

# NIKKI'S NEWSLETTER

Cooperative Extension  
University of Kentucky  
Marshall County  
1933 Mayfield Highway  
Benton, KY 42025  
(270) 527-3285  
extension.ca.uky.edu

 University of  
Kentucky  
College of Agriculture,  
Food and Environment

Marshall County's Agriculture &  
Natural Resources Update



Hello all! I want to start by thanking you all for your patience as you waited for this issue. I don't think I have to tell you how crazy this summer has been and I'm not even talking about the weather! This summer is flashing by way too fast. I have been busy hosting field days, trips, conferences, the county fair, making farm visits and, as always, answering countless agriculture and horticulture questions for the community.

## New Building

Another exciting project filling my calendar this summer has been the new building remodel. As you are probably aware, the Extension Office has purchased the Central Church of Christ (which is just next door to our current property). I have been busy working with the Extension District Board and the New Building Committee planning the remodel of the existing facility. I am sure that many of you are wondering why this purchase was made and why we are remodeling (I know I would).

Basically, to oversimplify, the new building was a great financial opportunity that solves our current space restriction issues. The new facility, once remodeled, will allow for multiple meetings to occur simultaneously, prevent us from renting outside meeting spaces, provide much needed storage space and allow us to diversify our program offerings. This facility could also open us to be a "central hub" for this end of the state, allowing us to host large regional programs, field days, and conferences.

The end result will be an affordable, newly renovated, larger and more functional facility. There is no official move in date set at this time but I will keep you all posted on it's progress. Please reach out if you have questions.

## Achievement Award

At the 2023 KACAA Conference in July, I was awarded the KACAA Achievement Award (AA). The AA recognizes agents for their outstanding programming efforts, community, and council development. On August 14th, I traveled to Iowa, where I was recognized at the national level. As my career continues, I hope to bring more awards back to Marshall County, but more importantly, I hope my efforts have a positive effect at the county level.

## Meeting Season

Now its time for me to gear up for meeting season. I have many programs in the works, many of which are new offerings. Stay tuned to upcoming editions of "Nikki's News" for details. I hope every one of you will take advantage of these opportunities! As always, if there is a program you would like to see in Marshall County, then please let me know. I will do my best to make all reasonable requests a reality.

-Nikki Rhein

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### RECIPE OF THE MONTH

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FRESH TOMATO SAUCE*

# Beef & Forage Timely Tips

*Dr. Les Anderson, Beef Extension Professor*

## Beef Cattle

### Spring-Calving Cow Herd

- Fescue pastures don't generally produce much this month. Many of us have had some rain (some of us a bit too much) but the heat has waited until late summer to become an issue. Most of you may have some forage going into the usually dry months. Keep rotating pastures to permit calves to continue gaining weight. Always keep minerals available.
- Bulls should have been removed from the cow herd by the end of the month. They should be pastured away from the cow herd with a good fence and allowed to regain lost weight and condition. It is a good time to evaluate physical condition, especially feet and legs. Bulls can be given medical attention and still have plenty of time to recover, e.g., corns, abscesses, split hooves, etc. If removing the bull is not practical for you then call your herd veterinarian and schedule a pregnancy diagnosis. Market your "late-bred" cows and keep those that conceived early in the breeding season.
- Repair and improve corrals for fall working and weaning. Consider having an area to wean calves and retain ownership for postweaning feeding rather than selling "green", lightweight calves. Plan to participate in CPH-45 feeder calf sales in your area.

### Fall-Calving Cow Herd

- Dry cows should be moved to better pastures as calving time approaches. Cows should start calving next month. Yearling heifers may begin "headstart" calving later this month. Plan to move cows to stockpiled fescue for the breeding season, so it will soon be time to apply nitrogen fertilizer.

- Prepare for the fall-calving season (usually Sept.). Get ready, gather the following:
  - record book
  - ear tags for identification
  - calf puller
  - castration equip.

