

Kentucky Fruit Facts

January-February Newsletter 2020
<http://www.uky.edu/hort/documents-list-fruit-facts>

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Fruit Crop News

John Strang, U.K. Extension Horticulturist, Daniel Becker, Extension Associate, and Matt Dixon, U.K. Ag Meteorologist

Spring appears to be arriving early this year. We have satisfied the fruit crop chilling requirements and fruit buds have broken dormancy. The warm winter weather is causing buds to swell and progress toward bloom.

As of February 14, at the UKREC research orchard in Princeton, sweet cherry is the furthest along, followed by 'Redhaven' peach; bud swell has occurred, but the scales are still attached. Flower buds of the apple cultivar 'Fuji' are still in the dormant to silver tip stage. Cornelian cherry (*Cornus mas*) the masthead photo, is always an early herald of springs arrival and is now just starting to bloom. This species is normally found in the landscape and adds a much-needed splash of color when everything else is still bare. It is also an example of a less common edible fruit.

Some bud swell has occurred in peaches, but it is not too late to apply a peach leaf curl spray which



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can be applied up until leaves first begin to emerge from the buds. It is always better to apply this spray in the fall to be assured of control. In addition, a fixed copper spray on peaches during the dormant season can reduce bacterial canker and bacterial spot inoculum.

A fixed copper spray is highly recommended at the silver tip stage on apple and the swollen bud stage on pear to reduce early season fire blight inoculum. The fixed copper may be combined with the dormant oil spray if the temperature is above 45°F which is necessary for the oil to kill San Jose scale, mites and aphids.

Figure 1 shows the accumulation of growing degree days (GDD) for 2020 in comparison with several previous seasons. The 2007 spring was the year of the devastating Easter freeze and at this point we are looking better. A long stretch of cold weather would be helpful!

This is the ideal time for pruning older apple pear, plum and cherry trees as well as raspberries and blueberries. It is best to wait until March to prune peaches, blackberries and young fruit trees. Pruning is primarily the art of bud manipulation to train the tree to grow the way that you want it to and to promote the development of high quality, well colored, large sweet fruit.

Keep monitoring orchard vole populations and rebait stations if vole activity is noted. Apples are the most susceptible to damage, but voles also feed on



other fruit tree types and may get into blueberries and brambles if their numbers are high.

We recently updated our, “Rootstocks for Kentucky Fruit Trees” publication which can be found at <http://www2.ca.uky.edu/agcomm/pubs/ho/ho82/ho82.pdf> and our “Peach Cost and Return Estimate Spreadsheet” and “Kentucky Matted Row Strawberry Profitability Estimated Costs and Returns” publications <https://www.uky.edu/ccd/tools/budgets>.

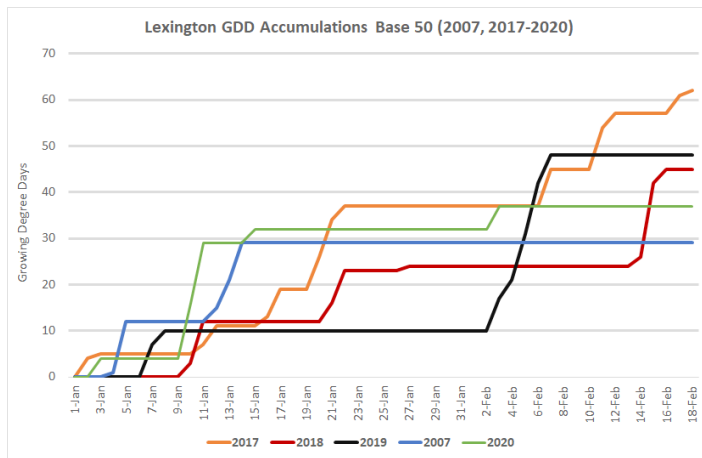


Figure 1. Growing degree day accumulations (base 50°F) for 2020 and past years.\



Upcoming Meetings & Deadlines

All times EST unless noted

Feb. 20-22, PickTN Conference, Cool Springs Marriott, 700 Cool Springs Blvd., Franklin, TN 37067. Registration \$125 See for registration, program and hotel information: <https://www.picktnconference.com/>

Feb. 24 UK Spring Viticulture Workshop, Horticulture Research Farm, 4321 Emmert Farm Ln., Lexington, KY. Workshop will cover grapevine nutrition, early season sprays and pruning. 9:30 a.m.-1:00 p.m. Registration: <https://www.eventbrite.com/e/spring-viticulture-workshop-tickets-93894899171>

Feb. 28 Grower Buyer MeetUp, Connecting Growers and Buyers of Kentucky Horticultural Products, Morehead Conference Center, 111 East First Street, Morehead, KY 40351. Organized by the Kentucky Horticulture Council 8:30 a.m.-11:30 a.m.

