



## Tips and Tools for Landscape Pros

**P**est issues are much easier to deal with when you know what they are and have the right tools to address them. UC Statewide IPM Program has several free, online tools to help you diagnose plant problems, determine if an animal pest is present, or get a monthly checklist of landscape tasks. These easy to access online tools will allow you to reach your IPM goals in the landscapes you manage.

### Identifying animal pests

Animals can be pests in gardens and landscapes but often, you won't see them. Instead, you might see damage to plants or the ground, animal tracks, or droppings. UC IPM has a new tool that can help you figure out what animal pest you have. The Wildlife Pest Identification Tool is a photo-based gallery of animal damage, tracks, and droppings. Once you've determined what animal is causing your problem, you'll be directed to information about biology and management for that specific pest.

Access this tool at [ipm.ucanr.edu/wildlife-pest-identification/](http://ipm.ucanr.edu/wildlife-pest-identification/).

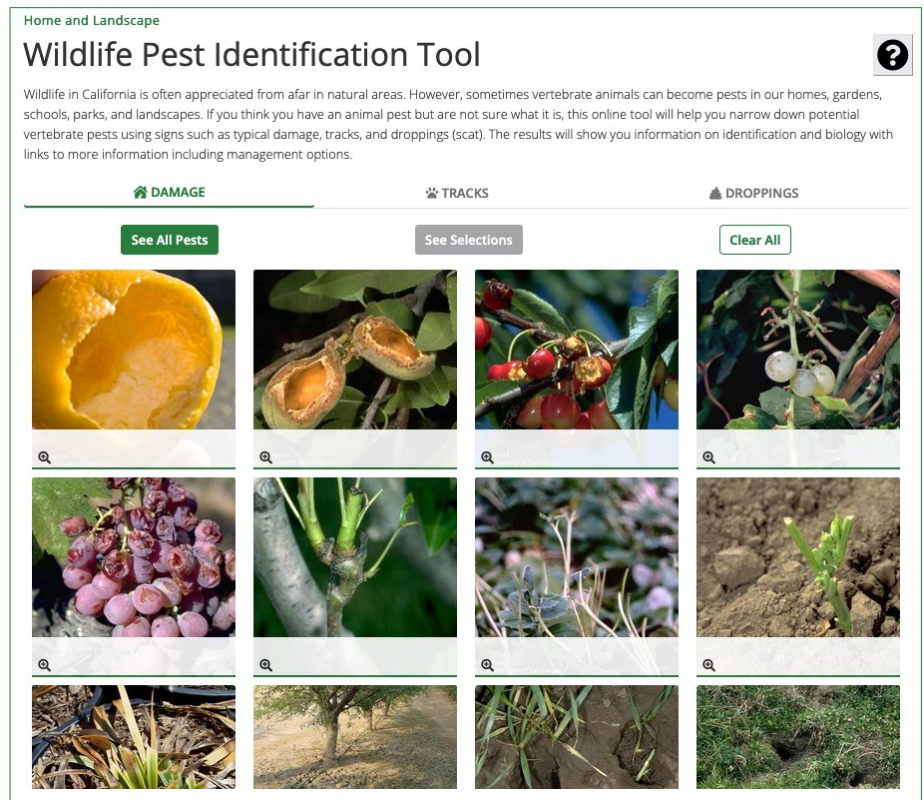


Figure 1. The Wildlife Pest Identification Tool.

### Diagnosing plant problems

Plant problems caused by insects, mites, environmental conditions, and diseases can be hard to tell apart. Use UC IPM's Plant Problem Diagnostic Tool when you have unhealthy-looking plants in the landscapes you're caring for. This tool allows you to find out what is the cause of damage to specific trees, shrubs, and other flowering ornamentals. Simply choose

the plant type, species, affected plant part, and observed damage to get a list of potential causes. You'll see information about the pest or disease with photographs and links to more information.

To use this tool, go to

[ipm.ucanr.edu/diagnostics/](http://ipm.ucanr.edu/diagnostics/).

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## The Seasonal Landscape IPM Checklist

It can be overwhelming to schedule all the varied tasks that need to be done to manage pests in the landscape throughout the year. The Seasonal Landscape IPM checklist is a monthly guide that can help landscape professionals, gardeners, and others use integrated pest management (IPM) solutions at the right time of year. This tool can help you manage or even avoid common landscape plant problems. The checklist includes tasks like monitoring for specific pests, implementing disease and insect control for fruit trees or applying mulch.

The tool is specific to certain regions or counties in California as well as elevation. You'll see a monthly list of actions to keep landscapes healthy, common pest problems to look out for, and links to more information. Subscribe to this free resource to receive an automated email for that month's checklist in your region. Don't see your region listed? We are working hard to add more regions to the checklist that cover more areas in California. You can print out the month's checklist to share with your client as a record of planned or completed tasks.

