



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

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Managing for Top Profits on Wheat Acres

Trent T. Milacek, Northwest Area Ag Econ Specialist, OCES

Have you asked yourself recently what you can do for your wheat crop? Many times the successes and shortfalls of agriculture seem out of a producer's control. It is not up to a farmer to decide when the rains will come, or when freeze will occur, how pests will affect the crop or if prices will rally. However, as a manager and producer it is up to the farmer to give the crop the best chance to succeed. The first and perhaps most important variable in a producer's control is fertility.

Soil samples are a very important management tool. To make accurate fertilizer applications, any nutrients in the field need accounted for. Why apply nitrogen at \$0.20 per lb. without knowing what is there already? What about phosphorus, potassium and micronutrients? Applying the same thing as last year might be easy, but probably will not be the most economical management decision.

Assuming nitrogen is required then consider the source. While fertilizer prices vary, cost tends to increase as concentration decreases. Anhydrous Ammonia or 82-0-0 is generally the cheapest N source followed by Urea and UAN. When budgets are tight, a few cents per pound can add up when applying a few thousand acres.

Also, consider split nitrogen applications. Plant nitrogen requirements fluctuate throughout the year. Wheat only requires a small portion of the total N requirement preplant. Split application also ensures that excess nitrogen is not lost through leaching or volatilization. More nitrogen is required in the fall when grazing than when producing grain only, so apply accordingly.

When applying phosphorus, consider using either DAP or MAP in row at planting. Generally, the plant utilizes fertilizer applied in row more efficiently than broadcast applications. In some cases, producers can reduce fertilizer application rates when applying the product near the seed. Consult an extension educator or agronomist for information regarding in row fertilizer applications to avoid injuring the crop.

Deciding to invest in the crop is a wise decision if the marginal investment results in a return. Given adequate growing conditions, wheat will produce a bushel of grain while using 2 lbs. of nitrogen. Therefore, a farmer will invest \$0.40 in nitrogen for every bushel harvested. At current prices, that \$0.40 investment will yield \$4.00.

The same idea holds true for other crop investments. Fungicides can protect, on average, 10% of a wheat crop's yield potential in Oklahoma. Given a 30 bu. yield potential, the fungicide will save 3 bushels. At \$4.00 wheat, that is \$12.00. In this scenario, the producer can afford to invest \$12.00 in a fungicide program.

Control the things that you can control. When the rains come, ensure your crop has the resources it needs for success.

Is a Winter Cover Crop in Your Future?

Dana Zook, NW Area Livestock Specialist

What a wonderful August we have had this year! Good moisture has set producers up for great fall planting conditions. On the farming side of things, there are new kids on the block and wheat isn't the only thing going in the ground. This year, more than a few producers are considering cover or alternative crops for grazing. Before planting, producers should take time to get the facts and weigh the pros and cons of these grazing alternatives. Keep in mind the relationship of forage quality and calf gain. In order for a calf to gain 2 pounds daily, forage quality will need to hover around 12-14% protein and be 69% digestible (TDN).

The most common crops that will be offered for winter cover are grasses, brassicas, and legumes. Grasses utilized as covers are typically small grains such as rye, triticale, winter oats and barley. These provide excellent protein and energy values throughout the fall and winter. Based on quality demonstrations in this area, grasses will contain 25-35% crude protein and 70% TDN. In the spring, protein will decrease gradually to around 15% CP and 60% TDN in April. Although forage quality of these grasses will be similar, maturity will differ greatly from one species to the next. As many producers know, rye produces great fall forage but will mature earlier than the other species in the spring. Developed from a cross of wheat and rye, triticale is a successful forage producer that matures later in the spring making it beneficial for graze-out. Winter oats and barley may produce slightly less forage overall but a local demonstration yielded evidence of superior root volume compared to rye and triticale.

Brassicas are another popular option for cover crops. Turnip, rape, kale, and radish are all brassicas that are typically included in a blend of other species. With adequate moisture, these crops grow quickly and produce high quality forage that contains 15-20% crude protein and 60-70% TDN. Producers should plan to graze the bulk of these in the fall because of their susceptibility to cold temperatures. The Austrian winter pea is the most common legume utilized for fall and winter cover in this area. While highly nutritive (15-20% protein, 65% TDN), winter peas are not typically included in the blend at high volume.

