# CARTER COUNTY AGRICULTURE & NATURAL RESOURCES

NEWSLETTER

April 2024



**Carter County** 

94 Fairground Drive Grayson, KY 41143

Phone: (606) 474-6686 Fax: (606) 474-8542

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#### Highlights:

- ⇒ Order Group Minerals & Twine by April 24<sup>th</sup>.
- ⇒ Appointments for Senior Farmer's Market Vouchers will be taken on May 1<sup>st</sup> & 2<sup>nd</sup>.
- ⇒ Opportunities for CAIP trainings are winding down. If you have not completed a training yet, please make sure to do so ASAP.
- ⇒ BQCA is free online in April. Visit <a href="https://kybeefnetwork.com">kybeefnetwork.com</a> for more information.
- ⇒ Berry plants should be in this week. We'll call you when they are ready for pick up. Please pick up promptly once you're called. We're not responsible for dead plants.



Enjoy your newsletter,

Rebecca Konopla

Rebecca Konopka, Carter County Extension Agent for Agriculture & Natural Resources Education

Cooperative Extension Service MARTIN-GATTON COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT

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# **Upcoming Events**

\*Denotes events where preregistration is required. Call 474-6686 or email Rebecca.k@uky.edu to register.\*

4/2 @ 5:30 PM	*Private Pesticide Applicator Training*	Extension Office	
4/2 @ 6:30 PM	Little Sandy Beekeepers	Extension Office	
4/4 @ 6:00 PM	*Master Cattleman*	Boyd Co Expo Bldg	
4/5 @ 1:00 PM	Hike & Learn	Laurel Gorge Cultural Heritage Center	
4/8 @ 6:00 PM	Farmer's Market Training	Extension Office	
4/9 @ 10:00 AM	District Board Meeting	Extension Office	
4/23 @ 7:30 AM	*Fencing School*	MSU Farm	
4/19 @ 10:00 AM	Soil Conservation Tree	Farmer's Market Shed	
4/23 @ 6:00 PM	Northeast Area Livestock	Extension Office	
5/1 @ 8:30-4:00	Senior Farmer's Market Voucher Appointments	Call 474-6686	
5/2 @ 8:30-4:00	Senior Farmer's Market Voucher Appointments	Call 474-6686	
5/3 @ 1:00 PM	Hike & Learn	Grayson Lake—Walker Point Access	
5/7 @ 6:00 PM	Little Sandy Beekeepers	Extension Office	
5/13 @ 6:00 PM	Ag Advancement Council	Extension Office	
5/14 @ 10:00 AM	District Board Meeting	Extension Office	

## Little Sandy Beekeepers Association

\*\*First Tuesday of the Month @ 6:30 PM\*\*

April 2<sup>nd</sup>—Speaker: Nathan Alexander,

Big Sandy River Basin Coordinator

May 7<sup>th</sup>—Speaker: TBD



# Northeast Area Livestock Association

\*\*Fourth Tuesday of the Month @ 6:00 PM\*\*

April 23<sup>rd</sup>

Speaker: Dr. Joshua Jackson

Topic: Equipment Maintenance and the

Importance of Record Keeping



Horticulture
Webinar
Wednesdays
12:30pm ET/11:30 am CT

# **APRIL CLASSES**

Wednesdays 12:30 p.m. ET/ 11:30 a.m. CT

April 3 - Chaos Gardening
April 10 - Hostas: Not What
You Think

April 17 - Cicadas

**April 24** - Beyond Begonias

- New Plants for 2024

You must register before the class.

http://tinyurl.com/24 APRHWW

Click on the classes you want to attend.

You will get an email with the class link.

Register at:

http://tinyurl.com/24APRHWW

# NEALA Group Mineral & Twine Order

The Northeast Area Livestock Association is currently taking orders for summer and fall livestock minerals and twine. Kee's Farm Service won the bid and two of the minerals are a special blend to meet the UK Beef IRM guidelines. Orders must be placed by April 24<sup>th</sup> by calling the Extension Office at 474-6686. Minerals and twine may be picked up at Kee's Farm Service on or after May 15<sup>th</sup>.

