

GRAVES COUNTY AGRICULTURE & NATURAL RESOURCES NEWS

 **Martin-Gatton**
College of Agriculture,
Food and Environment
University of Kentucky.

GRAVES COUNTY COOPERATIVE
EXTENSION SERVICE
4200 US HWY 45
MAYFIELD, KY 42066
(270)247-2334
GRAVES.EXT@UKY.EDU

April 2024

IN THIS EDITION:

- Agent Notes
- Schedule of Events
- Announcements
- Crops
- Forages
- Horticulture
- Entomology
- Weather notes
- Recipes





Happy Spring!

I hope this newsletter finds you all well and gearing up to get busy! We are looking at an exciting April ahead with a lot of classes and demonstrations coming up. We are lucky to get to host some of these so I encourage you to take advantage some of these opportunities! Be sure to look through and read all the flyers that are included for all of the information you need to get signed up.

We are teamed up with the Graves County Conservation District for a soil sampling voucher program this year. If you are a Graves County resident, you can come into the Extension Office to get a voucher that will grant you 3 free soil samples! If you have questions about how to take a soil sample, just reach out to me and I'll get you squared away!

We had a good turnout for the informational meeting for the new Graves County Horticulture Club! If you weren't able to make it but would like the information, please reach out. We are starting our classes this month and they are open to anyone, regardless of membership of the club. However, being a member of the club gets you opportunities for field trips and service projects that will be a great time so I encourage you to consider joining!

There are some great articles that I have included here that I encourage you take a look at. To point out just a few, there is a timely article on any freeze damage that might have taken place after our last cold spell and for any that may happen between now and last frost date, which is still a few weeks away. I've included a stink bug article as well. I get a lot of questions about how to handle those nasty little guys, so hopefully this will answer some of those questions. I'd also like to draw your attention to the horticulture article about the new SOW app for gardeners. This is a fantastic resource that I encourage you to download and poke around on. I think you will find it to be very helpful in your gardening ventures!

As always, please reach out with any questions or program ideas you may have!

Miranda Rudolph

Extension Agent for Agriculture & Natural Resources
Graves County
miranda.rudolph@uky.edu | 270.247.2334 | 270.978.7052



ANR: What's Happening?

Bolded events are hosted by the Graves County Extension Office.

- **April 15: Horticulture Club Lesson- Botany 101, 5:30pm, GCEO**
- April 17: Farmers Market Prep Workshop- 10am-noon, Calloway County Extension Office
- **April 23: Microprocessing Certification, 9:30am- 2:30pm, GCEO**
- **April 25: Fencing School, 7:30am-4:30pm, GCEO**
- **April 30: Meat Cutting Demonstration, 5:30pm, GCEO**
- May 2: Sustainable Gardening, 5:30pm, Calloway County Extension Office
- May 4: Pecan Grafting Demonstration, 10am-2pm, Shearouse Pecan Farm, Boaz, KY

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the UK Office of Institutional Equity and Equal Opportunity, 13 Main Building, University of Kentucky, Lexington, KY 40506-0032 or

US Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410.



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Disabilities
accommodated
with prior notification.

Interested in meats cutting? This will be a great demo on new retail cuts you can get from the beef ribeye, with Dr. Rentfrow from the UK Meats Lab! Call 270-247-2334 to let us know you're coming!



CALL 270-247-2334
TO REGISTER!

NEW RETAIL CUTS FROM THE BEEF RIBEYE
MEAT CUTTING DEMONSTRATION
WITH
DR. GREGG RENTFROW,
UK MEAT SCIENCE SPECIALIST

APRIL 30TH
5:30PM

GRAVES COUNTY
EXTENSION OFFICE



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PECAN GRAFTING DEMONSTRATION

May 4, 2024

10:00 a.m. - 2:00 p.m.

Skip & Jennie Shearouse
Pecan Farm
3474 State Route 1684
Boaz, KY 42027
(Graves County)

Bring a lawn chair, pecan scion wood to swap, and your picnic lunch!

If you have questions, contact:
John Strang

Mobile: 859-396-9311

jstrang@uky.edu

Jennie Shearouse

Mobile: 270-210-3169

shearouse@wk.net

Miranda Rudolph

Office: 270-247-2334,

miranda.rudolph@uky.edu

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No need to register! Bring your chair, lunch, and pecan scions for a great afternoon of learning!



UK Cooperative Extension Service

SUSTAINABLE GARDENING



Join us for a wonderful educational presentation by Dr. Krista Jacobsen from the Dept. of Horticulture at the University of Kentucky.

MAY 2ND, 2024 @ 5:30PM
Calloway County Extension Campus
93 Extension Way
Murray, KY 42071

WORKSHOP HIGHLIGHTS :

- SUSTAINABLE GARDEN TECHNIQUES
- COVER CROP USAGE
- INCORPORATING ORGANIC GARDENING TECHNIQUES

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

Lexington, KY 40506

Held at
Calloway County Extension Office-
call 270-753-1452 to register!



Classes are open to anyone!
If you're interested in joining the horticulture club contact
Miranda at
miranda.rudolph@uky.edu



GRAVES COUNTY HORTICULTURE CLUB

UK Cooperative Extension Service

**** This is a tentative schedule. Dates are subject to change.**

All classes begin at 5:30pm unless otherwise noted.

