

# Kentucky Fruit Facts

July-August 2021

<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*

Another difficult spring season is finally in the rearview mirror and a long, hot summer is just beginning. What felt like a mini summer in early April, while certainly appreciated after a dreary February, was ephemeral and the last two weeks into early May came as a surprise. I certainly did not expect such a lengthy cool, rainy, and windy spell after such a hot and relatively dry start to the month. Rainfall in June was similarly inconsistent with a long dry spell in the middle of the month. Then, we had a major rain event on the 21st when 3.6 inches fell in four hours ahead of a cold front. Talking with growers, some experienced anywhere from an inch and a half to five inches depending on where they are located. It just proves

that the one dependable characteristic of Kentucky weather is its variability.

Visiting growers at the western end of the state, most have a partial to full crop of peaches and are in the process of thinning. Some have even started the harvest season. The earliest cultivars, ones that ripen several weeks before 'Redhaven' are always thinned before those that ripen later. Early peaches have a very short window when thinning to promote fruit sizing is most effective. Once pit hardening begins, fruit development will rapidly progress with ripening. Later thinning when flesh begins to soften, while still helpful is less valuable in achieving the desired 2.5+” diameter fruit size grade.

I have heard reports that several orchards in the northern and Bluegrass regions had damage to peaches and apples but still expect a crop. It seems our more southern and northern neighbors are far less lucky. Many Tennessee and north Georgia peaches lost a crop due to the freeze in early April. Frosty weather from mid-April to early May was also unkind to growers in Michigan, many will have a light crop or have lost their stone fruit crop entirely.

Some growers noticed small fruits turning yellow and dropping on their earliest blooming trees. I have also seen this on our sweet cherries at the station. Frost likely damaged some of the flower pistils and prevented fertilization. That, and cool rainy weather during bloom inhibited bee flight. Even with the loss some of our trees still have a fair crop and it comes with the benefit of larger sized and sweeter fruits come harvest (masthead photo).

Apple thinning was a challenge this spring due to cool and wet weather post-bloom. Chemical thinners are most effective when the maximum temperature is above 65°F before, during, and 2-3



days after application. The latter part of April had only a few days that met this criterion. The start of May was better but by this time fruits were already sizing and becoming difficult to thin. Many growers had to use high rates or several sprays to try and achieve the desired crop load. We at the station are having to thin clusters in the 2009 NC-140 apple rootstock trial by hand. I suspect that some commercial orchards may have to send crews on walkthroughs to do the same.

I have also heard from chemical representatives that supplies of several commonly used pesticides are limited. Factory closures and manufacturing challenges led to reduced production last year which is causing price increases this year due to demand. Now might be a good time to re-check your pesticide stock and make requests or purchases earlier rather than later if your inventory is low. Plenty of generics and alternatives are available as listed in the 2021-2022 edition of ID-232 (<http://plantpathology.ca.uky.edu/files/id-232.pdf>) starting on page 213. Supplies should increase going into 2022 and 2023.

Now is the time to remove grow tubes from around vines and young trees to prevent heat scorch. Grow tubes work like miniature greenhouses to promote early growth but when temperatures reach the 80's and above they will quickly overheat. Internally, temperatures of 100°F or more are not uncommon on sunny days. The tree in Figure 1 is showing some damage but I think that it should recover.

*Figure 1. Scorch of young apple foliage caused by overheating inside a grow tube.*



June, July, and into August is the time period to think about collecting foliar samples for analysis if you have not done this for several years. Knowing the nutritional status of plant tissues along with soil testing is important not just for the current growing season but for future years as well. Tissue analysis can inform whether current soil and foliar

fertilizer programs are sufficient or if an adjustment is necessary. While July and August are mid-season relative to applying calcium in sprays for apple bitter pit, there is still enough time to change the rate, if necessary, especially for late harvest cultivars. The greater benefit comes the following year when you get a head start beginning with the first cover spray. HortFact-3001 explains how to collect tissue samples and lists several laboratories that perform analysis. (<https://www.uky.edu/hort/sites/www.uky.edu/hort/files/documents/foliar.pdf>).



## Upcoming Meetings

All times EDT unless noted.

