AGRICULTURE & NATURAL RESOURCES

Carlisle County ANR Newsletter August 2024



Cooperative Extension Service

Carlisle County 65 John Roberts Road Bardwell, KY 42023-0518 (270) 628-5458 Fax: (270) 628-3722 extension.ca.uky.edu

Dates to Remember:

Dates to Remember:

Burkley Fish Fry- Sept 14, 2024 Rain or Shine-flyer attached

Cloverbuds- Third Tuesday each month—Sept.17th -flyer attached or call Chuck or Brooke

State Cost Share-Conservation District-October 15th-flyer attached

Walter Hayes Memorial Tournament-October 19-flyer attached

4-H Woodworking Club-flyer attached-Contact Amber

4-H Art Club-flyer attached-Contact Amber



Cooperative Extension Service

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

MARTIN-GATTON COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT

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, physical or mental disability or reprisal or retaliation for prior civil rights activity. Reasonable accommodation of disability may be available with prior notice. Program information may be made available in languages other than English. University of Kentucky, Kentucky State University, U.S. Department of Agriculture, and Kentucky Counties, Cooperating.







Make a fun and nutritional snack each day, explore the seven curriculum areas of 4-H listed below through hands-on activities, and learn about good character and citizenship! Maximum 25 youth. Grades K-3.

> 3rd Tuesday of Each Month (September 2024 - April 2025)

3:30-4:30

Call to Register 270-628-5458

RLISLE COUNT



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

Cooperative Extension Service

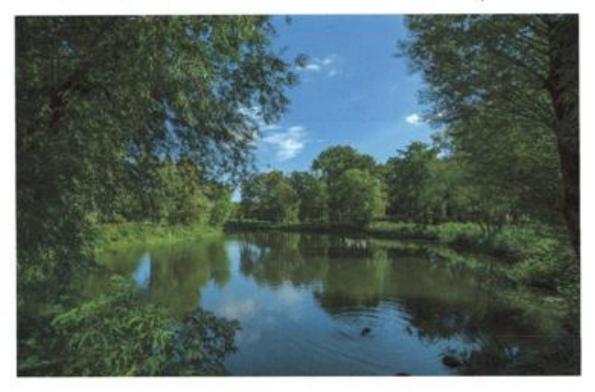
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LEXINGTON, KY 40546





STATE COST SHARE
APPLICATIONS BEING ACCEPTED UNITL OCT 15,2024



The Kentucky Soil Erosion and Water Quality Cost Share Program and the Kentucky Soil Stewardship Program were created to help agricultural operations protect the soil and water resources of Kentucky and to implement their agriculture water quality plans. The program helps landowners address existing soil erosion, water quality and other environmental problems associated with their farming or woodland operation. Applications are being accepted until October 15, 2024. Approval of applications are based on a statewide ranking criteria. Cost share rates are maximum of 75% of the actual cost not the exceed \$20,000.00.

Applications available at the Conservation District located inside the Extension office or call 270-628-3709.



Glazed Cantaloupe Bread

- 3 eggs
- 1 cup unsweetened applesauce
- 1 cup sugar
- 1 tablespoon vanilla extract
- 2 cups pureed cantaloupe (about one 5-inch round melon) 11/2 cups whole wheat flour
- 11/2 cups all-purpose flour 1 teaspoon salt
- 1 teaspoon baking soda
- % teaspoon baking powder
- 2 teaspoons ground cinnamon

1/2 teaspoon ground ginger

Glaze:

1/2 cup butter

3/2 cup brown sugar

1/2 cup chopped pecans

Preheat oven to 325 degrees F. Lightly grease and flour two, 9 x 5-inch loaf pans. In a large mixing bowl beat together eggs, applesauce, sugar, vanilla and pureed cantaloupe. In a separate bowl, slft together flours, salt, baking soda, baking powder, cinnamon and ginger. Add flour mixture to cantaloupe mixture; mlx just until combined, then pour batter into prepared pans. Bake in the center of a preheated oven for 60 to 70 minutes, until a toothpick inserted into center of loaf comes out clean and top of loaf springs back when pressed. Let loaves cool in pans for 10 minutes, run a knife around edge

then turn out of pans to a cooling rack.

