



# From the Ground Up

*Bath County Agricultural Newsletter*

Bath County  
Ag and Natural Resources

**February**

*Robert Amburgey*

**2024**

*Bath County Extension Agent for Agriculture  
and Natural Resources*



**PROGRAMS AVAILABLE:**

**FOR MORE INFORMATION, YOU CAN CONTACT THE BATH COUNTY  
EXTENSION OFFICE AT 674-6121**

**Regional Farmers Market Program**

**Thursday, February 8th**

**6:00 p.m.—Morehead State Farm**

**RSVP to 674-6121**

**Ag Lenders meeting**

**February 9, 10:00 Fleming County**

**County fairboard meeting**

**February 15, 3:00, extension office**

**County Extension Council**

**February 22, 6:00, extension office**

**Extension Foundation meeting**

**February 26, 3:00, Extension office**

**Cooperative  
Extension Service**

Agriculture and Natural Resources  
Family and Consumer Sciences  
4-H Youth Development  
Community and Economic Development

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Disabilities  
accommodated  
with prior notification.



**\$35  
REGISTRATION  
REQUIRED**

**FEB 7  
2024  
9-3 ET**

# KY FOREST HEALTH CONFERENCE

Longship Club, Kroger Stadium, Lexington, Kentucky

Get updates on current issues and threats on the horizon from experts around the region including:

- Spotted lanternfly
- Invasive plants
- Tree diseases
- Asian longhorned beetle
- Spongy moth
- And more!

CEUs anticipated: SAF, KY Pesticide Applicators, KY Landscape Architects

Spots are limited, register today at [forestry.ca.uky.edu/fhc-conference](https://forestry.ca.uky.edu/fhc-conference)

**5th Annual Kentucky Forest Health Conference**  
 February 7, 2024, 9 AM-3 PM ET  
 Longship Club, Kroger Field, 1540 University Drive, Lexington, Kentucky  
 Registration: [forestry.ca.uky.edu/fhc-conference](https://forestry.ca.uky.edu/fhc-conference)

**Registration (8:30-9)**

**Welcome and Introductions**, Dr. Ellen Crocker, University of Kentucky, and Alexandra Blevins, Kentucky Division of Forestry (9-9:05)

**Kentucky Forest Health Updates**, Alexandra Blevins, Kentucky Division of Forestry (9:05-9:35)

**Spotted Lanternfly and Tree of Heaven**

- **Spotted Lanternfly: A New Pest in Kentucky**, Seth Spinner, University of Kentucky, (9:35-9:55)
- **What to Expect- Indiana Update**, Eric Bitner, Indiana Department of Natural Resources, (9:55-10:15)
- **Tree of Heaven ID and Management**, Chris Evans, University of Illinois (10:15-10:35)

**Break 10:35-10:50**

**Dynamic Forest Restoration in the Southern Appalachians**, Nick Biemiller, Forest Conservation Director, Southern Appalachian Region, Ruffed Grouse Society & American Woodcock Society (10:50-11:15)

**Drones for Monitoring Landscapes**, Jeremy Sandifer, Kentucky State University (11:15-11:40)

**Spongy Moth Update and Citizen Science**, Carl Harper, University of Kentucky (11:40-12)

**Lunch (provided)** (12:00-1:15)

**New and Emerging Forest Health Issues**

- **New Invasive Plants: Wineberry, Amur Corktree, and Japanese Hops**, Chris Evans, University of Illinois (1:15-1:45)
- **Brown Spot Needle Blight, is it a Threat to Kentucky's Pines?** Dr. Tyler Dreaden, USDA Forest Service Southern Research Station (1:45-2:10)
- **Elm Zigzag Sawfly**, Tom Macy, Ohio Department of Natural Resources (2:10- 2:30)

