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

Vol. 6 No. 7 July 2013

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THOUGHTS FROM THE EDITOR - The SMV Celebrates 50 Years

Dee Jepsen - State Agricultural Safety and Health Leader

The Slow Moving Vehicle (SMV) emblem celebrates its 50th Anniversary! This emblem, recognized for safety around the U.S., was developed in the Agricultural Engineering Department at The Ohio State University in the early 60's. In 1963 this emblem was dedicated to the public by the OSU President Novice G. Fawcett. Testing was conducted by Ken Harkness, an OSU Ag Engineer, and his team of graduate students to determine the best shape and color for this roadway safety symbol. A 1/16 scale highway simulator was constructed to test human recognition rates of slow moving vehicles with most of the testing conducted outside of the Ives Hall Building (no longer standing on OSU campus).

The first formal introduction of the SMV emblem was at a safety seminar in 1962, where Deere and Company took interest in the design and became an avid promoter. The emblem was adopted by the American Society of Agricultural Engineers (ASAE) and in less than 2 years became part of many states' roadway legislation. In 1971 the SMV emblem became the first ASAE Standard to be adopted as a national standard by the American National Standards Institute (ANSI).

Last month, Ohio hosted the annual conference of the International Society for Agricultural Safety and Health - a professional association dedicated to the welfare of farmers and ranchers. Besides members from the United States, 7 other countries were in attendance. A luncheon speaker featured OSU's own Ted Gastier (a faculty emeriti), who was one of the original graduate students on the design project. Ted gave an excellent presentation to safety professionals around the country who often promote the SMV emblem in their area, but may have never known some of the "behind the scenes" tactics used in the development of the emblem.

It is with great pride that Ohio can boast the development of this emblem by OSU faculty and students. For 50 years, this emblem has been behind agricultural equipment and horse-drawn vehicles warning the motoring public of a Slow Moving Vehicle!

A SECOND ON SAFETY

According to the National Weather Service in the U.S., an average of 53 people are killed each year by lightning, and hundreds more are severely injured.

Read the article in this issue to protect yourself during summer storms.

THE NEW FARM DIESEL POSES A SERIOUS RISK FOR FIRE AND EXPLOSION

Dee Jepsen - State Agricultural Safety and Health Leader

Due to a change in the EPA regulations, the petroleum industry is producing Ultra Low Sulfur Diesel (commonly called ULSD) fuel. While this may be a cleaner burning fuel and will improve air quality, it also introduces a new safety risk for those who use the product. The new diesel fuel has an increased risk for fire and explosion. This is especially a concern for those who use satellite fueling stations like those on farm trucks, pipeline and construction crews.

How is this fuel different? The reduced amount of sulfur in the diesel also decreases the fuel's conductivity, which in turn increases its ability to store static electricity. Static charges can build up in ULSD fuel while it is being pumped through the fuel delivery system.

What should you do to reduce the risk of fire and explosion? All fuel systems need to be properly grounded and bonded. This includes the machine you are re-fueling, the fuel supply tank, the transfer pump, the transfer hose and nozzles.

A grounded fuel delivery system is one that connects to the earth that allows static and electrical charges to dissipate. Most farm trucks and satellite fuel tanks have rubber tires to allow for grounding. However, bed liners and other mediums between the tank and the rubber tires cause a disconnect to the earth, and results in an un-grounded system.

A bonded fuel delivery system is one that has an unbroken connection between all components. Using this new fuel, persons are now required to connect a wire from the fuel tanker to the machine it is refueling to equalize the static electric potential between the two units. This practice is commonly done for airplanes and boats during their refueling; it is now important for farmers to practice similar safety practices when refueling their field equipment using a satellite fuel tank.

It is commonly known that diesel fuel is not as combustible as gasoline. However, diesel is still considered a fuel source and will burn. The new USLD formulation has a greater potential to be a static ignition hazard. The combination can be deadly if new safety practices are not taken. BE ALERT! This is not the same diesel fuel that has been used for years; the same old practices are not sufficient!

For additional information about proper grounding and bonding practices, consult your local fuel supplier.

WHAT SPF DO YOU NEED?

Kathy Mann – Agricultural Safety and Health Program Coordinator

As the summer's sun shines to make the grass and crops grow, most of us also think about tans and not wanting that awful "farmer's tan". A nice tan is often looked upon as a status symbol in society. Nevertheless, this tan is a form of skin damage and can lead to skin cancer. The ultraviolet sun rays damage your skin along with creating vision problems, allergic reactions, depressed immune systems, and skin concerns.

To protect yourself, use a sunscreen. Sunscreen contains protective chemicals, which absorb and scatter ultraviolet rays. All sunscreens have a numerical rating to indicate the amount of protection called Sun Protection Factors, SPF. The greater the SPF number the greater the protection, although no sunscreen blocks 100% of the UV radiation. When you have applied sunscreen correctly, your skin will get 1 minute of UVB rays for every 15 minutes you spend in the sun. For example, if you spend 2 hours in the sun wearing SPF 15, it is the same as spending 8 minutes unprotected in the sun. For those with very fair or fairer complexion it is recommended to use a SPF of 30 or more.

Sunscreen should be applied 20 or 30 minutes before going outside to allow time for the sunscreen to start working. Reapply every 2 hours to the best protection. If you are going to be in the water, use water proof products. These types of products normally provide protection for at least 80 minutes when swimming or sweating.

Be sure when you are out enjoying the sun, you protect your skin!