For Glaze: Combine butter and brown sugar in a microwave safe bowl. Microwave on high 3 minutes, stirring well at 1 minute intervals, until smooth and sugar is melted; add pecans to the glaze. Pour glaze over warm loaves. Allow glazed loaves to cool one hour before serving.

Yield: 20 slices

Nutritional Analysis: 200 calories, 8 g fat, 3.5 g saturated fat, 45 mg cholesterol, 20 mg sodium, 32 g carbohydrate, 2 g fiber, 17 g sugars, 4 g protein.



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

Kentucky Cantaloupe

SEASON: July through early September.

NUTRITION FACTS: Cantaloupe is a great source of vitamins A and C. A half cup serving provides 50 calories, 120 percent of vitamin A and 80 percent of vitamin C needed per day. They also contain phytochemicals that foster heart health and good vision, boost the immune system and reduce the risk of some cancers.

SELECTION: Choose melons heavy for their size with no visible bruises or yellow or cream undertone. Ripe melons will yield to slight pressure at the blossom end and have a fruity fragrance. The skin should feel springy, not mushy.

STORAGE: Store uncut cantaloupes at room temperature for up to one week. Melons will continue to ripen at room temperature. Refrigerate cut melons in an airtight container up to five days.

Source: www.fruitsandvegglesmatter.gov

PREPARATION: Wash melons in warm water before cutting to rid the rind of any impurities that might be carried from the knife blade to the flesh. Cut the melon in half and scoop out the seeds and strings. Melons can be cut into halves, quarters, wedges, cubes or scooped into balls with a melon baller. Cantaloupe is delicious enough served fresh, but it can also be added to fruit salads and smoothies.

KENTUCKY CANTALOUPE

Kentucky Proud Project

County Extension Agents for Family and Consumer Sciences

University of Kentucky, Dietetics and Human Nutrition students

June 2014

Educational programs of Kentucky Cooperative Extension serve all people regardless of race, color, ago, sex, religion, disability, or national origin. For more information, contact your county's Extension agent for Family and Consumer Sciences or visit www.ulsy.aaffcs COOPERATIVE EXTENSION SERVICE





\$100 Entry/\$20 Big Fish (per boat) 100% Payback

Sign In & Livewell Check 5:30-6:00am

Fishing Times 7:00 am - 3:00pm Must be in line-up no later than 4:00pm

3 fishermen per boat, no age restriction

KY State Fishing Rules Apply

5 fish max - only 2 fish over 35" allowed

No trailering (if Wickliffe boat ramp water levels allow)

For more information contact
Joe Ben Hogancamp
270-331-8334
jbhogancamp@hotmail.com

CATCH & RELEASE TOURNAMENT - ONLY LIVING FISH WILL BE WEIGHED



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For more information contact Amber at 270-628-5458



4-H Woodworking Club

5-6 PM



Second Thursday each month

Ages 9-13

Free

Build State Fair Items Learn Basic Tool Skills Paint or Stain Projects

Spaces limited, call to sign up

Carlisle County Extension Office 65 John Roberts Dr. Bardwell, KY 42023 270-628-5458

An equal opportunity organization

Cooperative Extension Service

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Lexington, KY 40506

New Soybean Disease Found in the County

I sent out an email to producers who I have an email for. If you did not receive one I need your email for you to receive updates on crop and crop issues-Please send me your email address and name to chuck.flowers@uky.edu

In that email, I reported that Red Crown Rot was found in Carlisle County. Here is more information on that soybean disease. It is a soil born organism, you need to rotate to corn to help control, no fungicide to help fight it, greatly cuts yield depending on per-cent of field infected, all soybean varieties are effected. One plus side Saltro seed treatment is labeled for it, it has shown good control of it. Only other counties where it is found at this time is Calloway, Graves and now Carlisle. I am attaching our UKY publication on Red Crown Rot.

