

# AGRICULTURE

## Golden Plains Area Newsletter

**Dennis Kaan, Area Director**  
Area Community Development Agent  
Washington County Office  
(970) 345-2287

**Ron Meyer**  
Area Agronomy Agent  
Kit Carson County Office  
(719) 346-5571

**Dr. Todd Ballard, PhD**  
Agronomy, Weed Management  
Sedgwick County Office  
(970) 474-3479

**Linda Langelo**  
Area Horticulture Agent  
Sedgwick County Office  
(970) 474-3479

**Travis Taylor**  
Area Livestock Agent  
Yuma County Office  
(970) 332-4151

**Joel Schneekloth**  
Regional Water Resource Specialist  
Central Great Plains Research Station,  
Akron  
(970) 345-0508

**Annie Overlin**  
Regional Range Management Specialist  
Peaks and Plains Regional Office, Pueblo  
970-545-1845

**Dr. Brent Young, PhD**  
Regional Agriculture and Business  
Management Specialist  
Regional Engagement Center, Sterling  
(970) 522-7207

**Scott Stinnett**  
Livestock and 4-H Youth Development  
Kit Carson County Office  
(719) 346-5571

## October/December 2022

### GOLDEN PLAINS AREA AG NEWSLETTER

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COLORADO STATE UNIVERSITY  
EXTENSION

Colorado State University, U.S. Department of Agriculture and Kit Carson, Phillips,  
Sedgwick, Washington, and Yuma Counties cooperating.

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# AG BUSINESS

## **Think About Tax Implications** **Travis Taylor, Area Livestock Agent**

Take the continued drought situation, multiply it with the continued price increases in forage and feed prices, and you understand why livestock producers find it necessary to sell off their herds. Behind the immediate concerns of decreased ability to generate future income, there are looming tax consequences in having increased revenues in conjunction with decreased expenses leaving producers with hard to imagine tax liabilities. It is imperative that in such situations producers educate themselves with a couple special tax provisions available to them and their tax professionals.

The first tax code is Section 451(g), which allows producers who sell livestock due to weather-related conditions, such as drought, to postpone recognizing the gain from those sales until the following year. To do so producers must document that such sales are more than “usual” under normal operations. For example, if you normally fall wean calves, but and sell the following year, but because drought need to sell them in October, you would realize selling two sets of calves in the same year. This tax code allows the producers to postpone the selling of the later calf crop until the next year. To take advantage of Section 451(g), producers must be in an area that has been declared eligible for federal assistance. As always visit with your tax professional to decide if this is a correct option for you bases on the current, and next years anticipated income and expenses. This also include the anticipated income from government payments due to drought assistance.

The second provision in the tax code is Section 1033(e). This allows for postponing or possibly not even recognizing revenue from the sale of livestock used for draft, breeding, or dairy purposes because of drought, flood or other weather-related conditions. Income must again be document as more than “usual or normal” and documentable. Under this code, producers postpone any realized tax gain by replacing sold livestock within two years from the dated of sale. The replacement livestock must be used for the same purpose, meaning dairy replace dairy stock or breeding replaced with breeding stock. Again it is important to visit with your tax professional as there are tax differences between selling raised breeding stock, depreciation recapture on purchased animals, and which ones may be subject to self-employment, Medicare and Social Security tax liability.

Reference: <https://ruraltax.org/files-ou/2022WeatherRelatedSales.pdf>

# AGRONOMY

## **Crop Variety Performance Trial Results** **Sally Jones-Dimond, Research Associate Crop Testing**

The CSU Crops Testing Program will be harvesting trials and publishing yield and performance results for corn, dry bean, sunflower, grain sorghum, and forage sorghum trials throughout the fall as harvest progresses. All results are posted on the respective crop pages at [www.csucrops.com](http://www.csucrops.com) and provide an unbiased and reliable source of information to help producers make hybrid selection decisions for the upcoming season.

