

## Special Interest Articles:

- Horn Fly Control
- New tick-borne virus
- Grasshoppers
- High Temps and Cattle Care
- West Nile Virus



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## Insect Updates Control Those Horn Flies

A major fly pest for cow-calf operations is the horn fly. Horn fly control can mean an additional 12 to 20 pounds of weight per calf over the summer months and reduced weight loss for nursing cows.

Many factors should be considered when selecting a control program, such as; cost, convenience, physical layout, and animal movement

between pastures.

It is important to rotate chemical classes each year. This does not mean buy a new brand of product next year; it means that active ingredients must come from different classes (i.e., pyrethroid, organophosphate, and abamectin). If you are unsure call your local Extension Agent or me.

In addition to changing chemical classes, multiple application methods should be used during a fly season to get the most effective and integrated pest management. Just using larvicides will not kill the adult horn flies coming from your neighbors and just using ear tags will not kill any larva that do get laid.

## New Tick-Borne Virus

In 2009, two men from Missouri, who had recently been bitten by ticks, wound up hospitalized with fever, fatigue, low blood cell counts and elevated liver enzymes.

The men were thought to have contracted ehrlichiosis, a potentially dangerous bacterial infection but blood cultures showed no bacteria.

contracted an entirely new virus, a phlebovirus which is a close cousin of virus that cause serious diseases such as hantavirus and Crimean-Congo hemorrhagic fever.

This new virus is being called "the Heartland virus" after the hospital that treated the men and because of where it was discovered.

being spread by the Lone Star tick. A tick found throughout Missouri and elsewhere, Texas included. Other ticks might also be able to transmit this virus.

Much is still unknown about this new virus, in addition to finding out more on which arthropods can transmit it, scientists and doctors do not know what animals may serve as hosts.

It turned out the men had both It is thought that this virus is

## Grasshopper Problems – what more can we say?

Grasshoppers are a problem in Texas, this year, last year, the year before that and next year. So one day I guess we'll have to learn how to live with them. Of course like any insect we need to find that happy medium so people who grow forage and crops will have enough to feed their cattle and not just the grasshoppers.

The grasshoppers will continue to be around until the first frost, and no one can predict when that will be. In the meantime they are going to eat a lot of food.

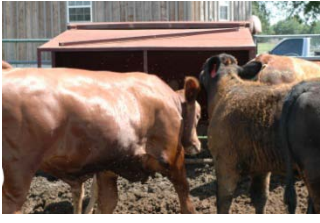
High populations are tied to drought for a number of reasons, per Dr. Allen Knutson. Grasshoppers hatched earlier than normal this spring and there were low numbers of fungus.

One thing I have noticed is that the grasshopper numbers did not appear to be much higher than last year BUT due to the drought they died off midsummer since there was nothing to eat. Even grasshoppers can only handle so much heat and dry weather.

When the food source disappears and there is no water, everything dies off.

Controlling grasshoppers takes due diligence and is best achieved when they are small and unable to fly. Since it is a bit late to do much control now except spraying, start thinking of how to protect you crops next year, start with weed control and tillage.

Spray options: Mustang Max, Baythroid, Sevin, Malathion, Karate Z, Warrior II and Dimlin 2L



*"In an emergency, cattle can be sprayed with water to cool them down. However, once producers do that, they need to repeat or continue spraying until the heat subsides."*

## Cattle Care

### Triple digit temps mean watching cattle for heat stress

With the extreme summer temperatures hitting triple digits, cattle producers need to take steps to protect beef herds from heat stress.

Cattle can start to experience some level of heat stress when the heat index approaches 80 degrees, with most cattle being severely stressed when the index exceeds 100 degrees.

Water is the best way to dissipate heat. Cattle normally take in about 5-8 gallons of

water per day but this can double or even triple.

Dr. Mader from U of Nebraska says, "It's important to have plenty of available water. When there is competition for water it creates problems because the dominant animals will occupy waterer space and not allow other animals access."

If the cattle are crowding around the watering trough, add more waterer capacity or move some of the animals to

pens that will give them adequate access to water.

Avoid handling cattle when it's hot and never after 10 am. Cattle body temperatures can rise an additional 0.5 to 3.5 degrees during handling.

Cattle yards should be free of any structures that restrict airflow. Cutting vegetation around pens and moving cattle away from windbreaks can help.

### Clean Water Tanks

Bovine viral diarrhea virus (BVDV) has been found to survive longer in water and mucus, compared to soil and metal.

If a persistently infected animal is present in your herd, the mucus harboring the virus could transmit BVDV to other animals that share the same waterer.

"Cleaning water tanks is very important for many reasons, including food safety, animal performance and general upkeep of facilities," says Dan Thomson, veterinary researcher, at KSU.

