

Kentucky Fruit Facts

November 2003 (11/03)

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

John Strang, Extension Fruit Specialist, Editor
Marilyn Hooks & Karen Shahan, Staff Assistants

Upcoming Meetings

Nov. 18 Commercial Grape Production Meeting, Campbell County Extension Office, 3500 Alexandria Pike, Highland Heights, KY. 9:30 a.m. to 3:10 p.m. Features Dr. Bruce Bordelon on Canopy Management and Dr. John Hartman on Crown Gall and Disease Management. Register by calling 859/ 572-2600.

Dec. 11-16 Tennessee Fruit and Vegetable Conference, Airport Marriott, Nashville, TN. Contact Dave Lockwood 865/974-7421 or e-mail: dlockwood@utk.edu

Jan. 5-6, 2004 Kentucky Annual Fruit and Vegetable Conference and Trade Show, Holiday Inn North, Lexington, KY. Contact John Strang 859/257-5685. See program and registration information below.

Jan. 7-8 Southeastern Apple Growers Annual Meeting and Show, Great Smokies Holiday Inn Sunspree Resort, Asheville, NC. For additional information, contact Ms. Evelyn M. Hill, N.C. Apple Growers' Assoc. at 828/697-6377.

Jan. 7-8 Tennessee Viticultural and Oenological Society Annual Meeting, Knoxville, TN. For additional information, contact Dave Lockwood 865/974-7421 or e-mail: dlockwood@utk.edu

North American Farmers' Direct Marketing Assoc. (NAFDMA) Conference and Trade Show, Sheraton Grand Sacramento Hotel,



Sacramento, CA. For additional information, contact Marcia Touchette, NAFDMA, 413/529-2471, e-mail marcia@whiteloafridge.com or check their web site at www.nafdma.com

Fruit Crop Fall Check List

Summarized and modified from an article by Dr. Dave Lockwood, Extension Fruit Specialist, University of Tennessee, Fruit Notes, Oct. Dec, 2003, Vol. 18 No. 4

Fall is the time to pay attention to the following areas:

1. Leaf curl sprays. Late fall following leaf drop and when the trees are dormant is a good time to apply the leaf curl spray on peaches and nectarines. If bacterial spot was a problem this past year, the use of a copper fungicide is suggested as this will work in controlling both diseases

2. Use of rodenticides. Voles can cause considerable damage to fruit trees in late fall and winter when their preferred food sources become limiting. Monitor orchards and use zinc phosphide, the only material registered for use in Kentucky, if warranted. Zinc phosphide is an acute toxicant and it should be used only in accordance with label recommendations.

3. Weed control. It is getting a little late to use herbicides in our fruit plantings, but

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physically removing weeds from beneath the trees and fence rows is important in destroying cover for voles and rabbits and keeping populations down.

4. Painting tree trunks. Painting or spraying the trunks of young fruit trees with white latex paint in late fall may reduce chances for freeze injury (southwest trunk damage). Paint from the ground up to just past the junction of the lower scaffold limbs.

5. Covering graft unions on *vinifera* grapes and young French American hybrid vines. Soil should be mounded several inches over the graft union on all *vinifera* grapes and young French American hybrid vines to protect them from freeze injury in case we have a particularly cold winter. This is not necessary on vines that are not grafted or on older (three years or older) grafted French American vines. Care should be taken not to nick or injure the vines while performing this operation to avoid crown gall problems. If the soil is too rocky or difficult to mound up, sawdust, wood chips or some other organic material may be mounded around the plants instead.

6. Soil testing. Soil testing on a regular basis is valuable for keeping the soil pH in fruit plantings within the desired range.

7. Assessing the past year's crop. Details of things that may have worked (or didn't work), observations of areas in an orchard or vineyard that did not look quite right, weather conditions when the thinning spray was put on, the ground speed during application - these are just a few examples of things that become blurred over time in our minds with the passage of time. Don't run the risk of repeating mistakes or being unable to duplicate successes. Keep a record of what you did, how it worked, why you think it did or didn't work, areas in orchards that didn't perform up to expectations, etc. and keep the records in a safe place.

8. Winterizing and repairing equipment. Take time to make need repairs to equipment and winterize it properly so that it will be ready to go when needed.

9. Storing pesticides properly. Be sure that any pesticides you will be carrying over to next year are stored in a secure, locked area and under conditions that will preserve their effectiveness. Avoid damp or wet areas, extreme heat or cold and direct sunlight.

