

# River Valley District

## K-STATE RESEARCH AND EXTENSION NEWS

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

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## River Valley Extension District 2018 Wheat Plot Tours

### Wednesday, June 6<sup>th</sup>

- 8:30 a.m. NCK Experiment Field Belleville Variety Trial Plots  
Location: 1.25 miles West of Belleville on US Hwy. 36  
Breakfast: Juice and Kolache provided by Belleville Chamber & Main Street/Astra Bank
- 6:00 p.m. Polansky Seed Wheat Plot  
Location: ¼ mile south of Dollar General in Belleville  
Supper: Provided by Polansky Seed at the East Plant, US Hwy 36 following tour

### Tuesday, June 12<sup>th</sup>

- 8:00 a.m. Zoe Auld 4-H Variety Trial Plots  
Location: From Wakefield 1.5 miles East on Hwy 82, 1 mile south on Sunflower Road  
Breakfast: Juice and Rolls
- 12:00 Noon LeClair Seed & Clifton/Clyde FFA Variety Trial Plots  
Location: From Clyde 3 miles South on 280<sup>th</sup> then 1.5 miles East on Plum Road  
Lunch: Provided by Clifton/Clyde FFA & LeClair Seed
- 6:00 p.m. Ohlde Seed Variety Trial Plots  
Location: ½ mile North of intersection of National Road & 5<sup>th</sup> Road  
Supper: Provided by Ohlde Seed following the tour.



**Featuring K-State Agronomy Specialists:**  
**Romulo Lollato, Stu Duncan, Erick DeWolf,**  
**and Company Reps**

Tour refreshments provided by:



For additional information or questions contact: Tyler Husa, RVED Crop  
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Kansas State University is committed to making its services, activities and programs accessible to all participants. If you have special requirements due to a physical, vision, or hearing disability, contact John Forbue, Director, River Valley Extension District #4, 322 Grant Avenue, Clay Center, KS 67432. Phone: 785-632-5335.  
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## SORGHUM CONSIDERATIONS

Planting season is in full swing now, we have been delayed by some rainfalls here and there, but one thing is for certain; we are extremely grateful to get any rainfall that we receive. There is an array of factors that certainly affect milo production: row spacing, plant population per acre, planting date, and hybrid maturity just to name a few variables. The following table, provided by Kansas State Research and Extension, gives some recommendations to consider when planting sorghum based upon plant population, row spacing, and average rainfall.

Avg. Annual Rainfall (inches)	Seeding rate (x 1,000 seeds/acre)*	Recommended Plant Population (x 1,000 plants/acre)	Within-row Seed Spacing (65% emergence)		
			10- inch rows	20- inch rows	30-inch rows
< 20	30-35	23-27	21-18	10-9	7-6
20 to 26	35-64	25-45	18-10	9-5	6-3
26 to 32	50-80	35-55	13-8	6-4	4-3
> 32	70-125	50-90	9-5	4-2	3-2
Irrigated	110-150	80-110	5-4	3-2	2-1

*\*Assuming 65% field emergence*

The chart above just gives a good, basic guideline for optimizing sorghum production across Kansas. Much like wheat, sorghum has the ability to adjust and compensate for its environment based on conditions. Sorghum can compensate for drier conditions by adding tillers, but sorghum struggles to compensate when population is “too high” during drought stricken periods. For north central Kansas, one should typically plant between 40,000 to 50,000 seeds per acre, depending on other conditions including soil type and structure.

### Planting Date/Depth

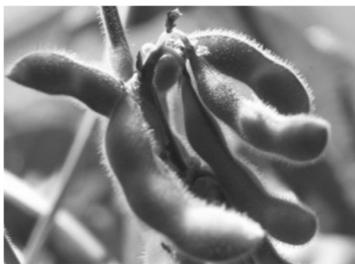
As stated before, milo will adjust to its environment similarly to wheat. Milo, will tiller more when temperatures are cooler than when they are warmer (another consideration to take in account when determining seeding rate). The later the planting of sorghum, the higher the population that is needed. Sorghum yields are generally more stabilized when sorghum is planted in May through the beginning of June. Another important aspect of planting, is planting depth. Optimal planting depth is around 1-2 inches in north central Kansas.

