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Welcome to the SC MO Ag News.

If you would like to receive this publication electronically, please Contact your local county extension office.

Douglas County:

203 East Lincoln Avenue Ava, MO 65608
417-683-4409

Howell County:

1376 Bill Virdon Blvd. West Plains, MO 65775
417-256-2391

Ozark County:

526 3rd Street Gainesville, MO 65655
417-679-3525

Texas County:

114 West Main Houston, MO 65483
417-967-4545

Webster County:

800 S. Marshall St. Marshfield, MO 65706
417-859-2044

Wright County:

608 East State Street Mountain Grove, MO 65711
417-349-4134

Ozark County Beef and Forage Conference

March 14th, 5:30pm at Gainesville High School

Dr. Jared Decker, Assistant Professor in Beef Genetics and Computational Genomics

Using genetically superior sires can improve farm/ranch profitability

Dr. Dale Blevins, Professor Emeritus in the Division of Plant Sciences

Controlling Broomsedge "Sage Grass" with soil fertility

Texas County Beef and Forage Conference

March 21st, 6pm at 114 West Main Street Houston, MO 65483

Steve Coch, MFA

Precision fertilization

Leon Cassleman

Marketing through a livestock auction

2019 Grazing Schools

West Plains - April 3-5

Contact: Howell County Extension Center
417-256-2391

Hartville - April 30-May 1

Contact: Carol Ellis
417-741-6195 ext. 3
carol.ellis@swcd.mo.gov

Elsinore - May 6-8

Contact: Tammy Townsend
573-322-0233

Houston - July 9-11

Contact: Sandy Wooten
417-967-2028 ext. 3
sandra.wooten@swcd.mo.gov

Squires - June 17-19

Contact: Douglas County Extension Center
417-683-4409

West Plains - October 8-10

Contact: Howell County Extension Center
417-256-2391

Ellington - October 28-30

Contact: Reynolds County Extension Center
573-648-1035

Beef and Forage Seminars

University of Missouri Extension will host several Beef and Forage Seminars in March. Guest speakers from across the state will be speaking about different topics relevant to cattle producers in south central Missouri. Contact the county extension offices for more information or to RSVP your attendance. Pre-registration is required in order to provide dinner to the attendees.

Howell County Beef and Forage Conference

March 5th, 5:30pm at 1376 Bill Virdon Blvd. West Plains, MO

Dr. Bryon Wiegand, University of Missouri

Navigating the Alternative Protein Marketplace: Laboratory Grown Meat and Meat Analogs

Donna Brandt, MU Soil Health Assessment Center

Soil Health in Missouri Grasslands

Wright County Beef and Forage Conference

March 7th, 5:30pm at Mountain Grove Senior Citizens (700 E. State Street, Mountain Grove)

Donna Brandt, MU Soil Health Assessment Center

Soil Health in Missouri Grasslands

Dr. Scott Brown, MU Ag Economist

What do the Economics Say About the Right Time to Retain Ownership of Your Cattle?

Douglas County Beef and Forage Conference

March 12th, 5:30pm at Ava Middle School Cafeteria

Dr. Sarah Kenyon, University of Missouri Extension

Managing Thinning Stands of Fescue Following Drought

Wesley Tucker

Factors that Affect Cow-calf Profitability

Sample soils properly to get best results

Eric Meusch, Agriculture Educator

As winter wears on, people will start thinking about spring and making plans for fertilization. Whether for pastures, hay fields, crop land, or gardens, knowing where you stand with soil fertility is important for planning a productive growing season. A good soil test can tell you how best to spend your money on costly fertilizers and can even save money by telling you what you don't need to apply.

No matter how good your intentions are for improving your fertility and how timely you are with your fertilizer application, the results will only be as good as the original soil samples that were analyzed. A sloppily collected soil sample can give misleading results and lead to incorrect recommendations for what fertilizers are needed.

When collecting samples make sure to follow these basic guidelines:

- The area sampled shouldn't include more than 20 acres. If the area is larger than 20 acres, break it into similar sub-areas (i.e. bottom, hill-side, hill-top).
- The sample should consist of a soil profile to a depth of 6-7 inches. The top layer of the soil (with plant duff in it) and soil below 7 inches should not be included in the sample.
- Several sub-samples should be taken for each area. The recommendation is 15-20 randomly selected spots around the sampled area. People often try to cut corners, thinking that a 3-5 sub-samples is enough. It is not. The more sub-samples you collect, the more representative your sample will be.
- When sub-sampling avoid areas that might affect the sample such as where cattle have congregated and left a lot of manure (shady areas, near water, near mineral feeders). This is less of a factor in gardens or hay fields.
- Mix the sub-samples thoroughly in a clean bucket before submitting the final sample. Not thoroughly mixing the sub-samples can cancel out the time and effort spent collecting them. The final sample should consist of about 2 cups of well mixed soil.
- Put the final sample in a plastic bag that is clearly labeled to represent the field it came from and to differentiate it from other samples submitted.

The results from properly collected soil samples can be confidently used to make decisions about fertility and lead to a more productive year.

MU Extension has guide sheets for soil sampling and fertilization that are available on the extension webpage (www.extension.missouri.edu) or by inquiring at your local county MU Extension Office.



