

Source: Sharon Flynt, UK extension horticulture agent

Fall is one of the most beautiful seasons of the year, as tree leaves change colors to bright oranges, vibrant reds and eye-popping yellows. Trees that change color in the fall are deciduous trees. They go dormant in the winter to protect the tree from freezing temperatures and will generate new leaves in the spring.

Three factors cause the tree leaves to change color at this time of year: length of night, leaf pigments and weather. Length of night is the only constant of the three. Following the summer solstice in June, the daylight shortens in the Northern Hemisphere and nights become longer. The increasing length of night triggers certain reactions in trees and leaves.

In conjunction with sunlight, chlorophyll, which produces the green color in leaves, and carotenoids, which give us the orange, yellows and browns, are working all summer to produce food for the tree. After the solstice, night length steadily increases, causing excess plant sugars to build up and chlorophyll production to slow down and eventually stop in the leaf. When chlorophyll production ceases, the carotenoid pigments are unmasked, and any anthocyanins in the leaf start producing reddish purple colors in response to bright light, giving the leaves their fall colors. As time passes, a cell layer between the leaf petiole, which connects to the tree's stem, begins to

close. Once that cell layer completely closes, the leaf drops, closing off any openings into the tree and protecting it from winter's freezing temperatures and harsh winds.

Fall color vividness depends on temperature and moisture. Sunny, warm days, cool nights and soil moisture in early fall produce the most color. This combination of moisture and temperature produce a vast array of color, and that's why no two autumns are ever alike.

For more information on your local trees, contact Breathitt County office of the University of **Kentucky Cooperative Extension Service.**

Cooperative **Extension Service**

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

Lexington KY 40506

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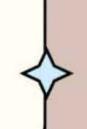
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For more information:



606 - 666 - 8812

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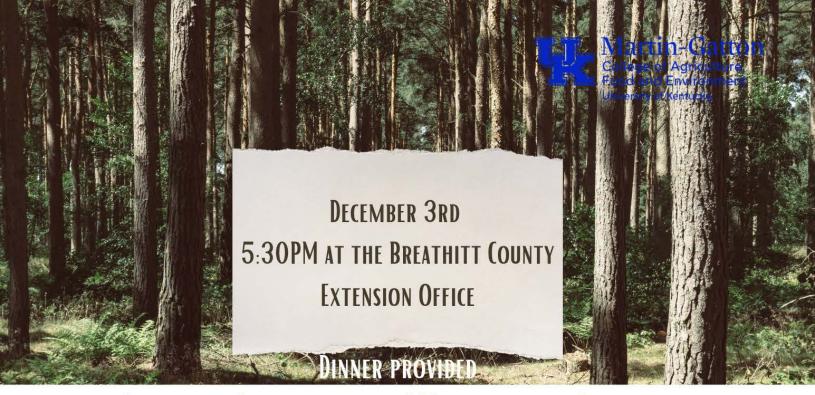
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CARBON CREDITS FOR WOODLAND OWNERS



Please call your local extension office to register: **Breathitt** Knott Lee Morgan Jordan M. Shockley, Ph.D. Owsley Perry

Wolfe



Jacob J. Muller, Ph.D. Assistant Professor of Hardwood Silviculture and Forest Operations Extension

Topics to be covered:

Associate Extension Professor -

University of Kentucky

*What is driving carbon markets *Structure of carbon markets *Current carbon programs *How much I will get paid *Concerns from an economist



Topics to be covered:

*Why we are concerned about carbon *How carbon is stored in our woodlands *What wood landowners can do to increase their carbon-storing potential *And working with a forester

SCAN OR CODE ABOVE TO REGISTER OR CALL 606-666-8812.

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A Windy Start to Fall



Jane Marie Wix and Philomon Geertson - NWS Jackson, KY



Usually for this time of year we talk about increased winds during the fall season, and wind safety. However, most of the time we aren't referring to high winds due to a hurricane! Hurricane Helene wreaked havoc as it moved inland - all the way north into Kentucky. It's not the first time we've experienced the remnants of a hurricane in this state, and it won't be the last. But, having such high impacts is quite rare. We thought this would be a good time to recap what happened.

The remnants of Hurricane Helene brought widespread wind damage to much of Kentucky on Friday, September 27th. Helene initially made landfall along Florida's Big Bend region during the late evening of Thursday, September 26th as a fast-moving Category 4 hurricane. The hurricane's rapid forward movement did not give the system much time to weaken by the time the system's tropical rain bands spread across eastern Kentucky by early Friday morning. As the dissipating core of the hurricane approached, northeast to easterly winds rapidly intensified across eastern Kentucky between 6 AM and 10 AM EDT. Wind gusts peaked at around 12 PM, ranging from 35 to 60+ mph at most locations. The strongest wind gust in eastern Kentucky, 64 mph, was reported atop Koomer Ridge just west of Campton. The combination of full foliage on the trees, saturated soils, and an atypical wind direction led to many uprooted trees, resulting in blocked roads and extensive power line damage. Isolated instances of structural damage were also observed.

