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## Beware of Fire Ant Stings

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



A southern fire ant worker found in Tucson. Photo: Dale Ward.  
<https://tightloop.com/blog/>

The red imported fire ant (RIFA, *Solenopsis invicta*) is not established in Arizona, but is found in the southern areas of New Mexico and California. The arid climate in the low desert area is a limiting factor for this invasive species.

Southern fire ants feed on a wide variety of foods, such as insects, sweet foods, grease, proteins, honeydew, and seeds. Candy bars and other nut-containing sweets are among their favorites. Fire ant workers are polymorphic, meaning they vary in size from 1/8 inch to over 1/4 inch in length. Ants are active in the morning and early evening.



Fire ant workers are variable in size. Photo: Dini Miller, Virginia Tech.

Southern fire ants nest in bare soil with direct sun exposure, forming barely identifiable patches of loose soil often near moisture. The colonies do not typically form mounds. When disturbed, fire ants may swarm out of nests and defend their colony by biting and stinging.



Southern fire ant nests have fine-grained low mounds with many openings.  
Photo: Shujuan Li.

Some landscape practices, such as leaving turf or landscape areas bare or compacted, mowing too close to the soil, or edging turf too low with a strimmer, generate ideal conditions for southern fire ants to thrive.

## Sensitivity to fire ant stings

Fire ants will bite to anchor themselves in place so that they can sting repeatedly. Their sting contains venom and causes pain. The stings from desert fire ant species are less painful than RIFA stings, but still cause a burning sensation. People vary greatly in their sensitivity to fire ant stings. Some people may experience mild discomfort, while others may be hypersensitive to venom.

Hypersensitive reactions may lead to potentially life-threatening anaphylaxis. Anaphylaxis is a severe, potentially deadly, allergic reaction. It can develop in under a minute, or within 30 minutes of being stung. During anaphylaxis, the immune system triggers release of chemicals that cause the body to go into shock. Blood pressure drops suddenly (victims may look pale or collapse), and airways, through which you breathe, narrow or close causing coughing and/or difficulty breathing. Signs and symptoms of a serious reaction include dizziness and fainting, difficulty swallowing or breathing, slurred speech, nausea and vomiting, chest pain, severe sweating, a rapid but weak pulse, significant swelling, and pallor. **Seek immediate medical care, call 911.**

## What should you do if you are stung?

Individuals, including those who are not known to react severely, should take the following steps if stung by fire ants:

1. Move at least 20 feet away from the location.
2. Remove the stinging ants. The best method is to brush ants off quickly by hand or using a cloth. Check clothing to make sure it is free of ants as they will find their way inside.



Fire ants bite to anchor themselves in place so that they can sting.  
Photo: Alexander Wild. <https://www.alexanderwild.com>

3. Gently wash the skin with soap and water and disinfect the site with alcohol.
4. Place a cool compress on the sting site(s) to relieve swelling and discomfort.

5. Over-the-counter antihistamines (e.g. diphenhydramine or loratadine) will help reduce itching and burning. **Follow all directions on drug packaging carefully.**

If you experience a serious reaction to ant, bee, or wasp stings, ask your medical care provider if you should carry **an epinephrine auto injector (e.g., EpiPen®)**. **Anaphylactic shock can lead to death.**

## Avoiding fire ant stings

- **Do not disturb fire ant nests.** Take care not to stand on or disturb colonies. If in doubt, wear protective shoes and clothing when engaging in outdoor activities, and carefully investigate possible nest sites with a hand trowel.
- **Watch for foraging ants** (ants looking for food or water). Trash cans, discarded food, and sugary drink spills become focal points of activity as large numbers of foraging worker ants trail back and forth between the food source and the colony.
- **Control fire ants** where they occur in outdoor areas that are used frequently by people and pets. Consider only EPA-registered baits or other formulations labeled for fire ants. **Follow pesticide label directions exactly.**
- **Education and communication.** Teach children about fire ant hazards. Inform visitors to your landscape if fire ants are present.
- **Maintain a healthy lawn.** Proper cutting / mowing, watering, fertilizing, and aerating can keep your lawn healthy, and reduce fire ant colonies.



Southern fire ant foraging workers found on food crumbs inside an office. Photo: Shujuan Li.