### Hybrid Selection (maturity)

The selection of sorghum hybrids should be based not only on maturity, but also on other traits such as resistance to pests, stalk strength, head exertion, seeding vigor, and overall performance. A shorter season should often be emphasized primarily when planting at a later date (mid-June through July), while it is still most often beneficial to use a longer season hybrid for grain yield optimization (when planting May through mid-June). Hybrid “season-length” is often most crucial for the timing of anthesis (flowering) and placing anthesis during a time of minimized stress will often result in the best pollination and ultimately improved yield.

## INOCULATION OF SOYBEANS

When planting soybeans, it is never a bad idea to inoculate soybean seed to ensure that the soybeans receive adequate nitrogen throughout the growing season. The symbiotic relationship between *Bradyrhizobia* bacteria and the soybean plant is best described as unique. The soybean plant essentially provides a ‘home’ and food for the *Bradyrhizobia* bacteria in the form of carbohydrates. In return, the *Bradyrhizobia* bacteria convert atmospheric nitrogen into a form that is available to the soybean plant, typically ammonium (NH<sub>4</sub>). *Bradyrhizobia* are not native to the United States and typically do not naturally occur in the soil. They are the result of soybeans planted from prior years and their populations can dwindle over time if soybeans have not been planted into a field for numerous years. Fields that were previously in CRP or alfalfa, especially need to have the soybean seed inoculated. It is important to note, that while alfalfa utilizes bacteria for nitrogen fixation, alfalfa and soybeans form a symbiotic relationship with different types of rhizobia.



### So what are the key reasons to inoculate soybeans?

1. **To improve nitrogen (N) fixation**
2. **Yield stabilization throughout the field**
3. **Enhance good nodulation**

Soybeans use extreme amounts of nitrogen, in the area of 3-5 lbs of N per bushel of seed. To put it in perspective, a 60 bushel to the acre yield would use 300 lbs of N per acre to make soybeans. Much of the time, 40-80% of the nitrogen comes from the rhizobia and nodules on the roots of soybeans. Given that information, this is an outline of some crucial times to inoculate soybeans.

### Crucial times to inoculate soybeans-

1. **Ground has not been planted to soybeans in 3-5 years or more (i.e. alfalfa ground and CRP).**
2. **Soil has high sand content (or low organic matter).**
3. **Soil has pH below 6.0 (acidic conditions are not suitable for rhizobia to thrive).**
4. **Soils have been exposed to an anaerobic condition (e.g. flooding) (lack of oxygen kill bacteria i.e. rhizobia)**
5. **Early season stress conditions including drought and heat.**

Soybean inoculation can be viewed as a form of “cheap insurance” against numerous antagonistic environmental conditions that inhibit soybean yields in the fall.

## TOMATO LEAF-SPOT DISEASES

This time of year, two common leaf-spot diseases appear on tomato plants. Septoria leaf spot and early blight. Brown spots on the leaves characterize both diseases, so it is important to figure out which disease you have so you can treat it accordingly.

Septoria leaf spot usually appears earlier in the season than early blight and produces small dark spots. Spots made by early blight are much larger and often have distorted “target” pattern of concentric circles. With both diseases, heavily infected leaves eventually turn yellow and drop. Older leaves are more susceptible than younger ones, so these diseases often start at the bottom of the plant and work up.

Mulching, caging, or staking keep plants off the ground, making them less vulnerable to both diseases. Better air circulation allows foliage to dry quicker having less of a chance to develop these diseases. Mulching also helps prevent water from splashing up onto the leaves and carrying disease spores to the plant.

In situations where these diseases have been a problem in the past, rotation is a good strategy. It is too late for that now, but keep in mind for next year. Actually, rotation is a good idea even if you have not had problems in the past. Unfortunately, for many gardeners their space is too small to make rotation practical. If you have room, rotate the location of the tomatoes each year to an area that had not had tomatoes or related crops (peppers, potatoes, eggplant) for several years.

If rotation is not feasible, fungicides are often helpful. Be sure to cover both upper and lower leaf surfaces, and reapply fungicide if rainfall removes it. Plants usually become susceptible when the tomato fruit is about the size of a walnut. Chlorothalonil is a good choice for fruiting plants because it has a 0-day waiting period, meaning that fruit can be harvested once the spray is dry. Chlorothalonil can be found in numerous products including Fertilome Broad-Spectrum Landscape and Garden Fungicide, Ortho Garden Disease Control, Garden Tech Daconil and others. Be sure to start protecting plants when the disease is first seen. It is virtually impossible to control this disease on heavily infected plants. If Chlorothalonil doesn’t seem to be effective, try mancozeb (Bonide Mancozeb Flowable). Note that there is a five-day waiting period between application and when the fruit can be harvested. You may wish to pick some tomatoes green just before you spray if you use Mancozeb as the tomato fruit will ripen inside.

