

Noble County Oklahoma Cooperative Extension Service
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The Noble County Courthouse and OSU Extension is open to the public. Entrance available only through the west door. Your temperature will be checked prior to entering which must be less than 100.4° to enter. Appointments are encouraged and preferred. We continue to practice social/physical distancing, as we meet the needs of OSU University and Noble County OCES. Thank you for understanding.



**NOBLE COUNTY
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Noble County OSU Cooperative Extension Service

Agriculture News and Updates: September 2020



**NOBLE COUNTY
EXTENSION**

Grain Sorghum Harvest Aids **Josh Bushong, Area Extension Agronomy Specialist**

Utilizing harvest aids for grain sorghum has become more popular in recent years. Historically, the crop would be left to terminate and senesce naturally. The main purpose of applying a harvest aid would be to improve harvest timing. Delayed harvest after the grain becomes mature can potentially reduce grain yields. An exposed crop can experience losses due to pest pressures like bird damage, as well as environmental losses like severe storms with strong winds or hail.

Many factors can delay harvest. Some newer genetics may exhibit characteristics like “stay green” where the plants stay green longer. At harvest, the higher moisture content of the plant can potentially spike grain moisture if combines are not set correctly. If fields have excessive weed infestations, the same concerns of spiking grain moisture at harvest can delay harvest. If stands are on the thin side and growing conditions improve later in the season, the addition of late tillers can become problematic. Unevenness in maturity of a field can also delay harvest.

Preparing the crop for harvest is achieved when harvest aids are applied correctly. Harvest aids in grain sorghum fall into two groups, herbicides and desiccants. The products available have very little influence on the grain itself but work more in the vegetative biomass of the plant. Therefore, these products have very little to no direct impact on grain moisture. Glyphosate, carfentrazone, and sodium chloride are currently the only three products labeled for use in grain sorghum.

Sodium chloride is a true desiccant and may not kill the crop but can rapidly dry-down any plant material that it contacts. If not harvested in a timely fashion, plant lodging or regrowth can occur. Glyphosate and carfentrazone are herbicides that, when use as directed, can terminate the crop or weeds. Glyphosate is more widely used, but generally takes longer to shut down the plants. Glyphosate also has a longer pre-harvest interval at seven days, while carfentrazone is only three days. Carfentrazone is a good option to assist with

broadleaf weed desiccation and is a great option to tankmix with glyphosate if there is concern of herbicide resistance.

If a producer chooses to have a harvest aid applied, applying the product correctly will greatly affect any potential economic gains. The first component of applying these products correctly involves application timing. A harvest aid should not be applied any earlier than physiological maturity, often referred to as black layer. Applying too early can reduce grain fill which will directly reduce grain yields.

To check for black layer, inspect the base of seeds on multiple plants, tillers of each plant, and locations within each panicle. Delayed plant emergence and late tiller additions will likely be farther behind. Typically, panicles mature from the top down. Maturity can widely range, so understanding how far along most of the crop is will improve proper application timing. Applying too late will not reduce grain yield but delaying harvest due to labeled pre-harvest timing intervals may lead to losses.

In addition to proper application timing, adequate spray coverage is also an important part in a successful harvest aid application. Apply these products in a minimum of 10 gallon of water per acre when ground applied or a minimum of 5 gallons of water per acre when aerially applied. Under certain conditions, like thick canopy of sorghum or weeds, increasing carrier volume up to 15 or 20 gallons of water per acre can increase efficacy of these products.

Harvest aids have no impact on yield potential in sorghum. Since these applications are made after physiological maturity, total yield potential has been set and crop dry-down is the only aspect remaining. Just like other crop protection products, harvest aids will only protect yield potential. A two-year study recently done by Oklahoma State University found yields for sorghum not treated with harvest aids resulted in an average reduction of around 7 bushels per acre in north-central Oklahoma and just over 5 bushels per acre in the panhandle.

More information can be found in the OSU factsheet “PSS-2183 Using Harvest Aids in Grain Sorghum Production” or by visiting your local OSU Extension office.

