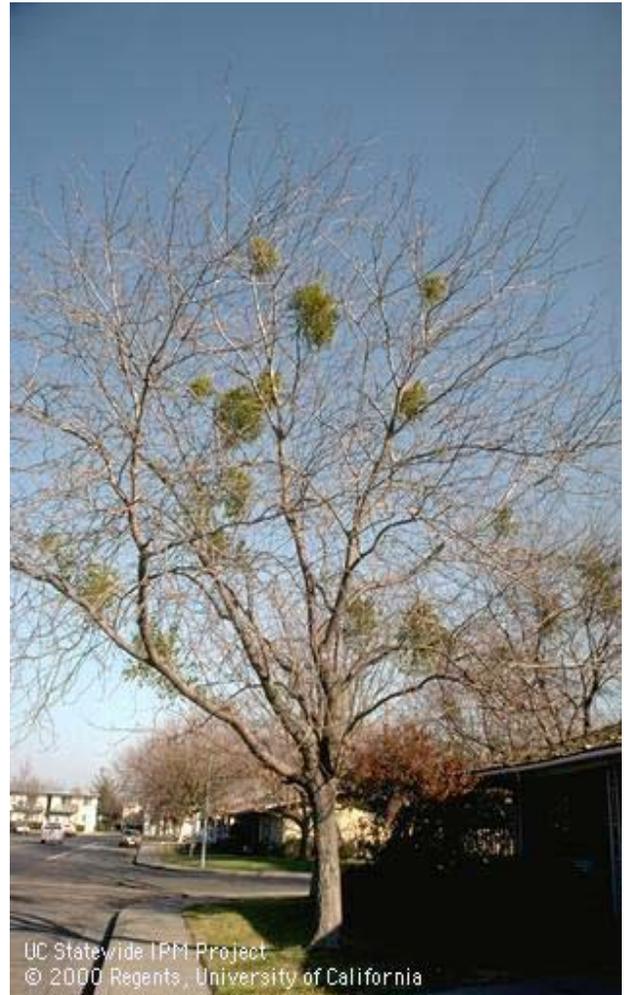
After the mistletoe seed germinates it grows throughout the bark and into the tree's water-conducting tissues absorbing both water and mineral nutrients from its host. It may take years before the mistletoe blooms and produces seed. Healthy trees can tolerate a few mistletoe branch infections, but the infestation usually increases.

The most effective way to control mistletoe and prevent its spread is to prune out infected branches as soon as possible. Use thinning-type pruning cuts to remove infected branches at their point of origin or back to large lateral branches. Cut infected branches at least 12-inches below the point of mistletoe attachment in order to completely remove it.

Simply cutting the mistletoe out of the tree (i.e. cutting flush with the bark) will not remove the parasite. Since it is imbedded in the wood, it will grow back. However cutting the mistletoe out of an infested tree each winter is better than doing nothing at all.

Dormant trees can be sprayed with ethephon (Monterey Florel brand) as directed by the label. To be effective, the mistletoe must also be dormant and the spray must thoroughly wet the mistletoe foliage. Mistletoe comes out of dormancy before most trees, so the ideal time to treat is from

November 1 through the end of January. By treating when trees are dormant, the tree foliage will not get in the way of the treatment and the mistletoe clumps are more visible.



The most drastic and possibly the best control measure is to remove severely infested trees and replace them with less susceptible species. Some tree species appear resistant to broadleaf mistletoe. Consider Chinese pistache, crape myrtle, ginkgo, golden rain tree, liquidambar, or sycamore trees when replacing infested trees.

Property owners can substantially reduce mistletoe infestations in their own trees, but without community cooperation, infestations will recur. For this reason, the planting of tree species not susceptible to mistletoe infestation makes sense and should be a part of every city and park plan

# SOURCES OF INFORMATION – Landscape Trees

## PUBLICATIONS FROM UC

Many items are available at no cost from local UCCE offices or can be downloaded from the world wide web at <http://anrcatalog.ucdavis.edu>

**Pests of Landscape Trees and Shrubs, #3359, \$35.00**

*Planting Landscape Trees, #8046, Free*

**Fertilizing Landscape Trees, #8045, Free**

*Recognizing Tree Hazards – A photographic guide #21584, \$4.00*

**Treating Wounds in Landscape Trees, #21570, \$1.50**

*Oaks on Home Grounds, #2783, \$1.50*

**Trees for Saving Energy – A guide for homeowners #21485, \$1.50**

*Trees Under Power Lines – A guide for homeowners #21470, \$1.75*

**Protecting Trees When Building on Forested Land, #21348, \$10.00**

*CA Master Gardener Handbook –The new bible for California gardeners, #3382, \$30.00*