April 15

Leaves & Buds & Stems, Oh My! Botany 101

May 20

What's Soil Got to Do With It? Soils & Soil Fertility

June 11

I'm Not a Doctor, but I Play One on TV: Plant Pathology

July 9

Gettin' Buggy With It: Entomology

August 20

Trash or Treasure? Weed Management

September 9

It Takes 3 to Tango: Integrated Pest Management

Do not have to be a club member to attend classes!

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UK Cooperative Extension Service

FARMER'S MARKET PREP WORKSHOP

APRIL 17TH

Calloway County Ext. Campus

SCALE CERTIFICATION

Heath Higdon- KDA
10:00AM-10:30AM

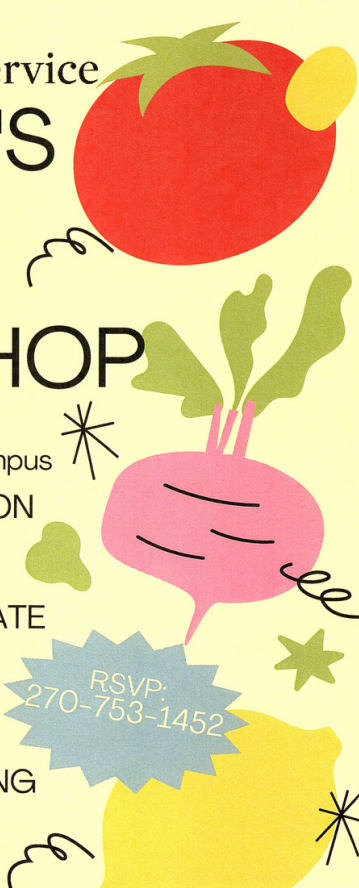
SAMPLING CERTIFICATE WORKSHOP

Matt Chadwick, UK Extension
10:30AM-11:00AM

PRODUCE BEST PRACTICES TRAINING

Require to offer raw samples

Matt Chadwick, UK Extension
11:00AM-NOON



RSVP:
270-753-1452

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Agriculture and Natural Resources
Family and Consumer Sciences
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Lexington, KY 40506

Held at
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call 270-753-1452 to register!



Homebased Microprocessing Workshop



April 23, 2024

9:30 AM - 2:30 PM

Graves County Extension Office

4200 State Route 45 N, Mayfield, KY 42066



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

Join our workshop!
Homebased microprocessors are farmers who grow and harvest produce to use in their value-added products. Homebased microprocessors are required to grow a predominant ingredient in the products they make. The first step to becoming certified as a homebased microprocessor is to attend a Homebased Microprocessor (HBM) workshop presented by the University of Kentucky.

For more information & to register:

ukfcs.net/HBM

or call 270-247-2334

The cost of the workshop is \$50.00.

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Check out the website on the flyer for more information about becoming a homebased microprocessor!
Call 270-247-2334 to register!



Impact of March 19 Temperatures on Wheat

Carrie Knott, Ph.D.

Across Kentucky almost all of the wheat crop has jointed (Feekes 6) and much of it has developed at least two nodes (Feekes 7). When temperatures dropped into the teens and low 20's (°F) overnight March 19 (Table 1), we once again find ourselves asking the question: Will the low temperatures a couple of nights ago damage this year's wheat crop?

For wheat fields that are Feekes 5 or less advanced, these temperatures should not harm the wheat. The growing point was still below the soil surface and well protected by the soil temperatures.

For wheat fields that were at Feekes 6 or later, damage may be possible. The national rule of thumb is that wheat at this growth stage is damaged when temperatures are 24°F or less for 2 or more hours. Although there are certainly more factors that contribute to severity of freeze damage than simply duration of a threshold temperature (many of which we are investigating), this is still the most widely accepted condition to 'trigger' a need to scout fields for damage.

When scouting for freeze damage in wheat, it is important to remember that a minimum of four to five days of good growing conditions (high temperatures exceeding 40°F) are needed before damage becomes visible. In reality, waiting a full week to ten days generally makes it easiest to see freeze damage. Therefore, Tuesday March 26 would be the ideal time to begin scouting fields for freeze damage.

Even if freeze damage is found, this does not immediately indicate that final grain yield will be impacted. Wheat has a tremendous ability to redistribute its resources to living tillers and therefore compensate for primary stems and tillers that may be lost in the freeze. This can result in little to no yield impact. If damage is found, refer to Figure 1 and AGR-253: Identifying Damage and Estimating Yield Reductions following a Spring Freeze in Winter Wheat to help determine potential yield reductions based upon estimated damage observed in the field.

