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*The Facts for Fancy Fruit family wishes you
and yours a joyous holiday season!*

Tax Deductible Gifts to Purdue's Fruit Research and Extension Fund: The Department of Horticulture has set up a gift account to support Pomology Extension and Applied Research. Anyone who wishes to contribute to the account can receive a tax credit from the state. In addition, the Indiana Horticultural Society voted to support a voluntary checkoff for apples in the amount of one (1) cent per bushel to be used to help support the tree fruit research and extension program. This is a very nominal amount and should present little problem for Indiana growers. For each 1,000 bushels a grower produces that translates to \$10. For each 10,000 bushels that becomes \$100. Growers in other states are contributing much larger amounts to their industry research and promotion programs.

Indiana citizens can receive a 50% tax credit for direct contribution to an in-state university up to a maximum gift of \$400 if filing a joint return or \$200 if filing an individual return. The tax credit directly reduces the bottom line of your state income tax, either

reducing the amount you owe in taxes or increasing the refund you will receive. If you work for a company that participates in the Matching Gift Program, you may double (or more) the value of your gift. Look for form CC 40 or check with your accountant.

Contributions can be made payable to Purdue University and sent to: Tree Fruit Research/Extension Fund, Dept. of Horticulture, Purdue University, 1165 Horticulture, W. Lafayette, IN 47907-1165. On your check memo line, please indicate for fund 704-1165-0012. Please note that this fund will not be limited to horticultural work, but will include the other programs related to tree fruit production. For more information on gift giving contact the Purdue Research Foundation, Purdue University, West Lafayette, IN 47907 for information on the Annual Giving and Matching Gift Program. PRF will send a brochure that explains all the options and provides forms needed for contribution and tax credit.

New Pomologist to Start in January: Dr. Peter Hirst will be joining 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 much of this being related to the production of apples. He received his Ph.D. from Ohio State, where he worked under the direction of Dr. Dave Ferree on the influence of root stock on spur formation and development. Peter is native to New Zealand where he is currently a research scientist with HORT+Research.

Indiana Horticultural Congress: The Indiana Horticultural Congress will be held January 28-29 1997 at the Adam's Mark Hotel in Indianapolis. This year's educational programs are excellent. We have many new speakers, new topics, and more sessions that are sure to meet the needs and interests of the industry. We have added a wine tasting and educational program this year, and the Trade Show is once again overflowing! Everyone that attends the meetings must register. All Facts for Fancy Fruit subscribers should receive the program and registration materials in the mail soon. Anyone not receiving a registration packet should call Jim Simon, Indiana Horticultural Congress Chairman at 317-494-1328.

1996 Crop Year Summary: (Bruce Bordelon)

The 1995-96 winter brought below normal temperatures and above normal snowfall to Indiana. An early freeze on September 23 (26°F) across the northern half of the state caused damage and shortened the growing season by 2 to 3 weeks. Because this followed one of the hottest, driest summers on record (1995), some plants did not harden off well. Minimum temperatures for the winter were -8 to -16°F, which occurred in early February. Warm weather followed in late February, then cold events (single digits and teens) occurred several times in March. All areas of the state received above normal rainfall during the early spring, and below normal temperature. August and September were very dry in most areas,

but cooler than normal. The first killing frost of fall occurred on October 11 in northern and central areas, which is about normal. A hard freeze occurred on November 2-3 across most of the state, ending the growing season.

Apples: The hot, dry summer of 1995 along with a good crop of fruit resulted in very poor bud set on apples. Many cultivars produced few blooms and essentially no crop in 1996. However, this was highly variable across the state, with some growers having good crops of a certain variety, and others little or no crop of the same variety. Hail damage was unusually severe in many parts of the state. The cool summer temperatures and low rainfall of July, August, and September delayed ripening, but improved flavor and color development. It is estimated that Indiana produced about 2/3 of a normal apple crop in 1996.

Peaches: 1996 was a poor year for peaches in Indiana. Because of the low temperatures in February and March, there was a limited crop in most areas of the state. Fruit quality was excellent where growers decided the crop was large enough to justify spraying. Prices were very high. Overall, the crop in 1996 was less than half the normal crop.

Strawberries: The strawberry crop in 1996 was highly variable. Because of the heavy spring rains, especially in the southern areas of the state, fruit rots were excessive. Some growers reported almost total losses due to disease and inability to get into the fields to harvest. Where rainfall was less frequent, growers reported good yields and relatively good prices. Several cases of black root rot and red stele were reported. Leaf spot diseases were very common. Eastern Flower Thrips were reported again, but damage was not severe. Frost heaving of crowns was very common, especially on newly established plantings or where straw was thin.

