



Preparing for Wheat Pasture

Josh Bushong, Area Extension Agronomy Specialist

August is now here and sowing wheat for pasture is just around the corner. Producers wanting to take advantage of early-planted wheat for fall forage have many challenges to consider in order to produce enough forage to graze. Sowing wheat early significantly increases the possibility that diseases and insect pests can limit fall forage production.

When growing wheat for forage one of the easiest ways to get more tonnage is to plant early. Research conducted from OSU has shown that more forage is produced the earlier we plant. Some trials show that sowing wheat the first week of September yielded about twice as much fall forage as a mid-late September planting date. When sowing wheat this early we can sacrifice some grain potential and some issues can occur.

When planting this early the potential for pests can increase. These pests include many viruses, root rots, foliar diseases, hessian flies, wheat curl mites, wireworms, army cutworms, and weeds. Some aid can be made through the use of seed treatments that include an insecticide and/or a fungicide. These seed treatments can reduce root/foot rots, bunt, smut, leaf rust, powdery mildew, hessian fly as well as reduce aphids that can transmit barely yellow dwarf virus. When selecting a seed treatment be cautious of grazing restrictions, which can range from 0-45 days depending on product used.

Over the past few years, getting a stand off a going has been challenging due to armyworms and some mite-transmitted diseases (wheat streak mosaic, high plains disease, or Triticum mosaic). The best management practice would be to prevent a "Green Bridge" prior to sowing the wheat. A minimum of two weeks of nothing green (including corn, sorghums, volunteer wheat and other grassy weeds) is needed to allow the wheat curl mite to starve out prior to wheat seeding. The wheat curl mite still might vector these viruses when invading from neighboring fields, but the viruses will cause less of an impact due to a later infection.

When selecting a wheat variety be sure to note certain characteristics like acidic soil tolerance, high soil temperature germination sensitivity, coleoptile length, forage production potential, pest resistance, recovery after grazing, and first hollow stem date. Utilizing certified seed wheat can also ensure adequate seed quality. Good seed vigor with a known germination percentage will aid in developing early seedling vigor, which will typically lead to producing more fall forage.

The next easiest way to increase fall forage would be to increase your seeding rates. Several trials have shown that fall forage will increase with a seeding rate of 2 bushels (120 lb) per acre. Fall forage can be increased with even higher seeding rates, but the economics start to become a little less favorable due to seed costs. Increasing seeding rates as the planting season progresses can also assist in producing more forage, but increasing seeding rates hardly ever makes up for lost forage potential from seeding earlier.

In addition to seed costs, fertility will likely be another high input cost. Managing fertility economically can be challenging. Starting with a simple composite soil sample can go a long way in managing this input. Knowing your soil pH and levels of the other nutrients will dictate where you should focus your dollars. Acidic soils can limit forage production as much as anything else. The only solution to fix acidic soils is to apply lime, but variety selection and banding phosphorus fertilizer in-furrow can help offset the loss in forage production. Banding fertilizer with our grain drills is more efficient and economical because it is placed right with the seed.

To find out more about how to produce wheat pasture economically visit your local OSU Extension office.

Ionophores Mitigate Risk in Finishing Cattle

Dana Zook, Northwest Area Extension Livestock Specialist

Recent interest in locally raised beef has led to a great amount education for producers and consumers alike. Education has been flung far and wide to educate producers and consumers alike about management, nutrition, marketing and processing. For small producers finishing cattle, it is important to understand how to produce wholesome beef efficiently but to know that this isn't a cheap process. Like anything in agriculture, there are risks involved. Producers should be aware of the management factors and technologies available that help mitigate risk. One of those technologies is the use of ionophores.

Ionophores are feed additives that were developed to improve feed efficiency and prevent coccidiosis. According to a recent feedlot survey from New Mexico State representing 14 million cattle on feed, 97.3% of feedlots utilize an ionophore in finishing diets. In addition to the improvement of efficiency and gain, ionophores have a derived benefit of preventing and controlling digestive disorders such as acidosis and bloat. This is very valuable when finishing cattle due to the increased likelihood of these conditions.

