

Veterinary Entomology

Insect Updates Fly Season is Upon Us

Living in the south, we don't actually experience a NO FLY time. They are out there just not in high numbers or very active. But we do experience an increase in fly activity when spring/summer arrives.

There are two main biting flies that cause considerable economic loss to cattle; the horn fly and the stable fly. In addition there are house flies that transmit disease pathogens

to humans and animals, horse or deer flies, heel flies (or cattle grubs) and mosquitoes.

All can be of great concern and considerable nuisance. Efforts must be taken to control these flies to below threshold levels – horn flies 200/animal, stable flies 2-4/leg.

Horn flies can be managed with many products; pour-ons, ear tags, feed thru products, dust bags and back rubbers, or

sprays. Treatment should not be administered until at least 100 horn flies are present.

Stable flies are much more difficult to control and are best managed with exceptional sanitation practices and sticky traps.

Heel flies are managed by using dewormers regularly (once or twice a year). Mosquitoes are managed by eliminating breeding sites (standing water).



Cattle Fever Ticks outside Quarantine Zone in Cameron Co.

Due to the presence of cattle fever ticks outside the permanent quarantine zone a temporary preventative quarantine area was set up (TPQA).

Six locations were put onto surveillance initially and then another ten locations were identified and put under

TPQA. This consists of approximately 223,000 acres.

What does this mean?

All cattle and/or equine need to be sprayed/dipped before moving out of the TPQA.

This must be done Mon-Sat at the Lozano Dipping Vat or Wed at Los Fresnos Rodeo Arena.

All harvested wildlife must be inspected and treated for cattle fever ticks.

The TPQA will remain in effect until all premises within it are released from fever tick quarantines and the area is determined to no longer be at risk of infestation.

Pesticides

Voluntary Cancellation of Methomyl uses/Limiting

EPA and manufacturers have reached an agreement to stop making and selling some fly bait products and to add label language that clarifies the approved uses.

Changes are expected to reduce the illegal use of methomyl fly bait products to kill wildlife, an issue being reported by several states.

Cancelling on barley, oats, rye, and wheat in TX; reduce number of applications to corn, celery, lettuce and peppers.

Only Non-Ag use is fly bait.

Pesticide market to grow 16% in 3 yrs

Escalating demand for food is accelerating the development of pesticides in North America and Western Europe that shift to newer, more expensive chemistries that offer better solutions for pest-resistance.

With many companies aggressively investing in R&D, newer active ingredients with better performance and broader applications are continuously being pumped into the pesticide market, raising average prices and profits.

The pesticide market was found to earn revenues of \$24.75 billion in 2014 and estimated to reach \$28.76 billion in 2018, per Frost & Sullivan.



“Cattle need to be in good condition to get the best possible response to vaccination,” Navarre says.

Cattle Care Vaccination and parasite control

Vaccination will not protect your herd or checkbook without proper parasite control and nutrition.

Christine Navarre, DVM, MS, Dipl. ACVIM, of LSU, says she “won’t even talk about vaccination until we’ve addressed parasite control

and nutrition. Without managing those two issues, they may not get all they can out of a vaccination program.

UC-Davis lists parasites as one of the common causes of vaccine failure. A healthy immune response is necessary for vaccine to be effective.

“The timing of parasite control is so important that I try to time vaccinations to when parasite control is necessary, NOT the other way around,” Navarre says. “I want to know that timing for parasite control is right because it is more critical than timing for vaccination in many herds.”

Effective parasite treatment and monitoring

With the onset of spring, cow-calf and stocker operators need to begin planning their control programs for internal parasites.

A trial conducted by Merck Animal Health included the treatment of over 600 stocker steers with a combination of Safe-Guard (fenbendazole) and

generic ivermectin prior to turnout on Mississippi pastures.

This treatment achieved 99% reduction in parasites shed, monitored with fecal egg counts.

Follow up treatments with Safe-Guard range cubes were provided at days 28 and 56.

Treatment cost was \$5.40/head and gains were \$53/head (23 lbs/head).

It was also noted that even in arid Western regions, ranchers can see a 20 lbs gain in average weaning weights with proper deworming programs.

Zoetis launches DRAXXIN 25 to treat small calves for BRD

DRAXXIN 25 is an injectable with a lower concentration than the original DRAXXIN that can be used to treat bovine respiratory disease (BRD) in suckling, dairy and veal calves.