Register: <https://www.eventbrite.com/e/2020-eky-grower-buyer-meetup-tickets-85376877539?aff=ebdssbdestsearch>

Mar. 2, 2020 Fruit Tree Sprays, Bullitt County Extension Office, 384 Halls Lane, Shepherdsville, KY 40165, 6:00 p.m. Contact: 502-543-2257.

Mar. 3-6 2020 North American Raspberry & Blackberry Conference, Chase Park Plaza Hotel, St Louis, Missouri. Registration and details: <https://www.raspberryblackberry.com/2020-north-american-raspberry-blackberry-conference/>

Mar. 5 Fruit Tree Pruning and Grafting Workshop, Russell County Extension Office, 2688 S. Hwy 127, Russell Springs, KY 42642. 1:00- 5:30 p.m. CDT. Contact 270-866-4477.

Mar. 6-7 Organic Association of Kentucky (OAK) 9th Annual Conference, Marriott East, 1903 Embassy Square Blvd., Louisville, KY. More than 50 workshops will feature over 70 local and national speakers who will address issues such as produce production and weed management, agroforestry, regenerative livestock systems, no-till market gardening, large-scale organic grain production and more. For program information and conference registration see: <https://www.oak-ky.org/2020-conference>

Mar. 7 Fruit Tree Grafting Workshop and Pruning Demonstration, Fleming County Extension Office, 1384 Elizaville Rd., Flemingsburg, KY 41041, 8:30-11:30 a.m. and Morehead State University Browning Orchard, 1:00 p.m. respectively. Contact 606-845-4641.

Mar. 10 Strawberry Production and Backyard Fruit Production, Mason County Farm and Home Night, Maysville Community and Technical College, 1755 US 68, Maysville, KY 41056. For more information contact the college at 606-759-7141 Ext. 66120.

Mar. 10 Fruit Tree Pruning Demonstration and Grafting Workshop, Harry Borders Farm, 2:00 p.m. and Scott County Extension Office, 1130 Cincinnati Rd., Georgetown, KY 40324 5:30 p.m. respectively. Contact 502-863-0984.

Mar. 12 Fruit Tree Grafting and Pruning Workshops, Laurel County Extension Office, 200 Extension Rd., London, KY 40741. 10:00 a.m. and 1:30 p.m. respectively Contact 606-864-4167.

Mar. 13 Fruit Tree Grafting and Pruning Workshops, Bullitt County Extension Office, 384 Halls Lane, Shepherdsville, KY 40165, 6:00 p.m. Contact 502-543-2257.

Mar. 14 Growing Pecan Trees in the Mid-South, Dry Fork Cumberland Presbyterian Church, 1050 Dry Fork Rd., Bethpage, TN 37022 (About 30 miles south of Scottsville, KY) Hosted by Rock Bridge Trees and University of TN Extension. For speakers and program details: <https://rockbridgetrees.com/2019/12/growing-pecan-trees-in-the-mid-south-seminar/> Contact 615-841-3664.

Mar. 17 Fruit Grower Orchard Meeting, Jackson's Orchard, 1280 Slim Island Rd., Bowling Green, KY 42101. See Program below.

Mar. 19. Fruit Tree Pruning Demonstration and Grafting Workshop, 2:00 p.m. and 5:30 p.m. respectively McCreary County Extension Office, 141 College St., Whitley City, KY 42653. Contact 606-376-2524.

Mar. 23 Home Strawberry Production, Lyon County Extension Office, 231 Main St., Eddyville, KY 42038. 6:30-8:30 p.m. CST. Contact 270-388-2341.

Mar. 24 Pruning Demonstration, Allen County Extension Office, 200 East Main St., Scottsville, KY 42164. 1:00 p.m. CDT Contact 270-237-3146.

