

IMPACT OF HEAT STRESS ON OUTDOOR WORKERS



**New Informational Resources
Available On Heat Stress**

HEAT STRESS AS A TOP OCCUPATIONAL HEALTH CONCERN FOR THE AGRICULTURAL INDUSTRY

The risk of heat-related death is 35 times more likely for agricultural workers than for any other occupational group.

Agricultural industry leaders in the Southeast ranked heat stress as their No. 1 occupational health concern, according to the Southeastern Coastal Center for Agricultural Health and Safety (SCCAHS).

Heat stress is common among outdoor workers and particularly among workers who plant and harvest agricultural crops. Approximately 16 percent of occupational heat-related deaths are among workers in crop agriculture. In addition to being fatal, heat stress may also contribute to loss of productivity, worker absenteeism and decline in quality of work.

SCCAHS is part of a Centers for Disease Control and Prevention (CDC) / National Institute for Occupational Safety and Health (NIOSH) Agricultural Health and Safety Initiative and is working to inform agricultural workers of the risks associated with heat stress and how to prevent heat-related illnesses.

The center recently brought together a slate of esteemed speakers on the topic of heat-related illness,

showcasing research at the intersections of heat-related illness and climate change as it relates to the health and safety of outdoor workers and farmworkers, as well as athletes and military personnel. This crosscutting meeting brought together researchers from various fields to present current findings and pave the way for developing future research collaborations on these topics.

Researchers indicated that death from heat-related illness is 100 percent preventable when aggressive cooling takes place. Deaths from heat-related illness occur because of misdiagnoses, lack of care, delay of care, and immediate transport before cooling.

Three of the most common types of heat-related illness are heat cramps, heat exhaustion and heat stroke.

Symptoms of **heat cramps** include muscle cramping, pain, thirst, sweating or fatigue. Symptoms of **heat exhaustion** include fainting; heavy sweating; cold clammy skin; or fast, weak pulse. Symptoms of **heat stroke** include body temperatures over 103 degrees; confusion; fast, strong pulse; or hot, red, dry or damp skin.

As temperatures rise, the risk of developing a heat-

3 WAYS TO AVOID HEAT STRESS

1. Workers should be allowed a 5-6 day acclimation period when they begin working in the heat.
2. Outdoor workers should consume about one quart, or approximately two bottles, of water every hour.
3. Workers should be encouraged to drink smaller amounts of water every 20 minutes.





related illness also rises. At a heat index of 91 degrees, workers are at moderate danger of developing a heat-related illness. At a heat index of 103 degrees workers are at high danger of developing a heat-related illness. At a heat index of 115 degrees, workers are at extreme danger of developing a heat-related illness. This means that workers are at a higher risk of developing a heat-related illness during the summers and the afternoons. Any heat index temperature below 91 degrees places workers in low danger of developing a heat-related illness.

Scientists recommend that employers should encourage their outdoor workers to drink small amounts of water every 20 minutes. This will allow workers to consume about one quart of water every hour. Workers should be provided a five- to six-day acclimation period when they begin working in the heat.

The center has developed a range of resources to help agricultural managers, Extension agents and clinicians better understand heat stress, how to identify symptoms of heat stress and how to prevent heat stress from impacting outdoor workers. Resources include a series of archived webinars, upcoming live webinars, an issue guide, fact sheets and downloadable social media messages.

Visit <http://www.sccaahs.org/index.php/ag-health-safety-topics/heat-stress/> to download all these tools and more.

INFORMATIONAL RESOURCES ON HEAT STRESS

SCCAHS has developed the following resources to help agricultural managers, Extension agents and clinicians better understand heat stress, how to identify symptoms of heat stress and how to prevent heat stress from impacting outdoor workers:

ARCHIVED WEBINARS

UPCOMING LIVE WEBINARS (see back cover)

ISSUE GUIDE

SOCIAL MEDIA MESSAGES

STATE OF THE SCIENCE WHITE PAPER

Visit <http://www.sccaahs.org/index.php/ag-health-safety-topics/heat-stress/> to download all these tools and more.



ARCHIVED WEBINARS

SCCAHS hosts monthly webinars that are archived on the center's website. Many recent webinars showcase researchers discussing heat stress and related topics. Access all SCCAHS webinars, including the ones below, at www.sccaahs.org/index.php/webinars/.

Using Social Marketing to Prevent Heat-related Illness and Improve Productivity Among Farmworkers, Paul Monaghan

Heat Stress and Biomarkers of Renal Disease, Linda McCauley

Pesticide & Heat Stress Education for Latino Farmworkers that is Culturally Appropriate, Joe Grzywacz

Occupational Health and Safety Surveillance of Gulf Seafood Workers, Andrew Kane

UPCOMING WEBINARS

July 16 @ 10:00 a.m. **Heat-related Illness Prevention: Research and Lessons Learned from Athletics**, Eric Coris

August 29 @ 10:00 a.m. **Delivering Agricultural Health and Safety Research to Stakeholders: Best Practices and Theoretical Foundations**, Lisa Lundy

September 10 @ 10:00 a.m. **Heat-related Illness (HRI) in Agriculture: A Two-part Webinar Providing Research Findings on a Mobile App to Monitor HRI and a Compilation of Educational Research-based Resources to Help Prevent HRI**, Juan Luque and Tracy Irani

October 9 @ 2:00 p.m. **Chronic Low Back Pain in Seafood Workers: A Pilot Intervention Study to Identify Modifiable Work and Movement Solutions**, Kim Dunleav

November 6 @ 10:00 a.m. **Heat-related Illness in a Changing Climate and Demography of Florida**, Vasu Misra

ABOUT SCCAHS

The Southeastern Coastal Center for Agricultural Health and Safety (SCCAHS) is part of a Centers for Disease Control and Prevention (CDC) / National Institute for Occupational Safety and Health (NIOSH) Agricultural Health and Safety Initiative. SCCAHS explores and addresses the occupational safety and health needs of people working in agriculture, fishing, and forestry in Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, the U.S. Virgin Islands, and Puerto Rico.



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