



# AGRICULTURE NEWS

Welcome!

This is the first edition of the Quarterly Agriculture News from Ottawa County OSU Extension. This newsletter was created in a digital format in order to be interactive with helpful links and colorful images.

Reba Palmer is the Agriculture Extension Educator for Ottawa County. She has enjoyed getting to know the producers and community members of the county during her first year in extension.

Reba graduated from Oklahoma State University with her Bachelor's Degree in Agricultural Education with a Concentration in Horticulture. In her free time she enjoys raising goats and spending time with her family in Wyandotte.

If you have any ideas or topics you wish to be featured in the newsletter you can contact Reba Palmer via email, [rmmccar@okstate.edu](mailto:rmmccar@okstate.edu)



## UPCOMING EVENTS

**March 10 9AM**

Rachel Wright Memorial Show & Auction

**March 12-22**

Oklahoma Youth Expo

**March 26 6PM**

Market Goat & Hair Sheep Market Report

- [Zoom Link](#)

**April 27 - 28**

Cowgirl Confident Conference

- [Facebook Page](#)

**April 22 - 24**

OSU Cow/Calf Boot Camp

**May 30 12:30PM**

Lake Country Pesticide Conference

- CEU Opportunity



## **FARM/RANCH INJURIES**

BARRY WHITWORTH, DVM, SENIOR EXTENSION SPECIALIST, DEPARTMENT OF ANIMAL AND FOOD SCIENCES

In January, I attended the Oklahoma Veterinary Conference. While waiting for one of the sessions to start, a classmate of mine made the comment of how many of the attendees walk with a limp, use a cane, and/or have damaged hands. We all agreed that working with animals is hard on the body. In general, anything associated with farming and ranching is dangerous.

Most farmers and ranchers know that agriculture is a dangerous occupation. According to United States Bureau of Statistics, workers involved in agriculture, forestry, and fishing had the highest occupational fatality rate in 2022. The fatality rate of 23.5 per 100,000 full-time equivalent (FTE) workers for this group is much higher when compared to the overall occupation fatality rate of 3.7 per 100,000 FTE. Most of the agriculture related fatalities are associated with transportation such as tractor overturns and vehicle crashes, but a fair number involve livestock.

Livestock accounts for a significant amount of human injury and deaths. A survey of seven states in the central United States (US) found livestock were a frequent cause of injury. One survey found cattle accounted for almost one third of the injuries. In another survey, cattle were responsible for 36% of the fatalities. With their unpredictability and enormous power, bulls can be extremely dangerous. One study reported 261 attacks on people with 149 reported as fatalities and 112 as injuries.

Most victims of cattle incidents are struck, trampled, gored, and/or kicked. The most common types of injuries are contusions, fractures, and lacerations involving the lower and upper extremities. More severe injuries are related to head trauma, internal damage, and crushing injuries.

Many factors play a part in causing injuries and fatalities. One survey found that the age of the victim was significant. Groups with younger people were at higher risk of injury when compared to older ranchers. This may be due to human error and overconfidence of the handler as was pointed out in one report as a cause of injury and death. However, medical conditions such as hearing loss and arthritis, which are more common in older people, can play a role in being injured. These conditions may restrict a person's ability to move out of danger or hear activities that may warn them to move. This relates to another reported risk factor of individuals working alone. It is reported that one third of the fatalities occur when no one else is present. Another interesting fact associated with fatalities is that one third of the deaths were caused by animals that had previously shown aggressive behavior. It is wise to cull aggressive animals.

Another factor to consider is facilities. Several studies indicated that cattle equipment, housing, and working facilities contributed to injuries. This was especially important in bull incidents. Unfortunately, over 40% of cattlemen in one survey reported that they do not think their facilities are safe but hesitate to improve them. The reasons given include the cost of new equipment, satisfaction with the current facility, and lack of both time and knowledge on how to build a new facility.



## **FARM/RANCH INJURIES**

BARRY WHITWORTH, DVM, SENIOR EXTENSION SPECIALIST, DEPARTMENT OF ANIMAL AND FOOD SCIENCES

Most if not all injuries and fatalities caused by livestock can be prevented. Livestock producers can reduce the risk of injury by studying animal behavior, by using proper handling techniques, and by using equipment correctly. Beef Quality Assurance as well as many other groups provide training in animal behavior and low stress cattle handling. Facilities and equipment are costly, but when designed and used correctly, accidents are reduced. Individuals need to protect themselves by wearing proper footwear, clothing, and head and eye protection. Also, many accidents happen when farmers and ranchers work alone. A partner present to keep watch may prevent an injury. Lastly, producers need to recognize their limits. When animals are involved, overconfidence will get someone hurt.

