

Kentucky Fruit Facts

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

February 2003 (2/03)

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

Upcoming Meetings

Feb. 18 LaRue County Apple and Peach Pruning Demonstration, Buffalo, KY, 1:00 p.m. Contact David Harrison 270/358-3401.

Feb. 20 Laurel and Clay County Pruning and Grafting Workshop, London. Contact Glenn Williams 606/864-4167 or Jeff Casada 606/598-2789.

Feb. 24 Blackberry Production, Frenchburg, KY. Menifee County Extension Office. 7:00 p.m. Contact David Cooper 606/768-3866

Feb. 24-26 Heartland Wine School, Commercial winemaking - from bulk to bottle. Oliver Winery, Bloomington, IN. Sponsored by the Heartland Grape and Wine Coalition, (Purdue, Ohio State and Michigan State Universities). Contact Jill Blume, Dept. of Food Science, 745 Agricultural Mall Drive, Purdue University, West Lafayette, IN 47907-2009. E-mail blume@foodsci.purdue.edu

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Feb. 26 Blueberry Production Workshop, Metcalfe County Extension Office, Edmonton, KY. Contact Darrell Burks 270/432-3561. See program and directions in the January Fruit Facts issue.

Feb. 27 Apple Pruning and Grafting Demonstration, The Economics of Commercial Apple Production, Blackberry and Blueberry Production, Perry County, joint Perry and Letcher County meeting. Contact Charles May 606/436-2044 or Shad Baker 606/633-2362.

Feb. 27-28 Kentucky Women in Agriculture Cultivating Dreams, Harvesting Profits, 4th State Conference, Includes roundtable discussions on grape and blueberry production, bees and honey, managing groups at roadside markets, as well as talks on marketing, diversification, value added production and much more, Embassy Suites Hotel, Lexington, KY. For program and registration details go to www.kywomeninag.com or contact Kim Henkin 859/257-7775.

Feb. 28 Northern Piedmont Specialty Crops School, Southern Livestock Center, 1.5 miles south of the I-85 and US 15 interchange on US 15 South, Oxford, NC. Contact Carl Cantaluppi 919/603-1350 or carl.cantaluppi@ncsu.edu

Mar. 4-5 Small Fruit and Strawberry School, Mt. Vernon Holiday Inn, Mt. Vernon, IL. Registration \$20.00 per farm. Contact Bronwyn Aly 618/695-2444 E-mail: baly@uiuc.edu

Mar. 13 Bell County Fruit Tree Pruning Demonstration, Bob Sizemore's orchard, Pineville, KY. 10:00 a.m. Contact Stacy White 606/337-2376.

Mar. 13 Small Orchard Management, Harlan County Extension Office, 519 S. Main, Harlan, KY. 6:30 p.m. Contact Jeremy Williams 606/573-4464.

Mar. 15 Small Fruit Production Roundtable Discussions, Farm To Table Conference, St. Catherine College, Bardstown, KY. Contact Robert Smith 502/348-9204.

Mar. 15 Lawrence County Grapevine Pruning Demonstration, Queensland Vineyard, Louisa, KY. Contact John Sparks 606/638-9495 or Connie Queen 606/686-2235.

Mar. 18 Campbell County Grape Pruning Demonstration, Highland Heights, KY. Contact David Koester 859/572-2600.

Mar. 21 National Organic Agriculture Standards Satellite Broadcast, Washington State University and Washington State Department of Agriculture. 8:00 a.m. to 10:00 a.m. EST. For program details and registration information, go to: <http://ext.wsu.edu/noas/>

Mar. 22 Kentucky Vineyard Society Grapevine Integrated Pest Management and Pruning Workshop, Old Crow Inn, Chateau Vieux du Corbeau Vineyard, Danville, KY. Contact John Strang 859/257-5685

Mar. 25 Opportunities in Commercial Fruit Production, Bath County, Owingsville, KY. 7:00 p.m. Contact Gary Hamilton 606/674-6121.

Mar. 29 Kentucky Vineyard Society Grapevine Pruning Workshop, Princeton Research and Education Center, Princeton, KY. 1:00 p.m. CST. Contact Joe Masabni 270/365-7541, E-mail: jmasabni@uky.edu

Apr. 16 Commercial Apple IPM Meeting, The Bramble Ridge Orchard, 2726 Osborne Rd., Mt. Sterling, KY. Contact John Strang

Apr. 24 Fruit Tree Budding and Grafting Workshop, Boone County Extension Office, Burlington, KY 7:00-8:30 p.m. Contact Mike Klahr 859/586-6101.