The two most common ionophores utilized are monensin (Rumensin® and Monovet®) and lasalocid (Bovatec®). Ionophores improve feed efficiency by increasing the amount of energy available to the animal through selection of more efficient microorganisms in the ruminant digestive system. On average, feedlot cattle are 4% more efficient when fed an ionophore.

Ionophores can be included in a variety of feedstuffs such as mineral mixes, free choice feeds, and pelleted supplements. Most feed products at retail locations throughout the state may not offer ionophores in stock feed mixes but most can be accessed with a custom or special order. Pure forms of ionophores are very potent and require extreme precision when adding to blended feeds and supplements. For this reason, most small producers will not purchase ionophores to mix themselves. Rather, producers would benefit from purchasing mineral and feed supplements that already include ionophores at the proper dosage. These supplements increase feeding accuracy and reduce the guesswork for producers feeding smaller amounts of feed. Most retail feed locations can include ionophores in a blended feed or ration upon request.

Another thing to keep in mind is the antibiotic status of ionophores. Ionophores are considered antibiotics, not because they kill bacteria, but due to their ability to limit functionality of certain types bacteria in the rumen. Although they are antibiotics, ionophores are not limited by the Veterinary Feed Directive (VFD) because they are not used in medically relevant applications for humans. However, due to their antibiotic status, they may not be allowed in certain natural or grass fed feeding programs.

When feeding ionophores in a pure form or within a supplement, label instructions should be strictly followed. Monensin is toxic specifically to equine species and some monogastric animals. Ionophores can be toxic to any animal when overconsumed.

People interested in finishing small groups of cattle should consider using ionophores to help manage the risk of digestive upset but also help improve finishing efficiency. For more information about ionophores, contact your local county OSU Extension Educator for details.

Effect of Cow Udder Score on Calf Performance

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

Beef producers cull cows based on factors that include reproductive failure, structural issues, progeny performance, and disease. Udder conformation has been indicated as an important factor in cow-calf profitability due to management challenges and reduced calf performance. In some cases, cows are culled for udder problem, whereas, in other cases, cows lose their calves because of udder problems and the cows are culled because they fail to wean a calf. University of Nebraska research evaluated the effect of beef cow udder conformation on pre- and post-weaning progeny performance.

In a 5-year study, crossbred cows at the Gudmundsen Sandhills Laboratory (Whitman, NE) were assigned an udder score each year at calving, from 1 to 5, using an udder and teat combination score (Figure 1). An udder score of 1 or 2 consisted of pendulous udders and large teats, whereas 3 to 5 consisted of tight udders and small, symmetrical teats. An udder score of 3 would be considered the commercial cow average score. The cows were grouped by udder scores and classified as either low udder score (udder score 1 or 2; 223 cows) or high udder score (udder score 3 or 4; 1,742 cows). An udder

score of 5 was not recorded during the study. Intervention is suggested for scores of 1 or 2 since oversized teats are difficult for newborn calves to nurse and the calf may not receive adequate colostrum.

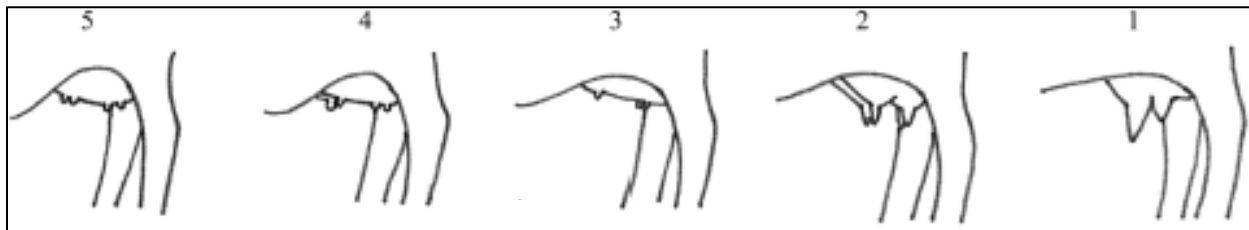


Figure 1. Diagram adapted from the Integrated Resource Management Guide (NCBA, 2013). The system uses a combined udder and teat score system of 1–5

