
•CULTIVATION•

The Newsletter for The Southwest Center for Agricultural Health, Injury Prevention and Education

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From the Deputy Director...

Matt Nonnenmann, Ph.D., CIH

Research to Practice...r2p

As a new researcher in Agricultural Health and Safety, it has become increasingly clear to me that it is my responsibility as a researcher, to communicate research results and potential solutions to occupational health and safety problems in a meaningful way to stakeholders. The National Institute for Occupational Safety and Health (NIOSH) refers to this practice as “r2p” or Research to Practice. I believe that r2p is essential for building relationships with stakeholders and for the success of future research. For example, an ongoing research study is evaluating risk for injury and musculoskeletal problems among dairy workers in Texas, New Mexico, Colorado and Utah. This study is funded by NIOSH and based out of the High Plains Center for Agricultural Health and Safety (HICAHS). As part of this study, a dairy veterinarian accompanies the research team on visits to the dairy farms and consults with the owner/manager on dairy production issues. Furthermore, current research findings and useful tools related to agricultural health and safety are provided as well. The expertise that is provided is of immediate value to the dairy producer, and the producers respond positively to the service provided and their experience with participating in the research. Another example would be a recent investigation of ergonomic risk factors among crawfishermen in Louisiana. In this study, data collection was coordinated by Louisiana State University Research and Extension. Crawfish producers were provided consultation on production issues while participating in the health and safety research. I believe that r2p is an essential component to any research project and should be carefully designed to provide meaningful information to the stakeholders we are serving.

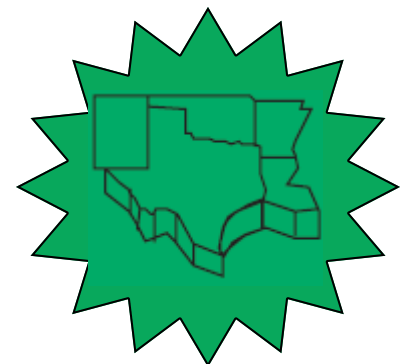


Meet the Advisory Board

Featured Member: Robert G. Hagevoort, Ph.D.

Robert Hagevoort, a native of The Netherlands, earned his bachelor's degree in tropical animal production from the Deventer College for Tropical Agriculture. He received a master's degree in range nutrition and a doctorate in animal nutrition from Texas A&M University. Prior to joining NMSU as an Extension Dairy Specialist in November of '05,

Hagevoort served for 10 years as an independent dairy management consultant and nutritionist, primarily in California's southern and central Valley. As an Extension Specialist he has been working closely with the Dairy Industry in New Mexico and throughout the Southwest on providing information, regulatory issues, and any other fires that may erupt within the industry.



Summer 2009

SW Ag Center participates in 2 state Ag Teacher Conferences

The SW Ag Center participated in the Vocational Agriculture Teachers Association of Texas Conference in Lubbock, Texas and the Arkansas Vocational Agriculture Teachers Association in Hot Springs, Arkansas.

In **Texas**, the exhibit focused on hearing conservation in agricultural environments. The Center was able to borrow a hearing simulation model from Southeastern Louisiana University. The life-like model was originally conceived and built by Genna Martin, a student at Boston University. Read more about the original “Jolene” hearing conservation model at www.dangerousdecibels.com. The SW Ag Center plans to build their own hearing model for future use.

In **Arkansas**, the focus was on tractor and machinery safety and certifying youth for employment. The information was well received by approximately 200 teachers. Seventy-five teachers expressed an interest in participating in a Community Lead Instructor (CLI) Training or a Master Trainer Workshop with the National Safe Tractor and Machinery Operation Program (NSTMOP). The SW Ag Center hopes to offer a CLI training in conjunction with the 2010 Conference.

In 2007, Texas agriculture teachers responded positively to this program that was promoted at their conference. Since that time, over 70 Texas agriculture teachers have been certified as CLIs.

Progressive Agriculture Safety Day in Canton, TX

About five-hundred children pre-kindergarten through 2nd grade participated in a Progressive Agriculture Safety Day at Canton Elementary School on Friday, May 15th. The safety day was expertly coordinated by Tommy Phillips, Van Zandt County 4-H & Youth Development Extension Agent. He has organized safety days in Van Zandt County for eleven years and he stated that this event was the “most successful one yet”. The purpose of the safety day was to educate the students on how to be safe not only in agricultural situations, but also in and around their homes.

