# **K-STATE** Rolling Prairie District **Research and Extension**



# Fall 2023

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# **Rolling Prairie Extension Upcoming Events**

#### September

- 4 Labor Day—Extension Offices Closed
- 6 Field Day @ Bressner Range Research Unit, Yates Center
- 8-17 Kansas State Fair—Hutchinson
- 30-10/2 Kansas Junior Livestock Show (KJLS)—Hutchinson
- 13 Friendly Neighbors EHU

#### October

- 1 4-H New Year; 4-H Enrollment Begins
- 1-7 National 4-H Week
- 7-8 48 Hours of 4-H

#### November

- 10 Veteran's Day—Offices Closed
- 23-24 Thanksgiving—Offices Closed

December 25-29 Offices Closed—Merry Christmas!



A new, revised, digital Kansas Garden Guide is available online (for free) at the KSRE Bookstore . Click on the picture of the book above!

If you would like a hardcopy of the new 196-page guide, it is available for \$44.00 through the KSRE Bookstore.



# Publications Available at Extension Offices

Several new items are available to producers that may be of help to them starting the new year.

- 2023 Chemical Weed Control Guide
- 2023 IRM Redbooks
- Farmers Tax Guide For Help in Preparing
- 2022 Tax Returns
- Farm Account Books

Stop by either office to get your copy.

## **Tips to Save on Your Energy Bill**

MANHATTAN, Kan. — As rising costs continue to hit Americans' pocketbook, the director of the <u>Kansas</u> <u>Energy Program</u> housed at Kansas State University says some common-sense measures can help homeowners save on their energy bill.

David Carter says a good place to start is to determine what your costs are, and whether they are trending up or down. He said the cost per kilowatt hour (kWh) that homeowners see on their energy bill can change independently of the other rates (e.g., transmission charge, customer charge, fuel charge and more).

"To figure out your cost per kilowatt hour, take the electricity charge divided by the electricity used," he said. "This will help you figure out how much each kilowatt of energy is costing you."

Then, he said, start monitoring how much you use those household items that are major energy draws, including:

- Air conditioner.
- Stove and oven.
- Incandescent lights.
- Televisions.
- Furnace (during the winter).

The geographical location of the home also has an impact on the energy bill, according to Carter.

"In a rural area, your house will be isolated, which allows it to be more affected by the environment," he said. "In an urban area, you are more protected and, if you live in an apartment, you can benefit from the floor above or beneath you. Alternatively, urban areas can also be subject to the urban heat island effect, which would increase temperatures and could result in higher energy costs." Additional tips to help save energy and money include:

- ⇒ Keep items that draw electricity turned off as long as possible.
- $\Rightarrow~$  Use automatic settings to turn appliances on and off.
- $\Rightarrow~$  Install LED lights instead of incandescent.
- $\Rightarrow$  Turn the lights off when not using them.
- $\Rightarrow$  Use fans to circulate cool air.
- $\Rightarrow$  Install and use a programmable thermostat.
- ⇒ Install insulation or weather-stripping around doors and windows.

Apply for the Rural Energy for America Pro-

gram (available to farmers and small businesses in rural areas; funding cannot be used for residences).

Carter recommends a publication on 16 ways to cut energy costs and save money to help homeowners. That publication is <u>available online</u>.

# A 4-H Project: More than a Fair Entry

4-H project-based learning provides a place for youth to explore their interests and passions — or what we like to call their sparks! Youth learn from caring adult volunteers, or in some cases through self-guided study, in projects in areas such as science, health, agriculture, and citizenship. Screened adult volunteers provide a safe and positive environment where youth learn by doing. Young people thrive through 4-H participation, finding their way to success in life and career.



## **Plan Now for Christmas!**

Christmas is just around the corner and it's not too early to start planning. Christmas is one of the most joyous times of the year—and often the busiest.

"By planning, we can avoid over-spending due to the excitement of the season, and thus control our money rather than the season controlling us," **s**ays Elizabeth Brunscheen-Cartagena, a family life and resource management agent in K-State Research and Extension's office in Sedgwick County.

"By planning, we can avoid over-spending due to the excitement of the season, and thus control our money rather than the season controlling us."