### Use cereal grains to replace fall forage in drought conditions

Beef herd owners short on pastures for their cows can provide fall grazing by planting cereal grains, says forage specialist from Rob Kallenbach of Missouri.

"Cereal oats, rye or wheat can supply needed pasture this fall if the seed is planted and rains return." Oats make

a lot of sense for this fall; they can make heavy fall growth.

Kallenbach says, planting an annual cereal grass this fall will be an advantage since any forage will be worth a lot of money.

A second grazing option is cereal rye, which provides both fall grazing and another month

of grazing next spring. Fall grazing can reduce winter feed costs to cow-herd owners.

Rye won't make as much fall grazing as quickly as oats, but it can provide about 1.5 tons per acre. That can help reduce winter feed bills.

### Transporting baby calves

Greg Goodell, DVM, says loading and unloading calves can be difficult especially when using large trucks with calves less than a week of age.

"Calves almost have to be handled one at a time," he says. "They cannot stand well. Sides of trucks have to have the wind blocked leaving only

the top portions open for air exchange. No direct wind or rain should hit animals of this age."

The cleanliness of trailers – and the bedding – is also paramount for young calves with an underdeveloped immune system. "Sanitation is 100-fold more important in this age group than older calves. *E. coli* and

*Salmonella* are huge players, but all pathogens can be an increased risk in this age.

New guidelines suggest delaying procedures at least a week.

Goodell stresses handling makes the difference in transporting young calves.

## Human & Animal Disease & Health

### West Nile Virus and Horses Q&A from CDC

Q. Has West Nile virus caused severe illness or death in horses?

A. Yes, while data suggest that most horses infected with WNV recover; results indicate that WNV caused deaths in horses in the US.

Q. How do horses become infected with WNV?

A. The same way as humans – by an infectious mosquito bite.

Q. How does the virus cause severe illness or death in horses?

A. WNV multiplies in the horse's blood system, crosses the blood brain barrier, and infects the brain.

Q. Can I get infected with WNV by caring for an infected horse?

A. WNV is transmitted by infectious mosquitoes not animal-to-human or human-to-human contact.

Q. My horses are vaccinated against EEE, WEE and VEE, will these vaccines protect against WNV?

A. No. EEE, WEE and VEE are in a different virus family.

Q. Can I vaccinate my horse for WNV?

A. Yes, ask your veterinarian

Q. What is the treatment for an infected horse? Should it be destroyed?

A. No reason to destroy, data suggest most horses recover from the infection.

## Cyanobacteria harmful to livestock, humans

The public and livestock producers should watch for green to blue-green scum or a gelatinous mass on recreational water and the surface of livestock's fresh water supplies.

"Algae blooms cause major disruptions, not only because of their offensive odor and appearance; but because they can be fatal to livestock, pets and people," says NDSU Extension Service water quality associate Roxanne Johnson.

This seasonal event is not really

algae; rather, it is photosynthetic bacteria called cyanobacteria that rely on sunlight for energy.

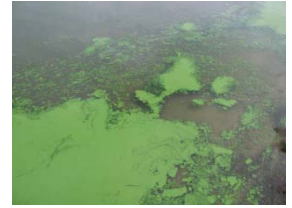
As they store energy, they create a tiny cavity of air that allows them to move up and down in the water to areas with more nutrients.

As environmental conditions improve with warm weather, calm winds and abundant nutrients, the bacteria numbers increase. A "bloom" of green or blue-green algae on the surface of the water may appear overnight and be accompanied by an

unmistakable musty, earthy or putrid odor.

"As cyanobacteria break down, they release toxins that can be an irritant to human skin and potentially lethal to animals," Johnson explains.

Algaecides, such as copper sulfate, are effective in killing algae blooms. Or suspend barley straw in a mesh bag into the pond before algae growth begins, works for up to 6 months



"Not all algae blooms are toxic, but without laboratory analysis, it is impossible to identify poisonous species."

## Anthrax case confirmed in sheep in Irion County

A yearling female sheep in West Texas (Mertzon, southwest of San Angelo) has been diagnosed with anthrax. The premises have been quarantined by TAHC and all animals must be vaccinated and carcasses disposed of properly.

Anthrax is a bacterial disease cause by

*Bacillus anthracis*, which occurs naturally worldwide. It is not uncommon for anthrax to be diagnosed in livestock or wildlife in the southwestern part of the state.

Basic sanitation precautions such as hand washing, wearing long sleeves and

gloves can prevent accidental spread of the bacteria to people if handling affected livestock or carcasses.

Acute fever followed by rapid death with bleeding from body openings are all common signs of anthrax. Anthrax should be reported to a private practitioner or TAHC official.

