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Crop Conditions: Blueberry harvest is getting underway in the main production areas of North Central Indiana. Japanese beetles have emerged in force and are attacking just about everything. Bramble harvest continues in all areas of the state. Japanese beetles and anthracnose are the main problems at this time. Strawberry renovation should be completed as soon as possible. Grapes are at bunch closing. Diseases and 2,4-D damage are common this year due to the excessive rainfall this spring.

Late Season Grape Disease Control: Disease pressure is extremely high this year. I've seen cases of severe black rot, Phomopsis, and anthracnose. Downy and powdery mildew have also shown up already. Black rot on grapes has been the subject of numerous phone calls and emails from homeowners as well. Early July usually 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 rainfall). While we can normally extend our spray intervals this time of year, growers with severe black rot leaf spot should be prepared to respond to an infection period with one of the sterol inhibitors such as Nova, Bayleton, Rubigan, etc within 72 hrs of the start of the infection period. The amount of inoculum present in some vineyards is very high and a rainfall event of one inch or more will result in significant spore release.

On most grape cultivars the last application of mancozeb is recommended two weeks post-bloom because it has a 66 day pre harvest interval. One of the other protectant fungicides must be substituted for mancozeb for the remainder of the season. 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). The protectant should be combined with one of the sterol inhibitors (SIs) such as Nova, Bayleton, Rubigan, etc. Another option is one of the strobilurin products such as Abound, Flint, or Sovran.

We are at 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, Vanguard, or Elevate and follow the guidelines in the 2002 Indiana Commercial Small Fruit and Grape Spray Guide (ID-169). (Bordelon)

Mites: The hot dry weather is beginning to produce some mite outbreaks. Last week at the summer hort meetings, several growers reported that they were having problems with European red mites in apples. Bruce Bordelon brought a blackberry sample back from Vincennes that was heavily infested with two-spotted spider mites. The good news is that in most of the samples I have looked at, it appears that there are substantial populations of predatory mites present. This indicates to me that overwintering

survival of the predators was good, and that growers are doing a good job of conserving the predators. However, in favorable weather like we have experienced lately, the pest mites may be able to out distance the predators, and you may need to get involved to get the pests under control. Now would be an excellent time to be scouting your fruit crops for mites and taking appropriate actions if necessary. (Foster)

Japanese Beetles: Japanese beetles are emerging in all areas of the state. As you all know, they are voracious feeders on almost all fruit crops. Sevin is the most effective material labeled for use on most fruit crops. The preharvest interval (PHI) is 3 days for the tree fruits, which usually does not present a problem. However, the PHI for Sevin on the small fruits is 7 days, which can present a huge problem during harvest. Imidan is moderately effective and has a 3-day PHI, which may help somewhat. Malathion has a 1-day PHI on blueberries and brambles, although it is not the most effective insecticide. Insecticides containing pyrethrum can be used up to the day of harvest, but provide only very short-term control. Be sure to adhere to the preharvest restriction and Restricted Entry Intervals for whatever pesticide you choose to use. (Foster)

Brown Rot Of Stone Fruits: As peach harvest approaches be aware of the need for sprays to control brown rot. Warm, wet, humid weather is particularly favorable for brown rot. Pre-harvest sprays for brown rot should be started no later than 3 weeks before harvest or when fruit begins to color. For information on fungicides and timing of spray applications see ID-168, "2002 Indiana Commercial Tree Fruit Spray Guide". In addition to maintaining sprays for brown rot, also maintain sprays for insect pests that may injure fruit and allow brown rot to gain a foothold. Use care in the picking and handling of fruit to avoid punctures and skin abrasions. Any break in the skin of the fruit enables brown rot to more easily cause infection. (Pecknold)

Necrotic Leaf Blotch On Goldens: Generally we first start noticing necrotic leaf blotch (NLB) on Golden Delicious in late June or July, when the weather becomes hot and sticky. Symptoms of NLB are leaf yellowing and drop; often patches

of brown blotches develop along with leaf yellowing. Symptoms develop suddenly, almost overnight, and in waves, generally from June through August. The cause of NLB is not known; however, the disorder is thought to be related to air temperature, light intensity and soil moisture. It is most severe when a cool, rainy period of 4 - 5 days precedes several hot, sunny days. Although it appears NLB is not fungal caused, the disease is reduced when ziram is included in the cover sprays. (Pecknold)

IHS Summer Meeting: A smaller than usual, but enthusiastic group gathered at the Dow AgriSciences and Purdue research farms on July 1-2 for the summer meeting of the Indiana Horticultural Society. Our thanks go to Jerry Keaton and the other folks at Dow for their hospitality in hosting our visit and evening round-table discussion. We would also like to thank Burk Thompson and his staff at the Purdue Horticulture Research Farm and Jay Young and Nate Linder at the Purdue Meigs Farm for helping organize our tours at their respective facilities.

