



HARMON COUNTY AGRICULTURE NEWSLETTER

Harmon County Cooperative Extension Service

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Dear Harmon County Ag Producers,

I hope this finds each of you well and you have had a great start in 2021. As you read through this newsletter, you will find different articles about agriculture updates and news such as current livestock markets, cattle reproduction and calving help, crop updates, and tax information. In March, I plan on having an in-person meeting for Dicamba training and Private Applicators meeting for ODAFF Continuing Education Units (CEU's) as well as a Spring Crops Meeting. The Spring Crops Meeting will cover cotton, sorghum, and sesame. More information about this meeting will be available on the Harmon County OSU Extension Facebook page and the OSU Harmon County extension website once it is planned. Also, this series of newsletters will be posted in the Agriculture tab on the website as well. I want to remind you Harmon County OSU Extension office is here to serve you and help with your questions. You can still drop off your soil, forage, or water samples. Hope to see you soon!

Haley Shawhan – Ag Educator

Spring Management of Wheat

Josh Bushong, Area Extension Agronomy Specialist

For supposedly being in a La Nina weather pattern, late fall has been a blessing for most wheat producers in northern Oklahoma in terms of receiving moisture and even accumulating some good growing days. Time will tell in the rest of winter will turn cold and dry as predicted. Wheat grain producers are starting to initiate or at least plan out some spring management practices. Topdressing season has already started and potential weed, insect, and disease issues are on the horizon.

As far as how late can wheat be top-dressed with nitrogen, field research conducted by OSU the past four seasons has shown it might be later than your



think. These grain only trials have proven that top-dress applications made 80-100 growing degree days after planting, typically early to mid-March, overwhelmingly yielded the same as early and late winter applications. Wheat quality, particularly grain protein, seemed to increase with later nitrogen applications as well.

This doesn't mean to wait till the last minute to top-dress, but this supports extending the window to apply nitrogen. Applying later in the season can increase nitrogen use efficiency. As the crop progresses, a better estimation of grain yield can be more accurately determined and top-dress rates can be altered accordingly. If covering large acreage, wheat producers should initiate top-dress applications sooner to allow enough time to get the job done especially if weather delays application.

Topdressing tank-mixed with an herbicide can be an economical option. Since the sprayer will be using a broadcast nozzle, such as a flat fan, Urea Ammonium Nitrate (UAN) rates should be limited to 10 to 20 gallons per acre depending on conditions. Applications should be avoided when air temperatures rise above 70° and relative humidity is low. Applications should be made prior to jointing stage, which will limit yield loss by allowing more recovery time if crop injury occurs.

Disease management has shown to have good yield savings over the years. If applied timely, most commercially available fungicides have had good yield protection in OSU field trials. If only one application is budgeted, it is best to apply late and protect the flag leaf. Long-term OSU data typically average about 10 to 20 percent higher yield compared to no fungicide.

The OSU variety trial near Lahoma has evaluated more than 45 wheat varieties with and without a fungicide applied around the boot to flagleaf growth stage. There was only an average of seven percent yield advantage this year, but specific varieties varied from zero to 17 percent difference. Including all varieties at Lahoma over the past seven years, there has been an average of a 19.2 percent higher grain yield over when a fungicide was applied.

Timely field scouting is the only way to determine if a pest is present and if an application of an herbicide, insecticide, or fungicide is warranted. The only way for one of these pesticides to protect yield and have a positive return on investment would be knowing what pests are present and knowing how much yield potential can be saved if applied correctly.



How Long Should You Keep Income Tax Records and Related Documents?

J. C. Hobbs, OSU Associate Extension Specialist

The length of time you should keep a tax related document is not clear cut. In general, the IRS states that you must keep the items that support your income, expenses, deductions, and credits claimed on your income tax return until the period of limitations for that return runs out. In most situations, the period of limitations is 3 years from the date the tax return was due. During this 3 year period of time, you may amend your tax return to claim a credit or refund or the IRS can assess additional tax.

The following information contains the periods of limitations that the IRS applies to income tax returns. Unless otherwise noted, the years refer to the period of time after the due date of the tax return. It is important to keep a copy of the supporting documents as this information will be helpful for preparing future tax returns and making computations if you need to file an amended return.