### General

- Perhaps the most tedious aspect of agriculture is keeping records, generating reports, and using data to make management decisions. Consider using one of the many electronic data collection and management systems available on the market.
- Provide shade and water! Cattle will need shade during the hot part of the day. Check water supply frequently – as much as 20 gallons may be required by high producing cows in very hot weather.
- Select pastures for stockpiling. Remove cattle and apply nitrogen when moisture conditions are favorable. Stockpiled fescue can be especially beneficial for fall-calving cows after calving. Reproductive rates are highest in fall-calving cows grazing stockpiled fescue.
- Avoid working cattle when temperatures are extremely high – especially those grazing high-endophyte fescue. If cattle must be handled, do so in the early morning.
- Do not give up on fly control in late summer, especially if fly numbers are greater than about 50 flies per animal. You can use a different "type" of spray or pour-on to kill any resistant flies at the end of fly season.
- Keep a good mineral mix available at all times. The UK Beef IRM Basic Cow-Calf mineral is a good choice.
- Cattle may also be more prone to eat poisonous plants during periods of extreme temperature stress. They will stay in "wooded" areas and browse on plants that they would not normally consume. Consider putting a roll of hay in these areas and/or spraying plants like purple (perilla) mint that can be toxic.
- Take soil samples to determine pasture fertility needs. Fertilize as needed, this fall.



*Dr. Chris Teutsch, Forage Extension Specialist*

## Forages

- Do NOT graze cool-season pastures closer than 3 to 4 inches. This will help to conserve soil moisture and prevent overheating of the crowns.
- If drought conditions limit pasture growth, close off pastures and feed hay in a sacrifice area.
- Graze warm season annuals or perennials to allow cool season grasses to recover and to avoid endophyte-infected fescue.
- After first good rain in August, seed winter annuals (such as small grains, ryegrass, crimson clover, and brassicas) for late fall and early spring grazing.
- Plant alfalfa after first good rain in August to allow sufficient size going into winter and reduce potential for sclerotinia damage.
- Consider renovation of cool-season grass pastures that have thinned.
- In mid-August to early September, exclude livestock from pastures to be stockpiled and apply 60 lb N/A and any needed lime, P and K.

# Lunch Break Gardening Series

**University of Kentucky**  
College of Agriculture,  
Food and Environment



**September's Topic:  
Florist Tips**

Join Karen Haney and Kathryn Porter from "Woods Enchanted Florist," as they share their favorite tips & tricks of the trade!

Join us during your lunch break for a gardening workshop!

**\$12**

Includes a boxed lunch from a local restaurant

1st Wednesday Monthly  
12:15-12:45pm  
at the Marshall County Extension Office



RSVP by Sept. 1st  
Call 270-527-3285

Cooperative Extension Service  
Agriculture and Natural Resources  
Family and Consumer Science  
4-H Youth Development  
Community and Economic Development

Educational programs of Kentucky Cooperative Extension serve all people regardless of economic or social status and will not discriminate on the basis of race, color, ethnic origin, national origin, creed, religion, political belief, sex, sexual orientation, gender identity, gender expression, pregnancy, marital status, genetic information, age, veteran status, or physical or mental disability. UNIVERSITY OF KENTUCKY, KENTUCKY STATE UNIVERSITY, U.S. DEPARTMENT OF AGRICULTURE, AND KENTUCKY COUNTIES, COOPERATING  
LEXINGTON, KY 40546



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# MASTER GARDENER LIBRARY LESSONS

## HOUSEPLANTS

Join Master Gardener, Kathy Nord, for a free gardening lesson!

Learn about Kathy's favorite indoor plants & how to grow them!

