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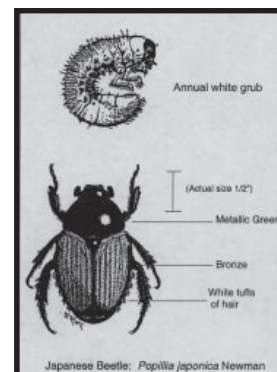
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FFF00-09
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Crop Conditions: Most parts of the state have been receiving rain with warm temperatures, which are ideal conditions for fruit growth. Unfortunately these conditions also favor the development of many of our pests, which is discussed in detail in another part of this newsletter. Blueberry and bramble harvest has started in southern areas. Strawberry renovation should be completed as soon as possible. Grapes are looking good. Black rot and downy mildew are beginning to show up in some plantings.

Japanese Beetles: Japanese beetles are beginning to emerge in southern and central areas. It's difficult to predict how much of a problem they will be this year, but they will likely be a problem on blueberries, brambles, and in new grape plantings. Though they seem to eat everything, Japanese beetles are particularly fond of grape and plum foliage, and blueberry, raspberry, and peach fruit. Scout often and apply an insecticide registered for your particular crop if damage is bad enough to warrant an insecticide application (the economic threshold is reached). Beetles can cause serious losses in blueberries and brambles by feeding on fruit. Fruit are damaged, but not completely consumed by beetles in a single feeding. The next feeding the beetles select clean, undamaged fruit, so that a single adult may damage dozens of berries in its lifetime. Multiply that by thousands of beetles and the losses can become significant. One problem with applying pesticides near harvest is the potential for visible residue on the fruit, especially with dark colored fruit such as blueberries. Growers may want to consider the XLR formulation of Sevin because it does not leave as much visible residue as wettable powder formulations. The pre harvest interval (PHI) is another consideration when applying pesticides

close to harvest. For Sevin, the PHI on small fruits is 7 days. Imidan has a 3 day PHI and a SLN (Section 24) registration for blueberries in Indiana that allows up to 5 applications. Though Imidan isn't quite as effective against Japanese beetles as Sevin, it seems to persist a little longer and some growers claim it reduces bird damage. Imidan is not labeled for use on brambles, so raspberry and blackberry growers will have to rely on Sevin or malathion. During harvest, Sevin is not a viable option because of its 7 day PHI. Malathion is less effective, but has a 1 day PHI. Some formulations of malathion may have a 3 day PHI, so be sure to check and follow the instructions on the label. Check the small fruit spray guide for a complete list of registered insecticides, their PHIs and relative effectiveness. -Bordelon



Good News On Captan: In recent years, restrictions have been placed on captan along with warnings as to its continued use and availability. Now finally some good news, but first, don't get too excited, the **good news does not take effect until 2001.**

The reregistration eligibility document for captan has been issued by EPA and contains the following:

- The Reregistration Eligibility Document takes into account, to the extent currently possible, the new safety standard set by FQPA for establishing and reassessing tolerances.
- EPA determined that there is no evidence of special sensitivity to infants and children. Therefore, the FQPA Safety Factor was removed (reduced to 1X).
- The dietary cancer risk does not exceed the Agency's (EPA) level of concern.
- Re Entry Intervals were reduced.

Crop	New REI's Labeled for Use in 2001	
	REI	PHI
Apples	24 hours	0 days
Apricots		
Cherries		
Nectarines		
Peaches		
Prunes/Plums		
Strawberries		
Blueberries	72 hours	0 days
Grapes		
Blackberries	24 hours	3 days
Raspberries		
Almonds	24 hours	30 days

- The Reregistration Eligibility Document states that Captan is not acutely toxic to mammals, relatively nontoxic to honeybees and degrades rapidly in the environment.
- Data for Captan suggests that it would not pose a risk for leaching to ground water.
- Does not appear to be a chronic risk to birds in orchards. *-Pecknold*

Weed Control in New Fruit Plantings: Take a little time now before you get involved in harvesting to look at new trees you've planted within the last few years. Look at the weeds within the herbicide strips. It doesn't take too much to keep them under control but is a big job if the weeds get away on you. Weeds around young trees can really hold them back. Remember, you're not just trying to keep them alive but to get them into production as fast as you can. Be careful with herbicides around young trees as the bark is still green and can be damaged by direct contact with many common herbicides. Give those young trees a little attention now before you get busy. *-Hirst*

Yield Assessment and Adjustment in Grapes: Vineyards all over the state are loaded with a large number of clusters this year. Growers may want to consider cluster thinning to control of crop size to balance the amount of fruit to vegetative growth. This is especially important if vines were stressed by drought last year. An optimum balance leads to maximum yields of high quality fruit and adequate vine growth for consistent productivity. Excess fruit production leads to poor fruit quality and reduced vegetative growth, resulting in lower potential production in the future. Younger vines are particularly susceptible to weakening due to overcropping.