Find this tool at [ipm.ucanr.edu/landscapechecklist/](http://ipm.ucanr.edu/landscapechecklist/).

## Seasonal IPM Checklist

The list below reflects possible landscape activities to do during the selected month(s) in your region. You can use the checklist as a guide for IPM activities in your own landscape or provide it to your clients.

February	
<input type="checkbox"/>	Abiotic Disorders - Prevent or manage damage, such as that caused by aeration deficit, frost, hail, herbicides, wind, and too much or little water.
<input type="checkbox"/>	<a href="#">Ants</a> - Manage around landscape and building foundations, such as using insecticide baits and trunk barriers.
<input type="checkbox"/>	<a href="#">Asian citrus psyllid</a> - Look for it and if found where not known to occur report it and other new or <a href="#">exotic pests</a> to your local county agricultural commissioner.
<input type="checkbox"/>	<a href="#">Carpenter bees</a> - Paint or varnish and seal wood in which they nest. If intolerable, treat tunnels during fall or early spring.
<input type="checkbox"/>	<a href="#">Compost</a> - Turn and keep it moist. Cover during rainy weather if needed to avoid sogginess.
<input type="checkbox"/>	Continue <a href="#">rainy-season prevention of diseases</a> , <a href="#">earwigs</a> , <a href="#">snails and slugs</a> , and <a href="#">weeds</a> .
<input type="checkbox"/>	Deter borers in fruit and nut trees e.g., <a href="#">paint trunk and scaffolds with white</a> interior latex paint diluted with an equal amount of water.
<input type="checkbox"/>	<a href="#">Fire blight</a> - Look for oozing and dead limbs on pome plants such as apple, crabapple, pear, and pyracantha. If a problem in the past, apply blossom sprays to prevent new infections.
<input type="checkbox"/>	<a href="#">Frost</a> - Protect sensitive plants from cold injury when freezing or frost are predicted.
<input type="checkbox"/>	<a href="#">Grape diseases</a> - Monitor for powdery mildew, Eutypa dieback, Phomopsis cane and leaf spot, and others. Prune, remove, or treat as appropriate.
<input type="checkbox"/>	Implement <a href="#">disease and insect control</a> for apple, pear, stone fruits, nut trees, and deciduous landscape trees and shrubs such as roses.
<input type="checkbox"/>	<a href="#">Irrigation</a> - Adjust watering schedules according to the weather and plants' changing need for water. Reduce irrigation frequency or turn off systems if rainfall is adequate. Irrigate deeply but infrequently if the winter is dry.
<input type="checkbox"/>	<a href="#">Mosquitoes</a> - Eliminate standing water e.g., in gutters, drain pipes, and flowerpots. Place <i>Bacillus thuringiensis</i> subspecies <i>israelensis</i> in birdbaths and ponds to selectively kill mosquito larvae.
<input type="checkbox"/>	<a href="#">Mulch</a> - Apply organic mulch where thin or soil is bare beneath trees and shrubs.
<input type="checkbox"/>	<a href="#">Oak pit scale</a> - Spray terminals with oil or apply another insecticide if scales are causing tree decline.
<input type="checkbox"/>	<a href="#">Olive knot</a> and <a href="#">oleander gall or knot</a> - Avoid pruning olive and oleander during wet weather if stem galls are a problem.
<input type="checkbox"/>	<a href="#">Peach leaf curl</a> - Apply preventive spray once or more during late fall through bud break if leaf curl has been a problem on nectarine or peach.
<input type="checkbox"/>	<a href="#">Petal blight of azalea, rhododendron, and camellia</a> - Remove and discard old flowers. Apply fresh organic mulch beneath plants.
<input type="checkbox"/>	<a href="#">Plant</a> bare root deciduous trees, shrubs, and vines e.g., caneberries, fruit and nuts, grapes, and roses. Plant seedlings of cedar, fir, pine, and spruce. Select species and cultivars well-adapted to the local site.

Visit the [UC Statewide Integrated Pest Management Program's](http://ipm.ucdavis.edu) web site for more information about home, garden, and landscape pests.

2/8/2022

<http://ipm.ucdavis.edu/landscapechecklist/>

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Figure 2. A printable example from the Seasonal IPM Checklist to use for clients or site tasks.



## Pests in the Urban Landscape

### SUBSCRIBE TO THE UC IPM URBAN PEST MANAGEMENT BLOG!

UC IPM's blog provides readers with timely information about pests in and around homes, gardens, landscapes, and structures in California. We post articles about common seasonal pests, invasive pests, beneficials, and new UC IPM resources, including new and revised Pest Notes, training events, and other educational materials for residential audiences and pest management professionals.