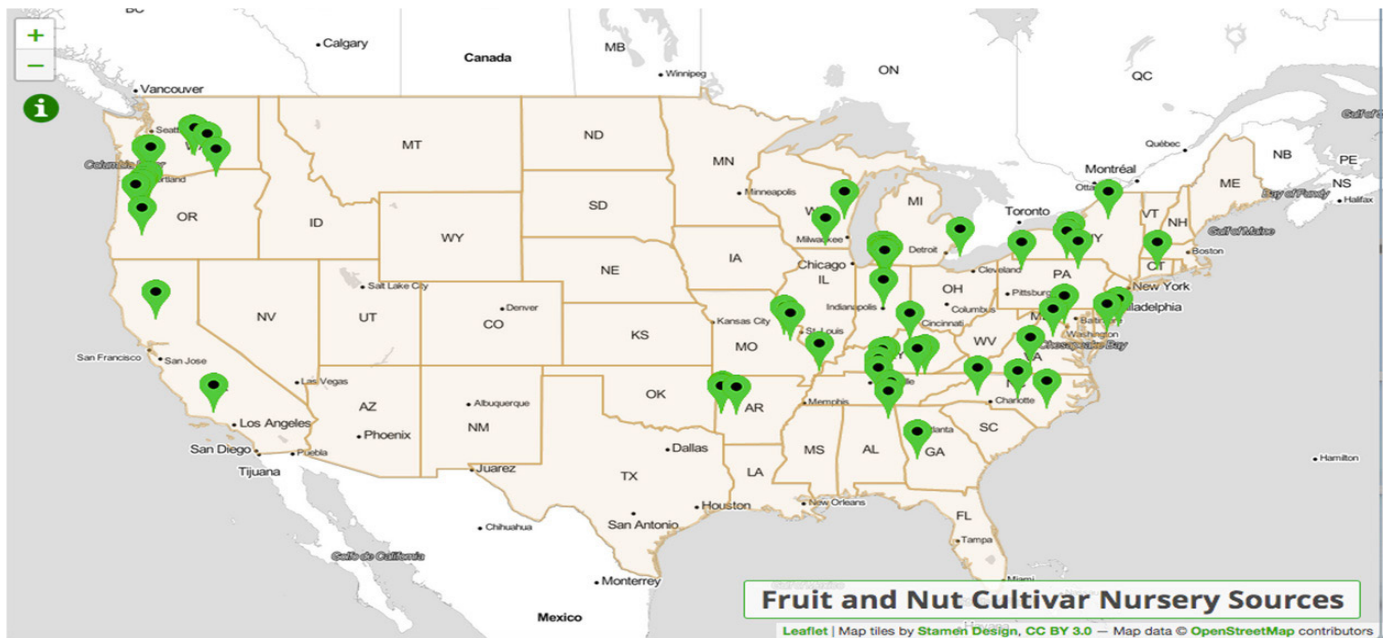
**July 13, Aug. 10, and Sept. 7, Eastern Viticulture and Enology Forum.** There will be a total of four town hall-style meetings throughout the growing season. Meetings will be held from 3:00-5:00 PM each Tuesday. The structure of these meetings depends on pre-submitted questions. Learn more about these meetings and find links to register and pre-submit questions at <https://blogs.cornell.edu/grapes/home/eastern-viticulture-and-enology-forum/>.

**Purdue Small Farm Education Field Day and Webinar Series, Purdue Student Farm July 29, 2021. Webinar Series, August 2-13, 2021, live online education.** This program covers a wide range of production topics. For the listing of topics and registration visit <https://www.purdue.edu/hla/sites/studentfarm/events/>.

**2021 Chestnut Chat Series. Held weekly, every Wednesday at 12 PM through September 8.** Michigan State University will be hosting a series of informal interactive Zoom meetings to allow easy communication between producers and MSU faculty. To register visit [https://www.canr.msu.edu/events/2021-chestnut-chat-series?utm\\_source=cc&utm\\_medium=email&utm\\_campaign=extensiondigests](https://www.canr.msu.edu/events/2021-chestnut-chat-series?utm_source=cc&utm_medium=email&utm_campaign=extensiondigests).

