

# River Valley District

## K-STATE RESEARCH AND EXTENSION NEWS

[rivervalley.ksu.edu](http://rivervalley.ksu.edu)

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# K-STATE

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### COVID-19 UPDATE

Aligning with Kansas State University, the River Valley Extension District has a policy requiring all employees and visitors to wear a face covering while on the premises.

If you do not have a face covering, one will be provided for you. If you are unable to wear a covering over your nose and mouth, please call your local office so we may find an alternative way to assist you.



Starting on Monday, August 3rd, our Extension Office doors will be unlocked but all visitors must wear a face covering.

As July wraps up, we are wrapping up our county fairs and will be looking forward to offering programming this fall.

As a government entity, we are working hard to protect our community members and staff while still providing our services. We appreciate your cooperation and understanding during this time.

### TERRY MONTAGUE RECEIVES RVD APPRECIATION AWARD

Terry Montague is a custodian at Washington County Schools and an A+ supporter of 4-H.

Terry had been working for a dairy farmer when Wayne Elliott, the first School Superintendent that Terry worked for, approached him and needed some help, so Terry told him he would work through the spring. That was January 1980. As of January 6, 2020, he has been at the school for 40 years.

He is currently working under his 4<sup>th</sup> Superintendent and 5<sup>th</sup> or 6<sup>th</sup> Principal.

Terry helps Extension with all of the events we have hold at the school, including District 4-H Club Day, Achievement Banquet, Pre-fair Judging, and Fashion Revue. Terry is great at his job.

He is extremely helpful with anticipating what we need and setting up. He also works right along with us to make clean up go quickly and smoothly. Many times, he has things back in place before we are completely finished with our event.

Terry shared memories of hosting the Achievement Banquet at the school when we were a County Extension and the school didn't have enough tables and chairs for all of the attendees. He would borrow them from Farm Bureau, the City of Washington, and local churches to have enough. Then, afterward, 4-H families would help him load them up and return them that evening, sometimes not finishing until 11pm or later.

Terry says he loves the kids. That's why he is still doing what he is doing. We are glad that Terry is always so helpful and makes our jobs much easier. Thank you Terry for your many years of service to your community and our Extension programs!



## BOVINE RESPIRATORY DISEASE IN THE BEEF INDUSTRY

I recently read an article by Dr. Derrell Peel, Livestock Marketing Specialist for Oklahoma State University, titled The Effect of Market Forces on Bovine Respiratory Disease. This article is on our River Valley Extension District website, [www.rivervalley.ksu.edu](http://www.rivervalley.ksu.edu), for you to read. In this article, Dr. Peel takes a deep dive into how Bovine Respiratory Disease (BRD) affects the cattle industry. He specifically talks about how the lack of BRD vaccination early in a calf's life affects the animals downstream in the stocker and feedyard phase. If you have time, I do recommend reading the article.

I do not want to state every figure he cites in his paper, but I will highlight some of the main points.

- “Among beef cow operations, respiratory disease accounts for 15.9% of cattle death and 23.0% of calf death with a total value of \$370.8 million. Among feedlot and stocker/backgrounding operations, respiratory disease accounts for 55.0% of non-predator death loss in cattle and 36.3% among calves with a total value of \$274.84 million.”
- “Respiratory disease is reported to affect 16.2% of all feedlot cattle with 96.9% of feed-lots reporting incidence of respiratory disease (100% of large feedlot). Average BRD treatment cost was reported at \$23.60/head for treated cattle, indicating that feedlots were spending in excess of \$75 million annually on BRD treatments at the time of this study.”
- “Vaccines are available to help prepare cattle for the challenge of BRD. However, among beef cattle [cow-calf] operations, 60.6% do not vaccinate calves for respiratory disease”
- “More than 85% of all feedlot operations vaccinate for the major viral respiratory viruses...”
- “For cow-calf producers, the direct impacts may be unrecognized or underrecognized.”
- “... the complex production structure of the industry increases the difficulty of recognizing and understanding the impacts of BRD as animals move through multiple production stages with different ownership.”
- “In the case of BRD, the stocker and feedlot sectors experience most of the treatment costs, lost productivity, and death loss from the disease and would benefit the most from enhanced BRD control. However, evidence is growing that the health of stocker and feedlot cattle is largely determined at the cow-calf level, who currently receive little economic incentive to manage cattle for better lifetime health and immunity.” This is what Dr. Peel refers to as marker failure.
- “An industry-wide comprehensive effort is needed to coordinate and motivate enhanced BRD control focusing on producing calves with better immunity and less morbidity rather than treatment.”