Figure 1: Estimated yield loss following spring freezes at different growth stages

Growth Stage	Feekes	Zadoks	Temp. Injury can Occur (≥ 2 hrs)	Primary Symptoms	Visual Damage	Estimated Yield Effect (% Reduction)
Stem Elongation	4 to 9	30 to 39	24°F	<ul style="list-style-type: none"> • Death of growing point • Leaf burning and yellowing • Lesions, splitting, bending of stems • Odor 	Minor	0
					Moderate	0 – 10
					Severe	0 – 20
Boot	10	40 to 49	28°F	<ul style="list-style-type: none"> • Floret sterility • Spike trapped in boot • Damage to stems and peduncles • Leaf discoloration 	Minor	0 – 20
					Moderate	n/a
					Severe	n/a
Heading	10.1 to 10.5	50 to 58	30°F	<ul style="list-style-type: none"> • Floret sterility • Bleached or white awns or spikes • Damage to stems and peduncles • Leaf discoloration 	Minor	0 – 20
					Moderate	0 – 45
					Severe	30 – 50
Flowering	10.5.1 to 10.5.3	60 to 68	30°F	<ul style="list-style-type: none"> • Floret sterility • Bleached or white awns or spikes • Damage to stems and peduncles • Leaf discoloration 	Minor	n/a
					Moderate	n/a
					Severe	60 – 85

Source: Knott, 2020. <https://access.onlinelibrary.wiley.com/doi/10.1002/cft2.20080>

“Wheat” Cont...

For a visual guide to identify freeze damage refer to AGR-253: Identifying Damage and Estimating Yield Reductions following a Spring Freeze in Winter Wheat.

There are also videos demonstrating how to assess freeze damage at different growth stages: jointing (<https://www.youtube.com/watch?app=desktop&v=oaPiOU-s-Ro>), flowering (<https://youtu.be/u0DUgEa23bE>) and during grain fill (<https://youtu.be/OhcqjeiIE8s>).

Table 1: Minimum air temperatures, relative humidity at minimum air temperature, average relative humidity when air temperature 24°F or less, and duration that air temperatures were 24°F or less and 32°F or less for all available KY Mesonet sites overnight March 18 to early morning hours of March 19. Data obtained from KY Mesonet <http://www.kymesonet.org/>.

County	Minimum Air Temperature (°F)	Relative Humidity at Minimum Air Temperature (%)	Average Relative Humidity when Air Temperature ≤24°F (%)	Duration of Temperatures ≤24°F (hours)	Duration of Temperatures ≤32°F (hours)
Adair	22.0	76.9	76.0	3.7	7.6
Allen	22.3	86.0	85.4	1.2	10.9
Ballard	23.7	88.0	88.5	0.7	11.6
Barren	23.7	81.1	81.1	0.3	9.5
Bath	28.1	70.4	-	0.0	12.8
Boone	26.2	75.5	-	0.0	13.8
Boyle	26.3	70.8	-	0.0	10.9
Breathitt	29.3	65.3	-	0.0	13.8
Breckinridge	25.7	73.3	-	0.0	9.3
Bullitt	24.4	70.1	-	0.0	5.8
Butler	21.2	98.6	96.3	5.0	11.1
Caldwell	22.3	85.6	86.0	3.3	11.5
Calloway	22.7	88.1	87.5	2.3	10.8
Campbell	24.5	67.1	-	0.0	12.2
Carroll	26.4	78.0	-	0.0	6.6
Casey	25.6	77.3	-	0.0	7.6
Christian	24.9	89.3	-	0.0	11.5
Clark	25.7	76.3	-	0.0	11.6
Clinton	19.4	81.5	79.2	3.9	9.5
Crittenden	25.8	75.0	-	0.0	9.4
Cumberland	19.3	92.7	90.6	4.3	9.1
Fayette	26.6	72.7	-	0.0	10.9
Franklin	24.9	80.6	-	0.0	7.6
Fulton	23.1	86.9	86.9	0.4	11.0
Graves	21.8	91.3	90.5	4.2	12.1
Grayson	19.4	91.9	84.8	6.7	9.7
Hardin	20.8	92.9	90.7	1.8	8.3
Harlan	16.2	89.2	82.7	14.7	16.7
Harrison	26.2	83.2	-	0.0	8.6
Hart	23.8	84.0	83.7	0.6	8.3
Henderson	22.4	93.2	91.9	4.1	11.0
Hopkins	23.7	70.0	70.1	1.8	12.3
Jackson	27.0	68.3	-	0.0	13.8

Johnson	31.6	58.9	-	0.0	3.3
Knott	28.7	61.3	-	0.0	14.4
Knox	29.5	68.7	-	0.0	4.6
LaRue	24.1	82.0	-	0.0	7.7
Lawrence	28.1	66.1	-	0.0	8.1
Letcher	31.8	59.7	-	0.0	3.9
Lewis	25.8	78.9	-	0.0	8.2
Lincoln	26.1	77.0	-	0.0	9.3
Logan	22.0	97.4	95.0	5.8	11.8
Madison	26.8	70.5	-	0.0	7.0
Marion	22.2	78.0	77.0	1.6	6.3
Marshall	20.0	93.9	94.0	3.7	10.9
Mason	25.3	72.5	-	0.0	13.8
McCreary	22.1	72.7	72.0	2.0	12.3
McLean	21.9	93.5	93.9	1.3	11.8
Meade	22.4	81.4	79.1	1.5	8.3
Menifee	27.8	67.0	-	0.0	13.8
Mercer	25.1	75.4	-	0.0	8.3
Metcalfe	25.2	79.0	-	0.0	9.3
Monroe	41.5	46.3	-	0.0	0.0
Morgan	29.6	57.2	-	0.0	13.8
Muhlenberg	22.1	88.8	88.0	2.7	11.5
Nicholas	26.9	74.3	-	0.0	13.4
Ohio	16.9	94.0	90.8	5.8	11.0
Oldham	25.4	77.0	-	0.0	8.7
Owen	25.9	76.7	-	0.0	11.9
Owsley	29.2	65.8	-	0.0	2.8
Pike	22.7	72.6	76.2	10.9	15.7
Pulaski	25.1	77.2	-	0.0	12.3
Rowan	29.7	60.9	-	0.0	11.6
Russell	26.1	76.0	-	0.0	7.7
Shelby	22.9	84.4	82.0	1.9	10.3
Simpson	22.8	89.4	89.3	1.6	11.8
Taylor	24.8	78.3	-	0.0	7.4
Todd	17.6	93.8	92.8	6.8	12.3
Trigg	19.3	93.0	91.0	4.8	11.1
Union	23.8	86.9	87.5	0.3	11.8
Warren	22.8	87.1	86.4	1.2	10.8
Wayne	25.9	78.4	-	0.0	6.8
Webster	20.9	93.9	91.4	7.8	12.7