I did have <u>plant lab verification</u> and a visit to the field by our <u>plant pathologist</u>-so it is no mistake. He <u>was 100 % sure, it was Red Crown Rot.</u>



Root Area Infected



Martin-Gatton College of Agriculture, Food and Environment Cooperative Extension Service

Plant Pathology Fact Sheet

PPFS-AG-S-25

Red Crown Rot of Soybean

Carl A. Bradley
Plant Pathology
Extension Specialist

Kelsey Mehl
Plant Pathology
Extension Associate

INTRODUCTION

Red crown rot is a soybean disease that was first confirmed in Kentucky in 2021 and first confirmed in the neighboring state of Illinois in 2018. Historically, red crown rot had been considered a disease that occurred in states further south than Kentucky (i.e., Louisiana and Mississippi). From measurements conducted within a few Kentucky soybean fields in 2021, small areas affected by red crown rot had grain yields that were approximately 70% less than non-symptomatic areas of these fields. Although the current distribution of red crown rot in Kentucky appears to be limited, the disease has the potential to cause major yield losses.

SYMPTOMS & SIGNS

Symptoms of red crown rot can occur on leaves, lower stems, and roots of soybean plants.

On leaves, symptoms first appear as chlorotic (yellow) flecks that occur between veins (FIGURE 1). These chlorotic flecks may continue to develop into interveinal chlorosis (yellowing between the leaf veins, while veins remain green) and interveinal necrosis (dead areas between the leaf veins, while veins remain green) (FIGURE 2). Leaf symptoms are caused by a phytotoxin produced by the causal fungus, which moves through the plant and accumulates in leaves. These leaf symptoms generally are not observed until soybean plants reach the reproductive stages of development (beginning flowering and beyond).



FIGURE 1. YELLOW (CHLOROTIC) FLECKS OCCURRING ON SOYBEAN LEAFLETS BETWEEN THE MAIN VEINS, CAUSED BY RED CROWN ROT. FIGURE 2. INTERVEINAL CHLOROSIS (YELLOWING BETWEEN THE VEINS) AND NECROSIS (DEAD TISSUE BETWEEN THE VEINS) ON SOYBEAN LEAFLETS, CAUSED BY RED CROWN ROT.



Lower stem and root symptoms may be observed prior to leaf symptoms. Infections result in a reddish discoloration of lower stems (areas just above the soil line) and roots (FIGURE 3). During the late soybean development stages (pod and seed development and later), white fungal growth (mycelia) may develop on roots and lower stems, and fungal fruiting structures (perithecia) also may develop (FIGURE 3). Perithecia are red to reddish-orange, spherical, and less than 1/16 inch in diameter (FIGURES 3 & 4).

Areas of symptomatic plants in fields generally occur non-uniformly within patches. Soybean plants that are severely affected by red crown rot may die prematurely, while non-affected plants remain green (FIGURE 5).







FIGURE 3. RED DISCOLORATION OF LOWER SOYBEAN STEM AND ROOTS CAUSED BY RED CROWN ROT, AND WHITE MYCELIA (WHITE FUNGAL GROWTH) AND RED, SPHERICAL FRUITING BODIES (PERITHECIA) PRODUCED BY THE RED CROWN ROT FUNGUS.

FIGURE 4. REDDISH-ORANGE SPHERICAL FRUITING BODIES (PERITHECIA) ON A SOYBEAN ROOT, PRODUCED BY THE RED CROWN ROT FUNGUS.

FIGURE 5. A PATCH OF PREMATURELY DEAD SOYBEAN PLANTS SEVERELY AFFECTED BY RED CROWN ROT.

