HALE COUNTY

TEXAS A&M AGRILIFE EXTENSION

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THE GRAZE

A quarterly newsletter with livestock and agronomy updates.

IN THIS ISSUE:

PRECONDITIONING CALF MANAGEMENT FIRST HEALTH – 2

REPRODUCTIVE DISEASES IN CATTLE – 3

FALL AND WINTER HEALTH PROBLEMS IN COW-CALF HERDS – 7

HOUSE PASSES IMPORTANT MARKET TRANSPARENCY LEGISLATION – 11

MARE AND FOAL ONLINE WORKSHOP – 12

Red Hot Lamb Market Fueling Strong Optimism in U.S. Sheep Industry

BY MONTANA AG NETWORK & WESTERN AG NETWORK

Sheep producers across the nation are enjoying some of the highest prices for their lambs in years. The American Sheep Industry Association's president Susan Schultz from DeGraff, OH says this is fueling continued optimism across the entire U.S. sheep industry.

"It's unbelievable," said Schultz. "We thought the last two years were going to be really rough and instead it's just been wonderful. The prices are great. But I think the story that we need to talk about is that consumption of lamb is up. So, the future looks really bright for people to get into the sheep industry. We only provide 50 percent of the lamb that's consumed in the United States. And with consumption up, we have the opportunities are endless."

She says on the wool side, ASI is very proud of their American Wool Assurance programs that's consumer driven.

"The consumer is demanding that they know that whatever they purchase those animals are well taken care of and they're cared for humanely," said Schultz. "The American wool assurance is part of that program. We take very good care of our animals. We manage them humanely, and I can assure you that this wool comes from a flock that's managed that you would be proud of. And it's consumer driven."

(https://youtu.be/20myUkijQ4s)

For more information, both producers and consumers can visit www.americanwoolassurance.org.

Source: Montana Ag Network & Western Ag Network

Ron Gill - Preconditioning Calf Management - First Health - YOUTUBE

RANCHTV AT TEXAS A&M AGRILIFE EXTENSION

https://www.youtube.com/watch?v=-AO4H-HaDxs&list=PLIITU9YR3y_YFyakHNz2jAeBPAcF6QtrR&index=10

AgriLIFE EXTENSION
Texas A&M System

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Reproductive Diseases in Cattle

EDITED BY L. R. SPROTT AND ROBERT W. FIELD*

DISEASES OF the reproductive organs in cattle usually develop so gradually that they go unrecognized until the disease is well established in the herd. Infected animals usually are not dying; in most cases, especially in males, they do not even appear ill. Some animals never show symptoms of the disease, yet remain a major threat to the rest of the herd because they carry disease organisms.

To prevent reproductive diseases, producers must always be on guard and practice good management techniques such as isolating newly acquired cattle and vaccinating when needed. They also should work closely with veterinarians to keep their cattle healthy.

The most common reproductive diseases in cattle are brucellosis (Bang's disease); leptospirosis; infectious bovine rhinotracheitis (IBR) and bovine virus diarrhea (BVD) complexes; vibriosis; and trichomoniasis.

Brucellosis (Bang's disease)

Although most states are now brucella-free, brucellosis still causes abortion and infertility in some regions. It is important to understand that not all brucellosis-infected cows abort, produce weak calves, retain placenta or have trouble breeding back. A brucellosis reactor cow may be normal in every observable aspect. However, each time she calves or produces a genital discharge, millions of brucella organisms may be present on the surface of the placenta, calf or discharge. The discharges then contaminate the pasture and other feeds, such as hay, threatening other cattle. If susceptible animals ingest these bacteria, they are likely to become infected.

Although infection usually occurs via the digestive tract, a susceptible animal may also pick up bacteria through the skin or eye. Contaminated feed, bedding, water or the premises may remain infective for a few days up to a few weeks, depending on environmental conditions.

The infection is spread mainly when infected cattle are introduced into the herd, either through purchase or when they break into a pasture with "clean" cattle. To keep your herd "Bang's free," maintain a closed herd by raising all your own replacements if possible. If you must buy replacement cattle, know the seller's reputation. Be sure that all cattle you buy originate from clean herds, and that the females were vaccinated as calves and are negative to the Bang's test if they are of testable age.