#### Available minerals:

- ⇒ A Complete Basic Cow-Calf Mineral @ \$19.50/ 50lb bag
- ⇒ A Complete Basic Cow-Calf Mineral with High Magnesium @ \$22.00/
  50lb bag

## Four types of hay twine are available:

- ⇒ 16,000 ft sisal (38# rolls) @ \$45.00
- $\Rightarrow$  9,000 ft sisal @ \$45.00
- ⇒ 20,000 ft plastic (available in orange & blue) @ \$24.00
- ⇒ 9,000 ft plastic (available in orange & blue) @ \$30.00

Orders for minerals and twine must be placed by April 24<sup>th</sup> by calling the Extension Office at 474-6686.

### Which Mineral Do I Feed When?

## **Spring Calving Herds**

January — Mid-May: High Magnesium Mineral

Supplement with high magnesium mineral at least 30 days prior to calving. Cows need 20 grams of magnesium daily or 4 oz/day of a 10% magnesium mineral mix. Continue providing magnesium in the mineral mix until daytime temperatures are consistently above 60° F.

Mid-May - December: Basic/Cow Calf Mineral

Provide a free-choice mineral mix containing adequate levels of phosphorus, vitamin A, selenium, copper, zinc and other trace minerals at all times.

#### **Fall Calving Herds**

August - October: High Magnesium Mineral

Supplement with high magnesium. If the temperature is unseasonably warm, continue using a high magnesium mineral through November.

November – July: Basic/Cow Calf Mineral

Provide a free-choice mineral mix containing adequate levels of phosphorus, vitamin A, selenium, copper, zinc and other trace minerals at all times.







Join us every month on the first Friday for Hike & Learn.

This month Camila Haney will lead us on a spring wildflower walk.

The trail is approximately 2 miles.

Please wear closed-toe shoes and bring your own snacks and drinks.

Next month: May 3rd @ 1:00 PM
Walker Point Access - Grayson Lake Wildlife Management Area
Visit carter.ca.uky.edu/anr for more info.

# Senior Farmer's Market Vouchers

This year to avoid long lines on distribution days, eligible Carter County seniors will call to schedule an appointment to pick up their Farmer's Market voucher card.

### Steps to sign up for 2023 voucher cards:

- Call 474-6686 between the hours of 8:30 AM-4:00 PM on May 1<sup>st</sup> or May 2<sup>nd</sup>. (No appointments will be issued before 8:30 AM on May 2<sup>nd</sup>.)
- 2. We'll need to know the following information:
  - Name
  - Address
  - Birthday
  - Income
- 3. We'll schedule an appointment for you to sign the paperwork and pick up a new card. Appointments will be scheduled for June 12<sup>th</sup> in Grayson at the Extension Office Education Building and June 13<sup>th</sup> in the back parking lot of Olive Hill Elementary School.
- 4. Show up at your appointment time with proof of identification. There is no need to show up early. Once you have an appointment time, you are guaranteed to receive a voucher card if you show up for your appointment.

The purpose of the Kentucky Farmers' Market Nutrition Program (FMNP) is to gain market access for farmers as well as improving nutrition of low-income families by providing them better access to fresh fruits and vegetables. Funding for Kentucky's program comes from federal and state resources. The Kentucky Department of Agriculture (KDA) serves as the lead agency for SrFMNP. This year, seniors will be provided with a \$50 debit card that can be used to purchase fresh, unprocessed, locally grown fruits, vegetables, and herbs at State-approved farmers' markets. The Grayson Farmer's Market is located in the shed behind the Extension Office (94 Fairground Drive). The Olive Hill Market is located in the Savea-Lot parking lot (131 Jessica Lane).

#### **ELIGIBILITY FOR SENIOR PARTICIPANTS**

#### Age:

60 + at day of issuance Must provide proof of age.

#### INCOME GUIDELINES

# 60 Years of Age and Older Based on 185 % Federal Poverty Income Guidelines

Senior participants will self-declare their income which is less than or equal to 185% of the poverty level.

Household Size	Annual Income	Monthly	Weekly
1	\$ 27,861	\$ 2,322	\$ 536
2	\$ 37,814	\$ 3,152	\$728
3	\$ 47,767	\$ 3,981	\$ 919
4	\$ 57,720	\$ 4,810	\$1,110
5	\$ 67,673	\$ 5,640	\$1,302
6	\$ 77,626	\$ 6,469	\$ 1,493
7	\$ 87,579	\$ 7,299	\$ 1,685
8	\$ 97,532	\$ 8,128	\$ 1,876
For Each Additional Family Member Add	\$ 9,953	\$ 830	\$ 192

Participants may only sign up for vouchers once each summer. Vouchers will be distributed on a first come-first served basis by calling to request an appointment on May 1<sup>st</sup> or 2<sup>nd</sup>. Appointments will <u>not</u> be issued prior to May 1<sup>st</sup>.