- You owe tax and you have accurately reported your income, deductions, and credits; then keep the records for 3 years.
- You do not report income that you should have reported, and it is more than 25% of the gross income shown on your return; then keep records for 6 years.
- You file a fraudulent return; keep your records indefinitely.
- You do not file a return; keep your records indefinitely.
- You file a claim for a credit or a refund after you file your original tax return; then keep these records for 3 years from the date you filed your original return or 2 years from the date you paid the tax, whichever is later.
- You file a claim for a loss from a worthless security or a bad debt deduction; keep these records for 7 years.
- Keep all employment tax records for at least 4 years after the date that the tax becomes due or is paid, whichever is later.

In addition, there is a need to keep other types of records and information. You should keep records relating to property that you purchase or inherit until the



period of limitations expires for the year in which you dispose of the property in a taxable disposition. You must keep these records to figure any depreciation, amortization, or depletion deduction allowed and to figure the gain or loss when you sell or otherwise dispose of the property.

When your records are no longer needed for tax purposes, do not discard them until you check to see if you need to keep them longer for other reasons. For example, your insurance company or creditors may require you to keep this information longer.

It is always important to consult with your tax advisor about this and any other tax related questions you may have. Go to www.irs.gov and search for record keeping for more detailed information about what records to keep, why they are necessary, safekeeping recommendations for your tax records, plus other useful information.

Preparing for Breeding Season: Act 1

Dana Zook, Extension Area Livestock Specialist

Happy New Year! Since breeding season will be upon Oklahoma producers across the state, I thought it fitting to get a jump on what can be done to prepare cattle for this crucial time period. I will lapse back to my high school musical theater days and showcase the “Preparing for Beef Breeding Season Saga”. The headliner this month will be Bulls. A future article will complete the saga with Act 2 focused on cows.

How do you prepare for breeding season? For some producers with a defined breeding season, it can happen almost simultaneously to calving season preparations. Each operation is different but there are many things that are constant. Proper bull management and preparation are a risk management tool for the cow calf producer.

Evaluate your bull battery. Do you have the correct number of bulls to service your herd? If not, take time to seek out one of the many seedstock breeders in Oklahoma. Look through the OCA Magazine for breeders or look at some of the breed association offerings. The number of bulls you need is directly related to the cow to bull ratio. The age of bulls will determine how many cows they can service. A good rule of thumb is to place about the same number of cows or heifers with a young bull as his age is in months. For example, a young bull, 15



months of age, should be able to handle 15 cows in his first breeding season. This applies until two years of age. Mature bulls that have passed a breeding soundness exam can be placed with 25-30 cows.

Bring home bulls in advance of breeding. Purchase new bulls at least 60 days prior to breeding. This allows bulls to adapt to their surroundings, establish social structure with other herd bulls, and adjust to new plane of nutrition. Nutritionally, bulls may need this time for a few extra groceries, or they may need to be slowly scaled back. Bulls sold at sales are often conditioned beyond what is needed during the season. Fat sells in this market but this isn't a bad thing. Once they are brought home, these bulls should be slowly adapted back to a more reasonable diet. Remember that during the breeding season, bulls will (hopefully) be doing their job and won't be receiving any more nutrition than the cows. Research has shown that bulls that are scaled back on nutrition gradually have no impact on fertility. Also note that along with proper nutrition continued exercise will help the bull get into shape before breeding.

Schedule Breeding Soundness Exams with a licensed veterinarian. A breeding soundness exam will check the reproductive capacity and physical soundness of each bull. This is a risk management step that helps alert producers of any issues that may hinder a bull from performing his best. One of the more costly mistakes in the beef industry is going through breeding and then realizing your bull didn't get the cows bred.

Keep an eye on your bulls during breeding. Upon the start of breeding, beef producers expect bulls to get the job done. But issues can arise during breeding that can affect the number of cows that get bred. Bulls that are overworked or obtain an injury may be less likely to get cows bred efficiently. Keep an eye on your bulls and observe bulls while they are working. If any issues are observed, a replacement bull can be substituted to maintain breeding rates.

For more insight on preparing bulls for breeding season, check out the latest "Extension Experience" podcast. You can find our podcast on your smart phone on the Spotify, Apple Podcast, or Google Podcast Apps. Or access our podcast on our Spotlight website by visiting <http://spotlight.okstate.edu/experience/podcast/>.