## **Nitrate Testing**

### **Ron Meyer, Area Agronomy Agent**

Nitrate accumulations in feed are a concern during drought conditions. Early in the growing season plants absorb nitrogen from the soil and metabolize it for plant growth. Nitrates become an issue when plants “harvest” nitrogen from soils but cannot break the nutrient down due to stress. Plant stress can be in the form of high air temperatures, drought conditions, hail, or any factor that reduces plant photosynthesis. The result is nitrate accumulations in plants that can be toxic to livestock when fed (nitrate poisoning).

Colorado State University Extension Offices located in the Golden Plains Area (Burlington, Wray, Holyoke, Julesburg, and Akron) are offering nitrate testing for feed samples brought in. Minimum plant samples needed for testing include approximately 1 gallon of feed. Plant samples should be taken from random locations in the field. Nitrate analysis costs \$5 and takes approximately 5 minutes per test.

## **CSU Releases Windom SF Wheat Variety**

### **Ron Meyer, Area Agronomy Agent**

Colorado State University is announcing the release of Windom SF, a hard white winter wheat variety with sawfly tolerance. Windom SF carries the semi solid stem trait known to defend against wheat stem sawfly injury. Wheat stem sawfly is an insect pest of wheat that is becoming a serious threat to Colorado wheat producers. Windom SF has a stem solid rating of 16 out of a maximum of 25, which helps to protect the variety against serious sawfly damage. The more solid the wheat stem, the less damage the insect is able to inflict. Current non-sawfly variety wheat stems are hollow.

Windom SF is a white wheat that is included in the Ardent Mills UltraGrain® Premium Program due to the variety’s ability to produce white whole wheat flour, a function of very good milling and baking qualities that are in high demand by processors.

Windom SF will be marketed by PlainsGold® as a certified seed only variety. Certified seed only varieties must not be saved for seed on any farm, except by certified seed growers. Growers must purchase certified seed only varieties every year to grow the variety. Windom SF is named after Windom Peak, a Colorado fourteener. For more information about Windom SF, refer to PlainsGold.com or call 970-449-6994.

Source: Madison Anderson, Colorado Wheat Administrative Committee

## **Soil Erosion Strategies**

### **Ron Meyer, Area Agronomy Agent**

Soil erosion from both wind and water can happen nearly anytime in Colorado. When soil leaves a field due to wind or water, the field’s productivity is reduced. Topsoil that leaves a field is the best soil and is high in organic matter. Low organic matter soils experience reduced crop yields. In addition, blowing soil can have consequences on the field the soil is blowing into not to mention a dust storm’s effect on the environment with reduced visibility. Water erosion simply carries top soil off your field and into someone else’s or the topsoil is carried into streams and lakes as sediment. Some weather issues magnify soil erosion potential such as drought, which reduces the amount of crop residue raised and thus the amount of cover protecting a field. Summer flooding due to intense rain storms can create water runoff issues.

The most effective soil erosion control strategy is to leave crop residues in place after harvest. This strategy insures maximum cover during winter dormant periods. Crop residue management includes practices such as reduced till, no-till, stubble mulch, strip cropping and cover cropping. Each of these methods substitutes chemical or cover weed control for tillage. Each one of these practices have advantages and disadvantages but all will help reduce both wind and water erosion potentials in a field. The bottom line is; when soil remains covered from the previous crop's residue, both wind and water erosion will be reduced, leaving topsoil in place. Tillage, drought and flooding increase soil erosion issues.

