

EXTENSION

Pesticide Updates

Josh Bushong, Area Extension Agronomist

Last month was a roller coaster for farmers that are planning on using dicamba this season on XtendFlex (dicamba-tolerant) cotton or soybeans. On Feb 6th, a U.S. District Court of Arizona vacated the registration of the only three dicamba containing herbicides labeled for over-the-top use in XtendFlex cotton and soybean. This meant it would be illegal for anyone to apply any dicamba herbicide on dicamba-tolerant cotton or soybean in the country.



On Feb 9th, Oklahoma Secretary of Ag Blaine Arthur sent a letter to the Environmental Protection Agency (EPA) to ask for an existing stock order. This would allow those that have already received, purchased, or planned to purchase one of these three dicamba products would still be able use the products this season. Numerous other states and stakeholders also sent similar letters to the EPA.

On Feb 14th, the EPA issued the existing stocks order. This order states that these three products (XtendiMax by Bayer, Engenia by BASF, and Tavium by Syngenta) are still no longer registered, but under EPA's provisions they will be available for use this season. One of the provisions is that these products had to be in the supply chain as of Feb 6th. "Existing Stocks" means those stocks that are currently in the U.S. and were packaged, labeled, and released for shipment.

Other provisions that the EPA included in this order are the end dates for sale and distribution. Registrants of the three products had until February 6th to sell and distribute. For Oklahoma soybean farmers, persons other than registrants, including co-ops and commercial distributors, have until May 31st to sell and distribute these products; and the users have until June 30th to use existing stocks. For Oklahoma cotton farmers, persons other than registrants, including co-ops and commercial distributors, have until June 30th to sell and distribute these products; and the users have until July 30th to use existing stocks.

XtendiMax, Engenia, and Tavium are the only three dicamba products legal to use on dicamba-tolerant cotton and soybeans. These three products are still Restricted Use pesticides and applicators will still need to complete an annual mandated training. OSU Extension will be offering training events this spring, and online. Trainings are also available for each of the herbicide companies' webpages.

The XtendFlex technology is another tool cotton and soybean farmers need in Oklahoma. It allows the use of another mode-of-action to combat certain broadleaf weeds. Herbicide resistant weeds are becoming an increasing issue, especially for Palmer amaranth, horseweed, and tall waterhemp.

Dicamba was first registered in the US in 1967. There are many herbicides on the market that contain dicamba. All of these products are classified as general use (anyone can purchase and use) and were not impacted by these recent actions on the previous three products mentioned. These products are widely used in wheat, corn, sorghum, fallow, pasture, rangeland, and tuff applications.

The Oklahoma Department of Agriculture, Food, and Forestry (ODAFF) and Oklahoma Cooperative Extension Service are teaming up once again to offer the opportunity to properly dispose of any unwanted pesticides. ODAFF funds this Unwanted Pesticide Disposal Program to provide a free service to prevent unlawful disposal of pesticides.

The first event will be in Altus at the Jackson County Expo Center on April 22, 2024. The second event will be in Shawnee at the Heart of Oklahoma Expo Center on April 24, 2024. Both events will be held between 8am and 1pm. More information and any future events will be posted at the OSU Pesticide Safety Education webpage, www.PestEd.okstate.edu.

Applicators, homeowners, farmers, and ranchers are not required to pre-register. There is no cost for the first 2,000 pounds of pesticides brought in by a participant. Dealers are asked to voluntarily pre-register with the OSU Pesticide Safety Education Program. Dealers are asked to pre-register to allow the hazardous waste company to properly plan for larger quantities.

Products that participants are not allowed to bring include fertilizers, micronutrients, waste oil, or any other non-pesticide material. The Unwanted Pesticide Disposal Program has been very successful. Since 2006, this program has collected about one million pounds of unwanted pesticides.



The Basics of Bloat

Dana Zook, NW Area Livestock Specialist

Bloat can be a prominent issue this time of year for cattle grazing small grains pasture. Environment, weather, forage growth stage and forage quality all play a role in the occurrence of bloat. Even though we understand why it occurs, bloat can be hard to predict.



What is frothy bloat? Frothy bloat refers to the digestion of high-quality forages and the formation of a stable matrix within the forage mat floating on top of the rumen contents.

Frothy bloat is not only specific to wheat pasture. It can occur in cattle consuming alfalfa, legume type forage, and other small grains. Due to fermentation occurring in a ruminant's digestive tract, gases are a natural part of the digestive process. However, the nature of these forages creates conditions where excess gas can be an issue. When the gases work their way up through the liquid in the rumen and get caught in that matrix, a dense foam can develop. This foam blocks the gas from being released through the esophagus. Without treatment, cattle can expire very quickly due to intense pressure on the lungs and heart.

Why is bloat common in calves grazing small grains? Small grains forage is high in protein and low in fiber which makes it highly digestible. Many other factors contribute to this high-quality feed to play a role in the occurrence of bloat.

An increase in growing degree days in February and March can cause bloat. Pastures grazed through December and January may be clipped down and when temperatures increase and moisture is available, growth rate increases. This immature, fast-growing stage of the plant is the main contributor to bloat. Consumption rates may also be very high due to the high level of water content within the plant.

Frost is also a big factor. Frost disrupts the cells of the growing plant making those soluble nutrients even more available. This time of year, frequent frost may cause a large percentage of bloated calves to exhibit signs just after their morning grazing session.

