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Crop Conditions

FFF 97-01
March 12, 1997

The 1996-97 winter was about normal for temperatures and precipitation across most of the state. Minimum temperature for the season occurred in mid January. Lows of -14F were recorded at West Lafayette, but southern Indiana had much warmer temperatures, only slightly below 0F. These temperatures, however, were low enough to kill peach buds in some areas. It is too early to be sure if there will be a peach crop, however, and growers should keep a good watch as buds begin to swell over the next few weeks. If recent warm spells continue, growers could see early budbreak and increased risk of frost injury. Apples, pears, and blueberries appear to be in good condition. Tender varieties of grapes were injured in some areas, but more hardy types made it through the winter in good shape. Raspberries appear to have suffered winter injury in many areas. The warm January thaws are likely to blame, as raspberries have low chilling requirements and respond quickly to warming temperatures, losing cold hardiness and beginning growth. Fruit crops such as apples, pears, and blueberries should have the potential for a good crop this year where a small crop occurred during 1996.

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New Pomologist: A new staff member joined the Purdue Fruit Team in January. Dr. Peter Hirst joined the Department of Horticulture as an Assistant Professor of Pomology Extension and Research January 1, 1997. Peter brings over 10 years of experience in Pomology to our program, with emphasis on apple production. He received his Ph.D. from the Ohio State University, where he worked under the direction of Dr. Dave Ferree on the influence of rootstock on spur formation and development. Peter is native to New Zealand where he was previously a research scientist with Hort Research. Peter will be attending the regional fruit meetings and visiting growers throughout the state. He was recently presented with the book "How to Talk Hoosier" so he should be speaking our language soon. Give him a call to welcome him to Indiana!

1996 Spray Guides: The revised 1997 Tree Fruit (ID-168) and Small Fruit and Grape (ID-169) Spray Guides are now available. The new issues contain the latest pesticide label information available at printing time but, as always, you should read and follow the label directions. Several changes have occurred this year and all commercial growers should have a copy of this year's versions. The spray guides will be available at the regional meetings, through your local Cooperative Extension office, or directly from Agricultural Communication Service, Media Distribution Center, 301 South 2nd Street, Lafayette, IN 47905-1092. (765) 494-6794.

Cider Producer Mailing List: We recently sent out a letter to help us develop and update a separate mailing list of cider producers in the state. Thanks to everyone who has sent the card back in to us. If you are a cider producer and did not receive this mailing, please call Peter Hirst (765-494-1323) to have your name added to the list.

What's Happening With Cider? The short answer is "Not much" - yet! The deadline for comments to FDA regarding whether changes are needed in federal regulations governing cider safety was Feb. 3. The U.S. Apple Association submitted comments informing the FDA of industry initiatives, and providing data on cider producers, based on a recent survey. Thanks to growers who also made submissions.

The Fresh Produce Subcommittee (FPS) of the National Advisory Committee on Microbiological Criteria for foods made the following recommendations to the FDA:

- "performance standards" be established for juice - it would then be up to processors to figure out how to ensure that their product meets the standard(s)
- juice manufacturers be required to implement HACCP (Hazard Analysis Critical Control Points, a defined planning process

and management system for preventing a product from becoming contaminated in the first place)

- that GMP's are needed before HACCP can be implemented, governing production, harvest and handling of juice commodities as well as processing, packaging and distribution of juice products

They did not recommend pasteurization. It is expected that these recommendations will carry quite a bit of weight.

The date at which we can expect to hear something from the FDA seems to be a moving target, but they are now "estimating early summer, perhaps as early as May". Once they come out with a proposal the public will get a chance to comment, usually 60-90 days. Therefore it seems pretty unlikely that a final rule will be in place before the coming growing season.

Whatever happens, it's probably going to mean changes to cider producers. In the next issue of Facts for Fancy Fruit, we'll look at some of the factors to ensure sanitation and safety of your cider operation.

1996 U.S. Apple Crop Estimate: The USDA has revised it's estimate of the 1996 US apple crop. Last years crop is estimated to be 248.4 million bushels, 1% lower than in 1995 and 2% lower than the five-year average. Washington state accounted for just over half the nation's apple production at 131 million bushels.