What can be done when wind erosion has overtaken a field? Emergency tillage is an option to suppress wind erosion. Emergency tillage strategies should include the following: use a combination of tractor speed, tillage depth, and implement shovel size to achieve the roughest soil surface with the most soil clods. Surface roughness is the number one wind erosion control strategy when wind erosion is the issue. The rougher the soil surface with more dirt clods, the more protected the field will be. This condition becomes more difficult with extremely dry soils. Try to start the emergency tillage on upward wind field locations. Till in a perpendicular direction to prevailing wind direction. Our prevailing winds mostly come from the south making an easterly-westerly tillage direction most effective, when possible. Variations of this tillage direction can still be effective. Try and skip passes (up to 50% of the field) from tillage which leaves some crop residue anchored. Tillage should not be solid. Shovel spacing of 24 to 40 inches can reduce wind erosion, depending on soil type and conditions. If a second tillage is needed later, increase the tillage depth. The best wind and water soil erosion control strategy is leaving past crop residues in place. However, if soil erosion from wind becomes an issue due to drought, emergency tillage can be a short-term option. Source: Kansas State University MF2206

## **Livestock**

### **Proper Preconditioning for Better Pricing Scott Stinnett, Livestock and 4-H Youth Development**

The time to begin preconditioning calves is here. The fall sale run will begin in a few short weeks. Still many producers do not prepare their cattle for sale time or at least do not prepare early enough. At our recent Pasture to Profit program in Burlington, Jim Santomaso owner and auctioneer of Sterling Livestock Commission, spoke and testified on the value of properly preconditioned calves versus those that were not. In his observations at his sale facility, calves who were 45 to 50 days weaned and vaccinated received the best possible price based on their size and weight. He stated producers, whose calves who were not properly preconditioned, needed to be prepared to take a "discounted" price compared to properly preconditioned calves.

In the beef industry 30 days weaned and vaccinated is considered the minimum. Dr. Derrell Peel, Oklahoma State University Extension Livestock Marketing Specialist, recently stated "...buyers strongly prefer calves to be weaned at least 45 days. Recent data and preliminary analysis suggest that weaning periods of 60, 75 and up to 90 days or more bring additional premiums." Jim Santomaso reaffirmed this as he sees producers bring calves to market who have been vaccinated and weaned just long enough "to get the bawl out" and they receive a lower price than equivalent calves who have been properly preconditioned.

For calves to receive that best price on sale day, producers need to have completed specific tasks. First, calves have been weaned at least 45 days. Vaccinations have been done and boosters completed prior to sale day. Bull calves should be castrated and healed. Calves need to be “bunk broke” and accustomed to consuming a grain based ration. A producer should communicate these things have been done to the livestock sale or the potential buyers prior to the selling. And of course, producers should follow good handling practices during the highly stressful weaning and vaccinating process.

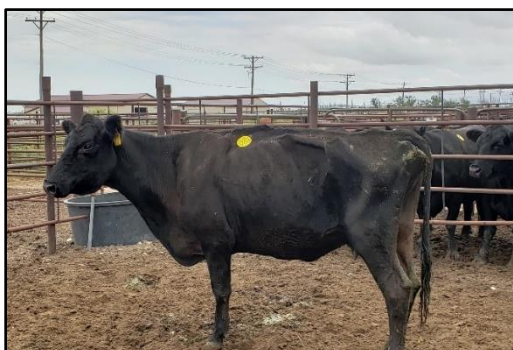
Producers want to receive the best price possible for their calves and you only get to sell them once. Proper preconditioning can prevent taking those unwanted discounts. The efforts put in now will pay off in the near future.

## **Culling Cows During Drought** **Scott Stinnett, Extension Agent, Livestock and Youth Development**

As producers are preparing for winter after a very dry growing season, culling cows can have a significant impact on the balance sheet. A producer who takes the time to evaluate and make decisions about culling cows can help move themselves closer to profitability.

Culling of cows is usually a secondary thought when it comes to income for the beef enterprise, but research shows they can account for 15% to 25% of annual income. Planning for getting the most for those animals can help boost that portion of income. Cows need to be culled when they retain the highest possible value, but many producers still do not cull until cows are at the lowest possible value. What brings the highest value for culls? Cutability. Just like our feeder steers and heifer, buyers are looking at cull cows for the possibility to produce a valuable beef carcass. Cows with plenty of muscle and appropriate fat cover will fall into the Breaker or Boning grades and receive the highest prices. Leans are those culls who lack some muscling and fat cover and considered lower cutability and receive a lower price than Breaker and Boning cows. Lights are just as the term suggests, light muscled with little to no fat cover and receive the lowest price of all cull cows as they have the least amount of beef to be harvested.