The last point that he makes there is my challenge to the River Valley District. I know we have some backgrounding and

feedlot operations in the District. However, the majority of our cattle producers are cow-calf operations. We need our cow-calf operators to vaccinate their calves to keep them alive and prevent the spread BRD further down the line in the beef supply chain. All producers will do anything to keep their animals healthy while in their hands. We need to start thinking about how my cattle are going to be doing in the weeks and months after they are off my property. My recommendation is talk to your veterinarian about giving your calves the best chance later in life, not just while they are in your pasture.

## DIFFERENTIATING PASTURE LAMENESS IN BEEF CATTLE

During the summer grazing months many producers run into issues with lame cattle. The effects of lameness may show itself by decreased fertility, weight loss, decreased performance, and increased labor and medicine costs. It has been estimated that 88-92% of lameness in cattle stems from the foot. Several issues could be the culprit, but we will review some of the common causes and the key differences between the clinical signs. It is a good idea to contact your local veterinarian to create a treatment plan for these conditions prior to the grazing season.

### Lameness with Swelling:

The first way to determining the cause of lameness is to observe obvious swelling. The swelling most commonly affects the lower limb, indicating the area of inflammation just above the hoof. It is important to distinguish if the swelling is symmetrical (equal on both sides of the foot), or asymmetrical (only affecting one side). Swelling may also be noticed affecting single or multiple joints in both calves and cows.

Footrot is a common disease process that occurs in pasture cattle. Footrot is a bacterial infection of the foot that manifests itself with symmetric swelling encompassing the lower limb just above the hooves. Upon closer inspection, producers will notice a crack in the skin between the hooves and a foul pungent odor. Injectable antibiotic treatment is typically very rewarding when treated in the early stages of the disease. With delayed or late treatment of cases, however, deeper structures of the foot (tendons, joints, even bone) may become involved. Delayed treatment often requires extended therapy, and leads to increased cull rates from the herd.

It is always important to closely inspect symmetric swelling cases in the pasture settings. Wire, bale wrap, or other foreign bodies can wrap around and entrap the lower foot causing very similar symptoms as footrot. If the swelling has a well demarcated line horizontally across the foot, further investigation is warranted. The entrapping foreign body must be removed.

Single sided or asymmetric swelling of the foot often indicates a more serious condition in cattle. This type of clinical sign is often the result of deep structure issues. Puncture wounds, sole abscesses, or chronic infections can cause single sided joint, bone, or tendon infections. Extensive footwork on a tilt table or under sedation is often indicated in these cases. Contact your veterinarian when these cases are identified.

## K-STATE EXPERTS LAY OUT CRITERIA FOR EVALUATING BULLS

### *Summertime culling decisions hinge on several factors*

As bulls come off the summer breeding pastures, producers have several criteria to consider when making culling decisions, according to experts at the Kansas State University Beef Cattle Institute. “Fertility is the most important because bulls need to be able to breed lots of cows,” said veterinarian Bob Larson. But beef cattle extension specialist Bob Weaber counters: “I would argue that there is a genetic affect on the bull’s libido and willingness to settle cows.”

Larson advised producers to conduct a sire test to know which bulls fathered the most calves. He credits fertility to the bull who sired the greatest number of calves. As an example, Larson said if Bull A sired 28 calves averaging 450 pounds at weaning, and Bull B sired 12 calves averaging 500 pounds at weaning, some producers might put a higher genetic value on Bull B because his calves weighed more. “I say Bull A has more value because he sired more total pounds of weaning weight by having more of his calves in the herd,” Larson said.

Another consideration is the breeding rotation. Weaber said if bulls are used on heifers and those heifers are retained in the herd, then a sire will be more limited on the years of service. “If producers retain too many daughters from a bull, they will have to be careful to avoid in-breeding by limiting the sire-daughter matings to reduce the risk of genetic complications,” Weaber said.

When bulls come off the summer pastures, Larson advised producers to conduct a complete breeding soundness exam. “It is more than just a semen quality check, but also an evaluation of his physical characteristics, including his feet, legs, penis and scrotum as well as his temperament,” Larson said. Weaber added that temperament is critical especially in smaller herds where the bulls have close contact with people.

