

Kentucky Fruit Facts

October-November 2023

<http://www.uky.edu/hort/documents-list-fruit-facts>

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Note: We have ceased publishing Fruit Facts as a hard copy or mailed newsletter. If you would like to continue receiving Fruit Facts, please sign up for email delivery as described at the end of this newsletter or contact your County Extension Office to have them print a copy for you.

Fruit Crop News

Daniel Becker, U.K. Extension Associate

So far it has been a relatively quiet autumn, at least from my perspective. The heat of previous weeks has given way to warm afternoons and cool nights. The sunlight has shifted to more golden and there is the faintest hint fall color on maples, black gums, and hickories.

Shawn Wright sent along some info that might be of interest to growers. Production of DCPA, the active ingredient in Dacthal® has been suspended by the U.S. Environmental Protection Agency (EPA) as of September 1, 2023. The actions that led to this decision go back to last year: <https://plant-pest-advisory.rutgers.edu/update-on-status-of-dacthal-herbicide/>. You can read more about this decision later on in this newsletter. Ric Bessin said that supplies might be getting tight since the manufacture of the technical product has been halted. If you have this product in storage, or recently purchased some, go ahead and use it. Applications to strawberries,

vegetables, and ornamentals can still be made until supplies run out.

In other news, a new, redder strain of EverCrisp® from the Midwest Apple Improvement Association (MAIA) has been released. There will also be a fall Kentucky Nut Growers Association (KNGA) meeting held on Saturday, October 28 at the Marshall County Extension Office in Benton, KY. For more information on both items see the article on EverCrisp by Dr. John Strang and the KNGA meeting program in the upcoming meetings section.

The dry weather at times this summer and so far this fall has reemphasized to me the need for consistent soil moisture during all stages of blackberry growth. Water stress during the period from flowering to ripening will reduce fruit set and berry size. Sugar accumulation is also impacted by reduced water availability and fruits harvested under such conditions are noticeably more acidic and less pleasant to eat.

Mild water stress post-harvest will slow primocane shoot tip growth. Prolonged stress will stop growth and if severe enough may even lead to death of the shoot tip. Once water becomes more available, shoot elongation may resume, but only slowly. Laterals will also begin to grow, and if the tip died will be the only source of shoot elongation (Figure 1). These laterals are an annoyance when an I-, V-, or T-trellis is used for support. When rotating cross arm or shift trellises are the training system, laterals growing off upright shoots require extra labor to remove. Trying to replace a dead shoot tip with a lateral often proves frustrating as laterals are brittle at their base and are prone to breakage with slight manipulation.

Diminished primocane growth due to drought will

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Lexington, KY 40506



Disabilities
accommodated
with prior notification.



Figure 1. Blackberry lateral growth after shoot tip death. (Photo: Daniel Becker, UK)

also affect next year's crop as the number of flower buds are reduced, and the number and size of flower primordia within buds are less. For primocane bearing cultivars this negative impact on yield can be seen as soon as late summer once harvest begins.

I strongly encourage growers to think about investing in tensiometers at the start of the next growing season to monitor soil moisture. Guidelines for installation are covered in HortFact 7003: <https://www.uky.edu/hort/sites/www.uky.edu/hort/files/documents/HortFact7003.pdf>. Six, 12, or 18-inch sizes/depths are appropriate for most fruit crops in most soils. Tensiometers do not work well in finer textured soils. Granular matrix or gypsum block sensors and their readers are better for monitoring clay soils. I also like that these sensors can overwinter in the field and unlike tensiometers do not need to be removed ahead of freezing weather. Gypsum block sensors will last for a year or two while granular matrix sensors can last for several years.

Upcoming Meetings

Times are listed in Central Time (CT) or Eastern Time (ET) depending on location.

Oct. 28. Kentucky Nut Growers Association Fall Meeting. The fall meeting of the Kentucky Nut Growers Association will be held on **Saturday, October 28, 2023**, at the Marshall County Extension Office, 1933 Mayfield Hwy., Benton, KY 42025 at 9:30 AM CT. Phone: 270-527-3285.

Directions:

From the East

From the Western Kentucky Parkway (I-69) take exit 68B for I-24 W/I-69 S towards Paducah. (16 miles)
Take exit 25A for I-69 S toward Fulton. (0.9 miles)
Merge on to I-69. (9.6 miles)
Take exit 41 for US-641 Spur toward Hardin/Murray. (0.9 miles)

Continue onto US-641 Spur S. (0.2 miles)

Turn right onto Mayfield Hwy (Rt-58). The Marshall County Extension Office will be on your left. (0.2 miles)

From the west (Mayfield)

Take the Purchase Parkway (I-69) to exit 41 for US-641 Spur S toward Hardin/Murray.