Season Summary and Fruit and Nut Crop Estimates, 2003

by John Strang, Joe Masabni, Terry Jones, Ric Bessin and John Hartman

The 2003 growing season in Kentucky provided mostly cooler than normal temperatures and above normal rainfall. January temperatures were below normal, but not cold enough to cause widespread cold injuries to fruit crops, though there was some injury. There was a severe ice storm in February in central Kentucky. Well pruned and cared for trees had minimal damage. Warm spring temperatures rapidly moved us through early floral developmental stages.

On April 7th and 23rd we experienced late spring freezes. The April 23rd freeze was by far the worst and central and northern Kentucky growers experienced various levels of damage. We lost quite a few peach and apple flowers as well as primary buds on grapes. No freeze damage was reported in western Kentucky.

This season produced the second wettest April - September on record and the second coolest June and July (26th coolest April - September).

Most growers reported fairly decent crops, however a few growers lost crops to the last late spring freeze and to hail storms. Harvest generally ran about a week earlier than normal.

Japanese beetle levels in the central and eastern portion of the state were low to moderate. In the western half of the state Japanese beetle numbers were low to high depending on the location. Green June beetle levels dropped somewhat from last years high levels for most growers, with a significantly lower number found in western Kentucky. Many orchards (peach and apple) experienced high levels of San Jose scale on trees. Esteem did an exceptional job in getting these levels under control.

Apples. Kentucky growers produced an apple crop that averaged about 70% of normal. However, this ranged from 100% for some growers to 10% for a few growers. Fruit color was generally less than desired despite cool late summer and fall temperatures, finish was generally fairly good and size was exceptional. Cork spot and bitter pit were present in orchards with lighter crops. Apple sales were generally good.

Rain and long periods of spring leaf wetness increased the occurrence of primary infections of apple scab (*Venturia inaequalis*) and cedar rust

(*Gymnosporangium juniperi-virginianae*, *G. clavipes*, and *G. globosum*). Spring rains also favored apple frogeye leaf spot (*Sphaeropsis malorum*). Due to relatively cool weather during bloom, fire blight (*Erwinia amylovora*) levels were reduced, but still present. Summer wetness favored apple sooty blotch (*Peltaster fructicola*, *Geastrumia polystigmatis*, *Leptodontium elatius*, and other fungi) and flyspeck (*Zygophiala jamaicensis*), all of which are enhanced by long leaf wetness periods.

Imidan and Guthion resistant codling moths were found in far western Kentucky this season. Oriental fruit moth is a serious problem in some central Kentucky orchards, particularly where Imidan and Guthion are relied upon for codling moth control. European red mite levels were again low in Kentucky

Stone Fruit. The peach crop was estimated to be about 90% of normal and quality was excellent. Seasonlong rains, especially those in late spring, favored peach scab (*Cladosporium carpophilum*) and brown rot (*Monilinia fructicola*). Peach rusty spot (powdery mildew, *Sphaerotheca pannosa*, *Podo sphaera clandestina*, or *P. tridactyla*) was also observed. Cherry leaf spot (*Coccomyces hiemalis*) and plum black knot (*Apiosporina morbosum*) occurred widely.

San Jose scale is a serious problem in some orchards, with substantial limb and tree losses. Esteem has greatly reduced the levels of scale.

Pears. The European pear crop was about 80% of normal and Asian pears were about 70% of a normal crop. Stink bugs continue to be a problem in Asian pears.

Strawberries. The strawberry crop was estimated to be about 75% of normal due to the spring freeze and rain during harvest. Fruit sugar content was excellent despite the rain. Strawberry foliar diseases including leaf spot (*Mycosphaerella fragariae*) and leaf blight (*Phomopsis obscurans*) were common. Botrytis and anthracnose fruit rots (*Botrytis cinerea*, *Colletotricum acutatum*) were also observed.

Brambles. The thorny and thornless blackberry crops were 90 and 100% of normal respectively. Raspberries produced a full crop.

Anthracnose (*Elsinoe veneta*) was widespread on raspberry and black raspberry canes. Systemic orange rust (*Gymnoconia nitens*) and blackberry rosette (*Cercospora rubi*) were frequently observed. Phytophthora root rot (*Phytophthora* sp.) and Sphaerulina leaf spot (*Sphaerulina rubi*) of raspberry could be attributed to the added wetness of the season.

Grapes. The grape crop was smaller than expected for many growers, estimated at 45% of normal and ranged from 0 to 100% of normal. The late spring freeze eliminated many primary buds and some growers had fruit from primary and secondary buds on the same vines. Many new growers lost substantial

portions or their entire crops to disease caused by inadequate spray schedules.