Another factor for producers to consider is the cost of the bull relative to the years used in the herd. “If a producer spends \$5,000 on a yearling bull and he is only used for one breeding season, it has a significant economic impact on the operation,” Weaber said. The experts agreed that the final criteria to consider is how the bull worked in the herd. “As much as I would hate to trade him out economically speaking, if he isn’t getting the job done then it is time to make a change,” Larson said.

### **Here are the experts’ top 5 reasons for culling a bull:**

- He no longer fits with the current breeding goals
- His actual genetics don’t align with the expectations
- He has too many daughters in the herd
- He has an undesirable temperament
- He fails the breeding soundness exam

To hear the full discussion on evaluating bulls, listen to the [BCI Cattle Chat podcast online](#).

Single or multiple joint swelling with lameness can also be observed in pasture settings. In calves this is often the result of septic arthritis. This is a bacterial infection of the joints. In very young calves it can be the sequela of naval ill, or from bacteria that get into the blood stream. It is not uncommon to see this condition a week to 10 days following a bout of respiratory disease with some pathogens as well. Even with appropriate treatment, the inflammation in the joint often takes several weeks to reabsorb back into the body. Joint swelling in mature animals can also occur. Many times this is a result of an orthopedic break down. Torn cruciate ligaments in the stifles of breeding bulls, or hock damage from riding activity are examples of these conditions. Consult with your veterinarian for potential treatment or course of action if these situations occur.

### Lameness with no noticeable swelling:

Obvious lameness to one or more limbs with no noticeable swelling can often be challenging to diagnose appropriately. One of these conditions is called Hairy Heel Warts, also known as Digital Dermatitis, or Strawberry Footrot. These animals often display obvious lameness and will attempt to walk on the “tippy toe” of the foot. Upon closer observation you will notice wart like growths or bright red scab lesions below the dewclaws and above the heel bulbs of the foot. Topical treatment with an astringent or antibacterial solution is warranted for this condition.

The last condition we see more commonly in newly arrived stocker calves, is called toe tip necrosis (toe abscesses). These animals often appear with shifting lameness of the back legs. They will usually stand in strange orientations to protect and get pressure off of the damaged toe. The rear, outside hooves are most often affected. Treatment of these consists of picking up the feet and using hoof testers to confirm the condition. Then the toes are slightly opened with hoof nippers to release the pressure. Without opening the toes, healing will not occur.

Lameness can be challenging to diagnose in a field situation, but understanding the subtle differences will help with proper and timely treatment. Visit with your veterinarian about any non-responsive lameness issues. Further diagnostics and treatment may be indicated.

by A.J. Tarpoff, DVM, MS, beef extension veterinarian

## UNITED STATES CENSUS

The latest numbers are that an estimated 34 percent of Kansans have not completed their Census. At this rate, Kansas would lose an estimated \$21 billion in federal funding, for important programs, services, and infrastructure over the coming decade. As a citizen of the US, it is your duty to fill out the survey.

Complete your Census online at [my2020census.gov](https://my2020census.gov), by phone at 844-330-2020 (English) or 844-468-2020 (Spanish), or by mail when your invitation to respond arrives. It only takes about 10 minutes to respond and is safe, secure, and confidential!

More information on the 2020 U.S. Census can be found at [www.2020census.gov](https://www.2020census.gov).

## WHEAT PLOT VARIETY RESULTS

This year with wheat plot tours being done a little differently, many farmers might have missed their normal chance to look at the new varieties and to pick one for next season. There are a lot of ways farmers can still have that opportunity.

1. Check out <https://www.agronomy.k-state.edu/services/crop-performance-tests/winter-wheat/2020-wheat-performance-tests.html> It will have all the data from the wheat plots in 2020. It is constantly getting updated as plots get harvested.

2. You can go back and watch the YouTube video of different specialist going over varieties in certain regions. They discuss what areas, how it grows and the disease packages each variety has.

May 27 session - <https://youtu.be/UnD121ADM3E>

May 28 session - <https://youtu.be/VrF3F2yqJpc>

3. If you are looking for more local data, check out the River Valley website and go to Wheat Plots. We have added data from local producers in the area along with a description of each variety planted there. [https://www.rivervalley.k-state.edu/crops/wheat\\_plots.html](https://www.rivervalley.k-state.edu/crops/wheat_plots.html)

As for next years new arrives, Allan Fritz a wheat breeder at K-state is going to release 2 new varieties. They are planned for central Kansas growing conditions and show promise for leaf rust resistance and have performed well in university trials.