As with all chemicals make sure to read the label to make sure it is listed for use on both the specific disease you are trying to get rid of and the plant the disease is on. If you have any questions feel free to stop by or contact me in the Washington office, 785-325-2121 or [khatesohl@ksu.edu](mailto:khatesohl@ksu.edu).

## SQUASH BUGS

Have you ever had bugs eating your squash and pumpkin plants? If so, you probably have had squash bugs. Squash bugs are the grey, shield-shaped bugs that feed on your plants. If you have had problems with this insect in the past, you know that they are almost impossible to control when mature. This is because squash bugs have a hard body that an insecticide has difficulty penetrating. Thus, spraying when the insects are small is important. We will soon be seeing the nymphs of the first generation. These nymphs will eventually become adults, which will lay eggs that will become the second generation. The second generation is often huge and devastating. Therefore, it is important to control as many squash bugs in the first generation as possible.

Because squash bugs feed by sucking juice from the plant, only insecticides that directly contact the insect will work. General use insecticides such as permethrin (Bug-B-Gon Multi-Purpose Garden Dust, Green Thumb Multipurpose Garden and Pet Dust, Bug-No-More Yard and Garden Insect Spray, Eight Vegetable, Fruit and Flower Concentrate, Garden, Pet and Livestock Insect Control, Lawn & Garden Insect Killer), malathion, and methoxychlor provide control if a direct application is made to young, soft-bodied squash bugs. This means that you MUST spray or dust the underside of the leaves because this is where the insects live.

The easiest way to make sure you can control squash bugs is to scout for them. You will want to scout for them often, so while you are watering or weeding your garden, lift up the leaves of your squash plants and see what you find. If you have any questions feel free to stop by or contact me in the Washington office, 785-325-2121 or [khatesohl@ksu.edu](mailto:khatesohl@ksu.edu).

## DEADHEADING ANNUAL AND PERENNIAL FLOWERS

Are you looking for a way to increase the amount of flowers you get on your plants? Are you tired of the one and done flowers? Have you ever tried deadheading your plants? Some plants will bloom more profusely if the old, spent flowers are removed. This is a process called deadheading.

Annual plants especially, will focus their energy on seed production once they have flowered instead of on producing more flowers. If you remove old flowers, the energy normally used to produce seeds will be used to produce more flowers.

Perennial flowers can also benefit from deadheading and will increase the length of the blooming season. However, some gardeners enjoy the look of spent flowers of perennials such as sedum or purple coneflower. The seed produced is a good food source for birds.

Deadheading will not help all plants produce another round of flowers. Some plants that don't produce flowers again are 'Autumn Joy' sedum, impatiens, most flowering vines and

periwinkle. These plants only produce one round of flowers whether you deadhead them or not. It's totally up to you as the gardener on whether you like the look of the spent blooms or if you'd rather take them off.

Plants that do increase bloom production in response to deadheading include geraniums, petunias, marigolds, snapdragons, roses, blanket flowers, and zinnias. These are just a few in a long list of annual and perennial flowers that will bloom repeatedly if you deadhead them.

Deadheading is easily accomplished and doesn't take much time to complete. With some plants, pinching the bloom between a thumb and finger will pop off the spent blooms. Others will be a bit tougher and will need pruning shears to remove the blooms. Deadheading can increase the length of the gardening season, but it is up to you the gardener on whether you choose to deadhead your plants. If you have any questions feel free to stop by or contact me in the Washington office, 785-325-2121 or [khatesohl@ksu.edu](mailto:khatesohl@ksu.edu).

## BUSINESS ASSISTANCE RESOURCES AVAILABLE

I recently had the opportunity to participate in a business development expo. It was a great opportunity for entrepreneurs looking to start a business or those in business wishing to grow their enterprise to connect with the many resources available. The following are some highlights of services offered from some of the organizations that I had the chance to meet with.

I should remind our readers that your local K-State Research and Extension Office is a great place to start with any question. We have resources to address so many things. If we don't have it, chances are we can put you in contact with someone that can help.