Winter Feed Management for Beef Cows

Britt Hicks, Ph.D., Area Extension Livestock Specialist

Reducing winter feed costs for beef cows is important to cow-calf producers since Standardized Performance Analysis records have shown that feed costs account for more than 60% of beef producers' annual cow cost with over one-half of these costs attributed to winter feeding. Forage intake is dramatically influenced by forage quality as well as forage availability, and both of these factors can vary dramatically from year to year and month to month. Thus, determining forage quality is an important step in designing an economical winter feeding strategy. Regularly analyzing all available forage (range and/or hay) is recommended. At a minimum, forages should be tested for crude protein and total digestible nutrients (TDN) which allows a producer to compare the cow's nutritional needs with the base forage and choose the appropriate supplement. This allows one to match forage resources to cow requirements and avoid nutrition gaps or wasting costly nutrients.

When comparing supplement alternatives, it is recommended that options be compared on a cost of per unit of nutrient basis. For example, if crude protein is the primary nutrient needed compare prices based on the cost per pound of protein. We will assume that one is evaluating a 20% supplement that cost \$300 per ton and a 38% supplement that cost \$380 per ton. The cost per pound of protein in the 20% supplement would be \$0.75 (\$300 per ton divided by 400 lbs of protein per ton). Whereas the cost per pound of protein in the 38% supplement would be \$0.50 (\$380 per ton divided by 760 lbs of protein per ton).

For cattle grazing low quality forage, correcting a protein deficiency is usually the first supplementation priority. Research has shown that forage intake declines rapidly as forage crude protein falls below about 7 to 8%, a relationship attributed to a deficiency of protein in the rumen. In forages containing less than this amount of crude protein, feeding a protein supplement will improve energy and protein status of cattle by improving forage digestibility and forage intake. In fact, energy supplementation will not be effective if dietary protein is deficient.

In general, if ample low quality forage is available, it is recommended that one supplement with a supplement containing a high protein content (greater than 30% crude protein) to stimulate forage intake and digestibility. Whereas, if forage supply is limiting, feeding an intermediate protein supplement (~20 to 25% crude



protein) would be recommended. Since one would basically feed double the amount of such a supplement to provide equal amounts of supplement protein, the program would provide additional energy to meet forage deficits.

Another important factor to consider when evaluating supplement alternatives is the labor and transportation expenses associated with supplement feeding (frequency of supplementation). Numerous research studies have shown that supplementing cattle with high protein supplements (cottonseed meal) three times or once weekly usually gives similar performance compared to daily feeding. In contrast, low-protein grain-based supplements should be fed daily to reduce the disruption of ruminal function (due to starch) which results in decreased forage intake and digestibility. Research also suggest that grain-based supplements with intermediate protein levels (i.e. 20%) can be fed infrequently (3 times weekly) with little or only slight reductions in performance. Therefore, feeding supplements on alternate days or three times weekly (eliminate Sunday feeding) instead of daily is a common strategy to decrease cost of production.

In addition, the negative associative effects associated with feeding energy-based supplements should be minimized if the supplements are formulated with high-fiber (“digestible fiber”) by-product feeds (wheat middling’s, corn gluten feed, distiller’s grains and soybean hulls) as compared to grains. Research has generally shown that supplementation with digestible fiber energy sources might still reduce forage intake. However, forage digestibility is generally not reduced with these type supplements due to their low starch content. In general, the data suggests that energy supplements (grain- or digestible fiber-based) with intermediate protein levels (~20%) should be fed daily if the supplementation rate is 1% of body weight or greater per feeding.

The winter supplementation program can be evaluated over the winter-feeding period by monitoring cow body condition scores (BCS). Simply put, BCS estimates the energy status (fat cover) of cows. The scoring system used is a 1 to 9 point scale where a BCS 1 cow is extremely thin while a BCS 9 cow is extremely fat and obese. A BCS 5 cow is in average flesh or body condition. A change of 1 BCS is equivalent to about 90 lbs of body weight. Research has shown that the BCS of beef cows at the time of calving has a huge impact on subsequent rebreeding performance. Mature cows should calve in a BCS of at least 5. Since 1st-calf-heifers have only reached about 85% of their mature weight after calving



and require additional nutrients to support growth, it is recommended that they be fed so they are a BCS of 6 at calving.