“We don’t have names for these yet, so right now they’re referred to by their experimental numbers,” Fritz told viewers during the field day. One variety, KS09049K8, is the offspring of two Kansas varieties – Duster and Overley – “with a little bit of spring wheat from CIMMYT,” the International Maize and Wheat Improvement Center that has headquarters in Mexico City, Mexico, according to Fritz. “It’s a medium early variety, and is really the culmination of our efforts to breed race non-specific lines for leaf rust resistance,” he said. “This holds up very well to leaf rust.” Fritz said the new wheat line is “moderately tolerant” on acid soils, and has “very good” tillering capacity. “Those of you who remember Duster will know that it is extremely high for tillering.” The new line, Fritz added, doesn’t quite get to the capacity of Duster, but says he believes it will have good yield potential in central Kansas. “The quality of this one is good, and the other thing I like about it is it does have some Hessian fly resistance,” Fritz said. “Hessian fly is not a huge issue around here, but it is nice to have some options out there to deal with Hessian fly, when necessary.” The line is moderately susceptible to stripe rust, Fritz said: “The genes that give us durable resistance to leaf rust also work on stripe rust, but they’re just not quite as good, so they don’t give us as strong a resistance to stripe. But I would say the resistance is good enough to give you a broader window for fungicide application. With this line, you should have enough stripe rust resistance, so I would put it in the moderately-susceptible category. If it’s a stripe rust kind of year – like this year in many places – then you would definitely want to put a fungicide on it.” Fritz stopped short of naming the new line, but noted he and others are considering a name to honor former U.S. Department of

Agriculture entomologist Jim Hatchett, who was based in Manhattan and contributed to wheat breeding in the Great Plains, he said.

A second wheat line ready for release is currently known as KS12DH0156-88, which has lineage connected to an Oklahoma State University wheat named Gallagher. “We’re thinking of naming it KS Ahearn,” Fritz said this wheat line is a late-maturing variety that “has effective levels of leaf and stripe rust.” “This one is more intermediate on acidic soils, so if you’re getting into soils with fairly low Ph levels, I might lean toward planting something else,” Fritz said. “But this one will handle soils with Ph levels down to at least 5 and maybe even a little lower than that.” He called the quality of this wheat line “good, but not great” with yield potential on the higher end. “This one has been a bit of a race horse for us,” Fritz said. “It’s done really well in our trials, and that’s the history of Gallagher, as well.” “Even though it’s a later-maturing line – and I would normally say later fits better in the north part of Kansas – this has actually been better in southcentral Kansas.”

Fritz said both of the lines he talked about are susceptible to fusarium and, thus, he does not suggest either as an option in no-till fields following corn.

If you have any questions, please feel free to contact Rebecca Zach at [zrebecca@ksu.edu](mailto:zrebecca@ksu.edu) or 785-541-0283. Also check out the River Valley email newsletter where you can pick what area you want to receive info about. <https://river-valley-extension.mailchimpsites.com/>

## INSECTS IN SOYBEANS

This year with the season being a little wetter than normal, certain insects have been popping up more. There are a few major insects in soybeans that people tend to focus on.

### Dectes (Stem Borer)

Dectes stem borer adults continue to emerge throughout north central Kansas. These adults are currently aggregating mainly around field borders and most commonly on ragweed. They will start dispersing into soybean fields within the next week to 10 days, as they do every year, to begin oviposition. The adult females are relatively mobile and move from plant to plant inserting eggs into, or just below, the petioles of many plants. This oviposition period may last for four weeks or more and may be spread throughout the field. This is one reason why controlling dectes stem borers with an insecticide is so difficult – timing of application.