Forage Timely Tips: April UK Forage News

- Graze cover crops using temporary fencing.
- As pasture growth begins, rotate through pastures quickly to keep up with the fast growth of spring.
- Creep-graze calves and lambs, allowing them access to highest-quality pasture.
- Finish re-seeding winter feeding sites where soil disturbance and sod damage occurred.
- As pasture growth exceeds the needs of the livestock, remove some fields from the rotation and allow growth to accumulate for hay or haylage.
- Flash graze pastures newly seeded with clovers to manage competition.

Upcoming Forage Events

2024 Spring Fencing Schools—Hands on school focusing on the installation of fixed knot woven wire fence and electrified smooth high tensile fence. April 23 in Morehead, KY; April 25 in Mayfield, KY

2024 Beginning Grazing School—Not sure where to start? This school is designed to provide you with the tools needed to establish a profitable and sustainable grazing system. April 30-May 1 in Princeton, KY

Electric Fence Troubleshooting School—This school is designed to provide students with tips on installation of new and troubleshooting of existing electric fencing. June 12 in Morgantown, KY.

Go to <https://forages.ca.uky.edu/events> to register or for more information or contact Caroline Roper at 270-704-2254 or Caroline.Roper@uky.edu

See next page for registration papers!



Organized and Sponsored by the Kentucky Forage and Grassland Council, UK Cooperative Extension Service, and the Master Grazer Program

This program is designed for producers and agricultural professionals to learn the newest fencing methods and sound fencing construction through a combination of classroom and hands-on learning

WHEN: April 23-Morehead, KY
April 25-Mayfield, KY

WHERE: Derrickson Agricultural Complex
Richardson Arena
25 MSU Farm Drive
Morehead, KY 40351

Graves County Extension Office
4200 State Route 45 N
Mayfield, KY 42066



COST: \$35/participant -- includes notebook, refreshments, safety glasses, hearing protection, and catered lunch

Registration DEADLINE: 2 weeks prior to workshop

ONLINE Registration with Credit Card:

Morehead, KY <https://Spring24FencingMorehead.eventbrite.com>

Mayfield, KY <https://Spring24FencingGraves.eventbrite.com>

Registration by U.S. Mail: Caroline Roper
UK Research and Education Center
P.O. Box 469
Princeton, KY 42445

Name: _____

Street: _____

City: _____ State: _____ Zip code: _____

Email: _____ Cell Phone: _____

Number of participants _____ x \$35 per participant = _____ **Total Cost**

Make CHECKS payable to: KFGC



2024 Kentucky Fencing Schools

For more information contact Caroline Roper at 270-704-2254 or Caroline.Roper@uky.edu

2024 Kentucky Fencing School Agenda

- 7:30 Registration and Refreshments
- 8:15 Welcome and Overview of the Day – Chris Teutsch, UK
- 8:30 Fencing Types and Costs - Morgan Hayes, UK
- 9:00 Fence Construction Basics – Eric Miller and Payton Rushing, Stay-Tuff
 - Perimeter fences vs. cross fences
 - Fencing options on rented farms
 - Proper brace construction
 - Line posts and fence construction
- 9:45 Break – visit with sponsors and presenters
- 10:15 Electric Fencing Basics - Jeremy McGill, Gallagher
 - Proper energizer selection and grounding
 - Proper high tensile fence construction and wire insulation
 - Electric offset wires for non-electric fences
 - Underground wires and jumper wires
- 11:00 Innovations in Fencing Technologies - Josh Jackson, UK
 - Wireless fences, fence monitoring, fence mapping
- 11:30 Overview of Kentucky Fence Law - Clint Quarles, KDA
- 12:15 Catered Lunch - visit with sponsors and presenters
- 1:00 Hands-on Fence Building
 - Safety, fence layout, and post driving demo - Jody Watson and Tucker LaForce, ACI
 - H-brace construction - Jeremy McGill, Gallagher & Eric Miller and Payton Rushing, Stay-Tuff
 - Knot tying, splices, and insulator installation - Jeremy McGill, Gallagher & Eric Miller and Payton Rushing, Stay-Tuff
 - Installation of Stay-Tuff Fixed Knot Fence - Eric Miller and Payton Rushing, Stay-Tuff
 - Installation of High Tensile Fencing - Jeremy McGill, Gallagher
- 4:30 Questions, Survey and Wrap-up



Disabilities accommodated with prior notification.

