Ag Newsletter

January 2023

University of Kentucky
College of Agriculture, Food and Environment
Cooperative Extension Service

BRACKEN COUNTY CATTLEMEN'S ASSOCIATION

The next scheduled meeting for the Bracken County Cattlemen's Association will be Feb. 23rd at the Bracken County Extension Office. Once the sponsors and agenda are set, this will be shared with the membership. As always, very important industry and local issues are shared at each meeting. You will always gain important information for your beef operation by attending these meetings along with a great meal and fellowship with other producers. If you have not paid your 2023 dues, you can still do this at any time by dropping them off here at the office, or you can pay them at the Feb. meeting.

Bracken County Ag Advancement Council

This council serves as the advisory council to the Extension Ag programs offered here in Bracken County. The council is actively seeking new members willing to help guide educational efforts and direct our shared use equipment program. Producers have greatly benefited from items such as our lime spreader, pasture sprayer and cattle equipment. To continue this work, and help guide future programs, new ideas and new interest are needed to help direct these efforts. If you are interested, please join us on January 24th at 6:30 pm. Please call and let me know your interest so I can plan for a meal.

David Appelman

David Appelman, CEA for Ag & Natural Resources

Cost Share Preparations

Cooperative Extension Service
Bracken County
1120 Brooksville Germantown Rd
Brooksville, KY 41004
(606) 735-2141
Fax: (606) 735-3871
http://extension.ca.uky.edu

The 2023 Phase I Cost Share Programs will start sometime after the 1st of Feb. We must wait until all of the approvals are complete at the Kentucky Office of Ag Policy (KOAP) before we can offer the program here in the county. Once all approvals are met, a kickoff meeting will be announced and applications will be available.

NO APPLICATIONS OR INFORMATION WILL BE AVAILABLE UNTIL THEN. PLEASE DO NOT CALL THE OFFICE OR REQUEST APPLICATIONS UNTIL AFTER APPROVALS ARE ANNOUNCED.

Program changes that we know of for the 2023 program include Pork Quality Assurance and Small Ruminant Quality Assurance for Swine, Sheep and Goats will be required for participation in these programs. A Rotational Grazing Starter Kit is available in the Fencing and Forage Programs. Timber Production, Utilization and Marketing has been removed from the Diversification program.

I want to remind everyone that to apply for the 2023 Cost Share Programs, you must have a current KY Ag Water Quality Plan. A plan filed 20 years ago is not current and a new one must be completed. Contact the Bracken County Soil Conservation Office to update or complete your plan. You must also have a Farm Serial Number (FSN). If you have purchased a farm, you must take your deed to the Farm Service Agency and apply for a new number. Be looking for program announcements in the Bracken County News, and our office social media and our office electronic sign near the end of January / early February for when the program will start.

Missing Equipment

Some time ago, the mulch lifter which is used to take up plastic for vegetable and hemp production went missing from the office. It was not checked out as all of our equipment is required to be reserved and checked out with the office staff. This piece of equipment also had the transport wheels which are also used on the vegetable setter. We desperately need this back, so if you took it, please return it.

Also, we are missing a number of soil probes to take soil samples. So if a soil probe is under the seat of your truck and needs to be returned home, please take time to drop it off. With fertilizer expenses still high, we will need all of our soil probes available right away.

Feed Purchases – Buy What You Need

Now more than even, we need to take a serious look at the label on our feed purchases. Not only for the price, but what is in the feed. Most of the time, we buy our feed based on protein content. For most of our late gestation or dry beef cattle, protein in not the limiting factor in their diet. Hay that test 9-10% protein is sufficient for these animals. What they are lacking is energy. Most of the time, hay that was harvested at a more mature stage will be lower in energy and maintaining or adding weight during this stressful time will need supplementation.

Corn grain is usually what we consider as the energy source for supplementing livestock. This can be fed as whole corn or cracked corn. There is no difference in digestion with either source. Other feeds that are high in energy include Distillers Grain which is next highest on the list of commodity feeds. Distillers grain is also high in protein, so if needed, will help balance both energy and protein. Corn Gluten Feed is also a good source of energy and protein. Soybean Hulls will be lower in energy and protein, but the energy in soyhulls does not affect forage digestion, so if a higher amount of supplementation is needed, soyhulls could be used with other feed sources to balance the ration while still maintaining good forage digestion.

