

AGRICULTURE

Golden Plains Area Newsletter

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Additional Article by Salley Jones Diamond
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AG BUSINESS

Bear Markets Support Pre-harvest Grain Pricing Brent Young, Regional ABM Specialist

What a difference a couple of years can make in the grain markets! Corn was trading well over \$8 per bushel in April of 2022 and is now priced at near \$4. The May 2024 Kansas City contract hit a high of \$9.18 on 7/24/23 and traded a low of \$5.56 on 2/16/24. With the prospect of grain prices declining as harvest nears, marketing a portion of the anticipated production on market rallies will be essential, Producers should strongly consider pre-harvest pricing grain.

Pre-harvest pricing grain should be a technique found in every producer's marketing toolbox. A strong seasonal tendency for grain prices to decline from planting to harvest and opportunities to lock in a profitable price are two very compelling reasons to devote time and energy to this marketing practice.

Using corn as an example we can clearly see the inclination for prices to fall from planting to harvest. Considering the December corn futures price on May 1st and December 1st from the 25-year period of 1990 to 2015, we find that the May price was higher than the December price 19 out of 25 years. In 13 out of the 19 declining years the price drop was greater than 10%. We would see a similar pattern in other grain markets.

Locking in a profitable market price should be a driving factor in making any marketing decision. The first step in determining if the market is offering an acceptable price is knowing your cost of production (COP). The secret to knowing your COP is having good farm financial records that allow you to conduct enterprise analysis. If your current record-keeping system does not allow you to calculate your COP there are several reasonably priced, computerized accounting packages available that will help you to complete this important task.

Many times, when I suggest to growers that they should consider pre-harvest marketing their grain they reply, "How can I sell something that I don't have?" This is where crop insurance comes into play. Revenue Protection (RP) crop insurance provides a bushel guarantee and a price guarantee. Producers can pre-harvest market the amount of grain up to their bushel guarantee and be assured that if they have a crop loss due to an insurable peril that they can cover their pre-harvest marketed production.

The next question I receive regarding pre-harvest marketing grain is "How do I it?" While there are several methods to pre-harvest market grain the three most common are selling grain with a forward contract and hedging using a futures or options contract.

The forward contract is the simplest, least costly option for the producer but has the disadvantage of eliminating the opportunity to take advantage of rising prices. Hedging using a futures contract can be expensive but can result in higher prices if basis moves are favorable. Options contracts can be less expensive than futures and they allow a producer to take full advantage of improving prices.

The final question I receive is "When should I be looking for pre-harvest pricing opportunities?" My first response is that we should be monitoring the markets daily for pricing opportunities and look for price triggers to implement our marketing plan. Having said that, there are times when markets tend to move more than others. Generally speaking, those times of price movements correspond with the release of government generated supply and demand reports and key production related processes.

Key production related processes that tend to drive grain markets are planting, breaking dormancy (winter wheat) and pollination. Any weather-related issues during these key production phases can impact potential grain supplies and therefore market prices.

Grain producers who don't pre-harvest market a portion of their production are failing to use a very valuable tool. If you have questions about this topic or any other agricultural business management issue, please feel free to contact me at 970-580-2204 or by email at brent.young@colostate.edu.

AGRONOMY

Preparing for Weeds in 2024 **Kat Caswell, Area Agronomy Specialist**

The growing season of 2023 saw significantly greater precipitation amounts and below average temperatures in the spring. While the total number of Growing Degree Days reached the average amount by the end of the summer, the different pattern of temperature and precipitation altered the emergence pattern of weeds. With the challenge of timing herbicide applications when conditions were right, it was not uncommon that weeds escaped control.

Wheat broke dormancy in the beginning of March 2024, meaning early emerging weeds were not long behind. Kochia will be the first problematic weed to focus scouting towards. As an increasing number of mechanisms of resistance develop, treating kochia at the correct size to ensure the best control is strongly recommended. Kochia should be treated when it is between 2 and 6 inches (CSU Factsheet, #6.314). For reference, a soda can is 4.8 inches tall. If a kochia weed is larger than soda can, the efficacy of herbicides will begin to decrease, and the likelihood of the plant not being controlled will increase. Palmer amaranth is also best controlled at this size. Fields with a known and large populations of kochia, or other difficult weeds, should be treated with a premix or tank mix of at least 2 modes of action.

