

WHAT PRODUCERS SHOULD BE THINKING ABOUT IN DECEMBER...

BEEF -- *Tips by Dale Blasi, Extension Beef Specialist*

Cow herd management for spring-calving cows

- ☑ In late fall and early winter, start feeding supplement to mature cows using these guidelines:
 - Dry grass — 1-2 pounds (lb.) per day of a 40% crude protein (CP) supplement
 - Dry grass — 3-4 lb. per day of a 20% CP supplement
 - Dry grass — 10 lb. good nonlegume hay, no supplement needed
- ☑ Compare supplements based on cost per pound of nutrient.
- ☑ Utilize crop residues.
- ☑ Strip-graze or rotate cattle to improve grazing efficiency.
- ☑ Cows in average body condition can be grazed at 1-2 acres per cow for 30 days, assuming normal weather. Available forage is directly related to grain production levels.
- ☑ Limiting nutrients are usually rumen degradable protein, trace minerals and vitamin A.
- ☑ Control lice.

General management

- ☑ Document your cost of production by participating in Standardized Performance Analysis (SPA) programs.
- ☑ Review management decisions; lower your costs per unit of production.
- ☑ Check your financial management plan and make appropriate adjustments before the end of the year.

Crop residues: Nutritive value and options for grazing

The five-year average of corn acres harvested reported by NASS leads to an estimate of approximately 5.5 million acres of corn and 200,000 tons of residue produced annually in Kansas. In addition, 2.8 million acres of grain sorghum and 70,000 tons of residue were produced. While not all acres are suitable for grazing, this represents a tremendous resource for the state. Residue yield and nutrient contents are dependent on grain yield, fertility, harvest date, and conditions at harvest. Nutrient content of residues is additionally impacted by duration and timing of grazing initiation.



Figure 1. Cattle grazing crop residue. Photo submitted by Sandy Johnson, K-State Research and Extension.

The amount of grain left in the field has been reduced considerably compared to historical levels through varietal and harvest equipment improvements. However, weather conditions can result in significant ear drop or plant lodging. Before grazing, scout fields to look for piles of grain on the ground and determine if there is over 8-10 bushels of grain on the ground. If so, management steps should be taken to remove these piles prior to turning out cattle on the residue. Directions to estimate ear drop and head drop can be found [here](#). While sorghum grain is always processed prior to feeding to crack its tough shell coat, cattle can still founder on downed grain sorghum heads.

Nutritive value of corn and sorghum residues

A [nutritional evaluation of grazed Kansas corn and sorghum crop residues](#) was conducted with the help of numerous producers and county agents across the state. Table 1 summarizes values from that survey.

Table 1. Range of crude protein (CP), acid detergent fiber (ADF; higher values reflect lower digestibility), neutral detergent fiber (NDF; higher values reflect animal intake), and total digestible nutrients (TDN) in corn and sorghum residue from Kansas samples.

	Leaves				Stem			
	CP	ADF	NDF	TDN	CP	ADF	NDF	TDN
Corn Nov.	4.6 – 6.0	46.7 – 48.2	75.6 - 81	51- 52	3.3 - 4.4	55.9 – 60.6	79.0 – 79.7	41 - 45
Corn Dec.	4.9 – 5.7	48.4 – 53.5	75.2 - 77.3	47 - 51	3.9 - 4.6	55.3 – 59.1	78.7 – 80.3	42 - 45
Sorghum	8.3 – 11.7	40.3 – 46.1	58.5 – 65.7	53 - 57	5.3 - 4.9	46.3 – 50.4	66.2 -73.5	49 - 52

A more detailed look at plant components indicate any grain available would have the highest CP content followed by the leaves. The cob has the lowest protein and energy value. The stalk and husks have similar crude protein content, but more energy is available from the husks than the stalks due to the lower lignin content. In general, leaves from sorghum residue have higher CP content than corn leaves. The stalks of corn and sorghum are similar in CP, but digestibility is somewhat higher in sorghum than corn. More details on nutrient concentrations of crop residues can be viewed in this [UNL publication](#).

Duration of grazing

To ensure adequate residue remains on the field after grazing, we can use animal weight and grain yield to determine the amount of grazing available. Cattle will readily remove approximately 15% of the residue (leaves and husk), but can be forced to remove more if desired. The goal should be to leave at least ½ of the total amount of residue on the field.

