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Fall Landscape Checklist

✓ Irrigation

Reduce the irrigation for trees and shrubs in fall. Plants need less irrigation as day length shortens and temperatures drop. In response to these environmental cues, trees and shrubs start to acclimate for winter. Giving them less water will prevent new shoot growth which is undesirable in late fall as tender, new shoots can be damaged by early freezing temperatures.

Irrigation should be cut back to maintain healthy plants. For trees this means irrigating the root zone to a depth of 18-36 inches in the drip line and beyond. Shrubs should be watered to a depth of 12-24 inches at the drip line. Plant water needs vary by plant species, climate and location. Irrigation of established trees and shrubs in fall and winter can be reduced to a single irrigation once every 4 to 10 weeks. Transplanted trees and shrubs need to be watered more often until their root system is fully established, which takes one to two years for shrubs and two to four years for trees.

For more information see the publication
Watering Trees and Shrubs – Simple Techniques for Efficient Landscape Watering
<http://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1298.pdf>



✓ Planting

Fall is a good time to plant new trees and shrubs so they get a good start growing new roots before the soil temperatures become too cold for root growth. Before planting a tree, selecting the right tree for the right place is critical. This ensures that the species that will be planted is well adapted to the climate and microclimate, the soil, and that it will have sufficient space to develop to a mature size without impacting nearby structures or neighboring plants. The selection of vigorous and healthy nursery stock is the next step before purchasing the plant. Avoiding root-bound plants can prevent many problems in the future. Fall is also a good time to plant bare root stock which is available for some deciduous plants.



Once the right plant is selected for the right place it is time to dig the planting hole about 3-4 times the width and no deeper than the root ball. The soil that was excavated from the planting hole should be used as the only backfill. Placing organic mulch on top of the soil around the new transplant helps conserve moisture and prevents weed growth. Staking should be done only if necessary to keep the plant stable or protect them until the new roots are established and firmly anchor the plant.

For more information see the publications:

Planting Guidelines: Container Trees and Shrubs

<http://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1022.pdf>

Selecting, Planting, and Staking Trees

<https://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1402.pdf>

✓ School Gardens

September and October are good times to plant winter vegetables in the low desert in Arizona. Vegetable planting dates and many tips for a successful vegetable garden are found in the publication Ten Steps to a Successful Vegetable Garden.

<http://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1435.pdf>

Beware of Fire Ant Stings

There are six known species of fire ants (*Solenopsis* spp.) in the United States, three of which are found in Arizona: the southern fire ant (*S. xyloni*), and two species of desert fire ant (*S. aurea* and *S. amblychila*).

The red imported fire ant (RIFA, *S. invicta*) has not established in Arizona, but is present in 13 states from southern North Carolina and Florida west to New Mexico and portions of California (including FL, GA, AL, MS, AR, SC, NC, TX, LA, TN, NM, OK, CA). Cold temperatures may limit the northward spread of RIFA in the United States and drier conditions may limit the westward spread of RIFA.

The drier climate in Arizona is a limitation for this species, however, as we irrigate more lawns, agricultural fields, and golf courses, we increase our chances of a successful RIFA invasion. RIFA invade via transported nursery stock, honeybee colonies, and on empty trailers and trucks. Areas with seasonal flooding are vulnerable to RIFA invasion.

People vary greatly in their **sensitivity to fire ant stings**. Some may experience very mild discomfort, while others may be hypersensitive to venom or may have medical conditions (e.g., heart condition, diabetes) that can result in serious medical



Red imported fire ant colony floating in flood water. Photo: Bart Drees.
www.desertmuseum.org



Red imported fire ants swarming boot after mound disturbance.
Photo: Bart Drees.
www.desertmuseum.org

problems or even death from a single sting. Individuals with a history of severe allergic reactions to insect bites or stings should consider carrying an epinephrine auto injector (**EpiPen**) and should wear a medical identification bracelet or necklace stating their allergy.

Individuals should take the following steps if fire ants sting them:

1. **Remove the stinging ants.** The best method is to rub off ants briskly by hand or using a cloth, as they will attach to the skin with their jaws.
2. **Over-the-counter antihistamines** (anti-allergy products) may help for minor stinging incidents. Follow directions on packaging. Drowsiness may occur.
3. **Seek an emergency medical facility immediately** if a sting causes severe chest pain, nausea, severe sweating, loss of breath, serious swelling, or slurred speech. Anaphylactic shock can lead to death.