2024 Kentucky Beginning Grazing School

Helping livestock producers improve profitability with classroom and hands-on learning

When: April 30-May 1, 2024

Where: Central Presbyterian Church
206 West Main Street, Princeton, KY 42445

Cost: \$60/Participant – includes all materials, grazing manual, grazing stick, fencing kit, morning refreshments, and lunch both days



Program Registration: DEADLINE is April 23, 2024

Online Registration with CREDIT CARD AT:

<https://Spring2024GrazingSchool.eventbrite.com>

Registration by U.S. Mail with CHECK:

Caroline Roper
UK Research and Education Center
348 University Drive, Princeton, KY 42445



Name: _____

Street: _____

City: _____

State: _____ Zip Code: _____

Cell Phone: _____

Email: _____

Number of participants _____ x \$60 per participant = _____ **Total Amount**

Call for student rates.

Please make checks payable to KFGC

2024 Kentucky Beginning Grazing School

Helping livestock producers improve profitability with classroom and hands-on learning

Emphasis on ruminants - beef, dairy, sheep, & goats

Tuesday, April 30, 2024 **Wednesday, May 1, 2024**

***MEET AT CENTRAL PRESBYTERIAN CHURCH FELLOWSHIP HALL ***

- | | |
|---|---|
| 7:30 Registration and refreshments | 7:30 Refreshments |
| 8:00 Welcome and introductions | 8:00 Interpreting soil test results, John Grove, UK |
| 8:15 Getting stocking rate right-Ray Smith, UK | 8:30 Meeting the nutritional needs of grazing livestock-Katie VanValin, UK |
| 8:30 Forage plant growth and grazing management-Chris Teutsch, UK | 9:15 Electric fencing-Jeremy McGill, Gallagher Fencing |
| 9:00 Grazing system design-Jeff Lehmkuhler | 10:00 Break |
| 9:45 Break | 10:30 How I made grazing work on the farm-Justin Adams |
| 10:15 Forage species-Chris Teutsch, UK | 11:00 Rejuvenating run-down pastures-Chris Teutsch, UK |
| 10:45 Hands on forage identification-Ray Smith, UK | 11:30 Financial assistance for improved grazing infrastructure-Frank Yancey, NRCS |
| 11:30 Grazing system planning exercise-Adam Jones, NRCS | 12:00 Lunch at church |
| 12:00 Lunch at church | 12:45 Travel to host farm |
| 12:45 Travel to host farm | 1:00 Hands on electric fencing |
| 1:00 Introductions and farm overview | Hands on watering system |
| Soil sampling pastures | Grain drill calibration and set up |
| Hay sampling | Frost seeding demonstration |
| Pasture condition scoring | Presentation of grazing plans |
| Hay sampling | Surveys and graduation |
| Grazing planning exercise | |
| 4:00 Adjourn | |

For more information, please contact Caroline Roper at 270-704-2254 or Caroline.Roper@uky.edu.



Disabilities accommodated with prior notification.

Grow Smart with SOW: Kentucky Gardener's Ultimate App for Planting Success

Rick Durham, UK Horticulture Extension Specialist

Kentucky gardeners can download a free tool in the Apple and Google Play app stores to help them decide what to plant and harvest in their home garden.

The app SOW—A Planting Companion is largely based on ID-128 Home Vegetable Gardening in Kentucky from the University of Kentucky Cooperative Extension.

The app also has information from the Cooperative Extension services in Alabama and North Carolina for users in those states.

The app provides growing information for Plant Hardiness Zones 6a–9a. Some parts of Kentucky are in zones 6a or 7a, but most of the state is in zone 6b.

When you get the app, enter your state and county for plant information specific to your hardiness zone. You can always go back to the settings menu and change the information if you are interested in looking at data specific for other hardiness zones.

The app has three main parts: Library, My Garden and Journal.

Library:

- The library has informational sheets and pictures of almost 40 common home garden vegetables. You can arrange the vegetables by planting date, vegetable name or harvest date.
- When you click on a vegetable in the library, more information about that vegetable will appear. This information includes how many plants you need to grow for a good harvest, how far apart you should plant them, how deep you should plant them, and the range of pH levels in the soil.
- There are also specific cultivars of each crop recommended for Kentucky gardens.

My Garden:

