



Fall Weed Control

Josh Bushong, Area Extension Agronomy Specialist

Many of our herbicide options for weed control in wheat need to be applied during favorable growing conditions in order to achieve satisfactory results. Often many herbicide applications applied late fall fail to provide satisfactory results because they were either applied when the weeds were too big or when the weeds were not actively growing.

It is easier to control small actively growing weeds compared to well developed weeds late fall. For example, well tillered grassey weeds become more difficult to control due to the plant now having multiple growing points (each tiller). Certain herbicides, like Group 1 ACCase Inhibitors, will need better spray coverage to get the product on each tiller otherwise parts of the plant will survive.

Another disadvantage to spraying late would be the wheat crop itself is bigger, which could cause spray skips from intercepting the spray. As winter approaches, winter annual weeds will start to go dormant and cease growth. This greatly reduces herbicide uptake and can ultimately reduce control. Read herbicide labels for guidance on spraying in cold temperatures. Some labels will even provide statements about growing conditions prior to application, at application, or even days after application.

Many wheat producers are familiar with the Clearfield Plus system. The herbicide Beyond used in this system is a great example of needing to be applied to actively growing feral rye to achieve adequate control. To improve control, it is recommended to use sequential applications of Beyond using a methylated seed oil (MSO) adjuvant. The first 4 oz/a application in the fall and the other 4 oz/a applied in the spring.

In addition to Clearfield systems, wheat producers now have another technology to utilize to control grass weeds. The new system is called CoAXium Wheat Production System. The trait for CoAXium is called AXigen. The only labeled herbicide for this technology is Aggressor, which is Quizalofop-P-ethyl a Group 1 ACCase Inhibitor. Variety names ending with an AX designates varieties that have the AXigen trait.

Varieties are bred to have a 2-gene tolerance to this herbicide. Since these varieties are technically not fully resistant, application timing is important to reduce crop injury. Applications can be made once the wheat reaches 5 leaves in the fall and up to jointing in the spring. Recent field trials at OSU have confirmed crop injury can occur when Aggressor is applied after jointing.

Apply Aggressor at 8-12 fl oz/A for single applications in the fall or spring. Apply 8 floz/A for sequential fall and spring applications if heavy infestations are present in the fall. To delay onset of herbicide resistance, it is recommended to not use the CoAXium Wheat Production System for 2 consecutive crop years.

Since the Aggressor herbicide only controls grasses, tank mixing another herbicide will be needed to control broadleaf weeds. Do not tank-mix with dimethylamine salt (Amine) formulations of 2,4-D or MCPA as these herbicides are very antagonistic with Aggressor and will severely reduce grass control. Ester formulations of 2,4-D or MCPE can tank mixed with Aggressor.

The CoAXium system will be a great option for controlling many annual winter annual grass weeds, including feral rye, jointed goatgrass, cheat, bromes, resucuegrass, and wild oats. Caution is warranted for use on ryegrass especially if ACCase resistance is suspected. Use of another ACCase herbicide, Axial XL, has been heavily used for ryegrass and resistance has been confirmed by OSU.

Should Cows Receive a Nutritional Boost in the Fall?

Britt Hicks, Ph.D., Area Extension 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. Most commercial range cows will have scores ranging from 4 to 6. A BCS of 5 to 6 is a logical target for most cow herds. A change of 1 BCS is equivalent to about 90 lb of body weight.

Assessing BCS at weaning can be useful to determine which cows or heifers need the most gain prior to calving providing producers an opportunity to give spring-calving cows, especially first- and second-calf cows, a little nutritional boost if needed. The BCS of beef cows at the time of calving has a huge impact on