## INDUSTRY ORGANIZATIONS

**Western Center for Urban Forest Research**

<http://wcufr.ucdavis.edu>

**Western Chapter-Int'l Society of Arboriculture**

<http://www.wcisa.net>

**International Society of Arboriculture**

<http://www.champaign.isa-arbor.com>

**CA Urban Forests Council**

<http://www.caufc.org>

**American Society of Consulting Arborists**

<http://www.asca-consultants.org>

**Urban Tree Foundation**

<http://www.urbantree.org>

**CA Association of Nurserymen**

<http://www.can-online.org>

**Pesticide Applicators Professional Assoc. (PAPA)**

<http://www.papaseminars.com>

## UC Cooperative Extension Offices

**Fresno:** <http://cefresno.ucdavis.edu>

**Tulare:** <http://cetulare.ucdavis.edu>

**Kings:** <http://cekings.ucdavis.edu>

## UC Web Pages

**UC Ornamental Horticulture Information Center (UC OHRIC)** [www.ohric.ucdavis.edu](http://www.ohric.ucdavis.edu)

**UC IPM Integrated Pest Management Information**  
[www.ipm.ucdavis.edu](http://www.ipm.ucdavis.edu)

## WEATHER & IRRIGATION

CIMIS - CA Irrigation Management & Info System  
CA Dept Water Resources - [www.cimis.water.ca.gov](http://www.cimis.water.ca.gov)

UC IPM - Weather, day degree modeling and CIMIS  
[www.ipm.ucdavis.edu/WEATHER/weather1.html](http://www.ipm.ucdavis.edu/WEATHER/weather1.html)

## GOVERNMENT

CDFA – CA Dept. of Food and Agriculture  
[www.cdfa.ca.gov](http://www.cdfa.ca.gov)

CDPR - Dept of Pesticide Regulation – pesti license info  
[www.cdpr.ca.gov](http://www.cdpr.ca.gov) (916) 445-4300

## GLOSSARY OF TERMS

**Central leader** - Dominant, upright stem that forms the main trunk.

**Codominant stems** – Stems or trunks of approximately equal size, growing at about the same rate, and attached to one another. Typically the attachment is structurally weak.

**Crown** – Foliated portion of a tree from the lowest branch to the tree top; synonymous with canopy.

**Decurrent** – Round-headed tree form; scaffold branches codominant with central leader at maturity.

**Excurrent** – Conical tree form; strong central leader is present to the top of tree when mature.  
Leader development is dominant over scaffold branch development.

**Lateral** – Secondary branch arising from scaffold limbs.

**Lowest permanent branch** – Lowest scaffold branch on tree. Its height is determined by tree use and location.

**Scaffold** – A branch that is part of the main structure of the crown; Scaffolds arise from the central leader or main trunk.

**Sucker** – A vigorous, upright, shoot that arises from latent buds below the graft union or soil level.

**Temporary Branch** – A branch that remains on the tree for a limited time. It is not part of the main structure of the crown. Temporaries can occur on the central leader, trunk or scaffold branches.

**Watersprout** – A vigorous, upright shoot that arises from latent or adventitious buds above the growth or graft union on older wood.



# Landscape Tree Pruning Meeting Tuesday – February 4, 2003



**AGRICULTURAL BUILDING Auditorium**  
**4437 South Laspina Street in Tulare**  
**Hwy 99, Paige Ave. Exit east, South on Laspina St.**  
*(next door to Edison Ag Tac and across street from International Agri-Center)*

*FREE – No Attendance Fee*

## **PROGRAM**

Moderator: *Michelle Le Strange, UCCE Farm Advisor, Tulare & Kings Counties*

8:00 Check-In Registration - Coffee & Donuts

8:30 **Welcome, Introduction, and Why a Tree Pruning Meeting?** – *Michelle Le Strange*

8:45 Selecting & Planting Trees from the Nursery – New Industry Standards  
*Pam Geisel, Environmental Horticulture Advisor, Fresno County*

9:15 Pruning Young Trees – *Brian Kempf, Urban Tree Foundation*

10:00 **Short Refreshment Break**

10:15 Pruning Mature Trees – *Bob Grunwald, Certified Arborist and Landscape Contractor*

11:00 Tree Pruning Safety Tips – *Scott Seargeant, Seargeant Landscape & Arboriculture*

11:30 Outdoors - *Young Tree Pruning Demonstration*

12:00 **Adjourn** **WC ISA Continuing Education Units requested**

**R.S.V.P. by January 31<sup>st</sup>**

**UC Cooperative Extension Tulare County**

**Phone: (559) 685-3303**

**FAX: (559) 685-3319**

There is NO cost associated with this meeting. It is FREE and open to anyone who is interested in attending. It has been designed for professionals in landscape maintenance, including city, county, park, and school workers. City managers, department heads, and Master Gardeners are welcome. To make sure that there are enough DONUTS and COFFEE, please call or FAX us a list of who will be attending from your organization or business. **Certificates of attendance will be issued.**

Business/Agency/Organization \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ Zip \_\_\_\_\_

Names: \_\_\_\_\_

\_\_\_\_\_

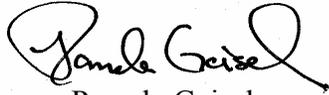
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January 2003

**Valley Landscape Views**  
*A regional newsletter for the Green Industry*

**Issue #1: Landscape Trees**

**Free Seminar - Pruning Landscape Trees - February 4, 2003 – Tulare**  
**Details inside**



Pamela Geisel  
Farm Advisor  
Fresno County



Michelle Le Strange  
Farm Advisor  
Tulare & Kings Counties

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U.S. Department of Agriculture, University of California, Fresno, Tulare and Kings Counties Cooperating

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