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Crop Conditions

Fairly cool conditions over much of the state over the past few weeks has almost put us in a state of suspended animation with many of our fruit crops. Apples are generally just a little past petal fall and we're just waiting for some warm weather for rapid fruit development. Peaches are at shuck split in central Indiana. Grapes have 6-10 inch shoots in the south, and 1-3 inch shoots in central Indiana.

Care of Young Fruit Trees: Young trees require a lot more care and attention than older established trees. With a young tree, we are trying to achieve maximum growth so that the tree fills the space allotted to it quickly, while not invigorating the tree to such an extent that cropping will be delayed. This may sound like trying to accomplish the impossible, but really it's not. At this time of the year, one of the critical factors which can limit tree growth is water. This is especially a problem where good weed control is lacking. So to make sure a young orchard gets off to a good start, pay particular attention to weed control, apply water if it is required and if you can, and supply adequate nutrition. Where we get into trouble with overly vigorous young trees is usually by applying too much fertilizer (especially nitrogen) and by pruning too heavily. The general rule is the more you prune a young tree, the more you will delay it coming into cropping. Now is a good time to look at the newly developing shoots on a young tree and rubbing out the undesirable shoots while they are only an inch or two long. This helps to direct the trees energies into branches you want to keep and also avoids disruptive winter pruning. Rubbing shoots can be a useful technique for selecting good scaffold branches after heading, by eliminating those with very steep angles. It can be done very quickly, and will probably take less than a minute per tree.

HACCP to be Part of New Cider Regulations: The FDA has announced that the new regulations governing cider production will include mandatory Hazardous Analysis of Critical Control Points (HACCP). This is a system where each point in the cider making process where contamination can occur is identified, and procedures put in place to address the possible contamination. This will cover all steps of the process from apples in the orchard to cider in the jug. For cider operations already paying close attention to good sanitation, this may not mean a lot more work apart from documenting the various sanitation procedures already being practiced. This is a food safety protocol and not a quality control issue, although in other industries where HACCP has

been implemented, improvements in quality have also occurred mainly due to increased attention to detail.

The document from FDA outling the new rules is not expected until June or July. Following release of this, there will be a 2-3 month period for public comments before the final rules are issued. Obviously, it seems that the new rules will not be in place for the coming season, which provides a great opportunity for cider producers to examine their operations and identify improvements that can be made.

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. It's not a pretty picture! Growers should start checking their orchards NOW for the first symptoms of scab. The preferred course of action where scab lesions are present would be a to apply Nova or Rubigan through second cover (to minimize additional leaf lesions) in combination with a FULL rate of captan to provide optimum fruit scab control. Remember that fruit are at their maximum stage of scab susceptibility for 3 to 4 weeks after petal fall.

Fire Blight: 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 hail storm 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.

Strawberry Diseases: Strawberry gray mold and leather rot are most apt to occur under cool, wet, cloudy conditions. Keep an eye on your prevailing weather conditions and act (spray) accordingly. As previously mentioned, bloom is a key time to apply preventative sprays for these diseases. See ID-169, " 1997 Indiana Commercial Small Fruit & Grape Spray Guide ", for further information.

Aliette Registered for Blueberries: Aliette WDG fungicide received a federal label for use on blueberries early in the year after printing of the 1997 Indiana Commercial Small Fruit & Grape Spray Guide. Aliette is registered with the Office of the Indiana State Chemist for use in Indiana. Aliette WDG is labeled for control of Phytophthora Root Rot and Anthracnose Fruit Rot, and suppression of Alternaria Fruit Rot and Phomopsis Canker. Recommendations call for foliar sprays of 5 lb/A beginning in spring at approximately the pink bud stage and continued at a 14-21 day interval. Use a sufficient volume of water for good coverage. Note: Phytotoxicity from solubilized copper may occur if products containing copper are tank-mixed with Aliette WDG. Do not tank-mix with copper compounds. When applied prior to or after copper compounds, the pH of Aliette WDG should be raised to 6.0 or above with the addition of an alkaline buffer such as Potassium Carbonate (3 lbs Potassium Carbonate to 5 lbs Aliette WDG) or DiAmmonium phosphate (5 lbs DiAmmonium Phosphate to 5 lbs Aliette WDG). For more information, contact your supplier or Rhone-Poulenc at 800-334-9745.

A New Class of Fungicides for Grapes:
(adapted from Michigan State University CAT Alerts Vol. 12, No. 4 by Donald C. Ramsdell)
Grape growers can look forward to the future use of a new class of fungicides called the "strobilurin" group. Zeneca Agricultural Products has under development a fungicide called "Abound" (Azoxystrobin) for use in grapes and tree fruit. Zeneca is hoping for a federal use label in grapes, perhaps as early as May 1997. BASF Agricultural Chemicals also is developing a fungicide for grapes and tree fruits called "Sovern," which is also a member

of the "Strobilurin" group. "Sovern" (Kresoxym-methyl) will not be registered for grapes in 1997, however.

