



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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Wheat Updates

Josh Bushong, Area Extension Agronomy Specialist

The recent, historical rainfall events will absolutely negatively impact the wheat crop. Low-lying field areas, such as terrace channels and old plow furrows, had already caused premature death of the crop due to saturated soil conditions. Low-lying areas of fields have started to turn white due to saturated soil conditions. Damage from flooding will be the most immediately observable impact of the recent rain, but saturated soil conditions will negatively impact yield even in areas that are not flooded.

The amount of damage from flooding depends on the amount of time the crop was under water and the growth stage of the crop. Wheat that was covered by standing water more than 24 hours is the greatest concern. Wheat in the later stages of kernel development, such as into the soft dough stage or later, will likely see reduced test weight and an increase in shriveled or shrunken grains. For wheat that is further behind, such as fields just starting grain fill or not yet at grain filling, the injury will likely be greater and range from moderate damage to a complete loss.

Lodging and excessive moisture can also worsen the incidence and severity of many fungal diseases. Damp conditions, coupled with the cool temperatures, are near perfect for stripe rust development, so there is a chance it could cause serious yield losses for fields that escaped from the flooding.

All of these issues are going to require a field-by-field observation to determine the extent of damage. We know that the crop as a whole is negatively impacted, but the impacts are farm-specific. There is really nothing a producer can do at this point other than sit and wait. There are not any products or spray applications we recommend at this time to assist in recovery from flooding or lodging.

Producers should continue to monitor fields for pests such as true armyworms. Infestations occur more frequently around waterways, areas of lush growth, or areas with lodged plants. Since armyworms tend to feed at night, it is easier to scout after dusk when activity is higher. Damage ranges from ragged leaf margins to head clipping (usually younger secondary tillers). Current treatment threshold is 4-5 per linear foot of row. If wheat is past the soft dough stage, control is not warranted unless obvious head clipping is continued. It is typically not economical to spray if only awn feeding is occurring past soft dough.

(Continued on page 2)

(Continued from page 1)

In addition to true armyworms being found in wheat, we have also found wheat head armyworms. The wheat head armyworm can feed on the wheat kernel, which can reduce grain yield and increase price discounts. Insect damaged kernels (IDK) is the grain grading factor. The wheat head armyworm typically feed at night and usually worse at the field margins. Scouting after dusk and sampling farther into the field will give a better estimation of the infestation. If chemical control is warranted for either armyworm, be aware of any pre-harvest interval listed on the product label.

Due to a potential delayed wheat harvest and abundance of moisture, some fields may start to become overwhelmed with summer annual weeds. Some harvest aids labeled for wheat include Ally XP, 2,4-D, dicamba, glyphosate, and Aim. Paraquat is not labeled and if used can result in condemned wheat. It is important to follow labeled directions for proper application timing and rates.

Wheat Marketing: Selling at Harvest vs. Storing

Trent Milacek, NW Area Ag Econ Specialist

Lower wheat prices and concerning issues regarding trade have thrust farmers into a difficult marketing situation. Should I consider selling at harvest in a down market or wait and hope for a more lucrative situation later in the year?

Some producers are highly leveraged, others plan to expand their operations, and a few may be nearing retirement. How does this affect their marketing decisions? Debt obligations will account for some mandatory selling of wheat, and new land or machinery purchases could earmark several thousand bushels across Oklahoma. These individuals are probably less concerned with long-term price outlooks, because their need for funds in the operation determine when they sell. This is not necessarily a bad thing.

Marketing does not require that a producer predict price. First, what is their cost of production? Knowing how many dollars per bushel is required to cover the cost of production will at least help prevent them from selling wheat at a loss. Second, what is the historical basis? Basis information is generally easy to obtain and is a good indicator of the local demand for a crop.

Kansas State University maintains a website called agmanager.info that provides valuable information on basis. Their crop basis tool tells us that the 5-year average basis for wheat at Medford, OK is approximately -50 cents/bushel near the first of July. Currently, the basis is -15 cents/bushel. When the basis is stronger than the historical average, the local market is actively seeking grain. While basis is just one part of the equation where $\text{Cash Price} = \text{Futures Price} + \text{Basis}$, it is fairly predictable and easy to spot increased demand in the local market. Periods of increased demand are generally good selling opportunities.