Avoiding Fire Ant Stings

The best way to avoid medical emergencies associated with fire ants is to **prevent being stung**. Here are some tips to learn to recognize threatening situations:

- **Do not disturb ant nests.** Take care not to stand on or near them. Fire ants build nest mounds in sunny, open areas such as lawns, playgrounds, ball fields, parks, golf courses and along road shoulders.
 - Red imported fire ant mounds are often large and easy to spot. RIFA mounds are 4-24 inches above ground and have no visible surface entrance.
 - Southern fire ant nest mounds are usually much smaller or in patches of loose soil near moisture. Flattened, irregular craters with one to many openings are located usually in warm, sunny areas.
- **Teach children** about fire ant hazards.
- **Alert visitors** to your landscape that fire ants may be present.
- **Wear protective clothing** when engaging in outdoor activities near fire ant colonies. Wear boots or tuck pant legs into socks.
- **Control ants** where they occur in areas used frequently by people and pets. Use an EPA-registered bait or other product that is labeled for fire ants.
- **Use insect repellents** on clothing or footwear. Check this guide to choose a repellent: <http://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1311.pdf>.
- **Use quick defensive reaction.** Remove the ants that climb up on your body as quickly as possible.
- **Watch for foraging ants** (ants looking for food or water). Edges of water bodies, trash cans and areas with spilled food or sugary drinks become areas where large numbers of foraging worker ants congregate.



Red imported fire ants produce mounds that rise high above ground. Photo: Bart Drees.



Southern fire ant nests have fine-grained low mounds with one to many openings. Photo: Linda Hooper-Bui. www.ipm.ucdavis.edu/

- **Sometimes fire ants invade indoors.** This is particularly common when conditions outdoors become very hot and dry or when flooding occurs in the immediate landscape.

For more information about fire ants and other stinging pest first aid, please visit the CDC website at <http://www.cdc.gov/niosh/topics/insects/#overview>

For more information about fire ant stings and how to treat them, read [Fire Ant Stings](#) on [eXtension](#).

To learn more about treating anaphylactic shock and first aid in an emergency situation click [here](#).

To learn more about fire ant lifecycles and biology click [here](#).

To learn more about control methods of fire ant click [here](#).

Conenose Bugs

Conenose bugs (*Triatoma* sp.), also known as kissing bugs or assassin bugs, are a group of true bugs within the family Reduviidae that feed on the blood of mammals. Their primary hosts are rodents and most commonly wood rats (pack rats). They will also feed on human hosts when others are not available. Four species of conenose bugs occur in Arizona (<http://ag.arizona.edu/yavapai/anr/hort/byg/archive/conenosebugs2011.html>).

Adult conenose bugs fly from rodent burrows in late spring to early summer to search for new rodent burrows. They are attracted to the light from our houses. Once inside the house they are drawn to the carbon dioxide that we exhale, skin odors, and to the warmth of our bodies. Bugs that enter a house will feed on household pets as well as humans. Conenose bugs usually feed when the host organism is sleeping. Most people don't feel the bite of the conenose bug but may find an engorged bug in their bed. Conenose bugs rarely infest indoor areas of houses in the United States. However, the discovery of immature bugs inside may be an indication of an infestation. Usually you will find adults, resting close to beds in the morning on walls or curtains, or when walking around your home at night if you are unlucky enough to actually have an infestation. You may consider investing in indoor insect light traps if you notice several of these bugs during a particular season.



Photo of a Conenose Bug *Triatoma* sp. (from the Texas A&M University)

In southern and central American countries there are species of conenose bugs that are potential vectors of Chagas disease, which is caused by the protozoan *Trypanosoma cruzi*. The bugs transmit the parasite when they suck blood from infected vertebrates (including humans) and then feed on a non-infected individual, defecating in the open feeding wound. But Arizona species have behavioral differences that make them unlikely to vector the pathogen effectively. Some people may experience allergic reactions to the bites of conenose bugs. The symptoms can vary from local mild itching to anaphylactic reactions such as shock, hives, fainting, etc.