Producers should be aware that the bloat risk of grazing cover crops is similar to the risk of grazing only wheat or another small grain. Some believe grazing a blend of different plants will reduce bloat risk, however more research is needed to substantiate that claim. To control bloat, prevent mineral imbalances, and enhance gain, producers should always provide a palatable mineral with an ionophore to cattle grazing small grains or cover crops this fall and winter.

As producers weigh grazing options for the fall, consider the performance of cattle on a cover crop mix compared to the performance gained from grazing a small grains monoculture such as wheat. Also, each species in a cover crop mix has a different purpose; erosion control, nitrogen fixation, reduction of compaction and improving soil health. Not all species that accomplish these tasks will be desirable for grazing. Producers that plan to graze a cover crop should ensure that each species in a blend provides a high nutrient value that will enhance performance.

What are the goals on your operation? What benefits do you wish to gain from a winter cover crop? Are the species in the chosen blend appropriate for grazing and the daily gain that is desired? Weigh these questions before planting a cover crop this fall. For questions regarding winter grazing options, contact your local county OSU Extension Educator.

Why is 45 day weaning important to feeder calf health??

Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

The "Value-Added" calf sales will begin in October. Therefore some of the required weaning dates are only a few days away. Most of the "Value-Added" calf sales require that the calves are weaned at least 45 days prior to sale date. Some cow calf producers may wonder why the post-weaning period needs to be so lengthy.

Data from Iowa from over a nine year period in a couple of their feedout tests compared the health status of calves weaned less

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than 30 days to calves weaned longer than 30 days. Data from over 2000 calves were summarized. Calves that had been sent to a feedlot at a time less than 30 days had a higher incidence of bovine respiratory disease (28%) compared to calves weaned longer than 30 days (13%). The percentage of calves that required 3 or more treatments also was significantly different (6% versus 1%) in favor of calves that had been weaned more than 30 days. In fact the calves weaned less than 30 days were not different in health attributes than calves that were weaned on the way to the feedlot.

A summary of this lengthy study can be found on line at <http://www.extension.okstate.edu/Pages/ansci/beefreports/asl-1648.pdf>. Vac-45 calves apparently have a real advantage in terms of health compared to calves weaned for less than a month or those weaned on the way to the livestock market for sale date. Certainly part of the “value” in value-added calves can be attributed to properly applied vaccinations. However, there is little doubt that a portion of the improved health is due to the length of time between weaning and the movement of calves to the next owner.



2017 QQBN Vac-45 Sales*

Location	Contact	Phone Number	Sale Date	Wean Date
Cherokee Livestock	Tim Starks	580-596-3361	October 25, 2017	September 10, 2017
Woodward Livestock	Ronnie White	580-334-1112	October 26, 2017	September 11, 2017
OKC West	Bill Barnhart	800-778-9378	November 7, 2017	September 23, 2017
Pawnee Livestock	Calvin Buchanan	918-852-5271	November 11, 2017	September 27, 2017
McAlester Stockyards	Lindsey Grant	918-423-2834	November 14, 2017	September 30, 2017
Blackwell Livestock	Gary or Grady Potter	580-363-9941	November 18, 2017	October 4, 2017
Woodward Livestock	Ronnie White	580-334-1112	November 30, 2017	October 16, 2017
OKC West	Bill Barnhart	800-778-9378	December 5, 2017	October 21, 2017
McAlester Stockyards	Lindsey Grant	918-423-2834	February 20, 2018	January 6, 2018
McAlester Stockyards	Lindsey Grant	918-423-2834	April 17, 2018	March 3, 2018
McAlester Stockyards	Lindsey Grant	918-423-2834	June 12, 2018	April 28, 2018

*Sales as of July 1, 2017

For additional information about the Oklahoma Quality Beef Network visit www.QQBN.okstate.edu, your local OSU Extension Office or:

Gant Mourer
201 Animal Science
Stillwater, OK 74078
Phone: 405-744-6060
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Weaning Management to Reduce Stress

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

Oklahoma Panhandle Research & Extension Center, Goodwell, OK

For spring-calving herds, weaning season is right around the corner. Weaning is one of the most stressful events in a calf's life. Minimizing weaning stress should improve calf health and weight gain. Beef calves are traditionally weaned by abrupt remote separation from their dams, kept in a lot and fed. Fence-line weaning has gained popularity in recent years over traditional methods because calves show less behavioral stress, vocalize less (bawling), spend more time eating and gain more weight following weaning. With fence-line weaning, calves are separated from their mothers but are allowed to see, hear, and smell their mothers. Depending on the fencing used, physical contact may also be possible (place in adjacent pastures).