A farmer asks, "What will the wheat price be in December?" Large stocks of grain in the world make it difficult to predict rallies in prices. For the past few years rallies have come after harvest, but were short lived and difficult to capture. Storage is a silent enemy that is likened to paying interest to own wheat. The past has proven that it can be lucrative to store wheat beyond harvest, but generally farmers who store wheat through December of the current marketing year receive a lower actual price than farmers who sold before that time.

Another way to look at this is to compare storing wheat to paying off loans. Will storing wheat make more money than your highest interest rate loan is costing you? Today a 1,000 bushels of wheat will be worth roughly \$4.00/bushel for a total of \$4,000 dollars. Assuming a 3.5 cent/bushel monthly storage cost, storing 1,000 bushels of wheat until December 31st will result in 6 months

(Continued on page 3)

(Continued from page 2)

of storage at \$210. Borrowing \$4,000 dollars at 6 percent interest for 6 months will cost \$120. If the wheat is sold on December 31st it will have to bring \$4.33/bushel to overcome the opportunity cost of capital (interest on \$4,000) and the 21 cents/bushel storage cost to be worth more than selling at harvest. Keep in mind that on average the basis will decrease another 10 cents/bushel between July 1 and Dec. 31st. If that happens then the futures price will have to increase another 10 cents to make up for the loss in basis.

Every farmer has a plan to sell wheat, whether they write it down as a strategy or they just sell when they need some money to pay bills. If a producer has only one goal, it should be to actively market their wheat so that they prevent storage costs from lowering their returns.

For more information on marketing strategies and basis information, please contact your local county extension agent.

Effect of Cow Udder Score on Cow/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. Recent University of Nebraska research evaluated the effect of beef cow udder conformation on cow performance, longevity, and 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. 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.

These researchers reported that cow weight at pre-breeding and weaning was greater in low-udder score cows compared with high-udder score counterparts. They speculated that weight differences might be attributed to variability of cow size and age over the 5-year period within each udder score group since on average low-udder score cows were older (5 ± 0.5 years) than high-udder score cows (4 ± 0.5 years). This may have resulted in low-udder score cows being more mature and having greater weights. Pregnancy rates were not different between udder score groups.

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 weight 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

(Continued on page 4)

(Continued from page 3)

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) 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.

Livestock Related Challenges in Wet Weather

Dana Zook, Enid Area Extension Livestock Specialist

I recently returned from the Annual OSU Ranch Tour of Northwest Oklahoma. Due to recent rainfall, areas in Woods, Woodward, Harper and Ellis counties were as green as can be and gave attendees a beautiful view of one of the best parts of Oklahoma. All the ranches that were visited on the tour expressed their appreciation for the moisture but also provided comments relating to the challenges record amounts of rain can bring. In a part of the state that normally operates on the drier side, producers are dealing with muddy roads, overly full ponds and bridge closures. While flooding is the main culprit, other issues arise in times of wet weather.

Dealing with Mud

Due to the extreme amount of rainfall across Oklahoma, I know all sectors of the beef industry are dealing with the challenges of mud. Some may assume issues with mud exist only for confined cattle, however even pastured cattle are also affected. Muddy areas near ponds, water tanks, and low lying areas create a suction effect on legs and hooves of cattle. This added stress decreases the time cattle graze which affects dry matter intake. The University of Mississippi reports 4-8 inches of mud can decrease intake by 4-8% and reduce gains by 14% in pastured cattle.

Feedlot and other confined feeding situations are prone to even more severe mud and gain can be reduced by up to 25-30%. Good design of feeding areas are key in preventing detrimental effects of mud on performance, as few fixes exist for muddy conditions once they are in place. A few design factors can go a long way in helping prevent muddy conditions for cattle in confinement: 1.) build and maintain a pen surface of clay and or limestone 2.) Maintain a 3-5% slope behind bunks, 3.) Include appropri-

(Continued on page 5)

(Continued from page 4)

ately places mounds in each pen. Proper pen density can also have a big effect on mud accumulation. Dr. Terry Mader, retired University of Nebraska-Lincoln extension feedlot specialist, recommends cattle in confinement should be stocked to pen densities of 250-300 sq. ft. /head to keep mud conditions to a minimum. Keep in mind that mud can also disrupt an animal's ability to cool themselves in warm summer weather.

