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Crop conditions: Warm weather across the state has provided generally good conditions for apple chemical thinning, but the thinning window is closing fast. Warm weather with intermittent rain has provided close to ideal fireblight conditions.

Apple thinning: In most areas of the state, the window for apple thinning is rapidly closing. With continued warm temperatures forecast over the next week, this is your last chance to reduce fruit numbers. Although Sevin is reported to have a thinning effect on apples up to 20 mm in diameter, as fruit size increases the effect is less. If your trees still have too many apples on them, including some Maxcel with Sevin would be a good idea. Late applications of NAA may result in pygmy fruit and should be avoided. Ethephon is a product that can be valuable when other thinners have been used and insufficient thinning has been achieved. For most varieties, rates of 1.5 – 4.0 pints per acre should be sufficient, but hard to thin varieties (like Golden Delicious) may require higher rates up to 6 pints per acre. Remember that all thinners take time to work – allow 10 days to see the results of a thinning application before assessing results.

Fire Blight & Cicadas: More than one grower has asked about the possibility of cicadas acting to spread fire blight. My answer: possible, but not probable. In addition, a

prominent entomologist amongst us has informed me that cicadas would most likely NOT be attracted to a twig showing fire blight (flagging) symptoms. But of course everyone is currently walking their orchards being sure to prune out any fire blight strikes. Also, even though streptomycin is registered for use until 30 days before harvest on pears and 50 days on apples, we do not recommend the use of streptomycin after petal fall due to the potential for resistance to develop. The one exception for the use of streptomycin after petal fall is following a hailstorm or heavy wind damage. This “hail spray” should be made within 18 to 24 hours after the start of the storm, even if the foliage is not completely dry.

Stopping Spread of Apple Scab: About 9 to 17 days are required from the time of infection by apple scab until the appearance of the olive-green, velvety scab lesions. Within the lesions secondary spores (conidia) are produced throughout the summer months... by the billions! It isn't a pretty picture! All growers should start checking NOW for the first symptoms of scab. The recommended

course of action **where scab lesions are present** is to apply a SI fungicide (Nova, Procure, or Rubigan) to minimize additional leaf infections **in combination with a FULL rate** of Captan to provide optimum control of fruit scab. However, with the introduction of the new strobilurin fungicides (Sovran and Flint) growers have a new alternative for keeping scab in check. Among the primary strengths of the strobies are their ability to suppress the formation of secondary spores and their ability to provide excellent control of fruit scab. Remember that fruit are at their maximum stage of susceptibility from pink until about 3-4 weeks after petal fall. And as always, we strongly suggest no more than 3 sprays of any strobilurin fungicide. We want these fungicides to last!

Topsin M Receives Section 18 Exemption for Use on Blueberries: EPA has granted a section 18 Specific Exemption for thiophanate methyl (Topsin M WSB) fungicides for use on blueberries in Indiana for the 2004 growing season. This is in addition to the section 18 Specific Exemption for Indar 75WSP that we reported in the last issue. Topsin M is used for control of mummy berry disease, Botrytis blossom blight, anthracnose fruit rot, Phomopsis twig blight and canker, and Fusarium canker. The supplemental label for the Section 18 exemption for Topsin was issued by Cerexagri (www.cerexagri.com) and must be in possession of the user at the time of application. If you have questions about section 18 exemptions for pesticides, contact the Indiana State Chemist at 765-494-1587. Copies of the supplemental labels in printable PDF format are available on the Midwest Small Fruit and Grape Spray Guide website at www.hort.purdue.edu/hort/ext/sfg under "Recent Updates" link. (Bordelon)

Important Grape Sprays: Grapes are approaching bloom across the state. The next few fungicide applications are very important for controlling the major fruit pathogens. The immediate pre-bloom (or early bloom) and the

first two post bloom applications are the most important sprays for controlling black rot, but also are important for downy and powdery mildew. Care should be taken to get thorough coverage of all foliage and developing fruit. Slow the tractor speed, spray every row middle, increase volume, and use full label rates. This would be a good time to use one of the strobilurin fungicides such as Abound, Sovran, or Pristine. On Botrytis bunch rot susceptible varieties; addition of a botryocide such as Rovral, Vanguard, or Elevate in the bloom spray may be beneficial. For a complete discussion of grape pest management refer to the Commercial Small Fruit and Grape Spray Guide (<http://www.hort.purdue.edu/hort/ext/sfg/>) and the Midwest Small Fruit Pest Management Handbook (<http://www.ag.ohio-state.edu/~sfgnet/>). (Bordelon)

