

River Valley District

K-STATE RESEARCH AND EXTENSION NEWS

rivervalley.ksu.edu

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Extension District

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EXTENSION OFFICES DOORS LOCKED TO LIMIT EXPOSURE—STILL AVAILABLE TO ASSIST

As COVID-19 cases and quarantines are rapidly increasing in our area, the River Valley Extension District has locked their entry doors at this time to limit exposure to our community members and extension staff.

Extension staff members are still working in the offices and can assist as needed. We ask that you make an appointment for any in-person assistance. If in-person assistance is necessary, masks and social distancing will be required.

Please call our offices to discuss available options for our extension staff to assist you with your needs. Our four offices are Belleville 785-527-5084, Clay Center 785-632-5335, Concordia 785-243-8185, and Washington 785-325-2121.

Thank you for your patience as we continue to provide answers to your questions while protecting our community members and staff.

IS YOUR REFRIGERATOR RUNNING?

We have all heard the joke, “Is your refrigerator running? Then you better go catch it!” On a more serious note, I would like to focus on your garage or shed refrigerator that has your animal health products in them. Many cattle producers have a refrigerator that they use to store animal health products, such as vaccines or antibiotics. Often, this refrigerator has been demoted from the house to the garage or shed. There may not be anything wrong with this refrigerator, but we need to be sure.

Purchasing a cheap thermometer that records the high and low temperature is a good investment. One thing to consider is if the refrigerator will be in a climate-controlled environment. If not, then we need to be aware that it will be working overtime in the summer and potentially not keeping up. Also, refrigerators do not keep things from freezing. If the room temperature outside of the refrigerator is below freezing, then we should not keep animal health products in that unit.

There have been two studies done on random refrigerators that stored animal health products. The first was done at the University of Nevada. They tested refrigerators at 20 ranches and 4 feed stores. Of the refrigerators tested, 25% of them failed to maintain vaccines in the safe zone of 35° to 45°F. The second study was done at the University of Arkansas. This study tested 180 refrigerators. Forty-five of the 180 refrigerator were only at the proper temperature 5% of the time. They determined that 76% of the refrigerators were unacceptable for storing animal health products.

One thing we need to be sure of is that we store products at the proper temperature. All products will have printed on the label what temperature they should be stored. As a rule of thumb, vaccines will typically need to be refrigerated between 35° and 45°F. Antibiotic are usually stored at room temperature between 68° and 77°F. However, do not assume one way or the other. Read the label to be sure.

We spend a lot of money on our animal health products that work great for preventing and treating disease. We need make sure that the efficacy of these products in not compromised by the way we handle them once they are in our possession. Keep them stored properly until we are ready use them.

TROUBLESHOOTING POOR REPRODUCTIVE PERFORMANCE IN COWS

By: Sandy Johnson, extension beef specialist, Colby and Gregg Hanzlicek, DVM, Veterinary Diagnostic Lab

When the number of cows pregnant is far below expectations, poor reproductive performance by both cows and bulls must be considered. Keep in mind that in some cases multiple issues may contribute. This article will focus on the female and highlight questions that are typically asked when troubleshooting low pregnancy rates.

The most common reason for poor pregnancy outcomes is related to nutrition. Heifers may not have achieved sufficient growth in time for breeding and cows may not have the needed energy reserves to resume normal cycles and rebreed. A number of disease issues can occur that impact pregnancy rate and the nutrient status of the female will impact her ability to withstand the challenge or develop immunity in response to vaccination.

Did females achieve an appropriate weight and body condition by the time of calving? Bred heifers should reach 85% of mature weight by first calving in a body condition of 5.5 to 6. For raised replacements, weight of mature cows should be known. In other cases, estimates should be realistic. Replacement heifers should be weighed and body condition scored periodically to monitor progress towards weight and condition targets.

Mature cows need to gain about 150 pounds in weight of the fetus and fluids before calving and should be in a body condition score of 5 at calving. Adequate body condition at calving is considered paramount to successful re-breeding. Given the quality of typical feed resources and the level of milk production in the US cow herd, meeting total energy demand for milk production with enough left over to increase body condition is extremely challenging. A positive energy balance is needed to end postpartum anestrus. If the environment is such that the cows lose condition after calving, they must have enough condition so they can lose some weight and still cycle and rebreed in a timely fashion.