## Chronic Wasting Disease detected in far West Texas

Two mule deer from far West Texas have been confirmed positive for Chronic Wasting Disease (CWD). These are the first cases of CWD detected in Texas deer.

Texas Park and Wildlife Department and TAHC have implemented a regionally-focused deer sample collection efforts

since the detection of CWD.

CWD is a member of the group of diseases called transmissible spongiform encephalopathies (TSEs). Other diseases in this group include scrapie in sheep, bovine spongiform encephalopathy (BSE or mad cow disease) in cattle and Cruetzfeldt-Jakob in humans. Among cervids, CWD is a progressive, fatal

disease that commonly results in altered behavior as a result of microscopic changes made to the brain of affected animals.

An animal can carry the disease for years without outward indication. Presence of this disease is being taken very seriously.

## Help prevent petting zoo zoonoses

"People have to be careful, and a lot more careful than they thought," food safety expert Doug Powell, PhD, says.

Like it or not, illness from petting zoos or contact with animals at the fair is a very real thing. That is occurring, as many were sickened with swine flu

(H3N2) at petting zoos and outbreaks of salmonella have been linked to mail – order chicks.

Many venues do not have handwashing stations, or the ones that do have them are in inconvenient locations, or out of soap, water or hand sanitizer.

One observation showed that only 37% of visitors washed their hands or used a hand sanitizer when leaving.

"People are skipping what is typically the biggest risk factor for pathogen transmission in petting zoos."

## Special Topics of Interest

### The impact of drought on livestock and consumers

While most of the attention about the drought has been on crop failures, the livestock industry is close by and represents the major consumer of grain products.

The higher cost of feed has to be absorbed by the livestock industry, which eliminates profit margin and causes discouragement among producers who end up selling livestock at lighter weights

in an effort to reduce feed costs.

While crop producers are suffering reduced production this year, it will result in reduced livestock production in the coming year as herds are trimmed due to high feed costs.

The livestock industry is taking a direct hit by this summer's drought, and that will impact consumer's wallets next year.

Scott Brown, a U of Missouri agricultural

economist expects to see food inflation of 8% for meat, dairy and poultry prices in the next year.

The livestock industry will experience a lot of short-term pain as it tries to adjust. This means shrinking livestock supply and less meat in grocery refrigerators in 2013. "That's certainly going to raise prices."

Pork and chicken expected to fare worse due to lack of feed substitutes.



## Feeding drought damaged corn to livestock

The high temperatures and severe drought have all but decimated grain yields. Therefore many producers want to salvage drought-damaged corn for livestock feed but there are risk such as high nitrate levels in the forage.

"These levels will be highest in fields that received high nitrogen fertilizer or manure applications and in plants that are severely stunted and did not form an ear," U of Illinois extension educator Robert Bellm said.

Nitrate concentrations are highest in the lower third of the stalk and grazing or harvesting only the upper 2/3 of the plant will reduce potential toxicity.

Forages containing high levels of nitrate may still be safely fed if they are diluted with grain or other feedstuffs that are low in nitrate. "Within limits, animals can be conditioned to consume high-nitrate forages as long as they are introduced to them slowly," Bellm said.

Drought-damaged corn that is green-chopped needs to be tested prior to harvest. Making hay of the corn does not reduce nitrate levels; it needs to be tested prior to feeding.

Harvesting drought-damaged forage should be delayed at least 5 days following a rain event. Immediately after rainfall, there is a rapid uptake of nitrate by the plants. Waiting a few days will allow them to metabolize the nitrate and reduce the nitrate concentrations within the plant.

## Farmers short of hay should think twice before baling soybeans

Soybeans were introduced in 1930 as a hay crop for Missouri farms, not an oilseed crop.

This year many farmers are wondering about baling soybeans that won't make a bean crop. But Missouri forage specialist,

Rob Kallenbach has two important bits of advice, first call your crop insurance agent to determine the crop-indemnity payment before cutting soybeans for hay.

Then read the label because many label restrictions prevent soybean use for

forages.

Soybeans make good forage and are very palatable but you must check all labels prior to feeding and be prepared to harvest. Soybeans can go from not too bad to dead in a few days.

## Burger Love

Despite the recent negative pressures on beef demand, Americans still love a good burger.

Five Guys Burgers and Fries have been listed in *Forbes* as America's fastest growing restaurant chain.

Five Guys is part of the "better burger"

category of fast-casual restaurants. These restaurants feature burgers that aim to be a step up – in quality and in price – from those offered at fast-food restaurants.

Since 2006, Five Guys has grown 792%; the entire chain will surpass \$1 billion in revenues this year. McDonald's remains by the far the biggest chain of restaurants, with

\$34 billion in U.S. sales in 2011.

