

# Kentucky Fruit Facts

Research & Education Center

P.O. Box 469, Princeton, KY 42445

March 2001 (03-01)

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Fruit Facts can be found on the web at: <http://www.ca.uky.edu/HLA/fruifact/>

## Fruit Crop and Weather Situation

Flower bud development seems to be proceeding at a normal pace this season. Growers have noted some fairly heavy flower bud losses on peaches in the Henderson and Woodford county areas, particularly on less hardy varieties, despite the fact that we did not get below zero this winter. All other commercial fruit crops look good at this stage of the winter. Keep a close watch on orchard vole populations and treat where necessary.

At this point in the season there are a number of orchard operations that are underway. Most growers are a little behind in pruning because of the cold weather in January and February. Preemergent herbicides should be applied as soon as possible on a number of fruit crops. The dormant period is the time to apply fixed copper to clean up overwintering bacteria on apple and pear trees, particularly if fire blight was a problem last season. If scale is present in the orchard an oil spray should be applied at least by green tip. Lorsban 4E may be applied in combination with the oil to improve scale control. Blackberry and raspberry growers will want to apply liquid lime-sulfur as soon as the buds begin to show green tissue.

The UK Weather Center reports that La Nina weather conditions have reappeared, however weather models indicate that this should be short lived. The Crop Moisture Index indicates that there is adequate soil moisture for agricultural purposes for this season.

## Coming Events

### Mar. 16 - Blackberry and Raspberry Production and Apple Tree Grafting

**Demonstration.** Russell County Extension Office, Russell Springs, KY. 6:00 P.M. CST, Contact Raymond Thompson or Wanda Miick 270/866-4477.

**Mar. 20 - Fruit Pruning Demonstration,** Yvon Allen's, Rowdy, KY. (Perry county) 9:00 A.M., Contact Charles May 606/436-2044.

### Mar. 24 - Kentucky Vineyard Society Grape Pruning Demonstration,

Steve and Jerri Isaacs' Graskop Farm, Nonesuch, KY (Woodford county) 1:00 P.M. [859/873-1296]

Contact Patti Savage 859/873-4601

**Directions:** Take exit #68 off the Bluegrass Parkway and turn south on Route 33. (Follow green & white signs for Irish Acres.) Follow Rt 33 for 5.5 miles to Fords Mill Road, turn right onto Fords Mill. Follow Fords Mill Rd. for 4.5 miles and turn right onto Patterson Road (at Twin Creek Farm/ note signs for Irish Acres & Antiques/Birds sign). Go 3/4 miles on Patterson Rd. The Isaacs' driveway is on the left (after a sharp curve), name is on the mailbox on the right. Follow the gravel farm driveway 1/2 mile to the vineyard.



From Harrodsburg – Turn onto Hwy 33 from US 68 located just north of the KY River (Brooklyn). Turn left onto Munday's Landing Rd. where Hwy 33 takes a sharp right. Turn right onto Hwy 1965 (Ford's Mill Rd); pass Irish Acres Antiques; turn left onto Patterson Rd. (Horse farm on the corner). Isaac farm is about 3/4 mile on the left, after a sharp curve. Name is on the mailbox. Follow the gravel driveway ½ mile to the vineyard.

**Mar. 31, May 19, Jul. 21 - Beginning Beekeeping Classes**, Kentucky State University Farm, Frankfort, KY. This is a 3-part series offered for those that are interested in beekeeping. Classes are free and will begin at 1:00 P.M.. Contact Tom Webster 505/597-6365.

**Mar. 31 - Kentucky Vineyard Society Grape Pruning Demonstration**, David and Betty Houses' New Canaan Vineyard, Alvaton, KY (Warren County) 1:00 P.M. CST. 270/842-2507  
Contact Michelle Johnson 270/842-1681.  
**Directions:** From I-65 take exit 22. Turn onto Scottsville Rd. and proceed toward Scottsville. Turn left onto Cumberland Trace and proceed .8 mile. Turn right on Old Scottsville Rd. and go 4.2 miles. Turn left on Old Goshen Rd.. and proceed 400 yards to David House's residence.

**Apr. 2 - Commercial Grape Production**, Ashland, KY. Contact Lyndall Harned 606/739-5184 or John Sparks 606/638-9495.

**Apr. 5 - Commercial Apple IPM and Grape Meeting**. Research and Education Center, Princeton, KY. Contact John Strang 859/257-5685. See program below.