University of Arkansas research from 2012 evaluated the effects of weaning method (fence-line vs. traditional) and time of day (morning vs. evening) on behavior and performance of fall-born calves. In this study, crossbred fall-born calves were allotted to the following weaning treatments: 1) fence-lined weaned in morning, 2) fence-lined weaned in evening, 3) traditional weaned in morning, and 4) traditional weaned in evening. The calves assigned to the morning weaning treatments were gathered at 7:30 am, separated from their dams, weighed, and either placed in 4-acre paddocks adjacent to their dams (fence-line weaning) or in 1-acre drylots away from their dams for 14 days (traditional weaning). The calves assigned to the evening weaning treatments were gathered at 5:30 pm and handled the same as the morning treatment groups. During the weaning period, all groups had ad libitum access to water, trace mineral salt, and were offered 2 lb per head per day of dried distiller's grains. In addition, the traditional weaned groups were offered medium quality hay. Each treatment group was evaluated for vocalization and behavior (walking rapidly, running, standing, or lying down) at approximately 12, 24, 48, and 72 hours after weaning. After the 14 day weaning period, the calves were gathered and reweighed.

These researchers reported that the percentage of calves walking rapidly, standing, or lying down did not differ across treatments. However, the percentage of calves vocalizing were greater for morning weaning compared with evening weaning (67 vs. 42%) and from traditional weaning compared with fence-line weaning (62.5 vs. 46.5%). In addition, during the 14 day weaning period, evening weaned calves gained 86% faster than morning weaned calves (2.70 vs. 1.45 lb/day and fence-lined weaned calves gained 59% faster than traditional weaned calves (2.55 vs. 1.60 lb/day).

The results of this study suggest that weaning fall-born calves in the evening may reduce the number of calves vocalizing and may increase calf gains over the weaning period. These researchers suggested that this might benefit producers that sell calves to a cash market shortly after weaning. Fence-line weaning might also result in fewer calves vocalizing during the weaning period and improve performance compared with traditional weaning. Virginia (2008) and California (2003) research showed that fence-line contact between mother and calf for seven days after weaning resulted in less stress on calves than that associated with the traditional abrupt separation of the calves from their mothers which minimized reductions in weight gain associated with weaning.

Fence-line weaning takes good, well maintained fences and adequate water supplies for both sides of the fence since a large number of cattle are going to be congregated in a small area for several days. Even though fence-line weaning is not always possible or feasible, minimizing stress is still important. Tips to minimize stress from weaning to shipping include.

- Provide calves access to the weaning area (pen, trap, or pasture) a few weeks prior to weaning so calves do not undergo the stress of an environment change at weaning.
- Allow fence-line contact between calf and dam for four to seven days following weaning. Fences should be sturdy and allow nose to nose contact while preventing nursing.
- If fence-line contact is not practical, move cows far enough away that they cannot hear the calves bawling.
- Move the cows to a new location when cows and calves are separated at weaning. Do not move the calves.

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- If weaning in a drylot or corral, place feed bunks, hay, or water troughs along the fence to minimize perimeter walking.
- Do not castrate, dehorn, or brand calves at weaning. These practices should be completed at least three weeks before weaning and preferably prior to three months of age.

Is it stocker time?

Derrell S. Peel

Oklahoma State University Extension Livestock Marketing Specialist

Labor Day seems a bit early for many producers to be talking seriously about fall and winter stockers. However, a wet and cool August opens up a broader set of stocker possibilities than is typical in Oklahoma. Most of the state received upwards of double normal precipitation in August and forage is green and growing most everywhere. Below average temperatures in August resulted in cool soil temperatures that allow winter wheat to be planted at any time. Some wheat was planted by the end of August and much more ground is ready to plant. The one caution that producers are reporting is that armyworms are already active and are a threat to newly emerged wheat as well as other forages.