Eggs hatch in the stem and the small larvae start feeding/boring their way to the main stem and then down this stem to the soil surface. They usually reach the soil line in late August and larvae girdle their way around the inside of the stem, weakening the stem and often leading to lodging, especially if there are strong winds. This lodging is responsible for most of the yield loss. If you find Dectes in your field there is minimal you can do this year to stop it but next year, there are a few management strategies to help. One is crop rotation, Dectes only infect soybeans and sunflowers so rotating to something other will help that field. If you are set on going back to soybeans in that field, you can plant the soybeans further apart to help get a bigger soybean stem. Dectes tend

to only girdle a certain diameter so making the stem bigger will help prevent lodging. Also, tilling the soybean residue will kill the overwintering beetles because they stay in the lower stem that does not get cut off with the combine and stay standing till next year.

### Japanese Beetles

Japanese beetle adults have also been emerging over the past week or two. These adults will feed on just about any pollen, nectar, or succulent plant source for a few days then disperse to begin ovipositing into the soil. The larva is white grub that will emerge next spring. The adults may attack emerging silks in corn or new succulent leaves in soybeans, but typically only around the edges of fields. Their distribution has been increasing the last few years and they are being seen in corn and soybeans more frequently, in addition to feeding on landscape trees and shrubs. Japanese beetles have one generation per year. They often feed in clusters due to an attraction to the female sex pheromone and an attraction to volatile chemicals produced by damaged plants.

Japanese beetles can contribute to defoliation in soybeans. They feed by skeletonizing the leaves, leaving only the leaf veins. In soybeans insecticide treatment is recommended when insects are present and damage is expected to exceed 30% defoliation in vegetative stage, and 20% in reproductive stage soybeans.

Similar to corn rootworm beetles, Japanese beetles will scrape off the green surface tissue on corn leaves before silks emerge, but prefer silks once they are available. Japanese beetles feed on corn silks, and may interfere with pollination if abundant enough to severely clip silks before pollination. University of Illinois Extension recommends: An insecticidal treatment should be considered during the silking period if:

- there are three or more Japanese beetles per ear,
- silks have been clipped to less than ½ inch, AND
- pollination is less than 50% complete.

Be aware that Japanese beetle numbers are often highest on field margins, so scout across the whole field before making a treatment decision. Japanese beetle adults are about ½ inch long and have a metallic green head and thorax. A key characteristic is a series of white tufts of hair on each side of the abdomen.

### Bean Leaf Beetle

Bean leaf beetles have two generations a year; however, since they overwinter as adults, three periods of beetle activity are seen in the growing season: overwintering colonizers, the F1 generation (offspring of the colonizers, the true first generation) and the F2 generation.

Bean leaf beetles overwinter as adults in leaf litter (woodlots) and soybean residue. They become active fairly early in the year (April-May) and often can be found in alfalfa prior to soybean emergence. As soybeans emerge, the beetles quickly move to the seedling plants, feeding on cotyledons and expanding leaf tissue. These overwintered beetles, called colonizers, mate and begin laying eggs. Females live about 40 days and lay 125 to 250 eggs. After egg laying is complete the colonizing population dwindles as the beetles die. A new generation of beetles (F1) will begin to emerge in late June to early July. The F1 beetles mate and produce a second generation of beetles (F2) that begin to emerge in mid to late

August.

Because they move to soybean fields so soon after seedling emergence, early planted fields will usually have more beetles and suffer the most injury, particularly if they are the only beans up and available for the beetles to move into. This has become more of a problem in recent years because planting dates seem to be getting earlier each year. Although the defoliation the beetles cause can appear quite severe, research has shown that it usually does not result in economic damage. Soybean plants can compensate for a large amount of early tissue loss, so it takes a considerable amount of beetle feeding to impact yield. Generally, soybeans planted during the normal soybean planting window are not colonized by enough beetles to cause economic injury.

For more information on soybean pest management, please refer to the K-State Soybean Insect Management Guide at: <https://www.bookstore.ksre.ksu.edu/pubs/MF743.pdf>

## BLOSSOM END ROT

Do you have tomatoes with a sunken, brown leathery patch on the bottom of the fruit? If so, then you probably have blossom end rot. Blossom end rot is not a disease; it is a condition that is caused by a lack of calcium in the soil. In Kansas this is not necessarily the case, because Kansas soils are derived from limestone, which is partially made up of calcium. So, what causes blossom end rot in Kansas? Actually, there are a number of possible causes, especially on tomatoes. Let's look at some of the other possible causes of blossom end rot.

The first possible cause could be that the tomato tops have outgrown the root system. During cooler spring weather the root system can keep up, but when it turns hot and dry, the plant tries to keep itself alive by sending water; with the calcium it carries; to the leaves and the fruit is bypassed. The plant responds to the heat and lack of calcium with new root growth which should allow the condition to correct itself after a couple of weeks.

