

## WILDLIFE

# Feral hogs present disease risk for livestock and people

by Josh Gaskamp / jagaskamp@noble.org



**Feral hogs can** carry numerous diseases of importance to commercial livestock producers and human health. As the nation's feral hog population in-

creases, so does the rate of exposure to infected hogs and potential for disease transmission. Pathogens of most concern to livestock producers include brucellosis and pseudorabies virus. These pathogens can bring devastating impacts (e.g., decreased production, animal deaths, quarantine) if infections reach commercial livestock operations resulting in economic burdens to producers. Private and governmental agencies are continually collecting samples from feral hogs to monitor for various pathogens.

### **Pseudorabies (PRV)**

PRV is a herpesvirus, sometimes referred to as Aujeszky's disease or mad itch. PRV infects the nervous system of livestock, as well as many species of wildlife. In most species, infection rapidly leads to death with mortality rates approaching 100 percent. Only pigs are able to survive an acute infection and are the natural reservoir for the virus. Humans cannot contract PRV.



Photo: USDA APHIS Wildlife Services

### **Brucellosis**

Brucellosis, also known as Bang's disease or undulant fever is usually caused by the bacterium *Brucella suis* in hogs and *Brucella abortus* in cattle. However, feral hogs are capable of contracting and transmitting both pathogens. Brucellosis is primarily a reproductive tract disease that causes abortions, infertility, inflammation of testicles, reduced milk production and lameness. Infected hogs are long-term carriers and can infect wildlife, livestock and humans.

### **Porcine Reproductive and Respiratory Syndrome (PRRS)**

The PRRS virus causes late-term reproductive failure and post-weaning respiratory disease in hogs. Transmission occurs through pig-to-pig contact, and some strains can aerosolize over short distances. The virus often is found in saliva, nasal secretions, urine, feces and semen. Indirect transmission can occur through external parasites. No evidence exists that humans can contract PRRS. ▶

## Tularemia

Tularemia, also known as rabbit fever, is an infectious disease caused by the bacterium *Francisella tularensis*. In most susceptible mammals, the clinical signs include fever, lethargy, loss of appetite, signs of sepsis and possibly death. Rodents, rabbits, white-tailed deer and feral hogs are capable of contracting and transmitting tularemia. Humans are most often infected by tick bite or through handling an infected animal.

## Q Fever

Q fever is an infectious disease caused by the bacterium *Coxiella burnetii*. This organism may be found in hogs, cattle, sheep, goats and other domestic mammals. An infection results from contact with the milk, urine, feces, vaginal mucus or semen of infected animals. The disease can be tickborne. Humans are vulnerable to Q fever and may exhibit flu-like symptoms if infected.

## Plague

*Yersinia pestis* is an anaerobic bacterium that is typically found in rodents. Humans and other mammals that get plague usually have been bitten by a flea carrying the bacterium or by handling an infected animal. Plague killed millions of people in Europe during the Middle Ages. Modern antibiotics are effective in treating plague, but without treatment, the disease can cause serious illness or death.

Population monitoring and research in south-central Oklahoma conducted by the Noble Foundation demonstrated the following feral hog exposure rates to these diseases: pseudorabies – 22 percent, brucellosis – 0.7 percent, PRRS – 0.3 percent, tularemia – 20 percent, Q fever – 3.4 percent, plague – 1.4 percent. The rates reflect the percentages of 283 animals tested with antibodies to these diseases detected in their blood.

Although most of these exposure rates are relatively low, it is important

to exercise caution when handling feral hogs. Hunters that bag a few hogs a year may never encounter an infected animal in their lifetime, while trappers may catch enough animals to encounter one per month. Hunters and trappers should always wear gloves when handling feral hogs and cover any open cuts, scrapes or other wounds. Feral hogs can be excellent table fare, but when cooking wild pork for dinner, be sure to raise internal meat temperature to 165 F.