Mar 24. Fruit Tree Grafting Workshop, Simpson County Extension Office, 300 North Main Street, Franklin, KY 42134. 5:00 p.m. CDT Contact 270-586-4484.

Mar. 27 Plasticulture Strawberry Production, Clark County Extension Office and Kirk and Karen Fallis Farm, 1400 Fortune Drive, Winchester, KY 40391. 1:00 p.m. contact 859-744-4682. See program below.

Apr. 2 Home Bramble Production, Jessamine County Public Library, 600 S. Main St., Nicholasville, KY 40356 859-885-3523 5:30 p.m. Contact the Jessamine County Extension Office at 859-885-4811.

Apr. 15 Ag Water Quality Field Day, Robinson Center for Appalachian Resource Sustainability (RCARS) 1309 Robinson Road, Jackson, KY 41339. Topics will include Ag Water and FSMA, Sampling Techniques, Remediation Strategies and more. 1:00-4:00 p.m. Contact 606-666-2438 X 234.

Apr. 23 "That's Nuts!" Nut Production, Madison County Extension Office, 230 Duncannon Lane, Richmond, KY 40476 6:00 -7:00 p.m. Contact 859-624-9510.

Apr. 24 New/Beginning Grape Grower Workshop, Horticulture Research Farm, 4321 Emmert Farm Ln., Lexington, KY. See future Fruit Facts for details.

May 5 Fruit Grower Orchard Meeting, Reed Valley Orchard, 239 Lail Lane, Paris, KY 40361.

Jun. 8 Viticulture and Enology Field Day, Horticulture Research Farm, 4321 Emmert Farm Ln., Lexington, KY. See future Fruit Facts for details.

Fruit Grower Orchard Meeting

Tuesday, March 17

Jackson's Orchard

Bill and Shirley Jackson and Jonathan Price Operators
1280 Slim Island Rd.

Bowling Green, KY 42101

Bill Mobile: 270-792-1936

Jonathan Mobile: 270-792-2261

Website: https://jacksonsorchar.com/?doing_wp_cron=1581354592.9544870853424072265625

Directions:

Proceed south on I-65 to the 2nd Bowling Green exit, exit 28 (at the Corvette museum).

Exit to the right and drive towards the downtown area (mostly on 31W).

At the 4th stop light, turn right on to 6th street.

Proceed under the RR (1 block) to the 1st stop light and turn right on to Rt. 185.

Follow Rt. 185 for about 3 miles across the river.

Roughly 200 yards after crossing the river will be a Jackson's Orchard sign.

Turn left and follow the signs to the orchard.

Program:

All times CDT

10:00 a.m. Registration & Tour of Jackson's Orchard (Market, orchard, new grading line, cider room addition & automated insect trapping) –

Bill Jackson & Jonathan Price

11:00 Peach & Apple Pruning in the Orchard

– *Bill Jackson, Jonathan Price &*

John Strang

11:30 Peach Insects & Mating Disruption –
Ric Bessin

Noon **Lunch will be available at cost for those that preregister. Preregister for lunch by calling Pam Compton at 859-257-2909** between 8:00 a.m. and 4:30 p.m. EST weekdays by Monday, March 16 and give her a count for the Fruit Grower Meeting at Jackson’s Orchard.

12:45 p.m. Peach Thinning & Split Pits –
John Strang

1:15 Deer Control – *Matt Springer*

1:45 Grower Round Table Discussion –
Jonathan Price, moderator

Plasticulture Strawberry Production Friday, March 27

Clark County Extension Office

1400 Fortune Drive
Winchester, KY 40391
859-744-4682

Directions:

I-64 Directions: Take Winchester Exit 96 and if proceeding East on I-64 turn left on Hwy. 627. If proceeding west on I-64 Turn right onto Hwy. 627. Cross over I-64 and make a left onto Fortune Drive between the BP Station and the fire station. The Extension office is located on the right after you pass the fire station.

I-75 North Directions: Take Boonesboro Exit 95 and turn right. Follow Hwy. 627 for 16 miles to the Extension office. Turn left onto Fortune Drive between the BP Station and fire station. The Extension office is located on the right after you pass the fire station.