If an irrigated corn yield is 180 bu/acre, a rule of thumb is to divide by 3.5 to get grazing days for a 1200-pound cow. In this case, 180 bu/acre corn residue should provide approximately 51 days of grazing ($180/3.5 = 51$) for a 1200 lb cow. The harvest index (grain production/total biomass) is similar for both corn and grain sorghum (1.6%). So, an 85 bus/acre dryland sorghum divided by 3.5, would provide approximately 24 days of grazing ($85/3.5 = 24$). A lactating cow or a heavier cow will consume more dry matter and the days of grazing would be adjusted downward. A [spreadsheet](#) is available to calculate stocking rate based on animal body weight and grain yield.

Selective grazing

Cattle will selectively graze the crop residue, eating the highest quality portions first, grain then leaves and husks. Depending on the stalking rate, amount of grain available, and nutrient demands of the cows, no energy or protein supplementation may be needed early in the grazing period for dry cows with a body condition score of 5 or more and grazing as described above. Weathering and trampling will decrease quality over time and this loss is greater with moisture and high humidity.

Soil compaction considerations

Cattle will cause soil compaction in paths leading to and around a water source. These compacted areas will only be surface compaction in the top 2-inches of soil. These compacted areas can be remedied by shallow tillage. Results on soil compaction from

grazing have shown mixed results. A study near Bushland, TX found surface compaction in a no-till system reduced crop yield after several years of grazing. While grazing studies from Nebraska found no increase in compaction and increased crop yield. Studies from western Kansas found compaction to only occur in the top two inches when grazing occurred on wet soils and shallow tillage removed any compaction. Compaction will be less on frozen, dry, sandy soils. It is best to remove cattle from the field to a nearby perennial pasture if the field is wet and not frozen. Also, the producer should be open to using shallow tillage should compaction occur.

Nutrient removal from grazing

Another common concern about grazing residue is nutrient removal. Nutrient removal will vary by the type of animal, with a growing calf requiring more nitrogen than a mature dry cow. Dry cows will typically be used to graze residue, which will remove between 1 and 2 lbs of N per acre (depending on crop yield) and few other nutrients. Crop residue is low in phosphorus (P); thus, producers will likely supply a free-choice mineral, resulting in an increase in the amount of P and calcium left in the field. Wind will blow leaves and husks off fields, but manure remains in place.

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HORTICULTURE REMINDERS

1. Take a soil test and make needed adjustments this fall.
2. Till fallen tree leaves into garden beds
3. If there are spring-flowering bulbs that you forgot to plant, plant them now. Don't wait until spring.
4. Plan out next year's vegetable garden so that crops are rotated.
5. Be sure lawn irrigation lines are drained.

Poinsettia Care

Modern poinsettia varieties stay attractive for a long time if given proper care. Place your poinsettia in a sunny window or the brightest area of the room, but don't let it touch cold window panes. The day temperature should be 65 to 75 degrees F. with 60 to 65 degrees at night. Temperatures above 75 degrees will shorten bloom life, and below 60 degrees may cause root rot. Move plants away from drafty windows at night or draw drapes between them to avoid damage from the cold.

Poinsettias are somewhat finicky in regard to soil moisture. Avoid overwatering because poinsettias do not like "wet feet." On the other hand, if the plant is allowed to wilt, it will drop some leaves. So how do you maintain proper moisture? Examine the potting soil daily by sticking your finger about one-half inch deep into the soil. If it is dry to this depth, the plant needs water. When it becomes dry to the touch, water the plant with

lukewarm water until some water runs out of the drainage hole, then discard the drainage water. (Ward Upham)

Are Poinsettias Poisonous?

Though there may be an allergic reaction to the milky sap, there has never been a recorded case of poisoning. This rumor has been so persistent that members of the Society of American Florists have sought to dispel it by eating poinsettia leaves for the press.