Some of the aforementioned diseases are of little concern to human health but are of a great concern to the health of livestock and wildlife. Prohibiting relocation of infected feral hogs to new areas is important for controlling the spread of livestock diseases. Additionally, the practice of providing small water points or supplemental feed for wildlife or livestock may increase the risk of transmission by concentrating other animals and feral hogs at these sites. ■

# 15<sup>th</sup> Annual Red River Chapter of the National Wild Turkey Federation Hunting Heritage Banquet

5 p.m.-10 p.m.  
April 11, 2015  
Heritage Hall, Ardmore, Okla.

Ticket prices:  
Individuals - \$50  
Couples - \$65  
17 and younger - \$15



# Niche marketing expands cow-calf producer opportunities

by Evan Whitley / ewhitley@noble.org



**Cattle prices** were once again favorable for most cow-calf enterprises throughout the 2014 production year. Yet, it was about this time last year that ana-

lysts were warning that our bubble was about to burst and prices would soon “level off” and possibly start to decline. Their reasoning was based primarily upon consumer sensitivity to red meat prices compared to alternative (poultry and pork) animal protein sources, an export market that offered few expansion opportunities and heifer retention that was already underway. For the most part, these demand-side prognostications held true. Omitted during these discussions was a reduction in supply-side expenditures, most notably corn, keeping cattle prices elevated beyond early projections.

Will 2015 be the year we finally see a softened cattle market? The reality is, no one knows. Yet, we must continually remind ourselves that commodity markets – including cattle – are cyclical and somewhat unpredictable due to both internal and external factors. A complacent mindset is easily adopted. Therefore, reminding ourselves of a potential market softening is often overlooked when conditions are good, yet this is the best time to plan for the next market bottom.

One such way to minimize the impact of a cyclical low is by taking steps to differentiate your operation from others, particularly those in your geographic area (i.e., your direct competition). At the surface, this sounds relatively easy – just do the opposite of what your neighbor is doing. However, two very important concepts, especially for cow-calf producers, have to be employed to find a successful niche: scalability and market acceptance. In other words, the addition of true long-term value for cow-calf producers depends on implementing management practices that provide positive differentiation and do so at a level that meets logistical needs (i.e., approximately 100 calves weighing 500 pounds).

The average U.S. cow herd is roughly 40 head, so scalability is often the most difficult obstacle to overcome due to the size of an individual producer’s cow herd. However, the implementation of management practices such as a defined calving season, purchasing bulls to meet specified objectives, adopting a well-thought-out preventative vaccination program and recognizing the importance of proper animal husbandry can go a long way in meeting both scalability and acceptability requirements. These practices are often minimum requirements for participation in any value-added calf marketing program or alliance due to their positive contri-

bution to overall animal performance and meeting consumer preference.

Central to this discussion is the importance of record keeping. If the proper paperwork is not in place, then the benefits of implementing the management practice can’t be fully realized in many marketing programs. The same information kept and utilized during the managerial decision-making process is often required to meet participation criteria. The demands of export markets as well as heightened consumer awareness have significantly increased the potential benefits for producers to participate in a value-added program. The difficulty arises in finding one that fits your management style and is feasibly available in your location.

The decision on whether or not to participate in one of these programs will ultimately determine what information is required to be kept and the required level of scrutiny (e.g., affidavits, certification, etc.). Many producers implement the aforementioned management practices and keep the records necessary to assist in operational management decisions. If so, you may want to investigate which value-added marketing programs are available to you and if any additional requirements are necessary to participate. If such practices are foreign to your operation, then you may want to consider their implementation because change is always easier to swallow during the good times. ■

# 2015: Second Quarter Events

## Spring Grazing Workshop

Small grain winter pasture is high quality forage often grazed by stocker cattle through spring graze-out. Technologies available today provide more efficient means to manage stocking rates. These applicable technologies will be demonstrated on-site at the Noble Foundation's demonstration farms.

9 a.m.-4 p.m.

April 7, 2015

Noble Foundation

Pasture Demonstration Farm and  
Red River Farm

Registration Fee: \$20, includes lunch



## Pecan Grafting Workshop

Pecan trees being planted in an orchard should be propagated to a proven cultivar by grafting or budding. This workshop will teach attendees the science and art of grafting. Participants can choose to attend the morning or afternoon session.