View or subscribe to the blog at [ucanr.edu/blogs/ucipmurbanpests/](http://ucanr.edu/blogs/ucipmurbanpests/)

# Weeds in Landscape Plantings

**W**eeds can be a problem in any landscaped area including around trees, shrubs, flower beds, or lawns and turf. As we move from cool weather to warmer temperatures, you will see winter weeds grow and become a problem in established landscape plantings (Figure 1). Effective control of weeds include hand-weeding, hoeing, mulching, and herbicide applications. Good management depends on early attention to where weeds are establishing and adjusting the conditions that allow them to thrive.

## *Managing weeds in landscape plantings*

Each type of planting bed will have specific techniques that work best. In general, dense plantings will shade out most weeds. Regardless of the type of landscape bed, it's always best to control perennial weeds before planting. Herbicides are effective in many types of landscape plantings. They are most effective when integrated with cultural practices. Many of the herbicide active ingredients available for weed control in landscape plantings are only for use by pest management professionals.

### **Tree and shrubs**

Landscaped areas made up of trees and woody shrubs don't need as much preplant weed control as other types of beds. Control perennial weeds after planting using methods like mulching, hand pulling, and herbicide treatments. Suppress weed growth by laying down landscape fabric, then adding at least an inch of mulch on top to thoroughly cover the fabric. If needed, use a preemergence herbicide. Supplement with spot treatments of postemergence herbicides and hand-weeding.

### **Ground cover beds**

Since ground cover is expected to fill the entire bed, landscape fabric is not suitable for weed suppression.

Perennial weeds should be controlled before planting. If perennial grasses are encroaching, they can be controlled with selective herbicides like fluazifop, clethodim, or sethoxydim. Spot applications of glyphosate or glufosinate can be used on perennial weeds. Mulch the bed to control annual weeds until the ground cover fills the area. Some hand weeding might be needed.

### **Annual flower beds**

As with other landscape beds, a dense planting will shade out weeds. Annual weeds can be managed with mulches, frequent cultivation, and hand-weeding. Periodic cultivation (every 3 to 4 weeks) will suppress many weeds. Since nonselective herbicides can't be used after planting annual beds, it's easier to manage perennial weeds beforehand. If cultural methods aren't working to control perennial grasses, you can use grass-selective herbicides with clethodim or fluazifop. Check the product label to be sure that it won't harm the annual flowers in the bed.

### **Herbaceous perennial beds**

Manage weeds in herbaceous perennial beds as you would an annual flower bed. Be sure to get rid of perennial weeds before planting since the bed will be growing for more than one season. Use landscape fabric where possible along with mulches. You might need to supplement with hand-pulling followed by preemergence herbicides. Be aware that fewer perennial plants are included as sites on herbicide labels.

### **Mixed plantings**

A planting bed of a mix of woody and herbaceous plants is a more complex situation. Different areas of the bed might need different treatments. Post-plant herbicide choices are limited so site preparation is critical in this type of bed. Plant woody species first and control the perennial weeds. After



JACK KELLY CLARK

Figure 1. Weeds thriving in an unmulched landscape bed.

the first two growing seasons, add the herbaceous plants. Shade the soil with close planting. Group plants within the bed based on their weed management needs.

## *Cool weather weeds in landscapes*

Some of the most troublesome weeds in planting beds during late winter and early spring are common groundsel, oxalis, mallows, and nutsedges.

### **Common groundsel**

Common groundsel is most prolific in cool weather, germinating from seeds this time of year. This weed produces many seeds and can rapidly infest landscape beds. It is best controlled before it flowers. Mulch is highly effective at controlling common groundsel. Young plants can be hoed out. Diquat or glyphosate-based herbicides will control common groundsel in landscape beds.

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## Mallows

Mallows are annual weeds that begin growing with the first rains so you are probably already seeing these sprouting up in landscape beds. This plant develops a long taproot so it should be pulled when it has four or fewer true leaves. At least three inches of mulch is needed to suppress mallow. Young mallow plants might be managed with 2,4-D products, but this herbicide will injure broadleaf plants growing nearby.

## Nutsedges

Purple and yellow nutsedge are perennial plants that sprout in spring from tubers. Remove these weeds as soon as possible to prevent tuber production. Tubers (sometimes referred to as “nuts” or “nutlets”) are key to nutsedge survival. Once established, nutsedge plants are difficult to control. They don't grow well in shade so dense plantings of ground cover or shrubs will suppress nutsedges. Few herbicides are effective at controlling nutsedge.



JACK KELLY CLARK, UCIPM

Figure 2. Bermuda buttercup (buttercup oxalis).

## Oxalis (creeping woodsorrel and Bermuda buttercup)

While Oxalis (creeping woodsorrel) can bloom almost any time during the year, but spring is a time of heavy flowering and seed formation. Buttercup oxalis (Figure 2) sprouts in fall and is a major weed in ornamental plantings. Hand pulling can control these weeds but be aware that mowing can spread creeping woodsorrel. Landscape fabric with two to three inches of an organic mulch on top can control oxalis. There are no selective postemergence herbicides for creeping woodsorrel in ornamental plantings.