Re-warming methods for severely cold-stressed newborn calves

Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

The extreme cold and snowy weather has arrived at a very unfortunate time for spring calving cow herds. Cows and heifers are beginning the calving season and some newborn calves are certain to be cold stressed after arrival. Getting those cold stressed calves back to normal body temperatures as soon as possible will save the lives of some calves and increase the vigor of others.

Several years ago, an Oklahoma rancher called to tell of the success he had noticed in using a warm water bath to revive new born calves that had been *severely cold stressed*. A quick check of the scientific data on that subject bears out his observation.

Canadian animal scientists compared methods of reviving hypothermic or cold stressed baby calves. Heat production and rectal temperature were measured in 19 newborn calves during hypothermia (cold stress) and recovery when four different means of assistance were provided. Hypothermia of 86 degrees F. rectal temperature was induced by immersion in cold water. Calves were re-warmed in a 68 to 77 degrees F. air environment where thermal assistance was provided by added thermal insulation or by supplemental heat from infrared lamps. Other calves were re-warmed by immersion in warm water (100 degrees F.), with or without a 40cc drench of 20% ethanol in water. Normal rectal temperatures for baby calves without cold stress should be about 103 degrees F.

The time required to regain normal body temperature from a rectal temperature of 86 degrees F. was longer for calves with added insulation and those exposed to heat lamps than for the calves in the warm water and warm water plus ethanol treatments (90 minutes and 92 minutes vs 59 minutes and 63 minutes, respectively). During recovery, the calves re-warmed with the added insulation and heat lamps used up more body energy metabolically than the calves re-warmed in warm water. This represents energy that is lost from the calf's body that cannot be utilized for other important biological processes. Total heat production (energy lost) during recovery was nearly twice as great for the calves with added insulation



or exposed to the heat lamps than for calves in warm water and in warm water plus an oral drench of ethanol, respectively. By immersion of hypothermic calves in warm (100 degrees F) water, normal body temperature was regained most rapidly and with minimal metabolic effort. No advantage was evident from oral administration of ethanol. (Source: Robinson and Young. Univ. of Alberta. J. Anim. Sci., 1988.)

When immersing these baby calves, do not forget to support the head above the water to avoid drowning the calf that you are trying to save. Also it is important to dry the hair coat before the calf is returned to cold winter air. If the calf does not nurse the cow within the first few hours of life (6 or less), then tube feeding of a colostrum replacer will be necessary to allow the calf to achieve passive immunity by consuming the immunoglobulins in the colostrum replacer.

Not every calf born in cold weather needs the warm water bath. Most will survive if moved to an enclosed barn or calving shed with adequate bedding or insulation such as heavy blankets. Be careful if heat lamps are used and be certain that straw bedding cannot be set on fire. The warm water bath described above is apparently a method that can save a few *severely stressed* calves that would be less likely to survive or be weakened if more conventional re-warming methods are used. With 2021 input costs, saving every calf is important to the bottom line.

FSA News for Current Cold Snap: Livestock Indemnity Program

In anticipation of some livestock losses due to this brutal cold and snowy weather, I want to share information on the LIP program. This program may sound familiar for those in counties where wildfires resulted in livestock losses. USDA-FSA administers the program and has a factsheet here:

https://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdafiles/FactSheets/livestock_indemnity_program_lip-fact_sheet.pdf

The factsheet contains payment rates on page 5. Note, the 2021 payment rates haven't been published yet. They usually come out around March. Also, there are more rates available for unweaned stock than you might have seen in the past, which sadly may be all too relevant right now.

This program has some pretty specific requirements to establish losses 'in excess of normal mortality', ownership, and documentation. A notice of loss must be



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made within 30 days to the local FSA office. After the notice of loss, the producer will put in an application and include documentation. Documentation to go with the application must be collected immediately such as: the number and kind of livestock that have died evidenced by photographs or video documenting the loss with dates attached. Ownership documentation includes: purchase records, production records, bank and loan documents, written contracts, tax records, private insurance documents or other reliable documents. If in doubt, contact your FSA office for documentation requirements. More information can be found at www.farmers.gov.



2021 Market Outlook Webinar

OSU Extension will be hosting a 2021 Market Outlook webinar on February 26th from 9:30 a.m. to 12:00 p.m. This will be a comprehensive webinar covering all of the major ag commodities in Oklahoma as well have a general farm outlook presentation from Dr. Courtney Cowley from the Federal Reserve Bank. Registration will be required to attend the live meeting. This webinar will be recorded and posted on the DASNR YouTube channel for later viewing as well.