Blueberries: The blueberry situation was much the same as for apples. The hot, dry summer of 1995 resulted in poor fruit bud development, so the crop in 1996 was light. In addition, cool, rainy conditions during bloom reduced bee activity and fruit set. However,

because of the light crop and ample rain early in the season, fruit size was very large and growers had no trouble selling all the fruit they had. Fresh and processing prices were very strong due to spring freeze damage in Michigan and the Southeast U.S. Conditions for fruit bud development have been very good throughout the fall, and a good crop is expected for 1997.

Brambles: Summer bearing brambles suffered severe late winter cold injury in Indiana due to fluctuating temperatures in February and March. Yields were reduced 40 to 100%. Fall bearing types also had reduced fruit yields because of the cool, wet spring and late start to the growing season. The dry conditions of August and September also reduced fruit size and quality where overhead irrigation was not used. Overall, 1996 was a disappointing year for brambles.

Grapes: Most grapes were not hurt by the minimum temperatures in 1995-96. An early December sub-zero event severely damaged cold-tender vinifera varieties. Despite temperature fluctuations in February and March, grapes remained dormant and hardy enough so that no late winter injury occurred. Yields were slightly below average in 1996, as excessive rains in the southern 1/3 of the state during pollination reduced fruit set. Fruit quality was excellent because of the cool, dry conditions in July, August, and September.

Tree Fruits Diseases and Disorders: (Paul Pecknold)

In many ways the 1996 disease picture was a mirror image of 1995 and 1994. Once again wet, cool weather during the time of early leaf development resulted in a high incidence of peach leaf curl. Numerous scab infection periods during late April and May resulted in another bad year for apple scab; fruit infection was very high in those orchards lacking a good, early spray program for scab.

Cold injury in combination with wet feet caused extensive death of peach trees throughout the state. Cold injury from previous years had caused significant damage;

however the extreme wet conditions of this spring was likely the final blow that caused the death of many peach trees. We did not attempt to determine the degree of *Phytophthora* involvement with peach tree death but suspect it was significant.

Brown rot of plum was severe on susceptible cultivars. The extended period of cool and wet weather after bloom apparently provided excellent infection and post-infection weather for brown rot. The most severe brown rot problems developed where growers failed to provide adequate fungicide protection during and shortly after shuck split.

Cedar quince rust fruit infection along with cedar apple rust was even more prevalent this year than last. The high incidence of rust was due to frequent wet periods in May when cedar rust galls were most active. As mentioned last year, the practice of switching from sterol inhibitor fungicides to a captan based program before rust galls become inactive has no doubt aggravated the rust problem.

Sooty blotch and flyspeck appeared early due to the extensive wetting periods during May. However, an overall dry summer during the remainder of the growing season slowed symptom development, resulting in light to moderate levels of these diseases at harvest.

Nectria twig blight on Romes, a disease that can mimic fire blight, was common in northern areas of the state. Speaking of fire blight, for the third consecutive year fire blight was at a low level. We had predicted a high level of blight due to the late spring and subsequent high temperatures at bloom; however, very little blight was seen or reported throughout the state. Never try to predict fire blight, you'll be wrong every time!

Insect and Mite Summary: (Rick Foster)

1996 was a year of change for apple growers as far as acaricides are concerned. One of the best available rescue treatments, Omite, was removed from the market, leaving growers without a suitable rescue acaricide to use during warm weather. However, two new

preventative materials were labeled, Savey for use at pink and Agrimek within 6 weeks after petal fall. Both of these materials, as well as Apollo, will provide excellent control throughout most of the season. However, there are no truly effective materials for controlling existing populations. A number of growers who have used Apollo in the past and have conserved their predator mites tried to get by without using Apollo on their problem blocks for two consecutive years. Several of them experienced mite outbreaks this year, demonstrating the point that predators alone often will not keep mites below economic thresholds. In general, 1996 was a moderate year for mites.

Most insects were kept at low to moderate levels by the cool, rainy weather in 1996. Codling moth and leafhoppers were seen at damaging levels in some locations. In general, aphids, leafminers, and plum curculio were not serious problems. Japanese beetles continue to be a serious problem, although levels in many areas were slightly lower than in 1995. Eastern flower thrips was present again in strawberries. It's uncertain whether there has been a change in their behavior or if we are finding them because we are looking for them.

Tree Fruit Disease Bulletin: Bulletin NCR-45 "Diseases of Tree Fruits in the East" by A. L. Jones and T. B. Sutton has been published and is now available for \$10 per copy from the Bulletin Office, 10-B Agriculture Hall, Michigan State University, East Lansing, MI 48824-1039. Include your address and a check payable to Michigan State University with your order. This bulletin is a comprehensive identification guide to 65 tree fruit diseases of apple, pear, cherry, peach, and plums found in the Eastern US. More than 170 color photos and diagrams are used to illustrate disease signs, symptoms and infection cycles. This 95 page publication should be an excellent reference for growers, agribusiness reps, IPM specialists, and students.