**Update on the Status of Emerald Ash Borer Biocontrol**, Dr. Caleb Wilson, University of Kentucky (2:30-2:55)

**Wrap-up, Survey, and Adjourn**, Dr. Ellen Crocker, University of Kentucky, (2:55-3)

Thank you to the Sponsors of the 2024 KY Forest Health Conference

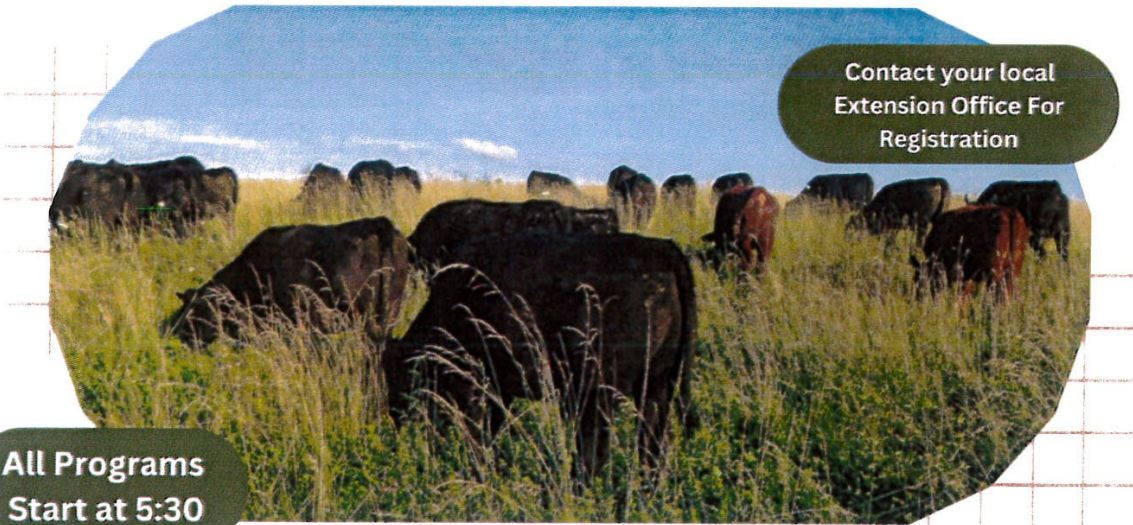


# Winter means mud!



During wet periods, make sure to monitor your cattle and calves. This could mean moving them to the barn until the conditions improve. Be sure to clean feed pads and move feeding equipment to minimize mud. Finally, limit access to ponds or streams during the winter feeding.

# STRATEGIES TO REDUCE FERTILIZER USE ON EASTERN KY CATTLE FARMS



Contact your local  
Extension Office For  
Registration

All Programs  
Start at 5:30

- Using Legumes to get the Nitrogen Cycle Working
  - Feeding Hay to Recycle Nutrients
  - Clipping Weeds to Enhance Fertility
  - Having an Appropriate Stocking Rate
- Implementing Basic Rotational Grazing Without Perfect Infrastructure

## Locations and Dates:

- **Feb. 19, 2024** Clay County Extension Excel Center 86 Muddy Gap Rd., Manchester, Ky 40962
- **Feb. 20, 2024** Knott County Extension 149 Parks. Rd. Hindman, Ky 41822
- **Feb 21, 2024** Lee County Extension 259 Industrial Park Rd. Beattyville, Ky 41311
- **Feb. 22, 2024** Morehead State University Farm 25 MSU Farm Rd. Morehead, Ky 40351

**Guest Speaker: Dr. Greg Halich,**  
**Associate Extension Professor with the Department of Agriculture Economics**  
**University of Kentucky**

**Cooperative  
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Disabilities  
accommodated  
with prior notice

## UK Beef Management Webinar Series

Registration is necessary, however, if you received this email directly from Darrh Bullock then you are already registered. If you received this from another source, or have not registered previously, then please send an email to [dbullock@uky.edu](mailto:dbullock@uky.edu) with Beef Webinar in the subject line and your name and county in the message. You will receive the direct link with a password the morning of each meeting. This invitation will directly link you to the site and you will be asked for the password which can be found just below the link. Each session will be recorded and posted for later viewing. **All meeting times are 8:00pm ET/7:00pm CT.**