Turn right on to Mayfield Hwy (Rt 58) W. (0.6 miles)
The Marshall County Extension Office will be on your left. (0.2 miles)

There will be a potluck luncheon, and everyone is asked to bring a side dish. Participants are encouraged to bring nut exhibits and nuts for tasting. A fundraising auction is not planned, but we will have door prizes, so door prize contributions are welcome.

Contact: John Strang 859-396-9311

Program: (All times are C.T.)

9:30 a.m. Registration/Meet and Greet

10:00 a.m. Board meeting, Membership Visiting and Nut Exhibits

11:00 a.m. Business Meeting and Announcements

11:15 a.m. Fruit and Nut Notes - John Strang

11:30 a.m. Ambrosia Beetles in Fruits and Nurseries and Stink Bugs, A New Pest in Western Kentucky - Dr. Raul Villanueva, UKREC, Princeton, KY

12 Noon Potluck Luncheon. KNGA will provide the meat, and everyone is asked to bring a side dish. If you bring something that will need to be heated or warmed, there is a well-equipped kitchen available.

1:00 p.m. Question and Answer Session and Door Prizes

Anyone that has an interest in nuts and nut trees is welcome to attend.

The KNGA spring meeting will be held Saturday, April 20, 2024 at the Kentucky State University Harold R. Benson Research & Demonstration Farm, 1525 Mills Ln., Frankfort, KY 40601.

Dec. 5-7. Great Lakes EXPO. DeVos Place Convention Center, 303 Monroe Ave. NW, Grand Rapids, MI 49503. Registration opens October 15. Book your room early as ones near the EXPO sell out quickly. Emerging and labor-saving technology will be a major focus of this year's event. For more information, visit <https://glexpo.com/>.

Jan. 2-4, 2024. Kentucky Fruit and Vegetable Conference. Mark your calendars, the Kentucky Fruit and Vegetable Conference returns to the Sloan Convention Center at 1021 Wilkinson Trace in Bowling Green, KY 42103. The event will start with a pre-conference workshop on Tuesday, Jan. 2 with the main conference educational sessions and trade show being held on Wednesday and Thursday, Jan. 3 and 4.

Jan. 17-19, 2024. Illinois Food, Farmers Market & Specialty Crop Conference. Crowne Plaza, 3000 S. Dirksen Parkway, Springfield, IL 62703. Schedule TBD.

Feb. 26-28, 2024. North American Raspberry & Blackberry Conference, put on by the North American Raspberry & Blackberry Association and the North Carolina Caneberry Association. This event will be located at the Wilmington Convention Center, 10 Convention Center Dr. Wilmington, NC 28401. To register and see a schedule of the conference go to [2024 Wilmington - NARBA \(raspberryblackberry.com\)](https://www.wilmington-narba.com). For a step-by-step tutorial on how to register: <https://www.youtube.com/watch?v=zaUhzAz0Cfk&feature=youtu.be>. To reserve a room at the Embassy Suites by Hilton Wilmington Riverfront at the conference rate, visit [Available Rooms - Embassy Suites by Hilton Wilmington Riverfront](https://www.hilton.com/en/hotels/wilmsnh/hotel-info/available-rooms).

DCPA (Dacthal) Technical Herbicide Product Suspended by EPA

Use of the dimethyl tetrachloroterephthalate (DCPA) technical product, a pesticide marketed under the trade name Dacthal, has been suspended. DCPA is a herbicide used to control grasses and certain broadleaf weeds in broccoli, kale, cabbage, cucurbits, tomatoes, onions, and herb crops. In non-agriculture settings, it is used in non-residential turf and ornamentals.

This suspension of DCPA prohibits the sale, distribution, and use of DCPA technical product. However, DCPA that has already been distributed for sale or purchased by a pesticide applicator may be used according to the label until supplies run out.

The EPA periodically re-evaluates pesticides through registration review to ensure that risk assessments and pesticide decisions reflect the best available science. Use of the DCPA technical product has been suspended due to failure of the registrant to submit required data to support its continued registration.

EPA press release: [DCPA \(Dacthal\) Technical Herbicide Product Suspended by EPA | US EPA](https://www.epa.gov/pesticides/registration-review/registration-review-dcpa-dacthal-technical-herbicide-product-suspended).