If you are purchasing a product based on protein, don't look at the price per ton, but the cost per pound of protein. Examples include:

- Soybean Meal 48% – 47 cents per pound
- Distillers Grain 30% - 47 cents per pound
- Corn Gluten Feed 25% - 60 cents per pound
- Soybean Hulls 12% - $1.25 per pound
- 24% Protein Tubs - $1.35 per pound

One final item to be aware of. Many tubs contain NPN which is non protein nitrogen usually in the form of urea. Ruminate animals have the ability to convert this into protein. The caution is that a safe level of intake must be followed and that they do not over consume this product. Animals must be adequately fed prior to introducing NPN products. If they over consume due to very hungry conditions, results could be fatal.

For more information on hay testing, or ration balancing, contact the Bracken County Extension office.

Forage Variety Trials for 2022

The 2022 UK Forage Variety Trials reports are now available on the Forages Extension website. Reports cover species such as tall fescue, orchardgrass, alfalfa, red and white clover, summer annual grasses and more and include yield, seedling vigor and persistence. And for a overview of the best varieties from 20 years of UK testing, refer to the 2022 Long-Term Summary of Kentucky Forage Variety Trials
https://forages.ca.uky.edu/variety_trials

Frost Seeding Clover: A Recipe for Success

Legumes are an essential part of a strong and healthy grassland ecosystems. They form a symbiotic relationship with Rhizobium bacteria in which the bacteria fix nitrogen from the air into a plant available form and share it with the legume. Clover also increases forage quality and quantity and helps to manage tall fescue toxicosis. In the past, the positive impact of clover on tall fescue toxicosis has always been thought to simply be a dilution effect, but new research from the USDA's Forage Animal Production Unit in Lexington shows that compounds found in red clover can reverse vasoconstriction that is caused by the ergot alkaloids in toxic tall fescue. The primary compound found in red clover is a

vasodilator called Biochanin A. Clover stands in pastures thin overtime due to various factors and require reseeding every three to four years. There are several techniques for reintroducing clover into pastures including no-till seeding, minimum tillage, and frost seeding. Of these techniques, frost seeding requires the least amount of equipment and is the simplest to implement. Frost seeding is accomplished by broadcasting clover seed onto existing pastures or hayfields mid to late winter and allowing the freezing and thawing cycles to incorporate the seed into the soil. This method works best with red and white clover and annual lespedeza. It is NOT recommended for seeding grasses or alfalfa. This publication covers the important factors for successful frost seeding. Find this and related publications at the UK Forage Website under the "establishment" tab. https://forages.ca.uky.edu/establishment

Frost Seeding at a Glance (from the new pub.)

- Legumes are an essential part of sustainable grassland ecosystems.
- Overseeding may be required to maintain and thicken stands.
- Frost seeding is the simplest method for reintroducing clover back into pastures.
- Control broadleaf weeds fall prior to frost seeding.
- Soil test and apply any needed lime or fertilizer before frost seeding.
- Suppress the existing sod and reduce residue with hard grazing in the fall and winter.
- Choose well adapted varieties of red and white clover using the UK forage variety testing data.
- Calibrate seeder and check spread pattern.
- Broadcast 6-8 lb/A of red clover and 1-2 lb/A of white clover that has been inoculated in mid-February (no later than early March).
- Control competition from existing grasses by grazing pastures in short intervals until clover seedlings become tall enough to be grazed off.
- Put pasture back into your regular rotation once seedlings reach a height of 6-8 inches.

Discrimination Complaint Procedure

Any employee who believes they have been discriminated against may seek resolution through a variety of paths. Discrimination may be reported to the Area Extension Director or supervisor. To file a complaint of discrimination, contact **Tim West**, UK College of Agriculture, Food and Environment, 859-257-3879, **Dr. Sonja Feist-Price or Terry Allen**, UK Office of Institutional Equity and Equal Opportunity, 859-257-8927,or the **USDA, Director Office of Civil Rights**, Room 326-W Whitten Bldg., 14th & Independence Ave. SW, Washington, DC 20250-9410, 866-632-9992.