From a personal standpoint, I have had my share of incidents. I have been bitten, scratched, clawed, trampled, tossed around, mashed, and crushed by a variety of them. All the incidents were the result of overconfidence, human error, lack of knowledge, and poor equipment and facilities. My life's experiences are the same as many other farmers and ranchers. We all have one life to live, so we all need to take better care of ourselves.





# OTTAWA COUNTY EXTENSION

## HOME GROWN

### TOMATO TIPS



LAURA PAYNE, HORTICULTURE EDUCATOR, PAYNE COUNTY OSU EXTENSION

If you are growing tomatoes from seed, it's just about time to start sowing your seeds indoors. The recommendation is to start tomato seeds 4 to 6 weeks before planting outdoors. A good target date to think about planting outdoors is after April 15. But this is Oklahoma, and you might get away with planting a little earlier if you protect your tomatoes. I like to start my seeds a little early, so I have nice big plants when it's time for them to grow outdoors. Tomatoes are a warm season crop and one of the most popular crops grown by home gardeners.

Here are a few tips to growing a good quality tomato:

- Start with soil that is high in organic matter and loose so the root system can grow vigorously.
- Tomatoes are a heavy feeder of fertilizers, especially nitrogen, so get a soil test done prior to planting and incorporate the recommended fertilizer into the soil. Additional nitrogen may be needed if it rains a lot and leaching has occurred.
- When deciding which tomato varieties to grow it's to your benefit to find one that is nematode and wilt resistant.
- Provide protection from cutworms and other possible pests of the transplanting season. One method for protecting against cutworms is to cut a straw to about 3 inches long and make a slit lengthwise in the straw, then wrap the straw around the stem of the tomato at ground level. Another method is to use an empty toilet paper roll and wrap it around the stem.
- Mulch around the plants to help control soil moisture and temperature.
- Apply supplemental water as needed, drip irrigation is preferred because it is usually consistent. However, just because you have a drip system doesn't mean it is working properly. You need to check your system regularly because emitters get clogged, electricity gets interrupted throwing off timers, and little rodents love to chew on the irrigation tubing.
- Control insects and spider mites if numbers are increasing from week to week.
- Control disease issues early, don't wait until several plants are infected.
- Windbreaks may be helpful in hot, dry weather.
- Keep records of the varieties you grew so you know what worked and what didn't work.
- Tomatoes grow best when nighttime temperatures are above 60 degrees and day temperatures are below 90 degrees.
- Tomato blooms won't set to fruit if daytime temperatures are above 95 degrees, and nighttime temperatures are above 70 degrees, tomatoes need a cooling off period
- "Catfaced" fruit may occur if nighttime temperatures are in the 40's or low 50's. ("catfaced" fruit is gnarly, irregular shaped fruit)





## **FETAL PROGRAMMING - EARLY GESTATION**

**EARL H. WARD, NE AREA LIVESTOCK SPECIALIST**

Supplying adequate nutrition to reproductive females is not only essential to her health and production but also for her offspring's health and performance in the future. How beef cows are nutritionally managed during pregnancy can have significant effects on health, growth, and performance of their offspring later in life. This is known as fetal programming.

Early gestation (0 to 3 months) is a difficult time to meet the nutritional needs of cows. If they had just calved, they need to have adequate nutrition to meet the demanding needs of peak lactation which happens approximately 60 days postpartum. They also require sufficient nutrition to reset her reproductive system to ensure that she conceives within 85 days of calving to guarantee a yearly calving interval. From conception to three months the cow must maintain her energy reserves, feed a baby calf, and retain the developing fetus.

Early gestation is the time for differentiation, fetal organ, circulatory system, and placental development. By day 25 of gestation the development of placenta and limbs begins. Followed by the development of the liver, lungs, pancreas, brain, thymus, kidneys, and spleen. Male calves initiate testicular development by day 45 and females begin ovarian development by day 50. Adequate blood flow and nutrients to the fetus during early gestation is essential for further development of these organs.

A study done by the University of Wyoming reported the effects of restricting nutrients during early gestation on the calves' growth performance and organ development (Long et al., 2010). This study provided one group of heifers with 100% of their nutrient requirements but restricted another group of heifers to 55% of their nutrient requirements during the first 83 days of gestation. After that time, all animals were fed 100% of their nutrient requirements until calving. Naturally the nutritionally compromised heifers lost 137 pounds of body weight whereas the cows fed 100% of requirements gained 95 pounds during the 83-day feeding period. The researchers found no differences of calf birth weight, weaning weights, or average daily gains from birth to weaning or during the feedlot finishing phase. However, there was a significant difference between the offspring steers' lung and trachea weights when they were slaughtered (9.48 lb. vs 13.89 lb. for the 55% group vs the 100% group, respectively). Although more research is needed to confirm this study, it does pose the question how a nutrient deficiency in early gestation affects the organ development of the fetus and affects the animal's health later in life with a smaller lung mass?