The AMA Handbook of Poisonous and Injurious Plants states that the poinsettia "has been found to produce either no effect (orally or topically) or occasional cases of vomiting. This plant does not contain the irritant diterpenes" which is the toxin in other members of the genus Euphorbia to which poinsettia belongs. (Ward Upham)

Ashes in the Garden

You may have heard that using wood ashes on your garden can help make the soil more fertile. Though ashes do contain significant amounts of potash, they contain little phosphate and no nitrogen. Most Kansas soils are naturally high in potash and do not need more. Also, wood ashes will raise the pH of our soils, often a drawback in Kansas where soils tend toward high pH anyway. Therefore, wood ashes add little benefit, and may harm, many Kansas soils. In most cases it is best to get rid of them. (Ward Upham)

Storing Power Equipment for the Winter

Late fall or early winter is a good time to service power equipment such as mowers, tillers and garden tractors. Run the equipment out of gas or treat the existing gas with a stabilizer as untreated gas can deteriorate over time. If using a stabilizer, run the engine long enough for untreated gas in the carburetor bowl to be burned and replaced. This is also a good time to replace the oil (and filter, if present) since the engine is warm. Check and replace the spark plug if necessary. Some gardeners will also apply a light, sprayable oil into the cylinder through the spark plug hole. Check and clean air filters and replace if necessary. Many mowers and tillers will have a foam prefilter that can become filthy with use. If allowed to become too dirty, engines will run poorly or may not run at all.

Sharpen blades, clean tines, tighten screws, replace broken parts and do all the other things needed to keep equipment in good shape. Though such maintenance takes some time and effort, it pays for itself by reducing frustration and lost time due to poorly performing equipment during a hectic spring. (Ward Upham)

Why Do Houseplants Lose Leaves After Being Brought Inside?

Newly bought houseplants or those brought in from outside often lose at least a portion of their leaves. In order to understand why this occurs, we need to look at how these plants are grown and what the plant needs to do to adapt to its new environment. Houseplants are normally produced either under shade outdoors in southern states or in greenhouses. Also, many homeowners move their houseplants outside during the summer. Regardless, the plants receive much more sunlight than they do in an indoor environment. Research done in Florida in the late 1970s revealed that tropical plants grown under high

light conditions produce 'sun leaves' while those grown under low light conditions have 'shade leaves.' These leaf types differ structurally in that sun leaves have less chlorophyll (the substance that plants use to convert sunlight to energy) and the chlorophyll that is present is located deeper inside the leaf. Sun leaves also tend to be thick, small and numerous while shade leaves are more thin, larger, and fewer in number. When plants are moved from one light condition to another they need time to adjust. This process is known as acclimatization. If they are forced to acclimatize too quickly, they will drop their sun leaves and produce a new set of shade leaves. If the acclimatization process is slower and less drastic, the plant can convert their sun leaves to the shade leaves that do better under low light. If going from shade to sun, this process is reversed.

Some houseplants are acclimatized before they are sold but many are not. So how do we help our new houseplants or those moved inside acclimatize to their new home environment? Houseplants should start out in an area of the home that receives plenty of light and then gradually moved to their permanent, darker location. This process should take 4 to 8 weeks depending on the degree of difference in light levels between the initial and final location of the plant. Remember, plants need to be acclimatized whether they are moved from a sunny location to one that receives less light or from shade to sun. Understanding plant processes allows us to anticipate potential problems. Acclimatization gives our houseplants a greater chance of retaining leaves and avoiding the stress of completely replacing them. (Ward Upham)

Dormant Seeding of Turfgrass

The best time to seed cool-season grasses such as tall fescue and Kentucky bluegrass is September because the turf has more time to mature before spring crabgrass germination and the heat stress of summer. Dormant seeding of turfgrass is sometimes used to help fill in bare spots of lawns that weren't overseeded in the fall. Dormant overseeding is done during the winter (December – February) when it is much too cold for germination.

As with any seeding program, good seed-soil contact is vital. Several methods can be used. One method is to seed when there has been a light snowfall of up to an inch. This is shallow enough that bare spots can still be seen. Spread seed by hand on areas that need thickening up. As the snow melts, it brings the seed into good contact with the soil where it will germinate in the spring.

Another method is dependent on the surface of the soil being moist followed by freezing weather. As moist soil freezes and thaws, small pockets are formed on the wet, bare soil that is perfect for catching and holding seed. As the soil dries, the pockets collapse and cover the seed. A third method involves core aerating, verticutting or hand raking and broadcasting seed immediately after. Of course, the soil must be dry enough and unfrozen for this to be practical. With any of the above methods, seed germinates in the spring as early as possible. There will be limitations on what herbicides can be used for weed control. Dithiopyr, found in Hi-Yield Turf and Ornamental Weed and Grass Stopper and Bonide Crabgrass & Weed Preventer, can be used on tall fescue, Kentucky bluegrass, and perennial ryegrass two weeks after germination. Other homeowner preemergence

herbicides available to homeowners require that the turf be well established before application. (Ward Upham)

What is the "Wild" Shrub with the Bright Red Berries?

