



Inside

Crop Conditions
Weather
Pomology Position Update
Program Ideas Still Needed
Grapes Needed
Grading Fruit
Marketing
Cider
Deer Control
Mouse Control
Painting Peach Tree Trunks
Chemical Storage
Quality Control
Equipment Maintenance
Purdue's Fruit Research and
Extension Fund
Purdue Enologist Featured Speaker
at Kentucky Vineyard Society
Coming Meetings/Events

FFF 96-13

October 16, 1996

Crop Conditions

Apple harvest is moving into the late-season cultivars. As predicted, yield has been down about 30% overall, and prices have remained strong. Grape harvest is complete and fruit quality was excellent this year. The first wide-spread frost of the season occurred on October 11 in the northern half of the state. Southern areas had scattered frost. Freezing temperatures are also predicted for the coming weekend. These first killing frosts will bring an end to the fall bearing red raspberry harvest, so yields will be low due to the delayed start of the harvest season.

Weather Outlook: The 6 to 10 day outlook for Indiana calls for normal temperatures and above normal precipitation. The 90 day outlook for October, November, December calls for normal temperature and above normal precipitation.

Pomology Position Update: Three finalists for the position have been interviewed. We would like to thank the representatives of the Indiana fruit industry who participated in those interviews for their valued input to members of the search committee and to Dr. Woodson. The process is complete and an offer has been made and tentatively accepted. Perhaps by the next newsletter, the formal announcement can be made, and with luck the new person may be at the meetings in January.

Program Ideas Still Needed: The Indiana Horticultural Society meetings will be held

January 28-29 1997 at the Adam's Mark Hotel in Indianapolis. The program is being planned now but if you have ideas, or if you know of something innovative that you or your neighbor is doing, please call Dick Hayden, 317-463-6587, or Bruce Bordelon at 317-494-8212. Also, mark January 28-29 on your calendar and plan to be with us for this informative meeting.

Grapes Needed: The Indiana wine industry has been growing steadily since Purdue organized the viticulture, enology, and marketing programs of the Indiana Wine Grape Council in 1991. The number of wineries has increased from 11 to 20, and sales of Indiana wine have increased from 39,000 gallons to over 100,000 gallons. Winegrape acreage has increased from 55 to 125 acres, but many more acres are needed to meet the current and future demands for French hybrid and American grapes.

Vintners are allowed to import juice if it is not available in the state, so the industry has been buying juice from other states, particularly Michigan and New York. These supplies are beginning to diminish and winemakers feel the urgent need for more vineyards in Indiana. The Indiana Wine Grape Council will hold a wine tasting and introductory seminar at the Indiana Horticultural Congress on January 28 to inform the commercial horticulture industry of the opportunities in grape production. Purdue will also co-sponsor a Grape School with Michigan State and Ohio State which will be held on January 14-15. The program will be aimed at new grape growers and others wanting to learn more about the winegrape industry. For more information on either program contact Bruce Bordelon.

Grading Fruit: Being present at the grading line is a must to monitor fruit quality. Also, packout records should be maintained on each block of trees to assess the fruit quality and yield coming from those trees. Where packout percent is less than desired, causes can be determined and decisions can be made on what remedial action should be taken. These decisions can include: better mite and insect control needed; better pruning needed; removal of the block; etc. Block by block records will pay dividends when hard decision time comes.

Marketing: With a very short crop of fruit around the state and in Michigan, apples are a valuable commodity. This would be a good year to evaluate your pricing schedule for both apples and cider, and make some modifications if needed.

Harvest, store, grade and pack carefully to avoid any damage to the fruit. The short crop does not mean that standards can be reduced, but there will be a good market for all grades of fruit. There should be a good market for small fruit too.

As far as storage goes, the old adage still holds; that the first picked fruit should be sold first; then the next picked should be stored

in the back of the storage and the last picked fruit placed in front of it. Then sell fruit from front to back of the storage. Keep humidity in the storage high, and the temperature as close to 32°F as possible except with varieties such as Jonathan. Monitor fruit quality carefully throughout the storage season.