Two chances to attend!  
Marshall County Public Library Branches:

Hardin- Sept. 13th from 10-11:00am  
Calvert City- Sept. 20th from 10-11:00am



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LEXINGTON, KY 40546



**Aug 31, 2023**

8:00 am to 2 pm  
(sign in @ 7:30)

# Field Crop Pest Workshop

## Demonstrations and Talks

- Importance of Spray Droplet Size for Herbicide Applications
- Herbicide Symptomology
- Fungicide Spray Application Efficacy
- Fungicide Applications With Drones
- Tank Mixing and Adjuvants
- UK Pesticide Safety Education Program- Overview and Updates
- Diversity and Control of Stink Bugs in Ky Crop Fields

University of Kentucky  
Research and Education Center  
1205 Hopkinsville Street  
Princeton, KY 42445



CCA and PAT: Pending

**Pre-registration is required**

[KATSFieldCropPestWorkshop.eventbrite.com](https://KATSFieldCropPestWorkshop.eventbrite.com)

\$65 Registration fee



[kats.ca.uky.edu](https://kats.ca.uky.edu)

*For more information contact  
Travis Legleiter ([Travis.Legleiter@uky.edu](mailto:Travis.Legleiter@uky.edu))  
or Lori Rogers ([lori.rogers@uky.edu](mailto:lori.rogers@uky.edu))*

# Pesticide Use – Best Management Practices for Homeowners

*By Ric Bessin, Entomology Extension Specialist*

Pesticides for purchase at local stores or online to anyone are referred to as 'General Use' or unclassified pesticides by the EPA. You do not need a license or certification to purchase and use these on your own property. Although these are considered General Use and are inherently less hazardous than Restricted Use Pesticides (RUPs), used incorrectly they can be harmful to people and/or the environment. Before purchasing and before using a pesticide, you need to read and understand the label instructions. By following these instructions, you can be reassured you are using the pesticide properly and safely.

Pesticides are used to manage pests, including weeds, insects, plant diseases, and others. But pesticides are just one type of management tactic usually used after other management tactics are employed. These other tactics are preventative and are often referred to as cultural controls; examples include planting resistant varieties, sanitation, altering planting dates to avoid pests, improving drainage and air movement, physical barriers (landscape fabric, row covers, mulch), pruning and hand removal, and rotation.

## Pesticide Best Management Practices

When these other tactics are not sufficient to keep pest problems at a tolerable level, pesticides are sometimes used. Here are some basic best management practices for homeowners when using pesticides.

- If you have had past problems with specific pests or diseases, see if there are cultural controls that can be used to avoid the problem.
- Regularly monitor your plants to identify pest problems early. It is always easier to control problems early than waiting until they become critical. Generally, it is good to check plants at least once a week when conditions favor pest development. Be able to identify what you find or take it to your county Extension office (it's free in Kentucky!).
- Use pesticides only when needed and follow ALL label instructions. Only use them at rates listed on the label. Too high a rate is unsafe, too little may encourage development of resistance by pest populations.
- If a pesticide is needed, carefully match the pesticide with the type of pest to be controlled. For example, any one herbicide only controls some weeds, just as a fungicide will only manage certain disease problems. Select pesticides with low toxicity to humans and other non-target organisms, such as pets and pollinators. Do not use pesticides around the home when the label states 'Not for home use.'
- Make certain that the types of plants being treated are listed on the label. Some pesticides may injure sensitive plants or leave unwanted residues on produce.
- If a pesticide is needed, it must be applied at the right time. With herbicides, this may be before weeds reach a certain stage or height, with diseases this may be before plants become infected, and with insects this may be before they bore into plants.
- Wear rubber gloves, long pants, shoes and socks, and a long sleeve shirt when handling pesticides, making applications, or cleaning and repairing equipment. Other precautions may be listed on some labels. This gear is referred to as Personal Protective Equipment (PPE).
- Do not allow children to use pesticides.
- Carefully calibrate your application equipment so you can confidently apply the pesticide at the correct rate. You can practice with plain water. Be sure the equipment is in good condition and doesn't leak or won't break during use.
- Only prepare the amount of material that you need; this will make cleanup that much easier. Excess spray leftover should be applied to the area being treated. Never dispose of excess sprays or rinse water down a drain or where it may enter streams, ponds, or storm water.
- Do not use measuring equipment from the kitchen. Label all equipment 'For Pesticide Use Only.'
- If you use a hose-end sprayer to apply pesticides or fertilizers, be sure to install a backflow preventer.
- Avoid applying a foliar pesticide if a heavy rain is expected immediately after the application.
- Avoid applying sprays when it is windy, as this will favor drift away from the treated area.
- Avoid using the same pesticide product or pesticides within the same chemical group or mode of action over an extended period in order to prevent pests from developing resistance.
- Keep children, pets, and other people out of the treated area until the sprays have thoroughly dried.
- Clean pesticide application equipment after every application. Follow product label directions for cleaning application equipment and disposing of the leftover rinse water. Check equipment for wear and tear after each use.
- When treating fruit or vegetable plants, observe the pre-harvest interval (PHI) to ensure the produce is safe. The PHI is the time between when you finish the application and when it is safe to begin harvest of produce again.
- Store pesticide products in a safe and secure place that is out of reach of children and pets. Keep pesticides in their original containers and placed in a secondary container to prevent any potential leaks from the original containers. Keep pesticides in a cool, dry place and out of the sunlight.