Grafting Wood: If you need apple or pear grafting wood for new trees or for repairing mouse or rabbit damage, now is the time to collect it. Trees are still dormant, but the time remaining for collecting good scion wood is short. Remember that scion wood should be stored at 32F and wrapped in moist cloth and plastic film. Do not store with apples.

Fertilizing Fruit Trees:

Apples: Nitrogen fertilizers for trees should be applied by about six weeks ahead of bloom, or by mid-March in most of the state. Use your best judgment of the amount to apply based on the cropping history of the planting and the amount of shoot growth (12-18 inches of terminal growth is adequate for mature trees). If growth has been strong and foliage heavy, then nitrogen rates should be reduced this year. Severely pruned trees should not be heavily fertilized with nitrogen, since excessive vegetative growth will be produced. Calcium sprays for bitter pit control should be a standard practice beginning at petal fall or first cover since a high quality crop of fruit is most important.

Peaches: Nitrogen fertilizer should be split into two applications, depending on the potential for a crop this year. The first should go on from now to mid-March and the second after a good fruit set is assured. Where there is no crop, then that second application can be omitted and excess growth should be largely avoided. On peaches an annual application of nitrogen is needed to provide good terminal growth, since peach buds are produced laterally on last years terminal growth only. Use your experience with tree growth and yield to establish the rate of nitrogen application. As a beginning guide, about 1/2 pound of actual nitrogen per tree is about right in most cases, with heavier amounts being required on lighter soils. Michigan studies indicate that peach tree growth is roughly proportional to the weed free area under the tree, so weed control is very important relative to fertilization. At Vincennes, where it was necessary to maintain a completely sodded ground cover to avoid erosion, we have found that the usual level of nitrogen was not adequate to sustain good growth and heavy yield. Under these conditions the rate should probably be doubled. Additional potassium may be needed where soils are sandy, or where cropping has been heavy. Except in very unusual cases we do not see a response to phosphorus applications to either peaches or apples.

Herbicides for Fruit Crops: Spring is the time to control weeds in fruit plantings. A typical weed control program includes pre- and post-emergence herbicides. If the weed-free strip is relatively clean, pre-emergence herbicides applied before weed seeds germinate will eliminate the need for addition of a post-emergence material such as glyphosate, paraquat, or glufosinate. See the 1997 ID 168 or ID 169 for suggestions of materials, rates and timing. Careful calibration of sprayers is necessary to get maximum benefits from the herbicide spray program. Remember: herbicide labels list the 'broadcast' rates (lbs or oz/ acre treated) and the grower must calculate the area to be treated by dividing the width of the herbicide band by the row spacing. For example, an acre of apples at 20 ft row spacing and a 5 ft herbicide band will have 5/20 or .25 acres to be treated.

Equipment Maintenance: Now is a good time to get your tractor and sprayer ready to go for the upcoming season. All equipment should be cleaned, lubricated and calibrated. A dirty sprayer discharge manifold will rob the sprayer of efficiency and airspeed. Where calcium is used in the cover sprays, special care is necessary to avoid premature equipment wearout. The sprayer should be calibrated at least twice annually, first during the dormant season for early season sprays, then again after the plants have become fully leafed out. The patterns of spray distribution should be different for fully leafed plants from that for plants that are dormant or just leafing out.

Pruning Grapes: Though the winter of 1996-97 was not particularly severe, tender cultivars of grapes sustained some bud injury. Growers should make a thorough assessment of bud survival before pruning grapevines. Adjustments in the balanced pruning formula can be made based on the amount of bud loss. If 50% of the buds are dead, leave twice as many buds than called for by the balanced pruning formula. If less than 25% are dead, prune as usual. Spring freeze damage can also be a