December 12, 2023


**Shooting the Bull: Answering all your Beef Related Questions!** – Updates and Roundtable discussion with UK Specialists

January 9, 2024

**Management decisions that impact reproductive efficiency in beef herds** – George Perry, Professor, Texas A&M University

February 13, 2024

**What's the Cost of a Cheap Mineral** – Katie VanValin, Assistant Extension Professor, University of Kentucky

 Cooperative  
Extension Service



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## REGIONAL Farmer's Market MEETING

Morehead State University Farm Classroom  
(Inside the Horse Arena)

Thursday, February 8, 2024

**Meal & Registration - 5:30 Program - 6:00 PM**

**Preregister by January 29.**

**Scan the QR code or call your local Extension Office.**



Bath Co. - 674-6121  
Carter Co. - 474-6686  
Elliott Co. - 738-6400  
Lewis Co. - 796-2732

Menifee Co. - 768-3866  
Morgan Co. - 743-3292  
Rowan Co. - 784-5457



## Forage Seeder Calibration at a Glance

Planting too much seed increases establishment costs.

Planting too little seed results in thin stands, increased weeds, and lower yields.

Seeding charts can vary greatly from actual seeding rate.

Seeders should be calibrated under field conditions whenever possible.

The area covered and amount of seed dispensed must be known for calibration.

### **Seeding rate = amount of seed ÷ area covered**

Area covered (acres) = seeder width (ft) x distance traveled (ft) ÷ 43,560

Determining amount of seed (always tare scale for weighing container):

**Collection:** Seed is collected for a known area.

**Difference:** The difference between the original amount of seed in the seeder and the amount remaining for a known area.

**Run out:** Seeder is run until known quantity of seed runs out and area is determined. This is the least precise method.

For more detailed information on calibrating forage seeding equipment, visit <http://pubs.ext.vt.edu/418/418-121/418-121.html> or contact your local Virginia Cooperative Extension office and ask for Publication 418-121, Calibrating Forage Seeding Equipment.

For more information on frost seeding contact your local extension agent or visit Kentucky Forages at <http://forages.ca.uky.edu/>. A YouTube video on *Frost Seeding Clover* can be viewed at <https://youtu.be/dmBBaLVg-Y?list=PLrq6psn95pUxr2iC0Mxn93weYPxTJvWfl>.

## Tall Fescue and its endophyte - Implications for your farm

*Dr. Jimmy Henning, Livestock Forage Specialist, University of Kentucky*

The story of Kentucky 31 tall fescue reads like a soap opera. Found on a Menifee County Kentucky hill side in 1931, it quickly became a rival to Kentucky bluegrass as the most important grass in Kentucky. Its yield and persistence made it look unbeatable, but its animal performance numbers were sometimes poor or worse. The decision by the University of Kentucky to go forward with the release of Kentucky 31 was filled with about as much drama as you will ever find in an academic setting.

We now know the poor animal performance AND the persistence of that early fescue was due to the presence of a fungus inside the plant (the endophyte; 'endo' for in plus 'phyte' for plant). When the endophyte is present, that plant is said to be 'infected.' And when infected plants grow, the fungus produces compounds that result in the poor animal performance. These compounds are known as alkaloids, and ergovaline is the one used to assess fescue toxicity in the laboratory.

Early surveys in Kentucky found the majority of fescue did contain the endophyte of tall fescue. The scope of this problem led to massive amounts of research about the endophyte of tall fescue and how to mitigate its effect on livestock across the fescue belt.

The following is a synopsis of our current understanding of this pasture grass and the toxic endophyte.