You must live in Carter County to receive vouchers in Carter County.

# 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 <a href="https://Spring24FencingMorehead.eventbrite.com">https://Spring24FencingMorehead.eventbrite.com</a>

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

High tensile and fixed knot woven wire fencing!!!

2024 Kentucky Fencing Schools

Registration by U.S. Mail: Caroline Roper

UK Research and Education Center

P.O. Box 469

Princeton, KY 42445

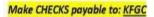
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Street:

City: State: Zip code:

Email: Cell Phone:

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





Name:





Kentucky Master Grazer Educational Program

Space is

LIMITED ...

Register today!!!



## 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











# **Carter.County Farmer's Market**

#### Senior & WIC Voucher Training

This annual training is required for anyone who plans to accept Senior, WIC, and/or Double Dollar vouchers at the Carter County Farmer's Market in 2024.

## Annual Business Meeting

Agenda Items:

- Election of Officers, Board of Directors, & Market Managers
- + 2024 Market Season Schedule
- 2024 Market Events
- & More

If you plan to sell at the Farmer's Market this summer you need to attend this meeting.

All 2024 paperwork will be due at the meeting. Please come prepared to fill it out all forms. Monday, April 8th 6:00 PM

Carter County Extension Office

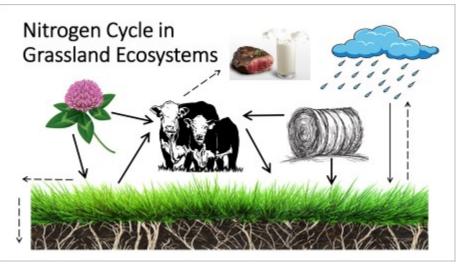
# The Gift that Keeps Giving...Clover

The Alliance for Grassland Renewal for 03/18/2024

~ Excerpted from article by Chris Teutsch in Cow Country News (Jan. 2024)

Legumes are an essential part of a profitable grazing systems. Clover's superpower is its ability to fix nitrogen from the air into a plant available form. After photosynthesis, nitrogen fixation is the second most important biochemical process on earth. Clover also increases forage quality and quantity and helps to manage tall fescue toxicosis.

Strong nitrogen cycles can develop in well managed pastures and hay-fields. Nitrogen enters the system via imported hay and supplements, nitrogen fixation in legumes, and atmospheric deposition (minor amounts). Nitrogen leaves the system via volatilization, denitrification, leaching, runoff, and animal products removed. A cow-calf pair will consume approximately 280 lb N/year in the grasses and legumes they're consuming of which 200 lbs is retained in the grassland ecosystem (Lory and Kallenbach, 1999).



Over time, clover stands in pastures can thin and will require reseeding. Although there are several approaches for reintroducing clover back into pastures, perhaps the simplest and most cost-effective is frost seeding. Frost seeding is accomplished by broadcasting clover seed onto existing pastures or hayfields in late winter and allowing the freezing and thawing cycles to incorporate the seed into the soil. It works best with red and white clover. Below you will find a few tips for enhancing frost seeding success.