Pasteurization of Apple Cider: The FDA has recently recommended that all apple cider be pasteurized in the future. If, or when these recommendations will become law is unclear. The U.S. Apple Association (formerly the IAI) has developed a survey for cider producers to get input about these proposals. If you would like to participate in this survey, call the U.S. Apple Association at 800/781-4443. If you would like your name placed on a mailing list to receive further information on cider regulations, contact us at: Cider, Purdue University, 1165 Horticulture, West Lafayette, IN 47907. You should also check cider on the attached Facts for Fancy Fruit Subscription Notice.

Facts for Fancy Fruit Subscription Form: Attached to this issue is a Facts for Fancy Fruit 1997 Subscription Form. All of you will be also be receiving the Indiana Horticultural Congress Program. If you choose to pay for Facts for Fancy Fruit as part of the IHC registration, please return the Subscription Form with the IHC registration so we have information about the crops you grow and the information you want.

Facts for Fancy Fruit Available Electronically: All 1996 issues of Facts for Fancy Fruit issues are available through the Horticulture worldwide web home page. To locate the newsletters on the web, go to the Facts for Fancy Fruit Index at <http://www.hort.purdue.edu/fff/fff.html>. In addition, you can subscribe and unsubscribe to the email version. To subscribe send 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>`. To unsubscribe follow the same procedure: `"unsubscribe FFF_L <your name>"`. Do not include anything else in the message or in the subject line.

Last Issue: This will be the last issue of Facts for Fancy Fruit for 1996.

Coming Meetings/Events:

January 6-7 — Kentucky State Horticultural Society and Kentucky Vegetable Growers Annual Meeting and the Grape and Wine Short Course, Holiday Inn North, Lexington, KY. Contact Jerry Brown 502/365-7541 Ext.204 or John Strang 606/257-5685.

***January 14-15** — Midwest Grape School. Southwest Michigan Research and Extension Center, Benton Harbor, MI. Contact Bruce Bordelon (317-494-1301)

January 19-20 — 1997 Unified Symposium - Grape and Wine Marketplace for the 21st Century. Sacramento Convention Center, Sacramento, CA. Contact 916-345-8593.

January 19-21 — 12th Annual Midwest Regional Grape and Wine Conference. Lake of the Ozarks, MO. Contact Larry Knipp 800-392-WINE.

***January 28-29** — Indiana Horticultural Congress. Adam's Mark Hotel, Indianapolis. Contact Jim Simon 317-494-1328.

January 28-30 — Wine Tech/Grape Tech. Sacramento Community Center, Sacramento, CA. Contact 800-243-3238.

February 6-8 — Ohio Fruit, Vegetable and Direct Marketing Congress, Seagate Center, Toledo - Call Mike Pullins 614-249-2424.

February 9-12 — North American Strawberry Growers - Louisville, KY. Contact Bob and Donna Cobbleddick 905-945-9057.

February 12-13 — North American Bramble Growers, Louisville, KY. Contact Richard Fagan, 301-714-3020.

February 17 — Grape Canopy Management Workshop featuring Dr. Richard Smart. Southwest Missouri State University State Fruit Experiment Station. Contact Sanliang Gu 417-926-4105

February 17-19 1997 Missouri Small Fruit Conference. Clarion Hotel, Springfield, MO. Contact Patrick Byers. 417-926-4105

***February 19** — Wabash Valley Fruit Growers Meeting. SWPAC, Vincennes, IN. Contact David Byers, Applacres, Inc. 812-279-9721.

February 19 — Southwest Ohio District Fruit and Vegetable Meeting, Valley Vineyards, near Morrow. Contact Gary Gao at 513-732-7070.

February 28-March 1 — Berry School, Piketon Research and Education Center, Piketon, OH. Contact Tom Wall at 614-289-2071.

***March 1-2** — Indiana Winegrower's Guild Grape / Wine Symposium. Bloomington Convention Center, Bloomington, IN. Contact Steve Thomas at 800-948-8466 or David Lundstrom 219-464-4936.

March 4-5 — Illinois Small Fruit and Strawberry School. Mt. Vernon, IL Contact Jeff Kindhart at 618-695-2444.

**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 this 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 _____	Please Check:
Address _____	_____ Grower
City _____	_____ Sales
State _____ Zip _____	_____ Other _____
Phone# _____	I would like to see information on the
County _____	following fruit crops:
	_____ Apple
	_____ Peaches
	_____ Pears
	_____ Blueberries
	_____ Strawberries
	_____ Grapes
	_____ Raspberries
	_____ Cider
	_____ Other _____

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