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## **AG SAFETY S.T.A.T. - SAFE TACTICS FOR AG TODAY**

Vol. 5 No. 7 July 2012

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### **THOUGHTS from the EDITOR - A Season of many weather emergencies**

**Dee Jepsen, State Safety Leader**

Summer storms and extreme heat have played havoc in many Ohio communities. Safety and health precautions are being sought after on a variety of topics. This issue has a wide collection of prevention strategies for all ages and all-season hazards. For additional information on these topics and more, visit the Extension Disaster Education Network (EDEN) for trustworthy references from Extension colleagues around the nation. The online address is

<http://eden.lsu.edu/Pages/default.aspx>

### **A SECOND on SAFETY - Dehydration**

**Question:** How fast can a human become dehydrated?

**Answer:** Humans become dehydrated for many reasons. Depending on the person's health and age (and a few other items like food intake, activity level, and outdoor temperature), humans can show signs of dehydration after losing about 2% of their total body fluid. This can occur in just a matter of hours!

### **TRACTOR SAFETY TRAIN-the-TRAINER WORKSHOP - July 25, 2012, 10am - 3pm**

Based on the heightened interest due to the recent proposals from the Department of Labor, many people around the state are asking for a tractor training course. Volunteers interested in teaching tractor & machinery certification to teens, as well as secondary Ag Science teachers and Extension

personnel who need to know their obligations for signing the Certificates of Training, are encouraged to attend this training.

An in-service training is scheduled for July 25, 2012 on the Farm Science Review grounds in London, Ohio. Participant fee is \$25/person. The course will provide a comprehensive overview of the training exemptions teens need to complete prior to working in agricultural environments. Teaching resources are included in the workshop registration fees, and will include print and online access to up-to-date training materials. Tractor driving course layouts and skill test evaluations are also part of the hands-on workshop. During a panel presentation, workshop attendees will learn from others in the state how to conduct the training requirements in local communities. Lunch is provided.

For registration information, send an email to [osuagsafety@gmail.com](mailto:osuagsafety@gmail.com) or call Dee Jepsen at [614-292-6008](tel:614-292-6008).

## **INJURY PREVENTION- Sprain versus Strain**

### **Kent McGuire - Ohio AgrAbility Program Coordinator**

This time of year there is a tremendous amount of physical activity on the farm. Physical activities include hand harvesting or weeding gardens, baling hay or straw, working with livestock, and building repairs. Due to the physical nature of agricultural tasks, there can be a tremendous amount of wear and tear on the body. Sprain / Strain injuries are common during physical demanding tasks because your joints and muscles take the majority of the punishment. It is important to understand the difference between these injuries, in order properly diagnose, treat and prevent a secondary injury from occurring.

**Sprain** - A sprain is a stretch or tear of a ligament (a band of connective tissues that joins the end of one bone with another). Sprain injuries can be caused by a trauma such as a fall, blow to the body that knocks a joint out of position, rupturing supporting ligaments, or a joint that forcefully moved out of its typical range of motion. Sprains can range from a minimally stretched ligament to a complete tear. Any sprain injury should be treated by a medical provider to prevent further injury. Locations at highest risk of a joint injury include; back, elbows, wrists, knees, and ankles.

**Strain** - A strain is a twist, pull, or tear of a muscle or tendon (a cord of tissue connecting muscle to bone). It is a noncontact injury that results from overstretching or over-contraction. Symptoms of a strain include: muscle pain, muscle spasm and loss of function. Strains can range from mild, moderate, and

severe causing permanent damage and loss of function, if not treated by a medical provider. Locations at highest risk of a strain injury include; calf muscle, hamstrings, muscles in the lower back and shoulders.

For more information about the Ohio AgrAbility Program, please contact Kent McGuire, OSU Agricultural Safety & Health, at [mcguire.225@osu.edu](mailto:mcguire.225@osu.edu) or [614-292-0588](tel:614-292-0588).

## **HEALTH TIP - Signs of Heat-Related Illnesses**

### **Provided by the Ohio Emergency Management Agency**

Working outdoors brings on heat related fatigue. However, it can also be dangerous. It is important to know the difference between heat stress and heat stroke.

#### **What is heat stress or heat exhaustion?**

Heat exhaustion is a milder form of heat-related illness that can develop after several days of exposure to high temperatures and inadequate or unbalanced replacement of fluids. Those most prone to heat exhaustion are elderly people, those with high blood pressure, and those working or exercising in a hot environment.

