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University of California

**Division of Agriculture and
Natural Resources**



UC Master Gardener Program Safety Training Manual

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UC Master Gardener Program

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TABLE OF CONTENTS

Introduction 2

University of California Policy on Management of Health, Safety, and the Environment..... 2

UC Master Gardener Safety Resources and References..... 2

UC Master Gardener Duties and Responsibilities for Safety 3

Addressing Safety as Part of UC Master Gardener Volunteer Training..... 4

UC Master Gardener Driving Responsibilities 4

Safety Practices for General Physical Activities 6

Gardening 7

Food Safety 7

Tools and Equipment 8

Computers 9

Website URL Link Resources 10

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Introduction

The University of California Division of Agriculture and Natural Resources (UC ANR) Environmental Health & Safety (EH&S) Services exists to support all UC ANR programs, helping them conduct program activities in a safe, healthy, and environmentally responsible manner. UC ANR Safety Specialists are available to help UC Master Gardener Program staff and volunteers interpret the material in this manual and to assist them in developing specific health and safety information, assessing potential hazards, and conducting training. Contact information for UC ANR safety staff is available on the EH&S website, safety.ucanr.edu.



University of California Policy on Management of Health, Safety, and the Environment

The UC Policy on Management of Health, Safety, and the Environment (dated October 28, 2005) indicates UC is committed to excellence in providing healthy and safe work environments that ensure the protection of students, faculty, staff, visitors, the public, property, and the environment. The policy also states this protection “is a priority whenever activities are planned and performed,” and it establishes a strategy to preempt damage through the design of activities and controls that reduce or eliminate accidents, injuries, and exposures. This UC Master Gardener Program Safety Training Manual was developed to complement and be in accordance with the goals of the UC Policy on Management of Health, Safety, and the Environment.

UC Master Gardener Safety Resources and References

UC ANR EH&S produces the *Thinking Safe and Green* notes, one-page summaries of safety information on specific topics requested by program staff. The notes are concisely written to emphasize topic-related safety issues. [Thinking Safe and Green](#) notes are available online.

The following references were also used in this manual:

- [UC Master Gardener Program Administrative Handbook for Program Staff](#)
- [UC Policy on Management of Health, Safety, and the Environment](#)

UC Master Gardener Duties and Responsibilities for Safety

The *UC Master Gardener Program Administrative Handbook for Program Staff*, Chapter 5, Section XV.A states:

“Every employee or volunteer has a responsibility to follow safety rules and procedures to help identify and correct hazardous conditions.”

To achieve the necessary level of safety, UC Master Gardener volunteers need to be familiar with procedures and equipment associated with the activity they are supervising and the potential the hazards of the activity. More specifically, volunteers must be capable of identifying those activities that have the potential to cause accidents, injuries, or disease exposures.

Once a volunteer has identified accident, injury, or disease exposure risks, they must be capable of establishing administrative and/or engineering controls—such as written or oral instructions, training, demonstrations, modification of activities, or use of personal protective equipment (i.e., gloves, eye protection, helmets, etc.)—that will reduce or prevent the identified risks and the likelihood of injuries or illnesses.

If an unacceptable risk or hazard becomes evident while an activity is taking place, the volunteer must promptly modify the activity, establish controls to reduce the risk to an acceptable level, or correct the hazard. If the unacceptable risk or hazard continues to exist, the volunteer must discontinue the activity and, if necessary, evacuate participants from the affected area. A simple Project Safety-Risk Management Plan is available online at ucanr.edu/mgsafety to assist program staff and volunteers in identifying potential hazards, making a plan of how to reduce the hazards, and documenting a plan for emergency response.

If an injury occurs, the volunteer must be prepared to provide an appropriate emergency response to the type and extent of an injury. This includes determining the severity of the injury, implementing the proper emergency response, informing the member’s emergency contact about the injury, and immediately reporting the injury to program staff or the County Director.

Addressing Safety as Part of UC Master Gardener Volunteer Training

The planning process for UC Master Gardener Program activities should incorporate evaluation of the potential risks for volunteers and participants to sustain injuries or illnesses. Once potential risks have been identified, appropriate safety training or controls to mitigate potential risks should be developed and implemented.

Safety training may be incorporated into other educational instruction associated with a program activity and may be accomplished through verbal instruction, instructor demonstrations, review of written or electronic materials, and/or viewing commercially-prepared video recordings. In certain instances, volunteers or participants may not be allowed to participate in an activity or utilize equipment or tools until they have demonstrated their understanding of associated hazards and procedures or achieved a necessary level of proficiency. A safety training presentation and activity for UC Master Gardener trainees is available online at ucanr.edu/mgsafety.