To prevent the establishment of winter annual weeds or early emerging problematic weeds in wheat, make the decision about nitrogen fertilization of stands earlier in the season. More robust stands of wheat are more likely to out compete and prevent weed growth. Fields that were heavily infested with grass weeds and were planted back to wheat will have a harder time managing grassy weeds later in the summer and after harvest without the competition from a healthy wheat stand.

The emergence of different weed species in Colorado can vary between years based on seasonal growing conditions. If spring growing conditions progress similarly to 2023, there will likely be a similar weed population as last year. In this case, herbicide programs and application timings should be adjusted to match the different emergence patterns. Soil applied and residual herbicides are only effective when weed seeds are germinating, and the chemical's residual activity is still functioning. To ensure this is an effective weed control method, wait until soil temperatures are warm enough for weed germination to begin. For example, in the second week of April 2023, soil temperatures remained low

and small kochia seedlings were only noted on field edges. Applying a pre-emergent herbicide application to a field 30 days earlier, in March, would not have been as effective as one performed later in April, when weeds were beginning to actively germinate. This delayed emergence of weeds impacted the timing of when herbicides should have been applied for the best control.

If spring conditions follow the more typical pattern of a wet spring followed by a period of hot and dry, weed populations will likely be more like populations that been observed in the past, but in a greater number than seen during the recent drought years. Begin scouting early in areas of known populations and record areas of different or unusual species that may require different timings of herbicide applications. In fields with heavy infestations of weeds with a long window of germination, consider performing multiple applications of residual herbicides at different points of the summer to maintain control through the season. This is the preferred herbicide strategy for control of Palmer amaranth. Early emerging weeds are likely to take advantage of the relatively warm weather at the end of the 2024 winter and begin establishment earlier than last year.

Weed control should be focused on maintaining clean fields through the weed free critical period of each crop. One of the best forms of weed control is a healthy crop that can outcompete weeds as they emerge. As always, follow any labeled directions on herbicides and utilize an Integrated Weed Management plan.

<https://extension.colostate.edu/topic-areas/natural-resources/identification-and-management-of-kochia-and-russian-thistle-6-314/>

TESTING DORMANT WHEAT FOR LIFE

Ron Meyer, Area Agronomy Specialist

Environmental conditions affect plant growth in many ways. Conditions that are too dry or too wet, too cold or too hot can all affect wheat production and survival. Determining whether wheat plants are alive in the spring due to adverse growing conditions should be done before spending production dollars on those acres later this spring.

Visual inspection: 1. Dig 10 wheat plants from the worst spots in the field, (hilltops, driest areas, etc.). 2. Cut plants diagonally and examine inside the root/shoot areas, especially inside the crown area. 3. Healthy plants will exhibit cream or light colored internal “plumbing” (plant tissue). 4. Discolored or brown colored internal plant tissue indicated dead plants.

Growth test to determine if wheat plants are alive before active growth begins in the spring: 1. Remove the top three inches of soil containing the plant crown. 2. Thaw the samples and warm to room temperature. 3. Remove soil from the roots and wash with cool water to remove attached soil. 4. Cut off fall growth to within 1 inch above the crown and roots below the crown. 5. Rinse the crowns with cool water. 6. Place 10 wet crowns in a labeled plastic bag, inflate the bag and tie shut. 7. Place the bags in a lighted room, but not in direct sunlight. 8. After four to six days, the crown should show about two inches of growth. 9. Plants that are not growing after six days should be considered dead when estimating survival. 10. Some plants may grow poorly and develop molds. Molds live on dead or injured plants. Plants with mold developing should be considered not viable. Fields should be abandoned if more than 50% of plants are dead and dead plants are uniformly distributed. In addition, if large areas are found not viable, then those areas should be considered not productive and also be considered for abandonment. Source: Crop Watch

Herbicide Mixing and Loading Guidelines

Ron Meyer, Area Extension Specialist
Catie Green, Area Extension Specialist

Pesticide application season will begin soon for many. Following are mixing and loading guidelines for most applications. Keep in mind that a number of choices exist when applying pesticides including water solubles, wettable powders, dispersible granules, flowables, Emulsifiable Concentrates, and other solutions. As a result of those choices, guidelines exist for mixing and loading to obtain optimum pesticide performance.