The SW Ag Center participated for the third consecutive year by presenting Pesticide and Chemical Safety. The presentation covered how pesticides

and chemicals harm the body, how they transfer, and where they can be found in a typical home. In addition, children participated by guessing which substance was a chemical and which was a safe material from a collection of ‘look a likes’. Participants also volunteered for the opportunity to wear sunglasses that simulated vision damage from pesticide or chemical exposure.



The safety day also included stations devoted to ATV safety, tractor safety, fire safety, first aid and water safety. Local professionals and businesses volunteered their time and resources to make the event meaningful and effective.

Farmers & Ranchers At Risk for Skin Cancer

Most people who work in agriculture know the industry involves many health risks. Accidents involving machinery, livestock, irrigation equipment, and exposure to various chemicals can seriously damage your health. However, many people involved in agriculture are not aware of the serious threat to their health posed by skin cancer. Skin cancer can be painful, disfiguring, and fatal.

The most common cause of skin cancer is sun exposure. The effects of sun exposure on the skin are cumulative. Fifteen minutes here, an hour or two there, all add up. The nature of farming and ranching involves being outdoors year-round, sometimes from dawn to dusk, and beyond. All those hours under the sun have an effect on exposed skin. This means farmers and ranchers are at high risk for developing skin cancer. The sun's rays are even damaging in cold weather, and on cloudy days. The most common sites for skin cancer among farmers and ranchers are those areas most frequently exposed: the tops of the ears, the back of the neck, the face (especially the lips, eyelids and nose), and the forearms and hands.

Protect yourself from the sun's damaging rays by using some sort of barrier.

Long-sleeved clothing and wide-brimmed hats are physical barriers that will protect your arms and face. A lightweight, loose-weave fabric will help keep you cool in the summer, while providing protection for your arms. **Don't** wear baggy clothing that can get caught on the PTO shaft or in other machinery. Wide-brimmed (3 to 4" brim) hats shade the vulnerable ears and neck. A baseball style cap does not shade these areas, unless you add pieces of cloth to the side and back, sort of "Legionnaire" style. Many road mowers have adopted this practice. While it does offer good protection from the sun, a wide-brimmed straw hat is much cooler to wear.

Sunscreen with a sun protection factor (SPF) of 15 or greater is another good barrier. Some ranchers object to wearing sunscreen because it helps dirt and chaff stick to the skin. If applied 30 minutes before sun exposure, it will have time to dry, preventing some of the debris from sticking. Sunscreen will prevent many of the harmful rays from penetrating the skin. Be aware that a sunscreen's SPF is not cumulative. You **cannot** apply an SPF 15, and

then apply another layer of SPF 15 to get an SPF of 30. It is a good idea to get into the habit of applying sunscreen every morning before you head out to tackle those farm chores. Apply to face, ears, neck, throat, arms and hands. Don't forget any balding spots. You will need to reapply the sunscreen every few hours, more frequently if you perspire heavily. Teach your kids to use sunscreen, too.

An easy way to remember the above advice is "**Slip, slap, slop.**" **Slip** on protective clothing. **Slap** on a hat. **Slop** on some sunscreen.

Another effective barrier is a **tractor canopy or cab**. Be mindful that the sun's rays hitting you from the side, under the canopy, can still cause damage. Sunscreen is helpful in that situation.

With the pressures of haying, harvesting, and working with livestock, many ranchers and farmers don't place much, if any, priority on preventing skin cancer. But please consider these facts:

Skin cancer is preventable
Skin cancer can be fatal.
You are at risk.

Don't forget to Slip, slap, slop!



This article was written by Marie Reed. Mrs. Reed is a registered nurse with the Texas Department of State Health Services, with a longtime passion for agricultural safety and health. She and her husband John are members of East Texas Independent Cattlemen's Association of Texas, where she serves on the board of directors. They also belong to Anderson County Farm Bureau, and she serves on the Family and Consumer Sciences committee of the Texas Cooperative Extension Service. They raise cattle and hay on their ranch in the Harmony Community, west of Palestine. If you have a question about this article, contact her at marie.reed@dshs.state.tx.us.

Outdoor Chores Mean WATCH OUT for Snakes!

The Southwest abounds with beautiful flowers, lush green lawns, vegetable gardens... and snakes. The Southwest home to many types of harmless, even helpful snakes. We also have our share of the venomous varieties: coral snakes, copperheads, cottonmouths (water moccasins), and rattlesnakes. As we tend our gardens and lawns, we need to remind ourselves to be on the lookout for snakes. Let's go over what the venomous snakes look like and where they might be found.