Both of these chemicals are considered "fast track" or "green" compounds by the EPA. These chemicals are very safe to the applicator and to the environment, in general. These chemicals are also highly active as fungicides. They are used at relatively low rates per acre (0.2-0.25 lb active ingredient per acre).

The Strobilurin group of fungicides has a natural origin. They were discovered as naturally occurring compounds present in a mushroom (*Strobiluris* species) The mushrooms were observed to inhibit other fungal growth around them. The active chemical was extracted and identified. The companies who did the development modified these natural compounds slightly so they would not photo decompose too quickly. Now both Zeneca and BASF Companies manufacture these novel compounds for commercial use.

Perhaps the best news to growers is that this new group of fungicides controls all four of the major groups of fungi that attack grapes. Most fungicides control only one or two groups of plant pathogenic fungi. The Strobilurin compounds have a new and novel mode of action for control of plant pathogenic fungi. They inhibit the electron transport system in plant pathogens, but not in other living entities. They are very effective and very selective.

The new chemicals can and should be used in a resistance management program. In other words, these fungicides should be used in an alternation program with other chemicals in a seasonal disease control program. In this era of regulatory-based loss of agricultural chemicals, the development of this new class of compound is a "breath of fresh air." With some luck (depending on how quickly EPA can act), growers may have Abound to use in grapes in 1997. We'll keep you posted on registration of these products.

Indiana Winegrowers Guild Summer Meeting: The Indiana Winegrowers Guild will hold its summer meeting at Chateau Pomije Winery on June 23, 1997. The meeting will be 1:00 - 3:00 pm and the vineyard tour and workshop will be 3:00 - 5:00 pm. A pot-luck cookout will follow. There is lots to see at Chateau Pomije. Over 15 acres of vineyards have recently been established, and over 10 acres of vinifera varieties are in production. Tours of the new plantings will include discussions of variety adaptation, grow tubes, tile drainage, trellis systems, and other topics. Tours of the winery will also be offered. The meeting is open to all members and their guests. Anyone wishing to join the Guild may join on site.

Indiana Horticultural Society Summer Meeting: The summer meeting has been scheduled for July 1-2 and will be visiting Applacres in Bedford and Biersdorfer Orchard in Guilford. Of particular interest to many folks will be the new cider pasteurization plant at Biersdorfers which we will be able to see in operation. Look for more details in the next issue of Facts for Fancy Fruit.

Facts for Fancy Fruit Available Electronically: This newsletter is 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.

Coming Meetings/Events:

May 29 — Tennessee Orchard Show, Jack Flippin's Fruit Farm, 3734 W. Shawtown Road, Troy, TN 38260. For more information, call Dave Lockwood at 901/974-7208 or Flippin's at 901/538-2933.

June 2 — Lake County Fruitgrowers Twilight meeting. Contact Walt Sell (219-326-6808) for further details.

June 3 — Eastern Indiana Fruitgrowers twilight orchard tour and program, 6.30 pm to 9 pm. The host will be Don Godfrey, 4510 W. S. R. 67, Portland. This is between Redkey and Portland on St. Rd. 67 near Como. Contact Harold Brown (317-747-7732) for further details

June 7-9 — Wine and Juice Production and Practical Monitoring Workshop. A regional meeting of the American Society for Enology and Viticulture/Eastern Section. Holiday Inn Dulles, Dulles, Virginia. Contact Cynthia Wood at 209-278-2089 for more information.

June 10 — Blueberry Growers of Indiana Summer Meeting. Pruitt's Farm, Wheatfield, IN. Contact Pat Goin 219/896-2283.

June 17 — South-Eastern Indiana fruit growers meeting - details to follow.

June 23-26 — Kentucky and Tennessee Cooperative Summer Apple Tour. Contact Jerry Brown 502/365-7541 ext.204 for additional information.

June 23 — Indiana Winegrowers Guild Summer meeting and Vineyard Tour. Chateau Pomije Vineyard and Winery, 25060 Jacob Rd. Guilford, IN. Business meeting: 1:00 - 3:00pm, Vineyard Tour/ Workshop: 3:00 - 5:00pm. Cookout following. Contact Bruce Bordelon 765-494-8212.

July 1&2 — Indiana Horticultural Society Summer Meeting. Applacres, Inc. in Bedford, and Beiersdorfer Orchard in Guilford. Emphasis on cider. Mark your calendars, more details will follow. Contact Dick Hayden (765-463-6587).

July 9-11 — American Society for Enology and Viticulture/Eastern Section Annual Meeting and Riesling Symposium, Corning, NY. Contact: E. Harkness, Dept. Food Science, Smith Hall, Purdue Univ. W. Lafayette, IN 47907-1160, Phone 317-494-6704, FAX 317-494-7953 Email: Harkness@foodsci.purdue.edu.

July 23 — Commercial Apple IPM Meeting, Robert Rudd's Orchard, East Bernstadt, KY (Laural county). Contact Jerry Brown 502/365-7541 ext.204 for additional information.

July 24 — Robinson Substation Field Day, Quicksand, KY. Contact Terry Jones 606/666-2438.

August 4-6 — Kentucky Vineyard Society Grape Vineyard and Winery Tour. See article above.

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