1. Fill the pesticide tank ½ full of water
2. Add fertilizer, AMS or other pH reducing agents or anti-foamers
3. Start agitation
4. Add pesticides into the tank
5. Add emulsifiers, oils, or other surfactants
6. Fill the tank with water

Remember that if you aren't sure about the compatibility of the materials you are mixing, a compatibility test can be performed.

1. Add 1 pt of material (fertilizer or water) to a 2 quart jar
2. Add ¼ teaspoon to the mix of the surfactant you choose
3. Add the herbicide to the jar: if dry herbicide add 1.5 teaspoons for each pound of herbicide per acre desired, if liquid herbicide add 0.5 teaspoons for each pint per acre desired
4. Mix the products by shaking the covered jar
5. Let the solution stand for 15 minutes
6. Look for separation such as flaking, precipitates (solids on the jar bottom), or gels forming.
7. If no issues are observed, the products are compatible with each other in a tank

EPA Reinstates Chlorpyrifos

Ron Meyer, Area Extension Specialist

On November 2, 2023, the 8th Circuit Court vacated EPA's rule regarding revocation of food tolerances for Chlorpyrifos. In other words, Chlorpyrifos is now re-labeled for many crops such as alfalfa, soybean, sugar beet, wheat and sunflower.

As a result of this decision, all food tolerances for chlorpyrifos that existed prior to the issuance of the final rule revoking these tolerances were reinstated once the court's mandate was issued. On February 5, 2024, EPA issued a Federal Register notice to amend the Code of Federal Regulations to reflect the court's reinstatement of those tolerances.

Chlorpyrifos has been used as a pesticide since 1965 in both agricultural and non-agricultural areas. Brand names that contain Chlorpyrifos include; Brodan, Bolton, Chlorpyrifos-ethyl, Cobalt, Detmol UA, Dowco 179, Dursban, Empire, Eradex, Hatchet, Lorsban, Nufos, Paqant, Piridane, Scout, Stipend, Tricel, and Warhawk, among others.

2024 Wheat Field Days

Sally Jones-Diamond, CSU Crop Production Specialist

Colorado State University's Crops Testing Program is hosting the 2024 Wheat Field Days on June 6th-7th and 10th-11th. They are made possible by our farmer-cooperators, seed company and industry partners, and our colleagues from the CSU Dept. of Soil and Crop Sciences, CSU Dept. of Agricultural Biology, the Agricultural Experiment Station, CSU Extension, Colorado Wheat, and the USDA-ARS. The Field Days include a walk-through of the official CSU Wheat Variety Trial with wheat breeder Dr. Esten Mason. CSU faculty and experts will also share the latest information and research on wheat entomology and pathology, Colorado seed programs, soil fertility, and forage uses. Industry representatives will provide wheat market updates and seed company representatives will share information about their varieties.

The field days will be held on **Thursday, June 6th** at Walsh, Lamar, and Brandon; **Friday, June 7th** at Burlington, Genoa, and Severance; **Tuesday, June 10th** at Akron and Yuma; and **Wednesday, June 11th** at Julesburg, Orchard, and Roggen. Please visit www.csucrops.com/wfd for the full schedule and directions.

LIVESTOCK



Cow Herd Pre-Breeding Vaccinations

Travis Taylor, Area Livestock Specialist

With calving in full gear in northeastern Colorado, it is time to plan for breeding back the cow herd for the next calf crop. It may be hard to believe, but as a proactive producer one has to start planning for a future calf crop prior to having the current one completely on the ground. With a cow's two hundred and eighty-five-day gestation, that only leaves eighty days for a cow to breed back and calve within a year. This window gives a producer very little time to take care of pre-breeding vaccinations, especially for nursing cows.