This emphasizes the importance of monitoring body condition year-round to avoid the need to add body condition when nutrient demands are high and considerable high energy supplementation is needed to improve cow condition. Too often this gap is not filled and low pregnancy rates result. In extreme cases, calving time brings weak calves, poor colostrum and low milk production. A number of resources are available to learn how to body condition score and track changes through the year. See...[Guide to Body Condition Scoring in Cows and Bulls](#), [Body Condition Score Card](#), [Body Condition Scoring Record Book](#). Extended and unexpectedly harsh winter weather conditions can catch producers with a bigger energy drain than normal feedstuffs can address. Failure to make adequate adjustments will show up in reduced pregnancy rates and in extreme cases, mortalities.

Were feedstuffs analyzed for nutrient content and rations balanced accordingly? Maintaining necessary body condition requires accurate information on the quality of feedstuffs so any deficiencies can be met. The use of “book values” to balance rations has been the cause of more than one instance of poor pregnancy performance.

Do you know how much cows weigh and use this to determine stocking rates and feed delivered? Weight of the animal is a major determinant of how much an animal eats. Pastures should be stocked by weight rather than number. Historical stocking rates may not reflect current mature cow size. If actual weights are not available, weight of cull animals adjusting for condition can help with estimates.

When was the poor reproductive performance noted? Often both late term abortions and weak calves are observed in the same herd simultaneously if vitamin or trace mineral imbalances are a factor. Vitamin and mineral imbalances may contribute to lowered reproductive performance, however, overall protein and energy status are more likely to explain a large number of open females. A large number of cows cycling late in the breeding season or after the end of the breeding season often point to a disease issue such as *Trichomonas*.

Were more open females observed in any particular age or management group? Because they are still growing and experience more calving difficulty, young cows often represent the largest share of opens. Females that are still growing have different nutrient demands than mature cows and because of size may not be able to get their share of supplied nutrients if managed as a group.

Did open 2-year-olds calve early or late in relationship to contemporaries? Heifers that conceive in the first 2 cycles of their first breeding season are in the best position to rebreed in a timely manner in subsequent seasons and remain in the herd longer.

What biosecurity practices are in place? Quarantine all purchases and don't buy used cows less than 120 days pregnant to avoid *Trichomonas*. If a neighboring herd has no biosecurity (trades cows) some type of set back fence may be needed to prevent close contact.

Are females vaccinated appropriately for your location and disease challenges? Typically, annual vaccinations should include IBR, BVD, *Campylobacter* (*Vibro*) and *Lepto*. Consult with your local veterinarian on use of killed and modified-live vaccines and timing to avoid causing abortions.

Continued on page 3

Was the breeding season length appropriate? In a well-managed herd, a 60-day breeding season should allow a pregnancy rate of 90% or greater. If something unexpected happens to reduce the number of cows pregnant in the first cycle of a shorter breeding season, the risk for a poor pregnancy outcome is greater than with a longer breeding season when there is more time for those cows to conceive. Ways to maintain a relatively shorter calving season and minimize risk of a poor pregnancy outcome include an early pregnancy check (30-45 days into the season) with the potential to extend the breeding season or leaving bulls out longer and pregnancy checking early enough to stage pregnancies. Consideration could be given to retaining some late bred females if the early response was poor. The down side of the early pregnancy diagnosis is the need to reconfirm pregnancy because of the normal attrition at that stage. The goal should be a tight calving season and optimizing returns from opens or late bred cows that don't fit the production system.

Shortening a very long breeding season (>100 days) with a number of gradual steps can result in higher pregnancy rates than previously experienced with extended breeding periods. If cows have poor body condition at calving, and nutrition is of marginal quality or quantity post calving, a short breeding season will typically be disappointing. Mature cows in good body condition take 45-55 days to resume normal cycles after calving, young and thin cows often take twice this amount of time. This information combined with what we know about early embryonic loss can be used to project when and how many cows will become pregnant in the subsequent season. Some producers elect to use a very short breeding season to select heifer replacements. If doing so, be realistic about how many are cycling before the start of the breeding season and will get pregnant the first cycle. If you want to give most heifers a second chance to conceive, recognize that return heats from a synchronized estrus will come over an 8 to 10-day period or more.

