



HEAT SAFETY TIPS ON THE FARM

Facts

- In 2010, 138 US fatalities were attributed to heat.
- Between 2003 and 2008, at least 40 (approx. 7/year) heat-related deaths occurred in the agriculture, forestry, fishing and hunting industries, which accounts for about 10 percent of all injury-related deaths.
- Agriculture had the highest average heat fatality rate in 2008, which 25.9 deaths per 100,000 workers.
- Workers in crop production account for 67 percent of all agriculture heat-related deaths and 16 percent of all heat-related deaths across all industries.
- Heat stress is a group of heat-related illnesses in which the body has an elevated core temperature with symptoms ranging from general discomfort to heat stroke.

This occurs in three phases:

1. Heat cramps in legs and abdomen – treat these as warning signs and get some water and rest. Individuals will experience normal/slightly elevated temperature with moist/cool skin.
 2. Heat Exhaustion – more severe. Water depletion with intense thirst, but if accompanying salt depletion, you will not be thirsty. Temperature will still be normal/slightly elevated.
 3. Heat Stroke – should be treated as a medical emergency. More than 20 percent of people who suffer from heat stroke will die. Organs stop functioning properly. Look for fatigue, dry skin, headaches, dizziness, muscle weakness, nausea, and confusion, loss of coordination, fainting and collapse. Core temperature is over 104°F.
- Remember that cook skin does not necessarily mean a normal core temperature.
 - Heat illness may be an underlying cause of other types of injuries, such as heart attacks, falls and equipment accidents.
 - Worker compensation claims for heat illness among agricultural workers are among the highest of any occupation.
 - Why are farmers at a higher risk?
 1. Environment – humidity, lack of air movement, confined spaces, temperatures above 70°F, direct sun light, etc.
 2. Physical labor, prolonged shifts few breaks.
 3. Thicker, darker clothing with more than one layer

Heat Safety Tips, Cont'd

Prevention

- Stay out of the heat between 10 am and 2 pm, if possible.
- Postpone non-essential work tasks.
- Drink plenty of water.
 - If outside temperature or heat index is:
 - Up to 102°F, you should drink a minimum of ½ pint of water every 30 minutes.
 - Up to 103°F – 106°, you should drink a minimum of ½ pint of water every 15 minutes.
 - Up to 107°F – 112°, you should drink a minimum of ½ pint of water every 10 minutes.
- Encourage employees to take a break and get water.
- If you are thirsty, you are already dehydrated. However, after a certain point, you lose your sense of thirst and are in very serious danger. This is indicated by lack of perspiration.
- Drink water and not soda, tea or coffee. Soda contains sodium and can actually speed up dehydration. Coffee and tea contain diuretics and speed up water loss.
- Avoid confined spaces until the temperature cools down. Consider putting hay in a barn the morning after it has been baled or later in the evening when temperatures drop if possible.
- Stay in the shade as much as possible and use umbrellas and brimmed hats if you cannot be in a cab tractor.
- Every hour, get off the tractor and find some shade for a break; farm equipment can produce a lot of additional heat.

Treatment

- Get out of the heat and move into shade or air conditioning.
- Remove excess clothing.
- Apply cool cloths to the back of the neck.
- Use a fan.
- Give fluids, but only if a person is alert and oriented.
- If the victim is past the initial phase and is in the phase of heat exhaustion or heat stroke, have him lie down and elevate his feet 12 to 18 inches.
- Seek medical help if vomiting occurs, temperature is not down within one hour, or the victim has an altered mental status.

References

- Ref. 1 - NOAA's National Weather Service-Office of Climate, Water, and Weather Services, <http://www.nws.noaa.gov/om/hazstats.shtml>
- Ref. 2 - Jackson, Larry, and Howard Roesenberg. "Preventing Heat-Related Illness Among Agricultural Workers." *Journal of Agromedicine*. 15. (2010):15. Print.
- Ref. 3 - Extreme Heat: A Prevention Guide to Promote Your Personal Health and Safety. Center for Disease Control and Prevention http://www.bt.cdc.gov/disasters/extremeheat/heat_guide.asp
- Ref. 4 - American Family Physician, Management of Heatstroke and Heat Exhaustion, <http://www.aafp.org/afp/2005/0601/p2133.html>