Your local Chambers of Commerce and Economic Development groups are also great places to start with any business start-up or expansion ideas. Our local Economic Development groups often offer some introductory business workshops that are most helpful to those with a concept but no idea where to start with a business plan, a budget, or cash flow projections. These classes are often free or low cost. In Cloud County contact Ashley Hutchinson at Cloud Corp, in Republic County contact Luke Mahin, and in Clay County contact Lori Huber.

Are your farm or business energy bills too high? If you live in a town with population of 50,000 or less, which is all of the River Valley Extension District, then you may be eligible for a no cost energy audit, a renewable energy site assessment, or federal assistance programs. K-State Engineering, in a joint partnership with the Kansas Corporation Commission and the U.S. Department of Energy, offers these services to eligible farms and businesses. You may also be eligible for the U.S. Department of Agriculture assistance through the Rural Energy for America Program (REAP). Contact David Carter at 785-532-4998 or [dcarter@ksu.edu](mailto:dcarter@ksu.edu).

For those interested in operating an Agritourism business, the

Kansas Department of Wildlife, Parks, & Tourism reminds you to register your Agritourism business. The Kansas Agritourism Act was signed into law in 2004 to promote the growth of the industry in Kansas. The benefits include the creation of the process to register your agritourism business and be on the promotion list with KDWPT. Once approved as a registered agritourism business, registrants may purchase and post warning signs that participants are assuming responsibilities and inherent risks. Limiting liability through this signage makes registration a must for agritourism businesses. Go to [www.kansasagritourism.com](http://www.kansasagritourism.com) for more information and to register or contact Sue Stringer at 785-296-1847.

From the Land of Kansas is Kansas' agricultural trademark program. The program seeks to promote and support local Kansas businesses that grow, produce, process, or manufacture products in Kansas. The program helps consumers identify where their food comes from and where they can find Kansas food, ingredients, and products. Contact the From the Land of Kansas team at [FromtheLandofKansas@ks.gov](mailto:FromtheLandofKansas@ks.gov) or call 785-564-6759.

Finally, Network Kansas helps businesses find fast free connections to over 500 partners offering the resources to startup or grow. The connections can provide funding through business loans, accounting, cash flow, taxes, and more. They can provide assistance with business plans, consulting, and market research. They provide workshops, seminars, networking, and conferences. Network Kansas works through their referral center, matching loan programs, and E-Communities. Contact NetWork Kansas at [www.networkkansas.com](http://www.networkkansas.com), 877-521-8600, or [info@networkkansas.com](mailto:info@networkkansas.com).

This is by no means a complete list as over 30 vendors were at the Expo. You might be surprised to find what programs your local electric cooperative has to offer. If you have an idea and want to start a business, need to become more energy efficient, or have a business and need to grow, then contact K-State Research and Extension or your local Economic Development Group. Let's grow our area together!

Ticks tend to flourish when vegetation flourishes, especially in weeds and unmanaged areas. To minimize the number of ticks on your property, he said it's best to keep lawns mowed and generally reduce unmanaged areas where weeds can flourish.

"I am not a proponent of blanket (insecticide) sprays in the yard," Cloyd said. Other steps he recommends:

- When outdoors, wear repellents based on DEET or permethrin. Permethrin-based products, however, must not be applied directly to the skin.
- Tuck your pant legs into your socks. White socks are best because it's easier to see ticks on them.
- After coming in from potentially tick-infested areas, inspect yourself or your children's skin and remove ticks immediately. Also, check pets that were outdoors.

Take a shower as soon as possible after coming indoors.

If you find a tick that's already embedded, gently pull it out with tweezers, including the head. A tick head broken off and left in the skin can potentially lead to an infection.

The most common ticks found in Kansas include the American dog tick, Lone star tick, the Brown dog tick, and the black-legged tick.

Because some ticks carry pathogens such as Rocky Mountain Spotted Fever or Lyme disease, it's a good idea to have them identified if they were embedded in the skin. The resources to do that, however, will soon shrink in Kansas.

Due to budget cuts, the Insect Diagnostic Lab at K-State will close on June 16 and the "Gotbugs" email address will not be monitored. Kansans can continue to submit samples to their county or district K-State Research and Extension agriculture agent, but the staff available to help with insect identification will be reduced, so turnaround times will take longer, Cloyd said.

