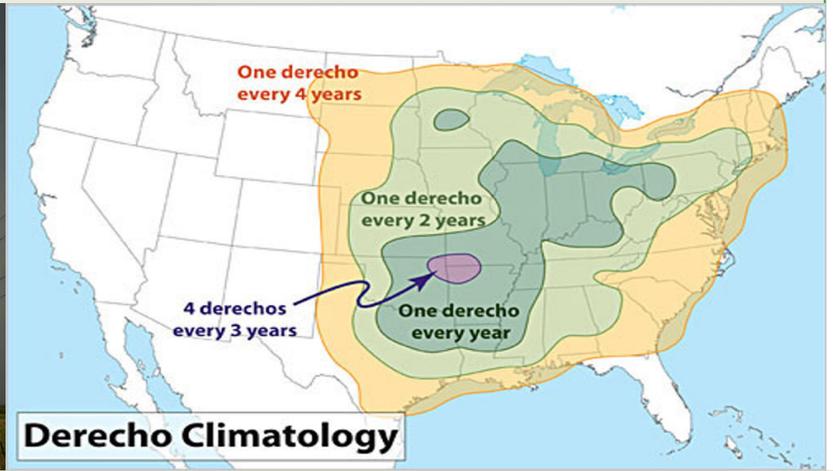




Stone County Soil and Water Conservation District

www.swcd.mo.gov/stone

May. 2022



Derechos are a major danger with destructive winds. They are most common in late spring and summer. Parts of the Great Plains, Midwest and South experience them most often. From the Spanish word for “straight”, these windstorms leave wide, long areas of straight-line wind damage that can be as strong as 60-100 mph or higher in extreme cases. They can create as much damage as tornadoes. To qualify as a derecho, there must be a concentrated area of thunderstorm wind damage with gusts at least 58 mph over a distance of at least 250 miles. Sometimes the leading edge will appear as a shelf cloud, a darker, dense, wedge cloud marking the leading edge of the storm’s strong winds. There are two types: serial and progressive. Serial appears in the fall & winter, sweeping ahead of strong cold fronts, while progressive are more compact, mainly hit in the summer and can produce the most intense winds; often occurring on the edge of a strong heat wave. The “super derecho” that barreled through the Great Lakes, Ohio Valley & mid-Atlantic states in late June 2012 was one of the most destructive storm complexes in U.S. history. Seek shelter if you see this shelf cloud!



Rainfall: *As of May 25th, we have recorded here at the Stone Co. SWCD office 11.47 inches of rainfall. For the same time period last year, we had 10.09” rain; in 2020, we recorded 8.49” ; and in 2019, 14.16”.*

MEMORIAL DAY BLOOMS: As most gather to visit the cemeteries over the Memorial Day holiday, or in just passing by, many will notice the abundant and beautiful blooms of the peonies that bloom in late May. The huge, lavish blooms can hardly be ignored and the floral scent is heavenly. These are one of the many favorite garden and landscape flowers used by people all over. After the Civil War, mourners used peonies to adorn the graves of fallen soldiers on Decoration Day, which is now called Memorial Day.



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Cowboy Logic:

“The trouble with doing something right the first time is no one appreciates how difficult it was.”

Water and Shade to Help Prevent Heat Stress in Cattle

Published: Friday, May 20, 2022

COLUMBIA, Mo. – This is the time of year when cattle producers need to pay extra attention to heat stress in their operations, says University of Missouri Extension beef specialist Eric Bailey.

Unlike many other animals, cattle can't rid their bodies of heat by sweating. Instead, they pant. Heat-stressed cattle show symptoms such as open-mouth breathing, slobbering and restlessness, Bailey says. Chronic heat stress leads to long-term problems such as decreased fertility and weight gain.

Breathing rate is a good indicator of heat stress in cattle, he says. Producers should be alert when respiration rates range from 90-110 breaths per minute. **Rates of 110-130 breaths per minute indicate a dangerous level of stress.** At 130 breaths per minute or above, producers should take emergency measures.

It is not just high daytime temperatures that create risks, Bailey adds. Overnight temperatures above 70 F create stress. Fermenting feed in the rumen also generates heat. Cattle can restrict critical airflow when they bunch up to reduce the amount of skin exposed to biting flies.

Producers should also keep humidity in mind when making decisions. Because of Missouri's high humidity, heat stress can occur when temperatures reach the 80s.

