



Ag Insights

From the Desks of Your Northwest Area Ag Specialists

Oklahoma Cooperative Extension Service - Division of Agricultural Sciences and Natural Resources - Oklahoma State University

October, 2017

NW Area Office, Enid

Phone: (580)-237-7677

Dana Zook

Area Livestock Specialist
dana.zook@okstate.edu

Trent Milacek

Area Ag Economics Specialist
trent.milacek@okstate.edu

Josh Bushong

Area Agronomy Specialist
josh.bushong@okstate.edu

OPREC, Goodwell

Phone: (580)-349-5441

R. Britt Hicks

Area Livestock Specialist
britt.hicks@okstate.edu

Facebook Page:

facebook.com/
nwareaosuextension

Website:

http://oces.okstate.edu/
nwareaextension

Simple Tips for Successful Vaccine Handling this Fall

Dana Zook, Area Livestock Specialist

Most beef operations use vaccines at one time or another. The purpose of vaccines is to help animal's immune system develop the ability to fight disease. Vaccines can be a costly addition to a cattle budget, however the cost of death loss is much greater. The effectiveness of vaccines will vary depending on several factors; product type, animal stress level, environmental conditions, and handling. I could write a whole book on these factors, so let's focus primarily on the vaccine and how we can better handle them on our operations.

Vaccine handling and storage is very important. According to the Animal and Plant Health Inspection Service (APHIS), biological products (vaccines) should be stored at 35 F to 46 F, unless the nature of the product makes storing at a different temperature advisable. This means that temperature should not vary, whether at chute side or under refrigeration. Vaccines should also be kept out of the sun. One product that helps maintain vaccine efficacy while they are in use is a vaccine cooler. This cooler comes in a variety of designs but is typically modified for syringes with PVC pipe inserts and can be used chute side to keep vaccines cool and out of the sun. For OSU's tutorial on how to build your own vaccine cooler, visit www.facts.okstate.edu and search for Chute Side Vaccine Cooler.

While some may consider handling the only time vaccines should be monitored, down-time storage should also be considered. Most producers rely on some sort of refrigerator in a shop or barn to keep various supplies such as medications and vaccines cool. We assume that they are cool and maintaining the proper temperature. Are we right to accept this? In a study to determine the reliability of refrigerators, researchers at several universities found that less than half of refrigerators tested stayed within the acceptable temperature limit 95% of the time. Location, age and cleanliness of the refrigerator also affect its ability to maintain proper temperature. Knowing this, producers should place a thermometer in the refrigerators where vaccines are stored to be sure the temperature remains at acceptable limits.

Always consider the expiration date on the bottle. If you are like me, time goes by so fast and it's easy to underestimate the amount of time a product has been stored. For products that require mixing, only mix what will be used within one hour.

Needle use and vaccine placement is also essential to vaccine use. Disposable needles are just that – disposable. Beef Quality Assurance (BQA) Guidelines provides guidance on needle use. Use the smallest gauge needle required for the job but large enough to avoid bent needles. When possible, select injectable products that can be given subcutaneously or intravenously and always inject ahead of the shoulder in the neck region. Change needles when dull or every 10 to

(Continued on page 2)

(Continued from Page 1)

15 injections. A high number of bent needles may be a sign that animals are not properly restrained. Needles and syringes should not be cleaned with disinfectants as they kill the biological agents within the vaccine. For more information about needles and vaccine use, check out BQA online at www.bqa.org.

Don't make a mistake this fall and take these simple things for granted. Take time to improve management of these factors and save on treatment costs and death loss. For more information about these or other topics, contact your local county OSU Extension Educator.