The second possible cause could be heavy fertilization, especially with ammonium forms of nitrogen, which can encourage this condition. Heavy fertilization encourages more top foliage growth than root growth causing the ammonium form of nitrogen to compete with calcium for uptake through the roots to the fruit.

The third possible cause could be anything that disturbs the plant roots such as hoeing too deep. Mulching your plants will help because it keeps the soil surface cooler and reduces weed growth and promotes a better environment for root growth.

The fourth possible cause could be inconsistent watering. Keep soil moist but not waterlogged. Mulching can help by keeping the soil moisture level consistent over time. Even so, there are some years you do everything right and the condition shows up due to the weather. In such cases, remember that blossom-end rot is a temporary condition, and plants should come out of it in a couple of weeks. You want to pick off affected fruit to encourage new fruit formation.

Even though blossom end rot is most common on tomatoes, it can also affect squash, peppers and watermelons. If you are noticing that you have a lot of blossom end rot occurring, go through the possible causes and see if you can find what might be causing the problem.

## PRUNING STORM DAMAGED TREES

With all the storms we have had this year, trees around the area have taken a beating. Most of the time you have to decide whether a tree can be saved or if it needs to be taken down. Here is a simple checklist you can follow to help take care of your storm-damaged landscape.

First, you need to be safe when first checking on your landscape after the storm. Check for downed power lines or hanging branches. Don't venture under the tree until you know it is safe. If large limbs are hanging from the tree, be sure to take extra precautions. If the limb is too large for you to handle safely or is in a spot that can cause damage to a surrounding buildings, you can call an arborist that has the tools, training, and knowledge to remove the limb safely. Next thing you need to do is clean up and remove any debris so you don't trip over any of it.

Second, decide whether it is feasible to save the tree. If the bark has been split, exposing the cambium, or the main trunk of the tree is split then the tree probably will not survive and should be removed. If there are too many broken limbs on the tree, destroying the form of the tree, the best option is to take down the tree and replace it. When pruning the tree, the topping method which is done by removing all the main branches and only leaving stubs on the tree, is not a recommended pruning procedure. New branches will normally arise from the stubs, but they will not be as firmly attached as the original branches and are more likely to break in subsequent storms. Also, the tree will put a lot of energy into developing new branches, leaving less energy to fight off diseases and insect attacks. Often the topped tree's life is shortened, causing you to remove the tree later anyway. Below you will find a couple ways of pruning your tree, if you decided the tree can be saved.

Third, prune off the broken branches to the next larger branch or to the trunk, depending on which limb is broken. If you are removing the limb back to the trunk, do not cut flush with the trunk but rather at the collar area, which is between the branch and the trunk of the tree. Cutting flush with the trunk leaves a much larger wound than cutting at the collar and takes longer for the tree to heal the cut. Middle-aged or younger vigorous trees can handle having up to one-third of the crown removed and still make a surprisingly swift comeback. Older trees can take longer to recover from a vigorous pruning.

Remove the larger limbs in stages. If you try to take off a large limb in one cut, it will often break off before you are finished cutting and will strip the bark off the trunk. Instead, make a cut about 15 inches from the trunk on the limb you are removing. Start from the bottom and cut one-third of the way up through the limb. Make the second cut from the top down but start 2 inches further away from the trunk than the first top cut. The branch will break away as you make the second cut. The third and final cut, made at the collar area, will remove the stub that is left from the tree.

Those are just a few ways to help with summer storm clean-up of trees. If you happen to have damage from any storms and want help deciding what needs to be done with your trees, please feel free to stop by or contact me in the in the Washington office, 785-325-2121 or [khatesohl@ksu.edu](mailto:khatesohl@ksu.edu).

## DIVIDING IRIS

Bearded Irises are well adapted to Kansas and multiply quickly. After several years, the centers of the clumps tend to lose vigor, and flowering occurs toward the outside. Dividing iris every three to five years will help rejuvenate the plants and increase flowering. Iris may be divided from late July through August, but late July through early August is ideal. Because iris clumps are fairly shallow, it is easy to dig up the entire clump. The root system of the plant consists of thick rhizomes and smaller feeder roots. Use a sharp knife to cut the rhizomes apart so each division consists of a fan of leaves and a section of rhizome. The best divisions are made from a double fan that consists of two small rhizomes each having a fan of leaves. The rhizomes that do not split produce single fans. The double fans are preferred because they produce more flowers the first year after planting. Single fans take a year to build up strength.

