



INDEX

Crop Conditions
Subscription Notice
Farewell to Karen Cooper
New Horticulture Research Farm at Purdue University
Straw removal on strawberries
Grape flea beetle
Fire blight
Collar rot of apple
Powdery mildew of apple
Peach leaf curl
Raspberry anthracnose
Preliminary organophosphate use data
Subscribing electronically
Coming Meetings

CROP CONDITIONS

FFF 99-02
March 24, 1999

Fruit crops are still fairly dormant across most of the state due to the relatively cool weather over the past two weeks. Peaches in the south are just starting to push, with full bloom expected in a week or so. The risk of freezing temperatures is still high through most of April. Let's hope we get through without a major freeze event.

Subscription Notice: If you subscribe to the printed version of Facts for Fancy Fruit, check the mailing label on this issue. If there is a 98 in the corner we have no record of your payment for 1999, and you will not receive another issue of the newsletter. We messed up on the last issue and forget to change the labels for those of you that had paid. If you want to continue your subscription please fill out the subscription form attached to last issue and send with a check for \$15.00 payable to Purdue University, to: 'Facts for Fancy Fruit', 1165 Department of Horticulture, Purdue University, West Lafayette, IN 47907-1165. If you feel there is an error, please contact Karen Cooper at (765) 494-1301. If you have e-mail and would like a copy sent electronically, send us your e-mail address and we will include you on the list, or subscribe through the web at <http://www.hort.purdue.edu/fff/fff.html>. Subscription to the email version is free. The newsletter is also available on the web at <http://www.hort.purdue.edu/fff/fff.html>.

Farewell to Karen Cooper: Karen Cooper will be leaving the Department of Horticulture and Landscape Architecture after 3 years of faithful service. We want to thank Karen for handling the Facts for Fancy Fruit for the past few years. We just write it... Karen does all the work. Thanks Karen and best wishes!



New Horticulture Research Farm at Purdue University:

We are delighted to announce the development of the new Horticulture Research Farm at Purdue University. The farm is located just south of Lafayette off US 231 and will be managed by the Purdue Agricultural Centers as part of the Throckmorton Purdue Ag Center. The TPAC manager is Jerry Fankhauser who has several years experience with horticultural crops. The TPAC team has worked hard for the past two years getting the site ready for research. The farm has been laid out in 8 acre blocks, and tile drains and an irrigation system have been installed. In addition, an office and building for equipment and materials storage has been built. The 240 acre farm will be used primarily for fruit, vegetable, and ornamental plants research.

We are currently getting ready to plant our first trees and vines at the new farm. One of the first plantings will be an apple variety planting with the following new varieties: Ambrosia, Coop 29, Coop 39, CQR 10T17, Hampshire, Jubilee Fuji, MN 1824, NJ 90, NJ 109, NY 79507-72, Runkel, Delblush, BC 8S-26-50, BC 8S-27-51, CQR 12T50, Pinova, NY 75907-49, BC 8S-25-33, and Pink Lady. In addition, Golden Delicious will be included as a comparison. We at Purdue are cooperating in this trial, which is being planted at a number of sites throughout the country. This will generate

HAPPY EASTER

a lot of information about which varieties are better adapted to certain growing conditions, and will also tell us about how these varieties perform in Indiana. We will also be planting trees which will be used for entomology and plant pathology research. The cost of these trees is being paid for with apple check-off money. We appreciate your support which allows us to carry out research which otherwise would not be possible.

In addition to apples, new grapes vineyards will be established this year. We'll be revising our existing cultivar trials to eliminate the losers and incorporate new releases and test selections from New York, Minnesota, and Arkansas. We'll keep the standard cultivars in the trials for comparison. In addition to cultivar trials we'll be setting up a tile drainage and rootstock study to look at the effects of these variables on growth and productivity on typical Indiana silt loam soils. There will also be larger plantings of some of the most promising new cultivars so we can determine the appropriate pruning and training systems for optimal wine quality.