Isolate breeding stock for 30 to 60 days upon arrival at the farm and retest at the end of the isolation period. A lot of trouble? Yes, but not if a lifetime's effort is risked in building a quality herd. At the same time, test the new animals for other reproductive diseases as recommended by the local veterinarian.

It is recommended to have an accredited veterinarian vaccinate all heifers between 4 and 12 months old. The calves should be properly identified, with an official ear tag and tattoo in the right ear.

Be sure that bulls are free of brucellosis and all reproductive diseases. Although brucellosis is rarely spread through breeding, it is still dangerous for a bull to breed an

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infected cow and then breed a clean cow soon thereafter. Bulls occasionally become infected; this is usually exhibited by a swollen testicle or scrotum. Producers using artificial insemination should avoid semen from brucellosis-infected bulls. Their semen can infect cows.

Leptospirosis

Leptospirosis is a widespread problem in the South, especially in unvaccinated herds. It causes repeat breeders, low-grade uterine infections, abortions, mastitis and occasionally systemic infection. Of the five or more strains of the organism, the three most common causing problems in cattle are *Leptospira pomona, Leptospira hardjo* and *Leptospira grippotyphosa*.

Leptospirosis can build up unrecognized in a herd. Closely confined cattle are particularly susceptible. Droplets of urine from infected cows can infect normal cows after contact with the eye or mucous membranes of the nose or mouth. The disease infects more cattle each day, preventing cows from settling and lengthening their calving intervals.

To prevent leptospirosis:

- Vaccinate cattle with bacterins containing three or five serotypes every six months;
- Drain stagnant bodies of water; and
- Eliminate rodents, especially rats, from any barns or sheds where cattle congregate.

IBR and BVD complexes

Infectious bovine rhinotracheitis (IBR) and bovine virus diarrhea (BVD) complexes are virus-caused diseases responsible for many abortions and possibly respiratory infections, "pinkeye"-type lesions and foot lesions. Temporary infertility may follow IBR because of vaginitis and/or a mild uterine infection.

Because these diseases are so complex, be careful when using IBR and BVD vaccines. Some vaccines may result in abortions. Before vaccinating, consult a veterinarian for advice on the vaccination procedure for a particular herd.

Vibriosis

Vibriosis is a venereal disease causing infertility and, occasionally, abortion. It is caused by the bacterium *Campylobacter fetus*, which lives in the crevices of a bull's prepuce (foreskin), but usually does not become established in the bull until it is about 4 years old or older.

Vibriosis is spread from an infected bull to a cow during the breeding act. Bulls also may be infected by breeding infected cows. Although semen from reputable bull studs is usually "clean" because of proper health examinations of the bulls and treatment of semen, this disease can be transmitted through artificial insemination if these precautions are not taken.

Untreated, infected bulls can remain carriers for a long time. They also can be "clean" yet transmit the germ from an infected cow to a "clean" cow.

Vibriosis in females causes endometritis (infection of the inner lining of the uterus), resulting in failure to conceive or death of the embryo. Affected cows may conceive and not return to heat 21 days later. However, the newly formed embryo may then die, become absorbed by the cow and then she may exhibit estrus from 27 to 53 days after breeding. Abortions late in gestation can occur, but are unusual.

Diagnosis is difficult and depends on identifying cultures of the organism from the genitalia of the infected cow or bull, or from the abomasum (fourth stomach chamber) of an aborted fetus. Prevent vibriosis by vaccinating cattle, using artificial insemination, treating infected animals, or combining all three.

Trichomoniasis

A protozoan organism, *Trichomonas fetus*, causes trichomoniasis. It is also a venereal disease. Symptoms include occasional abortions and pyometra (pus in uterus) that impairs breeding efficiency. Pyometra develops after the infected cow's embryo dies.

To treat the female, treat any uterine infection and provide sexual rest. Usually a 90-day period of sexual rest eliminates the organisms from the uterus. Vaccination is also an option in cows.

Before use, test bulls, except virgins, through culture methods at least three times at weekly intervals. Using clean semen from reputable bull studs also prevents infection. Frozen semen containing the organism can cause infection if put into the uterus.