The first step in determining if crop reduction is necessary is to estimate the potential yield. Potential yield is determined by the number of vines per acre (based on row and vine spacing), the number of clusters per vine, and the weight of the mature clusters. At standard spacing (8' x 10') there are approximately 545 vines per acre. If each vine produced 20 lb. of fruit, the yield on a per acre basis would be 10,900 lb., or about 5 1/2 tons. To determine how much fruit a vine will yield, count the number of clusters and estimate the cluster weight based on cultivar and past performance of the vineyard. Multiply average cluster weight by number of clusters, then by number of vines to determine yields per acre. Cluster size is largely determined by genetics of the cultivar and is relatively consistent from year to year, however, factors that affect fruit set can have an effect on cluster weight. This is particularly true of pre-bloom cluster thinning. We have been taking data on yield, cluster weights, berry weights, etc. for the past few years and have a good idea of performance of many grape cultivars. In our trials, large clusters average about 1/3 to 1/2 lb. but can be much larger. Large clustered cultivars include: Seyval, Vidal, Chardonnay, Cayuga White, Villard blanc, and seedless cultivars such as Reliance, Marquis, and Himrod when cluster-thinned. Medium sized clusters average about 1/4 lb. and occur on cultivars such as Chambourcin, Chancellor, Horizon, LaCrosse, Melody, Traminette, Concord, Niagara, and Catawba. Small clusters average about 1/5 to 1/8 lb. and occur on Cynthiana/Norton, Foch, Leon Millot, Delaware, Baco noir, Ventura, and Vignoles.

Yields from 5 to 7 tons per acre are reasonable for most wine grape cultivars in moderately vigorous vineyards, though actual yields range from less than 1 ton to well over 10 tons per acre depending on cultivar and vine vigor. Growers must know the relative vigor of their vines (pruning weights) and past performance of the vineyard to determine the maximum yield potential. A good rule of thumb is that the "crop load" (ratio of yield to pruning weight) should be in the range of 7 to 15 for French hybrid and American cultivars. It is easy to overcrop grapes if careful attention is not paid to crop load. Set a target yield based on past experience and adjust the crop to meet that target. Keep good records to determine the appropriate yields for each particular vineyard block.

If you have been managing the vineyard

properly the number of shoots has already been adjusted. So, to adjust the crop load now, thin to one or two clusters per shoot depending on cluster size and number per shoot. Leave the basal cluster as it is usually the largest. Cluster thinning can continue up through veraison if necessary.

-*Bordelon*

Sooty Blotch & Flyspeck: Young developing apple fruit are already showing the dark smudges and black speckling indicative of sooty blotch and flyspeck. Yes, this is turning into a 'good' sooty blotch and flyspeck year. These diseases are best managed if fungicide applications are maintained on a regular schedule throughout the summer months. They become a problem when the time between sprays is stretched too long (4 weeks between sprays just won't cut it) and/or when spray applications are stopped too early in the season. Check harvest restriction days on the pesticide container label and MAINTAIN fungicide applications on a REGULAR SCHEDULE up to the cut-off period. See ID-168, "2000 Indiana Commercial Tree Fruit Spray Guide", and the previous edition of this newsletter for recommended fungicides. Infection from sooty blotch and fly speck can further be reduced through IPM strategies that lower humidity and promote rapid drying. Also, remember to remove reservoir hosts, particularly brambles, from the orchard and surrounding hedgerows to help reduce the level of incoming spores. -*Pecknold*

Brown Rot Warning: A first warning for severe brown rot of stone fruits (apricot, nectarine, peach, cherry, plum). Conditions have been excellent for brown rot infection. As fruit softens during the ripening process, it becomes more susceptible to brown rot. Keep in mind that wet, humid weather is ideal for brown rot development. Scout orchards now for brown-rot-infected, aborted fruit. Also maintain good insect control, especially for curculio. Special attention to brown rot control is required where trees are planted closely and/or where woods surround the orchard. Such conditions reduce air movement, and dew or rain evaporates more slowly, leading to possible brown rot outbreaks. -*Pecknold*

Late Season Grape Disease Control: The first of July signals the shift from early season to late season disease control strategy in grapes. From

now until harvest the spray interval can generally be extended to 14 to 21 days (depending on rain-fall) and growers must change fungicides. On most grape cultivars the last application of mancozeb is recommended two weeks post-bloom. Because of its 66 day pre harvest interval, one of the other broad spectrum fungicides must be substituted for mancozeb for the remainder of the season. The protectant should be combined with one of the sterol inhibitors (SIs) such as Nova, Bayleton, Rubigan, etc. Another option is one of the new strobilurin products such as Abound, Flint, or Sovran. However, these may be a better choice for the bloom and post bloom sprays because of economics. Broad spectrum materials currently available for late season disease control are captan, ferbam, ziram, and copper. Ziram has been granted a 24c label (Special Local Needs) for Indiana that allows its use during the late season (21 day PHI).