- **Pest-proof homes and buildings.** Southern fire ants will invade indoor areas and utilize food resources they find. This is particularly common during the warmer months. Avoid leaving pet food, soda cans, dinner plates or food containers out overnight, and clean up spills before bedtime to avoid ant invasions. Pest-proof homes and buildings to make indoor environments less accessible and attractive to foraging ants.
- Learn more about how to pest-proof your home or buildings:  
<https://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1677-2015.pdf>.

A tri-fold brochure of this publication can be found here:

<https://acis.cals.arizona.edu/docs/default-source/community-ipm-documents/public-health-ipm/border-2020-outputs/trifold-ant-stings-english-vf.pdf>

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## Video on Arizona Scorpions

We are pleased to share with you a video that we recently created on scorpions in Arizona. This video covers the scorpions commonly found in Arizona, their biology and behavior. It also demonstrates how to inspect for scorpions using a UV light at night. The take-home-message is that scorpions are beneficial predators and an interesting feature of the Desert Southwest.



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## 4<sup>th</sup> Arizona School IPM Conference

**Save the Date! The 4<sup>th</sup> Arizona School IPM Conference will be offered online April 19 to May 31, 2021.** The conference is a great opportunity for continuing education, professional development and awareness building; consisting of engaging presentations for all persons involved with schools, childcare and similar facilities in Arizona; and anyone with an interest in

ensuring safe, healthy learning and working environments. Listen to talks by experts on various aspects of school IPM, share your experiences and questions, discuss strategies and find solutions to pest issues your school is facing. Give feedback on topics you would like to see in future events. Registration details and more information available at <https://acis.cals.arizona.edu/community-ipm/events/arizona-school-ipm-conference>

**Who can attend?** Anyone with an interest in safe and effective pest management in schools, childcare and similar facilities. Typically our audience includes school and other administrative staff, maintenance and operations staff, grounds and landscape managers, teachers, principals, nurses, parents, and pest control technicians, food service staff, facility managers, superintendents, medical professionals, students, and many others.

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### Upcoming EPA Webinars offering Arizona CEU Credits

#### **Invasive Woody Plant Management – Part 2 of 2, March 9, 2021**

Encroachment of woody vegetation threatens the biology and ecology of many types of ecosystems. The loss of natural foragers, fires, human-caused disturbance, and the introduction of non-native plants combine to impact native vegetation and its associated wildlife. Removing invasive woody species improves the function of local ecosystems and opens the landscape to provide more suitable habitats for birds and other wildlife. This webinar is the second of a two-part series on managing invasive woody plants and will cover oriental bittersweet, honeysuckle. Attendees will learn the IPM practices used to provide cost-effective management of these woody invasive plants such as mechanical removal (multiflora rose, Japanese barberry, and cutting and shredding), herbicide treatments, fire, and biological controls. In addition, participants will learn how to identify these species and to develop IPM-based strategies for their prevention and control in your region. [Register Now](#)

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### Vector Preparedness Virtual Workshop

**The Vector Preparedness Virtual Workshop** is a great opportunity for anyone with an interest in learning information on mosquito ID, surveillance, management and insecticide resistance in public health pests.

#### **This workshop will present:**

- 1) Basic aspects of mosquito biology and ecology, vector disease risks, and identification of a few important problematic mosquitoes in Arizona.
- 2) Extensive information on integrated mosquito management.
- 3) Why it is important to trap mosquitoes, different types of traps that are available, and tips on how to use them.
- 4) Insecticide resistance, types of resistance (using bed bugs as examples), Integrated Pest Management (IPM), and public health pests IPM including bed bugs, head lice, German cockroaches, mosquitoes, flies, etc.

Arizona certified structural pesticide applicators can earn **4 CEUs** from the AZ Department of Agriculture's Pest Management Division (PMD) after completing the entire workshop. This course will be effective through August 30, 2021.

For more information contact Dr. Lucy Li, Associate in Extension - Public Health IPM, at [lucyli@email.arizona.edu](mailto:lucyli@email.arizona.edu) at University of Arizona.

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Check out upcoming Integrated Pest Management Webinars at <https://www.epa.gov/managing-pests-schools/upcoming-integrated-pest-management-webinars>

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

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To view all our previous newsletters, visit: <https://acis.cals.arizona.edu/community-ipm/home-and-school-ipm-newsletters>

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