Diseases Causing Abortions in Cattle

Diseases	Organism	How spread	State of gestation at abortion	Samples needed for diagnosis	Vaccination	Remarks
Brucellosis	Bacterial (Brucella abortus)	Aborted fetuses, fetal membranes	6-9 months	Blood sample from aborting cow; fetus; placenta	Live vaccine in heifers at 4-12 months.	Cull infected animals. Do not vaccinate bulls.
Leptospirosis	Bacterial (At least 5 serotypes)	Urine of infected animals, aborted fetuses	Any stage, usually 6-9 months	Sample 10 percent of herd	Every 6 months at 2-4 weeks before breeding.	Laboratory should determine the type of lepto causing infection.
Red nose (IBR)	Viral	Contagious from cow to cow	6-9 months	Fetus; placenta; blood samples	Killed or modified live vaccine. See veterinarian.	Abortion may or may not be associated with illness in cows.
Virus diarrhea (BVD)	Viral	Contagious from cow to cow	Variable, usually early in gestation	Two blood samples, 3 weeks apart	Killed or modified live vaccine. See veterinarian.	Calves born with disease (loss of hair, brain damage)
Vibriosis	Bacterial (Campylobacter fetus venerealis)	Venereal disease spread by infected bulls	Early abortion, repeat breeding	Vaginal mucus from infected cow, cervical mucus; fetus; preputial washings from the bull	Two injections of vaccine the first year, 30-60 days before breeding. Bulls and cows should be vaccinated.	Also causes few abortions
Vibriosis	(Campylobacter fetus intestinals)	Ingested	+6 months	Fetus	None	Sporadic abortions
Trichomoniasis	Protozoal (Trichomonas fetus)	Venereal disease spread by infected bulls	2-4 months	Preputial washings from infected bulls; uterus from cull cows	1st dose: 60 days prebreeding. 2nd dose: 30 days prebreeding. Single booster annually.	Treatment consists of sexual rest of cows for 90 days; artificial insem-inations; cull infected bulls and open cows.

This information was prepared for the Southern Regional Beef Cow-Calf Handbook by John E. McCormack, Extension Veterinarian, University of Georgia. Editorial comments were given by Dr. Robert W. Field, College of Veterinary Medicine, Texas A&M University.

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Fall and Winter Health Problems in *Cow-Calf Herds*

Floron C. Faries, Jr.*

As a cow-calf herd goes into the fall season after a hot, dry summer, the entire herd may be stressed. Excessive heat, short grass and low water tanks stress cattle and make them more susceptible to diseases. Unsanitary conditions and abrupt diet changes also can lead to illness, as can other circumstances of stress. At the end of the summer, the cows are likely pulled down to a thin body condition from nursing the calves, the bulls worn out from breeding, and the calves shocked from weaning.

A pulled-down cow is at risk of contracting many types of diseases.

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When cattle are stressed, they become thin and their immune systems are suppressed. Germs that are dormant in the tissues and organs of the cattle can break out of dormancy, multiply and cause outbreaks of diseases and disorders, such as:

- Clostridiosis (clostridial blackleg group), which is a group of highly fatal muscle, liver and intestinal diseases
- Leptospirosis (lepto), a bacterial disease that can cause abortions, stillbirths and weak newborn calves as well as jaundice, high fever and usually death
- Anaplasmosis (anaplas), an infectious disease that causes anemia, weakness, fever, lack of appetite, constipation, abortion and sometimes death
- Viral and bacterial pneumonia, diseases of the lungs
- Viral and bacterial abortions, infectious diseases that cause death of the embryo or fetus
- Bacterial pyometra, a disease of the uterus
- Bacterial diarrhea, a gastroenteritis

Calves with pneumonia and gastroenteritis are common in fall after a long, hot summer.

When any one of these health problems is recognized in a stressed cow-calf herd, it can be assumed the cattle were carriers that broke with the disease even without a recent exposure to the disease agent. The diseased cattle may have been exposed and become infected several months before the time of stress precipitating the disease in the cattle with clinical symptoms.

Some cattle may become emaciated with "bottle-jaw" (a soft swelling under the jaw) and advance to a "downer" stage, becoming unable to rise. In many cases, the cattle may die.

A cow with bottle-jaw.

Producers can prevent or minimize health problems in the fall and winter by reducing the stresses caused by inadequate nutrition, sudden feeding changes and poor sanitation. Below are descriptions of common health problems in cow-calf herds during fall and winter, the causes of those problems and preventive measures.