Cider: Cider is great at Halloween. As you enter the stretch before that most important sales season it would be well to check the quality and cleanliness of the operation. Insect and varmint exclusion, daily press and press cloth cleaning and personal sanitation are most important. If you need a copy of the suggestions for cider sanitation, call Connie at 317-494-1296. Have a good Halloween.

Deer Control: Deer continue to be a problem in orchards. Some repellents which have been found to be effective for a short time include:

Soap is effective until the odor is dissipated, usually in 6-8 weeks, depending on the exposure and rainfall. Use the more odoriferous varieties of soap. Small bars of deodorant soap are best. These can be left wrapped and holes drilled in them and string loops used to tie them on trees. One bar per tree is usually sufficient for small trees. In attaching the bars, be careful that the strings are around shoots that are expendable, since frequently bars remain for extended periods and the stings can girdle branches. Never put bars or strings or wires around central leaders of trees as the chance of girdling and ruining whole trees is too great. Also, the soapy water resulting from rainfall will run down the trunk. Rabbits apparently like it and may be attracted and could do more damage than the deer.

Tankage, which is a by-product of animal packing plants. The tankage is placed in small quantities in 3" x 5" cloth tobacco or parts bags which are hung on the trees. Tankage in this form will attract coyotes.

Thiram may not be applied to plant parts that may be consumed by human or domestic animals. It is expensive and is

usually used in nurseries. Follow label directions.

Other repellents include: Creosote (odor), Hot Sauce (taste), Big Game Repellent (odor and taste), Human Hair (odor), and others. All of these work sometimes, and sometimes are less than effective. All of these have relatively short effective time periods.

Fencing is probably the most reliable answer. We have used visible electrified poly tape fence effectively at the Hort farm. This tape comes in several widths from 1/2 inch to 1 1/2 inches, and is light colored and visible to the deer. We like the tape with stainless steel wire woven into the tape. Stainless steel lasts much longer than the aluminum strands in some other tapes. This tape was installed as a two-strand system and kept electrified with 12 volt deep-cycle marine batteries. The strands are at about 20 and 40 inches above the ground. Solar recharging is preferred because the maintenance labor is much reduced. So far there has been enough sun in the winter to keep the batteries charged.

This system has not resulted in complete deer exclusion, but has reduced the damage from either browsing and rutting to a tolerable level. Frankly, we could not have successfully grown new plantings without the fencing, and it is now used around new plantings of all fruits.

Population control of deer is perhaps the best damage control measure. If you can demonstrate more than \$500 in damage, you should be able to obtain depredation permits to kill additional animals to reduce the population. Losing a year's growth in a block of young trees will constitute substantial damage. Contact your district DNR biologist for details.

Mouse Control: See ID 168 for complete suggestions. Post-harvest applications are most timely after the drops have been picked up or have rotted. All zinc containing products are Restricted Use Materials, so you will need your certified applicator permit to purchase them. All baits should be used with care to

avoid contact by non-target species. The use of bait stations may result in better control. Follow label instructions carefully.

Painting Peach Tree Trunks: The post-harvest period is a good time to paint peach tree trunks for protection against fluctuating winter temperatures. Bright sunny days in the winter can result in severe damage to the trunks, especially on the south and southwest sides of the trunks. The trunk temperature late in the day may increase 30-40 degrees above air temperature, then at sunset, trunk temperatures fall very quickly to air temperature. This rapid and extreme change in temperature can severely damage tree trunks through differential cooling and contraction rates of bark and inner wood. White paint helps reflect the sun and prevent warming of the bark. Use only a good grade of white exterior latex base house paint. **DO NOT USE OIL BASED PAINTS.** Only the south and southwest sides of the tree need to be coated.

The important thing is to shade the south and southwest sides of the tree, so if you are trying to protect only a few trees you might lean a board securely against the south side, or otherwise shade that part of the trunk, allowing adequate air circulation. This will prevent the excessive heat accumulation in the trunk that results in injury. Also be careful of mouse or rabbit damage under the board.