Fall Recommendations for Cow/calf Producers

David Lalman, Oklahoma State University

Spring-calving herds

1. Dry cows grazing native rangeland or mature Bermuda grass should receive a protein supplement. One lb. of a high-protein product (30 to 40%) or 2 lb. of a moderate-protein product (20 to 25%) will increase forage intake and digestibility, allowing the cattle to harvest 25%-50% more energy from the forage resource. Cows should gain one-half to one full body condition score before the end of the year, assuming they have access to abundant forage.
2. Be diligent in monitoring health of weaned calves. Bovine respiratory disease often occurs within about 4 weeks of a stressful period and/or exposure to infectious agents. Similarly, the incubation period (time from ingestion of oocysts until clinical signs of diarrhea) is about two to three weeks. Consequently, just because calves are no longer bawling and have learned to come to the feed bunk or feed truck, does not mean they are "out of the woods".
3. Work with a nutrition expert to design a balanced, cost effective program for weaned calves to include protein, energy, vitamin, and mineral supplementation. The destination for calves post-preconditioning should be a major factor in designing the preconditioning period nutritional program. For example, if they will be turned out on wheat pasture in December, there is no need to feed them to gain 3 lb per day during preconditioning.

Fall-calving herds

Prepare for the breeding season by purchasing semen, checking, repairing and cleaning breeding equipment and facilities.

An excellent resource for up-to-date synchronization and artificial insemination breeding information can be found at <http://beef.unl.edu/learning/estrussynch.shtml>

Process calves and vaccinate according to your herd health plan. Vaccinate cows for reproductive diseases according to your herd health plan.

Lactating, fall-calving cows should receive approximately twice the amount of supplemental protein as the spring-calving cow herd. On native, warm-season pasture, use an escalating supplementation program, beginning with 1 lb. of 37%-40% CP supplement in September and October and increasing to 3-4 lb. by Jan. 1.

General recommendations

1. Producers evaluating winter feeding and supplementation programs should spend some time with a simple ration-evaluation program. These decision tools can help you make informed decisions, cut out waste, and ensure optimal animal performance. Most extension service groups offer some sort of ration evaluation program. The Oklahoma State University (OSU) Cowculator is one such tool that is made available for free at www.beefextension.com.

(Continued on page 3)

(Continued from page 2)

2. Discontinue feeding tetracycline for Anaplasmosis control after the end of the vector season (after a hard freeze).
3. Check with your Extension office for information on educational meetings about livestock and forage production practices.
4. Lightly graze native hay meadows after a hard / killing frost. Remove cattle from meadows in wet conditions. Leave a minimum of 6 to 8 inches of existing regrowth to protect the soil surface.

Body Condition Scoring Beef Cows

Britt Hicks, Ph.D., Area Livestock Specialist

For spring-calving herds, weaning season has arrived. Weaning would be an excellent time to evaluate the body condition of your cows. Body condition scoring (BCS) is a practical management tool to allow beef producers to distinguish differences in nutritional needs of beef cows in the herd. 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 BCS of 5 to 6 is a logical target for most cow herds (5+ for mature cows vs. 6 for 1st-calf heifers). A change of 1 BCS is equivalent to about 90 lb. 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. This occurs because the BCS of a cow influences days to first estrus after calving and calving interval. For a cow to maintain a 365 day calving interval, she must conceive within about 82 days after calving (283 day gestation + 82 day postpartum interval = 365 days). Figure 1 illustrates that 90% of the beef cows with BCS >5 at calving showed signs of estrus by 60 days post-calving, whereas only 59% of beef cows with BCS 4, and only 41% of beef cows with BCS <3 showed estrus. The rectangular box in this figure shows the critical breeding time in order to achieve a 365-day calving interval. Even though cows that calve in a BCS of 7 have a short post-partum interval, it is not economical to feed cows to a BCS of 7.

In addition, thin cows at calving (BCS 4 or thinner) produce less colostrum, give birth to less vigorous calves that are slower to stand and these calves have lower immunoglobulin levels, thus reducing their ability to

overcome early calf-hood disease challenges. All of these data illustrate the importance of targeting mature cows to 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.

Some of the key times to access BCS are:

- At weaning – can be useful to determine which cows or heifers need the most gain prior to calving. The time period from weaning to calving has proven to be the easiest and most economical time to add condition to cattle. As pregnancy advances, it becomes more difficult to add condition.