People in the eastern third of the state have been reporting shrubs with bright red berries growing wild. The berries are clustered around the stem and the leaves are still a bright green color. These are likely one of two species of bush honeysuckle, (Amur or Tartarian), which can get 6-20 feet tall. This landscape shrub has become a serious understory invasive throughout the midwest from eastern Kansas to Ohio. Many states have it on their noxious weeds list. All of our native honeysuckles are vines, similar to the vining Japanese honeysuckle. Bush honeysuckles are also noticeable in the spring as they put out leaves much earlier than most other trees and shrubs. Leaves also stay green much later into the fall. This long growing season gives it a competitive advantage over other native species, and the vigorous growth can take over a woodland understory, reducing the number of native woodland wildflowers and other shrubs. If you want to promote native species on your property, then controlling bush honeysuckles is needed.

Honeysuckle seedlings can be readily hand pulled when the soil is damp. Chemical control is needed for larger infestations, as cutting alone results in vigorous resprouting. Foliar applications of glyphosate (i.e., Roundup) in late summer and fall works well as does applications of Crossbow (2,4-D + triclopyr).

Treating cut stumps with concentrated (20% - 50%) glyphosate is also quite effective. Several studies have shown basal spraying with triclopyr (Garlon) not to be effective, while basal applications with 2,4-D or picloram products work well, using an oil carrier to penetrate the bark. Cut stump and basal treatments can be done when the areas to be sprayed are dry and not frozen. Please follow all label instructions when using pesticides. (Charlie Barden and Ward Upham)

Compost Pile Maintenance

Compost piles should be turned about once per month even during the winter months. This will ensure the composting process continues and that all materials are equally composted. A compost pile is "turned" when uncomposted material is moved from the sides and tops of the pile to the center where it provides "fuel" for the microorganisms that break it down. Water may need to be added if the material you move to the center is dry. Check the moisture content by squeezing a fistful in your hand. It should feel moist but no excess water should drip out. Compress the material in the pile as best you can as excess air can slow the composting process. (Ward Upham)

Poor Drainage in Garden Areas

Winter is often a good time to fix areas in the garden where water sits and does not drain properly. Such areas often harm plant roots due to poor oxygen levels in the soil. Consider adding good topsoil so water doesn't sit. Be sure to till or spade the area to mix the new topsoil and the underlying existing soil. Plant roots do not like to cross distinct barriers caused by one type of soil sitting on top of another. Internal drainage can be

improved by adding organic matter such as peat moss, rotted hay, cotton burrs, rotted silage, tree leaves or compost. This can be done by adding a 2- to 4- inch layer of organic matter to the surface of the soil and tilling or spading in as deeply as possible. (Ward Upham)

Champion Trees of Kansas

The Kansas Champion Tree Program maintains a searchable database of the largest trees in Kansas so they can be identified, preserved, and enjoyed by all. The majority of trees listed are native to the state, though a few non-native species are also included.

Help is needed to locate, document, and preserve outstanding trees in Kansas. Kansans are invited to nominate potential champion trees by completing our online nomination form. Nominations will be measured by a Champion Tree Program official and results shared with the nominator.

Nominations are judged on a point system established by the American Forests National Register of Big Trees. One point is awarded for each inch of circumference, one point per foot of height and one-fourth point per foot of crown spread.

See https://www.kansasforests.org/kansas_forest_services/championtrees.html for more information including links to a listing of current champions, a nomination form and a map showing the location of specific trees.

For additional information about the Kansas Champion Tree Program, please contact the Darci Paull, GIS Specialist and Kansas Champion Tree Program Coordinator. (Information was taken from the Kansas Forest Service website listed above).

Building Plans

If you have ever wanted building plans for structures such as cold frames, hotbeds, propagation frames, vegetable cellars, greenhouse benches, fruit driers, cisterns, etc., you may want to look at plans developed by the USDA. North Dakota State University has a site where you can download the plan you want. Most plans related to horticulture are listed under "Crops" and "Miscellaneous." Notice that these plans were developed from the 1920s through the 1980s and may not meet modern codes and regulations. Pay special attention to the disclaimer. The Web site is: <https://www.ag.ndsu.edu/extension-aben/buildingplans/>. (Ward Upham)