**Apr. 10 - Grape Pruning Demonstration**, Somerset, KY. Contact Beth Wilson 606/679-6361.

**Apr. 16 - Strawberry and Blackberry Production**, Paducah, KY. 6:30 P.M. Contact Kathy Keeney 270/554-9520.

**Apr. 19 - Square Foot Gardening, Chestnut Tree Orchards**, Sustainable Agriculture Workshop, "Third Thursday Thing," Kentucky State University Farm, Frankfort, KY. Contact 502/597-6310; e-mail: [msimon@gwmail.kysu.edu](mailto:msimon@gwmail.kysu.edu)

**Apr. 28 - Kentucky Nut Growers Association Spring Meeting**, Elizabethtown Extension Office, Elizabethtown, KY. Contact Tom Evans 270/826-8953.

**Jun. 6 - Commercial Apple IPM and Grape Meeting**. Burlington, KY. Contact Boone County Extension Office 859/586-6101 or John Strang 859/257-5685.

**Jul. 19 - Robinson Station Field Day,**

Quicksand, KY. Contact Terry Jones 606/666-2438 ext. 234.

**Jul. 24 - Commercial Apple IPM and Cider Sanitation Workshop**, Jackson's Orchard, Bowling Green, KY. Contact Michelle Johnson 270/842-1681 or John Strang 859/257-5685.

**Jan. 7-8, 2002 - Annual Kentucky State Horticultural Society, Kentucky Vegetable Growers Association and Kentucky Grape and Wine Short Course Meeting**. Holiday Inn North, Lexington, KY. Contact John Strang 859/257-5685.

## Commercial Apple IPM and Grape Production Meeting

Princeton Research and Education Center, 1205 Hopkins St., P.O. Box 469, Princeton, KY 42445 phone (270)365-7541.

For directions to the REC: see map on the last page.

### Program (All times CST)

- 10:00 - Registration
- 10:15 - Apple grower round table discussion
- 11:00 - Managing early season apple insects (Ric Bessin)
- 11:15 - How tree pruning and fruit thinning affect fruit load and quality (John Strang)
- 11:45 - Managing apple scab and fire blight (John Hartman)
- 12:00 - lunch (catered)

Lunch (pork barbecue, baked beans, cole slaw, dessert and beverage) will be available at cost for those that preregister. The cost will be \$6.50.
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**Preregister by calling Mary Ann Kelley at 270/365-7541 ext. 216 between 8:00 AM and 4:30 PM CST weekdays by April 4 and give her a count for the Apple IPM meeting at the REC.**

If you are interested in only the grape portion of the program and plan to just come for lunch and stay for the afternoon, you must preregister for lunch to assure that we have a meal for you.

- 1:00 - Tour of research apple orchard (Dwight Wolfe)
  - 1:30 - Tour of research grape plantings (D. Wolfe)
  - 2:00 - Grape disease & insect management (R. Bessin & J. Hartman)
  - 2:30 - Pruning grapes (J. Strang)
  - 3:00 - Grape grower discussion
  - 3:30 - Adjourn
- All UK Cooperative Extension Service Meetings are open to everyone.

# Aerial Apple Branch Swellings - Burrknots or Crown Gall?

John Hartman, Extension Plant Pathologist



With the coming of spring-like weather in late winter, apple growers and gardeners are beginning to prune their apple trees to provide proper tree structure, reduce diseases through sanitation and improved sunlight penetration, and increase productivity. Some growers have noticed on limbs and branches, and even the trunk, uneven-textured swellings on these affected woody tissues. These swellings may resemble crown gall disease. Based on photographs and descriptions recently received from concerned growers and County Extension Agents, the formations being seen on the apple branches and limbs appear to be burrknot.

What causes burrknots? Burrknots occur frequently on many apple dwarfing rootstocks and on the scions of some cultivars such as Empire and Gala. Because of the gall-like appearance of burrknots, they are sometimes mistaken for crown gall disease. Crown gall normally appears near the base of young trees whereas burrknots may appear on the trunk and major limbs and branches of more mature trees. Burrknots are thought to be the beginnings of clusters of aerial roots - above ground. They take several years to develop and, depending on the size of the limb affected, can eventually be several inches across. Certain varieties and rootstocks are genetically predisposed to burrknot. In these varieties, they can be induced by low light, warm temperature and high humidity. These conditions often exist in backyard trees or abandoned orchards not pruned for many years and are less likely to occur in commercial orchards. Burrknots may also develop beneath trunk guards that are used to prevent rabbit and vole injury on trees.

Will burrknots hurt the tree? The tissue which forms a burrknot crowds out the vascular cambium and the phloem in that part of the limb. Fusing of adjacent burrknots and increase in burrknot size, occurring faster than increase in limb circumference, can lead to girdling. A few burrknots will not hurt the tree, but those trees with excessive numbers of them can be weakened, stunted or suffer branch breakage. In addition, burrknots are thought to be sites for



insect borer infestations and for fire blight or collar rot infections.

