

# MAFES Dawg Tracks

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MISSISSIPPI STATE UNIVERSITY™  
MS AGRICULTURAL AND  
FORESTRY EXPERIMENT STATION

Prevent Heat & Stress  
Illnesses at Work

Here comes the summer and here comes “Ol Sol.” June through October makes us forget about January and February here in good old North Mississippi. In our business, agriculture and horticulture requires outside work for the majority of the time. First comes the prepping of the fields and gardens, then the planting, fertilizing, pruning in horticulture and scouting the agronomy crops for pests and diseases. The sun is the lifeblood for all of these flowers and crops. It can be a horror trip for all the folks working out in it.

Based on this reasoning, I feel the need to write about preventing heat illnesses, such as heat stress, heat illness, and heat stroke.

## Heat Stress and Heat Illness are Serious Matters-

- Heat stress is the buildup of body heat generated either internally by muscle use or externally by our environment.
- Heat exhaustion and heat stroke results when the body temperature is overwhelmed by heat. As the heat increases, body temperature and the heart rate rise painlessly.
- The most serious heat related illness is a heat stroke. The symptoms are confusion, irrational behavior, convulsions, coma, and death. While over 20% of heat stroke victims die regardless of age, children seem to be more susceptible to heat strain than adults. In some cases, the side effects of heat stroke are heat sensitivity and varying degrees of brain and kidney damage.

## HIGH TEMPERATURE + HIGH HUMIDITY + PHYSICAL ACTIVITY = HEAT ILLNESS

Following are some examples of heat illnesses, their symptoms, description, and prescriptions to take:

### Heat Cramps –

**Description-** Painful muscle spasms caused by loss of salt through excessive sweating,

**Symptoms-** Muscle spasms and excessive sweating.

### What to do-

- ~Get the victim to a cool place.
- ~Give the victim cool drinks sprinkled with salt and salty foods, but no salt tablets.
- ~Remove tight wet clothing that may restrict blood flow.
- ~If cramps continue, seek medical help.

### HEAT STROKE-

**Description-** A combination in which the body’s temperature rises above 106° F (41° C) and, if not treated immediately, may result in a coma, brain damage, or death.

### Symptoms –

- ~Hot, dry flushed skin, usually with no sweating
- ~Agitation and confusion
- ~Headaches, nausea, and vomiting
- ~Irregular pulse
- ~Rapid, shallow breathing

- ~Possible seizure and loss of consciousness
- ~Possible shock and cardiac arrest

### What to do-

- Heat stroke is a medical emergency – get medical help
- Check the victim’s airway, breathing, circulation. Give **CPR**, if needed. If you don’t know CPR, find someone that does. If you aren’t certified – you need to be! We have CPR classes available – so ask and we’ll get you in a class.
- Cool the victim with sponge or spray, covering with cold water, cool cloths, placing ice packs under their armpits and groin, and fanning them.
- Move the victim to a cool place.
- Loosen or remove outer clothing.
- If the victim is conscious, provide cool drinks with salt sprinkled in and salty foods, but no salt tablets.

### Heat Exhaustion-

**Description** - A more advanced and serious stage of heat stress.

### Symptoms-

- ~General fatigue, weakness, and poor muscle control
- ~Dizziness and fainting
- ~Headaches and nausea
- ~Pale, cool, clammy skin
- ~Heavy sweating
- ~Cramps
- ~Rapid pulse, shallow breathing

### What to do-

- ✓ Heat exhaustion is life-threatening. Get medical help immediately.
- ✓ Check the victim’s airway, breathing and circulation. Give **CPR**, if needed. If you can’t do CPR, find someone that can! You need to get certified, if you aren’t!
- ✓ Cool the victim with a sponge or spray, covering with cold wet cloths, placing ice packs under their armpits and groin, and fanning them.
- ✓ Move the victim to a cool place.
- ✓ Loosen their outer layer of clothing.
- ✓ If the victim is conscious, provide them with cool drinks with salt sprinkled in but no salt tablets.

### Protect yourself-

- Learn to recognize the symptoms of the various heat illnesses and how to treat them.
- On hot days, don’t spare the water – drink often during the day. Avoid alcohol, sweet, and caffeine laden drinks.
- Gradually work up to a hot weather schedule.
- Wear loose fitting clothing made of cotton and other fabrics that will allow the air to pass through.
- Pace yourself with your work habits and take sufficient breaks.

Ted Gordon – Risk Mgmt. / Loss Control Mgr.  
MAFES / MSU-ES (662) 566-2201  
Excerpts: [www.cdc.gov/niosh/topics/heatstress](http://www.cdc.gov/niosh/topics/heatstress)  
Safety Smart Magazine, (Spring 2009)  
1/22/2016

**QUENCH YOUR THIRST WITH  
SAFETY FIRST!**

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**AVOID OVER EXPOSURE ♦ PAY ATTENTION TO THE SUN!**