#### **What are the warning signs of heat stress or heat exhaustion?**

The warning signs of heat exhaustion include the following:

- o Heavy sweating
- o Paleness
- o Muscle cramps
- o Tiredness
- o Weakness
- o Dizziness
- o Headache
- o Nausea or vomiting
- o Fainting

The skin may be cool and moist. The pulse rate will be fast and weak, and breathing will be fast and shallow. If heat exhaustion is untreated, it may progress to heat stroke. See medical attention if symptoms worsen or last longer than one hour.

#### **What steps can be taken to cool the body during heat exhaustion?**

- o Drink cool, nonalcoholic beverages.
- o Rest.
- o Take a cool shower, bath, or sponge bath.

- Seek an air-conditioned environment.
- Wear lightweight clothing.

### **What is heat stroke?**

Heat stroke is the most serious heat-related illness. It occurs when the body becomes unable to control its temperature: the body's temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. Body temperature may rise to 106°F or higher within 10 to 15 minutes. Heat stroke can cause death or permanent disability if emergency treatment is not provided.

### **What are the warning signs of a heat stroke?**

Warning signs of heat stroke vary but may include the following:

- An extremely high body temperature (above 103°F)
- Red, hot, and dry skin (no sweating)
- Rapid, strong pulse
- Throbbing headache
- Dizziness
- Nausea
- Confusion
- Unconsciousness

### **What should I do if I see someone with any of the warning signs of heat stroke?**

If you see any of these signs, you may be dealing with a life-threatening emergency. Have someone call for immediate medical assistance while you begin cooling the victim. Do the following:

- \* Get the victim to a shady area.
- \* Cool the victim rapidly, using whatever methods you can. For example, immerse the victim in a tub of cool water; place the person in a cool shower; spray the victim with cool water from a garden hose; sponge the person with cool water; or if the humidity is low, wrap the victim in a cool, wet sheet and fan him or her vigorously.
- \* Monitor body temperature and continue cooling efforts until the body temperature drops to 101-102°F.
- \* If emergency medical personnel are delayed, call the hospital emergency room for further instructions.
- \* Do not give the victim alcohol to drink.
- \* Get medical assistance as soon as possible.

## **YOUTH SAFETY-Sun Safety, Protect your Skin**

**Kathy Mann - Program Coordinator**

Skin has a very important job to do. It must keep your body temperature constant and protect your internal organs from light, injury and infection. While working or relaxing outside this summer remember some simple ways to protect your skin.

- Limit time in sun especially during this period from 10:00 am to 4:00 pm.
- Use the Shadow Test: If your shadow is shorter than you, you can still get a sunburn.
- Stay in shaded area outdoors, especially during mid-day.
- Sun burn occurs on cloudy days so use sun screen and protect yourself. Cloudy days give a false sense of security; 80% UV rays come through clouds.
- Protect with clothing
  - \* Wear a sun safe hat
  - \* Wear loose fitting clothing that protects the arms and legs
- Use sunscreen with SPF of 15 or more.
- Wear UV Sunglasses

## **CHAIN SAW SAFETY DURING TREE REMOVAL**

**By OSU Ag Safety Staff, reprinted from Ag S.T.A.T. Vol. 4 No. 2 February 2011**

Removing trees and limb debris is often a necessary chore following ice storms. Whether you're an experienced or novice tree trimmer, it is important to follow common safety practices when using a chain saw.

### **Chain Saw Safety**

- \* Not all chain saws are the same, so be sure to **choose the right saw** for the job. Large trees may need to be removed by a professional service, rather than your typical firewood sized saw.
- \* **Maintain the saw.** Dull and loose chains increase the risk of dangerous kickbacks and chain breakage.
- \* **Use both hands** when starting a chain saw. Place the chain saw on the ground to start it. Never start the chain saw in mid air - pushing it away while pulling on the starter cord. This approach is unstable, unsafe, and a bad habit that needs corrected.
- \* **Know where the tree needs to land.** Look for overhead power lines and obstacles that can deflect a falling tree.
- \* Make sure there is a **clear path of retreat** when moving away from a falling tree. Move in a direction 45 degrees away from the base of the tree to avoid the sideways bounce or backward thrust of the tree.
- \* When felling the tree **use starter cuts** on trees larger than 6 inches. Make a 45-degree angle cut on the side facing the intended direction of fall. First make

the bottom notch about one third the diameter of the tree with the second cut meeting the first. The felling cut should be on the opposite side about 2 inches higher than the bottom of the notch.