- · Control broadleaf weeds—Ideally, broadleaf weeds should be controlled prior to seeding legumes since most herbicides will damage clover seedlings. This is best accomplished by controlling weeds the season prior to renovation. See AGR-207 "Broadleaf Weeds of Kentucky Pastures" for information.
- · Soil test and adjust fertility—Prior to frost seeding clover, soil test pastures and hayfields ]then lime and fertilize according to the soil test recommendations.
- · Suppress sod and decrease residue—The existing sod must be suppressed and plant residue reduced prior to seeding to allow seed to reach the soil surface. This is best to accomplished by hard grazing in late fall and early winter.
- · Ensure good soil-seed contact—Good soil-seed contact is required for seed germination and emergence. In frost seedings, this occurs when freeze and thaw cycles form cracks in the soil surface, often referred to as a honeycomb. Soil to seed contact can be enhanced by dragging pastures after broadcasting seed.
- · Seed on proper date—Frost seeding is best accomplished in late winter (February).
- · Use high-quality seed and adapted varieties— Choose clover varieties that have been tested in Kentucky. See current variety test results at the UK Forage website.
- · Legume mixtures for Kentucky—In Kentucky, a good mixture for renovating pastures with is 6-8 lb/A of red clover, 1-2 lb/A of ladino or intermediate white clover. On rented farms or where soil fertility is marginal, adding 10-15 lb/A of annual lespedeza can be beneficial.
- · Use correct seeding rate—Make sure to maintain and calibrate broadcast seeding equipment prior to planting (see video on KYForages YouTube) so as not to seed at too high or too low a rate.
- · Inoculate legume seed—Most improved clover seed comes with a lime-based seed coating that contains the proper rhizobia bacteria, but if it's bare seed make sure to inoculate. Store extra seed in a cool dry location and reinoculate after one year.
- · Check seed distribution pattern—When using a spinner type spreader/ seeder make sure and check your spreading pattern. In many cases small

seeded forages are not thrown as far as you think. This can easily be done by driving over a large tarp or laying out buckets or cake pans perpendicular to your drive pattern and weighing the amount of seed in each.

- · Use GPS guidance—Simple portable GPS guidance systems will allow you to maintain a consistent distance between passes and speed. Without GPS research has shown that many people waste seed by too much overlapping.
- · Control post-seeding competition—Not controlling post-seeding competition is one of the most common causes of stand failures. One of the best management practices is to leave cattle on pastures that have been overseeded with clover until the clover seedlings have germinated. Then remove animals from the pasture and allow the clover to reach a height of 6-8 inches. Some producers flash graze the pasture once the grass starts to shade the clover seedlings. If the existing vegetation is not controlled, the new clover seedlings will be shaded out.

# UK Weather Alert App

The UK Weather Alert App is built to give the user pinpoint weather information, ag forecasts, and emergency alters. Best of all this app is free with no ads! It is the "first of its kind" designed and hosted by the UK Ag Weather Center and Center for Computational Sciences. It is a collaboration between the Martin-Gatton College of Agriculture, Food and Environment, the Southeastern Center for Agricultural Health and Injury Prevention, and the Central Appalachian Regional Education and Research Center. This app is designed to increase awareness in times of extreme weather and assist Kentucky farming operations.

Currently, the app is only available for iPhones, but an Android version is coming soon.





# Not Enough to too Much- Managing Spring Grass

Chris D. Teutsch, University of Kentucky Research and Education Center at Princeton

In March we often find ourselves wringing our hands waiting for grass growth to start and a short time later our pastures are out of control! Spring can often be one of the most difficult times of the year for graziers. Grass growth goes from nonexistent to excessive in a matter of weeks and if you are properly stocked grazing livestock can have a hard time keeping up with it. The following suggestions can help you to stay in control spring growth.

*Implement rotational grazing*. To fully utilize the spring flush of pasture growth <u>YOU</u> must be in control of grazing. In a continuous grazing system, the cows are in charge. By utilizing rotational stocking, you start to make the decisions. Implementing a rotational stocking system may be as simple as closing some gates or stringing up some polywire.

Start grazing before you think the pastures are ready. One of the most common mistakes that graziers make is waiting too long to start grazing. If you wait until the first paddock is ready to graze, by the time you reach the last paddock it will be out of control. Starting early allows you to establish a "grazing wedge" (Figure 1).

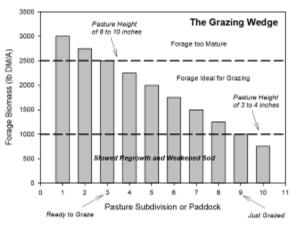


Figure 1. The "grazing wedge" simply refers to having pasture subdivisions or paddocks at varying stages of regrowth from just grazed to ready to graze.

**Rotate animals rapidly**. It is important to realize that grazing pastures closely and repeatedly as they initiate growth in early spring can reduce production for he for the entire season. Therefore, it is important to keep animals moving rapidly through the system. The general rule is that if grass is growing rapidly then your rotation should be rapid. This will allow you to stay ahead of the grass by topping it off and keeping it in a vegetative state.