Producers can use body condition scores (BCS) to estimate which grades their cull cows may fall into. Cull cows in the range of BCS 5, 6 and 7 can fall into the higher price grades. Higher body condition cows, BCS 8 or 9, may receive lower prices as they are too fat even though they have ample muscling. Lower body condition cows, BCS 3 and 4 receive lower prices because they are lacking the desired amount of lean muscle and little fat cover. Emaciated cows, BCS 2 and 3 usually receive a minimal price as they offer little value for cutability.



Cull Cow with BCS Score 2  
Photo by Scott Stinnett ©2022



Cull Cow with BCS Score 8  
Photo by Scott Stinnett ©2022

Although there is some debate in the order of criteria, most research tends to agree on four factors being the most important for culling cows. The agreed top factor is being open. An open cow or heifer will add another year of expenses without producing any income in the form of a saleable calf. In condition of low national cattle inventory, open heifers and open first calf cows are valuable as feeders as they can be finished and harvested before reaching 30 months of age. Mature cows, age 3 to 10 years, in good body condition, due to their cutability as mentioned earlier.

The other top factors for culling are age, structure and disposition. Older cows, 9 years old and older, are beginning to reach ages where any structural and reproductive soundness issues may become quite evident. Bad legs, udder quality, later breeding, dental issues, fleshing ability and more can be reasons these older cows may cost a producer more to keep and lower the profit margin for these females. Younger cows may also exhibit some structural issues or injuries that can deem them candidates for culling. They may also prove to be those “hard to keep” cows that require more inputs such as feed, health care and others that financially put them on the cull list.

Disposition can be sometime the hardest and the easiest reason to cull. Cows who stress easily and show it by either being flighty or on the fight often normally produce calves that are the same way. Research has show that higher stress cattle produce lower quality carcasses than low stress animals. Cattle buyers also notice this if they are brought to the livestock sale. Calm and quiet cattle will bring a slightly higher price than comparable cattle exhibiting high stress such as tail wringing, moving around the sale ring, carrying their head high and other stress behaviors. The cow who is on the fight when being handled can not only be dangerous the people trying to handle her but can also injure herself or other cattle especially in confined areas like corrals, crowding pens, tubs and alleyways. Even though a cow can produce a valuable calf each year, if her disposition is poor, the end result may be a lower quality carcass on her calves.

Timing the marketing of cull cows can also affect their value. There are seasonal highs and lows to the cull cow market. Prices paid for cull cows are on average highest in March and April, better on either side of that time, January and February as well as in May, June and July. The lowest prices are in the fall from late October through December as the majority of cull cows are brought to market. There can be some short one and two week increase in cull cow prices around holidays as packers want to ensure they have plenty of beef in storage for the increased demand during those holidays.

Currently the low national cow herd numbers and world events have provided some higher than average prices for cull cows even though we are in drought conditions and more producers are culling. This could be the unusual set of conditions to make culling cows this fall better than what is seasonally normal. As with any marketing, there is risk involved and producers should do their best to try to receive the best price they can for their cull cows.