Leasing Land for Wildlife and Recreation Trent Milacek, NW Area Ag Economics Specialist

If producers are interested in increasing revenue from land assets, one way is to explore recreational leasing. One of the most common recreational leases in Oklahoma are hunting/fishing leases. It is important to determine the landowner’s liability and to protect their assets when allowing outside parties access to their land. If a tenant is interested in subleasing land for recreation, they must determine if they have that right in their current lease with the landowner before engaging with a third party.

Hunting leases are a form of recreational leasing. Those interested are encouraged to read the OSU factsheet NREM-5032 for detailed information on developing and marketing a hunting lease. The factsheet can be found at the following web address: <http://factsheets.okstate.edu/documents/nrem-5032-lease-hunting-opportunities-for-oklahoma-landowners/> It is important to seek legal counsel before entering into any lease to ensure your rights are protected.

A good hunting lease outlines appropriate use of the land and facilities so that the lessor and lessee are aware of each party’s expectations. Native wildlife are publicly owned, so hunting leases only grant access and use of the property in which these resources can be pursued. These makes it understood that a landowner does not guarantee any wildlife to be present on the property. A “hunting lease” only grants the lessee the right to make specific and limited use of the property. Therefore, this lease is more easily revoked if the need arises.

There is no “standard” hunting lease. Multiple-year leases are less common than one-year leases. Multiple-year leases may be more attractive to organizations or groups and could be more valuable to lessees looking for consistency. One-year leases are flexible for landowners if they are unsure of their future intentions or if they want to change the use of the land in the future.

Reducing liability to landowners when leasing land for hunting is a serious consideration. From NREM-5032, “Oklahoma’s recreational use statute and Oklahoma Limitation of Liability for Farming and Ranching Act may offer protection from liability for landowners when guests use their property without fees, when lessees pay less than \$10 per acre, or when the lessees and guests sign a properly executed liability waiver.”

Hunting leases can be a good way to gain revenue from agricultural land. They can also help reduce trespassing, vandalism and theft due to increased activity through the presence of lessees. However, landowners will need to consult an attorney when developing a lease and must work with lessees throughout the lease. Landowners may also lose some use of their land as is necessary for lessees to utilize the land. If these potential positives outweigh the negatives, both parties can benefit. For more information or to obtain a copy of the factsheet NREM-5032, please contact your local county extension educator.

Salmonella in Backyard Poultry 2020 Update Barry Whitworth, DVM, Area Food/Animal Quality and health Specialist for Eastern Oklahoma

The Center for Disease Control and Prevention (CDC) has issued a preliminary report on the 2020 *Salmonella* outbreak associated with backyard poultry. There have been 938 cases of *Salmonella* infections in people in 48 states. One hundred fifty-one people have been hospitalized with the disease. One person has died from the bacterium. The lone death occurred in Oklahoma. Twenty-eight percent of the cases were in children under 5 years of age. Oklahoma reported 10 cases of *Salmonella* infections. In interviews, 74% of the sick people reported contact with chicks or ducklings. It should be kept in mind that the CDC believes that for every 1 *Salmonella* case reported many cases go unreported.

Chicken, ducks, and other poultry carry the *Salmonella* organism. The bacteria do not normally make the birds sick, but when people accidentally ingest the organism, a severe illness may occur. The bacteria are in the droppings of poultry and can be found on the body of the birds. Bacteria contaminate cages, coops, feed and water dishes, and the area where the birds roam. People can be infected when handling poultry, entering poultry areas, handling equipment associated with poultry, and gathering eggs.

Salmonella infections in humans are associated with the digestive tract. Typical clinical signs are diarrhea, vomiting, fever, and abdominal cramps. If the infection goes from the intestinal tract to the blood, the disease will usually become more severe. Most people with severe infections will require hospitalization.

Parents and leaders overseeing 4H or FFA poultry projects must ensure that children and young people wash their hands after having contact with poultry. The following are some suggestions on how to reduce the chance of getting Salmonella:

- Wash hands with soap and water after having any contact with poultry or any area where poultry are located. If soap is not available, use a hand sanitizer.
- Do not allow poultry to enter areas where food and drinks are prepared, served, and stored.
- Do not eat or drink where poultry are located.
- Cook eggs thoroughly.
- Clean equipment associated with poultry outdoors.