CAUSE & DISEASE DEVELOPMENT

Red crown rot is caused by the fungus Calonectria ilicicola. This fungus overwinters and survives in the soil as specialized structures known as microsclerotia. The fungus may begin to infect soybean roots shortly after planting. The greatest infection of roots occurs when soil temperatures are between 77°F and 86°F. The fungus has a broad host range, which includes alfalfa and peanut as other agriculturally important hosts.

DISEASES WITH SIMILAR SYMPTOMS

Red crown rot can be confused with other soybean diseases, which can make diagnosis difficult. The most accurate diagnosis requires a laboratory analysis, and symptomatic soybean samples from Kentucky fields can be submitted to the University of Kentucky Plant Disease Diagnostic Laboratory through your local Kentucky county Extension office.

Potential look-alike diseases that have symptoms of interveinal chlorosis/necrosis on soybean leaves include sudden death syndrome (SDS), southern stem canker, and brown stem rot. Of these three diseases, only SDS and southern stem canker are currently known to occur in Kentucky, while brown stem rot occurs further north than Kentucky. Although these diseases have similar leaf symptoms to red crown rot, red crown rot generally can be distinguished by the reddish discoloration of lower stems and roots. Observance of the red, spherical perithecia on lower stems and roots is also distinctive to plants affected by red crown rot.

Lower stem and root symptoms caused by Rhizoctonia root rot also can potentially be confused with symptoms caused by red crown rot. Rhizoctonia root rot may cause reddish-brown lesions on roots and hypocotyls (FIGURE 6); however, these lesions tend to be sunken and girdling, whereas the red discoloration caused by red crown rot generally is not. In addition, Rhizoctonia root rot is more likely to first be observed when plants are in the seedling to early-vegetative stages, and red crown symptoms may appear later in the season. Also, perithecia will only be present on lower stems and roots of plants affected by red crown rot.



FIGURE 6. REDDISH-BROWN SUNKEN AND GIRDLING LESIONS ON SOYBEAN HYPOCOTYLS AND ROOTS DUE TO RHIZOCTONIA ROOT ROT.

DISEASE MANAGEMENT

- Rotating to a non-host crop for 2 or more years may help reduce inoculum levels of the red crown rot fungus in the soil.
- Treating soybean seeds with a fungicide seed treatment that includes red crown rot on the label may help protect against early infections by the red crown rot fungus.
- Planting soybeans when soil temperature is less than 77°F may help reduce infections by the red crown rot fungus.
- Management of soybean cyst nematode (SCN) may help reduce potential interactions between SCN and the red crown rot fungus, which have been shown to have an antagonistic effect on soybean plants when both are present.
- Currently, no commercial soybean varieties are marketed with resistance to red crown rot.
- Additionally, no foliar fungicides include red crown rot on their labels, and fungicides will not be effective in managing red crown rot if applied.

ADDITIONAL RESOURCES

 An Overview of Soybean Seedling Diseases (CPN-1008)

https://cropprotectionnetwork.org/publications/anoverview-of-soybean-seedling-diseases

- An Overview of Stem Canker (CPN-1006)
 https://cropprotectionnetwork.org/publications/anoverview-of-stem-canker
- An Overview of Sudden Death Syndrome (CPN-1011) https://cropprotectionnetwork.org/publications/anoverview-of-sudden-death-syndrome

September 2023

Acknowledgement

The authors are grateful to Nicole Gauthier, Plant Pathology Extension Specialist, University of Kentucky, for reviewing this publication.

Editor: Cheryl Kaiser, Plant Pathology Extension Support Photos: University of Kentucky—Carl Bradley (1, 2, 3, 5,6) and Kelsey Mehl (4)



Once again, if you will send me your email address and name I can add you to the Ag Producer email list. I only send out updates on crop or crop issues. I do not have names of all producers in my contact list. If you complain about not getting updates, it is your fault.

My email chuck.flowers@uky.edu

Information released by

Chuck Flowers
Carlisle County Extension Agent for
Agriculture & Natural Resources



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Bardwell, KY, 42023-0518

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