Chemical Storage: We are past the season of major chemical use and are entering the freezing period. Be sure that chemicals are stored where they are safe and dry and will not deteriorate over the winter. Chemicals should be kept in locked storage secure from human or animal intrusion. Emulsifiable concentrates should not be allowed to freeze. Check product labels for correct storage conditions.

Quality Control: Harvest time provides an opportunity to evaluate pruning and sprayer performance and pest control. If insect or disease control is less than desired, look at fruit

from each area of the tree before you blame the chemical. Poor insect and disease control in tops and center of trees indicates poor spray coverage. This may take a bit of trouble, but should be worth it. A picking bag full from top of the tree compared with one from the center, and one from the outside of the tree should provide the needed information. If control is good on the outside, but not in top or center, then sprayer nozzling or tree density may be the problem. If control is poor throughout the tree, then factors such as tractor speed, or the overall amount of chemical per acre are probably at fault. If control and fruit color are good in top and outside of the tree, then tree density may be the problem. Optimum tree density is very important in disease control as well as in obtaining the best yield, fruit quality and fruit color. It is also important for the development of healthy, vigorous spurs for next year's crop. Make your plans for winter pruning and sprayer calibration now, while the evidence is here.

Equipment Maintenance: With scattered frost last week, we are reminded that winterizing sprayer plumbing, engine cooling systems and irrigation systems should already be complete or should be completed quickly to avoid expensive damage. If the sprayer is still in use for stop-drop sprays, for the time being parking it inside a building may be enough, but don't press your luck.

For sprayers, remove all drain plugs, and drain the filters, pump, and plumbing. Lubricate all fittings. Store inside a shed or barn. Sprayers can be winterized by filling the pump and lines with anti-freeze, or crop oil.

For irrigation systems, drain pump, lubricate, and store inside if appropriate. Drain the main lines from pump to field. For portable systems, pick up and store aluminum pipe, preferably off ground, remove gaskets and store where mice will not damage them. For trickle systems, be sure that main and lateral lines are drained, either by gravity or by

purging with air. If purging with air pressure, be sure that the outlet remains above water level, or water may be drawn back into the system when the air pressure is turned off.

Renovation of equipment that you are putting away for the winter will help to reduce down-time next spring as well. At the very least, a good cleaning and perhaps some paint protection would get you off to a good start next spring.

Purdue's Fruit Research and Extension

Fund: As most of you know, at the last winter meetings 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.

As you also know, Indiana citizens can receive a 50% tax credit for direct contribution to an in-state university up to \$400 per couple. Look for form CC 40 or check with your accountant.

Contributions should be made payable to Purdue University and sent to:

Tree Fruit Research/Extension Fund
Dept. Of Horticulture
Purdue University
1165 Horticulture Building
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.

Facts for Fancy Fruit Available Electronically: All 1996 issues of Facts for Fancy Fruit issues are available through the Horticulture and Plant & Pest Diagnostic Clinic worldwide web homepages. To locate the newsletters on the web, go to the Horticulture home page at: <http://www.hort.purdue.edu>, select Extension/Outreach, then Extension Bulletins and Newsletters. Or you can go directly to the Facts for Fancy Fruit Index at <http://www.hort.purdue.edu/fff/fff.html>. To access the newsletters from the Virtual Plant Disease Diagnostic Lab homepage at <http://www.aes.purdue.edu/ppdl/p&pdlwww.html>, select Newsletters, then Facts for Fancy Fruit.

In addition, a list server is set up so 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: "subscribe FFF_L <your name>" without the quote marks. To unsubscribe follow the same procedure: "unsubscribe FFF_L <your name>". Do not include anything else in the message. Note that the address to subscribe and unsubscribe is not the same as the return address for FFF_L. If you have any problems contact me at bordelon@hort.purdue.edu and I'll try to help.

Coming Meetings/Events:

October 26 — Kentucky Nut Growers Association Fall Meeting, Scott County Extension Office, Georgetown, KY. Contact Fred Blankenship 502/957-2444.

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 13-15 — Kentucky Landscape Industries Winter Educational Conference and Trade Show. The Lexington Center, Lexington, KY. Contact Marsha Woods 812/284-1042.

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

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 Cobbledick 905-945-9057.

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

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.

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