Grape crown gall (*Agrobacterium tumefaciens*) continues to be a very serious problem for growers. Wet spring weather favored black rot (*Guignardia bidwellii*), anthracnose (*Elsinoe ampelina*), and Phomopsis cane and leaf spot (*Phomopsis viticola*). These diseases continued to build throughout the summer. Grape powdery mildew (*Uncinula necator*) was observed and downy mildew (*Plasmopara viticola*) was severe, especially late in the season. No new cases of Pierce's disease (*Xylella fastidiosa*) were found.

Birds, wild turkeys, deer and Green June beetles were a serious problem for some growers. Grape root borer appears to be on the increase as many of the new grape plantings begin to reach maturity.

A few growers reported aerial roots growing at the nodes of some varieties. This has been attributed to the higher than normal rainfall and wetness.

Blueberries. Blueberries produced a full crop this season. Bird problems were normal. Wet weather favored Phytophthora root rot (*Phytophthora* spp.).

Nuts. Chestnuts and black walnuts produced full crops this season. The other nut crops suffered from both the late spring frosts and wet weather during bloom that inhibited nut set and retention.

2003 Percentage of Normal Full Crop for KY

Fruit Type	Percent of Full Crop	Range(%)
Tree Fruit		
Apples	70	10 - 100
Pawpaws	70	10-100
Peaches	90	50 - 100
Pears, Asian	70	40 - 100
Pears, European	80	50 - 100
Plums, European	80	70-100
Plums, Japanese	20	
Small Fruit		
Blackberries, thorny	90	90-100
Blackberries, thornless	100	
Blueberries	100	
Grapes	45	0 - 100
Raspberries, fall	100	
Raspberries, spring	100	
Strawberries	75	
Nuts		
Chestnuts	100	90-100
Heartnuts	50	
Hickory, Shagbark	50	
Hickory, Shellbark	50	
Hicans	0	
Pecans	50	5-75
Walnuts, Black	100	
Walnuts, Persian	25	

2004 Kentucky Fruit and Vegetable Conference and Trade Show

JANUARY 5-6, 2004

Holiday Inn North, 1950 Newtown Pike, Lexington, Kentucky 40511
(859) 233-0512 FAX (859) 253-1505

148th Annual Meeting Kentucky State Horticultural Society and 33rd Annual Meeting Kentucky Vegetable Growers Association and Kentucky Grape and Wine Short Course

All Times are Eastern Standard Time

SUNDAY EVENING, JANUARY 4

7:00-10:00 p.m. Exhibitor Set-up, Lobby

MONDAY, JANUARY 5

8:00 a.m. Registration - lobby

8:00 a.m. Exhibits Open, Lobby

8:00 a.m. Coffee, Lobby

8:30 a.m. Registration, Lobby in front of Preakness Room

\$25.00 Meeting registration includes one-year membership in either the Kentucky Vegetable Growers Association or Kentucky State Horticultural Society. Please see the registration form for the Kentucky Vineyard Society and the organic farming and gardening sessions registration.

(1) KSHS - KVGA JOINT SESSION

Belmont and Preakness Rooms

John Bell, Presiding

8:50 a.m. **Welcome** - Coleman Mathis

9:00 a.m. **Horticulture Council Update**
- Dewayne Ingram and John Strang

9:30 a.m. **Kentucky Department of Agriculture Produce Marketing Update**
- Jim Mansfield

10:00 a.m. **Combining Genetic Resistance and Pesticide Management to Control Early and Late Blight in Tomato**
- Randy Gardner

10:30 a.m. Cider/Coffee Break and Visit
Exhibits - Lobby

11:00 a.m. **The Promise of Farmers' Markets in Building Community**
- Vance Corum

11:30 a.m. **Save The Farm Through Agri-Tourism**
- Andre Broussau

12:00 noon **EXHIBITORS AND GROWERS LUNCHEON** - Holidome
Comments - Dewayne Ingram
(Deli Buffet, Soup du Jour, salads, cold meats and cheese, brownies, and a beverage)

12:00 noon. **BOARD MEETINGS** - Holidome
Kentucky State Horticultural Society
Kentucky Vegetable Growers Association

12:00 noon **KENTUCKY HONEYBEE POLLINATION ASSOCIATION** - Claiborne Room

MONDAY AFTERNOON - JANUARY 5 - CONCURRENT SESSIONS

Concurrent sessions will enable participants to attend topics of interest in different sessions.