DRAXXIN 25 offers broad spectrum coverage against the major causes of BRD. It does have a pre-slaughter withdrawal time of 22 days, compared with the 18-day pre-slaughter time for DRAXXIN.

KU researchers developing salmonella vaccine for livestock

The University of Kansas in Lawrence houses the husband-and-wife research team, William and Wendy Picking at the new Kansas Vaccine Institute.

They are looking into developing

vaccines for two species of pathogens, shigella and salmonella.

Shigella is a leading cause of mortality and morbidity in kids between 2-5 years old in the

developing world.

Salmonella in livestock populations is linked to foodborne illness in the US and infects water supplies in the developing world.

Elanco confirms acquisition of Novartis

Elanco announced in January that it has finalized the acquisition of Novartis Animal Health.

This makes them the leader in animal health focused on delivering increased value and innovation.

Combined efforts will focus on enhancing care and extending quality of life of pets and livestock.

Human & Animal Disease & Health

TAHC Passes Rules – February 2015

Ch. 43, Tuberculosis, Movement Restriction Zone

TAHC proposed an amendment that does away with the high risk zone on the desert side of I-10 and applies to cattle only. Also does away with annual and bi-annual TB test requirements

Ch. 49, Equine, Piroplasmosis Testing Racetrack Facilities

New rule broadens the existing definition of a “racetrack facility” to include those that are not licensed by the Texas Racing Commission. Also the Commission voted in an executive waiver to temporarily suspend Piroplasmosis testing requirements for thoroughbred horses entering sanctioned

racetracks.

Ch. 51, Entry Requirements, Swine

The Commission now will accept ear notches and registration tattoos as official identification for swine entering Texas.

Ch. 40. Chronic Wasting Disease, MRZ

The two CWD zones have been combined into one “Containment Zone”

Ch. 57, Poultry, Laryngotracheitis Vaccine Virus

Poultry entering Texas need vet certificate verifying no contact with “active chicken embryo origin Laryngotracheitis vaccine virus”

Proposed Rules

Ch. 51, Entry Requirements, Swine

Registration tattoos and ear notches are now considered official identification

Ch. 47, Authorized Personnel, Chronic Wasting Disease

TAHC proposed to change the validity of a Certificate of Veterinary Inspection for equine entering the state from 45 to 30 days.

Ch. 55, Feral Swine, Holding Facility and Movement Requirements

Proposed amendments to change the fence and movement requirements for authorized feral swine holding facilities. Change fence from 2 fences with 4 ft of separation, to 1 fence that prevents any feral swine from escaping.

TAHC Disease Issue Updates

Equine Herpes Virus Premises in Galveston County have all been released from Quarantine. (April 6, 2015)

Chronic Wasting Disease Detected in Hueco Mountain Area from the tissue of a harvested mule deer in far West Texas. This was the only confirmed case of CWD in TX during the 2014-15 hunting season. CWD is a member of the groups of

diseases called transmissible spongiform encephalopathies. There is no vaccine or cure, but steps need to be taken to minimize the risk. (March 26, 2015)

Mexican Stray Animals Continue to pose a disease threat along the Rio Grande. A Mexican stray donkey tested positive for Glanders. Five Mexican stray donkeys were apprehended along the border and

one tested positive for Glanders. Glanders is a highly contagious bacterial disease of equids, infections are usually fatal and humans and other animals are also susceptible. Typically it is contracted by consuming food or water contaminated by nasal discharge of animals.

Cattle TB Confirmed in Panhandle Dairies

TAHC has confirmed Cattle tuberculosis in two Texas Panhandle dairies located in Castro Co.

The infected herds were placed under quarantine until released based on testing and removal of infected animals.

Dairy, calf-raising and dairy heifer raising operations in TX and other states with epidemiological links to the infected herds will be tested to determine the possible origin or potential spread of the disease.

TB transmission is facilitated when

animals are concentrated or held in close confinement.

A variety of animals are susceptible to TB, including elk, deer, bison, goats, swine, cats and humans. Pasteurization of milk removes any risk of transmission and not in the meat.

Prion studies shed light on neurological illness

Scientists at Colorado State University are studying chronic wasting disease and how it is transmitted in deer.

Prions cause neurons to degenerate by forming plaques in the central nervous system.

Rogue prion proteins change the structure of normal proteins and kill cells. Neurons then die and form holes in the brain and neural tissue.

Deer in 23 states have been affected. CWD deer often hold their heads low, drool, look lost

and lose weight.

The team has discovered prions are carried in bodily fluids- blood and saliva- and can be transmitted between deer without direct bodily contact, through things like bedding and feed.



