



# Safety Note

UNIVERSITY OF CALIFORNIA  
AGRICULTURE AND NATURAL RESOURCES  
ENVIRONMENTAL HEALTH AND SAFETY



Safety Note #20

## HEAT STRESS AWARENESS



According to the National Weather Service, there were approximately 2,000 heat-related fatalities from 1991-2000. In addition, about 25,000 heat-related illnesses or injuries occurred during the same time. By taking several simple precautions, employees can control and/or reduce exposure to conditions that may cause heat stress. California Code of Regulations, Title 8, Section 3395 contains requirements for the control of heat illness risks. **English and Spanish language safety videos that address agriculture-related heat stress are also available for loan from the ANR Environmental Health & Safety Library at (530) 752-3933.**

### Heat Stress Disorders and Symptoms

1. Heat Stroke - sweating stops and the body fails to regulate its temperature. Victims may die if they don't receive immediate medical treatment. Characterized by: mental confusion, fainting, or seizures; hot dry skin usually reddish in color; and high body temperature.
2. Heat Exhaustion - profuse sweating results in dehydration. Characterized by: fatigue, dizziness, and nausea; pale and moist skin; and possibly slightly elevated temperature.
3. Heat Cramps - cramping thought to be due to loss of salt through sweating. Characterized by muscle spasms in arms, legs, and abdomen during or following work activities.
4. Heat Syncope - dehydration while standing still causes blood pooling in lower portions of the body. Characterized by fainting while standing still.
5. Heat Rash - occurs under hot and humid conditions where sweat does not evaporate readily. Characterized by irritated/itchy skin with prickly feeling and small red bumps on skin.

### Treatments for Heat Stress Disorders

1. Heat Stroke - call 911 immediately, soak victim's clothing with cool water, move victim to shaded and cool area, fan victim to increase cooling of their body.
2. Heat Exhaustion - have victim rest in shaded and cool place and drink fluids. Do not serve caffeinated fluids such as soft drinks, iced tea, or coffee.
3. Heat Cramps - have victim rest and drink non-caffeinated fluids.
4. Heat Syncope - have victim rest in a shaded and cool place, and drink non-caffeinated fluids.
5. Heat Rash - wash and dry skin. Wear loose clothing and keep skin dry.

### Precautions to Prevent Heat Stress Disorders

1. Acclimatize yourself to the prevailing weather conditions.
2. Always drink plenty of fluids such as water and sports drinks. Plan to have at least one quart of water available per person per hour of work (two gallons for an eight-hour shift). Avoid caffeinated drinks.
3. Wear summer hat with a brim and loose-fitting, light-colored, and lightweight clothing like cotton.
4. Schedule vigorous work activities during coolest portions of the work day and take frequent breaks on hot days.
5. If you are feeling symptoms of heat illness, take a rest period in a shaded area. Your supervisor is responsible to provide access to shade – this may be any area where you are protected from direct sunlight, such as under an umbrella, a portable structure, or inside a ventilated building or vehicle.

***If a treated victim does not recover from heat illness in a reasonable amount of time, promptly seek medical attention. Plan ahead to know how to summon medical assistance and direct emergency responders to your work location or how to transport employees to a medical service provider.***