The herd's nutritional status is something that needs to be constantly evaluated. Your county's OSU Extension Educator can help you with evaluating your nutrition program and herd health.



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## **BACKYARD FLOCK OWNERS ON HIGH ALERT FOR AVIAN INFLUENZA**

**GAIL ELLIS | EDITORIAL COMMUNICATIONS COORDINATOR**

All Oklahoma poultry producers and backyard flock owners should remain alert and practice strict biosecurity protocols to prevent Highly Pathogenic Avian Influenza.

The virus has been reported in backyard poultry flocks in Carter, Wagoner and Grady counties and a domestic swan in Oklahoma County.

State veterinarian Dr. Rod Hall said poultry and eggs are safe to consume when prepared properly, but this particular strain of avian influenza is killing chickens rapidly.

“We encourage flock owners to do all they can to eliminate domestic poultry exposure to wild waterfowl, areas where wild waterfowl gather and domestic waterfowl that mingle with wild waterfowl,” he said.

Animal health experts with Oklahoma State University Extension and the Oklahoma Department of Agriculture, Food and Forestry say more cases are likely this fall as wild waterfowl migrate south.

“Bird owners should take all biosecurity precautions, especially preventing exposure of domestic poultry to wild waterfowl,” said Dr. Rosslyn Biggs, OSU Extension veterinarian and director of continuing education for the university’s College of Veterinary Medicine.

Dr. Barry Whitworth, senior OSU Extension specialist and state Beef Quality Assurance program coordinator in the OSU Department of Animal and Food Sciences, said avian influenza is a major threat to the U.S. and Oklahoma poultry industries.

“It is the responsibility of all commercial and backyard poultry producers to do everything in their power to protect this industry,” Whitworth said.

Hall at the Oklahoma Department of Agriculture said although this particular strain of avian influenza has not shown the ability to infect humans and make them ill, people should take appropriate precautions.

“Viruses mutate, so people with exposure to sick poultry should use personal protective equipment,” he said.



## HPAI signs and symptoms

- Coughing and sneezing
- Difficulty breathing
- Extreme depression
- Lack of energy
- Decrease in feed or water intake
- Swelling or purple discoloration of head, eyelids, comb, wattle or legs
- Decrease in egg production
- Sudden, unexplained death
- Quietness among the flock

## Biosecurity Standards

- Restrict visitor access to birds
- Prevent contact with wild birds (especially waterfowl)
- Refrain from visiting other poultry operation locations
- Set aside clothing and footwear to wear only when working with birds
- Disinfect footwear before entering a barn or coop
- Wash hands with soap and water before and after handling birds
- Reduce availability of food, water and any potential nesting areas for wild birds
- Fix holes in roofs, screens and walls of poultry barns or coops
- Do not share equipment with other bird owners
- Birds that have been near other poultry should be quarantined from the rest of the flock for at least 14 days

Flock owners concerned about illness in their birds should contact their veterinarian, county Extension educator or the state veterinarian's office at 405-522-6141.

Transporting poultry across state lines

Oklahoma Department of Agriculture officials also advise poultry owners to check with all states of destinations for exports of poultry and hatching eggs. This includes anyone traveling with poultry or hatching eggs out of state, even when returning with them to Oklahoma. Many states have and will implement emergency restrictions or additional testing requirements due to Oklahoma's HPAI cases.

OSU Extension Fact Sheet: [Small Flock Biosecurity for Prevention of Avian Influenza](#)





# OTTAWA COUNTY EXTENSION

## SMALL RUMINANT RESOURCES

### Oklahoma Basic Meat Goat Manual

#### **Market Goat & Hair Sheep Market Outlook**

This meat goat and hair sheep market outlook webinar will be held on March 26th at 6:00 p.m

OSU specialist JJ Jones will talk about the latest USDA inventory reports as well as 2024 market outlook for meat goats and hair sheep.

Use this link to register

[Registration Link](#)



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## SUNUP LINKS

TAP/CLICK ON THE LINK BELOW TO TAKE YOU TO THE YOUTUBE VIDEO



### KEEP/CULL REPLACEMENT HEIFERS

[March Mesonet Update](#)

[Wheat Price Projections](#)

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