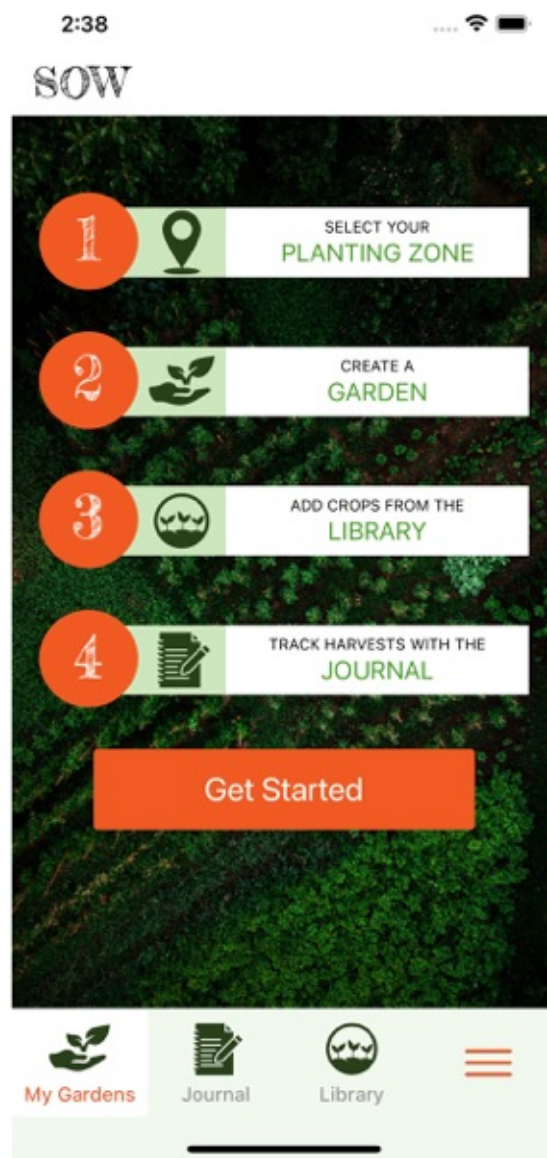
- You can also add plants to the My Garden area. You can design more than one garden at the same time. For example, you could have a spring garden, a summer garden and a fall garden. My Garden helps you remember when you planted, whether you used seeds or transplants, what cultivar or variety you planted and when you should be able to harvest it.
- You can also plan and enter a date to plant in the future. This is beneficial when you are planning transitions from the spring to summer garden, or from summer to fall. The app will then let you add that scheduled planting date to your phone's calendar as a reminder.

Journal:

- Once a crop is harvested, use the Journal section to write down the yield, the harvest date and any other information that might help you plan your garden for next year.

The app can also link you to your local Cooperative Extension office, where you'll find staff information and ways to contact extension agents with questions.

For more information on gardening tips, contact your Graves County Extension office.



How to Properly Manage the Damage Caused by Brown Marmorated Stink Bugs

Jonathon Larson, UK Extension Entomologist

As their name implies, brown marmorated stink bugs are not just stinky—they can seriously harm crops. You must take action to keep this pest away, regardless of the size of your field or garden.

Although brown marmorated stink bugs have long been present in the eastern part of the state, since 2019 they have started appearing in more counties in Western Kentucky. This invasive species resembles native stink bugs in appearance, but it has a gray belly, and a brown, mottled top along with white bands on its antennae.

These stink bugs will consume any crop. Sweet corn, eggplant, peppers and tomatoes are a few of their favorite foods. They also prey on ornamental trees like redbuds and field crops like soybeans. Their feeding discolors crops, turns their insides corky, and—most importantly—makes them inedible.

Home and commercial growers should take prompt action to control brown marmorated stink bugs because of their capacity to quickly decimate crops.

Here are some quick tips:

- They smell strongly, so you don't want to smash them. Even if you inadvertently crush them, their odor will keep other stink bugs away from your crops. To eliminate them in large quantities, you can sweep them off plants and place them in buckets of soapy water.
- When stink bugs are small, homeowners can control them with insecticidal soap; for larger stink bugs, use products containing pyrethroids. You can also utilize physical exclusion techniques like netting or row covers to keep the stink bugs out of your yard. When using row covers, timing is crucial because you don't want to use them to impede pollination.
- Since the brown marmorated stink bug most frequently infiltrates along field edges, commercial producers should concentrate their monitoring efforts there. In these circumstances, pyrethroid products can also be helpful.
- Throughout the summer, stink bugs will most likely produce two generations, so keep a careful eye on your crops. Early summer is when the first generation will emerge, and late summer or early fall is when the second generation does.
- Brown marmorated stink bugs may begin to appear in your home as the weather cools off and they seek cover from the elements. Toward the end of August, they can also begin to cluster on the exterior of homes. If homeowners spot these stinkbug parties, they can spray them with soapy water and kill them before they end up inside.

For more information on pest control, contact your Graves County Extension office.





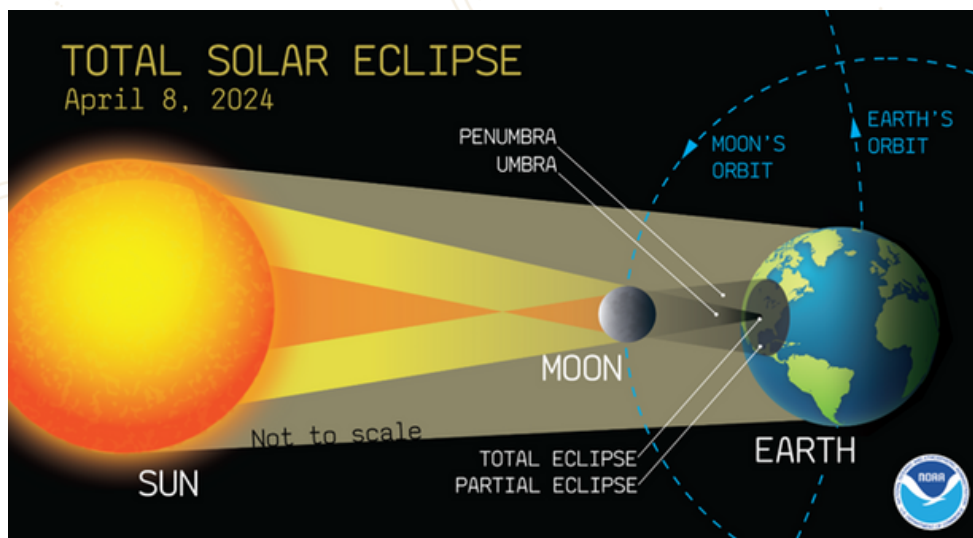
Total Solar Eclipse Will Dazzle on April 8th!