# Soybean Diseases & Disorders with Interveinal Chlorosis Symptoms on Leaves

*Carl A. Bradley, Extension Plant Pathologist*



Figure 1. Interveinal chlorosis and necrosis symptoms of soybean leaves (Photo: Carl Bradley, UK).

Symptoms of soybean leaves with interveinal chlorosis and interveinal necrosis have been observed in fields across Kentucky recently. Interveinal chlorosis/necrosis is when the leaf tissue between the main leaf veins turns chlorotic (yellow) or necrotic (brown/dead), but the main veins remain green (Figure 1).

There are a few diseases or disorders that can cause these symptoms. Below are descriptions of possible causes.

Sudden death syndrome (SDS), caused by the fungus *Fusarium virguliforme*, is generally observed at some level every year in Kentucky. Although symptoms are observed on the leaves, the SDS fungus actually infects through roots and never makes it to above-ground plant parts. The leaf symptoms are caused by a toxin produced by the fungus that moves up through the plant and accumulates in the leaves. When split open, the middle of the taproot may appear discolored gray to brown when plants are affected by SDS. Occasionally, masses of *F. virguliforme* spores with a blue tint visible to the naked eye may be present on roots of plants affected by SDS. Management of SDS occurs prior to planting by choosing the most resistant varieties available. Two fungicide seed treatments with proven efficacy against SDS also can help with management of this disease (ILEVO from BASF and SALTRO from Syngenta). Fields with high populations of soybean cyst nematode may be at greater risk of severe SDS symptoms, and fields planted early in the season in cool soil temperatures also may be at greatest risk of infection and severe SDS symptoms.



Figure 2. Dark lesions on a soybean stem caused by southern stem canker (Photo: Carl Bradley).

Southern stem canker, caused by the fungus *Diaporthe aspalathi*, also is frequently observed on soybean in Kentucky, especially when susceptible varieties are planted in fields that have been continuous soybean (non-rotated). In addition to the interveinal chlorosis/necrosis symptoms on the leaves, plants affected by southern stem canker also will have dark-colored lesions on the stem that will begin at the nodes and will spread across the stem (Figure 2).

Management of southern stem canker begins with planting the most resistant varieties available and rotating to non-host crops (i.e., corn, grain sorghum, wheat). Results from University of Kentucky field research trials have not shown any effect of foliar fungicides on this disease.



Figure 3. Red discoloration of lower soybean stems caused by red crown rot (Photo: Carl Bradley).