This years tours were of research farms rather than commercial production orchards so the overall objectives of the operations was entirely different. Those who attended learnt of some of the latest research results and also now have a greater appreciation of what is involved in field research. Next year we'll be back at a commercial operation.

Orchard Rules Posters: At the Indiana Horticultural Society (IHS) summer tour last year, we discussed making up posters of orchard rules to be posted for U-pickers. This has been done – see the picture below. So far we have versions in English, Spanish and Chinese and hope to have them also available in Korean soon. A few people did not want rule #5 included (no knives in the orchard) so for those folks we can custom print with just the first 4 rules. The size is 36" wide and 48" high. The cost is \$10.00 each, with the first one free to Indiana Hort. Society members or those who have contributed to the Return Bloom Fund in the last 3 years. To order, specify the language you want and email or phone Peter Hirst. Please make checks out to Purdue University.

ORCHARD RULES

WELCOME to our orchard. It is our pleasure to have you with us today.

A lot of time, work and love have been put into this orchard, and we earn our living selling the apples we raise. Therefore, everyone visiting our orchard is asked to respect and follow the five simple rules listed below.

ORCHARD RULES:

- Rule # 1: Please pay for all the apples you pick.
- Rule # 2: Please don't dump apples you have picked on the ground.
- Rule # 3: Please do not climb the trees or climb on ladders or boxes.
- Rule # 4: Please do not knock apples off the trees.
- Rule # 5: No knives are allowed in the orchard.

If you respect and follow our five rules, we consider you an honored and welcomed guest. However if you choose not to respect and follow these five rules, you may be asked to leave and not return.



ENJOY YOUR VISIT WITH US!

prepared by
Indiana Horticultural Society.



USDA Specialty Crop Block Grants: We recently received notification of the success of several applications for grant funds from the USDA block grants program. Although not all applications related to the fruit industry were successful, we are pleased that the following requests were funded:

- Specialty crops marketing position at Purdue. We will soon begin advertising this position, which will have a considerable extension component. School of Agriculture Dean Vic Lechtenberg has committed to fund this position after the 2 year period of the grant expires, which greatly magnifies the \$150,000 received from the USDA.
- Funds to expand the Indiana Horticultural Congress. We received \$15,750 over 3 years to help fund the cost of additional outside speakers.
- Fruit and Vegetable website. \$28,879 was received to help cover the costs associated with developing a website to act as a central portal to all our fruit and vegetable information online.

We would like to thank the growers and other industry people who wrote letters supporting our applications, and we're excited about the new opportunities presented by these grant funds.

Wine Grape Workshop: The Purdue Wine Grape Team will hold a workshop at Huber Orchard and Winery in Starlight on Monday August 5 from 9:00 am (Indianapolis time) until about 2 pm. Lunch will be included. Following the workshop the Indiana Winegrower's Guild will hold its summer meeting. The meeting will conclude with dinner and wine tasting. The workshop will include vineyard tours and a discussion of harvest parameters, hands-on wine laboratory equipment demonstrations, and a discussion of holiday marketing ideas. For complete information visit www.indianawines.org and click on Calendar. Please RSVP so we can make lunch and dinner arrangements to Jill Blume, 765-494-1749 or email blume@purdue.edu.

Upcoming Meetings:

July 9-12 American Society for Enology and Viticulture-Eastern Section conference. Baltimore, MD. Contact www.nysaes.cornell.edu/fst/asev.

July 17-19 Workshop on developing and implementing HACCP for Juice and Cider Industries. Holiday Inn at the Pyramids, Indianapolis. For a brochure and program see <http://www.foodsci.purdue.edu/outreach/haccpcider/02brochure.pdf> or call Peter Hirst for a copy of the program.

August 5 Purdue Wine Grape Workshop and Indiana Winegrower's Guild summer meeting. Huber Orchard and Winery, Starlight. See details above.

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