"The thermometer does not have to scream 'Uncle' at you before we have a severe heat stress event," Bailey says. Cattle can adjust to elevated temperatures and humidity, but abrupt shifts in temperature and even seasonal changes can bring on heat stress.

It takes six hours for cattle to cool down after a heat stress event, he says. Cattle body temperatures peak two hours after peak daytime temperatures.

Less obvious reasons for heat stress occurring include changes in watering source or location, Bailey says.

Reducing heat stress:

- **Water.** Allow 2-3 inches of linear head space for water. Bunk space for water is critical to preventing heat stress. Check water pressure to make sure tanks can keep full. This is especially important if cattle group together.

- **Sprinklers.** Use sprinklers to gently wet down animals. Avoid cold water shock. Do not mist the air to cool the animal; the mist will not get through the coat to reach the skin.

- **Water source.** Make sure the cattle are familiar with the type and location of the water source. Provide adequate water and space for cattle to drink.

- **Shade.** Bailey suggests looking online for shade structures to purchase or build yourself. You also can move animals to natural shade areas. Bailey recommends 20-40 square feet of shade per head. Shade cloth should be at least 8 feet off the ground for sufficient airflow. Orient shade either east-west or north-south. With an east-west orientation, the ground stays cooler but becomes muddy. North-south structures let shade move across the ground throughout the day.

- **Cattle handling.** Don't work cattle during high temperatures. Work in early morning. Don't let them stand more than 30 minutes in processing areas. Cattle in confined areas face more stress. Also, cattle eating tall fescue infected with toxic endophyte are particularly susceptible to heat stress during handling, says MU Extension forage specialist Craig Roberts. If it all possible, avoid handling cattle during periods of high temperature and humidity, Roberts says.

For more information: Eric Bailey shares tips on managing heat stress in beef cattle in a recording of the May 12 MU Extension Forage and Livestock Town Hall at youtu.be/LFPanhLO_PM (opens in new window).

The MU Extension publication "Hot Weather Livestock Stress" (G2099) is available free online at extension.missouri.edu/g2099.

Quality of Summer Stockpiled Fescue: Testing shows the nutritional value to be adequate for beef cows at any stage of production, (including early-lactation). Growing or finishing animals would require some supplementation with protein & energy. Forage quality analysis of summer stockpiled pasture, with its abundant leafy undergrowth, has averaged about 12% crude protein (CP) and 60% total digestible nutrients (TDN). The toxic alkaloid content tested, was no higher than what is commonly measured on conventionally grazed pasture. Spring fertilization with N, boosted the protein content of the final stockpile in the study, but had no measurable effect on yield. Recent research showed the yield range from 2.5-4 T./Ac. Typically stockpile is grazed by strip-grazing. The stockpile can with proper management, provide for 60 days or more of grazing. This gives rest to other fields.

Summer Stockpiling to Extend the Grazing System

Summer stockpiling is a system that excludes grazing from a portion of pasture acres during spring and summer in order to store forage for late-summer and early-fall while other pasture is stockpiled for winter grazing. A 2015-16 study funded by the Virginia Agricultural Council helped to document the summer stockpiling system and provide critical information on the forage quality it provides. The following protocol developed by the SVAREC, and has been used there since 2010 to consistently and predictably extend the grazing season into February or later.

- 1) Early spring. Select pasture to be summer-stockpiled and defer grazing on it from spring green-up through mid-August. Plan to summer stockpile around twenty-five percent of total pasture acres while rotationally grazing the remainder through spring and summer. At the SVAREC a whole-farm stocking rate of 2 acres of pasture/cow-calf pair has been used. Stockpiled plants should be allowed to mature and set seed without any grazing or mowing. Leafy regrowth will accumulate below the canopy and, by August, stems and seed heads will dry down and begin to deteriorate. While applying nitrogen does boost spring growth, it has not been found to increase yield of the final stockpile.
- 2) Late summer. Begin strip-grazing the summer stockpile in mid-August. The high stocking density afforded by limit feeding is critical to stretch the forage supply. Use electric poly-wire and tread-in posts to allocate two or three days-worth of pasture at a time. It may help to set up two grazing allotments using two separate fences so the first fence can be taken up and “leapfrogged” past the second one to move animals to their next portion of stockpile. No back fence is necessary and pasture should be grazed short before moving animals in order to optimize use of the forage. Animals can back-graze to the water source without permanent damage to plants because of the long recovery period that will follow.
- 3) Fall. As the summer stockpile is being grazed, apply nitrogen to other pastures and begin stockpiling fall growth for grazing in winter. When summer stockpiling is used on approximately twenty-five percent of pasture acres, cattle should be able to strip-graze on it for two months or more in late summer/early fall, allowing for the fall stockpiling of fifty percent of total pasture acreage elsewhere. This model has consistently extended the grazing season ninety days longer than the conventional grazing season