**Management.** During normal or restorative pruning this year, where there are choices of branches to remove or to keep, growers should remove those with the most burrknots. Burrknots can be surgically removed from larger limbs, though such removal could weaken the limb. Treatments with Gallex, a chemical formulated for treatment of crown gall, can reduce the size of burrknots. Opening up the tree to better sunlight penetration and less humidity will help prevent formation of new burrknots. If this problem persists, it may be time to change to varieties not as genetically predisposed to the problem.

## Home Fruit Spray Guide Revised

The Disease and Insect Control Programs For Homegrown Fruit in Kentucky Including Organic Alternatives (ID-21) publication has been revised. It has been delivered to the UK bulletin room and will be available through county extension offices in several weeks.

## Apple Market Loss Assistance Sign-Up Begins

(Apple Growers Expected to Receive Payments Within Eight to Twelve Weeks)

*U.S. Apple News Release, March 6, 2001*

MCLEAN, Va. — The U.S. Department of Agriculture (USDA) announced the implementation of the \$100 million market loss assistance payment program for U.S. apple growers on Thursday, March 8. Growers will be permitted to sign-up for their portion of the market loss assistance payments through April 13.

“Apple growers across America have been hard hit by three terribly tough years in a row, and this year is no better,” said U.S. Apple Association (USApple) President Kraig R. Naasz, whose group spearheaded efforts to secure apple assistance. “In fact, the average price received by growers in Jan. 2001 dropped to the second lowest level in more than 10 years, according to USDA statistics. For many growers, this assistance can’t come soon enough.”

Congress approved the apple market loss assistance program as part of the fiscal 2001 agricultural appropriations act to aid apple growers, who suffered \$760 million in estimated losses between 1995 and 1998 due to unfairly priced imports of apple juice concentrate, adverse weather conditions, increasing retail consolidation and rising regulatory costs among other factors. USApple worked with Congressional sponsors of the market loss assistance program to urge the earliest possible implementation by USDA’s Farm Service Agency (FSA).

“We greatly appreciate Agriculture Secretary Ann Veneman’s efforts to deliver this urgently-needed assistance to offset the devastating losses suffered by apple growers,” Naasz said.

USApple wrote Secretary Veneman on Jan. 25, shortly after she accepted the oath of office to lead USDA, urging swift implementation of the apple market loss assistance program. In addition, several members of USApple’s Board of Trustees met with Secretary Veneman on Feb. 23 to reiterate the dire need for this assistance among the nation’s apple growers.

Following publication of the program’s details in the Federal Register on Thursday, March 8, growers will have until April 13 to submit an application for assistance. Apple producers may obtain an application, Form CCC-891 (Apple Market Loss Assistance Payment Application), in person or by mail, telephone or facsimile from any county FSA office. In addition, growers may download a copy of the application at <http://www.sc.egov.usda.gov>.

Growers must submit their completed application to a county FSA office by no later than close of business on Friday, April 13. A list of FSA offices can be obtained at <http://www.fsa.usda.gov/edso/>.

Payments will be made on a grower’s first 1.6 million pounds of production in either 1998 or 1999. Actual payments made will depend on the number of growers who apply, and the volume of production they report. Growers should contact their local FSA office, or USApple at (800) 781-4443, for more information.

## The New NAP Program

John Strang, Extension Horticulturist

The new NAP program was discussed at our Annual Fruit and Vegetable Grower meeting in January by Farm Service Agency personnel. The deadline to sign up for the new program in which a grower pays \$100 per crop for a maximum of \$300 for multiple crop insurance was to be March 15th. Tom Howard in the State FSA Office has indicated that they have been very busy at the federal level and have not informed the state offices on the administration of this program as yet. Consequently the March 15<sup>th</sup> deadline has been extended.

## Anthracnose of Greenhouse and Outdoor Strawberries

John Hartman, Extension Plant Pathologist

Kentucky growers have traditionally raised small fields of May-bearing strawberries outdoors in matted row beds. Now, some growers are experimenting with day-neutral strawberries and growing them in the greenhouse. In both field and greenhouse, strawberry growers sometimes have to manage anthracnose disease which affects foliage, runners, crowns, and fruit. Our most recent examples in the Plant Disease Diagnostic Laboratory have been from the greenhouse. One of the graduate students in our department has recently identified the fungus *Colletotrichum acutatum* as the cause of the greenhouse strawberry anthracnose. Other species can also cause anthracnose.