Was the bull:female ratio appropriate for the situation? For bulls under 24 months of age, the general rule of thumb is one cow per month of age of the bull. Mature bulls can be placed with 25 – 30 cows depending on pasture size. This ratio can become functionally altered if a bull gets sick or injured. If the “right” bull is injured, there may be very little impact, but disastrous if the “wrong” bull is injured. A literature summary of bull:female ratios used after ovulation was synchronized and all cows were fixed-time inseminated on the first day of the breeding season found similar season long pregnancy rates for ratios of 1:25-30 or 1:40-50 (assume 50% pregnant to AI and 50% of cows remain for natural service). Those inexperienced with AI or reason to fear a poor AI response may want to take a more conservative approach. Studies of use of natural service with estrus synchronization have shown normal bull to cow ratios (1:25-30, not extensive pasture size) can be used successfully with mature bulls. This supports the idea that return heats after successful synchronization and AI do not require additional bull coverage. However, in both cases, activity should be monitored closely in case of bull injury. Too many bulls may be counterproductive in the case of inexperienced yearling bulls covering a synchronized estrus or cycle after a synchronized estrus.

Were there any weaknesses in an estrus synchronization and AI program? The goal of an AI program is to get lots of cows pregnant on the first day of the breeding season to the desired genetics. There are many details that must be in place for a successful AI program and the results will be no better than the weakest of these. See the publication [Tips for a Successful Estrus Synchronization and AI Program](#) and other materials at www.beefrepro.org. When the AI program has a poor response, it will have trickle down impacts on the natural service season. At minimum it delays rebreeding. If the estrous response of the females is low, expect a poorer outcome and adjust the number of natural service sires or length of breeding season. Several good options are available to synchronize estrus and ovulation and are identified in resources provided by the Beef Reproduction Task Force at beefrepro.org. Numerous failures in synchronization protocols come from being fooled into using something not on this list or attempts to modify protocols without fully understanding the physiology.

Reproduction drives profitability in cow/calf enterprises. The use of this guide should help troubleshoot and avoid common problems with low pregnancy rates.

VIRTUAL CROP PEST MANAGEMENT SCHOOL

December 8 & 10, 2020

Register by December 6th at www.northwest.k-state.edu/events/crop-pest-management-school

Credits Available:

Commercial Applicators - 7 credits for 1A and 1 Core Hour

Certified Crop Advisors - 8 Crop Pest Management Credits

Attendees must be present for the entire 50-minute presentation to receive one recertification credit. During the training, you will be asked to answer poll questions or provide additional information. Participants are required to respond to these requests to verify attendance and receive credit for that session.

Contact Rebecca Zach, Crop Production Agent with questions at 785-527-5084 or zrebecca@ksu.edu.

Extension Offices closed for the Holidays

River Valley Extension District Offices will be closed Thursday, December 24th through Friday, January 1st for the Holidays!



We will resume normal business hours on Monday, January 4th.

We hope you have a blessed holiday season!

FORAGE SAMPLE RESULTS

Getting a feed analysis on forages is important to determine the feed quality. When you get an analysis done, the most basic values you will get are dry matter, NDF, ADF, crude protein, and TDN. To me, the most important of all these values is the dry matter. It is also the easiest value to get. If you have a scale and an oven, you can calculate the dry matter. Weigh out a small amount of the forage (I refer to this as the “as-is basis”) and put it in the oven at a low temperature (we don’t want to cook it, just dry it out). Make sure you weigh the container first (aluminum tins work great for this). Once it is dry, weight it again and subtract the weight of the container. Take the dry weight divided by the as-is weight. If the as-is weight was 100 grams and the dry weight was 90 grams, then the dry matter is 90% on a dry matter basis ($90/100=.90$). Cattle will drink less if the ration has higher moisture content and visa versa. Therefore, all rations should be formulated on a dry matter basis.

The next two part of a feed analysis is the NDF and the ADF. These two cannot be calculated at home like the dry matter. NDF stands for neutral detergent fiber and ADF stands for acid detergent fiber. To get these two parts of a forage sample, they get washed with two different solutions. One sample gets washed with a neutral detergent solution and the other with an acid detergent solution. NDF will contain three fiber portions, hemicellulose, cellulose, and lignin. ADF will contain just two fiber portions, cellulose, and lignin. Figure 1 shows the detergent fiber system. Figure 2 shows the digestibility of these parts. The far right end is lignin which is virtually indigestible.