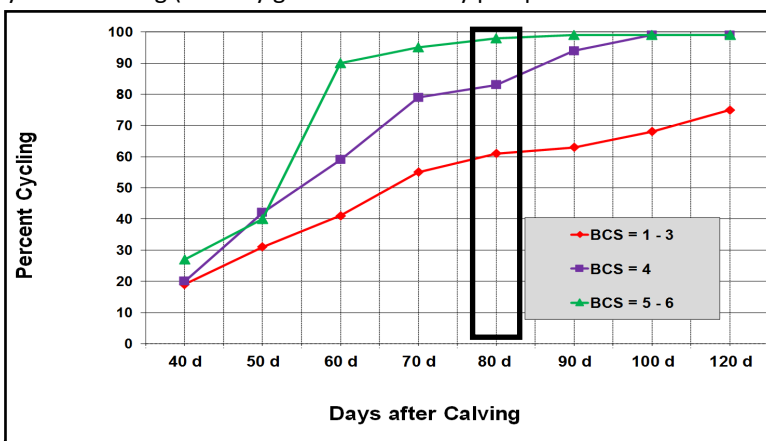


Figure 1. Body Condition Score at Calving and Return

(Continued on page 4)

(Continued from page 3)

- 60 to 80 days prior to calving – still time to change BCS prior to calving.
- At calving – still some time to change BCS (~85 days until breeding season). However, increasing BCS from calving until breeding will be difficult and costly since cows are lactating.
- At breeding – obviously BCS can't be changed, but it does allow one to evaluate the production system in planning for the future. Thin cows at this time may indicate a poor match of calving season to feed sources.

The Economics of Grassy Weed Control on Wheat Acres

Trent T. Milacek, Area Ag Econ Specialist

Producers have more options now than ever to reduce grassy weeds in wheat fields. Crop rotation, new herbicides and cultural practices all play a part in reducing dockage and discounts received at the elevator after crop harvest.

Two common options available are rotating to canola or planting a Clearfield wheat variety and spraying Beyond herbicide. Both choices have their merits as Roundup Ready canola offers an inexpensive herbicide option for controlling cheat and feral rye, in addition to many broadleaf weeds. Beyond provides good control on most weeds seen in wheat fields, but lacks total control of feral rye. Both crops require producers to buy new seed yearly. Farmers are not allowed to replant harvested seed from these crops.

The decision may come down to price and rental arrangements. Producers with sharecrop leases may be forced to plant wheat yearly, so Clearfield wheat could be the best option. To understand the economics, it is helpful to work through budgets for the two crops.

For all the good merits these production systems provide, reduced cost of operation is not one of them. This does not mean that they are not worth the investment, but require more management to ensure profitability. Total revenue is a difficult item to predict with fluctuating yields and prices, so determine the cost of the system in order to decide if the breakeven yield is obtainable on the farm.

Budgets will vary from producer to producer, but the following examples should generally represent a farm in north-central Oklahoma.

Assuming a 30-bushel yield (1,500-pounds), Canola will require \$28 for seed, \$28 in fertilizer, \$15 of pesticide as well as \$44 in custom harvest costs. Other costs including crop insurance, operating capital, labor, custom hire, repairs and rent total another \$135 per acre. The total annual operating cost will be \$250 per acre.

Expecting a 40-bushel yield, 2-gene Clearfield wheat will cost \$12 in seed, \$27 for fertilizer, \$54 in pesticides/fungicide and \$37 in custom harvesting. Including other operating costs similar to those for canola will add \$94. All in, the 2-gene Clearfield wheat operating costs will be \$224 per acre.

At those operating costs, Canola will require a 37-bushel yield (1,850-pounds) to breakeven at \$6.75 per bushel. Wheat needs a 52 bu. yield at \$4.30 per bu. to breakeven.

Without an increase in prices, it is clear that farmers will need to manage for higher than average yields this year. Strategic application of inputs and careful attention to pesticide, herbicide and fungicide applications will be crucial. While more expensive than a typical wheat production system, Clearfield wheat or Canola are both an excellent way to reduce costly dockage and yield loss from grassy weeds. It may be the only option for a producer to obtain the large yields required to breakeven. Be sure to consult

(Continued on page 5)

(Continued from Page 4)

your OSU county extension educator and area agronomy specialists for more information on these production systems to determine how you can implement them on your farm.

For assistance with budgeting and financial management on your operation, feel free to contact your local Oklahoma Cooperative Extension office to speak with an Agricultural Educator.