Stable Flies

Insect growth during wet weather adds to the stress of wet conditions. Of all the insects during wet weather, stable flies are the biggest culprit for cattle. Stable flies feed on the legs of livestock and have a painful bite causing cattle to bunch up in pastures and stand in ponds. Spoiled straw, hay, or any organic matter provides an area for stable flies to lay their eggs. Prevent the accumulation of organic matter by cleaning up around hay rings, bunks, and alleys. Dragging wet areas will help to dry the area and may disrupt current egg populations, reducing future population growth.

Foot Rot

Cattle avoiding stable flies by standing in ponds or other wet areas may be causing another detrimental health issue called foot rot. Dr. Glenn Selk recently released a Cow Calf Corner article on foot rot and its effects on cattle performance. Foot rot is the most common cause of lameness in beef cattle on pastures and is an infection that stems from the introduction of bacteria through broken skin between the toes of an animal. Catching the infection early is the best way to get the animal "back on their feet" and usually requires a diagnosis by a veterinarian.

Wet or Damaged Hay

Hay producers have also been greatly affected by the recent weather. Producers who waited for dry weather have very mature hay to put down while those who put it down early may have seen it lay in the windrow for weeks. Neither of these instances are ideal and some may require cutting losses, rolling up what is there, and hoping for the best with the next cutting. I have had a number of questions about ensiling hay that is mature or damaged from recent floods or utilizing moldy hay for cattle feeding. Mature or damaged forage can often be too dry to ensile or may contain contaminants that can prevent proper ensiling and create mold. Feeding moldy forage of any type to cattle sets the conditions up for poor performance and possible abortions. In a situation with a poor feed product such as wet and damaged forage, I would encourage producers to consider the effects of "making the best" of a poor product. In many cases, the disadvantages outweigh the benefits.

For more information about coping with excessively wet conditions on beef cattle operations, contact your local Oklahoma Cooperative Extension office.



Beef Quality Assurance Train-the-Trainer Event to be held in Stillwater on August 2nd!

The National Cattlemen’s Beef Association Beef Quality Assurance (BQA) program will be conducting a series of “Train the Trainer” sessions across the country this summer to introduce new BQA materials to BQA trainers. One of these sessions will be held in Stillwater, on Friday, August 2. All county ag educators and area specialists are invited and encouraged to attend to become certified BQA trainers. It has been several years since a train the trainer in-service has been conducted, so our number of “certified” trainers is at a very low point. There is no registration fee for the all-day program, and a complimentary lunch will be served. On-line registration will through the BQA.org website and can be found at: <https://www.bqa.org/trainer-resources/events> .

If you are not familiar with the Beef Quality Assurance program, please contact me or your area livestock specialist if you would like further details. Beef Quality Assurance is a nationally coordinated, state implemented program that provides information to beef producers and beef consumers of how good, common sense production techniques can be coupled with accepted scientific knowledge to raise cattle under optimum management and environmental conditions. BQA guidelines are designed to make certain all beef consumers can take pride in what they purchase – and can trust and have confidence in the entire beef industry.

The BQA program in Oklahoma is a cooperative effort of the Oklahoma Beef Council, the Oklahoma Cooperative Extension Service and the Department of Animal and Food Sciences. BQA programs have evolved to include best management practices focused on good husbandry, record keeping and protecting herd health, which can result in more profits for producers. BQA training for producers is an easy to deliver, ready made program for beef cattle producers. It has traditionally been taught by county ag educators, area livestock specialists, state specialists, the BQA coordinator, or a combination of some or all of these! Our intention is to expand BQA programming in Oklahoma and build upon the success already achieved. When better quality cattle leave the farm and reach the market place, the producer, packer, and consumer all benefit. When better quality beef reaches the supermarket, consumers are more confident in the beef they are buying, and this contributes to improved beef demand.

The efforts of BQA across the nation have been instrumental in recent successes that continue to re-build and sustain beef demand. Through BQA programs, producers recognize the economic value of committing to quality beef production at every level - not just at the feedlot or packing plant, but within every segment of the cattle industry.





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