Program:

All Times EDT

12:50 p.m. Welcome – *David Davis*
1:00 Site Selection, Cultivars, Planting and Harvest – *John Strang*
1:30 Fertility, Weed Control and Frost Protection – *Shawn Wright*
2:00 Disease Control – *Nicole Gauthier*
2:30 Question and Answer Panel – *David Davis, Shawn Wright, Kirk and Karen Fallis, John Strang and Nicole Gauthier*
3:00 Field Walk – Fallis Family Farm – *Kirk and Karen Fallis*



Group Health Insurance for Kentucky Fruit Growers

By Cindy Finneseth, Executive Director Kentucky Horticulture Council

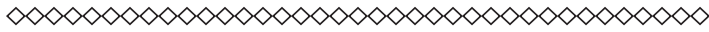
Do you offer health insurance benefits to your employees and want to see if you are getting the best price possible? The Kentucky Horticulture Council (KHC) has joined the Kentucky Ag Health Care Trust and through this relationship, eligible businesses can access 21 different Anthem health insurance plans. If you have a horticulture-related business, have at least two employees (this can include yourself), and are a member of KSHS (or KVGA), you are most likely eligible. This is a great benefit for small businesses that are currently offering or thinking about offering health benefits to employees. Joining the plan gives you the purchasing power of a large group and this often results in access to better plans and better pricing.

Where do I start?

- Check with KSHS to be sure your membership is up-to-date.
- Contact Melissa Hinton (The Hinton Agency; 859-351-6559) to fill out the paperwork to get started on a quote. Note: you will need to provide some specific details about your business and each employee.
- Review and analyze quote to determine if this is a good option for your business.

- Complete paperwork and join KHC as an employer-member.

Several frequently asked questions are listed on the KHC website: <https://kyhortcouncil.org/khc-ag-health-care-trust/>. Other questions can be submitted to info@kyhortcouncil.org.



Woolly Apple Aphids Come and Go, But Don't Really Leave!

By Ric Bessin, UK Extension Entomologist

There are several species of aphids attacking apples, and among them, woolly apple aphid is the most difficult to manage. Unlike other aphids, this species attacks trees above and below ground, but it is the damage you don't see that can cause the most damage to the health of trees. Mature trees usually suffer little damage from root infestations, but root infestations are very damaging to young trees. Control of these aphids is very difficult when they attack roots. Yellowish foliage is a sign that woolly apple aphid may be infesting roots.

Description

Woolly apple aphid differs from other apple aphids in appearance, life cycle, and type of damage inflicted. A colony appears as a cottony mass, generally clustered in wounds and pruning scars on trunks and branches of trees (Figure 2). Colonies form on new wood or at wound sites on trunks, limbs, and twigs where bark is thin. Pruning, hail damage, and egg-laying wounds by the periodical cicada can create the ideal wound sites for attack by this pest. Aphids may occur on water sprouts in the center of the tree as populations grow. Woolly apple aphid feeds with piercing-sucking mouthparts; wood will begin to swell and form galls at these feeding sites. As the number of aphids on above ground portions of trees increase, many work their way down to roots and trunks below the ground surface.



Figure 2. Woolly apple aphid colonies produce white, cottony waxy thread-like secretions, but the aphids themselves are purple. (Photo: Ric Bessin, UK)



Figure 3. Woolly apple aphid feeding on roots that produces galls and the greatest damage. (Photo: Ric Bessin, UK)

Root systems of nursery stock can be damaged by woolly apple aphid, and severe root infestations can stunt or kill young trees. Infested trees often have short fibrous roots, which predisposes them to being easily uprooted. Swollen galls also form on roots (Figure 2); galls increase in size from year to year and are sites where fungi can attack. Aphid feeding on root systems also disrupts the nutrient balance of root tissue, which can affect growth of other parts of trees. Trees can have above-ground infestations of woolly apple aphid but no root infestations.

Rootstocks vary in susceptibility to woolly apple aphid and susceptible rootstocks will form galls around the infestation sites. MM.111 and MM.106 rootstocks were selected in England specifically for woolly apple aphid resistance. Many of the newer Geneva rootstocks such as G.41, G.213, G.214, G.202, G.969 and G.210 have excellent resistance as well as high levels of resistance/tolerance to fire blight, Phytophthora root rot, replant disease complex, low susceptibility to latent viruses and high yield efficiency.