MU Extension Hosts Free Native Grass Management Conferences in July

Published: Thursday, May 19, 2022 **Writer:** Julie Harker

COLUMBIA, Mo. – One of the easiest and most cost-effective ways to increase forage for livestock production and improve wildlife habitat is through proper management of pastures and grasslands, says Bob Pierce, University of Missouri associate extension professor in fisheries and wildlife.

This summer, MU Extension will hold two free conferences on native grass management: July 12 at the MU Southwest Research, Extension and Education Center near Mount Vernon and July 14 near Linneus at Cornett Farm, part of the MU Northern Missouri Research, Extension and Education Center.

The conferences are being held in partnership with the Missouri Department of Conservation (MDC) and the USDA Natural Resources Conservation Service (NRCS).

Native warm-season grasses provide a forage that lets producers maximize opportunities for improved grazing and haying on their property, says MU Extension agronomy specialist Tim Schnakenberg. “With increased fertilizer costs, native grasses are getting a new look and interest from producers wanting to incorporate these grasses into their grazing systems.”

MU Extension agronomy specialist Valerie Tate says the conferences will feature presentations and expertise from a variety of organizations, including MU, MDC, NRCS and the University of Tennessee’s Center for Grasslands Management.

Topics include managing native grasses for grazing and haying, updated economic budgets that producers will find useful, cost-share opportunities and the conservation benefits of native grasses.

There is no registration fee and lunch will be provided, but participants need to register for either program at bit.ly/3yPfx4n ([opens in new window](#)).

For more information, contact the [MU Extension Center in Stone County](#) at 417-357-6812 or Valerie Tate at the [MU Extension Center in Linn County](#) at 660-895-5123.

Learn about managing native grasses on your property from the MU/MDC Native Grass Extension Project at bit.ly/3PhmWst ([opens in new window](#)).

FERTILITY MANAGEMENT—WHEN TO APPLY LIME

GOALS OF FORAGE PRODUCTION: Provide quality forage, consistent forage quantity & provide it economically.

Soil Testing, is one of the greatest returns on investment for making management decisions. In the face of extreme high fertilizer prices, its important to keep your soils at the proper PH for top production and availability to the plants.

Tips for Applying Lime: People often ask, when is the best time to apply lime? Typically anytime the soil conditions are appropriate for the spreading equipment and the crop does not limit spreading. Soil testing frequency is about once every 3-4 years. When soils are regularly limed so as to never let the PH get too low, then the timing of maintenance liming is not as critical. Regular liming provides maximum flexibility to lime when you have the time and the conditions are right.

***Plan ahead—**Even very high quality limestone takes time to react and to correct the acidity in the soils. When planting legumes or alfalfa, want to plan 6 mos. ahead of when the desired PH is needed, especially if PH is very low. ***Consider the soil conditions.** It is most ideal to apply on a dry soil. Want to eliminate compaction from lime trucks. One can apply lime onto a frozen soil to minimize compaction as long as its not on sloping fields with little cover, that give opportunity for being directly washed off the field by winter rains or snow melt. If applied to a frozen soil or on a dry soil in the fall, there will likely be some shallow incorporation due to freezing and thawing action through the winter which can be helpful in no-till or perennial crops where there will be no tillage to mix the limestone with the soil. Lime needs to be spread evenly to be most effective. Anytime can be a good time as long as you pay attention to a few important details.



Got Weeds? Weed Wiper and Sprayer Rental Available

Are you ready to knock out your weed problems? We have a weed wiper and a 300 gallon sprayer just for that purpose. Each of these items rent out for \$100/day and will be delivered and picked up for no extra cost unless you are in an adjoining county, then additional mileage applies. For more information give us a call 417-723-8389 or contact our equipment manager for delivery at 417-612-0032.