Brunscheen-Cartagena shares points to ponder well in advance of the busy season.

• **Create a budget for gifts.** "Make a list of all the people for whom we plan to give gifts and assign an amount you want to spend," she said. "Gradually save that money and put it in an envelope with the person's name on it." This also gives you time to think through the types of things that the recipient might like.

### **4-H Happenings**

#### September

#### 8-17 Kansas State Fair—Hutchinson

22 Record Books, Achievement Pin Applications, Excellence Award Applications, Club
Summary Reports and Officer Notebooks Due
30-10/2 Kansas Jr. Livestock Show—Hutchinson
October

- 1 Beginning of New 4-H Year
- 1-7 National 4-H Week
- 7-8 48 Hours of 4-H
- 21 CQ—BINGO Fundraiser @ Fairgrounds27-28 CQ—4-H Spook Walk @ Fairgrounds

November

18 CQ—4-H Achievement and Supporters' Banquet—Noon @ Bowman Building, Fairgrounds

• **Recognize talents.** If a child or other person likes to cook, buy a simple cookbook and the dry ingredients for one of the recipes. If another person likes to paint, gradually buy brushes, paint or a canvas and put it in a decorative bag. Express yourself by making decorative jars with ingredients for a soup mix or hot chocolate recipe.

• **Plan your get-togethers.** If family is meeting up for holiday cheer, decide on whether there will be a gift exchange involving children, adults or both. Assign chores or dinner responsibilities to different families instead of taking on all the work and cost.

• Avoid the last-minute rush. Decide on gifts in advance so that you can compare prices between stores.

"Planning for the holidays will save us time, money and energy," Brunscheen-Cartagena said. "At the same time, it will bring us peace of mind, good relationships and a lot of happiness for us and our loved ones, which is the purpose of the holidays."

"At the same time," she adds, "it will bring happiness and relaxation for our pocket.

# What are the Yearly Precipitation Totals For Chautauqua and Elk Counties and How Far Behind Are We This Year?

See the table below for the yearly precipitation totals for both counties from 2010 - 2023. Information is from the Kansas State University Mesonet Weather Data Library. Precipitation amounts are measured at Sedan and NW Howard sites.

Yea	r	Chautauqua County	Elk County	_
201	0	34.83	36.31	
201	1	32.71	30.29	
201	2	28.26	26.65	
201	3	48.82	45.73	
201	4	29.56	31.02	
201	5	40.80	41.54	
201	6	40.03	43.48	
201	7	41.77	35.77	
201	8	39.55	37.33	
201	9	50.70	50.14	
202	0	41.98	38.27	
202	1	34.80	35.64	
202	2	29.88	32.62	
				Totals as
202	3	17.33	18.22	of 8/22/23

#### Yearly Precipitation Totals (in inches) for Chautauqua and Elk Counties 2010 - Present

# It's Time to Bring Houseplants Back Indoors

Cooler temperatures tell us it's time to bring our houseplants back indoors, but you might want to do a few of these things first.

- Inspect the leaves to make sure you don't invite a few unwanted houseguests into your living space. Check under the leaves for aphids, mitres and other living visitors. A sharp blast of water from the hose should do the trick.
- After spraying, soak the plant in a tub of lukewarm water for about 15 minutes to force out straggling insects that may be in the soil.
- Clear all dead, dying and decaying debris from the plant.

- I like to leave mine in the garage for a few days, just to make sure no creepy crawlies have decided to hitch a ride.
- To acclimate your plants to indoor lighting, you might start with them in an area that gets plenty of light. Gradually move them to the area that will be their winter home. This will help them retain their leaves and avoiding the stress of moving indoors.
- For those that aren't really houseplants (like nonwinter hardy hibiscus), I set up a grow light in the garage to help them survive the winter. Remember, they still need water. Just not as frequently.
- Dig up those bulbs, like Elephant Ears, and pack them in a tub of peat moss . Then put the tub in a dark area to over winter.



October 18, 2023 10am-2pm Eureka, Kansas

Women In Ag

The Greenwood County Conservation District and friends will be hosting the 7th annual event. Everyone is invited and lunch will be served!