Acorn poisoning

The howling winds of cold fronts and rainstorms often knock green acorns from oak trees in a pasture. Most cattle like the taste of acorns and tend to seek them out. But hungry cattle that consume too many green acorns will get sick. Their gastrointestinal tracts will be upset; they will develop diarrhea, become dehydrated, constipated and emaciated; and they might die.

Acorn poisoning is caused by chemicals called tannins. It generally occurs when acorns fall off trees in the immature green stage, followed by overconsumption by cattle. This usually occurs in pastures where there is not much grass left nor hay fed. Poisoning from oak tannins also can occur when cattle eat buds and young leaves of oaks (shrubs and trees) in early spring.

Sickness starts 8 to 14 days after the cattle have started eating acorns. The amount tolerated by an animal is influenced by the protein content of its diet. If the protein intake is high, the animal can consume more acorns without having poisoning symptoms.

Cattle affected by acorn poisoning have a poor appetite, appear dull, become constipated, suffer weight loss and look gaunt or "tucked up." They also may pass blood in the manure and/or bleed from the nostrils. Profuse diarrhea may follow after the constipation. Affected animals drink large amounts of water and void excessive amounts of clear urine (urine may also contain blood).

Many animals go down and cannot rise after 3 to 7 days of clinical signs of acorn poisoning. If these affected animals do not die, it may take as long as 2 to 3 weeks before they start to recover. Producers suspecting such a problem should contact a veterinarian as soon as possible.

In many cases, cows that advance to the "downer" stage may die.

To correct the protein and energy deficiencies of a stressed, thin cow herd, provide plenty of good-quality hay. When feeding hay, consider both the quantity and quality fed, and supplement it if needed with the proper amounts of protein and/or energy supplements.

Providing hay that is of poor quality—even in large amounts—might provide adequate energy, but the cattle will be deficient in protein. Providing good hay but not enough of it can improve the protein deficiency but leave the cattle lacking in energy.

Treatment is of little value in severely affected cattle. However, for the other cattle remaining on the "poor" oak tree pasture, provide supplemental feed containing hydrated lime (calcium hydroxide) and protein, which are "antidotes" for the tannins.

Mix and cube the following feed formulation for breeding cattle (4 pounds per head per day) and use it as a meal creep feed for calves (free-choice lime limits consumption like salt):

Cottonseed meal	1,040 pounds (52 percent)
Dehydrated alfalfa leaf meal	600 pounds (30 percent)
Vegetable oil	160 pounds (8 percent)
Hydrated lime	200 pounds (10 percent)

Obviously, acorn poisoning can be prevented by removing cattle from areas with oak trees when acorns have recently fallen. Reserve these pastures for grazing in late fall or winter, when the acorns have had a chance to age, turn brown and become somewhat less toxic.

No matter when the cattle are turned onto "poor" oak tree pasture, remember that they still could be affected if they eat too many acorns.

Plant poisoning

Deaths in early fall are often related to nitrate and toxic plant poisoning in a hungry herd on an overgrazed summer pasture. After fall rains stimulate the growth of grasses, hungry cattle may consume too much of the new growth and die of suffocation because of pulmonary emphysema, or "fog fever." The new growth also may be high in cyanide, which causes cattle to suddenly die, as if they suffocated.

Fog fever is a respiratory distress syndrome that may occur in adult cattle 5 to 10 days after a change from dry, sparse grazing to a relatively lush, green pasture. Problem pastures have grass and weed regrowth after rains or irrigation and provide an excess of tryptophan amino acid, which in cattle is converted to a toxic compound. The toxin produced from the tryptophan causes lung edema (an accumulation of fluids) and emphysema.

Hungry cows moved from dry to green grazing are susceptible to plant poisoning.

Cattle with mild conditions may go unnoticed and recover spontaneously within days. Cattle with severe lung edema and emphysema show extensive respiratory distress with mouth-breathing, tongue extension and drooling of saliva.

Producers should drive or handle the animals cautiously to prevent immediate deaths. Remove all cattle from the pasture concerned and handle them quietly for therapy by a veterinarian. Up to 30 percent of the severely affected cattle will die.

After 10 to 14 days, the cattle may be reintroduced gradually to the pasture over 3 weeks by feeding hay and limiting grazing time. As the forage matures, it becomes safer because the nutrients become less concentrated.