State Beef Checkoff Vote Set for November 1

Leilana McKindra, Communications Specialist, Agricultural Communications Services

STILLWATER, Okla. – Oklahoma cattle producers will vote on a proposed state beef checkoff next month.

The vote will determine if Oklahoma will establish a producer-funded and managed, state-level promotion, marketing, research and education program for beef and beef products.

In-person voting will take place Nov. 1 at Oklahoma Cooperative Extension Service offices in all 77 counties. Eligible producers may vote at any county Extension office, regardless of their residence or location of their cattle.

Producers also may request a mail-ballot between Oct. 2-20 from the Oklahoma Beef Checkoff Ballot Committee by calling 405-235-4391 or emailing okbeefcheckoff@gmail.com.

Mail-in ballots must be postmarked no later than Oct. 27. Any beef producer, regardless of age, who would be required to under the referendum to pay the state assessment is eligible to vote.

If passed, the maximum state assessment will be \$1 per head at the change of ownership, and collection of the assessment will begin May 1, 2018. The money will be used to increase funds for the core beef checkoff strategies of market development, promotion, research and consumer information; promote and defend beef and cattle production; and to aggressively promote and defend beef's importance in a healthy diet.

The state assessment is refundable.

Wheat and Canola Update

Josh Bushong, Area Agronomist

By now, there has been a significant portion of wheat acres sown in the region. Depending on soil moisture since planting, some fields are off to a great start while other fields have spotty emergence. Most of these stands should benefit tremendously with recent rains. As producers scout fields to determine if stands are sufficient, it would be advisable to also scout for insects as well.

Army cutworms have been found throughout the region over the past couple of months and could stay around until a heavy freeze occurs. There have been some wheat fields that have already had an insecticide applied for army cutworms. If cutworms are found early enough, insecticide applications have been providing acceptable control.

Producers have ramped up in planting wheat as we moved into October after some much needed rainfall. Depending on the weather from now to winter will determine if adequate fall forage can still be produced for winter grazing. Producers that are sowing wheat for grain still have plenty of time to get the drills rolling. For grain only, planting late October is ideal to reduce the risks on insects, weeds, and diseases associated with planting early. It is ideal for grain only fields to produce just a few tillers before winter dormancy. This typically produces a plant that should be winter hardy, produces a plant population to achieve optimum yield, and should prevent unneeded use of water and nutrients to grow plants bigger than they need to be.

In northwest Oklahoma, canola planting has come in spurts. Last year many canola producers lost their stands from winter kill when planting too early. A warm fall led to canola plants becoming too rank, which caused the plants to elongate from the crown and pushing the growing point further away from the soil surface. Because of weather last year and/or not having adequate soil moisture in the later part of September, many canola producers have delayed their planting until early October.

As per USDA-RMA crop insurance regulations, the planting date for winter canola in Oklahoma must be done between September 10th and October 10th. There is a late planting period for canola, but the production guarantee will be reduced during this period. The late planting period extends the planting period by five days. The production guarantee will be reduced by three percent per day for five days after the final planting date of October 10th.

Success with planting canola into mid October all depends on soil moisture and air temperatures. Typically, it is ideal to plant canola 4-6 weeks prior to a killing freeze. This is to allow the plants to develop a large enough taproot to store carbohydrates that the plant will live off during winter dormancy. Plants with 4-6 leaves typically have a taproot of greater than 3/8 of an inch, which is ideal.

Soil moisture is critical for canola to survive winter. Moist heavy soils will not fluctuate as much or as fast as dry sandy soils. Moist soils can prevent soil temperatures from dropping to critical points when an early freeze event occurs. When air temperatures drop from 80F during the day to 30F that night it can shock the plants and thin canola stands. As long as the remainder of this fall doesn't turn cold and dry there is still time to plant canola and produce a successful crop.

Register now for November 3rd Crop Insurance Workshop in Enid

Donald Stotts, DASNR News and Media Relations, Agricultural Communications Services

ENID, Oklahoma – Think of the 2017 Crop Insurance Workshop scheduled for Nov. 3 in Enid as essentially one-stop shopping for agricultural producers, lenders and educators; crop insurance agents and marketing consultants.