Here are some management suggestions: **Pest proofing homes is the best preventative measure.** Most often single bugs are found that have entered the home via doorways or windows, or on pets when they enter, etc.

1. Inspect outside for hidden bugs - beneath flowerpots and outdoor furniture and any other dark, sheltered, hiding places.
2. Clear away rodent nests and trash piles that are against or near your home (within 350 feet). Destroy rodent nests safely. Only destroy those nests close to the dwelling. By leaving distant nests intact, the conenose bug has an alternative site to inhabit, which can discourage migration into your home.
3. If you have pets, consider having your pets sleep indoors, especially at night.
4. All cracks and openings into building should be sealed as completely as possible.
5. Since these bugs fly at night and are attracted to light, keep doors closed and drapes pulled after dark, move inside lights away from doors and windows. Curtains should be drawn in lighted rooms at night.
6. Change outdoor and porch lights to yellow bulbs which do not attract the pesky creatures.
7. Use good screening on windows and doors.
8. Regularly examine dark, quiet areas in the home mid-spring to mid-fall, especially sleeping areas.
9. **If you can't pest-proof your home sufficiently, a bed net, tucked in, is the best exclusionary device to use when sleeping.**

No pesticides have been specifically approved in the United States for use against kissing bugs. A licensed pest control operator should be consulted if you are considering the use of insecticides.

Link to University of California Publication: [Conenose Bugs](#).

Link to University of Arizona Publication:
<http://ag.arizona.edu/yavapai/anr/hort/byg/archive/conenosebugs2011.html>.

Upcoming Webinars and Events

Attend Free Sessions of the [Green Strides Webinar Series](#). View archived webinars [here](#).

The [Green Strides Webinar Series](#) provides school communities the tools to reduce their schools' environmental impact and costs; improve health and wellness; and teach effective environmental literacy, including STEM, green careers, and civic engagement.

September 30, 2014, 2:00-3:30 p.m. Eastern / 11:00-12:30 p.m. Arizona: [Tick Safe Schools via Integrated Pest Management \(EPA\)](#)

October 10, 2014, 8:00 – 12:00 p.m. Arizona: Irrigation Seminar for School Grounds. Maricopa Unified School District Administrative Office, 44150 Maricopa Casa Grande Hwy, Maricopa, AZ 85138.

Participation is FREE. The seminar will cover topics in turf irrigation including calculating actual

precipitation rates and how to maximize irrigation efficiency. For more details, contact Dave Kopec (dmk@email.arizona.edu), Turf Specialist, Department of Plant Sciences, University of Arizona, Tucson. For registration, contact Shaku Nair (nairs@email.arizona.edu), Assistant in Extension, University of Arizona Maricopa Ag. Center.

October 21, 2014, 8:00 – 11:00 a.m. Arizona: [Landscape Trees Under Permanent Drought Field Day](#). Maricopa Agricultural Center, University of Arizona, 37860 W. Smith-Enke Rd, Maricopa AZ 85138.

Participation is FREE. Please register here:
https://cals.arizona.edu/spls/deserthort/field_day_registration

You are invited to join us at the Maricopa Agricultural Center of the University of Arizona in Maricopa to see the long-term Tree Irrigation Study. Nine species of landscape trees have been irrigated with different treatments since 2010. Trees have not been irrigated since spring 2014. Learn about the experiment, observe how trees responded to the treatments, and find out which species can tolerate a growing season without irrigation. In case of questions please contact Ursula Schuch at uschuch@email.arizona.edu.

For more information about the EPA Schools program, visit:
<http://www.epa.gov/schools/>

For more information about the Community IPM, visit:
<http://www.extension.org/pages/23359/urban-integrated-pest-management-community-page>



For more information about School IPM in Arizona, visit:
<http://cals.arizona.edu/apmc/westernschoolIPM.html>

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Acknowledgements

This material is based upon work that is supported in part by the National Institute of Food and Agriculture, U.S. Department of Agriculture (USDA NIFA). Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the authors and do not necessarily reflect the view of the U.S. Department of Agriculture. Additional support is provided by the U.S. Environmental Protection Agency (EPA) and the University of Arizona – Arizona Pest Management Center (APMC).



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