Pulmonary emphysema can best be prevented by not suddenly putting hungry adult cattle on lush pastures. Good options include:

- Moving cattle onto the new pasture before it becomes lush
- Mowing and strip-grazing
- Restricting grazing time
- Providing hay or grain

To prevent fog fever, provide sufficient, good-quality grass, hay and water.

Polio

A disorder called polio (polioencephalomalacia) commonly develops in malnourished, thin cattle that have been grazing poor pastures low in protein, consuming high levels of sulfate in grass and water and then are brought into dry-lot confinement and fed large amounts of grain concentrates or grain silages without adequate roughage. Polio can develop within a few days in cattle under these conditions. It often occurs in late summer and early fall when pastures are dry and when overgrazed and replacement heifers and weaned calves are penned for supplemental feeding.

The abrupt change in diet can cause necrosis (death of cells or tissues through injury or disease) of the brain. Thiamine levels in brain tissue may also drop, which can cause severe neurological disease.

Affected cattle, especially weanlings and yearlings, become weak and uncoordinated and go down. As the downer tries to stand, its ankles remain flexed or knuckled over. Cattle with polio often lie cow fashion (body upright with legs underneath) and just cannot get up.

To prevent permanent brain damage, producers should call in a veterinarian for treatment immed-

iately. Cattle often improve within 12 hours if they are treated early in the course of disease and do not have brain necrosis. If the cattle do not respond to thiamine treatment, either they have irreversible brain damage, or the problem has been misdiagnosed.

To prevent recurrence, feed good-quality hay be-fore a gradual return to grain, and maintain a high fiber diet.

Nasty ground in haying and loafing area can lead to soil-borne diseases in cattle.

Range ketosis

Cattle with range ketosis are malnourished and thin, on a low-carbohydrate (low-energy) diet and likely are stressed from cold weather or calving and nursing.

Symptoms include wallowing and licking with the tongue, bellowing and pressing against walls, posts and trees. The cattle become incoordinated and then go down.

Affected cattle need immediate treatment by a veterinarian to raise their blood sugar levels and improve glucose metabolism.

Grass tetany (Hypomagnesemia)

The affected cows are thin, grazing lush pasture high in nitrogen and potassium, and likely are stressed from cold, cloudy weather or calving and nursing.

Symptoms include staggers, tossing the head, bellowing and galloping before going down with convulsions.

A veterinarian is needed to treat the cattle immediately to raise the blood magnesium.

Soil-borne diseases

When a cow herd is in a winter calving season and feeds on round, hay bales, the ground can become wet, nasty and contaminated with coccidia (microorganisms that multiply in the intestinal tract) from cow manure. Nursing calves lie on these grounds and may ingest many coccidial cysts, which leads to coccidiosis, a parasitic disease of the intestinal tract.

Several health problems are associated with round bale-feeding of cows and nursing calves. For calves, these include:

- Coccidiosis (coccidial scours), an intestinal disease caused by a parasite called coccidia and resulting in diarrhea
- Cryptosporidiosis (crypto scours), caused by *Cryptosporidium parvum*, an intestinal parasite
- Viral and bacterial scours, a gastroenteritis
- Bacterial navel ill, a bacterial infection of the navel

In cows, the problems include:

- Bacterial metritis, an infection of the uterus
- Bacterial mastitis, an inflammation of the mammary gland or udder
- Bacterial foot rot, an infection causing swelling or lameness in one or more feet

To reduce the occurrences of these and other soil-borne diseases, move the haying areas periodically to maintain good environmental sanitation.

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New

House Passes Important Market Transparency Legislation for Cattle Producers

NCBA

On Wednesday, the U.S. House voted to pass two NCBA-supported pieces of legislation that are critical to providing producers with greater transparency in the cattle markets.

The House voted 418-9 to advance H.R. 5290, introduced by House Agriculture Committee Chairman David Scott (D-GA). This legislation, which was supported by Ranking Member Glenn "G.T." Thompson (R-PA) and unanimously approved by the Committee, would extend authorization for livestock mandatory reporting (LMR) through September 30, 2022.

The authorization for LMR — the most important tool cattle producers have for understanding transactions and trends in the cattle markets — is currently set to expire along with federal funding on February 18, 2022.