C. Oran Little once said, "Any major undertaking in science and technology takes a good team." A nationally distinguished animal nutrition researcher, Little led a vast, multidisciplinary team and served the University of Kentucky College of Agriculture, Food and Environment as dean from 1988-2000.

Little passed away on Dec. 17, and he leaves behind a legacy of numerous footprints on agriculture in Kentucky and across the country.

"Despite being, as he called it, the 'dean twice removed,' his influence has lasted long past his deanship," said Nancy Cox, vice president for land-grant engagement and dean of UK CAFE. "His vision is still being enacted on the farm that is named for him to continually serve agriculture in new ways."

Recently, the college recognized Little and his wife, Myrtle, with the CAFE Friend Award. He was happy to share the honor with his beloved wife of 67 years.

"Myrtle has always been a close partner in this whole process of our lives," he said in a recorded acceptance of the award. "We've formed a lot of friendships. A lot of good things have happened in our lives, and many times, we consider those almost as divine guidance that have kept us on track."

Most who met Little knew he was a Texan by birth. Charles Oran Little was born in Schulenburg, Texas, in 1935, but often said he came to Kentucky as quickly as he could. His love for UK was unwavering, and he was a loyal supporter of UK Athletics and the Big Blue Nation.

Little earned a bachelor's degree in 1957 from the University of Houston and master's and doctoral degrees in animal nutrition and biochemistry from Iowa State University in 1959 and 1960, respectively. He received a Marshall Foundation Scholarship awarded through the Houston Livestock Exposition, which provided full support for his undergraduate and partial support for his graduate studies.

Little began at UK in 1960 and progressed through the ranks to full professor in 1967. From 1969-1985, Little served as associate dean for research and associate director of the Kentucky Agricultural Experiment Station.

In 1985, he became vice chancellor for research at the Louisiana State University Agricultural Center and director of the Louisiana Agricultural Experiment Station.

Little returned to Kentucky in 1988 to head the college, the Kentucky Agricultural Experiment Station and the Kentucky Cooperative Extension Service. He remained at the helm until his retirement in 2000.

During his tenure as dean and director, CAFE's academic, research and extension programs provided invaluable services to Kentucky and gained substantial national and international attention.

Early in his administration, he prioritized finding a replacement for Coldstream Farm and developing a cutting-edge research and education facility. Little led successful efforts to convince decision-makers and the public of the need and tremendous opportunity for a new research farm, uniting statewide agricultural leadership in support of this initiative.

When a 1,500-acre site along U.S. Highway 60 in Woodford County became available, the Kentucky General Assembly appropriated funding to first acquire the farm property and, soon after, to replace the aging farm structures with modern research buildings.

In December 2010, the UK Board of Trustees approved naming the farm in Woodford County the C. Oran Little Research Center.

In retirement, Little documented his almost fifty years of observations and experiences in education and agriculture through the UK library oral history program. To listen to Little's recordings, visit bit.ly/3Yrzz8O and request access.

He continued to serve in leadership and support roles through organizational board appointments and event participation to advance education and agriculture development at the local, state and national levels. He also served in several leadership roles in his church.

Little maintained contact with many former students and spent time visiting and interacting with Kentucky farmers and agricultural industry leaders. He and Myrtle enjoyed spending time with family, especially being able to share in many activities with their three granddaughters.

FARMER'S MARKET EDUCATION PROGRAM

Bracken, Fleming, Lewis, Mason, Robertson, & Rowan Counties

6:00PM VIA ZOOM OR **WATCH PARTY**

Check local office to verify watch party option*

- **FEBRUARY 16 :** SOCIAL MEDIA & BASICS OF USING CANVA ***AT FLEMING CO. EXT. OFFICE ONLY***
- **MARCH 9 :** PRODUCE BEST PRACTICES TRAINING
- **MARCH 23:** TAXES & RECORD KEEPING
- **APRIL 6:** WHAT'S BUGGING MY GARDEN?
- **APRIL 20:** SENIOR/WIC PROGRAM TRAINING

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CALL TO REGISTER OR USE QR CODE:

- BRACKEN COUNTY: (606) 735-2141
- FLEMING COUNTY: (606) 845-4641
- LEWIS COUNTY: (606) 796-2732
- MASON COUNTY: (606) 564-6808
- ROBERTSON CO.: (606) 724-5796
- ROWAN COUNTY: (606) 784-5457

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LEXINGTON, KY 40546

Disabilities accommodated with prior notification.