Contact Keila Sherman, Greenwood County Conservation Phone: 620-583-5544 ext. 3 Email: gwcokansasconservation@gmail.com

# Start your Wildflowers in the Fall

Typically, we think of planting flowers in the spring. Native plants, however, can be planted in the fall when natural seeding occurs. Perennial forbs or wildflowers like Black-eyed Susan, Maximillian Sunflower, or clovers often do very well when planted in the fall.

Frost seeding, or spreading seeds over frozen ground, has the benefit of natural stratification. Many seeds have to go through the cold of winter in order to sprout in the spring. Good seed-to-soil contact occurs through moisture and frost action. Don't worry, germination usually doesn't occur until spring.

Sometimes the seeds you plant become a winter meal for wildlife; or weed competition when things start spouting in the spring. Mulching helps with this and helps to retain moisture.

This year, I'm going to start my native seeds in a soil ball: A damp ball of compost wrapped in a layer of natural artists clay. I can then place (or toss) the seed balls where I want them and hopefully they'll benefit from the cold and be protected over the winter so I can have beautiful flowers in the Spring.

WEDNESDAY SEPTEMBER 6, 2023 **REGISTRATION 9:30 AM** LUNCH INCLUDED WITH RSVP

ACROSS ROAD FROM 1043 100TH RD YATES CENTER, KS

UNIVER

PASTURE

STATE

RANGE RESEARCH UNIT

BRESSNER

ANSAS

RONTIER

2023 Previous & Progress Previous Proceedings Research Proceedings TOPICS INCLUDE

5-year results on cattle and pasture March vs April burn and essential oils for fly control

### Historical Research completed at the unit

Patch-burning 1/2 vs 3/4 season grazing Sheep for Serecia lespeza Fall Grazing Native Range

**Technology and Future of Stockers** 

Usage of drones in production Remote water monitoring Weather forecasting and Animal Comfor Technology tools to capture data



To RSVP contact by August 30

outhwind Extension District Woodson Co. Office 620-625-8620 via OR code or online

The morning sessions will highlight the historical work, while the afternoon sessions will focus on the "future", or at least what can potentially be used to make pasture and cattle management decisions from a technology lens. The event is scheduled to end around 3 PM. We hope that you can attend the event. If you are able to attend please contact Jaymelynn Farney, Beef Systems Specialist, Kansas State University President, Bressner Pasture committee, jkj@ksu.edu, 620-820-6125, or register by August 30th to the Southwind Extension District – Woodson County Office (620) 625-8620. Registration guarantees you a lunch at the event. Lunch will be provided and is catered by the Yates Center school district with the FFA and FBLA chapters serving the meal. Also, if you are needing anything in order to attend the meeting (dietary considerations, accessibility, etc.) please contact either myself or the Woodson County Extension Office so that we may meet your needs.

## Small Grain Options for Fall Forage

Small grain forages can be a profitable option for producers. They can be planted in the fall and either terminated or grazed out in the early spring, allowing time to plant a summer row crop if soil moisture is adequate. There are five common small grain options for forage: spring oats, winter wheat, winter barley, winter cereal rye, and winter triticale. Each has its strengths and weaknesses.

*Spring oats*. Spring oats are usually planted in late February or March in Kansas. But spring oats can also be planted in August -- and if done so, they will produce much more fall forage than any of the other

small grain forages in the fall before a killing freeze. They will almost never produce grain if planted in August. Spring oats do not need to vernalize before heading. They will develop rapidly in the fall if they have enough moisture and nutrients, and may even head out before being killed by the first hard freeze in the mid 20's, but in most years will not have time to produce viable grain.

Spring oats can be utilized in the fall for either hay or grazing. Spring oats can be ready to graze 6 to 8 weeks after planting with adequate moisture. Under good conditions, spring oats can produce up to 1 to 2 tons of forage per acre, but as planting is delayed past early August expect less tonnage. Spring oats are not very drought-tolerant, and will not establish well or produce much forage if soils are very dry. Rye and barley are more drought-tolerant than spring oats. Spring oats should be seeded at the rate of 2 to 3 bushels (or 64 to 96 pounds) per acre. About 30 to 50 pounds of nitrogen per acre will be adequate depending on yield potential and if no excess nitrogen is available in the soil.