Many producers give a breeding booster when cows are pregnancy tested in the fall, and while this is better than not giving vaccinations, the timing of this doesn't provide the best cow immunity for reproductive diseases. Vaccines stimulate the cow to produce antibodies to detect, and then jump start the immune system that will respond to any disease pressure. When giving those vaccinations a pregnancy checking time, seven to eight months prior to breeding, titers for immune response are often at very low levels when we actually turn bulls in to breed. Thinking about this, it is important to talk with your Veterinarian, to develop a necessary Veterinary Client Patient Relationship (VCPR), and working through a solid vaccination program for your herd health.

An important topic to keep in mind when talking with your vet is the difference between a Killed viral vaccine and a Modified Live vaccine. Killed viral vaccines, as the name indicates, contain a killed virus that will trigger an immune response. These vaccines are much safer to utilize, are viable to store for a longer period of time and can be used during a wider time range. Killed vaccines usually require

a second booster for first time heifers a minimum of 30 days prior to breeding. Modified Live viral vaccines contain a lab altered live virus and are used because immune response increases when compared to killed vaccines. However, when using modified live vaccines, once mixed they need to usually be injected within two hours, reducing storage life. There is a more precise window for using modified live vaccines as research has shown that these vaccines when given less than forty-five days before breeding can decrease fertility in cows and heifers. As always it is important to read fully and follow all label instructions even after consulting with your veterinarian.

In addition to Trichomoniasis and Brucellosis, other pre-breeding diseases you should definitely consider asking your vet about include the following:

- **Vibro:** Vibriosis caused by Campylobacteriosis is a venereal disease of cattle that causes infertility in the female causing an increased number of services necessary for conception. Commonly vibro is given in an oil-based vaccine.
- **Lepto:** Leptospirosis is a bacterial disease, causing infertility, abortions, weak calves and decreases in milk production.
- **IBR:** Infectious Bovine Rhinotracheitis is a viral disease that can cause abortions.
- **BVD:** Bovine Viral Diarrhea results in early embryonic loss, abortions and animals can show no symptoms but be persistently infected (PI) spreading the disease to healthy animals.

Vaccinations for the cow head can seem to be a bit expensive. However at current prices having a cow breed on the first cycle post calving verses the second can mean an extra fifty pounds of weaning weight. At current 2024 prices that would equate to more than one hundred and twenty-five dollars. It is important to consider both what is necessary to vaccinate for and possibly start to focus on the correct time and not always the convenient time to administer pre-breeding vaccinations.

References:

Vaccination Program Considerations for the Beef Breeding Herd, The Ohio State University
<https://www.youtube.com/watch?v=nJmPaEhPF6E>

When is the Best Time to Give Pre Breeding Vaccines, Sioux Nation Ag Center: _

<https://www.siouxnationag.com/when-is-the-best-time-to-give-pre-breeding-vaccines/>

Branding/ Pre-Breeding - Cow and Calf Management Activities to Consider, University of Nebraska
<https://beef.unl.edu/branding-pre-breeding-calf-and-cow-management-activities>



Providing Water for Cattle

Scott Stinnett, Area Livestock Specialist

During the summer and especially on days of extreme heat, water becomes even more important for the health and nutrition of the cattle herd. Ensuring an appropriate amount of clean fresh water is imperative. Understanding the water requirements of cattle, the water availability and flow rate of sources to replenish water consumed will help a producer determine what is required to meet the needs of their herd.

Water intake is variable depending on multiple factors. Animal size, stage of production, ambient air temperature and feed type can affect the daily water needs. Growing cattle such as stocker cattle under 600 pounds could need as little as 10 gallons per day if the temperature stays in the low 80°s but can increase to over 15 gallons per day if temperatures increase into the upper 90°s¹. For bred or lactating

cows, water intake is even greater. The minimum is 20 gallons per day when high temperatures are above 90°.

A good rule of thumb for days with highs over 90° is to provide 2 gallons of water per 100 pounds of body weight². Using this rule, producers need to calculate their herds daily needs. For example, a pasture with 100 head of lactating cows weighing an average of 1200 pounds would need to provide 2,400 gallons of water per day plus enough water for calves.

Table I. Approximate total daily water intake of beef cattle¹.