Figure 1. Detergent Fiber System

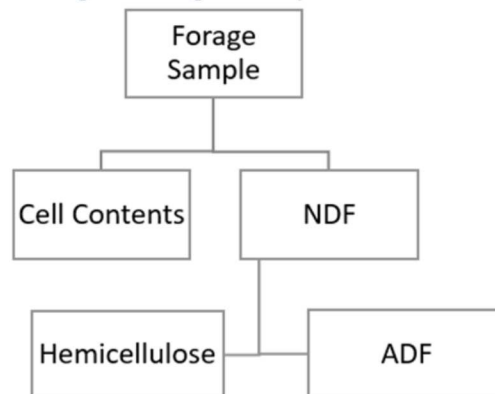


Figure 2. Forage Parts Digestibility from Most to Least



NDF and ADF are also indicators of how digestible a forage is. A forage with high NDF and ADF values are less digestible and provide less nutrients to the animal. Two extreme examples of this would be wheat straw compared to first cutting alfalfa that is cut at early bloom stage.

Wheat straw will have about 75% NDF and 50% ADF and the early bloom alfalfa will be about 45% NDF and 35% ADF.

Total digestible nutrients (TDN) is a term that is self-explanatory. It is the sum of the digestible fiber, protein, lipid, and carbohydrates in the forage. Many times, it is calculated using ADF. This can be used in beef cow rations that are high in roughage. If you are formulating a finishing ration, using the net energy system is more appropriate.

The last note to make is on RFV (relative feed value) and RFQ (relative feed quality). These two values are not used to formulate rations. They are a prediction of the feeding value a forage has. In fact, RFV should only be used to compare legume hays such as alfalfa. Keep these things in mind when you are putting a ration together. It will help keep your animals on track for the gains that you are targeting, or the body condition score you want to obtain.

FREE SOYBEAN CYST NEMATODE SAMPLING

After harvest is an excellent time to soil sample for the soybean cyst nematode (SCN), which is a plant-parasitic roundworm. Currently, 58 of Kansas’s 105 counties are known to be infested. In those counties, SCN tended to start in fields located next to a river. In fields currently infested, knowing your nematode population numbers is an excellent way to determine if your management plan is working. If numbers are going up, you know that the population of nematodes in your field have overcome the resistance in the most recently planted soybean variety and that use of that variety should be discontinued in infested fields. Many soybeans that offer SCN resistance use the same gene PI88788.

This year, the K-State Plant Disease Diagnostic Lab is offering free soybean cyst nematode testing until September 1, 2021 so fall 2020 or spring 2021 is a good time to monitor SCN populations. The free testing program is part of a grant received from the SCN Coalition. The SCN Coalition is a group of University researchers, extension specialists and agriculture company representatives who are concerned about the evolving threat from soybean cyst nematode. The Coalition is supported in part by Kansas Soybean Checkoff Dollars contributed through the North Central Soybean Research Program and the United Soybean Board.

You can pick up a SCN sampling packet up at each of our RVD Extension Offices. Producers may drop samples off at the RVED Extension Offices to be mailed for the cost of shipping. Producers may also mail samples or drop it off in the drop box on the north side of Throckmorton Hall in Manhattan. Soil samples submitted to the K-State Plant Disease Diagnostic Lab should include your email, county, and field ID. Please mail to the following address:

K-State Plant Disease Diagnostic Lab
4032 Throckmorton Hall PSC, 1712 Claflin Rd
Manhattan, KS 66506

If you have any questions, contact Rebecca Zach in the RVD-Belleuille Office at 785-527-5084 or zrebecca@ksu.edu.

DICAMBA OPTIONS

Labels for XtendiMax, Engenia, and Tavium were granted unconditional Section 3 labels on October 27, 2020. The labels will be effective until 2025. Updated labels for XtendiMax and Engenia, and a preliminary label for Tavium can be accessed by visiting each of the websites below.