OKLAHOMA STATE UNIVERSITY | DIVISION OF AGRICULTURAL SCIENCES AND NATURAL RESOURCES



EXTENSION

CROP AND LIVESTOCK MARKETS: WHAT'S NEXT?

2021 Market Outlook

February 26, 2021 | 9:30 a.m. – 12:00 p.m.

Join OSU Extension specialists and experienced professionals to learn about agricultural market outlooks for 2021.

- ▶ **Farm Economy Outlook**
- Cortney Cowley, Economist for the Federal Reserve Bank
- ▶ **Cattle Outlook**
- Derrell Peel, Livestock Marketing Extension Specialist
- ▶ **Grain and Oilseed Outlook**
- Trent Milacek, Area Agricultural Economics Extension Specialist
- ▶ **Sheep and Goat Outlook**
- JJ Jones, Area Agricultural Economics Extension Specialist
- ▶ **Hay and Pasture Outlook**
- Scott Clawson, Area Agricultural Economics Extension Specialist
- ▶ **Farm Policy Outlook**
- Amy Hagerman, Agricultural Policy Extension Specialist

REGISTRATION

- ▶ **Register Online:**
dasnr.zoom.us/webinar/register/WN_TQIt3CIUSg-WPslBvtipoA

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Ranchers' webinars turn to youth events

By Brian Brus

STILLWATER, Okla. – The Ranchers Thursday Lunchtime series of free teleconferences launches its next round of topics 12:30 p.m. Feb. 11 with a roundtable discussion by Oklahoma Youth Expo staff about show ring success.

“This cycle of talks will deal with a unique segment of the cattle industry,” said Dr. Rosslyn Biggs, beef cattle extension specialist and continuing education director at OSU’s College of Veterinary Medicine. “We’ll be providing information to help support youth exhibitors and their teams in cattle shows. We also want to recognize other benefits and life skills students develop as they bring their efforts to the ring. Open show cattle exhibitors that attend will also find valuable information.”

The first webinar in the series will be led by Parker Henley and Rusy Gosz, both of OSU; Tyler Norvell, Oklahoma Youth Expo president; and Kass Newell, Oklahoma Youth Expo executive vice president.

The Ranchers Thursday Lunchtime weekly series is free to the public, but [registration for the Zoom webinars](#) is required between events. They are hosted by the OSU Division of Agricultural Sciences and Natural Resources.

Questions and feedback are encouraged. All teleconferences are expected to begin at 12:30 p.m. (CST) and end at 1:30 p.m.

The Feb. 18 event will emphasize simple guidance regarding beef residue avoidance and nutrition. Guest speakers are scheduled to include Parker Henley and Mark Johnson, both of OSU; Rusty Gosz, youth livestock specialist at OSU; and Kirk Stierwalt of Stierwalt Cattle and Clinics.

The Feb. 25 event continues the youth theme with a conversation on livestock biosecurity, health requirements and transport. It will feature Biggs; Ben Janssen, Cimarron Trailers president; and Dalton Newell, OSU senior veterinary student.

On March 4, the topic will be high-risk and high-value health. Discussion will be led by Dr. Bryan Weaver of Kansas State University; and Dr. Mark Barker of Professional Animal Health, Newcastle, Oklahoma.

For more information about the events and registration, contact Biggs at 405-744-8587 or rosslyn.biggs@okstate.edu.



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LIVE WEBINARS

RANCHERS' THURSDAY LUNCHTIME SERIES

► Feb. 11, 2021 - Mar. 4, 2021
Thursdays at 12:30 p.m.



Extension Experience Podcast:

This week on *The Extension Experience* podcast, Earl Ward is a special guest and the topic is: **Are your Cows Prima Ballerinas?**

If you are reading this in paper form, the online link to these podcasts is:

<http://spotlight.okstate.edu/experience/podcast/>

SUNUP TV Presents:

This week on SUNUP, we travel to Logan County to see how CARES Act funding is helping local meat processors through the pandemic.

Join us for [SUNUP](#):

Saturday at 7:30 a.m.

Sunday at 6 a.m. on [OETA-TV](#)
[YouTube.com/SUNUPtv](https://www.youtube.com/SUNUPtv)

SUNUP.okstate.edu





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Haley Shawhan – Harmon/Greer 4-H Educator, and Harmon County Agriculture Educator