- \* **Leave a hinge** at the cuts so the tree does not bounce or roll after it falls.
- \* **Use a wedge.** If a tree does not fall with the felling cut, wedges can be used to start and control the direction of fall. Stand to the side when driving the wedges in case they are ejected. A sledge is well suited to drive a wedge and should be at least 1/3 larger than the head of the wedge.
- \* After the tree is down, make careful **planned limb cuts**. The tree will continue to move as limbs are removed and limbs may have tension on them.
- \* **Minimize trip hazards.** While cutting logs and limbs to the desired size take the time to remove them from the area to minimize trip hazards.

### **Personal Protection Gear**

- o Wear the right equipment. Branches can fall unexpectedly so a hard hat is critical. Several hats also include a face shield to keep debris from flying into the face.
- o Eye protection is very important. Safety glass or goggles offer good protection. Sunglasses or prescription lens glasses will not protect your eyes from high velocity, flying debris; these glasses can also shatter under impact and imbed in your eyes.
- o Proper footwear is above the ankle, steel-toed boots; however a sturdy leather boot will also provide protection for smaller jobs.
- o Chain saws operate at high decibel levels, so hearing protection is important to protect your hearing. "Ringing in the ears" is a condition that follows a day using a chain saw. This is a good indicator that you were exposed to damaging sounds, and hearing protection was needed.
- o Wear close fitting clothing, no loose strings on hooded sweatshirts or frayed jeans to get caught in the saw. Leather gloves offer the best type of hand protection.
- o Saw resistant chaps are also available to protect the left leg, where most chain saw injuries occur.

Removing downed trees and tree limbs following a storm requires different type of work than the typical yard chores. Over-exertion can show itself in the form of back and muscle strains. To avoid over-doing it, take rest breaks and get help from others with the larger branches.

### **SAFETY TIPS WHEN USING WOOD CHIPPERS**

**By Dee Jepsen and Michael Wonacott, Ohio State University Safety**

## **Specialists**

Following the storms, large wood chippers are being used in many areas for woody plant debris removal. The knives used on chippers and shredders are sharp enough to slice through fresh wood. The engines are powerful enough to grind thick branches and limbs. Those same knives and engines can also be hazardous to fingers, hands and human limbs. Exercise extreme caution when these machines are in use.

## **Worker Protection**

- o Do not work alone when using a chipper or shredder.
- o Read the owners manual to understand how the unit operates and how to shut it down in an emergency.
- o Test the safety and emergency shut-off devices before operating it.
- o Wear a hard hat, sturdy slip-resistant footwear, eye protection, hearing protection, gloves without cuffs, and pants without cuffs.
- o Keep shirt sleeves buttoned and shirts tucked into pants.

## **Safety for the Work Zone**

- o Position the chipper or shredder so that workers do not have to stand on slopes when feeding material into the machine.
- o Keep the area around the chipper or shredder free of tripping hazards.
- o Put up warning signs to keep the public a safe distance from the work area.
- o Ensure that the dislodging chute is positioned to prevent chips from being blown in any direction.
- o Make every effort to remove any stones, metal, nails, or other foreign objects from the wood prior to putting it in the chipper or shredder.

## **Equipment Safety**

- o Keep the shields in place while the machine is operating.
- o Run the machine at the lowest possible speed to do the job.
- o Allow all internal machine parts to come to a complete stop before opening the hood covering.
- o Never attempt to unclog the chipper while the power is still engaged, or the parts have not stopped moving.
- o Wear gloves when performing maintenance on the sharp knives.

## **GENERATOR SELECTION AND SAFETY**

**By OSU Ag Safety Staff, reprinted from Ag S.T.A.T. Vol 1 Issue 4, October 2008**

Recently, extended power outages were the reality of many households and businesses throughout Ohio. These outages led many families and businesses to utilize a generator to meet their power needs. The following are considerations that should be taken into account when deciding to utilize a generator.