Oat pasture can generally carry 500 pounds of beef per acre. Average daily gains range from 1.5 to 2.5 pounds per head per day. Forage quality on actively growing oats is high, with protein content in the range of 20 to 25%. Oats are fairly susceptible to atrazine so if producers plan on planting oats this fall after corn or milo, risk of herbicide carryover that can kill seedling plants does exist.

*Winter wheat*. Wheat is often used for grazing and grain in so-called "dual-purpose" systems. These kinds of systems are usually balanced between getting good forage and good grain yields without maximizing yields on either side. Dual-purpose wheat is typically planted one to two weeks earlier than wheat planted for grain only, which can increase the risk of a wheat streak mosaic infection. Also, producers wanting both grazing and grain should use a higher-than-normal seeding rate and increase the nitrogen rate by 30 to 50 pounds per acre. Producers who need more pasture than normal can plant even earlier, at the likely expense of lower grain yields. Planting very early opens wheat to many risks, such as wheat streak mosaic, barley yellow dwarf, Hessian fly, and



common root rot. Wheat can also be grazed out, foregoing grain yield altogether. Wheat usually produces most of its forage in late fall and early winter, and again in the spring. There are differences among varieties in how much fall forage is produced.

*Winter barley*. There are now new, improved varieties of winter barley available with better winterhardiness, especially under grazing. Many of the

newer varieties also produce more forage than older varieties. Barley produces palatable growth rapidly in the fall under favorable conditions. It is considered supe-rior to other cereals for fall and early winter pasture, but wheat, triticale, and rye provide better late winter and spring grazing. Barley has excellent drought and heat tolerance. Winter barley forage is typically the most palatable of the small grain cereals. And feed quality is the highest, as well.

*Winter rye*. Rye establishes fall pasture quickly. It also regrows rapidly in late winter and early spring. However, rye becomes stemmy and unpal-atable earlier in the spring than other cereals. Since rye is less palatable and higher in fiber than wheat or barley, cattle gains during grazing are normally greater on oat, wheat, triticale, and barley pasture than on rye pasture. Rye is the hardiest of the small grain cereals for overall tolerance to drought, heat, winterkill, and poor soil conditions.

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#### Small Grain Options Cont'd.

*Winter triticale*. Triticale, a cross between wheat and rye, possesses the toughness of rye along with the quality of wheat. It can be grazed much harder than wheat and still recover to produce grain. Triticale has longer effective spring grazing than rye, but not as long as wheat. Depending on the variety, winter triticale will head later than rye so the forage can remain higher in quality later into the spring. Heading date on all winter cereals should be a consideration if spring grazing is the goal.

As planting dates get later in the fall, producers will get more fall forage production from triticale and rye. The later it gets, the more rye becomes the best option if fall forage is needed. When planting a small grain cereal primarily for forage, use a seeding rate about 50 percent higher than if the crop were grown for grain. In eastern Kansas a seeding rate near 2 bu/ acre is recommended. Also, when planting a small grain cereal for grazing purposes, nitrogen (N) rates should be increased by about 30 to 50 lbs/acre. To determine the actual amount of additional N needed, the following formula can be used: Additional lbs N/acre = (No. animals/acre) x (lbs of weight gain/ animal) x 0.4

In a graze-out program, all the N may be applied in the fall. But split applications will reduce the chances of having a problem with nitrate toxicity. In addition, there may be excess nitrogen this fall from failed summer crops, so producers should use caution when putting on nitrogen this fall without a profile nitrogen soil test. Under good growing conditions, a well-fertilized small grain dryland pasture can carry about 500 pounds of cattle per acre. Under poor growing conditions, stock-ing rates should be reduced considerably. Cattle gains of 1.5 to 2.5 or more pounds per acre per day are possible dur-ing periods of good pasture production. Fall grazing management is critical to the success of small grain pastures. Begin grazing when the plants are well rooted and tilled, usually about 6 to 8 weeks after planting. If the foliage is too tall when the animals are introduced, or if the crop is over-grazed, the plants will be more susceptible to winterkill. Make sure some green leaves remain below the grazing level. The minimum stubble height should be about 3 to 4 inches. Rye has a more upright growth pattern than most wheat varieties, so it should not be grazed as low. Winter barley is more susceptible to winterkill than rye or wheat. However, newer varieties of barley are exhibiting increased winter hardiness.