Crop Load Adjustment in Grapes: Annual pruning of grapes is necessary to balance the amount of fruit production with the amount of vegetative growth to insure economic yields of high quality fruit. Pruning severity is based on the strategy of 'balanced pruning,' which dictates the correct number of buds to retain, or 'crop load,' which determines the number of clusters to retain. Both methods are based on the vine's pruning weight or 'vine size', which is an indication of the vine's capacity to ripen the crop. Many growers prune vines lightly during the early spring to assure adequate bud number following this year's winter injury, and in case of damage by a late frost or freeze. Now that the danger of frost and freeze is over and grape shoots are growing rapidly, growers should go back through the vineyard and determine if crop load adjustment is needed. The crop load is adjusted by removing shoots and/or clusters. New shoots are easily broken off by hand without the need for pruners. Growers should pay close attention to the fruitfulness of shoots. Shoots from primary buds have full fruiting potential, whereas secondary buds and latent buds on older wood produce shoots with little or no fruiting potential, depending on cultivar.

Ordinarily, all secondary shoots and shoots from older wood should be removed. However, on varieties that may have suffered winter injury this year, the secondary shoots may be the only shoots available. Shoots should be spaced evenly along the trellis if possible and at a density of about four to six shoots per foot of row. Cluster thinning (removing one or more of the clusters on each shoot) done before bloom, results in the least yield reduction because the remaining cluster(s) generally set more berries. However, on tight clustered cultivars, cluster thinning after bloom can result in looser, less rot susceptible clusters. Keeping records of average cluster weights and vine yields can help determine the appropriate amount of fruit to retain now. (Bordelon)

Orange Rust: I noticed orange rust showing up on the blackberries along my fencerow yesterday. Orange rust is a systemic disease that cannot be cured. Once the plant is infected, it will always be infected. Infected plants seldom produce fruit, but may remain alive for several years. The disease looks somewhat like herbicide injury, as the leaves appear misshapen and yellowish. Orange pustules appear on the undersides of the leaves as the symptoms progress. The best method of control is to remove all infected plants as soon as they are noticed and before they shed spores. The fungus resides in the roots as well as the shoots, so the plants must be rouged out completely. An easier way might be to use a systemic herbicide such as glyphosate at a full rate to kill diseased plants. Well-timed applications of Nova 40W (Immunox for the home grower) or the new strobilurin Cabrio 20EG can prevent infection of uninfected plants. Fungicides should be applied on a 10 to 14 day schedule until leaves on infected plants dry up and stop producing the orange spores. This is usually around the first of July. Refer to our two small fruit publications for a complete discussion of managing this disease: Commercial Small Fruit and Grape Spray Guide (<http://www.hort.purdue.edu/hort/ext/sfg/>) and the

Midwest Small Fruit Pest Management Handbook (<http://www.ag.ohio-state.edu/~sfgnet/>). (Bordelon)

ASEV-ES Annual Meeting: The 2004 American Society for Enology and Viticulture/ Eastern Section conference will be held July 14-16 in Roanoke, VA. The program is now available online at www.nysaes.cornell.edu/fst/asev. A pre-conference tour of Virginia wineries will be held on Tuesday July 13. The Symposium title this year is "Grapes, Wine and Environment- How soils, cultural practices and warm climates affect wine quality". For details and to download the registration forms please check the web site.

On The Lighter Side: It may not be factually correct, but it is entertaining. <http://www.cicadaville.com/>

Upcoming meetings:

June 1 – Easternm Indiana Friutgrowers Orchard tour. Grabows Orchard and Farm Market. SR 13 one mile north of I-69. 6.00 pm. For more information contact Dave Clamme, phone 465-474-7732 or email dclamme@purdue.edu

June 8 - Blueberry Grower's of Indiana Spring meeting, farm tour, and potluck dinner. Jones Blueberry Ranch, 54743 Buckeye Road, Mishawaka. Contact Melvin Van Kley 219-956-3687 or John Nelson, 219-255-5773

June 21 – Indiana Winegrowers' Guild summer meeting & workshop. Chateau Pomije Winery, New Alsace. Visit www.indianawines.org for details.

June 21-22 – IDFTA summer tour (see <http://www.idfta.org> for more details).

June 28-29. Indiana Horticultural Society Summer Tour. Anderson Orchard, Mooresville, IN.

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