

## *Potential Hazard Review*

### Biological Hazards

- Bloodborne pathogens: Infection/disease (various)
- Bacterial infection: Infection/disease (various)
- Plant and insect poisons: Dermatitis, allergic reaction, poisoning

### *Related Safe Work Practices*

- First Aid
- Infectious Materials

### *Personal Protective Equipment*

- Eye Protection (as needed)
- Leather gloves (as needed)
- Hat (as needed)

Initially prepared by:	Landscape SWP Working Group
Revisions by:	H. Stoermer
Approval by:	J. Bramlett, EHS Program Manager K. Gee, Director of Human Resources L. Banford, Superintendent of Recreation and Community Services E. Andersen, Superintendent of Parks and Open Spaces S. Shih, Superintendent of Structural Maintenance D. Chu, Director of Administration and Finance D. Kern, Director of Operations P. Ginsburg, General Manager
Issued:	5/18/01, Revised 6/11/07, 10/10/07, 11/1/07, 11/19/2020

This Safe Work Practice (SWP) addresses the hazards of insect or arachnid bites and stings, and is organized into the following areas:

- A. General
- B. Specific Insects/Arachnids

This SWP is dedicated to helping you avoid an injury or illness from known hazards and their consequences - Lyme Disease, spotted fever, tularemia, allergic reactions.

You are advised to follow these recommendations, read and follow this SWP and any related SWPs, complete any required or recommended training, and to obtain advice from a Qualified Person if you have any questions.

A Qualified Person is a person **designated** by the employer; and by reason of **training**, experience, or instruction who has demonstrated the ability to perform safely all assigned duties; and, when required is properly licensed in accordance with federal, state, or local laws and regulations.

All tasks require that you:

- Use any equipment in accordance with the guidelines set forth by the manufacturer. This includes following all signs and labels, and reviewing any manufacturer's operating manuals.
  - If the instructions provided in the operating manual conflict with this SWP, then follow the instructions in the manual. The manufacturer's instructions prevail over this SWP.
- Review the safety data sheets (SDSs) for any chemical.
- Be trained on this SWP and those listed above as related. Training on SWPs must be completed before initial assignment. It is also recommended that you complete refresher training every two years.

## A. GENERAL

### Before

1. Avoid perfumed soaps, shampoos, deodorants, cologne or perfume. Also, the odor of banana mimics an alarm chemical that some insects use to alert nest mates to danger, and can cause them to react more aggressively than usual.<sup>1</sup>
2. Wear light-colored, smooth-finished clothing. Light-colored clothing attracts fewer stinging insects than does dark clothing.
3. Wear clean clothing and bathe daily. Sweat angers some insects.
4. Wear a hat to keep insects from getting caught in hair and stinging the head. Keep long hair tied back.
5. Wear leather gloves to prevent penetration of stingers.
6. Cover the body as much as possible with clothing.
7. Persons with severe allergic reactions to insect stings or bites should consider wearing a medical ID bracelet and carrying an insect allergy kit where appropriate.
8. Look out for the nests of stinging insects and avoid disturbing them. If a bee or wasp nest must be removed from a work area, always call the IPM program (831-6306).

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<sup>1</sup> "How Do You Deal with Bees in the Garden", The University of Georgia College of Agricultural and Environmental Sciences, <http://georgiafaces.caes.uga.edu/viewtext.cfm?id=2208>, 7/11/07

9. Keep areas clean. Social insects thrive in places where humans discard food, so clean up picnic tables, grills and other outdoor eating areas.

### **During**

10. Most bees or insects will not attack if left alone. If a single stinging insect is flying around, remain still or lie face down on the ground. The face is the most likely place for a bee or wasp to sting. Swinging or swatting at an insect may cause it to sting.
11. If you are attacked by several stinging insects at the same time, run to get away from them. Bees release a chemical when they sting. This alerts other bees to the intruder. More bees often follow. Go indoors or jump into water.
12. Outdoors, a shaded area is better than an open area to get away from the insects.

### **After**

13. If stung:
  - a. Wash the sting site with soap and water.
  - b. Much has been written about the proper way to remove a bee stinger, but information indicates that it doesn't matter how you get it out, as long as it is removed as soon as possible. *If removed within 15 seconds of the sting, the severity of the sting is reduced.*
  - c. Apply an external analgesic such as "Sting-Kill Wipe", or ice to the area.
  - d. Do not scratch the sting. This will cause the site to swell and itch more, and increase the chance of infection.
14. There are several signs of an allergic reaction to an insect sting or bite (it is normal for the area that has been stung to hurt, have a hard swollen lump, get red and itch):
  - a. Look for swelling that moves to other parts of the body, especially the face or neck.
  - b. Check for difficulty in breathing, wheezing, dizziness or a drop in blood pressure.
  - c. Get the person immediate medical care if any of these signs are present. There are kits available to reduce the pain of an insect sting.

## **B. SPECIFIC INSECTS/ARACHNIDS**

### **Bees/Wasps**

15. Africanized Honey Bees have only traveled as far north as Madera County. They are not yet a threat to the Bay Area.

16. Wasps have the potential to carry tetanus. Ensure your tetanus vaccine is up to date.
17. If you encounter a bee or wasp nest/hive, cordon off the area with caution tape, place a barricade near the nest/hive to alert the public, then call (IPM; 831-6306) so that a pest control specialist can eradicate the nest/hive.