We are approaching bunch closing so it is time to make an application for Botrytis bunch rot control on varieties that are susceptible such as tight-clustered hybrids (Vignoles, Seyval) and most vinifera, especially Riesling and Pinot noir. Use either Rovral or Vanguard and follow the guidelines in the 2000 Indiana Commercial Small Fruit and Grape Spray Guide (ID-169). –*Bordelon*

List Your Farm on the Internet for Free: A new website has been launched which makes it easy for consumers to find a farm market anywhere in the United States. The site is located at <http://www.localharvest.com> – a search for a farm market can be made by farm name, state or zip code. Registration for farms is free.

Several growers in Indiana have found the internet to be a cost effective means of advertising and promoting their farm. At the moment the internet is probably not a good replacement for your current advertising, but it certainly may be a useful and effective addition to the advertising program you already have in place. -*Hirst*

Apple Crop Outlook and Marketing Conference: This US Apple Association conference is being held in Chicago on August 17-18 at the Fairmont Hotel. This is a yearly event which examines world production and supply of apples. More than 325 industry members from across the U.S. and overseas attended last years conference. Topics this year will include:

- Market intelligence and outlooks on world crops and markets
- U.S. crop outlook, including varietal forecast and processing demand outlook
- Chinese crop outlook
- Apple juice and concentrate market analysis
- E-tailing, retailing and consumer trends

All attendees will receive a copy of US Apple's "Production and Utilization Analysis, a compendium of industry statistics and analysis. Cost is \$295 for US Apple Association members and \$495 for non-members. For more information contact the U.S Apple Association (703-442-8850). -*Hirst*

Record Peach Crops Expected This Year: The National Peach Council is predicting the national fresh market peach crop this year to be over 1.5 billion pounds, the highest since 1993. California is expected to account for just over half of the national total with 800 million pounds. South Carolina comes in second with 160 million pounds and Georgia third with 120 million pounds. They predict the crop in Indiana to be similar to last year at 2.9 million pounds. -*Hirst*

Fruitgrowers Tour of New Zealand: Planning is almost complete for the fruit tour of New Zealand next year. At the summer meeting of the Indiana Hort. Society next week, I will announce the dates and the cost of the tour. Brochures will be available with more information about the tour and a registration form. I'm hoping to take a group of 20-30 people – spouses are welcome. In the event of too much interest in the tour, space will be limited to the first 30 people who register. Contact Peter Hirst at Purdue for more information. -*Hirst*

Indiana Winegrower's Guild Summer Meeting: The IWG will hold its summer meeting at Oliver Winery in Bloomington on Friday July 7. The board of directors will meet at 2:00 pm and the general membership will meet at 4:00 pm. A bar-be-que dinner will be held at 6:00 pm at a cost of \$10 per person. There are some important issues to discuss during the business meeting so the board is urging all members to attend. The meeting is open to IWG members and anyone interested in Indiana grapes and wine. Come see what all the excitement is about!

Changes in the Federal Crop Insurance Programs: President Clinton recently signed into law the \$8.2 billion crop insurance reform bill, the “Agricultural Risk Protection Act of 2000.” This law will lead to significant changes in crop insurance programs for fruit, vegetable, and specialty crop growers. The bill will expand coverage to more crops and provide incentives for new insurance product development, which will extend risk management to more producers and foster innovation in the risk management marketplace. The bill also provides income assistance to producers of a number of different crops, such as fruit and vegetable growers. Growers should contact their local FSA office for more information. The bill is available on the web at the RMA’s site: <http://www.rma.usda.gov/> or directly at <http://thomas.loc.gov/cgi-bin/query/z?c106:h.r.2559.enr>:

Tremendous Summer Meeting: Over the last 2 days, about 80 growers were treated to seeing two operations that are truly the class of the state. We express our appreciation to the families at Joe Huber Farm and Restaurant, and Huber Orchard Winery for their hospitality and providing us a fine example of how it should be done. These two farms are larger than most, but share several things in common with almost every grower in the state. First and foremost, these are family farms, and the importance of family rang through clearly. The obvious passion these folks have for farming and sharing their farms with their customers is something many of us can relate to. We visited two very successful farm operations, but this success hasn’t happened overnight and hasn’t happened without a lot of hard work. Many farms in the state are family farms that take pride in their farms and are run by hard working people. So what distinguishes these farms from most others? Innovation. We saw both operations trying new things constantly, always changing to offer their customers something new. Customer orientation. Most of us think that we have the customer in mind, but few take it to the level we saw in Starlight. Compete on service, not price. So many of us think price is the most important thing to the customer. If that were true, most people from Louisville would go to their local supermarket, save their gas and not drive 20 miles to either of the Huber operations. These operations offer something more, and that’s what draws their customers.

To the families at Joe Huber Farm and Huber Orchard, we say thanks for being such fine examples, for inspiring us and for sharing so freely of your thoughts and experience.

Coming Meetings:

July 7 – Indiana Winegrower’s Guild Summer meeting. See details above. Contact Bruce Bordelon 765-494-8212 or Dave Lundstrom 219-464-4936.

August 2 – Southwest Michigan Annual Viticulture Field Day and Steak Cookout. Southwest Michigan Research and Extension Center, Benton Harbor, MI. Contact Tom Zabadal 616-944-1477.



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