Power outages across the Commonwealth numbered over 200,000 customers, the vast number of which were in eastern Kentucky, by the time the winds had diminished Friday afternoon. Kentucky Power alone reported at least 137 broken power poles and 734 spans of downed wire. Clark Energy reported over a 100 broken poles in their service area. Jackson Energy reported 71 broken power poles and close to 400 spans of downed wire. Power restoration efforts continued for days after the storm, as some customers in the hardest hit locations did not see their power restored until October 3rd. There were also several reports received of trees falling on homes. Fortunately, only 1 injury was reported in the state, due to a tree falling on a home. The winds also put a damper on the festivities at the World Chicken Festival in Laurel County and the Sorghum Festival in Morgan County for most of the day.

On a non-wind note - before the hurricane, weeks of unusually dry weather had led to the development of abnormally dry to severe drought conditions across most of the state. Thus, when a sluggish frontal boundary and upper level low became somewhat stationary over the state earlier in the week (around September 23rd and 24th), the repeated rounds of rainfall were highly beneficial for alleviating the drought. Additional rainfall from Helene, therefore, only led to minor instances of stream and street flooding.

Outside of Helene, one of the last impactful hurricanes that I remember in Kentucky was Hurricane Ike in 2008. The remnants of this hurricane brought sustained strong winds and high wind gusts to western and central Kentucky. Wind gusts ranged from 50–75 mph, with the fastest gust recorded at 75 mph at the Louisville Airport. Louisville also experienced its worst power outage ever, with over 400,000 homes losing power. Sadly, nine souls also lost their lives in this event. Many people in the state called this storm "Dry Ike", because while it brought high winds, it didn't bring any precipitation with it!

It's been an active hurricane season thus far, especially for those in Florida. While technically hurricane season spans from June 1st until November 30th, most hurricanes form during the months of August, September, and October. As we head into November, hopefully this means hurricane activity is winding down, and we won't experience any more Hurricane Helene-like storms - but we'll have to wait and see.

THANKSGIVING PROGRAM ON THE GO

Pick-up on Wednesday, November 20th 2024

Ages 8-18

Children will be provided materials, and craft activities that are Thanksgiving themed

Spots are limited

Call the Breathitt County Extension Office at 606-666-8812 to Register



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4-H AFTER : SCHOOL CLUB

NOVEMBER 7TH, 2024

3:30 P.M. - 4:30 P.M.

BREATHITT COUNTY EXTENSION OFFICE

AGES 9 - 18



PLEASE CALL THE EXTENSION OFFICE AT 606-666-8812 TO REGISTER



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The Tractor Supply Company (TSC) stores are once again joining 4-H in support of local youth with the TSC Paper Clover Promotion, a national in-store fundraising effort to benefit state and local 4-H programming. Beginning November 29th -December 15th shoppers at Tractor Supply will have the opportunity to once again support 4-H in Breathitt County by purchasing paper clovers for just \$1 at checkout. All funds raised through this local TSC Paper Clover Campaign will be donated to 4-H.





BREATHITT COUNTY 4- H COUNTRY HAM PROJECT

Registration is now open to join the 2025 County Ham Project

4-H'ers that register for the country ham project will attend the first meeting on January 20th, 2025 and will begin the process of curing their country ham. Once the ham is cured they will be required to attend the Kentucky State Fair in 2024 and give a speech on their country ham.

Registration Closes December 2nd

To register please call the Breathitt County Extension Office at

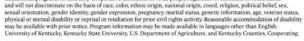
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Agriculture and Natural Resources Family and Consumer Sciences 4-H Youth Development









2025
BREATHITT
COUNTY
ADULT
COUNTRY
HAM
PROJECT

Attend classes and enjoy the process of curing your own ham. \$50 pre-pay only Deadline to register will be December 2nd, 2024

Please call 606-666-8812 to register

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Holiday

WEDNESDAY

6TH

NOVEMBER, 2024 1:00 PM

UK ROBINSON CENTER REGISTER BY NOV 1ST 606-666-8812









November 26th, 2024 5:00 PM Breathitt Co. Extension

Join us for a come-and-go class where you can gather with friends to sew, or just sit and visit. If you want to sew or work on any project you may have feel free to bring your stuff and we'll make sure you have space to work.

visit facebook.com/BreathittCoFCS/

for all FCS programming



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Sponsored by Breathitt Co. Homemakers

Breathitt County Extension Office 1155 Main Street Jackson, KY 41339



HOLIDAY

Bazaar

Saturday, November 2nd 10AM-4PM



Breathitt County Extension Service 1155 Main Street (PO Box 612) Jackson, KY 41339

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