<i>Temperature in °F²</i>						
Weight	40°	50°	60°	70°	80°	90°
Lb.	Gallons	Gallons	Gallons	Gallons	Gallons	Gallons
<i>Growing Heifers, Steers, Bulls</i>						
400	4.0	4.3	5.0	5.8	6.7	9.5
600	5.3	5.8	6.6	7.8	8.9	12.7
600	6.3	6.8	7.9	9.2	10.6	15.0
<i>Finishing Cattle</i>						
600	6.0	6.5	7.4	8.7	10.0	14.3
800	7.3	7.9	9.1	10.7	12.3	17.4
1,000	8.7	9.4	10.8	12.6	14.5	20.6
<i>Wintering Beef Cows³</i>						
900	6.7	7.2	8.3	9.7		
1,100	6.0	6.5	7.4	8.7		
<i>Lactating Cows⁴</i>						
900	11.4	12.6	14.5	16.9	17.9	18.2
<i>Mature Bulls</i>						
1,400	8.0	8.6	9.9	11.7	13.4	19.0
1,600+	8.7	9.4	10.8	12.6	14.5	20.6

¹1996 National Research Council Nutrient requirements of Beef Cattle, Seventh Revised Edition, 1996. Table derived from an article by C. F. Winchester and M. J. Morris, Vol 15, No 3, Journal of Animal Science, August 1956.

²Water intake is a function of dry matter intake and ambient temperature. Water intake is constant up to 40°F.

³Dry matter intake influences water intake. Heavier cows are assumed to be in greater body condition and require less dry matter and, therefore, less water.

⁴Cows larger than 900 pounds are included in this recommendation.

Credit: ¹Water Requirements for Beef Cattle. University of Nebraska – Lincoln Extension. NebGuide G2060.

To determine if a pasture has enough water available, finding the capacity of the stock tanks in the pasture can be done with some quick math. Start by finding the volume of the tank. The formula for a round tank is: $\pi (3.14) \times \text{tank diameter squared} \div 4 \times \text{water depth} = \text{volume (in cubic feet)}$. Using a 12-foot diameter round tank that is 2 feet deep as an example, we can plug in the appropriate numbers: $3.14 \times 12^2 \div 4 \times 2 = 226.08 \text{ cubic feet}$. Each cubic foot of volume equals 7.48 gallons of water. To finish up the calculations, multiply the volume by 7.48 gallons, and the example 12-foot round tank could hold 1,691.08 gallons of water: $226.08 \text{ cubic feet} \times 7.48 \text{ gallons per cubic foot} = 1691.08 \text{ gallons}$.

In typical cattle behavior, cattle come to drink from water sources several times per day. They will not drink their full daily intake in one trip to water but could drink from 2 gallons to as much as 5 gallons in a single trip to water. Cows normally drink first and lower the tank water level. If 100 cows come to a tank and drink 5 gallons each, 500 gallons would be removed and need to be replaced. Cows removing 500 gallons can lower a 12-foot diameter water tank approximately 7 inches. Since calves need access to water too, it is necessary to provide enough water in a tank to ensure that calves can reach water. Considering these behaviors, the refill rate of a tank can be just as important as size. Flow rate of water sources is measured in gallons per minute (GPM). A typical well for a home site can produce a flow rate of 3 to 6 GPM. In remote areas, a windmill, or solar livestock well pump may provide 2 to 5 GPM. If the flow is 3 GPM, it will take approximately 160 to 170 minutes to refill 500 gallons in a tank. At 5 GPM it takes 100 minutes to fully refill the tank. Knowing the flow rate of the water source allows a producer to calculate how quickly water can be replaced in a tank.

Round Livestock Tank Size and Water Capacity (Approximations for 24-inch depth)				
Tank Size (Diameter)	Capacity (Gallons)		Tank Size (Diameter)	Capacity (Gallons)
6 ft.	395		12 ft.	1690
8 ft.	718		15 ft.	2640
9 ft.	920		18 ft.	3810
10 ft.	1000		21 ft.	5175
11 ft.	1400		24 ft.	6750

Providing fresh, clean and abundant water is important to the health and nutrition of the cattle herd. Being able to calculate and provide adequate water is essential to meeting the needs of the herd.