**Do not apply spring nitrogen**. Applying nitrogen in the spring will make the problem of too much grass at once even worse. In many cases you are better off to apply nitrogen in late summer or early fall to stimulate growth for winter stockpiling.

Remove most productive paddocks from rotation and harvest for hay. Graze all paddocks until the pasture growth is just about to get away from you and then remove those productive paddocks from your rotation and allow them to accumulate growth for hay harvest (Figure 2).

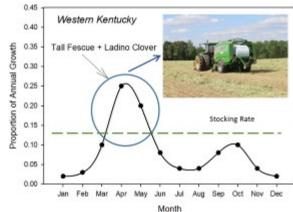


Figure 2. In the spring during periods of rapid growth, some paddocks can be removed from the rotation and harvested for conserved forage. Cutting at the late boot or early head stage will optimized yield and forage quality.

Increase stocking rate in the spring. If it is possible, a good option for utilizing spring growth is to increase your stocking rate. This will allow you to harvest more of the available forage and convert it into a saleable product. This can be done by adding some stockers or thin cull cows to your rotation and then selling them when pasture growth slows. If you are in a fall calving system, you are better positioned to take advantage of spring forage growth since the calves will be larger.

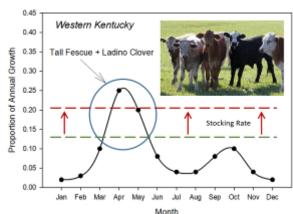


Figure 3. An alternative to harvesting excess forage as hay or baleage is to increase your stocking your stocking rate by adding more animal units in the spring and then decreasing animal numbers as plant growth slows due to higher temperature during the summer months. While this is a viable approach, it is not practical on smaller part-time operations.

**Even out seasonal distribution of forage by adding a warm-season grass**. Adding a well-adapted warm-season grass that produces the majority of its growth in July and August would allow you to concentrate grazing on your cool-season paddocks during periods of rapid growth (spring flush). After cool-season grass growth is slowed by higher temperatures in late spring and early summer, animals can be shifted in the warm-season paddocks for summer grazing.

**Bush-hog out of control pastures**. The benefits of clipping include maintaining pastures in a vegetative state, encouraging regrowth, and controlling weeds. Clipping pastures costs money, so make sure that the primary reason for bush-hogging is pasture management, not aesthetics.

# Stockpile out of control pastures for summer grazing.

Although forage quality decreases as the plant matures, the quality of spring stockpiled pasture is sufficient for dry cows and in some cases can result in reasonable gains on growing animals (Figure 4) during the summer months. This is especially true if using novel endophyte tall fescue and the pastures were clipped at the early boot stage to promote vegetive regrowth. This could be a cost-effective and simple way to provide additional grazing during the summer months.

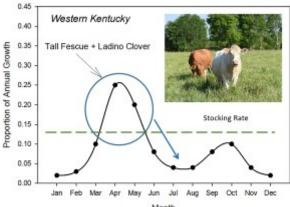


Figure 4. Excess growth in the spring could also be stockpiled for grazing during the summer months. This is accomplished by removing some paddocks from the rotation and allowing growth to accumulate during late spring and early summer. It is important to remember that only about the one-half of the available biomass should be grazed. The remaining residue will protect plant crowns from high temperatures and reduce soil moisture loss during the sum-

When it comes to grazing operations, there is not one size that fits all. What works for you may not work for your neighbor. The key is figuring out what works on your farm and implementing it in a timely manner. Hopefully one or more of the above tips will help you deal with the "quandary of spring grass"! For more information on grazing management contact your local extension agent or visit <a href="http://www.uky.edu/Ag/Forage/">http://www.uky.edu/Ag/Forage/</a> and <a href="https://www.youtube.com/c/KYForages">https://www.youtube.com/c/KYForages</a>.

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# Proper Vegetable Garden Planning for Disease Prevention

Revised by Kim Leonberger, Plant Pathology Extension Associate, and Nicole Gauthier, Plant Pathology Extension Specialist for Vegetables; Original article by Kim Leonberger, Plant Pathology Extension Associate and Emily Pfeufer, Former University of Kentucky Extension Plant Pathologist

Warmer temperatures mean spring is right around the corner, and gardeners everywhere are ready to get plants in the ground. However, prior to planting, growers should develop a plan for this year's vegetable garden. A thoughtful approach to garden layout and preparation can influence disease pressure as well as the overall success of the crop. Here are few areas to consider to get ahead of diseases as you make your vegetable garden plans.