<https://www.bookstore.ksre.k-state.edu/pubs/mf2653.pdf>

## SUDDEN FLUSH OF PLANT GROWTH HAS TICKS FLOURISHING

Almost overnight, we went from the drab, brown tones of winter to lush, green vegetation across much of the Plains, and the plants aren't the only living things that are thriving.

"In my experience this is the earliest we've had tick issues," said Kansas State University entomology professor, Raymond Cloyd, who said he fielded more calls and emails about ticks earlier than usual this spring.

While it's hard to know for sure if there are more ticks than normal, Cloyd, a veteran specialist with K-State Research and Extension, said the cool, rainy weather in parts of Kansas and other states, followed by a quick profusion of plant growth may have boosted the tick population.

### Common Kansas Ticks

Figure 2. American dog tick



female



male

Figure 4. Brown dog tick



female



male

Figure 3. Lone Star tick



female



male

Figure 5. Black-legged tick



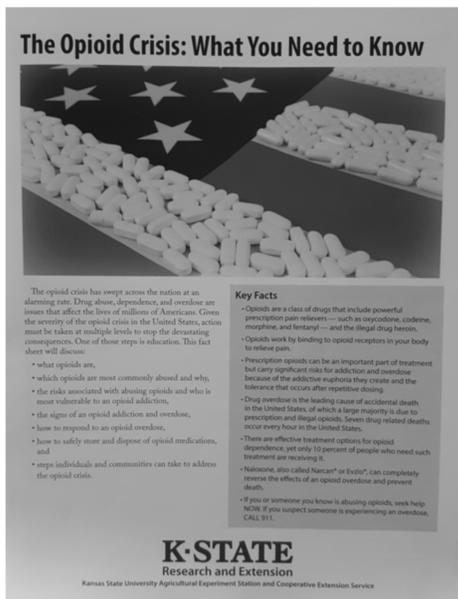
male



female

## KSRE HAS A NEW FACT SHEET ON OPIOID CRISIS

With no shortage of news coverage about the opioid crisis affecting people from every socio-economic level in communities large and small across the country, it's helpful to step back and take a look at exactly what opioids are, the risks, and how to respond whether they're a problem in your home or your community.



A fact sheet, “[The Opioid Crisis: What You Need to Know](#),” developed by Kansas State University assistant professor Erin Yelland is available online or at local K-State Research and Extension offices. Yelland is a specialist on adult development and aging with K-State Research and Extension.

Opioids are a class of drugs that include powerful prescription pain relievers, including oxycodone, codeine, morphine, and fentanyl, and the illegal drug heroin. The prescription drugs can be an important part of treatment and are commonly prescribed by doctors for pain. They also carry the significant risk for addiction and overdose because of the euphoria they create and the tolerance that occurs after repetitive dosing.

Many people are prescribed these medications by a doctor for legitimate reasons – often for pain management – but anyone who takes a prescription opioid for an extended period of time or does not take it as prescribed is at risk for misuse and abuse.

From 1999 to 2015, the amount of prescription opioids dispensed in the United States nearly

quadrupled, yet there has been no verifiable change in the amount of pain that Americans report, according to the U.S. Centers for Disease Control and Prevention. At the same time there has been a dramatic increase in prescription opioid misuse, abuse, overdoses, and deaths.

“Although Kansas is far from being one of the states that has been hardest hit by the opioid epidemic, it is crucial that we take steps to bring awareness and education to Kansans on the crisis before it gets worse,” Yelland said. “K-State Research and Extension is dedicated to providing unbiased, research-based information on a variety of issues important to Kansans, and we are now providing educational resources on the opioid crisis and steps that individuals, families, and communities can take to help prevent further deaths in our state.”

### Make A Change

#### Practice safe storage of medications

Treat opioid medications like you would a firearm:

- Store in a safe, secure location
- Utilize a lockbox
- Never leave medications on a counter, nightstand, or other accessible locations
- Return medications to a secure location after each use

#### Dispose of medications safely:

- Dispose of your medications at DEA authorized collectors or at drug take-back events
- Utilize medication disposal bags
- Mix your medication with an undesirable substance, seal it in a bag, and dispose of it in your household trash
- Mark out labels and safely dispose of your medication bottles so you don't become a target for break-ins

### Save a Life

#### Know how to respond in an emergency

Signs of an overdose are:

- Shallow breathing
- Gasping or choking for air
- Pale skin
- Blue lips and/or fingertips
- Small, pinpoint pupils
- Unconsciousness

If you suspect someone is overdosing:

1. **Rouse and stimulate.** Attempt to wake the person.
2. **Call 911.** The dispatcher may advise you to perform CPR.
3. **Administer naloxone.** If you or another bystander has naloxone, administer it.