	XtendiMax	Engenia	Tavium
Application cutoff	Through June 30 or R1 soybean Through July 30 in cotton	Through June 30 in soybean Through July 30 in cotton	Through June 30 or V4 soybean Through July 30 or 6-leaf cotton
Drift reduction adjuvant	Required, check website for tankmix requirement	Not required, check website for tankmix requirement	Required, check website for tankmix requirements
Volatility reduction agent	Required	Required	Required
Downwind buffer	240 ft (110 ft with approved hooded sprayer)	240 ft (110 ft with approved hooded sprayer)	240 ft (110 ft with approved hooded sprayer)
Forecast	48 hours no runoff producing event	48 hours no runoff producing event	48 hours no runoff producing event
Training	Updated every year	Updated every year	Updated every other year

As before, each company will maintain a website that lists approved hooded/shielded sprayers, spray nozzles, and tank-mix partners. Those websites will be:

XtendiMax): www.xtendimaxapplicationrequirements.com

Engenia: www.engeniatankmix.com

Tavium: www.taviumtankmix.com

The EPA also issued a clarification limiting the use of Special Local Needs (Section 24(c)) labels to add additional state-specific restrictions. At this time, it is unclear if the Kansas Department of Agriculture will seek any modifications to the federal label.

In a recent survey, 56% of producers indicated they will plant dicamba-resistant soybeans in 2021, down from 78% who reported planting dicamba-resistant soybeans in 2020. A potential increase in non-dicamba-tolerant soybeans for 2021 highlights the need for extra care when making in-crop dicamba applications.

POINSETTIA CARE

Poinsettia varieties will stay attractive long into the new year if given proper care. Here are some important tips to keeping your poinsettia thriving long after the holiday season.

Place your poinsettia in a sunny window or the brightest area of the room, but be sure to not let it touch any cold window panes. The day temperature of the room should be 65 to 75°F with 60 to 65°F at night. When temperatures get above 75°F it will shorten the bloom life, and below 60°F may cause root rot. You will want to move plants away from drafty windows at night or close the drapes to avoid damage from the cold.

Poinsettias are finicky in regard to soil moisture. You want to avoid overwatering because poinsettias do not like “wet feet”, which means they don’t like to sit in water. On the other hand, if the plant is too dry and allowed to wilt, it will drop some leaves. So how do you maintain the proper moisture?

You should 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 to be watered with lukewarm water until some water runs out of the drainage holes in the bottom of the pot, then discard the drainage water.

I hope these tips will help keep your poinsettia thriving into the new year. If you have any questions feel free to contact Kelsey Hatesohl in the RVD-Washington office by calling 785-325-2121 or emailing khatesohl@ksu.edu.

GARDEN HOUR HOLIDAY HORTICULTURE

If you want to learn more about how to care for poinsettias, here is a great learning opportunity!

The December session for K-State Garden Hour on Wednesday, December 2nd from Noon to 1 p.m., will be covering poinsettias!

Poinsettias are America’s top-selling potted plant and there is no surprise why! They are the perfect Christmas gift and add beauty to any home.

Cassie Homan, Horticulture Extension Agent in the Post Rock District, will cover tips on how to care for this festive plant.



Join us for Holiday Horticulture! To register for this free event, please go to https://ksu.zoom.us/webinar/register/WN_KtRNpyt3Rcqk40QOOjeM-w or https://hnr.k-state.edu/extension/info-center/k-state-garden-hour-webinar-series/k_state_garden_hour.html for more information.

If you have any questions feel free to contact Kelsey Hatesohl in the RVD-Washington office by calling 785-325-2121 or emailing khatesohl@ksu.edu.

CHOOSING AND CARING FOR YOUR CHRISTMAS TREE

Have you put up your Christmas decorations yet? Are you using an artificial tree or are you selecting a live tree? Here are some helpful tips and tricks to picking out the best, longest lasting live tree.

When choosing an already cut Christmas tree there are a few things you should check to make sure the tree isn't too far gone before purchasing the tree. If the needles on the tree are a dull, grayish-green color or feel stiff and brittle you should not purchase that tree. The needles are telling you the tree has been cut for a while and has lost too much moisture. If the needles pull off the tree easily that is also a sign of too much moisture lost. You want to find a tree that is green and the needles hold strong when you try and pull them off. The needles on a freshly cut tree should ooze a little if you break them apart.