	(2) COMMERCIAL TREE FRUIT PRODUCTION <i>Belmont Room</i> Chris Lindon, Presiding	(3) GREENHOUSES <i>Derby Room</i> Bob Anderson, Presiding	(4) VEGETABLE PRODUCTION <i>Preakness Room</i> Ron Thomas, Presiding	(5) FARMERS' MARKETS <i>Man-O-War & Secretariat and Thoroughbred Rooms</i> Janet Eaton, Presiding
1:30 p.m.	Pesticide Update – Ric Bessin and John Hartman	Planning and Operating Small Greenhouses – Bob Anderson	New Tomato Varieites – Randy Gardner	Farmers Markets – A Rural Response to Create Healthy People With a Healthy Economy – Carole Rison, Peggy Powell, Nellie Buchanan, Martha Perkins, and Kim Cox
2:00 p.m.	Apple Nutrition – John Strang	Transplant Production – Bob Anderson	Honeybees for Pollination – Rob Mountain and Kent Williams	Understanding and Using the Media for Farmers' Promotion – Haven Miller and Roger Snell
2:30-3:10	Cider/Coffee Break and Visit Exhibits – Lobby			
3:10 p.m.	2004 – Year of the Periodical Cicada – Ric Bessin	Organic Fertilizers for Transplants – Bob Anderson and Robert Murray	Tennessee Pumpkin Variety and Herbicide Trials – Alan Straw	Developing the Right Vendor- Customer Balance – Vance Corum
3:40 p.m.	Honeybees for Pollination – Rob Mountain and Kent Williams		Overwatering, Underwatering, and Fertigation Basics – Terry Jones	New Ideas and Successes for Community Farmers' Markets – John Wilhoit, Don and Wanda Grayson
4:10 p.m.	KSHS Annual Business Meeting		Grower Vegetable Demonstration Plot Results – Shane Bogle, Nathan Howard, Nathan Howell and Dave Spalding	Creating a Statewide Farmers' Market Association – John Wilhoit and Vance Corum (This session will be immediately followed by a preliminary meeting in the Belmont Room for those interested in forming a Kentucky Association.)
4:40 p.m.			KVGA Annual Business Meeting	

MONDAY EVENING, JANUARY 5

5:15 p.m. **Exhibits Close**

5:15 p.m. **WINE TASTING Featuring Commercial Kentucky Products**

– Man-O-War, Secretariat and Thoroughbred Rooms

Sponsored by the KVS, (Bravard Vineyards & Winery, Broad Run Vineyards & Winery, Chateau du Vieux Corbeau, Chrisman Mill Vineyard, Equus Run Vineyards, In Town Winery, LLC, Lovers Leap Vineyards & Winery, SpringHill Vineyards & Winery.

The cost is \$5.00 for the tasting.)

6:15 p.m. **BANQUET**, Derby Room

Tickets: \$20.00 **in advance** including tax and tip

Speaker: Dr. Ernest M. Tucker – **Take a Feather from a Ground Hog: Eastern Kentucky Folk Medicine.**

(This program was funded in part by the Kentucky Humanities Council and the National Endowment for the Humanities.)

Menu: roast top sirloin of beef served in its natural juices, scalloped potatoes, green beans, garden fresh salad, rolls & butter, dessert and a beverage

8:30 p.m. **KENTUCKY VINEYARD SOCIETY BOARD MEETING** – Claiborne Room

TUESDAY MORNING, JANUARY 6

Concurrent sessions will enable participants to attend topics of interest in different sessions

8:00 a.m. **Exhibits Open, Lobby**

8:30 a.m. **Registration** – Lobby in front of Preakness Room

	(6) TREE FRUIT IPM <i>Belmont Room</i>	(7) CUT STEM PRODUCTION AND VALUE ADDED PROCESSING <i>Derby Room</i>	(8) VEGETABLE PRODUCTION <i>Preakness Room</i>	(9) GRAPE & WINE SHORT COURSE <i>Man-O-War, Secretariat & Thoroughbred Rooms</i>
	John Sparks, Presiding	Patti Meads, Presiding	Brett Reese, Presiding	Leonard Olson, Presiding
8:30 a.m.	Implementation and Evaluation of Reduced Risk IPM Programs – Jim Walgenbach	Update on Stem Research – Sharon Bale and Todd Leeson	Weed Control in Peppers and Sweet Corn – Joe Masabni	Registration – Lobby in front of Preakness Room Visit Exhibits Lobby
8:55 a.m.				Greetings – Len Olson