If teat and udder conformation limits the ability of a calf to suckle, then udder conformation may limit a calf's genetic potential for growth. However, in this study, calf weigh at birth, weaning, and adjusted 205-days weights were similar between udder score groups. Similarly, other researchers have reported no differences in calf weaning weight due to teat conformation of the dam which may indicate a lack of relationship between udder conformation and calf growth. In contrast, other research has reported that dams with poor udder conformation weaned lighter calves compared with well-attached udder counterparts.

Research evaluating the effect of dam udder score on subsequent offspring feedlot performance is limited. Most research on udder conformation on calf performance ends at weaning and not the entire production system. In this study, cow udder score did not influence feedlot initial and final weights or performance (feed intake, average daily gain, and gain efficiency) of steer progeny. However, steers suckling high-udder score dams had greater carcass weights (858 vs. 827 lb) and backfat thickness (0.57 vs. 0.50 inches) compared with low udder score counterparts. These authors suggested that the conflicting results in carcass weight and finishing BW may have been due to increased variability in final weights from factors such as mud and gut fill. In addition, high-udder score steers had numerically greater final weights than low udder score steers (1385 vs. 1360 lb) which may have influenced the increased carcass weight.

Results from this study suggest that cows with less desirable udder structure may not have a negative impact on calf pre-weaning growth and performance. However, backfat thickness and carcass weights in the finishing phase were lower in steers from cows with a lower udder score. These authors concluded that culling cows for poor udder conformation may not be warranted, if calf suckling at birth is not an issue, due to similar postnatal calf performance.

Double-Crop Grain Sorghum Production

Trent Milacek, NW Area Ag Econ Specialist

As winter wheat harvest draws to a close in Oklahoma, grain drills and planters will soon be seen across the landscape. Dry conditions will make double-cropping a more risky enterprise in 2020 and will not be an option for many producers. Until rain makes its way back into the forecast, farmers will need to be cautious with farm selection and input costs.

Grain sorghum has experienced stronger basis bids as a result from improved trade relations with China. The success of double-crop grain sorghum hinges on strong prices to cover the expense and risk of late plantings. Double-crop producers generally have more insect pressure and lower expected yields than acres planted earlier in the year.

The Sugarcane Aphid is no stranger to anyone close to the industry. While it can be effectively managed with pesticides, those applications are a substantial cost on the budget. Many producers have been successful in managing this pest with variety selection alone, but it can still reduce profitability. In some cases, a producer could invest 5-10 bushels of production in controlling this insect while still suffering from yield losses and harvesting issues it causes.

Harvest time bids range from the low to mid three dollar range. Good managers will do everything they can to minimize production costs while still giving their crop the building blocks it needs to be successful.

A double-crop grain sorghum production of 60 bushels per acre sold at \$3.25 per bushel will provide a producer with gross revenues of \$195 per acre.

Operating costs including seed, fertilizer, harvesting, pesticide, custom application, equipment, fuel, and cash rent shared with the wheat crop could total \$180 per acre. This number is highly dependent on the cost of harvesting, hired labor and the number of sugarcane aphid control applications required. Included in this figure is one sugarcane aphid control application.

On the surface, using minimal figures for cost, the budget looks profitable. If price holds, a yield of at least 55 bushels per acre will be required to break even. These costs do not include the true costs of operating capital or machinery expense, which would require more revenue to cover.

Some producers will plant grain sorghum without crop insurance if they do not have adequate double-crop history in their county or if it is not available. This makes good management even more of a necessity as there is more financial risk to the producer.

If heat or poor weather strikes the Midwest, grain sorghum prices could increase throughout the summer. However, using information currently available, it will be difficult to remain profitable at these prices and with the current drought situation likely

hampering high yields. Plan accordingly and utilize your Oklahoma Cooperative Extension Service County Agricultural Educators to help maximize your production.

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

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

We hope you consider listening to Extension Experience.