## Herbicide injury

Desired plants could be injured when herbicides are used in established landscape beds. Herbicide damage symptoms vary depending on the herbicide and the plant. Symptoms can include yellowing, bleaching, distorted growth, and death of leaves. Avoid herbicide injury by following the label about the site, plant, and application rate. Granular formulations are less likely to damage plants than sprays. When using a nonselective liquid herbicide, apply on a calm day using low pressure and large droplets. Use a shielded sprayer to avoid contact with nontarget plants. If plants are injured from soil-applied herbicides, the damage is often temporary but can cause growth inhibition. Adding organic amendments and keeping the soil moist will help the herbicides to break down faster.

For more details and for information about weed management before planting a landscape bed, see [Pest Notes: Weed Management in Landscapes](#).

## Ask the Expert!

**Q:** Where can I find weed identification help?

**A:** Knowing the weed you're dealing with and its life cycle is crucial for management, whether it's growing in a lawn or a landscape. UC IPM has online tools and keys to help you identify weeds. You can find step by step instructions for identifying many weed species commonly found in California landscapes in the UC IPM Weed Photo Gallery at [ipm.ucanr.edu/PMG/weeds\\_intro.html](http://ipm.ucanr.edu/PMG/weeds_intro.html).

For weeds in lawns, you can also use the identification key in the UC Guide to Healthy Lawns at [ipm.ucanr.edu/TOOLS/TURF/PESTS/weedkey.html](http://ipm.ucanr.edu/TOOLS/TURF/PESTS/weedkey.html).

For more general information about weeds, see the Pest Notes on *Weed Management in the Landscape* at [ipm.ucanr.edu/PMG/PESTNOTES/pn7441.html](http://ipm.ucanr.edu/PMG/PESTNOTES/pn7441.html) and *Weed Management in Lawns* at [ipm.ucanr.edu/PMG/PESTNOTES/pn74113.html](http://ipm.ucanr.edu/PMG/PESTNOTES/pn74113.html).



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**WHAT IS IPM?** Integrated Pest Management (IPM) programs focus on long-term prevention of pests or their damage through a combination of techniques including resistant plant varieties, biological control, physical or mechanical control, and modification of gardening and home maintenance practices to reduce conditions favorable for pests. Pesticides are part of IPM programs but are used only when needed. Products are selected and applied in a manner that minimizes risks to human health, beneficial and nontarget organisms, and the environment.

# Upcoming Meetings and Workshops (CEU opportunities available)

## Best Practices for Urban Pyrethroid and Fipronil Use by Pest Control Operators

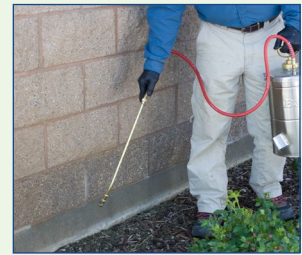
This webinar training is for structural pest management professionals and is presented by UC IPM, UCCE and DPR. CEU hours for CDPR are available, SPCB CEU hours pending.

March 9 & 10, 2022, 8:00 to 10:00 am (both days)

Online

Registration fee \$15

Find out more and register at [ucanr.edu/sites/PMPpyrethroid/](https://ucanr.edu/sites/PMPpyrethroid/)



## West Coast Rodent Academy

This in-person workshop is for pest management professionals who manage urban rodents and is hosted by UCCE and PCOC. CEU hours for SPCB, DPR & Vector pending.

March 16-18, 2022

Irvine, CA

Registration fee \$299 to \$349

Find out more and register at [ucanr.edu/sites/WCRA/](https://ucanr.edu/sites/WCRA/)



## UCR Urban Pest Management Conference

This in-person conference presented by UC Riverside entomologists is for pest management professionals and interested public.

CEUs for SPCB and DPR pending.

March 22, 2022, 8:00 am to 5:00 pm

Riverside, CA

Registration fee \$120

Find out more and register at [ucanr.edu/sites/UCRurbanpest/](https://ucanr.edu/sites/UCRurbanpest/)



All pesticide products mentioned have been reviewed by the UC Office of Pesticide Information and Coordination and are current at the time of publication.

Always read and carefully follow all precautions and safety instructions provided on the pesticide container label, as well as any other regulations regarding the use of pesticides. Not following label directions, even if they conflict with information provided herein, is a violation of state and federal law. No endorsements of named products are intended, nor is criticism implied of products not mentioned.

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For more information about managing pests, contact your University of California Cooperative Extension office, or visit the UC IPM website at [ipm.ucanr.edu](https://ipm.ucanr.edu).

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