Monitoring & Management

When monitoring for woolly apple aphid, examine pruning scars on several trees. Carefully brush away the white waxy secretions that surround colonies to determine if live aphids are present. Predators, such as lady beetles, hover fly larvae, and lacewing larvae can completely destroy colonies, but waxy residue will remain. Treatments for woolly apple aphid are recommended when 10% of the pruning scars are infested with live colonies. The best control is achieved when an aphid specific material like Closer, Movento, Beleaf or the newer PQZ or Versys™ Inscalis®, which are not in the Midwest Pest Management Guide is used. A second application may be needed three to four weeks later as more may be migrating from below ground.



Elements of Good Pesticide Storage

By Ric Bessin, UK Extension Entomologist

Storing pesticides properly helps to protect your investment and protect other persons and the environment. Because the amount of pesticides stored varies considerably from farm to farm, the look of pesticide storage areas may appear very different. However, the basic elements used to store pesticides are universal. This article highlights the basics elements of good pesticide storage.

- **Store pesticides in their original containers.** Do not transfer pesticides to other containers. Take care to make sure the labels on containers remain intact and legible. Dry formulated materials that have been opened can be placed into sealable plastic bags so they don't absorb moisture from the air. Check to make sure caps on liquid containers are securely closed.
- **Store pesticides in a locked cabinet, room, or building.** This prevents children, animals, and untrained people from having access to pesticides.
- **Use pesticide-warning signs to alert others.** Durable, high-visibility signs are available commercially.

- **Keep the area well-lit and dry.** Water can ruin pesticides, their containers, and labelling. Do not store pesticides in areas prone to flooding. A well-lit area will help to reduce accidents.
- **Keep area uncluttered.** This reduces tripping hazards when working with pesticides.
- **Storage area with an impervious floor.** The area should be self-contained with no drains leading out of the area. Larger storage areas with more than 300 gallons of liquid pesticides are considered commercial facilities and need to have a curb around the floor that can contain a minimum of 110% of the volume of the largest container in storage. In these larger facilities, a sump will collect spills and pump them into a storage tank.
- **Keep the storage area well ventilated.** Without proper ventilation, pesticide storage areas will collect volatiles from opened containers.



Figure 4. Pesticides are stored in a locked area with easy to read warning signs (Photo: Ric Bessin, UK).



Figure 5. Proper ventilation reduces pesticide exposure (Photo: Ric Bessin, UK).

- **Have materials on hand to clean up spills and leaks.** Spills and leaks will happen, so plan on them! Absorbent materials like kitty litter, sawdust, or sweep compound are used to clean up the spill. Use the 3 C's to manage spills; Control, Contained, then Cleanup. Control means to stop the leak at the source. For example, if a container has a leak on the bottom, invert the container to stop the leak. Contain means to limit the spread of materials that have leaked by surrounding the spill with absorbent material. The final step is to clean up the spill. Be sure to use all necessary personal protective equipment as listed on the pesticide label.
- **Have single-use towels, soap, eye-wash supplies, and a change of clothes available.** While larger facilities may have an eye-wash station, smaller storage areas may have bottles of eye wash solution.
- **Keep an inventory of pesticides in storage.** This will help you better manage your pesticides.
- **Place smaller containers in plastic totes.** While not required, using totes this way will limit pesticide spread if a container leaks.



Figure 6. Have the spill kit readily available (Photo: Ric Bessin, UK).



Figure 7. A personal cleanup kit will include single-use towels, soap, eye-wash supplies, and a clean change of clothes (Photo: Ric Bessin, UK).

- **Review the storage requirements of each of the pesticides in storage.** This information is near the end of the label. Each pesticide may have a different temperature range for storage. Explosion-proof heaters are used to maintain liquid pesticides during the winter.



Figure 8. Placing liquid containers into plastic totes is a method to separate herbicides, fungicides, and insecticides (Photo: Ric Bessin, UK).

FRUIT & VEGETABLE HUMOR

What do you call a
sad Strawberry?



A BlueBerry



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.

To subscribe, send an email message:

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

OR to unsubscribe, the lines:
signoff KY-FRUITFACTS
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

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