Rhizomes that show signs of damage due to iris borers or soft rot may be discarded, but you may want to physically remove borers from rhizomes and replant if the damage is not severe. It is possible to treat mild cases of soft rot by scraping out the affected tissue, allowing it to dry in the sun and dipping it in a 10 percent solution of household bleach. Make the bleach solution by mixing one-part bleach with nine parts water. Rinse the treated rhizomes with water and allow them to dry before replanting. Cut the leaves back by two-thirds before replanting. Prepare the soil by removing weeds and fertilizing. Fertilize according to soil test recommendations or by applying a complete fertilizer, such as a 10-10-10, at the rate of 1 pound per 100 square feet. Mix the fertilizer into the soil to a depth of 6 inches. Be wary of using a complete fertilizer in areas that have been fertilized heavily in the past. A growing number of soil tests show high levels of phosphorus. In such cases, use a fertilizer that has a much higher first number (nitrogen) than second (phosphorus).

## IS MY LAWN STILL ALIVE?

Is your lawn turning brown like it does through the winter? During the hot periods of the summer, lawns will enter into a dormancy. Normally, a healthy lawn can stay dormant for a good 5 weeks and still recover. After the five weeks are up, it is important to keep the crown hydrated because if the crown dies, the plant dies.

The recommendations differ for a lawn that was overwatered or received so much rain this spring that it produced a limited root system. Such a lawn may die unless allowed to slowly enter dormancy. This is done by shutting off the water gradually. For example, instead of watering several times a week, wait a week before irrigating. Then don't water again for two weeks. Thereafter, water every two weeks as described below.

Apply about 1/4 inch of water every two weeks to hydrate the crown. This will be enough to hydrate the crown but not enough to encourage weed germination and growth.

If you are wondering if the turf is still alive, pull up an individual plant and separate the leaves from the crown. The crown is the area between the leaves and the roots. If it is still hard and not papery and dry, the plant is still alive.

When rains and cooler weather arrive, the turf should come out of dormancy. However, you will probably have to deal with weeds that germinate before the turfgrass grows enough to canopy over and provide enough shade to keep weed seeds from sprouting.

## WATER FOR SURVIVAL

We are still in the heat of the summer. Stay hydrated. Water makes up 60-70 percent of our body weight. Our body depends on WATER to survive. Every cell, tissue and organ in the body needs water to work properly. Some critical functions of water within the body include:

**Blood;** which is 83 percent water, is the body's transportation system for oxygen, nutrients, hormones, enzymes, and other life-sustaining materials to body cells. Blood also carries waste products to organs for removal.

**Lubrication;** Water lubricates joints, making it easier for our bodies to move.

**Digestion;** In the digestive tract water is present in mucus, salivary juices and digestive juices. These juices help break down certain foods and transport food through the digestive system.

**Temperature Control;** Water helps regulate body temperature through perspiration.

**Waste Removal;** Our bodies produce wastes in many ways. Water plays a key role in removing body waste through our urine and bowel movements.

Lack of water can lead to dehydration – a condition that occurs when we don't have enough water in the body to carry out normal functions. Even mild dehydration can drain your energy and make you tired. Everyday we lose water through our breath, perspiration, urine and bowel movements. For the body to function properly, we must replenish its water supply by consuming beverages and foods that contain water.

Start to drink water before you feel thirsty. Drinking water is a good way to keep your body nourished and help prevent heat exhaustion. Be sure to hydrate well before and during any activity.

It is recommended that we drink 8-9 cups of water daily. Besides water, think of foods in the vegetable and fruit groups as containing a large amount of moisture. Foods that help you stay hydrated include watermelon, cucumbers, cantaloupe, grapefruit, and berries, just to name a few.

You just read that many functions in the body depend on water. Maintaining the body is a lot like running a business. You have certain assets available to keep your body healthy. These assets include nutritious foods, physical activity, and adequate rest. However, the greatest is plenty of water and nutritious fluids. The body can't survive long without fluids. The body will function a lot better if you remember to drink plenty of water and consume vegetables and fruits with a high moisture content. Think of your health. Remember to hydrate. For more information contact; Sonia Cooper, River Valley Extension District. 785-632-5335.