**Jan. 2-4, 2022 Kentucky Fruit and Vegetable Conference.** Schedule TBD. Sloan Convention Center, 1021 Wilkinson Trace, Bowling Green, KY 42103. Contact Kentucky Horticulture Council at 859-490-0889; Email: [info@kyhortcouncil.org](mailto:info@kyhortcouncil.org).

**Jan. 18-19, 2022 Indiana Hort Conference & Expo.** Schedule TBD. Registration opens Oct. 15, 2021 at <https://www.indianahortconference.org/registration/>.



## New Interactive Map of Fruit/Nut Cultivar Sources

*From the Kentucky Horticulture Council*

The Center for Crop Diversification (CCD) has a new interactive map to accompany HortFact-3002, Fruit and Nut Cultivar Nursery Sources – 2020, [https://www.uky.edu/hort/sites/www.uky.edu/hort/files/documents/HortFact\\_3002\\_2020.pdf](https://www.uky.edu/hort/sites/www.uky.edu/hort/files/documents/HortFact_3002_2020.pdf). The map shows the locations, contact details and available fruit and nut varieties of nurseries across the United States that sell cultivars recommended for commercial production in Kentucky. Access the map on the CCD website at <https://uk-horticulture.github.io/Fruit-Nut-Directory/>.

A series of webinar recordings from the fall of 2020 is available on the CCD home page at <https://www.uky.edu/ccd/>. Webinar topics include Basic Analytics for Social Media and Websites, Exploring Markets & Considering New Crops, Simple Web Design + Google Business Profiles, Offseason Marketing and Consumer Retention, and 2021: Looking Ahead for Farmers Markets & COVID-19. Updated CCD profiles include Cowpea (Southernpea) (CCD-CP-119), High Tunnel Overview (CCD-SP-2), and Organic Certification Process (CCD-SP-10). Look for these and many other resources on the CCD website.

## KHC Once Again Assisting with Ag Water Testing

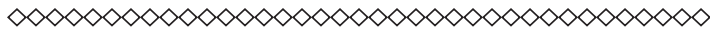
*By Cindy Finneseth, Executive Director, Kentucky Horticulture Council*

Are you currently using a pond, well, or other non-municipal water source to produce your fruit crops? Or, now thinking about it after seeing your last water bill? Kentucky Horticulture Council has a program that will provide ag water testing and technical assistance to Kentucky growers. KHC's program will help produce growers better understand the microbial quality of their surface and ground water sources used for production and post-harvest activities.

KHC launched this program in 2019 through a partnership with National Farmers Union's Local Food Safety Collaborative (LFSC). Water quality testing is a component of grower compliance with FDA's FSMA (Food Safety Modernization Act), and testing is required starting in 2022 for very large farms. Growers who participate in KHC's program will receive on-farm sample collection, laboratory analysis, and individualized interpretation of test results.

Read more about Kentucky Ag Water Quality Testing at <https://kyhortcouncil.org/kentucky-ag-water-testing-pilot/> and to find a directory of laboratories that perform testing. If you want to participate or have any questions about the program, contact the Kentucky Horticulture Council at <https://kyhortcouncil.org/contact-us/>.





## Bagging Fruit for Disease and Insect Management

By Kim Leonberger, Plant Pathology Extension Associate, Nicole Gauthier, Plant Pathology Extension Specialist, and Ric Bessin, Entomology Extension Specialist

In Kentucky, pest management in home orchards can be challenging, and fungicide and insecticide applications are often necessary for management of certain pests. Fruit bagging, however, can eliminate certain sprays by physically protecting fruit during development. This method can be used by backyard fruit growers and small-scale commercial producers. Bagging takes just 30 seconds per fruit or fruit cluster.

Crops such as apples, peaches, and grapes are ideal candidates for bagging. This method is commonly used for apple to decrease damage from diseases such as apple scab, sooty blotch/fly speck, and fruit rots and from insects such as insects such as stink bugs, codling moth, plum curculio, San Jose scale, and rosy apple aphid.

The following provides how-to information for bagging fruit.