In terms of overall forage quality of hay, barley is highest, followed by oats, wheat, triticale, and rye. During the fall and early spring periods of peak production, the crude protein content of small grain pasture is nor-mally about 20-25 percent. Growing cattle require about 12 percent crude protein, thus no protein supple-ments are necessary.

Small grain pastures can cause bloat. Daily supplementation with poloxalene (Bloat Guard) is highly effective in reducing bloat and is available in many different feeding forms. Feeding high-quality grass hay, silage, and/or an ionophore such as Rumensin or Bovatec can also provide some protection against bloat. Rumensin and Bovatec have also been shown to increase stocker cattle weight gains on wheat pasture. Mineral supple-ments containing magnesium are necessary when grazing cattle on small grain pasture to minimize the occurrence of grass tetany.

What's in Season for Fall?					
Banana	Beets	Blackberries	Broccoli		
Brussels Sprouts Dates	Cabbage Figs	Cauliflower Grapes	Cranberries Leeks		
Apples	Persimmon	Pineapple	Pomegranate		

# **Testing Forages Before Feeding This Winter**

Hay baled this summer will vary quite a bit as far as its nutritive value considering the hot, dry weather we have had and the time of the year it was baled. However, the only way to know the quality of it or the nutritive value is to forage test. In the past you may have judged forage quality by color, odor, yield or other factors. To do this may be misleading, as these are not true indicators of quality and nutritive value. Cattle producers must remember that <u>quantity</u> and <u>quality</u> of hay are independent characteristics of their hay crop.

Forage analysis can be a useful tool to remove some of the mystery concerning the hay that producers will feed this winter. Testing the grass hays this year for protein and energy content will help the producer design winter supplementation programs most appropriate for the forage supply that is available. Any of the potential nitrate accumulating hays should be tested for nitrate concentration.

Forage quality has two important benefits to cows or heifers. First higher quality forages contain larger concentrations of important nutrients so animals consuming these forages should be more likely to meet their nutrient needs from the forages. Secondly, and just as important, animals can consume a larger quantity of higher quality forages. Higher quality forages are fermented more rapidly in the rumen leaving a void that the animal can fill with additional forage. Consequently, forage intake increases. For example, low quality forages (below about 6% crude protein) will be consumed at about 1.5% of body weight (on a dry matter basis) per day. Higher quality grass hays (above 8% crude protein) may be consumed at about 2.0% of body weight. Excellent forages, such as good alfalfa, silages, or green pasture may be consumed at the rate of 2.5% of body weight per day. The combination of increased nutrient content AND increased forage intake makes high quality forage very valuable to the animal and the producer.

The value of forage testing can best be illustrated by comparing the supplement needed to meet the nutrient needs of cows in the winter. Assume we are feeding hay to a 1200 pound spring-calving cow in late gestation. She needs 1.9 pounds of crude protein to meet her needs and that of the growing fetus. If she consumes 2.0% of her body weight in a low quality grass hay (4.0% Crude Protein) she will receive 0.96 pounds of protein from the hay leaving a deficiency of 0.94 pounds of protein needed

from the supplement. To meet her protein needs with a 30% crude protein supplement would require 3.13 pounds of supplement each day. However, if the same cow was consuming a higher quality grass hay (7.0% Crude Protein), then she receives 1.68 pounds of protein from the hay and must be given enough supplement to meet the 0.22 pounds that is lacking. Now, to meet her needs the cow only needs 0.73 pounds of the same supplement per day. Because of the difference in hay quality the supplement needs vary by four fold!

There are several good methods of sampling hay for forage analysis. Most nutritionists would prefer to use a mechanical coring probe made specifically for this purpose. The coring probe is usually a stainless steel tube with a serrated, cutting edge. It is one inch in diameter and is designed to fit on a 1/2 inch drill or brace. Cordless drills make these tools quite mobile so that the hay bales to be tested do not have to be hauled to be near an electrical outlet. The hay samples are placed in paper or plastic bags for transfer to a forage testing laboratory. Cores are taken from several bales at random to obtain a representative sample to be analyzed.