Apr. 26 Kentucky Nut Growers' Association Spring Meeting, Hardin County Extension office, Elizabethtown, KY. Contact Hugh Ligon 270/827-9044.

Jun. 10 Commercial Apple IPM Meeting, Reid's Orchard, Owensboro, KY

Jun. 20 Grape Field Day, Queensland Vineyard, Louisa, KY. Contact John Sparks 606/638-9495 OR Connie Queen 606/686-2235.

Jul. 15 Commercial Apple IPM Meeting, Princeton Research and Education Center, Princeton, KY. Contact Joe Masabni 270/365-7541 ext. 247

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

How Cold Did it Get and What Does It Mean for Fruit Growers?

By John Strang, Extension Horticulturist

The morning of January 27th was a cold one in some parts of Kentucky. Temperatures appear to have been the coldest in central and north central Kentucky. I collected some unofficial grower and County Extension and Natural Resource agent low temperature records. These are listed in the following chart by the counties, which are grouped regionally. Of course these temperatures varied across the counties and the coldest temperatures were found at lower elevations.

The big question is, "Did these temperatures cause any damage?" On the plus side, our weather has stayed relatively cold since fruit crop chilling requirements were satisfied. Thus, our fruit crops were at their hardiest levels for the winter. However, in some areas temperatures dropped below the critical temperatures for flower and wood survival on several crops as shown in the following table.

If the temperatures reached -9 to -10°F, expect to have lost the floricanes or the canes that should produce fruit in the coming year on thornless blackberries. It is very difficult to look at these canes and determine that they are injured prior to bud break. Injured canes will have a drier pith and in some cases the

epidermis will wrinkle as the canes dry out. These can be cut out during pruning and the 2003 crop will be lost. Go a little easy on applying fertilizer to injured plants as they will not be producing fruit and a little extra fertilizer will produce substantial growth in the coming season.

Low Temperatures Reported for Kentucky Counties on the Morning of Jan 27, 2003

| County | Temperature (°F) |
|------------|------------------|
| Fleming | -17 |
| Nicholas | -14 |
| Bourbon | -15 |
| Scott | -10 to -15 |
| Fayette | -7 |
| Campbell | -11 |
| Bracken | -9 |
| Henry | -9++ |
| Trimble | -6 |
| Washington | -4 to -8 |

If the temperature reached -8°F or lower there could be damage to the trunk and canes of European or *vinifera* grapes. Beneath the bark, injured trunks and canes will have a tan to brownish color. Hopefully the graft unions on

Fruit Mid Winter Hardiness Levels

| Crop | Critical Temperatures for Injury (°F) |
|---------------------|---------------------------------------|
| Apple | -30 to -35 |
| Pear | -15 |
| Plum, American | -20 to -30 |
| Japanese & European | -15 flrs. |
| Cherry, Tart | -20 to -30 flrs., -30 wood |
| Sweet | -15 flrs. |
| Peach | -15 flrs., -20 wood |
| Grape, Concord | -20 |
| European | -8 to -14 |
| Raspberry, Red | -25 |
| Black | -20 |
| Purple | -15 |
| Blackberry, Thorny | -10 to -15 or 20 |
| Thornless | -5 to -10 |
| Blueberry | -20 to -35 |

these vines were covered to avoid injury. Assess bud survival before pruning so that increased bud numbers can be left to compensate for bud losses. Watch for crown gall development.

In the colder areas peach flower buds have been lost, particularly on less hardy varieties. Wait until late in the season to prune trees that have lost substantial numbers of flower buds and prune these lightly.

Kentucky Grape and Wine Council (KGWC) Formed

By John Strang, Extension Horticulturist

On January 8, 2003 Governor Paul Patton officially appointed nine individuals to the Kentucky Grape and Wine Council to terms that expire January 1, 2007. As a result the Grape Industry Advisory Board (GIAC) has been disbanded. Council members and their affiliations are as follows.