### Steps to Fruit Bagging

1. Fruit should be bagged when they are in the early development stage.
  - Apples: Cover fruit with bags when fruit are approximately ¾ inch in diameter.
  - Peaches: Cover fruit with bags when fruit are approximately ¾ inch in diameter.
  - Grapes: Cover fruit with bags when grapes are pea sized.
2. Thin fruit to one fruit per cluster prior to applying the bag.
3. One insecticide spray should be used prior to bagging.
4. Cover individual fruit with bag type of choice and attach around the branch or stem.
5. Oriental, Clemson, and paper lunch bags have a slit for attaching around the branch or stem. These bags should be pleated together and secured with a wire or twist tie. Plastic bags should be zipped closed and secured with staples.
6. Clemson and paper bags should be removed from apple and peach three weeks before

harvest so fruit color properly. Oriental fruit bags have a double layer: outer paper layer should be removed three weeks before harvest, while inner waxed paper layer should be left until harvest. Bags may remain on grape clusters until harvest.

### Types of Fruit Bags

Several types of bags can be used to protect fruit from diseases and insects.

- Oriental Fruit Bags (Japanese Fruit Bags) (Figure 4) – These commercially available bags feature a double layer of paper and waxed paper, a pre-cut slit at the top, and a built-in wire. The approximate cost is \$0.35 per bag.
- Clemson Fruit Bags (Figure 5) – These bags are made of a single layer of paper, and they have a pre-cut slit and built-in wire. The approximate cost is \$0.10 per bag.
- Plastic freezer bag (Figure 6) – This method uses plastic freezer bags with the bottom corners cut off to allow for condensation drainage. Freezer bags are more resilient than storage bags. The approximate cost is \$0.10 per bag.
- Paper Lunch Bag (Figure 7) – This method uses white or brown paper lunch bags cut to 5 to 6 inches in length with a 2-to-3-inch slit cut down one side. Twist ties are used to secure bags. The approximate cost is \$0.05 per bag.



Figure 4. Clemson Fruit Bag. (Photo: Clemson Fruit Bags User Guide, Screen shot taken 4/7/2020)



Figure 5. Plastic freezer bag with corners cut for drainage. (Photo: Kim Leonberger, UK)

Figure 6. Clemson Fruit Bag. (Photo: Clemson Fruit Bags User Guide, Screen shot taken 4/7/2020)



Figure 7. Paper lunch bag modified for fruit bagging. (Photo: Kim Leonberger, UK)

### Additional Information

- Bagging Apples: Alternative Pest Management for Hobbyists (<http://entomology.ca.uky.edu/ef218>)
- 2018 Fruit and Vegetable Research Report (<http://www2.ca.uky.edu/agcomm/pubs/PR/PR757/PR757.pdf>) – Page 12



## Grant Opportunities

Information provided courtesy of the Organic Association of Kentucky, <https://www.oak-ky.org/>.

### KSU Small Scale Farm Grant

**Deadline:** The 1st day of every other month in 2021, starting in February.

**Funding Amount:** Up to \$5,000 for farmers, \$15,000 for groups benefiting multiple farmers

**Eligible Entities:** Kentucky farmers and Kentucky agriculture groups including farmers markets

**Link:** <https://www.kysu.edu/academics/college-acs/school-of-ace/co-op/small-scale-farm-grant-program.php>

**Overview:** The KSU Small Scale Farm Grant is designed with the small operation farmer in mind. This grant application is relatively simple to complete and the funds can be used to purchase needed equipment related to the proposed project. To qualify, applicants must be producing a value-added product, be an

organic farmer, and/or be an aquatic farmer. Farmers markets are often eligible. Previously approved projects have included canning equipment, a walk-in cooler, a water line to a hoop house, a root cellar, a cool-bot for vegetables, and a trailer for keeping meat cool and recently added farmer education assistance with a maximum of \$500.