- The endophyte grows inside the plant, between the cells, but is never seen externally. There are no visual indicators to tell if tall fescue is infected.
- The endophyte is physically present in the stem bases, but the toxic compounds spread throughout the plant.
- The least toxic portion of the plant is the green, leafy tissue. The most toxic portion is the seed, with stem bases being intermediate. Managing to keep pastures leafy, not overgrazing, and preventing seedhead production are all effective strategies to manage the negative effects of the tall fescue endophyte.
- Ergovaline levels (the indicator of fescue toxicity) fluctuate seasonally and are highly variable year to year. Concentrations are highest in May/June and September/October. Toxin levels drop after the fescue experiences the cold temperatures of late fall and winter. In one Central Kentucky field, ergovaline numbers dropped 80% from October to December.
- Ergovaline levels are lower in hay than the standing forage from which it was made (another very positive thing).



- The toxic alkaloids cause constriction of the external blood vessels in cattle (vaso-constriction) leading to heat stress. Cattle eat less, gain less and breed less. The negative economic effects of infected tall fescue are significant, totally millions annually across the Southeast.
- Most Kentucky pastures contain tall fescue, but fields are seldom 100% tall fescue. The presence of other species buffer the effects of the endophyte – a very good thing. The diversity of our pastures and our milder summers mean that we suffer somewhat less than states to the south. However, toxic tall fescue is the single biggest agronomic drag on animal performance in Kentucky and must be mitigated for economic viability.
- Interseeding with clovers is the number one way to offset the effect of the endophyte of tall fescue. Clovers improve the protein and energy content of the pasture and will contribute nitrogen to the system from plant decomposition or from the manure and urine deposited from cattle consuming clover.
- Recent research by the USDA-ARS forage research unit showed that clover, especially red clover, will directly reduce the vaso-constriction in cattle consuming infected fescue. Fortunately, red clover is extremely well adapted and relatively easy to establish into existing tall fescue pastures.
- The endophyte is only spread by infected seed. Endophyte-free varieties are available.
- Early endophyte-free tall fescue varieties (such as Kentucky’s ‘Johnstone’) did not prove as persistent as Kentucky 31 with the endophyte.

Grazing tolerant varieties of endophyte free tall fescue are available. For a full report on their persistence under heavy grazing, consult University of Kentucky Progress Report PR-735, Cool-Season Grass Grazing Tolerance Report (<http://www2.ca.uky.edu/agcomm/pubs/PR/PR735/PR735.pdf>).

The Kentucky 31 brand put our state on the tall fescue map worldwide. The endophyte present in those early seedlots contributed to its persistence but also its current limitations on pasture performance.

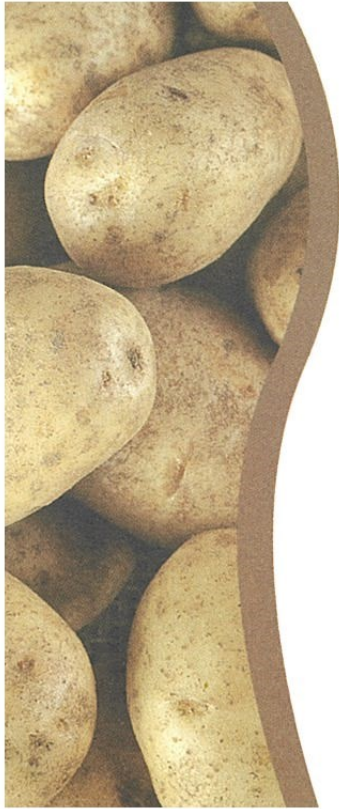
But just when you think you understand the toxic endophyte of tall fescue, along comes a non-toxic endophyte. Really. But that is a subject for the next column. See you then.

Happy Foraging!

*From Jan 18 Farmers Pride*







# Cheesy Broccoli Potatoes

**5 slices** turkey bacon  
**1 tablespoon** olive oil  
**1 clove** garlic, minced  
**2 tablespoons** chopped chives  
Salt and pepper to taste  
**4 large** potatoes, cubed  
**2 cups** fresh broccoli florets  
**1 cup** fat-free, shredded cheese

**Preheat** oven to 425° F. **Cook** bacon until crispy, crumble and set aside. **Spray** 9x13-inch baking dish with non-stick cooking spray. In a small bowl, **combine** olive oil, garlic, chives, salt and pepper; **stir** to blend. In a large bowl, **toss** together potatoes and broccoli. **Pour** olive oil blend over potato mixture; **stir** to coat. **Pour** into baking dish and **cover** with foil. **Bake** for 35 minutes or until potatoes are

tender; **remove** from oven. **Sprinkle** cheese and bacon on top and place back in oven until cheese melts.