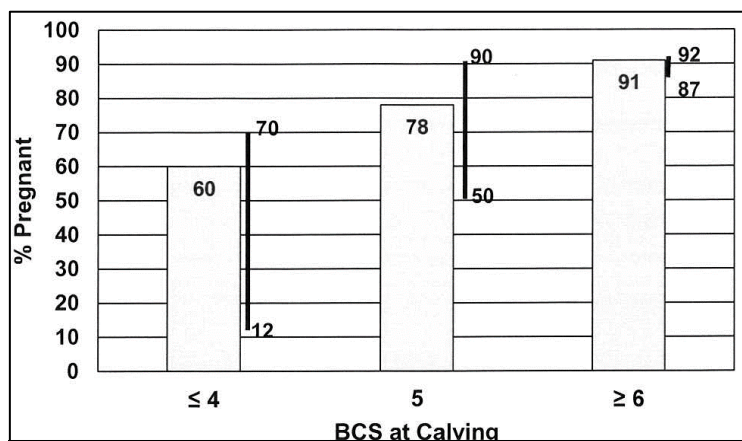


Figure 1. Effect of Body Condition Score (BCS) at calving on pregnancy rate. The lines represent the variation in pregnancy rates between trials. Adapted from Kunkle et al., 1994.

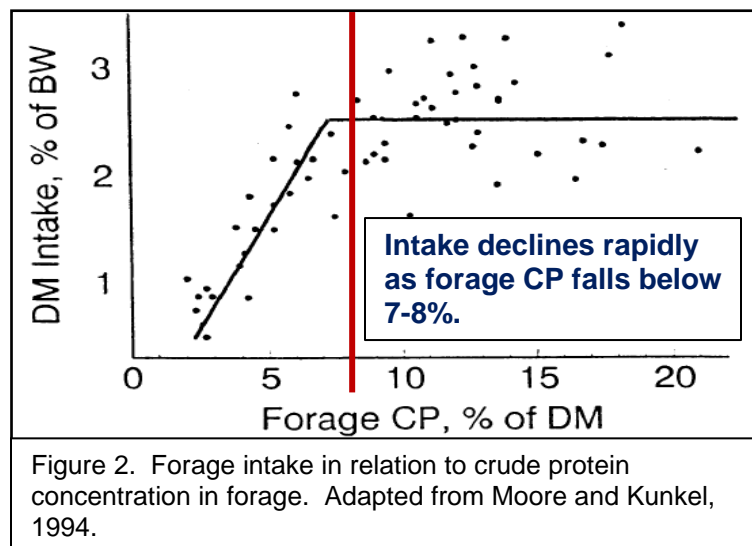
subsequent rebreeding performance. It is recommended that the target BCS at calving should be at least 5 for mature beef cow. Since 1st-calf-heifers have only reached about 85% of their mature weight after calving and require additional nutrients to support growth, it is recommended that they be fed so they are a BCS of 6 at calving. Data presented in Figure 1 (summary of seven trials, cow and heifers) illustrates the effect that BCS at calving has on pregnancy rate. These data clearly show that the variation in pregnancy rate narrows considerably as BCS approaches 6.

The time period from weaning to calving has proven to be the easiest and most economical time to add condition to cattle since nutrient requirements are at the low point of the production year. In addition, weather is not as stressful and forage value of warm-season grasses is still decent enough to put some condition on a cow. So evaluate body condition and determine whether a little boost might be beneficial. As pregnancy advances, it becomes more difficult to add condition.

This nutritional boost can come from feeding a low rate (pounds per day) of a high protein supplement at a time most producers are not feeding supplement. If forage availability is adequate and a cow can achieve a full intake daily, a key nutrient lacking in the forage is crude protein (CP). The cow requires protein, but just as importantly, the ruminal microorganisms require protein (nitrogen) to digest the forage providing energy and protein to the cow.

Low dietary protein can reduce microbial activity, which in turn, reduces forage digestion and intake which results in reduced energy consumption by the cow. Crude protein content declines as warm-season forages grow and progress to dormancy. As rule of thumb, when forage crude protein drops below 7 to 8% (dry matter basis), the rumen is nitrogen-deficient and forage intake declines rapidly (see Figure 2).

Providing a small amount of supplemental crude protein can elicit a very efficient response. The total amount needed is about 0.35 to 0.4 pounds of supplemental CP per day, or about 1 pound per day (7 pounds per week) of a supplement containing 35 to 40% CP. The supplement does not have to be delivered to the cattle daily. When feeding cubes, the week's allotment of supplement can be divided into two or three feedings.