Resources

¹Rasby, R. & Walz, T. (2011). Water requirements for beef cattle. University of Nebraska – Lincoln Extension. NebGuide G2060. Lincoln, Nebraska. <https://extensionpublications.unl.edu/assets/pdf/g2060.pdf>

²Dyer, T.G. (2017) Water requirements and quality issues for cattle. University of Georgia Extension. Special Bulletin 56. Athens, Georgia. https://secure.caes.uga.edu/extension/publications/files/pdf/SB%2056_5.PDF



Good Fences

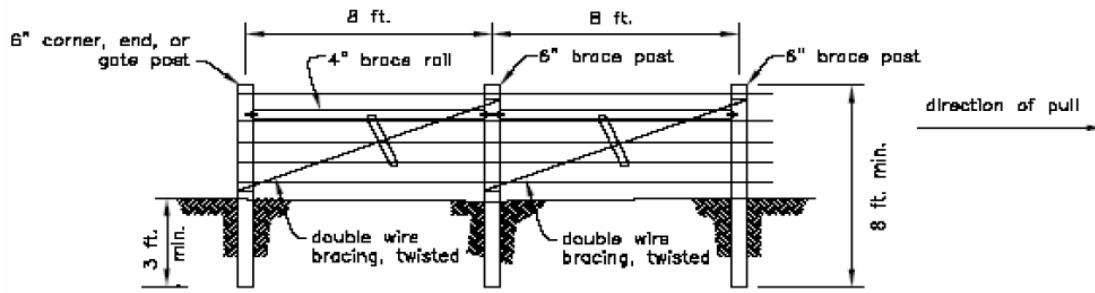
Scott Stinnett, Area Livestock Specialist

There are several adages in the livestock business. “An hour in the morning is worth two in the afternoon.” “Feed in the evening, calves in the morning.” “Good fences make good neighbors.” The last one may be more important than ever with the current price of cattle. Having a properly built and maintained fence can save you time and money.

The primary fence we worry about is the exterior pasture fence. Although Colorado is a “fence out” state, most producers understand a good fence is the first line of protection against loss. The loss can be in the form of time and labor getting cattle back in. Unwanted breeding from bulls and cows not being in their own pastures. And even injuries to cattle that require attention from a veterinarian due to poorly maintained fences. The worst case scenario may be cattle out on a roadway or in other non-agricultural areas causing property damage or bodily injury. The point is keeping cattle safe where they belong is the priority.

The most common exterior fence for cattle is 4 strands of barbed wire, 48 to 54 inches tall. The keystones to all fences are the corners. Properly constructed corners are made to anchor long stretches of fencing in one or more directions. Construction should consider multiple factors including length of

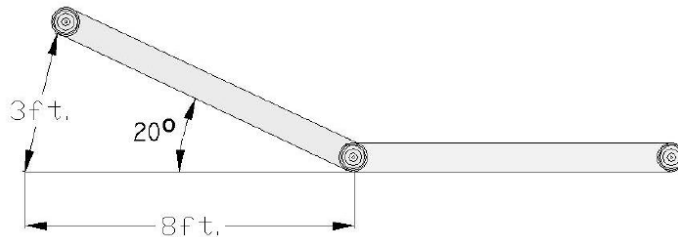
fence, fencing materials used, amount of fencing used and soil conditions. Corners should be made with a minimum of three vertical posts set at least 24 inches in the ground with 2 horizontal brace rails and diagonal tension wires for each direction of fence.



DOUBLE SPAN BRACE ASSEMBLY

Credit: USDA NRCS

Using some type of post or bracing for maintaining the tension or “stretch” in fencing material should also be constructed considering the same factors but also include the topography of the fence run. If the run is straight and relatively flat the appropriately spaced “stretch posts” may suffice, but on longer runs or with major changes in elevation a set of “H braces” may be the appropriate choice. Bracing posts should also be constructed when the fence line makes a significant change in direction, usually 20° or more. This much change in direction would be considered a corner and the bracing should again include three vertical posts in the ground and 2 horizontal brace rails.



Top View of Fence Brace Showing Minimum Angle to be Considered a Corner

Credit: USDA NRCS

The choice of fencing material will depend on the previously mentioned factors, the livestock being raised and wildlife in the area. Most cattle fences on the high plains of Colorado are constructed of 12-gauge, 4 point barbed wire. It is appropriate to hold in bulls, cows, and calves as long as the wires are properly spaced and built to a sufficient height. Wildlife, specifically deer, antelope and birds, can damage or become entangled in livestock fences. Colorado Parks and Wildlife has resources to help design fences that are considerate of wildlife and still appropriate for cattle pastures.