Representing grape producers

Belita Adams, Vanceburg KY
Dave Loney, Mays Lick. KY

Representing winery operators

Cynthia Bohn, Lexington, KY
Andre Brousseau III, Danville, KY
Leonard Olson, Regis Park, KY

Representing citizens at large

Traci Badenhausen, Louisville, KY
Mary McKee, Lexington, KY

Representing the Kentucky Tourism Development Cabinet

Cheryl Cook, Pembroke, KY

Representing the University of Kentucky

John Strang, Lexington, KY

Belita Adam has been elected President of the council. Gerald Dotson represents the Division of Market Research, Kentucky Department of Agriculture on the council. Grant funds will be handled through Gerald's office and his secretary handles meeting minutes. The first meetings of the KGWC were held on January 29 and February 6th and a third is scheduled for February 19th.

The first order of business is to revise the GIAC proposal that was written and submitted to the Agriculture Development Board for grape

industry funding. The original proposal was tabled by the Agricultural Development Board in order to conduct the MKF survey of the Kentucky grape industry. This study indicated the Kentucky was over planted in grapes for the existing wineries and wine making capacity. Consequently, the Agriculture Development Board made the decision that the cost share program for grapes would not be refunded. The next meeting of the Agriculture Development Board to review proposals is scheduled for mid-March and the Council is actively working to complete the proposal for this meeting.

Dr. Lewis Donohew, Emeritus Professor of Sociology and Montgomery county grape grower with considerable grant writing experience has signed on to help us with the proposal. Proposal plans are to hire a full time Extension viticulturist, a full time enologist, provide a marketing budget to develop festivals, wine trails and brochures and to provide funding for grape research.

How to Avoid Herbicide Resistance?

By Joseph G. Masabni
UK Research & Education Center, Princeton KY

As a weed control specialist, I often hear, "Dr. Joe, I can't seem to control this weed anymore? What's going on?"

There are many reasons why herbicides fail to give excellent weed control. Improper rate calculation, improper application, rain immediately after application that washes out the herbicide, or a dry spell that fails to activate soil applied herbicides. However, the worst reason for herbicides to fail is acquired herbicide resistance in weeds.

The first incident of herbicide resistance was noted in 1952 with wild carrot failing to respond to 2,4-D. Today, 265 weeds are proven resistant to all known herbicide families. Complete and detailed coverage of the subject of herbicide resistance can be found at <http://www.weedscience.org/in.asp>.

Still, simple strategies are at our disposal to delay if not avoid the build up of herbicide-resistant weeds in any agricultural production system. It is important to keep the following

weed control strategies in mind when planning your spray program.

First is crop rotation. With crop rotation, you are not allowing weeds to become established in crops that belong to the same plant family such as black nightshade in tomato, or of similar growth habit such as Johnsongrass in sweet corn. This does not have much application for fruit growers, but it is a handy tool for vegetable growers. Home gardeners and small scale vegetable growers should still use crop rotation even in a limited area set aside for their vegetables. They should rotate where one vegetable is planted from year to year in the same plot of land, thus meeting the requirement of not allowing weeds to get established through crop rotation.

Second is herbicide rotation. Even if you have an herbicide that works for you and controls 100% of all your target weeds, it is still a good idea to change to another herbicide with a different mode of action that still gets the job done. This is necessary to avoid herbicide resistance specific to one herbicide mode of action. For example, Select, Poast, and Fusilade are all grass killers with the same mode of action. They inhibit the enzyme ACCase, a necessary step in the synthesis of fatty acids. A rotation from one of these three herbicides to another is not really a rotation, since you are still using the same mode of action with all three. You are changing a trade name, but you are still using the same mechanism of weed control. A true rotation, for example, is from Solicam to Casoron. Both herbicides are soil-applied and are used preemergence for the control of broadleaf weeds and grasses. However, their modes of action are very different. Solicam acts by inhibiting carotenoid biosynthesis in the photosynthetic process, while Casoron acts mainly by inhibiting cell wall synthesis, even though its exact mode of action is not well defined.