Resource: Liquid Assets: The value of Fluids to your Health. MF 2739.

## FALL FLING

Enjoy the fun, fellowship and learn at the upcoming Fall Fling on October 12 in the Clay Center 4-H Conference Center at the Clay County Fairgrounds. All interested men and women in the area are encouraged to attend. Watch for details about lunch.

Hayley Bulk Whitehair with the Clay County Conservation District will be presenting the morning program. This morning program will emphasize the importance of "Pollinators". We will learn about the challenges pollinators face, the declining populations, and how to do our part to help pollinators in the area. Hayley will also share examples of why pollinators are so crucial and how they benefit our everyday lives. **WE NEED POLLINATORS AND POLLINATORS NEED US!**

The afternoon program will be presented by Calvin Wohler; "Let's Get Birding." Calvin will share his enthusiasm for this interest and give us some tips. The Clay County Homemaker Extension women invite everyone to attend this free event. Again, the date is Monday October 12 in the 4-H Conference Center at the Clay County Fairgrounds. Registration begins at 10:30 A.M

## KIDS KORNER

Below are ideas I encourage you to try. First remember Food Safety.

Before mixing pudding for finger painting make sure you and all your helpers wash their hands. It's easy; use soap and warm water to create a lather, scrub all surfaces of your hands, back of your hands, in-between fingers, use fingernails to scrub the palm of the hands, scrub for at least twenty seconds or sing the "Happy Birthday" song two times. Rinse hands under clean, running water. Dry hands with a clean paper towel or clean towel. Use this towel to shut off the water and open the door of the bathroom when leaving.

### Finger-paint Pudding

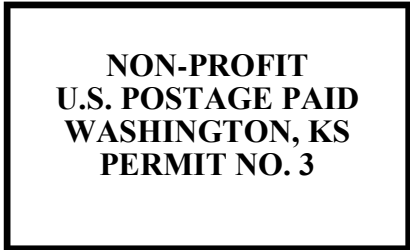
Directions: Make vanilla pudding by following the directions on the box. Add food coloring to make different colors. Let children play with some of it on a cookie sheet or other clean, smooth surface. The kids can be creative with colors. After they play with the pudding, serve the children the rest of the pudding color of their choice in a bowl. FUN playtime and YUMMY treat.

### Paper Fruit

Draw different fruits on paper. Let the child rip up different colored construction or tissue paper and then glue it on the fruits to make them colorful. Talk with the child about eating a variety of fruit and about the health benefits of fruit. Remember when a child sees you eat something, he or she is more likely to try that food. You are the role model. Especially think of Vitamin A and C in the fruits we eat. Vitamin A for healthy vision and to build a healthy immune system to fight off colds and infection. Vitamin C promotes growth and repair of all body tissues, helps heal cuts and wounds and keeps teeth and gums healthy. Need ideas, look at the River Valley Extension District page. [Rivervalley.k-state.edu](http://Rivervalley.k-state.edu); COVID-19 info tab, Youth activities tab.

**River Valley Extension District**

Washington Office  
214 C. Street, Courthouse  
Washington, KS 66968-1928



**Address Service Requested**

**RIVER VALLEY DISTRICT**  
“2020 UPCOMING MEETINGS & EVENTS”

DATE	TIME	PROGRAM	LOCATION
Aug 18-21		Washington Office Closed for Moving	
Sept. 7		RVED Offices Closed—Labor Day	
Sept. 29	9-3pm	Defensive Driving Course	Clay Center-RVD Office, 322 Grant Avenue

**Have a question? Contact us!**

Adult Development & Aging	Crop Production	Family Resource Management	Horticulture	Nutrition, Food Safety, & Health	Livestock Production
Jordan Schuette	Rebecca Zach	Monica Thayer	Kelsey Hatesohl	Sonia Cooper	Brett Melton
785-527-5084	785-243-8185	785-527-5084	785-325-2121	785-632-5335	785-243-8185
jschuette@ksu.edu	zrebecca@ksu.edu	mthayer@ksu.edu	khatesohl@ksu.edu	srcooper@ksu.edu	bmelton@ksu.edu

Oct. 12      10:30am      Fall Fling      Clay Center-Fair Ground Conference Center