UC Master Gardener Driving Responsibilities

The *UC Master Gardener Program Administrative Handbook for Program Staff*, Chapter 5, Section XXIV.B.1 states “If driving is part of the UC Master Gardener Program volunteer duties, the individual must follow California driving regulations and comply with the following standards:

- a. Provide evidence of a valid California driver’s license.
- b. UC policy requires employees or volunteers who are driving on UC business to maintain insurance coverage in the following amounts: \$50,000 for personal injury to, or death of, one person; \$100,000 for injury to, or death of, two or more persons in one accident; and \$50,000 for property damage. These limits are commonly referred to as: “50/100/50.” These UC minimum insurance requirements are higher than the State minimum insurance requirements of 15/30/5.
- c. Use a safe operating vehicle, and
- d. Have seat belts for each passenger.”

Volunteers should be aware of and implement the following types of safe driving practices when driving on UC Master Gardener Program business:

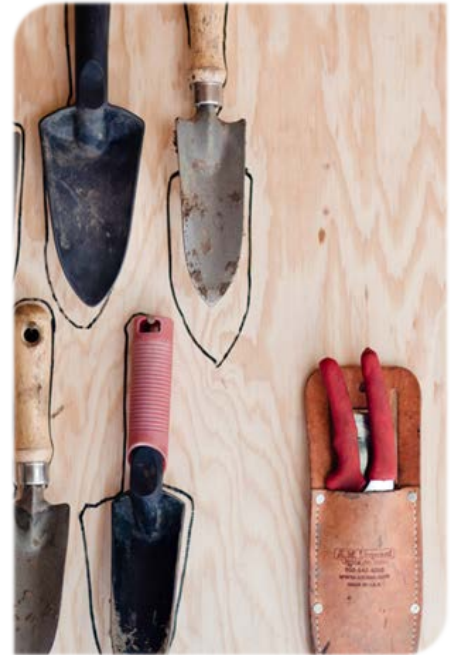
- Before changing lanes, turn your head to check mirror blind spots for other traffic. Always signal before passing other vehicles.
- Maintain a three- to four-second distance between your vehicle and the vehicle ahead of you.
- Always look in both directions when entering intersections, crosswalks, or railroad crossings.
- Do not rely on traffic signals to stop cross traffic. Always scan controlled intersections for oncoming cross traffic.
- Allow adequate room in front of you to stop. It takes about 400 feet to react and bring a car to a stop from a speed of 55 mph. Likewise, at 35 mph, it takes about 210 feet.
- Reduce your speed when driving at night. Be prepared to stop within the distance lighted by your headlights.
- Use your high beams where appropriate. Dim your high beams when necessary.
- Reduce your driving speed to accommodate adverse weather conditions (i.e., heavy rain, snow, or fog).
- When driving in fog use your low beams, increase your following distance, and be prepared to stop within the distance you can see ahead.
- If the fog becomes too thick to sufficiently see ahead, stop driving, turn off your lights, and pull completely off the road. Continue driving when the fog thins and allows adequate road vision.
- When entering a freeway, merge at the speed of the freeway traffic. When exiting a freeway, signal your intention to exit for about five seconds.
- Always change freeway lanes one at a time. Signal your intention to change freeway lanes.
- Allow an adequate distance to oncoming traffic when attempting to pass another vehicle on a two-lane road. At 55 mph, you will need a distance of about one-third of a mile (1,750 feet) from oncoming traffic to pass safely.
- Always allow pedestrians the right-of-way in crosswalks.
- Avoid distracting activities while driving, such as using a cellular telephone or navigation device or reading a map. As of July 1, 2008, it is illegal in California to use a handheld wireless telephone while driving.

Always wear seatbelt restraints and obey posted speed limits.

Safety Practices for General Physical Activities

In all UC Master Gardener Program activities, staff and volunteers should assess potential injury risks and hazards associated with that activity and then provide suitable safety training to reduce or eliminate the potential for injuries and illnesses. Safety training should include discussion of the proper use of personal protective equipment and other equipment, tools, machinery, or materials used as part of the activity.

Program staff and volunteers may provide training by conveying personal safety knowledge and experiences related to gardening activities and/or by utilizing information provided in the *Thinking Safe and Green* notes, available at CE Offices or at ucanr.edu/mgsafety.



Many projects and events involve performing a variety of general physical tasks in outdoor settings. By following several simple safety practices, many injuries and illnesses associated with physical tasks may be prevented.

Repetitive Motion. Using rakes, shovels, pruning shears, and other gardening tools incorporates repetitive physical movement which can cause muscle strain and/or low-impact joint injuries. While engaging in a repetitive motion task, it is important to remember to periodically change the motion to relieve stress on muscles and/or joints and to allow a period of rest and recovery. Moreover, whenever you feel tired or sore you should cease performing the activity. Do not attempt to exceed your physical strengths or capabilities.

Walking on Uneven Surfaces. Gardening activities generally take place in areas where there are uneven surfaces, it is recommended to wear appropriate closed-toed footwear (tennis shoes or boots). Uneven surfaces pose hazards for slips, trips, and falls. When walking on uneven surfaces it is important to carefully look for holes, furrows, large dirt clods, or other ground obstacles that could cause a footing or tripping hazard. Also, continually survey your route and be aware of obstacles such as waste piles, branches, rocks, and equipment.