By Jane Marie Wix - National Weather Service Jackson, KY
and Derrick Snyder- National Weather Service Paducah, KY

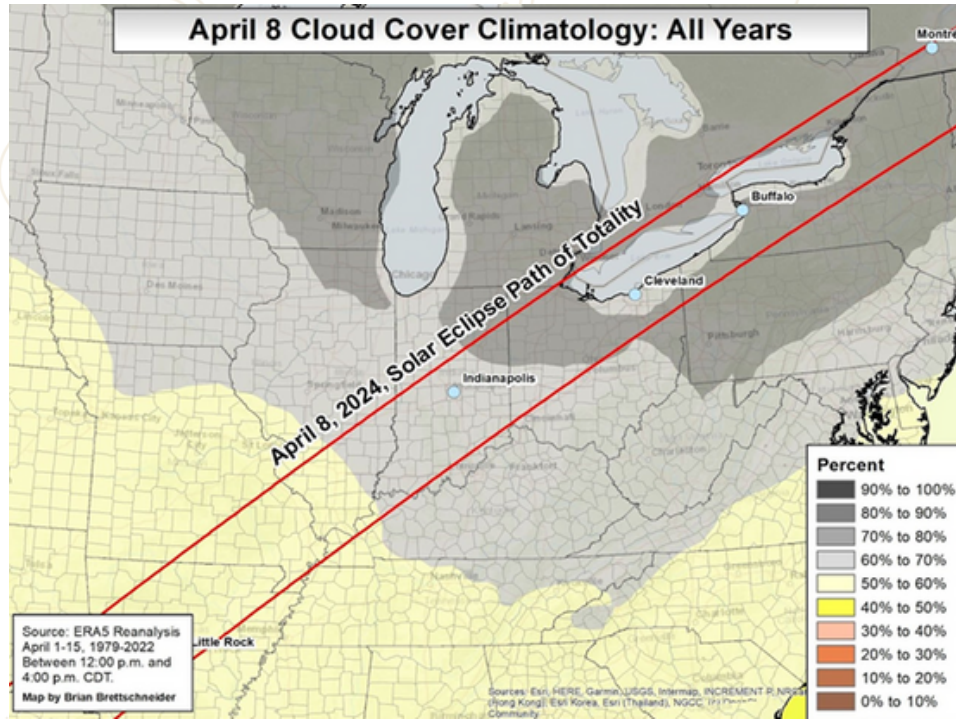
During the afternoon hours of Monday, April 8th, a spectacular celestial event will pass through the country – a total solar eclipse of the sun! The eclipse on April 8th will cross a good part of the southern, central, and northeastern portion of the country, including portions of far Western Kentucky. A large part of the Ohio River on the west half of the Commonwealth will be just outside of the totality. The map below is courtesy of the National Aeronautics and Space Administration (NASA) and shows the path of the eclipse and what time it will reach locations in its path. For places in the path of totality (where the Sun will be completely obscured by the Moon), the sun will be covered between roughly two and four minutes.



Why do eclipses occur anyway? On Earth, the Sun appears about 400 times larger in the sky than the Moon does. However, the Sun is also about 400 times further away from Earth than the Moon is. This unique planetary positioning allows for special occurrences where the Moon perfectly obscures the Sun in what we call an eclipse. Solar eclipses only occur when the positions of the Sun and Moon align just right to block the sun. This alignment happens rarely because the orbit of the Moon around Earth is not a perfect circle. In reality it is more like an oval. For this reason, the next total solar eclipse visible in the U.S. will not be until 2033 in Alaska!



Will the weather cooperate for the eclipse? The biggest obstacle to seeing a solar eclipse is cloud cover. The timing of the eclipse in early April presents a challenge, as this can be a cloudy time of year in much of the country, including across Kentucky. The map below shows the typical amount of cloud cover present on April 8th in Kentucky and surrounding states. Most areas usually have at least half of the sky covered by clouds, and locations near the Great Lakes can see much cloudier conditions, with upwards of 75% of the sky covered by clouds on an average day.



Even if the clouds do not cooperate, seeing a total solar eclipse is truly a once-in-a-lifetime experience! If you are in the path of totality, you may feel the temperature cool a few degrees as the sun becomes increasingly covered. Birds and insects will often become quiet and behave as they would at dusk. When totality arrives, the sun is completely covered! You may even be able to see the chromosphere (a layer of the sun's atmosphere) and the sun's corona (the outer layer of its atmosphere - appears as white streamers or plumes of ionized gas that flow outward into space).

☾ ☀ ☽

Solar Eclipse Eye Safety

Partial Eclipse (Use filter) — Total Eclipse (No filter) — Partial Eclipse (Use filter)

Looking directly at the sun during a solar eclipse is unsafe, except during a brief phase when the moon entirely blocks the sun's bright face. This phase is called totality. The path of totality for the Aug. 21, 2017 eclipse stretches from Oregon to South Carolina. Unless you're in the path of totality, keep your solar eclipse glasses on throughout the eclipse. Four manufacturers have certified that their eclipse glasses and handheld solar viewers meet the standards for eye protection: Rainbow Symphony, American Paper Optics, Thousand Oaks Optical, and TSE 17

✗ NOT SAFE

Ordinary sunglasses are not strong enough to protect your eyes.