Five Guys leads the better-burger pack but the entire category is a hot trend in the restaurant world. Others include: The Counter, The Habit Burger Grill, Farmer Boy's, Freddy's Frozen Custard and Steakburgers, Smasburger, In-N-Out Burger and Culver's.

## Smoothies help make milk, fruit cool in school

With guidance from the National Dairy Council, Jamba Juice Company has introduced a new healthy, flavorful smoothie that combines the nutritional benefits and natural flavors of milk and fruit.

These smoothies, coming in September and fat-free, are a step in the nutritious direction. Each smoothie contains one serving of fruit and one-half serving fat-free dairy.

There is concern that the students won't like the new drink but it is a better alternative than sodas. The ultimate goal is to fit obesity and improve the health of the nation's students.

## Survey says 30% of meat eaters won't date vegetarians

Nearly one in three single meat-eaters say they would not date a vegetarian or vegan.

A Love Bites survey of 4000 singles conducted by TODAY.com and Match.com found that it is not all social stigma but also deals with biology.

Helen Fisher, a biological anthropologist, explains that sharing food is integral to courtship throughout the animal kingdom.

"Mankind's first luxury was meat,"

Fisher said. "And when carnivores share food – what they are sharing is this luxury. It's more than just cultural, it's instinctual."

Fisher notes that men who are vegetarians have long been perceived as being less "manly." This perception may go back to our caveman days.

"I think in a lot of cultures it would be considered less manly – men used to bring home the meat, they were the hunters," said Fisher. "If you came in carrying a potato versus a hunk of gazelle, it made a

difference. All gifts are not alike."

Meat-loving singles also found vegetarians to be picky, which was considered a turn-off for 66%.

"Vegetarians are advertising a particular lifestyle, that they are high-maintenance," said Fisher. "Their needs require others to bend – even if their philosophy may be a healthy philosophy."

77% of meat-loving respondents were willing to put in the effort to be flexible

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*T.G.I.F.  
Thank Goodness  
it's Football time*

## Study shows eating cheese lowers diabetes risk

Another reason, and a good one, to eat cheese; researchers have found a link between eating cheese and a lower chance to develop type 2 diabetes by 12%.

The study found that cheese appears to protect against the metabolic disease.

Researchers suggested that one reason for cheese's impact on diabetes is that "not all saturated fatty acids have an equal effect on cardiovascular risk," which is similar to findings of other recent studies. These studies suggest certain acids produced only in cows' stomachs may help protect heart disease.

It was also noted that fermentation of cheese and yogurt could possibly trigger a reaction that protects against diabetes and heart problems.

More research is needed.

## Things aren't so golden for California dairymen

With moderate milk prices unable to keep up with soaring feed prices, many dairy farmers in California have decided to throw in the towel.

"People are exiting this business in droves," Tulare County, Calif., dairy farmer and Western United Dairymen president Tom Barcellos said. "I would say catastrophic just about describes the situation."

The situation is so bleak that at least one dairy cooperative

has launched a crisis hotline for dairy farmers and their families. The hotline provides members with confidential counseling and support services to help those in the industry cope with life-altering changes.

"Dairymen are getting out of the business – sending their cows to slaughter as fast as they can," said Barcellos.

Riley Walter, a Fresno-area bankruptcy attorney, noted that the dramatic increase in bankruptcies among dairies is staggering. "This is just a bloodbath."

The year has tested even the most stable and weathered dairy producers. Last month, the USDA released July's preliminary milk-feed ratio, a rough measure of dairy profitability, at a staggering 1.29, marking the lowest ratio reported in the 27 years of records.

"There is not enough money from their milk check to pay the feed costs," California Dairies Inc CEO Andre Mikhalevsky says.

## Journal Reviews

Journal Reviews are located in Volume 5 Issue 3-1 which will be available soon.

Livestock/veterinary website

<http://livestockvetento.tamu.edu>

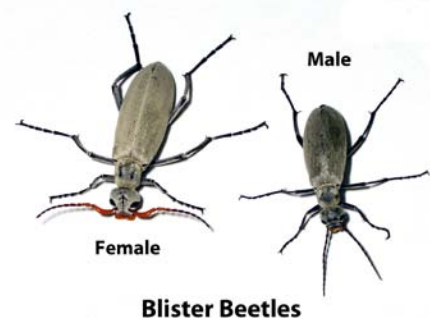
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### Insect Note: Blister Beetles

Just a note, blister beetles are out this summer and in large numbers. I have not heard of any health issues with livestock but I am seeing blister beetles all over the place.

So far none have been seen in feed but keep a lookout for them and call if you have any questions or concerns.



Blister Beetles