Grab samples can also be obtained and tested. To receive the best information, grab several samples by hand from about 6 inches into the open side of the bale or the middle third of a small round bale. Place all of the sample in the bag. Do not discard weeds or stems, just because they look undesirable. They are still part of the hay that you are offering to the livestock. Be certain to label the forage samples accurately and immediately, in order for the laboratory analysis to be correctly assigned to the proper hay piles or bales. Obviously the more samples that are sent to the laboratory for analysis, the more information can be gained. Just as obvious is the fact that as the number of samples increase, the cost of forage testing increases.

Both Extension Offices have hay test probes available for check-out to assist producers in sampling hay. I also have a computer program to assist you in working rations to see if they are balanced when feeding your cows. If you would like to run through some sample rations that you are planning on feeding to your cows this winter to see if it is balanced and going to do what you think it will, let me know.



# **Control woody plants on rangeland: Basal bark and cut-stump herbicide applications**

Late summer and fall can be an excellent time to treat unwanted stands of woody plants. Scattered stands of individual trees should either be treated individually using the basal bark method (for labeled plants less than 4-6 inches in diameter) or the cut stump treatment method. The basal bark and cut stump treatments will not be effective if the plants cannot be treated down to the soil line. Avoid conditions where water (or snow later in the season) prevents spraying to the ground line. Unlike foliar applications, basal bark and cut-stump treatments are less affected by weather.

#### **Basal bark application method**

Producers can treat smaller diameter susceptible woody plants individually this fall by spraying the basal stem parts with triclopyr plus diesel fuel or a commercially available basal oil. The lower 12-15 inches of the stems or trunks of susceptible small trees should be thoroughly wetted on all sides with a triclopyr-diesel mixture. Triclopyr goes by the tradenames Remedy Ultra and Pathfinder II. Remedy Ultra is a 4 lb/gallon product. The labeled recommendations for Remedy Ultra are 20-30% solution in diesel. Pathfinder II is a ready-to-use product and does not have to be mixed with diesel. PastureGard HL is a premix of triclopyr and fluroxypyr, and can be applied as a basal bark or cut-stump treatment as a 25% solution in diesel. Crossbow, a mixture of triclopyr and 2,4-D, can also provide control of certain woody plants as a 4% solution in diesel. Milestone, with the active ingredient aminopyralid, is effective on black and common honeylocust. Mix Milestone 5% v/v with a compatible basal oil; e.g. Dyne-Amic from Helena Chemical. Before selecting a basal oil, do a jar test by mixing Milestone and basal oil to determine compatibility.

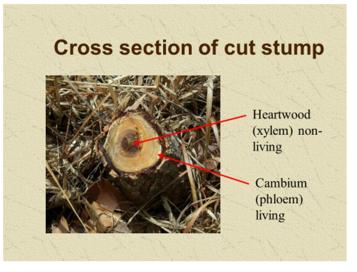
#### **Cut-stump method**

If the woody plant is greater than 6 inches in diameter, the best method is to: • Treat the cut surface with triclopyr and diesel fuel within 30-60 minutes, before the sap seals over the exposed area.

• Spray the cambium and light-colored sapwood to insure translocation of the herbicide (Figure 1).

Treat any exposed trunk or exposed roots.

The stump of ash, cottonwood, elm, oaks, persimmon, willow, and Russian olive can be treated with a 1:1 ratio of dicamba (Clarity, Sterling Blue) in water instead of triclopyr if desired. The stumps of Eastern red cedar do not need to be treated since, unlike many woody plants, this species does not root sprout. Simply cutting Eastern red cedar below the lowest green branch will kill it. Common trees in Kansas that re-sprout after cutting include: ash, cottonwood, elm, oaks, osage orange (hedge), persimmon, black and common honey locust, saltcedar, and Russian olive. In sprouting species, new shoots arise from dormant buds at or below the ground often resulting in a multi-stemmed clump.