Another form of herbicide rotation involves application timing or a rotation between preemergence and postemergence herbicides. Many fruit growers rely on preemergence herbicides (Surflan, Princep) followed by a non-selective postemergence herbicide (Roundup) later in the season as a follow-up to control weed escapes. If this is the only weed control

strategy followed year after year, you should expect herbicide resistance build up. As proof of this, resistant weeds already exist for all three herbicides named above. A better form of rotation in an orchard is to rely on preemergence herbicides for your weed control in one year, then rely on postemergence non-selective herbicides in another year. For example, use Devrinol or Surflan as preemergence weed control in the spring, followed by Roundup later in the season to control weed escapes in one year. In another year, use Princep in the spring, Roundup for weed escapes later in the season, and Kerb in the fall.

Third is rotation of control methods. Herbicides are not the only solution for weed control. Growers should not neglect to remove weed escapes manually or mechanically with tine tillers for vegetables or shallow cultivators under fruit trees. This has a two-fold benefit, you reduce the weed seed bank for next year and you remove a potential weed that may have survived an herbicide application.

Remember that herbicides are a great tool at our disposal in the constant struggle for weed control. Still, herbicides should not be thought of as the only tool for all our weed problems.

The Illinois Grape Industry

By Dr. Imed Dami, Viticulture Specialist (SIUC/UIIC), Excerpted from the Vignoble Illinois newsletter, Fall 2002

The major varieties planted in Illinois comprise 80% of the total acreage and include Chardone, Vignoles, Traminette and Seyval for the whites; Chambourcin, Norton, and Foch for the reds. Other varieties being planted in northern Illinois include Frontenac, Leon Millot, and St. Croix. *Vinifera* acreage is very limited (less than 10 acres), but testing of some varieties especially Cabernet Franc is underway on the best sites in southern Illinois.

In 2002, acreage and production are increased by 25% and 40% respectively as compared to 2001. Since the inception of the Illinois Grape and Wine Resources Council in 1997, the Grape and wine industry in Illinois has witnessed a remarkable expansion: 5-fold increase in grape acreage, 4.5-fold increase in

commercial vineyards, 8-fold increase in grape production, 10-fold increase in wine production, and 2.5-fold increase in wineries. In 2002, there were over 200 vineyards (half in production) totaling 800 acres and producing 800 tons and 30 wineries producing about 300,000 gallons of wine. Five new wineries opened in 2002.

Illinois is witnessing one of the fastest growing grape and wine industries in the country. In July 2002, leaders of the Illinois Grape Growers and Vintners Association in collaboration with the State Viticulturist submitted a petition to BATF for the first AVA in the state. Therefore, the outlook for the industry is very promising as the momentum of the wine craze continues to grow with 8-10 new wineries opening in 2003.

Random Checks of Private Applicator Pesticide Records and WPS Compliance

From January Pest News Alert, UK

Inspectors from the Ag Branch of the Kentucky Division of Pesticide Regulation will check the pesticide records and Worker Protection Standards compliance of approximately 200 randomly-selected private applicators this winter. Farmers will receive and advance written notice. During the visit, the inspector will provide the farmer with information on record keeping requirements, review pesticide application records, and provide compliance assistance, if needed. This is a national program to see how well private applicators are complying with the law. Individual farmers names or certification numbers will not appear on the inspection sheets. Identity and results of individual inspections will remain confidential.

Keeping pesticide records is good business practice and has numerous benefits! Here are a few examples: Saves money - Accurate pesticide records will enable you to know and buy the correct amount of pesticides for each growing season. Shows what is working - Good records will help you determine how a pesticide application achieved the best results or why a pesticide may have performed poorly and prevent future repeated failures.

Documents correct use - Should a question arise concerning pesticide use, your records may provide liability protection. Improves management decisions - Since some pesticides have restrictions on what can be planted the following year in the same field, good records can help you plan your crop rotations.

Surflan Herbicide Available Under New Name

By Chris Smigell, Extension Associate, University of Kentucky

Surflan has been a popular preemergent herbicide for small fruit growers. This material provides 6 to 12 months of annual grass and broadleaf weed control, with a single application, depending on the application rate. For the last two years, a series of production problems has kept Surflan off the market. This material is again available under the name Oryzalin 4 AS, which has a relatively low mammalian toxicity. It has the same active ingredient as Surflan and both products contain 4 pounds of active ingredient per gallon. Oryzalin 4 AS should have a Kentucky label by the first part of March.

Receiving The Fruit Facts Newsletter Electronically on the Internet

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John Strang
Extension Horticulture Specialist