✓ SAFE

Use specially designed solar eclipse glasses and viewers to block the sun's harmful rays.

✗ NOT SAFE

Wearing solar eclipse glasses to look through a camera, binoculars or a telescope will not protect your eyes.

✓ SAFE

Use only specially designed filters for lenses.

Source: American Academy of Ophthalmology and American Astronomical Society



Honey Raisin Muffins

- | | | |
|--|--|---|
| ½ cup + 2 tablespoons all purpose flour | ¼ teaspoon baking soda | 1 cup skim milk |
| ½ cup + 2 tablespoons whole wheat flour | 1 teaspoon ground cinnamon | ½ cup honey |
| ¾ teaspoon baking powder | ¼ teaspoon salt | 2 egg whites |
| | 2 cups bran flake cereal with raisins | 3 tablespoons unsweetened applesauce |
| | | 2 tablespoons canola oil |

- Combine** flours, baking powder, baking soda, cinnamon and salt in a bowl and set aside.
- In a large mixing bowl, **combine** cereal, milk and honey; let stand for 2 minutes to soften. **Stir** in egg whites, applesauce and oil; **mix** well.
- Add** dry ingredients and stir until moistened.
- Fill** a greased or paper-lined muffin pan $\frac{2}{3}$ full.
- Bake** at 400°F for 15-18 minutes.
- Cool** 10 minutes before removing from pan.

Yield: 12 muffins.

Nutrition Analysis:
150 calories, 3 g fat, 0 mg cholesterol, 170 mg sodium, 30 g carbohydrate, 2 g fiber, 15 g sugar, 4 g protein.



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

Kentucky Honey

SEASON: Honey is harvested in July and August.

NUTRITION FACTS: 1 tablespoon of honey has 60 calories, 0 g fat, 17 g carbohydrate, 0 g protein.

SELECTION: Bees prepare honey from nectar collected from the flowers and blossoms of trees. Color and flavor is determined by the blooms.

STORAGE: Store honey at room temperature, in an air-tight container for up to 2 years.

PREPARATION: Honey can be used in cooking in place of sugar. For baking with honey, substitute honey for up to ½ the sugar in recipes. Reduce

Source: www.honey.com

the liquid in the recipe by ¼ cup for each cup of honey used. Add ½ teaspoon baking soda for each cup of honey and reduce the oven temperature by 25° to prevent over-browning. Honey has a higher sweetening power than sugar. It will take less to sweeten your recipe.



HONEY

Plate It Up! Kentucky Proud Project
County Extension Agents for Family and Consumer Sciences
University of Kentucky, Nutrition and Food Science students
March 2012

Educational programs of Kentucky Cooperative Extension serve all people regardless of race, color, age, sex, religion, disability, or national origin. For more information, contact your county's Extension agent for Family and Consumer Sciences or visit www.ca.uky.edu/fcs.

COOPERATIVE
EXTENSION
SERVICE





Baked Fish Fillets with Dill Sauce



This institution is an equal opportunity provider. This material was funded by USDA's Supplemental Nutrition Assistance Program — SNAP.



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

Baked Fish Fillets

- 1 pound freshwater fish fillets
- 1 tablespoon lemon juice
- 1 teaspoon water
- ½ teaspoon pepper
- 1 small onion, diced

Preheat the oven to 425 degrees Fahrenheit. Coat 9 x 13 inch baking dish with nonstick cooking spray. Place the fish in a single layer in a baking dish. Sprinkle the fish with 1 tablespoon lemon juice, 1 tablespoon water, pepper, and onion. Cover tightly with foil. Bake 20 to 25 minutes and internal temperature reaches 145 degrees Fahrenheit.

Dill Sauce

- ¼ cup low-fat mayonnaise
- ¼ cup fat-free milk

- 1 tablespoon dried dill weed
- 1 tablespoon lemon juice
- 2 teaspoons Dijon mustard

Place mayonnaise in a saucepan. Gradually whisk in milk. Whisk over medium-low heat for 2 minutes or until smooth and heated through but not bubbly. Remove sauce from heat. Stir in dill weed, 1 tablespoon lemon juice, and Dijon mustard. Remove fish to a serving platter. Spoon dill sauce over fish and serve.

Yield: 4 servings

Adapted from "Living Well, More Than a Cookbook," Published by National Extension Association of Family and Consumer Sciences, Copyright 2010 by National Association of Family and Consumer Sciences, 14070 Proton Road, Suite 100LB9, Dallas, Texas 75244.

Nutrition Facts

4 servings per container
Serving size 4 ounces (170g)

Amount per serving
Calories 170

% Daily Value*

Total Fat 5g	6%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 80mg	27%
Sodium 280mg	12%
Total Carbohydrate 6g	2%
Dietary Fiber 1g	4%
Total Sugars 3g	
Includes 0g Added Sugars	0%
Protein 23g	
Vitamin D 0mcg	0%
Calcium 125mg	10%
Iron 2mg	10%
Potassium 480mg	10%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.