	(6) TREE FRUIT IPM <i>Belmont Room</i> John Sparks, Presiding	(7) CUT STEM PRODUCTION AND VALUE ADDED PROCESSING <i>Derby Room</i> Patti Meads, Presiding	(8) VEGETABLE PRODUCTION <i>Preakness Room</i> Brett Reese, Presiding	(9) GRAPE & WINE SHORT COURSE <i>Man-O-War, Secretariat & Thoroughbred Rooms</i> Leonard Olson, Presiding
9:00 a.m.	Pheromone Trapping – Rick Bessin	Status of Kentucky Cut Stem Association – Patti Meads	Vegetable Cultivar Trials Results – Terry Jones, April Satanek, and John Strang Watermelons Specialty Melons Sweet Corn Cucumbers Staked Tomatoes Potatoes Summer Squash Pumpkins Cantaloupes	Disease Control for 2004 – John Hartman
9:30 a.m.	Options for Managing Codling Moth and Oriental Fruit Moth – Jim Walgenbach	Food Safety, Certified Kitchens and On-Farm Microprocessing – Sandra Bastin		Frost Control in Grapes – Ed Hellman
10:00-10:40	Cider/Coffee Break and Visit Exhibits – Lobby			
10:40 a.m.	Weed Control Trials with Chateau – Joe Masabni	The Importance and Need for Value Added Creativity – Billy Adkins	High Tunnel Research – Amanda Ferguson	Grape Root Borer Control Studies – Dave Lockwood
11:10 a.m.	Apple IPM Program – Roundtable Discussion – John Strang, Joe Masabni and Ric Bessin	Value Added and Labeling – Ann Hall Norris and Sandra Bastin	Sweet Corn Variety and Herbicide Trials – Alan Straw	Canopy and Crop Management – Ed Hellman
11:40 a.m.	LUNCH ON YOUR OWN and Visit Exhibits			

TUESDAY AFTERNOON, JANUARY 6

Concurrent sessions will enable participants to attend topics of interest in different sessions.

	(10) SMALL FRUIT PRODUCTION & MARKETING <i>Belmont Room</i> Mike Pyles, Presiding	(11) COOPERATIVE MARKETING <i>Derby Room</i> Amanda Ferguson, Presiding	(12) ORGANIC FARMING AND GARDENING <i>Preakness Room</i> Chris Kring, Presiding	(13) GRAPE & WINE SHORT COURSE (continued) <i>Man-O-War, Secretariat & Thoroughbred Rooms</i> Leonard Olson, Presiding
1:30 p.m.	Blueberry Mulching Studies in Tennessee – Dave Lockwood	Vegetable Marketing Cooperative 2003 Season Results for the Central Kentucky Growers Assn., Cumberland Farm Products, Green River Produce Marketing Assn., and Western Kentucky Growers Assn. (Panel discussion) – Larry Snell, Moderator	Biological Control of European Corn Borer in Peppers – Karen Friley, Brent Rowell, Ric Bessin, Tony Silvermail, John Bell, Mac Stone, and Sean Clark	Grape Flowering and Fruiting Physiology – Ed Hellman
2:00 p.m.	Blueberry Variety and Raised Bed Annual Strawberry Trial Results – Charles (Ty) Back, Dwight Wolfe, and John Strang		Processing and Handling Organic Products – Maria Rudder	KGWC Update and Kentucky Winery Survey Results – Belita Adams Reed and Chris Smigell
2:15 p.m.			Pierce's Disease Research – Nicki Mundell	
2:30-3:10 p.m.	Cider/Coffee Break and Visit Exhibits– Lobby			
3:10 p.m.	Blueberry & Blackberry Marketing Opportunities – Matt Ernst and Tim Woods	Panel discussion continued.	Organic Research at the UK Horticultural Research Farm – Derek Law	Grape Grower Problems Encountered in 2003 and Implemented/Proposed Agricultural Development Board Funded Research – John Strang and Dennis Walter
3:40 p.m.	Antioxidants in Blackberries and Blueberries and Training System Trial Results – Matt Fulkerson and John Strang		The Kentucky Program and The Certification Process – Chris Kring	The Art of Wine Blending With French Hybrids (Panel Discussion) – Butch Meyer, Ben O'Daniel, Leonard Olson, and Chris Nelson
4:10 p.m.				Agri-Tourism, Tasting Rooms, Wine Trails, etc., – Andre Brousseau