significant problem for grapes. A pruning technique called 'long pruning' helps avoid spring frost and freeze damage, especially on varieties that tend to bud out early. The procedure utilizes the apical dominance of buds on the cane. The first buds to begin growing are those on the tip of the cane, while buds closer to the base begin growth later. To perform long pruning, select canes to be used for fruiting spurs during the normal pruning practice, but leave these canes long, with 10-15 more buds than desired. Spurs are normally pruned to 5-8 nodes for fruiting, but if they are not cut back, then the extra buds will help delay the development of the desired basal 5-8 buds, which helps avoid frost injury. After the date of the last probable spring freeze has passed, the canes are shortened to the desired length to properly adjust the bud load for the vine. This type of pruning is only applicable to spur or 'no tie' training systems. Growth of the basal buds can be delayed by as much as two weeks during normal weather conditions, but may have little effect in a unusually warm spring. While this procedure requires an extra trip through the vineyard, it can mean the difference between a full crop and little or no crop.

Pruning Brambles: This is a good time to finish pruning summer-bearing brambles. Last years fruited canes should be removed now if they were not last summer or fall. Laterals on blackberries, and black and purple raspberries should be trimmed back to about 2/3 to 3/4 of their original length to promote flowering on strong wood. Red raspberries canes can be tipped if desired. If the planting is trellised, the canes should be tied to the wires now before growth starts. Fall bearing types should be mowed to the ground before growth begins.

Coming Meetings:

March 17-20 — Wineries Unlimited. Holiday Inn, Lancaster, PA. Contact Vineyard & Winery Management 800-535-5670 or <http://www.wines.com/vwm-online>

March 22 — Kentucky Vineyard Society Grape Pruning Session. Bravard's vineyard and winery, Hopkinsville, KY. Contact Bravard's. 502-269-2583.

March 27 — Tree fruit pruning demonstration, Porter County. 1:30pm. Contact David Yeager (219-465-3555) for further details.

April 2 — Eastern Indiana Fruitgrowers Meeting. Muncie, Delaware County. 7pm. Contact Harold Brown (317-747-7732) for further details.

April 5 — Kentucky Vineyard Society Grape Pruning Session. Norma and Tom Collins' On the Rocks Farm. Lexington, KY. Contact Collins'. 606-272-5205.

April 6 — Indiana Nut Growers Association Scion Wood Swap. Kokomo Lion's Club. Contact Bill Heiman. 317-643-4582.

April 10-11 — New York Wine Industry Workshop. Geneva, NY. Contact Thomas Henick-Kling. 315-787-2277.

April 24 — Northeast Indiana Fruitgrowers Twilight meeting. Details to follow.

**FACTS FOR FANCY FRUIT
SUBSCRIPTION NOTICE FOR 1997**

Facts for Fancy Fruit is a newsletter for commercial and/or advanced amateur fruit growers. It provides timely information on pest control and production practices that should be of interest to all growers. The information is not geared home fruit growers unless those growers wish to follow commercial practices. All growers or interested persons are welcome to subscribe, however.

At least 14 issues will be published during 1997, bi-weekly during the growing season and monthly otherwise. The subscription price of \$12.00 includes only the basic costs of printing and mailing at first class rates. The newsletter is also available electronically through the world wide web at <http://www.hort.purdue.edu/fff/fff.html> or by email. You may subscribe by sending a message to "almanac@ecn.purdue.edu". Your message should consist of this single one-line message in the body: "subscribe FFF_L <your name>" without the quote marks.

If you wish to receive the printed version of the newsletter in 1997, please fill out the form below and send it to the Department of Horticulture, along with a check for \$12.00 (tax included) **made out to Purdue University**.

We hope that you will benefit from the information contained in the newsletter. We welcome your comments and suggestions.

Bruce Bordelon

Please send me "Facts for Fancy Fruit" for the 1997 season. Enclosed is my check for \$12.00 (tax included). Make checks payable to PURDUE UNIVERSITY.

Name _____
Address _____
City _____
State _____ Zip _____
Phone# _____ County _____

Please Check:

_____ Grower
_____ Sales
_____ Other

I would like to see information on the following fruit crops:

_____ Apple
_____ Peaches
_____ Pears
_____ Blueberries
_____ Strawberries
_____ Grapes
_____ Raspberries
_____ Cider
_____ Other

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