Early planted wheat along with other forages may add 30 or more days to the front end of winter grazing. At the same time, expectations for 2018 wheat prices are dismal enough that some producers are beginning fall grazing with an intent or high likelihood of grazing out wheat next spring. A full graze-out adds another 75 or so days to the winter dual-purpose grazing period. Together, these conditions suggest the possibility of 220 or more days of grazing compared to a more typical 120 day winter grazing period.

With a significantly longer grazing season ahead, producers can evaluate a wider range of grazing options than normal. An early start to fall grazing means that a single set of stockers may be too big by the end of graze-out. Producers may consider purchasing very lightweight stockers (which bring additional management challenges) or consider two sets of stockers between October and May. This would imply selling the first set in January and starting with a second set for graze-out. Two sets of stockers allow producers to consider a wider range of purchase weights and perhaps avoid demand bunched around lightweight stockers. It is common in the fall to see prices for typical stocker sizes (400-525 pounds) to be high relative to heavier stockers (550-650 pounds). Current prices for stocker cattle suggest that a wide range of purchase weights (400-650 pounds) all offer roughly the same value of gain and similar potential for returns.

Stocker purchase prices typically decline seasonally a bit from September into October. Last week's Oklahoma average price of \$170.88/cwt for 475 pound, med/large, number 1 steers would be expected to decrease \$2-4/cwt. in the next month based on average seasonal patterns. However, stocker prices in Oklahoma are notoriously variable in September. In years with good early forage conditions (such as this year), stocker prices may show little seasonal decline and may even increase into October. Conversely, a larger 2017 calf crop implies bigger fall runs that may keep seasonal pressure on prices, especially into later October and November.

Combinations of stocker production alternatives mean that stockers could be marketed from January through May, 2018. Currently, Feeder futures are trading in a narrow range from about \$141/cwt. in January to \$139/cwt. for March and May. Depending on expected sale weights and timing along with other budget factors, it appears that there is potential to manage risk on winter stockers and protect reasonable return possibilities.

Concerns with Early Planted Wheat

By Josh Bushong, NW Area Agronomist

Historically, about half of the wheat produced in Oklahoma is planted with the intent to graze. Due to low wheat prices, I suspect that more wheat acres will be utilized as either a dual purpose or graze-out this season. One of the best ways to ensure adequate fall forage is produced is to plant wheat early. Unfortunately, many disease and insect issues become more probable when planting early in the fall.

One issue that was definitely a problem last fall was fall armyworm. Just as the name implies, these worms can march in high numbers and completely destroy a wheat crop. We have already been finding these armyworms in Bermuda, pastures, and weedy fields. I suspect that these will once again be a major issue this fall.

It is encouraged that producers scout their fields on a regular basis as the wheat seedlings emerge and continue to do so into the fall until a killing frost occurs. The suggested treatment threshold is 2-3 worms per linear foot of row. The smaller, younger worms will be much easier to control than the older, more robust worms.

Another major issue with planting wheat early can be mite-transmitted virus diseases. The wheat curl mite can vector a few viruses. These viruses include wheat streak mosaic (WSM), high plains virus (also called wheat mosaic), and Triticum mosaic. In western Oklahoma last year, these viruses significantly reduced spring forage production and grain yields.

To reduce the potential of the wheat curl mite infestations transmitting a virus, it is best to control volunteer wheat and other weeds at least two weeks prior to sowing wheat. If the producer is controlling the volunteer wheat and weeds chemically with an herbicide, the plants need to be completely dead for two weeks. The mites can survive for almost two weeks without forage to feed on, so if there is any green tissue remaining in the field the mite will continue to survive until the wheat crop emerges. Seed treatments and insecticides are not effective in controlling the mites.