**Yield:** 8, ½ cup servings.

**Nutritional Analysis:** 140 calories, 5 g fat, 1 g saturated fat, 20 mg cholesterol, 470 mg sodium, 15 g carbohydrate, 2 g fiber, 2 g sugar, 10 g protein.



Buying Kentucky Proud is easy. Look for the label at your grocery store, farmers' market, or roadside stand.

## Kentucky Potatoes

**SEASON:** Late June-October.

**NUTRITION FACTS:** Potatoes are a good source of vitamins B and C, potassium and complex carbohydrates. They do not contain fat, cholesterol or sodium. There is only 70 calories in a ½ cup serving of cooked potato. Most nutrients are located just below the skin, so avoid peeling whenever possible.

**SELECTION:** Select firm potatoes free from wrinkles, green spots or bruises. New potatoes are immature potatoes of any variety. They are creamy, thin-skinned, and small enough to serve whole. New potatoes are best in dishes that call for boiled potatoes as they will hold their shape. For baking, frying and mashing, choose drier varieties.

**Source:** [www.fruitsandveggiesmatter.gov](http://www.fruitsandveggiesmatter.gov)

**STORAGE:** Potatoes should be kept in a cool, humid, dark, well ventilated place. Do not store in the refrigerator.

**PREPARATION:** Potatoes should be thoroughly washed and scrubbed before cooking. Any sprouts or eyes growing should be cut out. Common methods of preparation include boiling, baking, microwaving, mashing, frying and grilling.

### KENTUCKY POTATOES

#### Kentucky Proud Project

County Extension Agents for Family and Consumer Sciences  
University of Kentucky, Dietetics and Human  
Nutrition students

**October 2013**

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Food and Environment



### **Timely Tips**

***Dr. Les Anderson, Beef Extension Professor, University of Kentucky***

### **Spring-Calving Herd**

***Get ready for calving season this month!***

Have calving equipment, supplies and labor ready for the spring calving season. Some supplies that may be needed are: eartags and applicator (put numbers on eartags now), tattoo pliers and ink, record book, scales for calf weights, iodine for calves' navels and colostrum supplement. Calving equipment (puller and chains, etc.)

and facilities should be ready and clean. Keep your veterinarians phone number handy!

Overall condition of the cow herd should be evaluated. Cows losing weight now are more likely to have weak or dead calves. These cows will likely be a poor source of colostrum milk for the newborn calf. Feed cows, if necessary, to keep them in good body condition. Cows need to calve in a BCS of 5, minimum, to expect them to rebreed in a timely fashion. Calve you heifers a little heavier, BCS of 6.

Heifers may begin head-start calving in early February. Move them to a clean, accessible pasture, away from cow herd and near facilities so that calving assistance can be given. Cows may start calving later this month. Signs of calving are relaxation of pelvic ligaments, enlargement and swelling of the vulva, and enlargement of the udder. Expect calving difficulty if (1) calf's head and two feet are not visible, (2) only the calf's tail is visible, and (3) the cow has been in labor for 1½ hours. Be sure calf is being presented normally before using calf puller. Recognize situations that are beyond your capability and seek professional help as early as possible. Calves that aren't breathing should receive assistance. Try sticking a straw in nostril to stimulate a reflex or try alternate pressure and release on rib cage. Commercial respirators are also available. Calves should consume colostrum within 30 minutes of birth to achieve good immunity.

Record birthdate, cow I.D., and birthweight immediately (use your Beef IRM calendar). Identify calf with an ear tag and/or tattoo. Registered calves should be weighed in the first 24 hours. Male calves in commercial herds should be castrated and implanted as soon as possible.