Having chickens in the backyard or exhibiting poultry at the county fair can be very rewarding experiences. However, poultry owners should be aware of the potential for a Salmonella infection and always practice good hygiene. If you would like more information on backyard poultry, contact your local Oklahoma State University Extension Educator or visit the CDC Salmonella website at <https://www.cdc.gov/salmonella/backyardpoultry-05-20/>.

On-demand Farm Management Resources Available Anywhere **Brent Ladd, Extension Assistant**

Producers can access farm financial management, production, marketing, and risk management topics online by visiting the e-Farm Management website. This site catalogs videos, decision tools, and publications for farmers and ranchers to strengthen their farm management skills.

In the Estimating Forage with the Oklahoman Grazing Stick video, viewers learn about matching herd size with forage production. The video discusses how to use the Oklahoma grazing stick to calculate forage availability and estimate carrying capacity. Lastly, they learn about evaluating the canopy cover of their forage with this tool.

In the Tillage Series – Types of Tillage video, viewers learn about the two main types of tillage. The video discusses the main purposes of primary and secondary tillage. Lastly, they see examples of the various types of tillage.

To view these video's and find additional information, visit:
<http://agecon.okstate.edu/efarmmanagement/pasture.asp>.

More information on this and other farm management topics may be found: 1) by contacting your nearest Extension Educator (<https://extension.okstate.edu/county/index.html>) 2) on the e-farm management website (<http://agecon.okstate.edu/efarmmanagement/index.asp>) or 3) on the OSU Agricultural Economics YouTube Channel (<https://www.youtube.com/user/OkStateAgEcon>).

Vaccine Handling

Brian Freking

Studies from the University of Arkansas¹, the University of Nevada², and the University of Idaho³ have indicated that veterinary vaccine product efficacy is at risk due to improper handling and storage. Most animal vaccines require maintenance at refrigeration temperatures of 35-45°F. Yet these studies showed that anywhere from 25% to 76% of refrigerators used for vaccine storage in the livestock industry failed to maintain these temperatures.

In addition, other improper handling and storage procedures, including exposing vaccine to ultraviolet light from the sun or to temperature extremes and using improper injection techniques, can render vaccine less efficacious or even useless. Livestock do not gain immunity from vaccines that are damaged, destroyed, or altered through improper handling and storage practices.

Two common types of vaccine are killed (K) and modified live (MLV). Killed vaccines are made by growing an organism that is inactivated or killed by utilizing chemicals or heat. Modified-live vaccines are made with a virus or bacterium that is attenuated, or weakened, so the organism will not cause disease in most healthy animals but will still stimulate immunity. Killed vaccines are considered safer but typically not designed for long term immunity. Modified-live vaccines need to be reconstituted as they are not stable in solution. Therefore, when mixing MLV you should use the product within 2 hours and kept cool thus the need for a cooler as a good management practice for storing syringe guns as shown. The advantage of MLV products is they generally promote a longer active immune response.

Refrigeration temperature monitors can be a good investment. Monitor and record temperatures at least weekly. Consider the age of the appliance and the location (barn, porch, or other storage areas) of the refrigerator. Refrigerator location can have a substantial impact on how efficiently the refrigerator operates. For example, a refrigerator kept in a non-insulated barn may be adversely affected by high and low ambient temperature extremes. These temperature extremes can damage products stored inside the refrigerator.

BQA Tips to remember:

1. Do NOT use vaccines that are or have been frozen
2. Never enter the vaccine bottle with a used needle
3. Practice good sanitation of equipment and the working environment
4. Triple rinse repeating syringes with boiling water and don't use a disinfectant as this may inactivate vaccines following cleaning
5. Record product lot numbers, administration dates, and withdrawal times
6. READ AND FOLLOW LABEL INSTRUCTIONS
7. Maintain vaccination records for a minimum of 3 years

¹Troxel, T.R., and B.L. Barham. 2009. Case Study: The temperature Variability of Refrigerators Storing Animal Health Products. *The Professional Animal Scientist* 25:202-206.