The 27th Annual **Missouri Women in Agriculture Conference** will be held in Branson, Mo. in 2022 on Sept. 19th-21st. Location: Radisson Hotel, 120 Wildwood Drive, Branson Mo. We will have Vendors, Workshops, Speakers, Tours all Ag Related! If you are interested in being a vendor, please contact myself, Melissa White here at the Stone Co. SWCD office 417-723-8389. We anticipate approx. #150-200 ladies in attendance this year. More information and registration yet to come out very soon. So if you want that information you may also email me at

Melissa.white@swcd.mo.gov **COME OUT & GET YOUR SHINE ON!**

HAVING STREAMBANK PROBLEMS?

Streambank Stabilization: Protects banks from accelerated erosion and provides adequate streambank vegetation while improving water quality. This cost share practice applies to agricultural land along streams where streambank erosion problems exist. **Cost Share does cap at \$25,000 per landowner and/or farm annually.** If you would like for us to take a look give us a call 723-8389. We work with a private engineer in the design of the stabilization project.



Exclusion Fencing: If you are interested in protecting your streams by excluding your livestock, then we have a practice for that as well. (WQ-10) If by doing so, this removes their watering source, we can provide water for you, inclusive of pipeline & tanks and well if not one on the place. This practice cost shares too on the fence and energizer. There is also a one time \$500 /ac. incentive for those out of production acres. You may also have limited access to this area for grazing and or limited watering if we need to look at this. Options are available in the planning and to include crossing if need be.

Riparian Buffer: A water quality practice the reduces excess amounts of sediment, organic material, nutrients & pesticides in surface runoff & reduce excess nutrients & other chemicals in shallow ground water flow with a secondary benefit of streambank stabilization. Applies to areas adjacent to permanent or intermittent streams, natural wetland & public drinking water reservoirs. Again development for a water source can be cost shared on when excluding the stream from livestock. A one-time out of production incentive applies at \$1200/ac. Tree planting must be planned.

Spring Development: This practice applies where livestock have free access to a spring or seep and the development will provide a dependable supply of water for distribution. Cost share on pipe & trenching from the end of the collection point to the livestock watering tank, including the outlet pipe; 300 ft. or less unless warranted for >300ft. The spring area itself is then excluded from livestock.

Grazing School Schedule

June 7-9th in Neosho, MO; Contact Newton Co. SWCD 417-451-1007 ext.3

June 21-23 in Ozark, Mo; Contact Christian Co. SWCD 417-581-2719 ext. 3

Sept. 13-15 in Carthage, Mo; Contact Jasper Co. Extension 417-682-3579

Sept. 27-29 in Strafford, Mo; contact Webster Co. SWCD 417-468-4176 ext.3

Oct. 4-6 in Stockton, Mo; contact Cedar Co. SWCD at 417-276-3388 ext. 3



Topics Covered: Inventory of farm resources, soils & topography, plant growth & species, grazing basics, livestock water & fencing, extending the grazing system, forage quality, economics of grazing, layout & design of a MIG system, meeting the nutritional needs with pasture, fertility, matching livestock with forage resources and grazing heights. Systems to benefit both the producer & the livestock.

STONE COUNTY SOIL & WATER CONSERVATION DISTRICT

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Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at [How to File a Program Discrimination Complaint](#) and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call

(866) 632-9992. Submit your completed form or letter to USDA by:

- (1) **mail: U.S. Department of Agriculture
Office of the Assistant Secretary for Civil Rights
1400 Independence Avenue, SW
Washington, D.C. 20250-9410;**
- (2) **fax: (202) 690-7442; or**
- (3) **email: program.intake@usda.gov.**

Missouri Noxious Weeds—12 Species to Control

The term “noxious” refers to the weed’s ability to cause economic harm to the state’s agriculture industry and to the high level of difficulty associated with controlling or eradicating the species. It is our duty as landowners to control all noxious weeds as to prevent these from going to seed.

The state of Missouri has 12 weed species noted as noxious: Canada Thistle, Musk Thistle, Scotch Thistle, Common Teasel, Cutleaf Teasel, Field Bindweed, Kudzu, Johnson Grass, Marijuana, Multiflora Rose, Purple Loosestrife, Spotted Knapweed. If you need any assistance with weed ID, give our office a call.

Are You Familiar With the Poisonous Plants?



Poison ivy has three leaves, the middle is symmetrical and the two side leaves are mirror image of each other with small notches on the outside each leaf.



Poison Oak also has leaves of three but looks different from its poisonous cousin.



This plant, commonly mistaken for poison ivy, is called Virginia Creeper. The plant vines similar to ivy however it has 5 leaves instead of 3 and is not poisonous. The leaf shape is similar it has more

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