The supplement can also be delivered in a self-fed product such as a liquid, a poured tub, or a block. If the supplement contains non-protein nitrogen (NPN), then feed the dry supplement more frequently and allow cattle to adapt to the self-fed products. With low to medium quality forages, natural protein sources are better utilized than protein provided by NPN (urea). Research results and field experience suggests that that the CP equivalent of NPN should be discounted by 50 to 70% in range and pasture supplements.

Choose your method of delivery based on the cost per unit of crude protein in the supplement and the cost to deliver to the cattle. If calves are still on the cows, the supplement will act as a creep feed for the calves. Not all cows will need a push. But some may benefit from a little push in the fall to put on additional condition before the winter sets in.

Don't Discount Alfalfa as a Winter Supplement

Dana Zook, Extension Area Livestock Specialist

I grew up on a farm where alfalfa was always part of the crop rotation. Much of the alfalfa went to local dairies and but even inferior alfalfa found a home at a local feedyard. Just like the corn and beans harvested each fall, alfalfa was marketed accordingly and maintained an important part of the farm's financial equation.

When I was growing up, I didn't realize the value of alfalfa as a supplement for beef cows. A great deal of research has proven alfalfa to work for cattle producers who are willing to think about supplementation a different way. Some might be thinking, "That's ridiculous, I can't weigh alfalfa like a bucket of cubes....and what about the waste?". These are valid concerns but also prove you are on the right track! Feeding accuracy is key when using alfalfa as a supplement. Unlike conventional protein supplements, alfalfa must be fed daily or too much will be wasted. Daily fed alfalfa will result in 10-15% loss which is like cubed or textured feed supplements.

Alfalfa stands out as a high-quality source of protein, but other benefits can be overlooked. As a legume, it is also high in energy but harvest and baling can impact quality. The premium nutritional value of alfalfa is in leaves making it imperative to bale at the correct moisture.

One overlooked fact of newly harvested alfalfa is it's rich Vitamin A content. Some producers may recall the elevation of vitamin A prices in the last couple years. Feeding new-crop leafy alfalfa can put a dent in the amount of Vitamin A necessary for the cow herd. Keep in mind, vitamin A will degrade over time so new-crop alfalfa should be used first if this is a goal. Alfalfa is also rich in other vitamins and minerals but producers should get a forage analysis to confirm these levels.

Research out of Kansas State University demonstrates the effectiveness of alfalfa as a supplement to cows on native range. In one study, cows were supplemented with 19.4% protein alfalfa at three inclusion levels according to a percentage of bodyweight; 0.48%, 0.72%, and 0.96%. Researchers found that conception rate was unaffected by level of supplementation, but body condition did increase linearly with increased level of supplement. Supplemental alfalfa also reduced calving interval proving the strong correlation of cow body condition and reproduction. Furthermore, weaning weights were greatest in calves whose dams received the highest level of alfalfa. Overall, researchers suggested that the supplemental level of 0.72% of bodyweight would be adequate for cows in good condition. Nevertheless, cows needing to recover body condition would benefit from the highest level of supplemental alfalfa in this study (0.96%).

One fact that should not be lost on producers is the effect of rumen fill when alfalfa is supplemented. K-State researchers discovered decreased grazing by cows in middle to late stages of gestation. It was documented that as the calf fetus grows throughout gestation, there is less room in the rumen, making bulky supplements (i.e. alfalfa) less desirable in situations where grazing is the goal. Furthermore, substitution could occur as cows select alfalfa rather than grazing lower quality forages. For this reason, producers may consider alfalfa as a supplement for cows in early stages of gestation and save the conventional supplements closer to calving.

For more information about using alfalfa in your beef operation, contact your local county OSU Extension office.

CFAP-2 Program Offers Assistance to Farmers

Trent Milacek, Area Ag Economics Specialist

The USDA has announced another round of Coronavirus Food Assistance Program payments through CFAP-2. This round of payments will assist farmers with losses to 2020 commodities to include row crops, wool, livestock, specialty livestock, dairy, specialty crops, floriculture and nursery crops, aquaculture, broilers and eggs and tobacco.