²Torrell, R. 2006. Back to Basics: Frozen Vaccines. *Angus Beef Bulletin* Oct.:72, 74

³Fife, T.E., J.B. Glaze, Jr., K.S. Jensen, N.Rimbey, S.L. Kane, S.D. Baker, J. Church, S.J. Etter, D. Gunn, G. Keetch, S. Nash, S. Williams, and R.L.Wilson. 2013. Animal Health Product Handling and Management by Idaho Producers and Retailers. *The Professional Animal Scientist* 29:313-320.

Extension Experience – Insights into Oklahoma Agriculture

The Northwest Area Extension Staff would like to announce the creation of our new podcast *Extension Experience*. The *Extension Experience* podcast is brought to you by Josh Bushong, Trent Milacek, and Dana Zook. Each week we provide perspective on Agriculture topics and offer insight from our experience working with Extension Educators and Producers across Oklahoma.

The *Extension Experience* podcast is available on Spotify, Google Podcasts, and Apple Podcast platforms. You can also access the episodes on spotlight <http://spotlight.okstate.edu/experience/>.

Noble County Free Fair Fall Fair Dates: Sept. 12 – 17, 2020

OPEN Division on-line entry deadline: September 10 (OPEN Division)

Online entry link available and located at: <https://extension.okstate.edu/county/noble> in the Fairs and Shows tab.

If assistance with the on-line entry is needed, please make an appointment with the Noble County OSU Extension Office.

2020 CURRENT CANCELLED EVENTS:

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|-----------------------------|---------------------|----------------------------|
| - Tractor Operating Contest | - Farmhand Olympics | - OHCE Exhibits & Kitchen |
| - Livestock Judging Contest | - Bounce Houses | - Concession Stand |
| - Bunny Scramble | - Rabbit Show | - Commercial Vendor Booths |

Watch for Fall Fair Updates at <https://extension.okstate.edu/county/noble> in the Fairs and Shows tab.

Dispersal of Blackbirds

As we approach fall, complaints about blackbird congregations/roosts typically increase in Oklahoma. This is particularly a problem in large parking lots, urban streets, and residential areas. There are several birds that congregate together including: great tailed grackle, common grackle, European starling, red-winged blackbird, and brown-headed cowbirds. All of these birds are dark and collectively called blackbirds. Blackbirds congregate during late summer in anticipation of fall migration, although some of these flocks will remain in Oklahoma throughout the winter, especially in southern Oklahoma. While congregations of blackbirds can present a human health concern due to disease, it primarily presents a nuisance issue as they are noisy and

produce a lot of feces that covers cars, homes, and streets. Fortunately, there are several things that can be done to alleviate the nuisance.

Scare tactics such as firecrackers and other noise making devices can be effective at dispersing bird congregations. The key to making this work is repetition. It will often take several days of efforts to move birds to another location. As many of these birds gather for night roosting, using the noise-making devices at sunset is often most effective. In addition to noise, using water can be effective. Once the birds have settled into roosting trees, wetting them down with sprinklers or fire hoses is disturbing and they will attempt to find safer areas to roost in subsequent nights. Be sure to check with USDA Wildlife Services (405-521-4039) before harassing blackbirds with noise or water to obtain any necessary permits. Also, city permits will be needed and communication with the public will help alleviate noise complaints. All but the European starling are native and are protected under the Migratory Bird Treaty Act. The European starling can be killed year-around as it is exotic, but identification is difficult and flocks typically are mixed species. Therefore, lethal control is typically not a viable option.

Habitat modification is the best long-term solution to bird congregations. While it may be more expensive initially, it will often be the cheapest option over multiple years. The primary strategy is to remove roost cover. Trees are one of the most widely used roost cover and the type of tree present has an influence. Avoid planting trees that have a dense structure such as callery (Bradford) pear. Trees that are more open such as redbud are better alternatives. Existing trees can either be removed, replaced, or thinned. Using trees that are more open not only provides fewer perch opportunities, it allows for predators such as owls to have better access to the birds. Power lines are another structure that is problematic. Burying power lines where possible will help avoid attracting bird congregations. Also, flat buildings and signs offer perches. Initial construction should avoid flat surfaces and use >45° when possible. Existing structures can be modified by adding bird spikes which can be purchased online. Netting can also be used to cover trees and to prevent birds from accessing eaves and other areas of buildings. While expensive, these devices do work and they offer long-term deterrence.