Morning: 9 a.m.-12 p.m.

Afternoon: 1-4 p.m.

April 28, 2015

Noble Foundation Pavilion

No Registration Fee



## Basic AG Livestock Management Field Day

The field day will focus on stocker cattle enterprise options for small producers. Basic livestock handling, and recommendations regarding purchasing and receiving, health protocol, nutrition, and marketing for small producers will also be discussed.

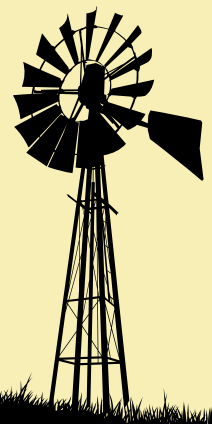
9 a.m.-12 p.m.

May 22, 2015

Noble Foundation

McMillan Road Farm

No Registration Fee



# Basic AG

Foundational Knowledge

## Pond Workshop

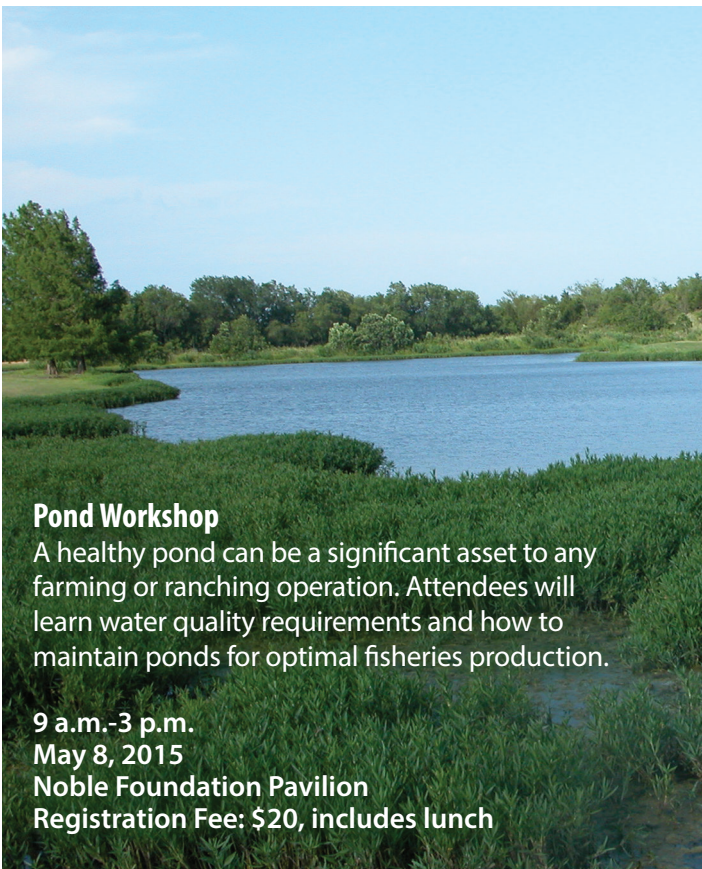
A healthy pond can be a significant asset to any farming or ranching operation. Attendees will learn water quality requirements and how to maintain ponds for optimal fisheries production.

9 a.m.-3 p.m.

May 8, 2015

Noble Foundation Pavilion

Registration Fee: \$20, includes lunch



**For more information or to register,** visit [www.noble.org/agevents](http://www.noble.org/agevents) or call Maggie Scott at 580.224.6375. Preregistration is requested.

# Management strategies ease calving season

by Robert Wells / rswells@noble.org

*This article originally appeared in the Feb. 2006 Ag News and Views newsletter.*

**It's March**, and most people are looking forward to spring. For cattlemen, spring means calving season is approaching. We turn our thoughts to the expectation of seeing the next calf crop safely on the ground. For some, this time of the year is just "another day at the office," because they have taken the necessary steps to ensure as few problems as possible. For others, I hope this article will help reduce some of the problems they might incur. The first four items on my top 10 list have to be done the previous year to ensure a successful calving season. As we strive to improve the beef operation over time, it's never too early to be thinking about the next calving season.