Trent Milacek, Oklahoma State University Cooperative Extension area agricultural economist, said the goal is to make it as easy as possible for participants to get the insights they need, from experts in Oklahoma and beyond.

“Our primary areas of focus this year are farm policy, price outlooks, tax law impacts and crop insurance products,” he said. “However, a key benefit of the workshop is the opportunity to interact with official speakers and fellow participants. Those conversations can be as valuable as the official sessions.”

A four-state collaboration by the University of Nebraska at Lincoln, Colorado State University, Kansas State University and OSU’s Division of Agricultural Sciences and Natural Resources, the workshop will take place at Enid’s Autry Technology Center, located at 1201 W. Willow Rd.

Cost is \$100 per participant if registering by Oct. 28 and \$120 thereafter. Those interested in attending the workshop are encouraged to visit <http://cropinsure.unl.edu> and click on *Workshop Registration* to register. Registration also can be completed by mail using a workshop brochure available at Cooperative Extension county offices, typically listed under “County Government” in local directories.

The workshop will kick off at 8 a.m. with on-site registration, donuts and coffee. Sessions will begin at 9 a.m.

Stephen Fredrichs, legislative consultant for national crop insurance provider Rain & Hail, will lead the opening session about farm policy.

Kirby Smith, agriculture liaison for Oklahoma Congressman Frank Lucas, will follow Fredrichs and provide further farm policy updates and insights.

After workshop participants enjoy a catered lunch, they will hear from Milacek and Kim Anderson, OSU Cooperative Extension grain marketing specialist. The duo will provide the latest updates and insights about the grain and livestock markets.

J.C. Hobbs, OSU Cooperative Extension tax education and farm management specialist, will then speak about the impact of tax law.

Art Barnaby, KSU Cooperative Extension agricultural economist, will finish the official sessions with a presentation on how the new farm bill likely will add new choices.

“In addition, a representative of the Oklahoma City Regional Risk Management Agency Office will provide an overview of whole farm revenue protection,” Milacek said.

Anyone seeking additional information about the workshop should contact Milacek by phone at 580-237-7677.

West District Ag In-Service

**Tuesday,
November 28, 2017**

10 a.m.– 3:30 p.m.

Western Technology Center
301 Western Drive, Elk City

Topics:

- *Administrative Update: Randy Taylor*
- *FARRM Game- Interactive*
- *Weed ID*
- *Herbicide Technology Traits and Updates*
- *Determining the Value of Different Supplements for the Cow*

For in-service credit, register
on website for West District Ag
Educator In-service # 9203

RSVP by November 20, 2017
to: **Duncan Area Office** - 580-255-3674
or email: maryann.mccarley@okstate.edu

Registration Fee: \$15.00

Please make checks payable to: **SW District**

Mail to: **OSU Extension Center**
Duncan Area Office
1309 W. Ash
Duncan, OK 73533



Oklahoma State University, in compliance with Title VI and VII of the Civil Rights Act of 1964, Executive Order 11246 as amended, Title IX of the Education Amendments of 1972, Americans with Disabilities Act of 1990, and other federal laws and regulations, does not discriminate on the basis of race, color, national origin, gender, age, religion, disability, or status as a veteran in any of its policies, practices or procedures. This includes but is not limited to admissions, employment, financial aid, and educational services



Oklahoma State University, U.S. Department of Agriculture, State and local governments cooperating. Oklahoma Cooperative Extension Services offers its programs to all eligible persons regardless of race, color, national origin, gender, age, religion, disability, or status as a veteran and is an equal opportunity employer.

Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Oklahoma Cooperative Extension Service is implied.

Oklahoma State University, U. S. Department of Agriculture, State and Local governments cooperating. Oklahoma State University in compliance with Title VI and VII of the Civil Rights Act of 1964, Executive Order 11246 as amended, Title IX of the Education Amendments of 1972, Americans with Disabilities Act of 1990, and other federal and state laws and regulations, does not discriminate on the basis of race, color, national origin, gender, age, religion, disability, or status as a veteran in any of its policies, practices, or procedures."