## **Ask for a Feed Analysis Report on Hay before Buying or Feeding** **Mark Z. Johnson, Oklahoma State Extension Beef Cattle Breeding Specialist**

Winter is coming. Drought, deteriorating pasture conditions and short hay inventories in Oklahoma and the surrounding states of Texas, Missouri and Kansas, has most cow-calf operations scrambling to secure hay supplies for the coming winter. Given the current situation it can come as a relief to just find hay to purchase. That being said, it is still important to ask for a FEED ANALYSIS REPORT of the hay before you agree to buy. Among the consequences of wide scale lack of moisture is fields planted to produce a cereal grain crop become drought stressed and are reduced to a hay crop. The hay resulting from these intended cereal grains is potentially of excellent quality and feed value but sorghum (corn or milo) hay needs to be evaluated for nitrate levels. OSU Cooperative Extension Service Fact Sheet PSS-2903 offers a closer look at Nitrate Toxicity in Livestock. This fact sheet explains the levels of nitrates that are considered safe or dangerous, as well as feeding strategies for forage and hay supplies of varying nitrate levels.

Additional information gained through testing hay for nutritional content includes:

- Dry Matter and Moisture Content
- Crude Protein (CP%)
- Total Digestible Nutrients (TDN%) measuring the Energy level. Other estimates of energy obtained include Net Energy for maintenance, lactation and growth.
- Relative Feed Value (RFV)

This information can be used to compare “apples -to-apples” when buying hay. Forage quality varies not only among different plant species, but also within forage species. As well, forage quality of a specific variety can vary based on conditions such as soil fertility, drought stress and stage of maturity at harvest. For example: hay can vary widely in nutritional content. If you had the opportunity to purchase hay at \$200/ton that tested 18% CP and 60% TDN or hay at the same price that tested 7% CP and 55% TDN, which is the better buy? Both may appear the same to the naked eye but a nutrient analysis permits you to make the better buy. Furthermore it permits you to plan a feeding program knowing how much cows should consume and how much is needed to meet cows nutritional requirements. The same advantages hold true for hay you already have on inventory. The best single measure of forage quality is animal productivity. To ensure animal productivity, assess your forage supply and modify the animal diet before consumption. OSU Cooperative Extension Service Fact Sheet PSS-2117 offers deeper insight to Forage Quality Interpretations.

References:

<https://extension.okstate.edu/fact-sheets/print-publications/pss/forage-quality-interpretations-pss-2117.pdf>

<https://extension.okstate.edu/fact-sheets/print-publications/pss/nitrate-toxicity-in-livestock-pss-2903.pdf>

# HORTICULTURE

## **High Plains Community Beekeepers Club Linda Langelo, Area Horticulture Agent**

We have another exciting year coming with lots of educational programs and demonstrations planned. Come join us! We welcome any beekeeper whether you are a hobbyist, a beginner or advanced. We enjoy sharing information about our experiences with the challenges and rewards of being a High Plains Beekeeper.

The first meeting took place September 24, in Holyoke at Highline Electric. Educational tips on “Getting Ready for Winter” and “Options for Handling Varroa Mites”, were discussed.

The second meeting will be December 3, 2022, at 10:00 AM in Yuma with a location yet to be determined. This meeting will entail learning about the “Unique Tools for Beekeeping” and examining those that are worth it and those that are not. Tell us what worked or didn’t work, and please plan to share any innovative “tool” that you created.

The third meeting will be January 28, 2023, at 10:00 AM in Burlington location to be determined. We are inviting a speaker from the Colorado State Beekeeping Association who will come to talk to us. We will share issues and problems we faced through the summer with our hive. This meeting will highlight a honey tasting. So, bring a sample your honey production to share.

The fourth meeting will be March 25, 2023, at 10:00 AM in Wray and the location will be announced closer to the event. Educational topics we will cover are “Starting the Year Off Right with Your Bees” and a Beekeeping Swap Shop. We encourage you to think about anything you want to sell or trade?

The High Plains Community Beekeepers Club is still offering seed packets of a western seed mix that will help us all build more bee habitat in our yards. The seed packets have both annuals and perennials in the mix. This is a full sun mix that is to be broadcast over 100 square feet. October and November is an ideal time to plant the seed for a cold treatment which helps force germination. Another option for germinating the seed mix is to get a flat with a light, well-draining soil mix and place the seed on top. Add a light sprinkling of soil on top or sand and place it outside in a protected area. Water it well before you place it outside and check it regularly. The seed will germinate in the flat. When there is enough of a root system, you can transplant the seedlings breaking apart sections of the flat. You can germinate the seed in more than one flat if you like so the seed are not so condensed.