1. **Use light birth weight (BW) bulls with appropriate BW and calving ease expected progeny differences (EPDs) for replacement heifers.** Yes, it's too late for this calving season, but the spring bull sales have begun, and now is the time to think about subsequent calf crops. Light BW bulls allow a first-calf heifer a better chance of calving unassisted.
2. **Have a defined and tight calving season.** The shorter the calving season, the less labor you will have. Pull your cows into a 60- to 90-day calving season to reduce the amount of time you or your hired help are "on call." Additionally, this creates a more uniform calf crop to go to sale in the fall.
3. **Calve heifers out four weeks earlier than the cow herd.** First, it allows for the heifers to have

additional time to start cycling. This should get the heifers in sync with the mature cow herd so all females have a high possibility of rebreeding when the bulls are turned out. Furthermore, you are able to concentrate on the heifers calving without worrying about the cows.

4. **Make sure all females are in the correct body condition score (BCS).** This is an often misunderstood and overlooked part of the management operation. Cows should be in a BCS of 5.5 to 6.5 at calving. This BCS ensures two things: the cows will have enough energy for the laborious task of parturition, and they are in the proper BCS for rebreeding. A thin cow sometimes won't have enough energy and will just give up during labor. Additionally, cows below a BCS of 5 at rebreeding exhibit lower conception rates. Reports have shown as much as a 25 percent or more breeding rate reduction for thin cows.
5. **Be prepared - OB chains, calf jack, fresh batteries in flashlights.** It may seem obvious to some, but checking to make sure the calving equipment is where it is supposed to be is time well spent. While you're at it, make sure your flashlights have fresh batteries and the spotlight in the truck is still in working condition.
6. **Have a working area that is clean, well-lit and functional.** Make sure the head gate on the squeeze chute is adjusted to fit cows and not calves. Having adequate light when you have to pull a calf is beneficial. Have clean, fresh hay available in the calving pen.
7. **Feed in the evening to reduce nighttime calving.** Studies have shown a response to evening feeding and its effects on nighttime calving. In essence, feeding late in the day or early evening will reduce the number of calves born at night. This enables you to reduce overnight labor costs for your hired help and allows you to get some much-needed rest.
8. **Have nice, clean, dry pasture for calving.** If you cannot easily see or get to the cows in a pasture, the likelihood of running into trouble increases. Have the cows close to handling/working facilities in case you have to assist a cow. The pasture, hopefully, has not been grazed for a while and has plenty of forage available. The standing forage helps keep the cows clean and increases the health of both the cow and calf.
9. **Know the signs. It is important to know proper presentation of the calf.** The soles of the hooves should be pointing down. If they are in any other position, trouble could be ahead. Know when to say when! If the cow is worn out and lacking energy, she may need help. Keep your veterinarian's phone number programmed into your cellphone.
10. **Move cows and calves to a different pasture after calving.** Moving the cows to a different pasture after calving simplifies the monitoring process since there are fewer cows to watch. This is a good time to pair the cows to the calves. Again, make sure to use a pasture that has plenty of standing forage available for the cows. ■

# Basic knowledge and practices assist new cattle producers

by Clay Wright / [jcwright@noble.org](mailto:jcwright@noble.org)



## When I started

at the Noble Foundation in the late 1970s, agriculture in the Southern Great Plains was still dominated by traditional producers engaged

primarily in forage-based beef production. Most operations were fairly large and run by experienced full-time farmers and ranchers. Over the last two decades, the number of these producers has declined. Being sandwiched between the metro areas of Dallas/Fort Worth and Oklahoma City, we've seen a tremendous increase in small, often novice landowners. What hasn't changed in 30-plus years is the fact that most producers seek our consultation services after they've been in business long enough for issues to arise that range from minor to critical.