New MAIA EverCrisp® Strain Available

By John Strang, Extension Fruit & Vegetable Specialist, Emeritus

The Midwest Apple Improvement Association is an association of Midwest apple growers that cooperate to develop new apple varieties that are adapted for Midwest production. The association has already released the selections EverCrisp®, Rosalee®, Summerset®, Ludacrisp®, Sweet Zinger®, and Sweet MAIA®. EverCrisp® was their first release. This original cultivar does not color well in our high temperature Kentucky growing environment (Figure 1), so the 2023 release of the high coloring Evercrisp® Mitchell strain (Figure 2) is a welcome addition for Kentucky growers. Mitchell strain fruit color begins developing about eight weeks before color begins developing on the original EverCrisp®. EverCrisp®, Mitchell strain is available through nurseries that market MAIA trees on a custom bud basis. Participating nurseries may be found on the MAIA website. <https://maiaapples.com/tree-purchasing/>.



Figure 1. Ever-Crisp® color, KY grown. (Photo: John Strang, UK)



Figure 2. Ever-Crisp® Mitchell Strain color, grown in NY. (Photo courtesy of MAIA: <https://maiaapples.com/apples/maia-mitchell-evercrisp/>.)

All MAIA cultivar releases are club varieties and are patented and trademarked. To purchase trees, growers must join the club for a membership fee of \$100.00 per year. Tree royalties are collected by the nursery when trees are purchased. Trademark fees are 20 cents per tree for years 4-10 and 30 cents per tree for years 11-20. This funding goes back to the MAIA for continued cultivar development.

Check Your CEU Hours to Avoid Penalty!

By Ric Bessin, Entomology Extension Specialist

This is the first year under the new recertification rules for pesticide licenses. The new regulations emphasize earning continuing education units (CEUs) to maintain licenses. With the new rule, commercial and non-commercial pesticide applicators and operators will need to have 12 CEU hours earned within the last three years to renew their license. In addition, at least one CEU must be in each of the categories held by the license holder. Each year during license renewal, CEU hours for the previous three years will be checked.

So, both commercial and non-commercial pesticide license holders should check their CEU hours periodically on the Kentucky Department of Agriculture website. This KDA website (<https://www.kyagr-apps.com/AgExternal/Security/Account/Login>) will have users create an account, then they can check their hours or the hours of persons in their company. Only hours earned within the past three years will appear for each licensee.

Persons needing CEU hours have until November 30 to earn those hours. The Kentucky Department of Agriculture maintains a schedule of approved meetings on their website (https://www.kyagr.com/consumer/documents/ES_TEST_AGR_CEUSchedule.pdf), which is updated periodically. Included on this list are in-person meetings, online webinars, as well as on-demand training. People needing hours should check this schedule periodically as new CEU opportunities are added regularly. Hours must be earned by November 30, after that date they will be credited to 2024.

Persons wanting to relicense that do not meet CEU hour requirements will be subject to losing their license as well as a \$200 fine to relicense.

New Plant Hardiness Zone, Growing Degree Day, and Heat Zone Maps

By Matthew Kleinhenz, VegNet Newsletter 10-29-2023

Specialty crop growers and their workers, schedules, expenses, incomes, and crops are impacted by air and soil temperatures on and near their farms around the clock, even when production is suspended for the season. Temperatures never rest in influencing a long list of soil, crop, production, and cost-revenue variables. This fact explains why so much time, effort, and money are spent measuring, analyzing, interpreting, and presenting temperature data in ways useful to growers and others. Two new resources outlined below will interest fruit, vegetable, and other growers.

The USDA-ARS Plant Hardiness Zone interactive map at <https://planthardiness.ars.usda.gov/>. The page includes updated maps of plant hardiness zones available at high resolution (e.g., see the images and scale bars). Maps can be downloaded, if needed. Plant hardiness zones affect cash and cover crop selection and performance, overall seasonal scheduling, and other variables.

The USDA and U.S. Forest Service manage the large amount of information and number of maps available at <https://storymaps.arcgis.com/stories/9ee0cc0a070c-409cbde0e3a1d87a487c>. Pages and maps include descriptions of current and projected growing degree days, plant hardiness zones, and heat zones. Also, links to other pages with additional information are available. The current and projected heat zone maps are interesting in what they could signal about potential long-term shifts in crop selection and scheduling, farm worker conditions, the use of plastic mulches and low and high tunnels and related technologies, biology (e.g., pests, diseases, weeds, beneficials), soil nutrient cycling, and more. Still, farmers appreciate that even small, more incremental changes in the short-term can be meaningful.

How NOT to Submit Plant Samples for Diagnosis

By Kimberly Leonberger, Plant Pathology Extension Associate; Julie Beale, Plant Disease Diagnostician; and Nicole Gauthier, Plant Pathology Extension Specialist

When landscape or garden plants begin to show symptoms of a problem, or when commercial crops start to decline, the two questions from home gardeners and commercial growers alike are: what is causing the problem and what can be done about it? The first step toward answering these questions may be contacting the local county extension office. An extension agent may be able to quickly diagnose the problem, or if not, can then assist in preparing plant samples for submission to the University of Kentucky Plant Disease Diagnostic Laboratory.