Red crown rot, caused by the fungus *Calonectria ilicicola*, is a new disease to Kentucky that was found for the first time in the state in 2021 in a few fields in Graves County. Although it is possible for red crown rot to be in other counties, field surveys conducted in 2022 found the disease only to be in Graves County. In addition to interveinal chlorosis/necrosis symptoms on the leaves, the lower stem and root area around the soil line will have a red discoloration. Small, red-colored spherical fungal structures known as perithecia also will eventually form on the lower stem and roots (Figure 3). Rotating to non-host crops (i.e., corn, grain sorghum, wheat) is an important step in managing this disease. If found, it is important to contact your local county Extension agent to assist with getting an accurate diagnosis and to help provide information about the distribution of this new disease in the state.



Figure 4. Interveinal chlorosis and necrosis of soybean leaves and browning of piths of soybean stems caused by brown stem rot (Photo: A. Sisson, Iowa State University).

Brown stem rot, caused by the fungus *Cadophora gregata*, is a disease not likely to occur on a frequent basis in Kentucky. This disease generally is found in states further north than Kentucky. To eliminate brown stem rot as the cause of the symptoms, stems can be split open with a knife to look for brown discoloration of the pith (Figure 4).

Soybean vein necrosis, caused by soybean vein necrosis virus (SVNV), will cause symptoms that are almost the exact opposite of interveinal chlorosis/necrosis. Rather than being between the veins of

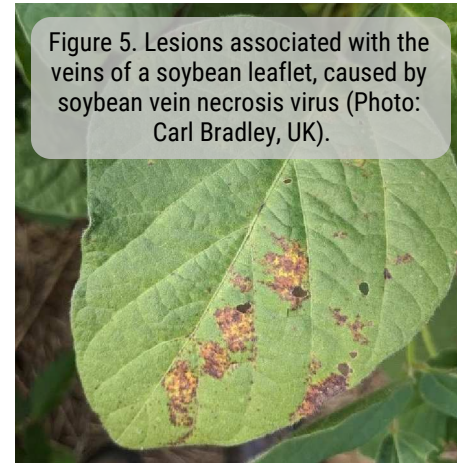


Figure 5. Lesions associated with the veins of a soybean leaflet, caused by soybean vein necrosis virus (Photo: Carl Bradley, UK).

soybean leaves, symptoms of soybean vein necrosis occur on or near the leaf veins as yellowing and reddish-brown lesions (Figure 5). Symptoms of this disease are very common in Kentucky soybean fields this year. The virus is vectored by thrips. In general, SVNV is not considered to cause economic yield loss to soybean.

Fungicide phytotoxicity can be another cause of interveinal chlorosis/necrosis symptoms. Fungicide products that contain either prothioconazole or tebuconazole can be involved. These symptoms are more likely to appear when fungicides are sprayed when temperatures are hot. In this case, symptoms will only appear on leaves that were sprayed with the fungicide, and symptoms will not spread to new leaves.

# Renovation Tips for Novel Tall Fescue

## UK Forage News

Time is counting down with only a month until the ideal Tall Fescue planting time depending on where you are in the fescue belt. Plan on seeding September 1-15 in most of Kentucky. The Spray-Wait-Spray-Plant renovation plan requires the first application of glyphosate 30-40 days before planting followed by another application just before planting.

Walk fields to be renovated and scout for weeds. Are there problem weeds that might need a herbicide treatment in addition to glyphosate? An example would be areas where horsenettle or tall ironweed are present as these weeds may not be killed by glyphosate. Consider using a broadleaf herbicide effective on these weeds (and/or other target weeds). Only use herbicides that have short waiting periods from the time you spray until the time you seed.

Order your seed now if you haven't already. The variety you choose is likely not available on store shelves, so talk to your seed dealer to make sure they have your seed when you need it. Make sure you get the variety you order and check to make sure that the bags carry the Alliance for Grassland Renewal logo. This logo indicates that you are buying safe novel endophyte seed that has passed rigorous testing for seed quality and endophyte viability. Don't get talked into planting an endophyte-free tall fescue if you want stands that last more than a few years. If the store does not have your seed when you need it, wait! Waiting a week or two is better than planting endophyte-free or toxic KY-31 Tall Fescue.