Beef Quality Assurance and the impact on producers

Elizabeth Picking, Livestock Specialist

Beef Quality Assurance (BQA) is a national program funded by the Beef Checkoff, with programs tailored by individual states specifically to dairy and beef industry professionals. BQA works to teach best management practices to all beef and dairy industry participants, including producers, feedlot personnel, and cattle transporters in order to provide the public with safe, high quality beef that consumers can trust.

As consumers have become more concerned about the safety of their food products, more scrutiny has and will continue to be put on the producers and suppliers of beef to provide consumers a safe, wholesome product that was humanely raised. In fact, the national beef quality audit in 2016 suggested that the following considerations were of the largest challenges facing the beef industry:

- Food safety
- Eating satisfaction
- Lean, fat, and bone
- Weight and size
- How and where cattle were raised
- Visual characteristics

This trend towards food safety and traceability has led many packers including Tyson (No. 1 beef processor of fed cattle) to require the feedlots and cattle haulers they work with to be BQA certified. In fact, Tyson supplies Wendy's which has made a commitment to use 100% BQA sourced beef. Further, Tyson will require all transporters to be BQA transportation certified by January 1, 2020. National Beef Packing Co. (No. 4 beef processor) is following the suit with Tyson. JBS (No. 2 beef processor) and Cargill (No. 3 beef processor) are going to require BQA certifications in the near future.

While cow-calf producers are not currently being required to be BQA certified to sell their cattle, if sale barns are pushed to provide BQA certified beef, then cow-calf producers could be affected. However, implementing these best practices can increase profit margins on cattle by optimizing herd health and productivity. Furthermore, a BQA certification can increase the value of marketed cattle.

Once completed, a BQA certification is valid for three years. Anyone interested in getting BQA certified can attend in-person trainings scheduled in different locations around Missouri or complete the certification online. The online certification can be found at <https://www.bqa.org/certification>.

Further, opportunities to become Beef Quality Assurance Transportation (BQAT) certified can be found online at <https://bqatransportation.beeflearningcenter.org/> for those who are interested in learning more about cattle handling, unloading and loading, cattle sickness and injury, and traveling checklists.

Another program offered by the BQA initiative is the Stockmanship and Stewardship training where producers can get hands-on training on correct and low stress cattle handling. More information about these trainings taking place across the country can be found at <https://www.stockmanshipandstewardship.org/>.

Regardless of the stage of beef production, completing either the online or in person BQA training provides another avenue of cattle marketing and makes steps toward providing safe, high quality beef that consumers can trust were humanely raised.



Herbicide Residual Activity and Replanting Decisions

Dr. Sarah Kenyon, Agronomy Specialist

Following a drought, weed problems usually increase and early spring is the recommended timing to control many biennial and winter annual pasture weeds. However, drought usually thins and weakens the pasture stand, and pasture renovation may also be needed. Before applying herbicides farmers need to read the label to determine any restrictions for reseeding. Many of the commonly used pasture herbicides can damage newly planted grass seedlings. Additionally, some chemicals can prevent grass seeds from germinating. Below is a table that can help you determine how long to wait after spraying to replant.

Table 1. Interval between application and planting for some common pasture weed herbicides.

Herbicide	Forage Grasses	Alfalfa or Clover
2,4-D amine or ester *	NGS	NGS
Banvel/Clarity	NGS	NGS
Chaparral	FB	FB
Cimarron Max (Rate 1)	18 Months	12 Months
Crossow *	21 Days	NGS
GrazonNext	NGS	FB
Glyphosate	Anytime	Anytime
Grazon P+D *	FB	FB
Tordon 22K *	FB	36 Months
Milestone	NGS	FB
PastureGard	120 Days	1 Year
Remedy Ultra *	1 Year	1 Year
Surmount	1 Year	FB

* A variety of trade names exist. Check product labels for specific restrictions.

FB - Field bioassay required prior to establishment

NGS - Next Growing Season

The label is the final word on all restrictions. Verify all information with the label on your container.

Planting Warm Season Forages

The 2018 drought has resulted in short forage inventories, weakened stands, thin pastures, and concern for weed encroachment into thin stands. It will take time and careful management to fully rejuvenate drought-stricken pastures. One strategy to increase forage supply and mitigate future drought is to plant warm season forage crops.

Warm season grasses can greatly compliment cool-season grass pastures in a rotation. In most years, they can provide high quality forage and ample tonnage from June through August. This is a time when cool season grasses are less productive, and the toxic endophyte in fescue is most toxic.

Warm season grasses also help farmers to mitigate future drought. These plant species have a more efficient photosynthetic capacity, and in some cases a deeper root system, allowing them to thrive in high temperatures and drought conditions.

Figure 1. Drought conditions with native warm season grasses and forbs on the left, and tall fescue to the right. During drought conditions warm season grasses are more likely to survive drought conditions and still produce forage. Adapted from G9423 (<https://extension2.missouri.edu/g9423>)



Figure 2. Big bluestem in July 2018 in Ozark County, MO.



Perennial warm season grasses that do well in southern Missouri include bermudagrass, caucasian bluestem (Old-World), and native species such as switchgrass, big bluestem and eastern gamagrass. Annual warm season grasses include pearl millet, sorghum, sorghum-sudangrass hybrids, and crabgrass. Planting should occur between late April and mid-May, and a current soil test will be needed to address any fertility concerns.

The 2018 drought may be an opportunity for some area farmers to incorporate warm season grasses into their pasture rotation. Doing so could increase forage availability and help to offer a solution during a future drought.