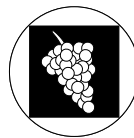
What would Indiana be without the pawpaw? We're not sure either, so we're not taking any chances. We're finally going to get that pawpaw regional variety trial in the ground. After a first failed attempt and several years of anticipating the move to a new location, we're finally set to put out this trial. Pawpaws should find the site of the new farm much to their liking.

In addition to fruit crops the farm will be the site of vegetable research trials, and studies on ornamental plants for use in borderland plantings. A wetland has also been established that should prove to be an excellent educational tool. We are really looking forward to getting research work underway. We'll keep you informed about our progress. We plan to host an open house when things get settled down and hope all of you will come see this outstanding new facility.



Straw removal on strawberries:

Straw should be removed from strawberry beds before the plants grow enough to cause yellowing of foliage. Rake most of the straw off the tops of the beds and into the row middles. Leaving some straw on top of the beds for plants to grow up through provides a clean surface for fruit. Studies done in Illinois indicate that proper time to remove straw is when the soil temperature at 4 inches averages about 40-43F. This temperature is usually reached in March for most areas of the state. Allowing the leaves to become etiolated (yellowed with long petioles) due to late straw removal can reduce yields by as much as 25%. However, uncovering the plants early may promote early growth and increase chances of frost or freeze injury. This is a judgment call that growers have to make for themselves. After the straw is removed the frost protection irrigation equipment should be set up.



Grape flea beetle: Flea beetles can be a serious pest of grapes because they feed on developing buds after final pruning. Lost buds can relate to a direct loss

of yield. Grapes will be in early swell to budbreak across the state over the next two weeks and these are the stages most likely to be damaged from flea beetles. Scout vineyards for these insects or their damage and control if necessary. Damage appears as holes eaten into the sides of buds. The insects are small (1/8 inch long) and shiny green, blue or black in appearance. They crawl quickly along the canes and tend to drop to the ground if disturbed. Incidence often occurs in outer rows adjacent to fence rows or woods, making spot spraying an option. Scout the planting carefully and apply insecticides only where needed. Damage from flea beetles usually decreases as buds break and shoots become 1/2 inch or longer. Sevin or PennCap-M will provide excellent control of this insect. Refer to the label or ID-169 for complete recommendations.

Fire blight: If fire blight has not been a problem in your orchard over the past few years there is *no need* to apply a copper based dormant spray. Dormant copper sprays are most beneficial in those years following severe fire blight. However, if you do feel copper sprays are needed, we suggest you apply copper to the entire orchard block, including non-susceptible cultivars. The reason for treating non-susceptible cultivars is that even normally fire blight 'resistant' trees like Red Delicious can be colonized by the bacteria and serve as a source of infection during bloom. If copper sulfate (4 pounds per 100 gallons) is used be sure to apply it when trees are dormant. If applied late it may burn leaf tissue. Also, **do not** apply copper sulfate with oil; apply copper sulfate and dormant oil as separate sprays spaced at least 10 days apart. If copper sulfate is applied under poor drying conditions or later than silver tip, plant injury can result. An alternative to copper sulfate are the fixed coppers such as Kocide and C-O-C-S; most fixed coppers do not have the compatibility problems of copper sulfate and can be tank mixed with early season oil sprays. Remember however that even fixed coppers, if applied after half-inch green, can cause fruit russetting in years when there is not enough rain to remove the copper residues before tight cluster.



Collar rot of apple: Think back to late last summer, did trees in your orchard show premature leaf reddening, sparse, yellow foliage, and many small, highly

colored fruit? Such symptoms, if accompanied by a canker (localized discolored tissue) at or just below ground level, are evidence of possible collar rot, caused by the soil-borne fungus, *Phytophthora*. If collar rot is suspected we advise the use of Ridomil 2E or Aliette. We especially recommend these fungicides in those problem wet areas having poor drainage and heavy, clay-type soil. Be sure to treat surrounding healthy appearing trees, not just trees already showing severe symptoms of collar rot. Both these fungicides are best used to prevent collar rot... not cure it. Note: Ridomil Gold EC and Ridomil Gold WSP are new formulations of Ridomil that will eventually replace the Ridomil 2E formulation. See ID-168, "1999 Indiana Commercial Tree Fruit Spray Guide", for further information.