Coral Snakes

Coral snakes average 20-30 inches in length for adult males. The adult females are usually slightly smaller. Newly hatched coral snakes are 6 ½ to 9 inches long. The distinctive coloring of the coral snake makes it easy to identify. "Red on yellow, kill a fellow" refers to the pattern of the colored bands encircling the snake's body. Non-venomous snakes with similar coat patterns display red bands touching black bands. "Red on black, venom lack" or "red on black, friend of Jack."

Coral snakes like soft, cool earth, which makes our flowerbeds and compost areas particularly appealing to them. They are basically nocturnal, but they do occasionally hunt in the cool early morning hours. Its venom is highly toxic to nerve tissue, and its bite has been lethal to humans.

PIT VIPERS

The other three varieties of venomous snakes in our area (copperheads, rattlesnakes, and water moccasins) are known as pit vipers, so named because of the tiny, heat-sensitive pits located near the nostrils. According to wildlife experts, other identifying characteristics of pit vipers include a triangular shaped head, and elliptical pupils. The fangs of a pit viper are hollow and somewhat brittle.

The most common pit viper in this area is the **Copperhead**. Adult copperheads average 2-3 feet in length. The skin color of an adult copperhead ranges from tan to copper, with darker hourglass-shaped markings encircling the body. The skin colors and patterns make perfect camouflage for the copperhead, which is often found in woodland settings, under leaves or logs.

A copperhead is not aggressive, often playing dead when disturbed, hoping that you will just leave it alone. However, it will strike if you get too close and allow it no escape route. Pulling weeds in a flowerbed or garden or picking produce such as cucumbers or other vine crops are perfect opportunities to inadvertently hem up a copperhead and receive a quick bite. Stepping on an unseen copperhead can almost guarantee a snakebite to the foot. The venom is less toxic to humans than the venom of the other pit vipers but causes considerable pain at the site of the bite.

Western Cottonmouths, sometimes known as water moccasins, are thick-bodied snakes with tails that quickly taper to a point. Adult males average 2-4 feet in length. Colors range from black, to brown, to olive green. Young cottonmouths have dark, splotchy bands encircling the body, and yellow tails. The bands fade as the snake ages, and older snakes appear nearly solid colored. When disturbed, a cottonmouth will often stand its ground,

opening its broad jaws to reveal the white inside of the mouth. This characteristic not only gives the snake its name, but also its reputation for being aggressive.

Cottonmouths can be found near many freshwater habitats. In drought situations, they will travel overland in search of new habitat. They hunt day or night, but during the hot months of summer they prefer to hunt after dark.

A cottonmouth can swim with most of its body above the level of the water. It can remain afloat if it stops swimming. Cottonmouths can and will bite underwater. The venom is quite toxic.

Rattlesnakes

Timber rattlers and canebrake rattlers are closely related and are the common rattlesnakes found in the Southwest. The adults average 3-4 ½ feet in length. The young measure 8-10 inches and are equipped with fangs and venom at birth. The skin color ranges from black to brown, and from yellow to gray, with darker chevron-shaped bands encircling the body. Canebrakes also have a rust or orange colored stripe down the back, and a stripe across the eyes. The venom is quite toxic.

They can be found in wooded areas and around the edges of swamps, lying along rodent paths. Their camouflage increases the likelihood that an unsuspecting human will step on them. In cases such as this, the snake may not have a chance to warn you with the sound of its rattle.

TIPS TO AVOID SNAKEBITES

- Wear boots or high-top leather shoes.
- Wear leather or heavy canvas gloves.
- Do not reach your hands into an area that you cannot see.
- Be aware of potential hiding places.
- If you see a snake, just leave it alone!
- Don't handle recently killed snakes.

If, despite all your caution, you receive a snakebite:

- Remove any rings or constricting items because the affected area will quickly swell.
- Wash the bite area if possible, using lots of soap and water.
- Keep the affected area as still as possible because movement helps distribute venom.
- See a doctor immediately. Even the bite of a nonvenomous snake can cause a severe infection or an allergic reaction.

What NOT to do:

- No ice or any other type of cooling on the bite.
- No tourniquets.
- No electric shock.
- No incisions in the wound.

Contrary to the popular statement "The only good snake is a dead snake," they do help maintain the balance of nature. We would be overrun with rodents without those reptiles. Still, don't let a chance encounter ruin your enjoyment of the great outdoors.