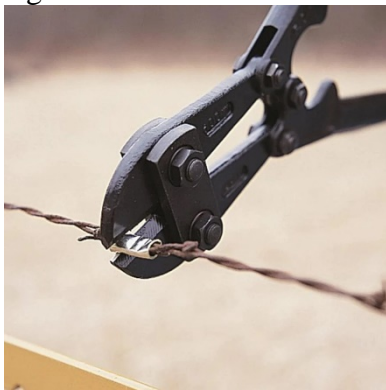
There is much to deliberate when it comes to choosing line posts. Wood posts and steel “t” posts are the most common and appropriate, but each has pros and cons. Properly assessing the needs of the fence, costs and labor can help determine which material or combination to use.

Well-constructed fences are a great asset to any livestock operation, but all fences will require maintenance and repair. Checking fences is a necessary task to help prevent loss. Most common is a broken wire. There are several tools and methods for repairing broken wire. The goal is to ensure the

repair can and will be able to sustain the integrity of the fence for the foreseeable life of the fence. There are commercially available barbed wire repairs such as wire clips, twist splices and various other items that can be used to repair breaks. The key to any repair is to maintain the strength of the existing wire. Any repair that creates sharp bends or crimps in the wire creates a weak spot as wire is built for its tensile (stretching) strength and not necessarily for malleability (bending and reshaping). Creating what is sometimes referred to as a “Western Union” splice is a time-tested solution going back to the days of the first wire fences.

Other repairs may include replacing line posts, stapling or clipping loose wire to posts and the most complicated, repair fences that cross water or “water gaps”. Water gaps can be the bane of existence for a cattle producer. While rainfall is always welcome, sudden rushing waters in normally low or even dry creek beds can carry objects that can destroy fences in the water’s path. Many producers have learned to build fences that have termination points on either side of the water obstacle, therefore only leaving the line across the water to be repaired or replaced after it is damaged.

New fencing can be an expensive endeavor. The price of materials and labor is hard to pencil into a beef enterprise, but there are resources available to help. Several federal and state entities have grants to help to offset fencing costs. Many funds are for cross fencing to divide grazing areas and promote rotational grazing. Research and check with these entities to see if you can offset the cost of a fencing project before beginning.



Proper repairs can ensure the integrity of the fence wire.
Upper Left -Splicing clip, Upper Right-“Western Union” splice
Other repair techniques can create future issues.
Bottom Left – twisting clip puts bends in the wire
Bottom Right – looped wires create a bend in the wire



HORTICULTURE

Attracting Birds to Your Landscape **Linda Langelo, Area Horticulture Specialist**

Birds have different niches in which each family of birds needs shelter and food. The key to developing great habitats for birds is to have a diversity of specific plants for the types of birds that visit your yard. It doesn't require scrapping what you already have in your landscape. It just means adding a tree or shrub(s) or herbaceous perennials.

Besides adding plants to your landscape, the more bugs, the more birds as author Sally Roth states in her book *Bird-By-Bird Gardening*. This means pesticides that kill bugs, kill birds. The American Robin eats caterpillars and feeds off insects that nest in the furrow of the tree bark. Who eats aphids? Tiny chickadees do while cicadas are a meal for big-beaked cardinals. Swallows eat gnats and airborne insects but won't eat grasshoppers or cicadas. Here are some other birds that feed on insects:

1)Woodpecker 2) Flycatcher 3)Swallow 4)Waxwing 5)Vireo 6)Nuthatch 7)Wren 8)Warbler 9)Tanager 10)Thrush

If you add annuals to your landscape such as zinnias, bachelor buttons, and impatiens they will provide seed for sparrows, meadowlarks, grosbeaks, and more. Trees such as Abies spp, Pinus spp, and other conifers provide seed for birds.

Trees such as hawthorn, oak, Rocky Mountain juniper, Austrian and pinyon pines, spruces, firs, hackberries, plums, and flowering crabapples provide both food and shelter for the birds. Shrubs that provide food and cover include honeysuckles, snowberries, red and yellow twig dogwoods, sumacs, serviceberries, chokecherries, and a wide variety of shrubby plums according to Planttalk.colostate.edu.