Once you have brought your tree home, you want to recut the trunk. Make a new cut about one inch above the original cut. Making this fresh cut will open up any clogged water-conducting tissues. Once you have made the cut, place the trunk immediately in warm water. This will make sure the tree is taking up water right away – to be nice and green throughout the season.

When deciding on where to place your tree, you want to place it in the coolest spot as possible. I know it can be hard to find the perfect place, that isn't in the middle of the room, but you want to keep it away from as much heat as possible. Avoid places near a fireplace, wood-burning stove, heat duct, and the television set. The heat put off from places like these will cause excess water loss from your tree, causing it to die quicker. To make sure your tree stays healthy you will want to make sure the water reservoir for your tree stays filled. If the reservoir loses enough water to expose the bottom of the trunk you will have to recut the trunk again to expose new tissue.

I hope these tips and tricks will help you keep your Christmas tree green and healthy for the holidays. If you have any questions feel free to contact Kelsey Hatesohl in the RVD-Washington office by calling 785-325-2121 or emailing khatesohl@ksu.edu.

COVER CROP MEETING

Midway District is hosting a virtual meeting via Zoom and Facebook Live on Tuesday, December 1st from 11 a.m. to 1 p.m. on cover crops. Topics will include benefits in both crop and livestock production systems, establishment challenges, utilization in livestock grazing systems, and seed selection.

RSVP is required to receive the Zoom link. Register at www.midway.k-state.edu/events or call Midway-Russell at 785-483-3157 or Midway-Ellsworth at 785-472-4442. After registration is received, a Zoom link will be sent to the email address provided. If you wish to participate via Facebook Live, check out Midway's Facebook page—@midwayksre.

If you have any questions, please contact Rebecca Zach at 785-527-5084 or Brett Melton at 785-243-8185.

CHOOSING A PLANT SAFE ICE MELT

After an icy winter, have you ever noticed the plants around your walkways or driveways looking burnt or there are patches dying out? If so, it's time to look at the deicer you are using and find a more plant safe material to use. Keep in mind deicers can damage concrete surfaces as well as the plants and grass. There are five main materials that are used as chemical deicers; calcium chloride, sodium chloride, potassium chloride, urea, and calcium magnesium acetate.

Calcium chloride is the traditional ice-melting product. Though it will melt ice to approximately -25 degrees F, it will form a slippery/slimy surface on concrete and other hard surfaces. Plants are not likely to be harmed unless excessive amounts are used.

Rock salt is sodium chloride and is the least expensive material available. It is effective to approximately 12 degrees F, but can damage soils, plants and metals.

Potassium chloride can cause serious plant injury when washed or splashed on foliage. It is effective to approximately 25 degrees F. Both calcium chloride and potassium chloride can damage roots of plants.

Urea is a fertilizer that is sometimes used to melt ice. Though it is only about 10% as corrosive as sodium chloride, it can contaminate ground and surface water with nitrates. Urea is effective to approximately 21 degrees F.

Calcium magnesium acetate (CMA), a newer product, is made from dolomitic limestone and acetic acid (the principal compound of vinegar). CMA works differently than the other materials in that it does not form a brine like salt but rather helps prevent snow particles from sticking to each other or the road surface. It has little effect on plant growth or concrete surfaces, and is effective to approximately 20 degrees F.

Limiting amounts and usage of these products will decrease the chance of injury to plants. Problems can occur when they are used excessively and there isn't any rainfall to wash/leach the material away from the area. When applying deicers use them in moderation. Don't over apply to make sure all the ice and snow melts away. These products are meant to help break up the ice so it can be removed, not dissolve it completely. So when using chemical deicers remember to use them in moderation to protect your concrete and your plants. If you have any questions feel free to contact me in the in the Washington office by calling 785-325-2121 or emailing khatesohl@ksu.edu.

CORN SCHOOL

Kansas Corn and K-State Research and Extension will be hosting three corn schools this winter. Corn Schools are free and open to farmers and industry partners.

The closest session to the River Valley District will be on Friday, January 11th from 9am to 2 pm at the Webster Conference Center.

Lunch is provided. RSVPs are required. Register online at <https://kscorn.com/cornschoo/#RegisterforaCornSchool>.