By an overwhelming vote of 411-13, the House also passed the Cattle Contract Library Act of 2021. NCBA secured the introduction of this bipartisan legislation in October, led by Rep. Dusty Johnson (R-SD) and Rep. Henry Cuellar (D-TX).

“The fact that House Agriculture Committee Chairman Scott and Ranking Member Thompson have both been vocal champions for LMR reauthorization is yet another indication of the broad-base support this measure has among producers across the country. LMR is absolutely essential to fair, competitive, and transparent cattle markets. We appreciate Chairman Scott's leadership, and the heavy engagement we have seen from both sides of the committee on this issue. We also thank Rep. Johnson and Rep. Cuellar for their work to equip producers with vital market data through a cattle contract library,” said NCBA President Jerry Bohn.

The creation of a cattle contract library and the reauthorization of LMR are both widely supported across the cattle and beef industry. When livestock groups met in Phoenix earlier this year to identify common goals and priorities, those two measures were agreed upon as urgent.

NCBA left that meeting and immediately set to work advancing these proposals. We upheld our commitment to the industry, even when R-CALF changed their tune and refused to support these viable, popular solutions.

BACKGROUND

NCBA has long advocated for increased transparency in the cattle and beef supply chain.

In October 2021, NCBA Vice President and South Dakota rancher Todd Wilkinson testified before the House Agriculture Committee and underscored the need for greater transparency in live cattle markets.

In August 2021, NCBA succeeded in pushing USDA to make more market data publicly available. The agency began publishing a new daily report on the foundational prices used in cattle market formulas, grids, and contracts, and a new weekly report on the volume of cattle purchased at each different level of pricing.

In June 2021, NCBA led a letter with the support of more than 36 state affiliate groups urging Congress to act on the reauthorization of LMR. LMR is the legislative mandate that requires large meat processors to regularly report information on their transactions, such as the price they pay for livestock and the volume of purchases.

Source: NCBA

Mare and Foal Workshop available now online

HORSE OWNERS CAN GAIN INSIGHT ON CARE, FOALING PROCESS

BY KAY LEDBETTER

Horse owners and managers can learn about important topics related to managing the broodmare and foal by attending the online Mare and Foals Workshop, presented by Texas A&M AgriLife Extension Service on AgriLife Learn.

Horse owners and breeding managers who might need extra guidance in the foaling process, along with some practical guidelines, are invited to access the course. The course cost is $75 and is available at https://tx.ag/MareFoalWorkshop.

The content was developed by industry experts and is presented by instructors Jennifer Zoller, Ph.D., and Chelsie Huseman, Ph.D., AgriLife Extension horse specialists in the College of Agriculture and Life Science's Department of Animal Science, Bryan-College Station.

Those taking the course will learn about the foaling process, including predicting and preparing for foal arrival, postpartum placental evaluation, proper nutrition for a pregnant mare and foal, and vaccination programs for the broodmare and foal. There will also be information on vaccination administration guidelines.

(A mare grazes on lush green grass with her foal by her side. (Texas A&M AgriLife photo by Tamara Garza)

INSTRUCTORS PROVIDE MUTIPLE TRAININGS

Huseman conducts education across the state for adults and youth through seminars, short courses and other educational programs. Her research interests are in the areas of skeletal adaptation to exercise and equine reproduction management. Her most recent work includes testing whole-body vibration and its effect on the skeleton and new technologies for semen analysis.

Zoller provides statewide leadership for planning, implementing, conducting and evaluating AgriLife Extension education programs in equine sciences. She provides leadership with the State 4-H Horse Show, Texas Horse Help mobile application and horse judging competitions across the state. Her research interests include energy balance, manipulating the body condition of the exercising horse to maximize nutrition programs, and the health benefits of participating in equine activities.

EQUINE REPRODUCTIVE SHORT COURSE

Huseman and Zoller also conduct the annual Texas A&M Equine Reproductive Management Short Course designed for owners and breeding managers who want to learn the most efficient methods for ensuring the success of their breeding programs.

This interactive, three-day short course will be held Jan. 12-14 at the Texas A&M University Thomas G. Hildebrand Equine Complex, 3240 F&B Road, College Station. The in-person course is limited to 12 people, and the fee is $700. However, this course is also available online for $300 at https://tx.ag/EquineReproShortCourse.

For more information, email chelsie.huseman@tamu.edu or jennifer.zoller@tamu.edu or call 979-845-5264.

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