Common honeylocust can re-sprout from a wide diameter area around the main plant because of root suckers. One option is to make a basal bark treatment with triclopyr-containing products to kill the entire plant in the fall. Then the main plant can be cut down in subsequent years once the tree is dead. Cut-stump applications of Milestone as a 10% solution in water has been more effective than triclopyr on common honeylocust.

• Cut it off at ground level.

#### Woody Plant Control cont'd

#### **Cut-Stump Herbicides**

Herbicide	Active ingre- dients per	Rate
Crossbow <sup>1</sup>	2 lb 2,4-D + 1	4% in diesel
Remedy Ultra	4 lb triclopyr	20-30% in
Pathfinder II	0.75 lb triclopyr	Ready to use
PastureGard HL	3 lb triclopyr + 1 lb fluroxy- pyr	25% in diesel
Milestone	2 lb amino- pyralid	10% in water
Sterling Blue/ Clarity	4 lb dicamba	25-50% in water
Roundup PowerMAX	5.5 lb glypho- sate	50-100% in water
Arsenal	2 lb imazapyr	10% in water
Tordon 22K	2 lb picloram	10% in water
Capstone	0.1 lb amino- pyralid + 1 lb triclopyr	Undiluted

<sup>1</sup> Trade names are used to help identify herbicides. No endorsement is intended, nor is any criticism implied of similar products not mentioned.

Tordon RTU and Pathway can be used on cut surfaces in noncropland areas such as fence rows, roadsides, and rights-of-way. However, Tordon RTU, and Pathway are not labeled for use on range and pasture. Glyphosate labels vary on what sites are labeled for cut-stump application on rangeland. Roundup PowerMAX can be applied on any terrestrial site. Roundup ULTRA can only be applied as a cut-stump treatment on non-cropland. Be sure to check the label as rangeland is sometimes included as a site under non-cropland on some glyphosate labels.

Although exposure to animals is reduced by basal and cut-stump treatments, grazing and haying restrictions still need to be followed. There are no restrictions before grazing with any of the herbicides discussed. Check labels for restrictions for use prior to hay harvesting, removal of animals before slaughter, and for use around lactating dairy animals.

#### **Cut-Stump Treatments**

Species	Herbicides	
Ash	Crossbow, Pathfinder II, Banvel/ Clarity, Arsenal, Capstone	
Common honeylocust	Remedy Ultra, Pathfinder II, Pas- tureGard HL, Milestone, Sterling Blue/Clarity, Tordon 22K, Capstone	
Cottonwood	Crossbow, Remedy Ultra, Pathfind- er II, Sterling Blue/Clarity, Arse- nal, Capstone	
Elm	Crossbow, Remedy Ultra, Pathfind- er II, PastureGard HL, Banvel/ Clarity, Arsenal, Tordon 22K, Cap- stone	
Oaks	Remedy Ultra, Pathfinder II, Pas- tureGard HL, Banvel/Clarity, Roundup PowerMAX, Arsenal, Tor- don 22K, Capstone	
Osage orange (hedge)	Remedy Ultra, Pathfinder II, Pas- tureGard HL	
Persimmon	Remedy Ultra, Pathfinder II, Pas- tureGard HL, Sterling Blue/Clarity, Arsenal	
Russian olive	Crossbow, Pathfinder II, Sterling Blue/Clarity, Arsenal	
Salt cedar	Remedy Ultra, Pathfinder II, Pas- tureGard HL, Roundup PowerMAX, Arsenal	
Willow	Arsenal, Crossbow, Remedy Ultra, Pathfinder II, PastureGard HL, Roundup PowerMAX, Sterling Blue/Clarity	

#### Application tips for using cut-stump treatments:

- Always follow directions on the herbicide label.
- Before spraying, brush any sawdust or debris off cut surface.
- Apply herbicide to freshly cut stump.
- Spray cut surface and stump to ground level.
- Spray exposed roots above soil surface.
- The cambium layer is the critical area to spray.

Apply enough liquid that it pools on cut surface.



Rolling Prairie Extension District #8, Chautauqua and Elk Counties 215 N. Chautauqua Sedan, KS 67361

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