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Carbon Market Considerations for Kentucky Farmers & Woodland Owners

Carbon Markets can possibly provide another revenue source for your farm

Presented by the Buffalo Trace Cooperative Extension Service Counties

January 31, 2023 at 6:00 p.m. via Zoom

Topics include: Carbon Markets, Farm level cost and benefits, current value and pricing structure

To register please usethe QR code
For more information contact
Bracken County Extension Office
(606) 735-2141

AGR-252

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Soil Sampling Pastures and Hayfields

Chris D. Teutsch and Edwin L. Ritchey, Plant and Soil Sciences

Adequate soil fertility in pastures and hayfields is key to maintaining productivity and optimizing profitability. Soil testing is the basis of well-designed fertilization and liming programs. In order to develop effective programs, soil samples must be collected in a manner that results in an accurate representation of each pasture or hayfield area. The objective of this publication is to provide guidelines that, when followed, result in representative soil samples.

Sample pastures and hayfields in the spring or fall. Soil samples can be collected at any time during the year, but collecting samples in either the spring or fall is ideal. More importantly, always soil sample a given pasture/hayfield at the same time of the year. This allows comparisons over time, permitting evaluation of long-term changes in soil fertility.

Sample pastures and hayfields every two to three years. In order to track changes over time, typical pastures and hayfields should be sampled every two to three years. Intensively managed hayfields with high yields that result in high levels of nutrient removal, such as alfalfa, should be sampled every year.

Avoid sampling immediately following lime and/or fertilizer applications. Sampling following lime, fertilizer, or manure application should be delayed for about 6 months.

A single soil sample should not represent more than 20 acres. Pastures or hayfields larger than 20 acres, or which exhibit considerable variability, should be subdivided based on landscape position, forage type, and productivity potential. In intensively managed grazing systems, every paddock should be sampled.

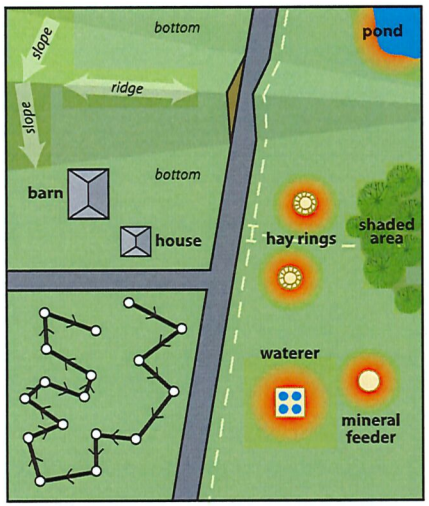

Figure 1. Obtaining representative soil samples is key to accurate soil test results. Collect 15 to 20 cores per pasture or hayfield in a zigzag pattern. Make sure to avoid sampling areas where animals congregate. Larger pastures and hayfields should be subdivided based on landscape position, forage type, and productivity potential.

Do *not* sample areas where animals congregate. Avoid sampling near hay feeding areas, mineral feeders, feed bunks, shade trees, ponds, or waterers. Animals concentrate dung and urine in these spots, elevating soil nutrient concentrations. These areas are *not* representative of the pasture (Figure 1).

Remove plant residues on the soil surface prior to sampling. Scrape soil surface plant residues away prior to taking each soil core because these residues can inflate soil organic matter and nutrient concentration values.

Do not take samples directly in manure pats and urine spots. Do not sample within such spots, as organic matter and nutrient concentration values will be inflated and not representative of the pasture area. Move at least 3 inches away before taking a soil core.

Key Points

- Soil testing is key to optimizing liming and fertilization programs.
- Accurate soil test results are highly dependent on obtaining representative samples.
- Sample pastures and hayfields in the spring or fall.
- Sample pastures and hayfields every two to three years. Sample more frequently for intensively managed hayfields.
- Sample areas larger than 20 acres should be subdivided and sampled separately.
- Subdivide pastures based on landscape position, forage type, and productivity potential.
- Do *not* sample where animals congregate. Dung, urine, and rotting organic material increase nutrient concentrations in these areas and lower fertilizer recommendations.
- Always use a soil probe to sample pastures. The sampling depth should be 4-inches.
- Collect 15 to 20 cores per sample in a plastic bucket. Sampling should follow a random zig-zag pattern across the entire area to be represented by each sample.
- Crush and mix the cores thoroughly and fill sample container to the designated line.
- Submit samples along with completed paperwork to local extension office.