If you are interested in a seed packet, please feel free to contact Melissa Kleweno at Health Essentials or the following Colorado State University Extension Offices: Yuma County ask for JoLynn Midcap, Washington County ask for Jeannie Lambertson, Phillips County ask for Carrie Anderson and Sedgwick County ask for Linda Langelo.

Be sure to order your bee supplies in January and pre-order bee packages or nucs, if you are interested in raising bees for the first time. There are suppliers in Denver, Colorado or Cheyenne, Wyoming. By joining the club, you can get recommendations and help from members on the High Plains Community



Beekeepers Club Facebook page. For additional information about High Plains Beekeeping Club, please contact the following people:

Melissa Kleweno by email: [melissa@relaxingyou.com](mailto:melissa@relaxingyou.com)

Jolynn Midcap by email: [Jolynn.midcap@colostate.edu](mailto:Jolynn.midcap@colostate.edu)

## **Ips Beetles** **Linda Langelo, CSU Horticulture Agent,**

*Ips pini*, or the Engraver Beetles are insects that develop in pines and spruces. Ips are everywhere in the United States. They are attracted to pines and spruces under stress from drought, root injury, disease, or defoliation. These insects are not necessarily lethal to the pines and spruces. Attacks can be limited to the tops of trees and large branches. However, Ips can show a uniform needle discoloration and death like the Dendroctonus bark beetles with the blue stain fungi. However, an infestation can happen without such signs.

The adults of this insect are about 1/8-1/4 inch long, and are reddish brown to black in color. Their rear end is lined with three to six pairs of toothlike spines. The males cut a cavity under the bark which attracts females. The females produce egg galleries in a Y or H pattern. As they create these galleries, they push the sawdust out. So, you should inspect your pines and spruces periodically, to look for sawdust at the base of trees or in bark crevices.

How to prevent Ips beetles? You can prevent them by using practices that promote healthy tree growth. Naturally, that becomes more challenging in a drought. It is especially challenging when you have windbreaks with many pine and spruce trees. Insecticidal sprays used by drenching the trunk or large limbs is effective. However, there can be multiple overlapping generations of Ips beetles that make it hard to determine exactly when to spray. Ips beetle adults can start in late February and can continue to enter your trees anytime until November. Applying a spring and summer spray can be effective in keeping control of Ips. For further information on Ips Beetles and insecticides effective on them, here is a link to the CSU Fact Sheet on Ips Beetles 5.558: <https://extension.colostate.edu/docs/pubs/insect/05558.pdf>.

I recommend that as temperature starts to consistently be 50 degrees Fahrenheit or above, start inspecting your trees. They will begin to be active on these days. Ips beetles within the bark beetle family have a particular characteristic according to Dave Leatherman, Forest Entomologist. Ips beetles congregate at a susceptible tree to overwhelm its defense mechanisms. He took a sample of bark 12 inches by 6 inches as the Ips beetles started to emerge and placed it in a plastic container. Over 48 days, 128 Ips beetles emerged. What susceptible tree would ever have a chance? Remember, newly planted trees are susceptible as are those with root injury, and know that long term or repeated drought can cause root injury.

Water management needs to be practiced throughout the season. Water in the fall before the ground freezes. Water in the winter when there is no snow cover for the month. Water if there is an extended drought, meaning 10-14 days of dry weather, as you know we have had weeks of drought. Water deeply and not frequently. Meaning don't overwater. Overwatering can cause as much damage as under watering. Roots need both oxygen and water to survive. Check the soil with a soil probe before watering and know where the moisture level is currently. Remember Trees take 10 gallons of water per inch diameter of the trunk at knee height. This is a challenging time and like all living beings, trees need water.

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