Selection and packaging of a sample sounds like a straightforward and easy concept. Simply place part of the affected plant in a box or envelope and send it away, right? Wrong! Sample quality and care in packaging can make the difference between receiving a rapid diagnostic report and receiving one of those dreaded “insufficient sample” replies. For those in the extension offices involved in sample submission, the following tips can reduce common errors and result in more timely and accurate diagnoses.

Avoid These Common Sample Submission Errors

Packing material not used

Samples submitted with little or no packing material are often further damaged during shipping (Figure 1). Differentiation between symptoms and shipping damage can complicate diagnosis. Wrap rootballs in a plastic bag, leaving leaves and stems exposed; this also keeps foliage from becoming contaminated with soil from the rootball. Use an appropriately sized box that can be padded and secured (Figure 2).



Figure 1: Samples with no packaging often suffer damage during shipping, resulting in complications with diagnosis. (Photo: Nicole Gauthier, UK)



Figure 2: Samples should include additional padding to prevent damage from shipping. Roots and soil should be wrapped in a plastic bag to prevent damage. (Photo: Nicole Gauthier, UK)

Dead is too late

Samples that contain only dead material are often impossible to accurately diagnose (Figure 3). Once a plant has died, secondary pathogens and other organisms invade tissues, complicating diagnosis and making it dif-

icult to isolate the primary pathogen. The best samples include dead, dying, and healthy plant tissues (Figure 4).



Figure 3: Samples that contain only dead material reduce the chances of an accurate diagnosis. (Photo: Nicole Gauthier, UK)

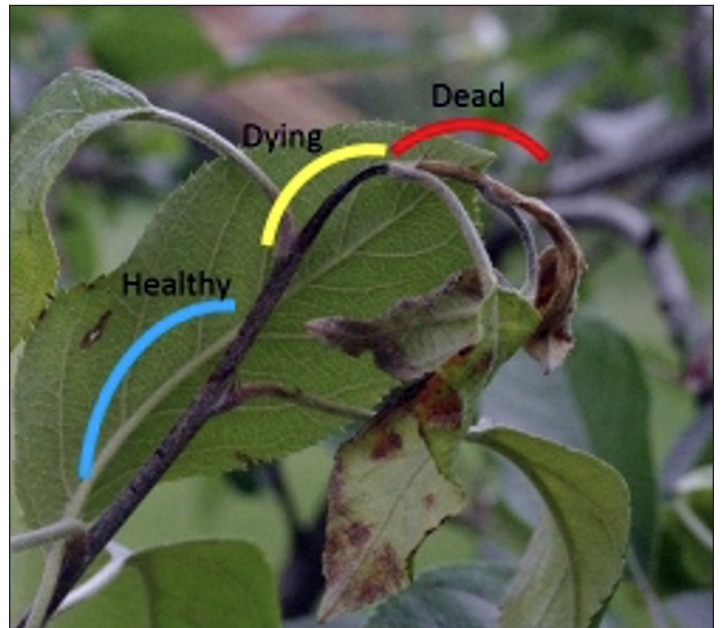


Figure 4: The best samples include dead, dying, and healthy plant tissues. (Photo: John Strang, UK / Modified by Kim Leonberger, UK)

Plastic bags used for fleshy fruit and vegetables

Avoid packaging fruit or vegetable samples in sealed plastic bags, which promote decay. No diagnosis can be determined from extensively rotted material (Figure 5). Wrap fruit or vegetables in several layers of newspaper and with extra padding to avoid damage during shipping (Figure 6).



Figure 5: Spaghetti squash sealed in plastic bags decayed during shipping and cannot be diagnosed. (Photo: Brenda Kennedy, UK)



Figure 6: Fruit and vegetables should be packaged in several layers of newspaper. (Photo: Julie Beale, UK)

Receiving Fruit Facts on the Internet

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TO: listserv@lsv.uky.edu
SUBJECT: Fruit Facts
MESSAGE: subscribe KY-FRUITFACTS
Followed by a blank line

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Followed by a blank line You should receive confirmation by return email. If you have a problem, or if you wish to communicate with a person about “fruitfacts”, the owner’s address (the TO: line of the message) is: owner-ky-fruit-facts@lsv.uky.edu

Insufficient information

Providing insufficient information can also hinder a diagnosis. Details about the plant, planting site, and symptoms can be as important as the physical material collected. Provide as much information as possible on the diagnostic forms submitted with samples. Submitting Plant Specimens for Disease Diagnosis: <http://plantpathology.ca.uky.edu/files/ppfs-gen-09.pdf>. Additional plant pathology publications can be found at <http://plantpathology.ca.uky.edu/extension/publications>.