Schedule a drill if you must use a rental unit, or do needed maintenance if you own your own drill. If you plan to broadcast seed then make sure your spreader is in good shape, and that you are using some level of tillage to prepare the seedbed. Immediately after broadcast seeding follow with a cultipacker or similar implement to insure good soil to seed contact.

If you missed a critical step for summer burndown/fall establishment, then go ahead and spray with glyphosate anyway, and after the field dies down drill in a small grain like rye, oats or wheat (or other cool season annual) for winter grazing. Follow with a summer annual grass next year and you will be on schedule to plant novel endophyte tall fescue pastures in the Fall of 2024. Ask your extension agent or other advisor for help, and attend an Alliance workshop during the coming year to learn all you can about Tall Fescue Pasture Renovation. ~ excerpt from article by Dr. Matt Poore, NC State Beef Specialist and Alliance for Grassland Renewal chair.



# One-pot Pasta with Fresh Tomato Sauce

## Directions:

Place all of the ingredients except the spinach, parmesan, and additional fresh basil in a large pot. Cover pot with lid and bring to boil over medium-high heat. Reduce heat to medium-low and let simmer for 6 minutes or until pasta is slightly al dente, stir occasionally. Remove from heat. Stir in spinach; cover and let stand 5 minutes. Top with parmesan cheese and basil just before serving.

\*\*Substitute 2, 14-ounce cans low-sodium diced tomatoes when tomatoes are out of season.

Yield: 6, 1 1/2 cup servings

Nutritional Analysis: 260 calories, 2g fat, 0g saturated fat, 0g trans fat, 0mg cholesterol, 460mg sodium, 51g carbohydrate, 3g fiber, 8g total sugars, 0g added sugars & 12g protein

## Ingredients:

12 ounces tri-colored pasta  
8 medium tomatoes, diced\*\*  
2 cups low-sodium chicken broth  
1 small yellow onion, sliced  
4 garlic cloves, minced or 2 tablespoons garlic powder  
1 teaspoon dried oregano  
1 tablespoon fresh basil, chopped or 1 teaspoon dried  
1 teaspoon salt  
6 ounces baby spinach with stems removed  
Parmesan cheese to top  
Fresh basil for garnish (optional)

# Kentucky Tomatoes

**SEASON:** July through October

**NUTRITION FACTS:** Tomatoes are rich in nutrients that promote good health, including fiber and vitamins C and A. A medium tomato contains about 25 calories, 20 mg sodium, and is a good source of potassium.

**SELECTION:** Choose firm, well-shaped tomatoes that are fragrant and rich in color. Tomatoes should be free from blemishes, heavy for their size, and give slightly to pressure. Three to four medium tomatoes weigh about 1 pound. One pound of tomatoes yields about 2 1/2 cups of chopped tomatoes.

**STORAGE:** Store ripe tomatoes at room temperature, and use them within three days. Keep out of direct sunlight. Place green tomatoes in a paper bag to ripen.

**PREPARATION:** Wash fresh tomatoes in cool running water.

**To peel:** Place tomatoes in boiling water for about 30 seconds, then transfer to cold water. Skins will slip off.

**To seed:** Scrape seeds away from the flesh with a pointed utensil. Avoid puncturing the skin.

**To slice:** Slice lengthwise to retain juice. A serrated knife works best.

## TOMATOES

### Kentucky Proud Project

County Extension Agents for Family and Consumer Sciences

University of Kentucky, Dietetics and Human Nutrition students

May 2020

Source: FruitsAndVeggies.org

Buying Kentucky Proud is easy. Look for the label at your grocery store, farmers market, or roadside stand.  
<http://plateitup.ca.uky.edu>



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For more information go to:

<http://marshall.ca.uky.edu/AgNaturalResources>  
or follow us on Facebook @marshallcountyanr

Nikki Rhein  
Agriculture and Natural Resources Agent,  
Marshall County