Planting Site—The best vegetable garden sites are sunny with adequate moisture and fertile, well-drained soil. Avoid low spots, which can worsen soilborne diseases, and shady locations, which can worsen foliar diseases. Prior to planting, it is advisable to draw a planting map. This allows consideration into site limitations and succession planting. Scale models of the garden space can be drawn on graph paper, made in Microsoft Excel, or designed using one of many available apps (Figure 1). Choose perennial locations carefully to make tilling more convenient. Taller crops, such as sweet corn or tomatoes, should be planted on the north or west side of the garden to avoid shading shorter plants. Retain these maps from year to year, and refer when planning next season.



Figure 1: An example of a garden map made in Microsoft Excel. (Image: Kim Leonberger, UK)

Crop Rotation—If the same garden site is used each year, avoid planting the same or closely related crops in an identical place each year. A three-

year rotation is recommended, however, even a year or two out of a certain plant family can be beneficial. Crop rotation prevents disease-causing pathogens from building up in soil. Multiple vegetable crops are closely related and are prone to many of the same disease issues. Closely related crops are listed below.

- ◊ Tomatoes, Peppers, Potatoes, and Eggplant
- Cucumbers, Pumpkins, Squash, Watermelons, and Muskmelons
- ♦ Peas, Broad Beans, Snap beans, and Lima Beans
- ♦ Cabbage, Cauliflower, Kale, Collards, Brussels Sprouts, Broccoli, Kohlrabi, Turnips, Rutabaga, Chinese Cabbage, and Mustard
- ♦ Lettuce, Endive, and Salsify
- ♦ Chives, Garlic, Leeks, Onions, and Shallots
- ♦ Beets, Swiss Chard, and Spinach
- ♦ Carrots, Parsley, Celery, Celeriac, and Parsnip

Compost Piles—Avoid composting diseased plants or produce, since home compost piles typically do not reach temperatures high enough to kill pathogens. Accelerate the rate of decomposition by turning compost piles at least once per month. Avoid adding fresh material to finished compost piles, as the new material will not break down in time for spring planting. Water should be added to very dry compost piles at turning to allow for more complete decomposition. For more information on composting for the garden, see Home Composting.

Keep Records—Each garden season is like a school year, with lessons to be learned. Whether by app or a physical garden journal, keep track of disease and pest issues as they occur, to help develop strategies to prevent or manage these issues. Also include details about cultivars and their performance, as well as, weather patterns.

#### Additional Resources:

Home Vegetable Gardening in Kentucky (ID-128)

Vegetable Cultivars for Kentucky Gardens (ID-133)

Homeowner's Guide to Fungicides (PPFS-GEN-07)

Home Composting: A Guide to Managing Yard Waste (HO-75)

# Total Solar Eclipse Will Dazzle on April 8th

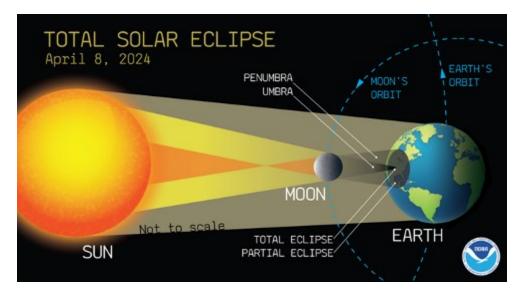


By Jane Marie Wix – National Weather Service Jackson, KY & Derrick Snyder - National Weather Service Paducah, KY

During the afternoon hours of Monday, April 8<sup>th</sup>, 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.



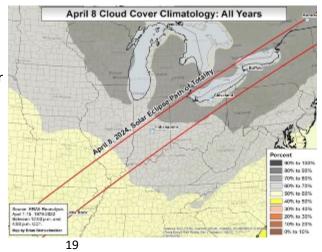
Why do eclipses occur anyway? On Earth, the Sun appears about 400 times larger in the sky than the Moon does. However, the Sun is also about 400 times further away from Earth than the Moon is. This unique planetary positioning allows for special occurrences where the Moon perfectly obscures the Sun in 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).





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

Carter County 94 Fairground Drive Grayson, KY 41143

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