Rarely do we get an initial request for consultation before someone has chosen and invested in an enterprise and has begun operation. When we can get in on the ground floor with a new producer, there are some basic concepts that we make sure are grasped immediately, and management of a livestock enterprise is at least third down on the hierarchy. First are the soils and forages on the property and realistic expectations of the amount of dry matter that can be grown. That number determines stocking rate, which must be appropriate for anything else to work. Once an appropriate stocking rate is determined, there are five basics I believe should be in place before a livestock enterprise is undertaken.

1. Ensure that you have a sound perimeter fence that will contain the class and species you will run.



Be aware that small ruminants have different fencing requirements than beef cattle.

2. Have a corral and a means to restrain the animals. It certainly does not have to be elaborate, but it does need to be functional. This is needed to be able to receive and ship, implement health protocols, and address other health-related issues that will arise from time to time.
3. Develop a good relationship with a veterinarian, including a mutually agreed upon comprehensive health protocol for all classes you will be managing. The protocol should be in place and ready to implement when the livestock arrive. I also believe every producer should be

- Beef Quality Assurance (BQA) certified, which is usually accomplished through the state extension service. BQA is a nationwide program from the National Cattlemen's Beef Association, but the principles are applicable to other species as well.
4. Have a sound understanding of the factors that affect the nutritional requirements of all classes of livestock – factors like age, sex, weight, stage of reproduction, level of milk production, body condition score, desired rate of gain, weather, etc. It is an eye opener to many new producers to learn that a lactating cow needs twice as much protein and at least 50 percent more energy than when she was

not nursing a calf. There are many sources of nutrient requirements for all livestock.

5. Be aware that adequate nutrition and health is paramount to reproductive performance. Reproductive performance is a direct indication of appropriate stocking rate, effective health and nutrition programs, and management in general. Reproductive performance drives

the amount of product you eventually sell, which will determine income and personal satisfaction.

As livestock producers, it is our responsibility to contain our animals, be able to address problems as they arise, to know diseases and parasites that can harm them, to provide protection from those diseases and parasites, to know the nutrient requirements of all classes of livestock

at all stages of production, and ensure they are receiving adequate nutrition. There are many sources of information and education for producers. Success depends on understanding that soil and forage management, health, nutrition, reproduction, and marketing are interconnected and interdependent. It is our job as livestock producers to use this understanding to care for our livestock. ■

## Texoma Cattlemen's Conference: Prosperity, Volatility and Sustainability

All phases of the cattle industry are experiencing record high markets. Producers will continue to face challenges and opportunities but at a new and higher level. This year's conference will provide insight on how to successfully manage livestock operations during these record markets. Plus, we will hear from beef industry leaders on the topic of 'sustainability.'

**Registration and Trade Show start at 8 a.m.**

**Program is from 9 a.m.-4 p.m.**

**March 21, 2015**

**Ardmore Convention Center**

**Registration Fee: \$40**

### Conference topics

- Situation and Outlook for Ag Credit
- Producer Perspectives and Panel Discussion
- Retailer's Perspective of Sustainability
- Industry Perspective of Sustainability
- Risk Management Options
- Cattle Market Outlook

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## EVENTS

### Beef Quality Assurance (BQA) Workshop

Time: 1:30-4:30 p.m.

Date: March 5, 2015

Location: Noble Foundation Kruse Auditorium

No Registration Fee

### Texoma Cattlemen's Conference: Prosperity, Volatility and Sustainability

Time: 9 a.m.-4 p.m. (Registration and Trade Show: 8 a.m.)

Date: March 21, 2015

Location: Ardmore Convention Center

Registration Fee: \$40, includes lunch

### Spring Grazing Workshop

Time: 9 a.m.-4 p.m.

Date: April 7, 2015

Location: Noble Foundation Pasture Demonstration Farm, and Red River Farm

Registration Fee: \$20, includes lunch

For more information or to register, please visit [www.noble.org/agevents](http://www.noble.org/agevents) or call Maggie Scott at 580.224.6375. Preregistration is requested.

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