Intense bouts of bloat don't typically last the whole grazing season, being limited to times when the forage is immature and growing quickly. As the forage matures, bloat will become less prevalent due to increased plant fiber content. More fiber in the forage will require more digestive activity therefore alleviating most bloat issues. Activity such as mastication (chewing), saliva production, and muscle contraction of the rumen will break up the matrix and reduce the foam.

What are some things that can be done to manage bloat in cattle? Decades of research by Oklahoma State University Animal Scientists have provided the industry with tools to manage and treat bloat. The first line of defense is providing a basic-free choice mineral. The mineral should contain 15-20% calcium, 0.5-1% magnesium, and minimal phosphorus. Calcium is needed for proper rumen muscle contraction during digestion making it the most important mineral to supplement on wheat pasture. The assumption that magnesium or "Hi-Mag" is crucial on wheat pasture should be limited to mature beef cows who are prone to grass tetany when grazing lush growing forages. Research shows a basic non-medicated free choice wheat pasture mineral manages bloat and can boost performance 0.25 pounds daily.

The second line of defense is the addition of monensin (Rumensin®) in free choice mineral or small package energy supplements. Research has proven that monensin reduces the severity of bloat in addition to improving efficiency and boosting weight gain.

The final defense is the treatment of bloat when it occurs. Severe bouts of bloat can be treated effectively with paloxalene (Bloat Guard®) which can be found as a feed additive and in pressed blocks. It is good practice to have a supply of paloxalene on hand in case of severe bloat. This

product is somewhat expensive and may be most cost effective to treat bloat rather than provide the entire grazing season.

This article is a summary of a recent episode of the Extension Experience Podcast. You can find this podcast on your smart phone on Spotify, Apple Podcast, or Google Podcast Apps. You can also access the podcast by visiting <http://spotlight.okstate.edu/experience/podcast/>.



Ranch/Farm Injuries

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Area Food/Animal Quality and Health Specialist for Eastern District

In January, I attended the Oklahoma Veterinary Conference. While waiting for one of the sessions to start, a classmate of mine made the comment of how many of the attendees walk with a limp, use a cane, and/or have damaged hands. We all agreed that working with animals is hard on the body. In general, anything associated with farming and ranching is dangerous.

Most farmers and ranchers know that agriculture is a dangerous occupation. According to United States Bureau of Statistics, workers involved in agriculture, forestry, and fishing had the highest occupational fatality rate in 2022. The fatality rate of 23.5 per 100,000 full-time equivalent (FTE) workers for this group is much higher when compared to the overall occupation fatality rate of 3.7 per 100,000 FTE. Most of the agriculture-related fatalities are associated with transportation such as tractor overturns and vehicle crashes, but a fair number involve livestock.

Livestock accounts for a significant amount of human injury and deaths. A survey of seven states in the central United States (US) found livestock were a frequent cause of injury. One survey found cattle accounted for almost one third of the injuries. In another survey, cattle were responsible for 36% of the fatalities. With their unpredictability and enormous power, bulls can be extremely dangerous. One study reported 261 attacks on people with 149 reported as fatalities and 112 as injuries.

Most victims of cattle incidents are struck, trampled, gored, and/or kicked. The most common types of injuries are contusions, fractures, and lacerations involving the lower and upper extremities. More severe injuries are related to head trauma, internal damage, and crushing injuries.

Many factors play a part in causing injuries and fatalities. One survey found that the age of the victim was significant. Groups with younger people were at higher risk of injury when compared to older ranchers. This may be due to human error and overconfidence of the handler as was pointed out in one report as a cause of injury and death. However, medical conditions such as hearing loss and arthritis, which are more common in older people, can play a role in being injured. These conditions may restrict a person's ability to move out of danger or hear activities

that may warn them to move. This relates to another reported risk factor of individuals working alone. It is reported that one third of the fatalities occur when no one else is present. Another interesting fact associated with fatalities, is that one third of the deaths were caused by animals that had previously shown aggressive behavior. It is wise to cull aggressive animals.

Another factor to consider is facilities. Several studies indicated that cattle equipment, housing, and working facilities contributed to injuries. This was especially important in bull incidents. Unfortunately, over 40% of cattlemen in one survey reported that they do not think their facilities are safe but hesitate to improve them. The reasons given include the cost of new equipment, satisfaction with the current facility, and lack of both time and knowledge on how to build a new facility.

Most if not all injuries and fatalities caused by livestock can be prevented. Livestock producers can reduce the risk of injury by studying animal behavior, by using proper handling techniques, and by using equipment correctly. Beef Quality Assurance as well as many other groups provide training in animal behavior and low stress cattle handling. Facilities and equipment are costly, but when designed and used correctly, accidents are reduced. Individuals need to protect themselves by wearing proper footwear, clothing, and head and eye protection. Also, many accidents happen when farmers and ranchers work alone. A partner present to keep watch may prevent an injury. Lastly, producers need to recognize their limits. When animals are involved, overconfidence will get someone hurt.

From a personal standpoint, I have had my share of incidents. I have been bitten, scratched, clawed, trampled, tossed around, mashed, and crushed by a variety of them. All of the incidents were the result of overconfidence, human error, lack of knowledge, and poor equipment and facilities. My life's experiences are the same as many other farmers and ranchers. We all have one life to live, so we all need to take better care of ourselves.

For additional information on livestock safety, producers should visit their Oklahoma State University County Extension Agriculture Educator.



Extension Experience – Insights into Oklahoma Agriculture

The West 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 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/podcast/>

We hope you consider listening to *Extension Experience*.

Extension Experience

PODCAST

INSIGHTS INTO OKLAHOMA AGRICULTURE



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