To appeal to a larger number of birds from different families, plants such as blackberries, raspberries, elderberries, cherries, prickly pear cholla cactus, bayberry, and mulberry appeal across many bird families. Of course, there are plants such as the prickly pear and cholla cactus that are not appealing to certain landscapes. Prickly pears can overrun a field and become challenging to control.

For those who are interested in using more native plants in your landscape, here is a link for the Denver Audubon Society: <https://www.denveraudubon.org/wp-content/uploads/2019/08/Native-Plants-for-Birds-Final.pdf>. This link gives the plant care information and the birds that are attracted to the plant. For example, Black-eyed Susan provides seeds for the birds and brings in pollinators. It lists Waxwings, orioles, nuthatches, warblers, wrens, thrushes, jays, and chickadees that feed on the seed.

This is a broad topic with a great deal to cover and learn. Starting with a few plants and adding more over time can create appeal for birds, butterflies, and many other pollinators.

Vegetable Gardening

Linda Langelo, Area Horticulture Specialist

Are you champing at the bit to get started with the vegetable garden? Don't be too anxious. When was the last time you did a soil test of your vegetable garden soil? If you haven't had it done for several years, this is a good time to do it. Then you will know what elements are needed to keep your plants healthy.

Then, be sure you know the frost-free date in your area. Go to this link:

<https://www.weather.gov/wrh/climate> and then go to select location inside a blue box and then go to select first/last dates. These are the first and last freeze dates. Last year in Holyoke, the frost-free dates were May 2, 2023, and October 7, 2023.

Be sure to prepare the ground when it is not too wet or too dry. If it should rain or snow wait a couple of days after to till the garden. The moisture level will be just right when the soil crumbles in your hand. If it stays in a clump, do not till. Once you have tilled then rake or spade the surface into an even surface.

Follow the appropriate temperatures of soil and air for both cool-season and warm-season crops. Cool-season crops like cold soil and mature with cool weather and short periods of daylight. The minimum soil temperature would be 40 degrees Fahrenheit to 70 degrees Fahrenheit. The minimum air temperature would be 40 degrees Fahrenheit for daytime to 60-80 degrees. The warm season crops require 60 degrees Fahrenheit for soil temperature. The air temperature needs to be between 65-85 degrees Fahrenheit.

If you purchase transplants, then be sure to place them outside for a week in a similar location to where they will be planted with some protection to harden them off before placing them directly in the ground. Do not attempt to grow beets, carrots, or radishes as transplants, but direct sowing is best. Also do the same with squash, zucchini, watermelon, cantaloupe, or pumpkins. They do not like their roots disturbed. If you do buy them in a biodegradable pot where the roots won't get disturbed, then they should be fine.

Good luck! If you want to purchase some protection for your crops such as hail screen, it is expensive, but good hail screen can last for years.

CSGA –NEW DATABASE TRAINING- SMALL GRAINS

WHEN

Thursday, April 18, 2024

9:00 a.m.—1:00 p.m.

WHERE-Burlington

**Kit Carson County Extension
Office/ 817 15th St.**

Burlington CO 80807

RSVP by April 15

WHEN

Wednesday, April 24, 2024

12:00 p.m. —4:00 p.m.

WHERE— Akron

**Washington County Event Center
551 W. 2nd St.**

Arkon, CO 80720

RSVP by April 19

CHOOSE THE DATE!

LUNCH PROVIDED

RSVP Necessary

linda.munk@colostate.edu

LEARN HOW TO USE THE NEW DATABASE

**Laura, Barry and Linda will
be providing hands-on
assistance and training**

**All 2024 field appli-
cations will be en-
tered and submitted
online— we're going
paperless!**

WHAT TO BRING?

**Lap top computer (a limited
number of lap tops will be avail-
able)**

Planting data/field records

**Seed labels (electronically
scanned)**

CAN'T MAKE IT?

**Trainings will be recorded and
made available on the CSGA
website**

**Additional online live trainings
via TEAMS will be held in May
focusing on all crops**