The work on mechanisms of transmission of prion infections has been pivotal in understanding about how this agent is spread, with implications for control

Confirmed case of BSE in Canada

A case of bovine spongiform encephalopathy (BSE) has been confirmed in Canada for the first time since 2011.

The Canadian Food Inspection Agency confirms that no part of the animal had

reached the human food or animal feed systems.

BSE is a progressive, fatal neurological disease.

It is presumed that the BSE case will not

close borders to beef but would delay international efforts.

This news has helped drive up live cattle contracts for delivery beginning this spring by as much as 2%.

Cattle could hold key to Ebola cures?

SAb Biotherapeutics, in So. Dakota, have developed a method to produce human antibodies in cattle to help battle the Ebola virus.

The three advantages cattle have

include advanced technology in inserting and inactivating genes in cattle more than other species, the large volume of antibodies in cattle blood and our already high knowledge base about them due to

agriculture.

But many are not pleased with this claiming it to be a tragic overuse of science despite the awesome live-saving capabilities.

3 die from Blue Bell Creameries' Ice Cream due to Listeria

US FDA is investigating bacterial contamination in some products made by Blue Bell Creameries after 3 deaths in Kansas.

Five patients were infected with one of four rare strains of Listeria monocytogenes bacteria.

Three of the four strains of Listeria were found in products made at privately-held Blue Bell Creameries' main factory in Brenham, TX.

Special Topics of Interest

Farms can be held liable for pollution from manure

A U.S. federal court has ruled for the first time that manure from livestock facilities can be regulated as solid waste, a decision hailed by environmentalists as opening the door to potential legal challenges against facilities across the country.

If this district court ruling is upheld, it could affect any large livestock facility that produces more manure than it can responsibly manage, including poultry, beef and hog farms.

The Resource Conservation and

Recovery Act was not intended to apply to these situations. This is the first time it has been applied to animal waste from a farm.

The trial was to be held in March.

Washington state looking for ways wolves and livestock can coexist

Wolves and livestock are now looking for ways to coexist without conflict. Most places have managed this but some are still

fearful and recently a breeding female was found dead of a gunshot wound, a federal criminal.

forward to finding a balance for the farms and wolves but first residents have to get past the growing pains of reintroduction.

Many people are looking

Aging American Farmers

The 2012 USDA Census of Agriculture confirms the trend that American farmers are aging year after year.

From 1945 to 2012, the average age increased by 9.6

years over the last 64 years.

Previous years' show a bell curve graph amongst age groups but 2012 does not have a bell curve.

2012 data shows the largest group of producers is now those older than 65 years, representing a full 1/3 of all producers. Only 16% fall into the under 45 years.

Why farmers farm

A Michigan AG exercise asks farmers to fill in one simple statement...

"I farm because....."

"I enjoy being involved in agriculture. It is a passion my husband and I share."

"it is the most rewarding and self-gratifying job I have ever had (became a farmer after 22 yrs of working in a factory.)"

"My family has farmed for over 100 yrs. I enjoy being a steward of the land and I enjoy watching animals and crops grow."

"I love the challenge & satisfaction I get when the harvest is in."

"it is a way of life and a wonderful place to raise a family."

"I feel called to be a steward of the land and to help feed the world."

New tick-borne virus discover by UF researchers

A recently published study presents the discovery of the Tacaribe virus in a Lone Star tick collected in North Central Florida.

This is the first recorded case of this virus in the US. Tacaribe virus is associated with rodents but none have been found with the virus.

Further works is being done to learn more about the virus's presence and location.

Extra Lean Ground Beef now certified heart-healthy

In February it was announced that the American Heart Association has certified Extra Lean Ground Beef (96% lean, 4% fat) and will now be recognized with the Heart-Check mark.

This brings the extra lean beef recognized items to a total of 8:

Extra Lean Ground Beef

- Bottom Round Steak
- Sirloin Tip Steak
- Top Sirloin Petite Roast, Boneless
- Top Sirloin Strips
- Top Sirloin Filet
- Top Sirloin Kabob
- Top Sirloin Steak, Boneless, Center Cut

"Beef has many nutritional benefits and

having the American Heart Association certify yet another beef cut empowers consumers to feel good about including beef in their diet, not only for its great taste but for its nutritional value," said Jo Stanko, a cow-calf operator from Steamboat, CO, and vice chair fo the Checkoff's nutrition and health subcommittee.