### **Spiders**

#### **Before**

18. Know the areas that spiders live:
  - a. Black widows like dry, undisturbed places such as lumber and rock piles, rodent burrows and water meters.
  - b. Brown recluse spiders prefer undisturbed places for their webs, but will take refuge in clothing and bedding including unused closets, storerooms, behind furniture and in baseboard cracks. They can also be found in garages in gloves or boots.
  - c. House spiders prefer dark, moist place with crack and crevices for their webs.<sup>2</sup>
19. To minimize spider infestations:
  - a. Store boxes off the floor and away from walls.
  - b. Move stacks of wood, vegetation and debris away from buildings.
  - c. Maintain tight-fitting screens in windows and seal cracks in walls.
  - d. Keep attics and basements ventilated to reduce moisture.

#### **After**

20. If bitten by a spider<sup>3</sup>
  - Wash the area around the bite with soap and water.
  - Apply a cool compress over the bite location.
  - Take aspirin or other nonsteroidal anti-inflammatory medication (depending on personal allergies) to reduce pain and swelling.
  - See a doctor if you feel intense pain, stiffness, chills, fever or severe abdominal pain.

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<sup>2</sup> A Little Knowledge Can Help Prevent Spider Bites; School IPM; [http://www.schoolipm.ifas.ufl.edu/doc/spider\\_knowledge1.htm](http://www.schoolipm.ifas.ufl.edu/doc/spider_knowledge1.htm) 5/2/2007. Also based on RPD Industrial Investigation, EHS Case 3322, DOI 1/8/07

<sup>3</sup> Spider bites: First Aid; [www.mayoclinic.com/helth/first-aid-spider-bits/FA00048](http://www.mayoclinic.com/helth/first-aid-spider-bits/FA00048); 6/11/2007

### Ticks

#### **Before**

21. In California, the western blacklegged tick can transmit the bacteria that cause Lyme disease and anaplasmosis. The Pacific Coast tick, brown dog tick, and American dog tick can transmit the bacteria that cause spotted fever and tularemia.
22. Lyme disease is caused by certain bacteria that can spread by the bite of an infected western blacklegged tick:
  - a. An infected blacklegged tick must be attached to a person and feed for at least 24 hours before it can transmit the bacteria that causes Lyme disease.
  - b. Lyme disease may start as a mild illness that begins 3 to 30 days after a tick bite and might easily be mistaken for other common illnesses like a cold or flu. Signs and symptoms also can include a red, painless rash that may spread over time. If Lyme disease is not treated, it might develop into more severe health problems.
  - c. A person may have an allergic reaction to a tick bite that might look like a small rash near the bite area. This reaction may appear soon after the tick bite and be painful, but this is not a Lyme disease rash.
  - d. For incidence of Lyme Disease in California, see the [map](#) at the California Department of Public Health.
  - e. There is currently no Lyme disease vaccine available.
23. Become familiar with tick habits and habitat:
  - a. Ticks prefer cool, moist areas and can be found on wild grasses and low vegetation in both urban and rural areas.
  - b. Ticks are active 24 hours per day, 365 days of the year though they are active some times more than others. See this [graphic](#) from the California Department of Public Health for the seasonal risk of exposure.
  - c. Ticks do not fly, jump, or drop from trees. They inhabit shrubby vegetation (nymphs: four- to six-inch vegetation; adults: waist-high vegetation) and wait for an animal to brush by. Ticks then grasp onto fur or skin, and crawl up the body. Ticks usually wander on the body for at least 30-60 minutes before they insert their mouthparts and begin to feed.
24. Before going into areas where ticks live:
  - a. Apply insect repellent with at least 20% DEET on exposed skin and clothing.
  - b. Pack a pair of tweezers or a tick removal tool to remove any attached ticks.

#### **During**

25. While in areas where ticks live:

- a. Walk in the middle of trails and avoid brushing against tall grasses and shrubs on the side of trails.
- b. Check yourself carefully after sitting on wooden picnic benches, logs, and rocks where ticks can be found.
- c. Check yourself often. If you find a tick crawling on you, remove it as soon as possible.

### After

#### 26. After leaving areas where ticks live:

- a. Shower as soon as you can.
- b. Look for ticks on your body and in your bedding for 3 days. Some ticks are only the size of a poppy seed and can be anywhere on your body.
- c. Look along your hairline, behind your ears and knees, and in your armpits, belly-button, and groin area. Have a family member help check the areas on your body that you cannot easily see.
- d. After you come indoors, put clothing you were wearing on high heat in a dryer for 10 minutes to kill any ticks on your clothes. If clothing must be washed first, hot water is recommended.

#### 27. To safely remove an attached tick:

- a. Grab the tick close to your skin with tweezers, a tick removal tool, or a tissue and pull straight out, using a firm and steady motion. DO NOT twist, burn, or smother the tick.
- b. Wash your hands and the bite area with soap and water.
- c. Apply an antibiotic ointment, cream, or rubbing alcohol to the bite area.
- d. Dispose of a live tick by placing it in rubbing alcohol or a sealed bag or container, or by flushing it down the toilet.
- e. If you want to save the tick for identification or possible testing, place it in a sealed bag or container.
- f. Never crush a tick with your fingers.



**Size of a western blacklegged tick compared to a dime**

**For any questions, please contact EHS at 415-831-2780.**

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References:

1. [Lyme Disease in California](#), California Department of Public Health, August 2017
2. [Prevent Tick Bites, Prevent Disease](#), California Department of Public Health, July 2019