For more information, review Sun Exposure: Precautions and Protections, found here ohioline.osu.edu/hyg-fact/5000/pdf/5550.pdf

SUMMER JOBS FOR TEENS ON THE FARM

Dewey Mann – Safety Research Associate

Most parents realize a summer job in agriculture can teach youth the value of manual labor, while improving their work ethic, and gaining an appreciation for the land. These same parents may not realize there are rules governing what their teenager can and

cannot do for hire. The rules that regulate youth employment on farms, the Agricultural Hazardous Occupations Orders (AgH.O.s) were brought to light in many agricultural communities in September 2011 when the U.S. Department of Labor (DOL) sought to update the 40+ year old legislation. Some of the comments against the proposed rule changes focused on the potential impact of youth who complete FFA Supervised Agricultural Experiences (SAE) or 4-H projects relating to livestock and tasks that involve general farm labor. The proposed rule changes were eventually NOT put into law.

What are the rules now? The original child labor laws in agriculture (from 1968) are still in effect today. The law states that youth 14-15 years old CANNOT complete the following tasks for hire:

1. Operate a tractor over 20 PTO Hp
2. Operate, or assist to operate machinery
3. Operate, or assist to operate the following machines: Earth moving equipment (bull dozer, track hoe, etc.), fork lift, potato combine, or power-driven circular, band, or chain saw
4. Working in a pen occupied by breeding livestock
5. Felling, bucking, or skidding timber larger than 6-inch butt diameter
6. Working from heights greater than 20-feet
7. Driving a vehicle when transporting passengers
8. Working inside of confined spaces (grain bin, fruit storage, silo, etc.)
9. Handling or applying toxic chemicals
10. Handling or using blasting agents
11. Transporting, transferring, or applying anhydrous ammonia

The 11 tasks listed above are abbreviated from the AgH.O.s; for the full list, please visit Child Labor Bulletin 102 <http://www.dol.gov/whd/regs/compliance/childlabor102.pdf>

There are two exemptions to these child labor laws; (1) if the youth is working on a farm owned and operated by their parent or legal guardian (farmers in LLC or owned by aunts/uncles, grandparents, etc are NOT exempt), or (2)* the youth can work for hire operating tractors and machinery (#1 and #2 above) if they complete a tractor and machinery safety certification course.

The 24-hour certification courses are traditionally overseen by high school agricultural instructors or Extension educators. However, under the supervision of either of these two entities, any one with experience in production agriculture is allowed to teach youth. A downfall of these training programs is finding instructors willing and able to spend the time working with youth. If you are interested in assisting to promote a tractor and machinery course in your area, contact the OSU Agricultural Safety Program.

An online course is available from eXtension for a cost of \$50:
<http://www.extension.org/pages/65080/agsafety4u-certificate-course>

More information can be found at:

<http://www.NSTMOP.psu.edu>

<http://www.Gearingup4youth.info>

<http://www.extension.org/pages/67883/nstmop:-program-overview>

INJURY PREVENTION – Working in Extreme Heat

Kent McGuire – Ohio AgrAbility Program Coordinator

This time of year a major health concern can be working in extreme hot weather. Working in extreme heat for long periods of time can increase the risk of a heat stress injury such as heat exhaustion or heat stress. These types of injuries can occur when the body cannot regulate its temperature and can become serious medical emergencies if precautions are not taken. Individuals with pre-existing conditions, such as limited mobility, heart disease, and taking certain medications are at an even higher risk to a heat stress injury and should consult with their local health care provider before working for an extended period of time in extreme heat. Some precautions should include:

- When possible, strenuous work should be scheduled for the coolest time of day.
- Dress lightly-lightweight, light-colored clothing reflects heat and sunlight and helps your body maintain normal temperatures.
- Take multiple short breaks in a shaded area or controlled environment, throughout the day.
- Alternate tasks that involve working around equipment or machines that will give off additional heat during operations, with tasks in a more comfortable, controlled environment.
- Stay Hydrated – Drink plenty of fluids before, during, and after strenuous activities. Cold fluids can help cool the body and avoid drinking alcoholic beverages.
- Avoid foods that are high in protein because they increase metabolism, increasing body heat and water loss.
- Do not get too much sun and use sunscreen. Avoid scheduling tasks in direct sunlight, during the middle of the day. Sunburn makes reducing body temperature more difficult.
- Spend time in air-conditioned places, especially during periods of rest, which allow the body to recuperate.

For more information about the Ohio AgrAbility Program, visit www.agrability.osu.edu or contact Kent McGuire, OSU Agricultural Safety & Health, at mcguire.225@osu.edu or 614-292-0588.

EMERGENCY MANAGEMENT - Summer Time is Peak Time for Thunder and Lightning Storm

Kent McGuire – Program Coordinator

According to the Ohio Committee for Severe Weather Awareness, summertime is peak season for thunderstorm activity in Ohio. Although the number of lightning fatalities continues to decrease over the years, lightning strikes continue to be one of the top three storm related killers in the United States. It is important to note that lightning injures more people than it kills. The best protection from lightning is to avoid the threat. Performing this simple measure can dramatically reduce the chance of severe injury or death during a storm: When thunder roars, go indoors! Stop outdoor activities and seek shelter immediately. Preparedness for thunderstorms or any severe weather incident is key. Know what to do before, during and after severe weather. For more thunder and lightning safety tips, click on: <http://www.ready.gov/thunderstorms-lightning>

For more information about Emergency Management contact Kent McGuire, OSU Agricultural Safety & Health, at mcguire.225@osu.edu or 614-292-0588.

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