Education at both the individual and community levels is one of those steps needed to help reverse the opioid epidemic, she added.

“By helping individuals understand what opioids are and the risks associated with taking them, we hope to empower them to be proactive in their own healthcare and seek appropriate alternatives if opioids are not a good fit for them. We are also working to provide individuals with the skills to recognize addiction and overdose so that they can help people in need. Finally, we are working to provide community leaders and stakeholders with the tools they need to reduce the impact of the opioid crisis on their local communities,” Yelland said. “By educating Kansans on what they can do to help themselves and each other, we hope to avoid the devastation that states like Ohio and West Virginia have already experienced.”

Several years ago, K-State Research and Extension committed to focusing on five “grand challenges” Kansas faces, including health, Yelland said, adding that educational information about the opioid epidemic is one of many efforts to help Kansans achieve better health. The other grand challenges are water, global food systems, developing tomorrow’s leaders and community vitality.

More information is available online at the [K-State Research and Extension bookstore](#).

**The Opioid Crisis**

The opioid epidemic has become a public health crisis with devastating consequences.

**Opioids** include powerful prescription pain medications and the illegal drug, heroin

**~25%** of patients prescribed opioids for pain misuse them

**115+** Americans die each day from opioid overdose

**80%** of heroin users first used prescription opioids

If change doesn't occur, the death toll will keep rising.

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## ROUGHLEAF DOGWOOD CONTROL

Roughleaf dogwood (*Cornus drummondii*) is a native shrub found throughout the eastern two-thirds of Kansas. It is commonly found along fencerows, the edge of trees, on streambanks, and in open prairies. The plant does provide wildlife cover and nesting sites for birds. Roughleaf dogwood blooms with white flowers in late May and early June and produces white, round fruit in September and October.

Roughleaf dogwood is rarely grazed and invades grassland in the absence of prescribed burning. The species continues to spread on the Konza Prairie, especially on sites with a 4-year burning frequency. Pastures that are frequently burned usually do not have a roughleaf dogwood problem. Once established, roughleaf dogwood is difficult to remove with fire alone as the plant usually leafs out after the burning season. Long-term late spring burning may gradually reduce roughleaf dogwood stands.

As of early June this year, roughleaf dogwood is in full bloom. The optimum time to spray roughleaf dogwood is between the flower bud state and early seed production. This time frame corresponds to increasing food reserves in the root/crown of the species.



A number of foliar-applied herbicides including triclopyr (Remedy Ultra), dicamba (Banvel), and picloram (Tordon 22K), used alone or in combination with 2,4-D, will defoliate roughleaf dogwood, but actual mortality is usually less than 25%. Roughleaf dogwood can be difficult to control. High-volume treatments providing greater than 50% mortality include 1% PastureGard (triclopyr + fluroxypyr), 0.5% Surmount (picloram + fluroxypyr), and 1% Grazon P+D + 0.5% Remedy Ultra (picloram + 2,4-D + triclopyr). All these herbicides are applied with water. Adding a 0.25 to 0.5% v/v non-ionic surfactant may enhance control.

Aerial applications should be applied in a minimum 3 gallons per acre total spray solution to insure adequate coverage. Broadcast rates for roughleaf dogwood control would include 3-6 pints/acre Surmount or combinations of picloram + 2,4-D + triclopyr, e.g. 1 pt/acre Tordon 22K + 2 pt/acre 2,4-D + 1 pt/acre Remedy Ultra or 4 pt/acre Grazon P+D + 1 pt/acre Remedy Ultra.

A single application of any herbicide does not completely eliminate roughleaf dogwood, but may open up the stand enough to carry a fire. In subsequent years, a combination of prescribed burning in the late spring followed by a herbicide application 4-6 weeks post burning should provide good control.