Symptoms. Affected stems are sometimes girdled by lesions, causing individual leaves or entire daughter plants to wilt. When crown tissue is infected and becomes decayed, the entire plant may wilt and die. When infected crowns are sliced open, internal tissue is firm and reddish brown, uniformly

discolored or streaked. On fruit, symptoms first appear as small whitish water-soaked lesions which turn brown and enlarge within a few days to involve most of the fruit. Green fruit and ripe fruit are both susceptible to infection by the anthracnose fungus. Under warm, humid conditions, salmon-colored spores may form on fruit and stem lesions.

Disease development. Anthracnose is probably introduced into new plantings on infected plants. Spore production, spore germination, and infection of strawberry fruits are favored by warm (near 80°F), humid weather and by rain which disperses spores. The fungal spores require free water on the plant surface to germinate and infect. Thus, the disease is primarily a problem in Kentucky when warm temperatures and rainfall occur during fruit set and harvest. Once the disease is established in the field, the fungus can overwinter on infected plant debris, primarily on mummified fruits.

Disease Management. For greenhouse strawberries, there are no fungicides labeled for use in managing anthracnose. In the field, Captan is labeled for strawberry anthracnose management. (See U.K. Cooperative Extension Service Publication ID-94, Kentucky Commercial Small Fruit and Grape Spray Guide 2001.) Research done on outdoor day-neutral strawberries at Iowa State University suggests that captan will provide moderate control of anthracnose. The same research team found that the addition of straw mulch reduced levels of anthracnose, but did not prevent the disease entirely. Straw mulch may slow down row-to-row spread of the anthracnose fungus. Growers of both greenhouse- and field-grown strawberries need to be very careful to obtain disease-free plants to start their plantings and to take care not to spread anthracnose from old, infected fields to new ones.

## **Receiving Fruit Facts Electronically on the Internet**

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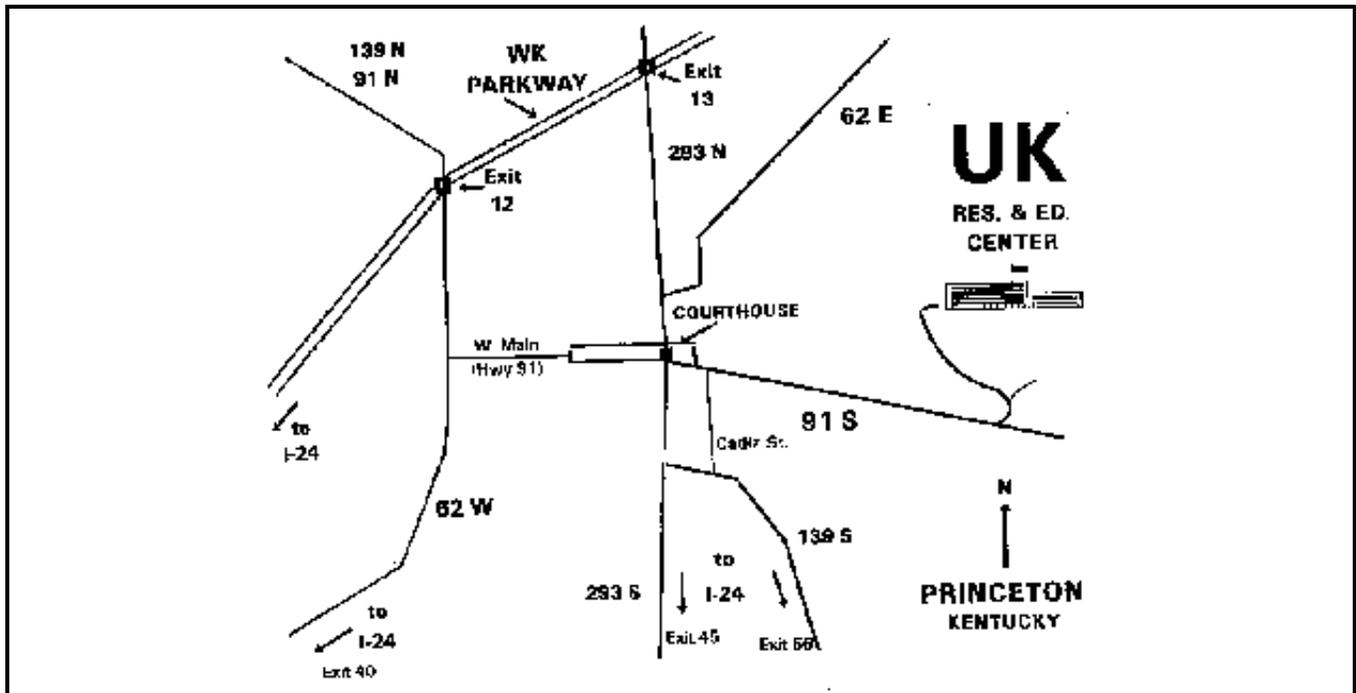
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