Planting early can also increase the odds of another virus, barley yellow dwarf virus (BYD). BYD can be transmitted by multiple cereal aphids, such as the bird cherry-oat aphid and greenbugs. This virus will cause more damage if infestations are encountered in the fall rather than in the spring. It can cause severe plant stunting and reduced grain yields. There are three ways to manage the aphid/BYD complex, first would be to plant after October to avoid fall aphid infestations, second would be to plant a wheat variety with some BYD resistance, and third would be to control aphids with insecticides or seed treatment. Unfortunately there are no wheat varieties that are completely resistant to BYD. Applying an insecticide to control aphids might not be best option either since the aphids will have already started to feed on the wheat and likely transmitted the virus.

Hessian fly can infest wheat in the fall or spring. In Oklahoma, these insects can emerge as late as December if weather conditions become favorable. Planting later can reduce the threat of hessian fly infestations, but will not eliminate it. Controlling volunteer wheat two weeks prior to planting, sowing a resistant variety, and some seed treatments are all ways to help manage this pest.

Other diseases that are more likely when planting early include root and foot rots. These are caused by fungi and include several diseases such as dryland (Fusarium) root rot, Rhizoctonia root rot (sharp eyespot), common root rot, take-all, and eyespot (strawbreaker). As with most fungal diseases, infection and severity are highly weather dependent. Certain seed treatments to reduce the activity of these diseases if used at the correct rates.

Unless early fall forage is really needed for your operation, delaying planting until October might be the most economical management option to avoid many of these insect and disease infestations. If planting early is needed, scout frequently, use seed treatments when suggested, select resistant varieties, and hope for the best.

When selecting a seed treatment be sure to fully read and follow the labeled directions. Select a product based on what is needed for your operation. Some seed treatments have a waiting period before cattle can graze that can be 45 or more days.

If you need assistance selecting a seed treatment or wheat variety be sure to visit the OSU Extension office in your county.

OK Steer Feedout Provides Helpful Beef Herd Information

By Greg Highfill

Woods County OSU Extension Agriculture Educator

The goal of raising cattle is to produce tender, economical, high-quality beef cuts for today's consumers. Selection of breeding stock involves balancing production traits that are of economic importance to the ranch with those traits that beef buying consumers would desire. Producers often select traits to emphasize that are not evaluated until long after the calf leaves the home ranch. Ranchers often ask questions such as: What percentage of my calves graded USDA Choice following the feeding phase? Did a large percentage of the calves have lean carcasses, Yield grades 1 & 2? What was their conversion of pounds of feed to pounds of weight gain in the feedyard? They are very interested in the progress they are achieving in their herd improvement selections.

Cattle producers that want to learn more about the post-weaning performance of their steers may want to consider feeding a set of their calves in the OK Steer Feedout. The OK Steer Feedout is an information feedback program that allows beef cow producers the opportunity to evaluate their calf crop for carcass merit and feedlot performance. Steer calves are assembled and fed in a commercial feedlot under the coordination of the OSU Extension Service. Working with the feedyard and beef packer, the gain performance and carcass data are collected and reported to each producer. Knowledge of the carcass value and gain potential of your cattle can be of great benefit to cattlemen whether they are selling the calves at weaning or marketing them in a carcass grid program.

Entry forms for the 2017-2018 OK Steer Feedout test are due November 7, 2017 with steers delivered to Cattleman's Choice Feedyard on November 12 or 13, 2017. One of key ingredients on having a successful test is to ensure that the health status of your steers is as good as possible. We strongly recommend the OQBN 45-day weaning and vaccination protocol be followed for all steers enrolled in the Feedout program. This would require a weaning date of September 28, 2017 to participate in this year's test. Ranchers are encouraged to send a representative set of steers to achieve a snap-shot of their genetic program with a minimum of 5 head required per entry. Steers remain the property of the consignor and the feed expenses are financed to the end of the feeding period and removed from the final payment. The 2017-2018 test is for steers born after November 1, 2016. There is a \$25 per ranch entry fee. For more details and an entry form go to BeefExtension.com and find the OK Steer Feedout tab in the left column.

OK Steer Feedout

Steers only – 5 head minimum

Born After: November 1, 2016

Entry Due: November 7, 2017

Delivery Date: November 12 or 13

45-day OQBN Preconditioning

Weaning Deadline: Sept. 28



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