### Kentucky Proud Promotional Grant

**Deadline:** On-going

**Funding Amount:** Up to 10% annual gross farm income, max at \$8,000 per year; \$1 for \$1 match

**Eligible Entities:** Kentucky farmers and agribusinesses

**Links:** <https://www.kyagr.com/marketing/grants.html>

**Overview:** The Kentucky Proud Promotional Grant is a cost share program to help Kentucky farmers and agribusinesses pay for advertising and marketing expenses. The award amount is based on 10% of direct farm impact; for a farmer it would be 10% of their total farm gross sales. The applicant must be a registered member of Kentucky Proud to apply and use the Kentucky Proud logo/brand in marketing efforts paid for with program funds. Examples of fundable items include TV ads, radio ads, web expenses, hats, t-shirts, demos, sampling, labels, packaging, tradeshow, UPC, and bar codes. This is a great program that helps promote our local farms!

### ON-Farm Energy Efficiency Incentives Program

**Deadline:** Applications are accepted year round

**Funding Amounts:** 50% cost share - up to a \$10,000 incentive, plus \$150 for an approved third party energy audit

**Eligible Entities:** Kentucky farmers with a gross farm income of at least \$25,000

**Link:** <https://agpolicy.ky.gov/energy/Pages/default.aspx>

**Overview:** The Kentucky Agricultural Development Fund offers an On-Farm Energy Efficiency Program to help Kentucky farmers with energy projects. These cost share funds are available to increase on farm energy efficiency and to support renewable fuel production projects. The applicant is required to have a third-party energy audit completed. This program can be combined with the USDA-NRCS Rural Energy for America Program (REAP) to get up to 75% of a total project cost covered.

## Rural Energy for America Program - Grants and Guaranteed Loans

**Funding Amount:** \$1,500 to \$500,000 (25% of the total project cost)

**Eligible Entities:** Farmers and rural businesses

**Links:** <https://www.rd.usda.gov/programs-services/rural-energy-america-program-energy-audit-renewable-energy-development-assistance>

**Overview:** USDA Rural Development offers REAP grants and grant/loan combos to help agricultural producers and rural businesses install renewable energy systems and do efficiency upgrade projects. A grant only application can pay up to 25% of total project costs. A grant/loan combo can fund up to 75% of total project costs. Guaranteed loan only applications do not have an application or funding deadline to be processed. Some project examples include: lighting efficiency, heating efficiency, bio-energy, solar energy, and dairy ventilation upgrades. An energy assessment or audit is required as part of the application process. If you are interested, you need to inquire as soon as possible. The October 31 due date prioritizes “restricted” or smaller projects that have total project cost of \$80,000 or less (and are requesting \$20,000 or less in grant funds). Fall is the best time for small projects to apply!

## USDA-NRCS Environmental Quality Incentives Program (EQIP)

**Deadline:** On-going

**Funding Amount:** Cost share - rate varies by project

**Eligible Entities:** Farmers and landowners

**Link:** <https://www.rd.usda.gov/programs-services/rural-energy-america-program-energy-audit-renewable-energy-development-assistance>

**Overview:** The purpose of the USDA Natural Resources Conservation Service (NRCS) EQIP is to protect the land by helping farmers implement voluntary conservation practices. EQIP provides a cost-share through a competitively scored application process. Farmers and owners of cropland, pasture, and forest land are generally eligible. EQIP can help pay for conservation practices that help improve and conserve farmland. These practices include grazing management (stock water systems, fencing, and pasture planting), nutrient management (cover crops and erosion control), pest management, wildlife habitat enhancement, forest stand management, seasonal high tunnels (for seasonal crop extension) and energy management plans. Contact your local

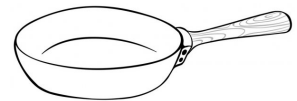
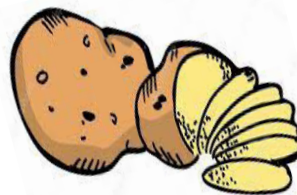
NRCS office (<https://offices.sc.egov.usda.gov/locator/app>) to ask for help creating a conservation plan for your farm and how to apply.

**Many thanks to KCARD (<https://www.kcard.info/>) for promoting many of these grant opportunities. Did you know KCARD can also answer questions about funding programs and help you prepare an application?**

### FRUIT & VEGETABLE HUMOR

**What Day of the Week Do Potatoes Hate the Most!**

**Fry-day!!!**



## Receiving Fruit Facts on the Internet

By subscribing to the email notification service you will receive an email announcement when each new issue is posted on the web with a link.

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