Sign up started on September 21, 2020 and will continue until December 11, 2020. Interested producers should contact your county FSA office to determine their preference for sign-up. For more details on the program, producers are encouraged to visit farmers.gov/cfap to get further details. If you would like to call with questions, there is a call center that can be reached at 877-508-8364.

This is a separate program from the initial CFAP program so producers will have to fill out a separate application. Details are still emerging, but for now CFAP-2 will pay on

2020 crop year acres and livestock. This will include fall crops planted in 2019 and harvested in 2020 like wheat and spring planted crops harvested in the fall of 2020 like corn, milo and soybeans. Livestock are also included in the new round of payments. The highest inventory of non-breeding cattle, sheep and swine owned between April 16, 2020 and August 31, 2020 are eligible. This means any animal that has not had offspring or is not a breeding bull is eligible.

Payment rates are fairly straightforward for livestock, but are more complex for crops. Crops are broken down into price trigger commodities and flat-rate crops. Price trigger commodities suffered a five-percent or greater national price decline. Flat-rate crops either did not experience that large of a decline or data was not available to calculate the decline. The price trigger row crop payment will be the greater of eligible acres multiplied by the payment rate of \$15/acre, or eligible acres of the crop multiplied by a nationwide crop marketing percentage, multiplied by a crop-specific payment rate, and then by the producer's weighted 2020 Actual Production History (APH) approved yield.

In other words, producers will receive at least \$15/acre on eligible crop acres. Flat-rate crops will be paid a \$15/acre flat rate.

Livestock payments will be made at \$55/head for cattle, \$27/head for sheep and \$23/head for swine. Remember that this payment is based on the highest inventory of non-breeding livestock between April 16, 2020 and August 31, 2020.

For more information on application or other crops please contact your local FSA office, visit farmers.gov/cfap or call the CFAP 2 call center at 877-508-8364.

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.

Safe Handling of Wildlife Carcasses

Dwayne Elmore, Ph.D., Extension Wildlife Specialist

It is once again hunting season in Oklahoma. As hunters find success in the field and harvest wildlife, it is important to consider how to safely handle the carcasses to stay safe. Wildlife can be infected with various zoonotic diseases that are transmissible to humans. Additionally, wildlife often harbors ticks and fleas which are disease vectors and can transmit diseases. Some of the diseases that may be encountered in Oklahoma and can infect hunters include ehrlichiosis, leptospirosis, Lyme disease, tularemia, trichinosis, rabies, Rocky Mountain spotted tick fever, salmonella, and swine brucellosis. Hunters often become wary when they observe odd behavior in wildlife or notice injury or signs of disease on animal carcasses. However, the absence of these obvious signs should not cause complacency in the safe handling of harvested animals. Any animal should be treated as a potential source of infection.

There are several ways to protect yourself when handling wildlife carcasses. First, avoid direct contact with any body fluids such as blood, lymph fluid, urine, feces, and saliva. When handling carcasses, always wear disposable gloves that provide a barrier between you and the animal. Two layers of gloves are a good idea to provide an extra layer of protection in case a tear develops in a glove. Also, wear some type of eye protection to keep body fluids from splashing into your eyes. A face shield will provide better protection by also covering your mouth and nose which could be points of entry. Take your time when cleaning harvested animals and make sure you have adequate lighting which will help prevent cutting yourself with a knife or being injured by broken bones on the carcass. When removing gloves, look for any injury on your hands that might indicate a glove was pierced. If you see any cuts, immediately treat them with antiseptic. Wash your hands, arms, and face immediately after handling the carcass. Also wear gloves and face protection when packaging meat for storage.

Wildlife often have ticks and fleas. These potential disease vectors will seek a new host as the wildlife carcass cools. Spraying yourself with insect repellent prior to handling the wildlife will help keep them off you, but be sure to examine your entire body immediately after handling the carcass and remove any ticks or fleas found.