Dollar store shopping revives Velveeta

Shopping for one can be very expensive at big chain grocery stores, so more people are looking to dollar stores for cheaper and smaller portion options.

The young, poor and old, alike, look to Family Dollar, Dollar Tree, and Dollar General for single serve food options that are going to have a longer shelf life and smaller price tag.

Kraft Food Group has reversed course after considering stopping the sale of single-serve packages of Velveeta cheese sauce after seeing the sales in dollar stores.

Consumers on a tight budget are not shopping at traditional grocery stores but are picking up groceries in dollar stores.

Sales in dollar and drug stores rose 8% last year. With Kraft growing 8% in the first three quarters of 2014, four to five times faster than sales in all channels.

The strategy faces some challenges. Even with an improving economy and low gas prices, low income consumers remain cautious about their spending.

Got Beef?

Recent reports indicate US consumers want beef on their dinner plates, and are showing it with their wallets.

USDA Livestock, Dairy and Poultry Outlook reports show ground beef imports to the US to be up 31% in 2014 compared to 2013, totaling 2.947 billion

pounds.

In addition to the increase in import beef to compensate to lower domestic sources, consumers were willing to pay 10% more for ground beef.

Steak also saw an increase of 8.79%, with consumers willing to pay

\$7.92/pound compared to \$6.87/pound last year.

Although steak, hamburger and deli ham is being purchased at increased prices, chicken breasts, pork chops and chicken wings were all down 1 to 13 percent.

Sonja L. Swiger, PhD
 Assist. Professor
 Livestock Extension
 Entomologist

1229 North US Hwy 281
 Stephenville, TX 76401

CELL:
 (239) 220-0168

PHONE:
 (254) 968-4144

E-MAIL:
SLSwiger@ag.tamu.edu



Farmers disappointed by restrictions in proposed drone rules

US farmers hoping to use drones to locate lost livestock or monitor trouble spots in their fields were disappointed by what they say are overly restrictive commercial drone rules proposed by the Federal Aviation Administration in February.

Two of the rules in particular criticisms are: a requirement that pilots remain in visual contact with their drones at all times and a height restriction that limits the crafts to flying no more than 500 feet above ground.

These constraints, farmers and

drone operators say, would limit a drone's range – and consequently its usefulness.

Although restrictive, the new rules for farmers are friendlier than those for Amazon.com Inc. Amazon.com will start deliveries by drones overseas rather than wait for broader approvals from the FAA.

Hormones in Beef: Myth vs Fact

Much Confusion and concern often surrounds the use of hormones in beef production.

These 'chemical messengers' are substances produced in the body that travel through the bloodstream to regulate body functions such as reproduction, metabolism and growth.

Hormones such as estrogens and androgens are often administered to growing cattle intended for slaughter to promote growth by complementing the effects of naturally occurring hormones.

These growth-promoting hormones are generally administered to cattle in the

form of small pellets termed "implants". They boost growth rate allowing cattle to be finished earlier thereby requiring less time on feed and fewer resources per pound of meat produced.

Common myth surrounding beef produced with additional hormones is that it is unsafe to consume. The fact is that the US food and Drug Administration regulates the development and use of hormone implants and the Food Safety Inspection Service of the USDA routinely monitors residues of synthetic hormones in meat.

It is true that beef from hormone-implanted cattle has increased estrogenic activity compared with non-implanted beef. This may alarm consumers but it must be put into the context of actual amount consumed and the levels found in other products.

See table below for comparisons. Beef from non-implanted steers contains .85 units of estrogenic activity per 3 oz and implanted steers contain 1.2 units per 3 oz. But this is a fraction compared to other common foods at a 3 oz serving rate.

Food	Estrogenic Activity
Soy Flour (defatted)	128,423,201
Tofu	19,306,004
Pinto Beans	153,087
White Bread	51,029
Peanuts	17,010
Eggs	94
Milk	5.4
Beef (implanted)	1.2
Beef (non-implanted)	.85

Livestock/veterinary website

<http://livestockvetento.tamu.edu>

Livestock Veterinary
 Entomology on [facebook](#)

Winter puts an end to VS outbreak

The VS outbreak of 2014 that caused the quarantine of livestock in three states died out as the cold weather moved in and removed the insect vectors carrying the virus.

No new cases were identified after the first week in Dec 2014.

All premises under quarantine in Texas and Nebraska have been released and Colorado will be as well.

As of Dec 24, 2014 there were a total of 433 VS-positive premises, 62 in Texas.