Separate cows that calve away from dry cows and increase their feed. Increase feed after calving to 25-27 pounds of high quality hay. Concentrate (3-4 lb. for mature cows and about 8 lb. for first-calf heifers) may be needed if you are feeding lower quality hay. Hay analysis will greatly aid any decisions regarding type and amount of supplementation. Supplementation may have a beneficial effect on date and rate of conception. It's an important time to feed a beef cow after calving. Thin cows don't come into heat very soon after calving. We must have cows in good condition, if we plan to breed them early in the season for best pregnancy rates, especially on high-endophyte fescue pastures.

Sub-zero weather can mean death for newborn calves. During extremely cold spells, bring the cow(s) into a sheltered area as calving approaches to protect the calf. Be prepared to warm-up and feed newborn, chilled calves. Calving in mud can also cause problems.

Watch for scours in newborn calves. Consult your veterinarian quickly for diagnosis, cause, and treatment.

Avoid muddy feeding areas so that cows' udders won't become contaminated and spread scours. Don't confine cows to muddy lots.

Replacement heifers should be gaining adequately to reach target breeding weights by April 1<sup>st</sup>. Be sure that their feeding program is adequate for early breeding.

Start looking for herd sire replacements, if needed.

## Fall-Calving Herd

Breeding season should end this month – maybe Valentine’s Day. Remove bulls and confine them so that they regain condition.

Consider creep feed or creep grazing (wheat, etc.) to supply extra nutrition to fall-born calves which may have to depend solely on their dam’s milk supply for growth. They are not getting much except their dam’s milk now (i.e. there is nothing to graze). February/March is the worst time of the year for fall-born calves.

Provide windbreaks or clean shelter for calves.

## General

Increase feed as temperature drops. When temperature falls below 15 degrees, cattle need access to windbreaks. For each 10 degrees drop below 15 degrees, add three pounds of hay, two pounds of corn, or six pounds of silage to their rations.

Always provide water. Watch for frozen pond hazards. If cattle are watering in a pond, be sure to keep ice “chopped” to keep cattle from walking on the ice and, possibly, breaking through. Keep automatic waterers working.

You should be feeding a mineral supplement with adequate magnesium to prevent grass tetany (~ 15% Mg) now. The Hi-mag UK Beef IRM mineral can be used.

Control lice. Watch for signs such as rubbing.

Begin pasture renovation. You can overseed clover on frozen or snow-covered pastures. For more information on frost seeding clover, look at the January issue of Off the Hoof or go to the UK Forages website. ([www.forages.ca.uky.edu](http://www.forages.ca.uky.edu)).



## Agriculture

### Contact information

|                                               |                                                                                                                   |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Bath County Cooperative Extension             | 606-674-6121                                                                                                      |
| Bath County Conservation District             | 606-674-2121 ext 3                                                                                                |
| Farm Service Agency service center            | 859-498-5487                                                                                                      |
| Natural Resources Conservation Service center | 859-697-2021                                                                                                      |
| KY Division of Forestry                       | 502-564-4496                                                                                                      |
| KY Division of Conservation                   | 502-782-6629                                                                                                      |
| KY Division of Water                          | 502-564-3410                                                                                                      |
| KY department of Fish and Wildlife            | 800-858-1549                                                                                                      |
| US Forest Service Daniel Boone                | 859-745-3100                                                                                                      |
| Kentucky Department of Agriculture            | 502-573-0282                                                                                                      |
| Kentucky Dept Ag—state vet office             | 502-573-0282 Option #3                                                                                            |
| Kentucky Office Ag Policy                     | (502) 564-4627                                                                                                    |
| Kentucky Assoc. of consulting foresters       | <a href="https://kacf.org/">https://kacf.org/</a>                                                                 |
| Ag business directory                         | <a href="https://www.kyagr.com/agbus/ky-ag-businesses.aspx">https://www.kyagr.com/agbus/ky-ag-businesses.aspx</a> |