When cooking wildlife, use a meat thermometer to ensure you are heating the meat to USDA recommended safe temperatures. Note that the safe temperature for wildlife may differ from recommendations for domestic animals. For example, while trichinosis has largely been eliminated from domestic pork, it may be present in feral hogs and bear. Therefore, cook the meat to 160°F to kill this disease.

Finally, if you develop symptoms that may indicate a zoonotic disease, be sure to tell your doctor that you have recently handled wildlife. Many diseases have similar symptoms such as fever, body aches, diarrhea, and nausea. Doctors may attribute your

symptoms to a more common illness such as influenza since many zoonotic diseases are rarely encountered by the general public. It is critical to communicate with your healthcare provider to get proper care.



Feral hogs provide quality meat, but they also carry multiple diseases that can infect humans. Notice this hunter is wearing disposable gloves to hold the animal.

Conversion of Fescue Fields

Dwayne Elmore, Ph.D., Extension Wildlife Specialist

Tall fescue (hereafter fescue) is a commonly planted cool season grass in eastern Oklahoma. If properly managed with fertility and with adequate moisture, fescue forms a dense stand inhibiting other plants from growing. Fescue can produce large amounts of palatable forage for grazing or hay production, particularly during the spring and fall. During hot dry summers, fescue forage production is limited and many fields are infected with an endophyte which is problematic for cattle when consumed in large amounts. Additionally, as it tends to form monocultures inhibiting other plants from growing, fescue is a terrible plant for wildlife. For these reasons, many producers are interested in converting fescue fields to native warm season grasses and forbs (broad-leaved flowering plants). Fortunately, fescue is one of the easier grasses to eradicate when conversion is desired.

Early fall is an excellent time to convert fescue fields using herbicide. Before herbicide is applied, the field needs to be prepped so that the herbicide is able to contact actively growing fescue rather than being intercepted by standing dead plant material. The fescue field should be mowed, grazed, or burned several weeks prior to spraying. Once the fescue is actively growing (i.e. not drought or cold stressed) and reaches >6", the field is ready for the herbicide application. Apply 2 qt/acre of glyphosate to the field in September or October. An additional treatment the following spring (April or May) is

recommended to kill any fescue seedlings trying to establish and any established plants missed by the first spray. Failure to completely eliminate fescue will only cause future problems and increased maintenance treatments.

Once the site has been sprayed twice, a decision about planting should be carefully considered. If the field will be primarily used for livestock grazing, planting a native warm season grass (NWSG) mixture may be desirable to maximize forage and minimize grazing deferment. Assuming the second herbicide application is early enough (April), it may be possible to plant the NWSG mixture during that same spring (May) as NWSG can be planted during the late fall through May in Oklahoma. If the spring window of planting is missed, plan for a late fall or winter planting. At least two years of grazing deferment will be needed to allow the native grasses to establish, although it could be longer depending on rainfall. Native warm season grasses are slow to establish, do not be alarmed by patches of bare ground and forbs mixed in the stand.

If wildlife is the primary objective for the site, it is likely that no planting is necessary. Typically, the native seed bank is diverse and responds quickly following elimination of fescue. While not all plants that respond from the seedbank are desirable, many will be. Spot spraying unwanted plants will be required regardless of whether you choose to plant or allow the native seedbank to respond. If you choose to plant native warm season grasses and wildlife is an objective, use a lower grass seed rate with native forbs mixed in. Many of these forbs are not only good for wildlife, but they are also good cattle forage. For additional information about converting fescue to NWSG and forbs, contact your county USDA NRCS office

<https://www.nrcs.usda.gov/wps/portal/nrcs/main/ok/contact/local/>).



Tall fescue is a common grass across eastern Oklahoma. While fescue is useful as a cool season forage, it provides little benefit for wildlife.

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 they 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/>.

We hope you consider listening to Extension Experience.



Extension Experience
INSIGHTS INTO OKLAHOMA AGRICULTURE

OSU | **EXTENSION**

CHECK OUT OSU'S NEWEST AG PODCAST
WEEKLY ON APPLE PODCAST, GOOGLE PODCAST, AND SPOTIFY