Soil-applied materials such as Spike 20P (tebuthiuron) and Pronone Power Pellets (hexazinone) can provide control of roughleaf dogwood. Spike 20P should be applied during the dormant season at 0.75 ounces product per 100 square feet. This is equivalent to 20 pounds of product per acre. Pronone Power Pellets should be applied when the soil is moist and rainfall is expected within 2 weeks of application. For plants 3-6 feet tall apply 2-4 pellets at the base of the plant. Expect to see grass damage following use of Pronone Power Pellets.

These dry soil-applied products may be useful in areas where spray drift may cause considerable non-target damage.

Walt Fick, Extension Rangeland Management Specialist

## BLASI'S JULY BEEF PRODUCER TIPS

### Cow Herd Nutrition

- ⇒ Provide plenty of clean, fresh water.
- ⇒ Provide free-choice mineral to correct any mineral deficiencies or imbalances.
- ⇒ Monitor intake to insure levels are consistent with label specifications.
- ⇒ Monitor grazing conditions and rotate pastures if possible and/or practical.
- ⇒ If ammoniated wheat straw is planned for winter needs, follow these rules:
  1. Best time is immediately after harvest,
  2. Process is temperature sensitive, fastest during hot days.
  3. Apply 3% Anhydrous Ammonia (60 pounds/ton of straw).
  4. Do **not** ammoniate wheat hay or any other intermediate or high quality forage; production of imidazole can cause cattle hyperactivity and death.
  5. Will double crude protein content, enhances intake, and be cost effective.
- ⇒ Consider early weaning if drought conditions develop and persist.
- ⇒ Consider creep feeding only if cost effective.

### Herd Health

- ⇒ Monitor and treat pink eye cases.
- ⇒ Provide fly control. Consider all options, price and efficiency will dictate the best option(s) to use.
- ⇒ Monitor and treat foot rot cases.
- ⇒ Avoid handling and transporting cattle during the hottest part of the day-reduce heat stress.
- ⇒ Vaccinate replacement heifers for Brucellosis if within proper age range (4 - 10 months).
- ⇒ Continue anaplasmosis control program (consult local veterinarian).

### Forage/Pasture Management

- ⇒ Check and maintain summer water supplies.
- ⇒ Place mineral feeders strategically to enhance grazing distribution.
- ⇒ Check water gaps after possible washouts.
- ⇒ Harvest hays in a timely manner for quality and quantity.
- ⇒ Harvest sudan and sudan hybrids for hay in the boot stage (normally three to four feet in height). It is a good idea to run a routine nitrate test on a field before harvesting hay.
- ⇒ Plan hay storage placement wisely. Putting hay conveniently near feeding sites reduces labor, time demands, and equipment repair cost.

### General Management

- ⇒ Good fences and good brands make good neighbors.
- ⇒ Check equipment (sprayers, dust bags, oilers, haying equipment) and repair or replace as needed. Have spare parts on hand, down time can make a big difference in hay quality.

Dale Blasi, Extension Beef Specialist

**River Valley Extension District**Washington Office  
214 C. Street, Courthouse  
Washington, KS 66968-1928**NON-PROFIT  
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PERMIT NO. 3****Address Service Requested****RIVER VALLEY DISTRICT****“2018 UP-COMING MEETINGS & EVENTS”**

<b>DATE</b>	<b>TIME</b>	<b>PROGRAM</b>	<b>LOCATION</b>
June 6	8:30am	RVED 2018 Wheat Plot Tour	Belleville-NCK Experiment Field-1.25 miles west on US Hwy. 36
June 12	8am	RVED 2018 Wheat Plot Tour	Wakefield-1.5 miles east on Hwy. 82
June 19-22		Kansas Range Youth Camp	Murdock, KS-Camp Mennoscah, Kingman County
June 25-26		2018 Rural Grocery Store Summit	Hilton Garden Inn, Manhattan, KS <a href="http://conferences.k-state.edu/ruralgrocery/">http://conferences.k-state.edu/ruralgrocery/</a>
July 17-22		Washington County Fair	Washington
July 18-22		Clay County Fair	Clay Center
July 24-28		Cloud County Fair	Concordia
July 30-Aug. 4		NCK Free Fair	Belleville
August 15		K-State Ranching Summit	Manhattan-KSU Alumni Center
October 12		Animal Science Family and Friends Reunion	Manhattan-
October 19-21		Kansas Certified Wool Classing School	Manhattan
October 19-21		Kansas Sheep Shearing School	Manhattan