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Winter Crop Meetings

We will be following Covid restrictions with the possibility of a zoom meeting

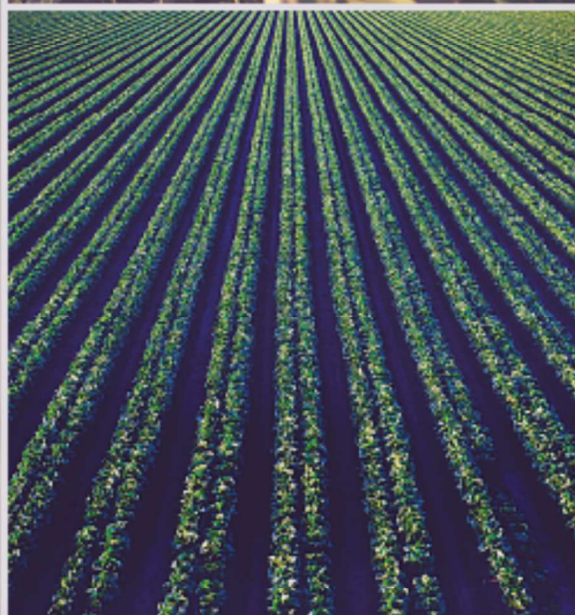
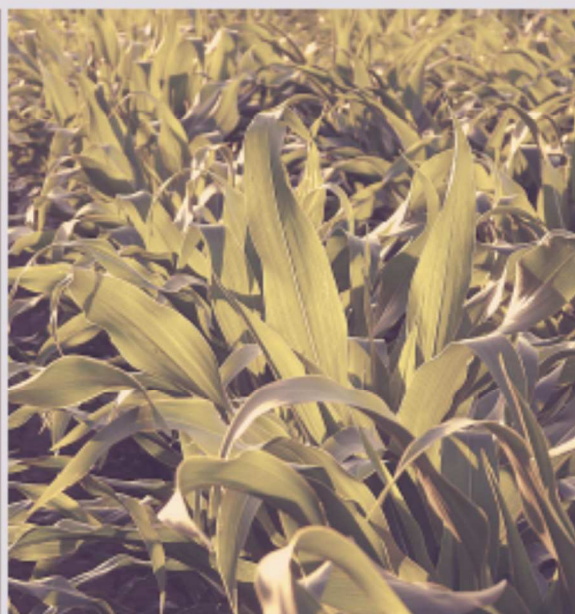
Upcoming Meetings

Lease Survey- January 4th
FNB Washington at 7pm

Soybean School- January
28th Clay Center in the
Methodist Church at
8:30am

"Winning the Game"
Marketing Class- February
9th at the 4-H Building
Belleville Fairgrounds
1-5pm

Soil Fertility- February
23rd at the Hosie Building
Concordia Fairgrounds



Contact Rebecca Zach if you have any questions. 785-541-0283 or email at zrebecca@ksu.edu

K-State Research and Extension is committed to providing equal opportunity for participation in all programs, services and activities. Accommodations for persons with disabilities may be requested by contacting the event contact Rebecca two weeks prior to the start of the event. Requests received after this date will be honored when it is feasible to do so. Kansas State University Agricultural Experiment Station and Cooperative Extension Service K-State Research and Extension is an equal opportunity provider and employer.

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PERMIT NO. 3****Address Service Requested****RIVER VALLEY DISTRICT****“2020-2021 UPCOMING MEETINGS & EVENTS”**

DATE	TIME	PROGRAM	LOCATION
Dec. 1	11-1pm	Cover Crops 101	Virtual—See page 6
Dec. 2	Noon	Holiday Horticulture	Virtual—See page 5
Dec. 8 & 10		Crop Pest Management School	Virtual— See page 3
Dec. 24-Jan. 2		Offices Closed—Holidays	RVED Offices
Jan.4	7pm	RVED Lease Survey Meeting	Washington-FNB Basement—See page 7
Jan. 11	9am-2pm	Corn School	Salina—See page 6
Jan. 28	8:30am	Soybean School	Clay Center-United Methodist Church—See page 7
Feb. 9	1-5pm	“Winning the Game” Marketing Class	Belleville Fairgrounds- 4-H Building—See page 7
Feb. 11-Mar. 25	5pm	Women In Ag	Washington- TBD
Feb. 23	TBD	Soil Fertility	Concordia Fairgrounds-Hosie Building—See page 7