Powdery mildew of apple: The Pathologist's Almanac states: after a very cold winter there will be very little powdery mildew on apple; however, after a very mild winter powdery mildew may be severe. If this prediction holds true, we could be in for a bad mildew year. It might be wise to use a fungicide that will also control mildew in your early scab sprays. Nova and Rubigan are excellent for scab, powdery mildew and rust control.



Peach leaf curl: Peach trees need all the help they can get, that includes a spray for control of peach leaf curl. If you have not yet sprayed for leaf curl get on your tractor and spray the first chance you get. If peach trees are at, or past bud swell, you're too late.

Raspberry anthracnose: The most important spray you will apply all season for control of anthracnose on brambles is the delayed dormant spray of lime sulfur. DON'T FORGET IT! Liquid lime-sulfur at 20 gallons per acre should be applied when new leaves are exposed 1/4 to 3/4 inches; if you are late in your application and don't spray until a few leaves have unfolded, cut the rate to 10 gallons per acre. NOTE: There is greater risk of lime-sulfur burn, when applied at this later time.

Preliminary organophosphate use data: Contributed by William G. Smith, Pesticide Management Education Program, Dept. of Entomology, Cornell Univ., NY (from Ohio Fruit ICM News, Volume 3, No. 8, March 18, 1999)

The EPA is releasing detailed information on organophosphate pesticide use patterns for ten food crops, including apples, peaches, and pears. The agency will post the information on the Internet in draft form of tables, or "matrices", for review comments by growers and other interested parties. EPA will use the data in its reassessment of existing tolerances (residue limits) for pesticides on foods under the

new safety standard required by the 1996 Food Quality Protection Act (FQPA). The pesticide use data compiled by the Agency will play an important role in evaluating overall exposure to the organophosphates. The data was compiled from several sources and is being presented in crop specific matrices that provide the percentage of each crop treated with each pesticide, application and timing, regional use, and availability of alternatives. In addition to the initial ten crops, the agency anticipates releasing pesticide usage information on approximately 60 additional food crops. The information is available on EPA's website at: <www.epa.gov/oppbead1/matrices>

Copies of the matrices may also be requested by writing to the US EPA, Office of Pesticide Programs, Communication Services Branch (7506C), 401 M St. S.W., Washington, D.C. 20460.



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Coming Meetings

April 1 — Pruning demonstration at Anderson Orchard, Porter County. Contact Dave Yeager, phone 219-465-3555

April 7 — East Indiana Fruitgrowers twilight meeting 6.00 pm, Minnetrista Cultural Center, Muncie. Contact Harold Brown at 765-747-7732.

April 10 — Pruning demonstration at Fantasy Vineyards near Rockville, Parke County. Contact Bruce Bordelon at 765-494-8212

April 13 - Twilight meeting, 6.30 pm. LaPorte County. Location to be announced. Contact: Walt Sell at 219-326-6808 extension 271

April 20 — Twilight meeting, Elkart County. Contact Jeff Burbrink at 219-533-0554.

May 5 - East Indiana Fruitgrowers twilight meeting 6.00 pm. Minnetrista Cultural Center, Muncie. Contact Harold Brown at 765-747-7732.

June 8 - East Indiana Fruitgrowers twilight meeting 6.00 pm. Minnetrista Cultural Center, Muncie. Contact Harold Brown at 765-747-7732.

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**FACTS FOR FANCY FRUIT
SUBSCRIPTION NOTICE FOR 1999**

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 for 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 1999, bi-weekly during the growing season and monthly otherwise. The subscription price of \$15.00 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. If you have e-mail and would like a copy sent electronically, send your e-mail address to bordelon@hort.purdue.edu and we will include you on the list, or subscribe through the web at <http://www.hort.purdue.edu/fff/fff.html>.

If you wish to receive the printed version of the newsletter in 1999, please fill out the form below and send it to the Department of Horticulture and Landscape Architecture, along with a check for \$15.00 (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 1999 season. Enclosed is my check for \$15.00 (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	Strawberries
Peaches	Grapes
Pears	Raspberries
Blueberries	Cider
Other	

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