Figure 2. A soil probe should always be used to collect soil samples. Sampling depth for pastures and hayfields should be 4 inches.

Always sample pastures and hayfields using a soil probe. Although other tools can be utilized, soil probes are very easy to use, and result in the most uniform soil cores (Figure 2).

Sampling depth should be 4 inches. The 4-inch sampling depth represents the pasture or hayfield root zone where nutrient uptake occurs (Figure 2). If a new stand is being established in a tilled seedbed, soil should be sampled to the depth of primary tillage, usually 6 to 8 inches.

Collect 15 to 20 cores randomly throughout each pasture/hayfield area. Walking in zigzag pattern, collect a minimum of 15 to 20 cores. In pasture/hayfield areas that are larger and have more variation, collect more cores (Figure 1).

Put cores in plastic bucket, hand crush, and mix thoroughly. Cores should be placed in a clean, dry plastic bucket (never use a galvanized metal bucket) (Figure 2). Then, the soil cores should be hand crushed and mixed thoroughly. Crushing and mixing will result in a more representative sample sent to the soil test lab. Fill the properly labeled soil test box or bag to the designated line. If the soil is excessively wet, allow the sample to air dry and remix the sample before filling the soil test box/bag.

Complete the soil test sample submission form and take samples to local extension office. It is extremely important that samples are properly labeled and that the submission form is completed. Fertilizer and lime recommendations will be based not only on the soil test lab results, but also on the information provided on the submission form.

Results will come to local extension office. Results and recommendations will be emailed to your local extension office within one to two weeks. Local agents will send you a copy of the results and be available to help interpret soil testing data.

Additional Resources:

- Find your local Extension Office in Kentucky
  http://extension.ca.uky.edu/county
  or (859) 257-4302.
- AGR-1: *Lime and Nutrient Recommendations*
  http://www2.ca.uky.edu/agcomm/pubs/agr/agr1/agr1.pdf
- AGR-103: *Fertilization of Cool-Season Grasses*
  http://www2.ca.uky.edu/agcomm/pubs/agr/agr103/agr103.htm
- WebSoilSurvey, USDA-Natural Resource Conservation Service
  https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

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Classes and Program Dates:

(* indicates will qualify for Phase I Education Credit for the 2023 cost share program)

*Jan. 5	KCA Convention & Beef Efficiency Conference		
*Jan. 6	KCA Convention & Forages at KCA		
*Jan. 11	Soybean Weed Control	6:00 pm	Tollesboro Fire Department
*Jan. 18	Cattle Vaccination Class	6:30 pm	Bracken Extension Office
*Jan. 19	Tomato Grafting (Must Register)	1:00 pm	Mason County Extension Office
*Jan. 24	Ag Advancement Council	6:30 pm	Bracken Extension Office
*Feb. 13	Pesticide Certification	9:00 am	Bracken County Office
*Feb. 14	Pesticide Certification	9:00 am	Bracken County Office
*Feb. 16	Farmers Market Education	6:00 pm	Zoom
*Feb. 20	Pesticide Certification	6:00 pm	Bracken County Office
*Feb. 23	Bracken County Cattlemen's Assn. (membership required & can be paid at the door)	6:30 pm	Bracken County Office
*Feb. 27	BQCA Training	6:30 pm	Bracken County Office
*Mar. 2	Pesticide Certification	6:00 pm	Bracken County Office
*Mar. 7	Farm and Family Night	6:00 pm	MCTC
	Over 30 educational programs to choose from. Many farm, garden, & family programs on the schedule.		
*Mar. 9	Farmers Market Education, Produce Best Practices		Zoom Meeting
*Mar. 14	BQCA Training	6:30 pm	Bracken County Office
*Mar. 20	BQCA Training	6:30 pm	Bracken County Office
*Mar. 23	Farmer's Market Education		Zoom Meeting

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RETURN SERVICE REQUESTED