Heat Illness. Take adequate precautions during warm weather. Wear a hat with a brim and loose-fitting, light-colored, and lightweight clothing, like cotton. Drink plenty of

fluids such as water and sports drinks. Avoid caffeinated drinks. Work during coolest parts of the day, such as the morning. Take frequent rest periods. Stop working if you begin feeling the symptoms of heat illness, such as cramps, dehydration, profuse sweating, or heat rash.

Gardening

Gardening projects are the primary program activity that involves a variety of potential injury risks and hazards. Program staff and volunteers should assess the potential injury risks and hazards associated with a gardening activity and provide suitable safety training to reduce or eliminate the potential for injuries or illnesses.

Safety training should include discussion of the proper use of personal protective equipment and other equipment, tools, machinery, or materials used as part of the gardening project.

Relevant safety training:

- Safe use of gardening hand tools
- Proper shoveling, hoeing, raking, and weeding techniques
- Toxic plants
- Rototiller safety
- Pruning safety
- Basic eye protection
- Safe lifting practices
- Eye protection from ultraviolet radiation
- Skin protection from ultraviolet radiation
- Grass trimmer safety
- Power mower safety
- Stinging and biting insects
- Safe fueling practices
- Treating minor cuts and scrapes
- Reading pesticide labels
- Pesticide glove use
- Respiratory protection
- Safe use of hand and backpack sprayers
- Pesticide exposure awareness

Food Safety

Certain UC Master Gardener Program activities involve food preparation. When an activity involves food preparation, program staff and volunteers should assess the potential injury or illness risks and hazards associated with the activity and provide suitable safety training and/or controls to reduce or eliminate the potential for injury or illness.

Relevant safety training:

- Hand washing and use of hair nets or hair covers
- Food allergies
- Refrigeration and freezing practices
- Establishing and maintaining clean food preparation techniques, surfaces, cooking utensils, cookware, serving ware, and tableware
- Preventing and treating minor burns and cuts
- Food preparation cleanup

The [Partnership for Food Safety Education](#) and a brochure entitled “[Make it Safe, Keep it Safe—FIGHT BAC! Keep Food Safe from Bacteria](#),” are resources that provide information about food preparation and handling safety.

Tools and Equipment

Many UC Master Gardener activities include the use of various types of tools and equipment that involve potential injury risks and hazards. Program staff and volunteers should assess the potential injury risks and hazards associated with the activity and provide suitable safety training and/or controls to reduce or eliminate the potential for injury or illness.

Safety training should include discussion of the proper use of personal protective equipment and the safe use of other tools and equipment or materials used as part of the activity.

Relevant safety training:

- Basic electrical safety
- Pinch, shear, or cutting point hazards
- Equipment and tool guards
- Hand tool safety
- Good housekeeping practices

- Portable power tool safety
- Eye protection
- Hearing protection
- Ladder safety
- Protective glove use
- Safe lifting practices
- Safe fueling practices
- Treating minor cuts and scrapes
- Serious injury response

Computers

UC Master Gardener activities often involve the use of computers. Program staff and volunteers should assess the potential injury risks and hazards that are associated with computer use and provide suitable safety training to reduce or eliminate the potential for injuries or hazard impacts. Safety training should include discussion of computer equipment and general electrical safety as well as basic guidance as noted below.

Relevant safety training:

- Basic ergonomics
 - Sitting posture
 - Eye strain
 - Repetitive motion
- Cyber safety, including:
 - Never provide personal information (name, telephone number, address, or password) to someone you meet online.
 - Never agree to meet face to face with someone you meet online.
 - Never respond to unsolicited emails that are not relevant to UC Master Gardener Program business.

The *UC Master Gardener Program Administrative Handbook for Program Staff*, Chapter 5, Section IX.A states: “2. UC electronic communication resources may not be used for: a. Unlawful activities. b. Commercial and/or political purposes not under the auspices of UC. c. Personal use including financial gain. d. Uses that violate other UC policies and guidelines (e.g., intellectual property and sexual or other forms of harassment). e. Any other use that is considered inappropriate in the judgment of the UCCE County Director. 3. In the context of the UCCE MGP (Master Gardener Program), the UCCE County Director has responsibility and authority for all UC electronic resources, specifically including MGP websites and email.”

Website URL Link Resources:

Environmental Health & Safety (EH&S) Services Website:

- <http://safety.ucanr.edu/>

Thinking Safe and Green Notes:

- http://safety.ucanr.edu/Master_Gardener_Safety_Resources/Thinking_Safe_and_Green_Notes/

UC Master Gardener Program Administrative Handbook:

- <http://ucanr.edu/sites/anrstaff/files/1194.pdf>

UC Policy on Management of Health, Safety, and the Environment:

- <http://policy.ucop.edu/doc/3500506/MgmtHealthSafetyandEnvironment>

Partnership for Food Safety Education:

- <http://www.fightbac.org/campaigns>

Make it Safe, Keep it Safe—FIGHT BAC! Keep Food Safe from Bacteria:

- http://www.fightbac.org/storage/documents/flyers/Basic_Fight_BAC_Brochure_Oct_2011.pdf



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