**Selecting a Generator:** To select the proper watt-sized generator it is important to know the watts of standard household appliances. A good source for this information is published by the Consumer Product Safety Commission at: [http://www.consumerreports.org/cro/resources/images/video/wattage\\_calculator/wattage\\_calculator.html](http://www.consumerreports.org/cro/resources/images/video/wattage_calculator/wattage_calculator.html)

This publication lists common household appliances and their wattage. It is important to remember that many appliances will use more watts when being started. Reading the watts information on individual household items is best for calculating needed wattage. Always use the start-up wattage when determining the total watts needed. Plug in appliances one at a time starting with the larger appliances and continuing in decreasing watt order. Do not exceed the capacity of the generator.

**Following Safety Precautions:** Because a generator is powered by gasoline it is imperative that the device never be operated indoors and this includes a garage. Generators produce carbon monoxide (CO), which cannot be seen or smelled and can be lethal. Therefore, always operate generators outside in a well-ventilated area and away from windows, doors, and vents. Ground the generator to prevent electrical shock.

Use heavy-duty extension cords designed for outdoor use to connect appliances to the generator, ensuring that the wattage rating of the cord exceeds the total wattage of the appliances connected to it. Keep the generator in a dry location and have dry hands when touching the generator. Make sure a battery-operated CO detector is in operation when using the generator. To learn more about the safe use of generators, visit the Consumer Product Safety Commission at <http://www.cpsc.gov/cpsc/pub/pubs/portgend.html>.

**EMERGENCY MANAGEMENT TIP OF THE MONTH - A guide for checking in on our senior community members during power outages and heat waves Provided by the Ohio Emergency Management Agency**

During this heat wave, it is important to make sure our seniors are safe, healthy and able to communicate their needs. This guide is also useful during power outages when seniors may be isolated from their typical modes of communication.



**Remember to communicate your concern in a caring way.**

- Always treat adults as adults.
- Don't assume someone who is using words that don't make sense to you has dementia. Dehydration, stress, and fatigue can cause disorientation.
- If the adult you're concerned about walks away and appears not to have a direction in mind, don't restrict them but walk with them or say you'll call someone to walk with them.

**Use a natural tone of voice and conversational style of communication.**

- Be calm and reassuring.
- Speak slowly and distinctly.
- Communicate at eye level and make eye contact.
- Invite the individual to sit down with you
- Speak using positive language. Instead of "Don't go there" say, "Let's go here."

**Ask open-ended questions.**

- Instead of "Are you staying cool?" ask "What are you doing to stay cool today?" "Where will you go if the power does not come back on tomorrow?"
- Ask one question at a time and give the individual time to respond.
- Don't ask "testing" or "challenging" questions.
- Instead of "Do you know your name?" ask "What would you like me to call you?"
- Instead of "Do you know where you are?" say "I'm glad that I came to visit you at your home today." The adult's response will tell you whether they have forgotten where they are.

**Don't correct the adult who appears to be confused.**

- Avoid arguing-instead, validate feelings.
- For example, if the person makes statements that don't fit the situation like calling you by someone else's name, say "I haven't seen 'Joe' lately but my name is \_\_\_ and I'll stay with you until your family comes by" or "I'll call someone so 'Joe' will know where you are."

**Risk Assessment**

- Check on the current status. Is the person healthy?
- Assess future wellness. Does the person have what they'll need for the next several days?

- Check on vital supplies:
  - Water
  - Food (refrigerated food should be thrown out after two hours without electricity)
  - Temperature control
  - Medications- some may need to be refrigerated or stored on ice

**Asking for Help**

- Make sure the person is able to call for help if it is needed.
- Don't just assume the person's phone is working- check the battery charge
- Some may not realize that cordless phones need electricity to charge
- Instead of asking, "do you have someone to call if you need help?" questions such as, "show me how you would call your daughter if you need her to come help" will be more effective.

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*Ag Safety S.T.A.T. - Safe Tactics for Ag Today* is an e-mail newsletter prepared by Dee Jepsen, Extension Agricultural Safety Specialist and team members from the State Safety Office, in the Department of Food, Agricultural and Biological Engineering at OSU. The primary goal of this monthly newsletter is to help you stay connected to everyday safety news and activities that may be used in your own newsletters or programs. If you have safety-related questions or program ideas that you would like to share, please contact Dr. Jepsen at [jepsen.4@osu.edu](mailto:jepsen.4@osu.edu)  
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