



Newsletter

Extension

Fruit ICM News

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Calendar

June 18-20: Annual Meeting of the American Society for Enology and Viticulture, Reno Hilton, Reno, NV. American Society for Enology and Viticulture, Phone 530-753-3142; E-mail: society@asev.org; Web site: <http://www.asev.org>.

June 25: Ohio Fruit Growers Society Summer Tour, Glen Hill Orchards, 17156 Glen Road, Mt. Vernon, OH. Registration begins at 8:00 a.m. Member registration fees are \$15 per family and \$10 per individual. (Non-member fees are \$20 and \$15.) You may contact the Ohio Fruit Growers Society at 614-246-8292 for additional information.

July 6-8: International Dwarf Fruit Tree Association Summer Tour, Kelowna, BC, Canada; Charles Ax, International Dwarf Fruit Tree Association; Phone 570-837-1551; Web site: <http://www.idfta.org>.

August 4-5: HACCP Workshop, Leesport, PA. A Hazard Analysis Critical Control Point (HACCP) workshop will take place August 4-5 at the Berks County Ag Center in Leesport. The workshop is designed for cider makers and juice processors who are required to develop HACCP plan and educators and industry representatives who wish to increase their knowledge of HACCP. The workshop is co-sponsored by the Pennsylvania Department of Agriculture and the Penn State Cooperative Extension.

Workshop participants will:

- Increase their knowledge of potential hazards in cider and juice facilities and methods for their control;
- Learn about the Food & Drug Administration (FDA) HACCP regulations and learn more about food safety systems such as good agricultural practices and good manufacturing practices;

- Share strategies for implementing a HACCP plan for their operations.

Workshop speakers include Dr. Luke LaBorde from Penn State University, Diane Wright Hirsch from the University of Connecticut Cooperative Extension, and Judith Paterson from FDA. The cost of the program is \$95 for Pennsylvania residents and \$190 for out-of-state. The fee includes a copy of the 300-page *Juice HACCP Training Curriculum* and *The Employee's Guide to Food Safety*.

For more information please contact LaBorde at 814- 863-2298 or e-mail at lfl5@psu.edu.

Source: <http://www.fruitgrowersnews.com>

Impact of Cool Weather on Codling Moth Monitoring and Management

Source: John Wise and Larry Gut, MSUE Entomology, MSUE Fruit CAT, June 10, 2003. **Additional comments from the editor for Ohio conditions.**

The cool temperatures over the last three weeks have prolonged the calendar time normally necessary for codling moth to go from first sustained flight (biofix) to egg hatch. Most counties in the central and southern regions of the state biofixed for codling moth on the May 17-18 weekend, but have only accumulated 150 GDD base 50 since that time. The research that the codling moth degree-day model is built on shows early egg hatch to be at 250 GDD after biofix.

Therefore, the eggs that were laid by those initial codling moth adults three weeks ago still require an additional 100 GDD base 50 to hatch. **This illustrates the benefits of monitoring GDDs, which correlate to insect development, instead of making management decisions solely on a calendar date basis.**

It should be noted that not all insecticides should be timed for the 250 GDD egg hatch timing. For example, if you plan to use the insect growth regulator, Intrepid, then biofix + 150 GDD spray timing is optimal. The following chart, modified from the Michigan Fruit Management Guide (E-154), should help distinguish optimal timing and use of some insecticide options.

Here in Ohio we have had great difficulty establishing biofix for codling moth. Across the state the dates have ranged from May 2 to May 23. With materials now available for codling moth control we need greater accuracy in the timing of our sprays. This fact emphasizes the need for you to maintain temperature records as well as trapping for codling moth adults.

The following chart has been amended to include the restrictions on the amount applied per year available in the *Commercial Tree Fruit Spray Guide*, <http://www.extension.iastate.edu/pubs/PM1282/CTFSPBODY.pdf>.

Common Name (Trade name)	GDD timing post-biofix	Rate/acre	PHI	REI	Restriction on amt applied per year
Azinphosmethyl (Guthion 50WP) * 14 day REI for activities	250	2 lb	14 days	48 hr*	9 lb/A

like hand thinning (see label)					
Phosmet (Imidan 70WP)	250	2.25-3.0 lb	7 days	24 hr	30 lb/A
Esfenvalerate (Asana XL 0.66EC)	250	9.6-14.5 oz	21-28 days	12 hr	101 oz/A
Fenpropathrin (Danitol 2.4EC)	250	10.6-21.3 oz	14 days	24 hr	2.7 pt/A
Spinosad (SpinTor 2SC)	250	7.5-10.0 oz	7 days	4 hr	29 oz/A
Acetamiprid (Assail 70WP)	200-250	3.4 oz	7 days	12 hr	13.5 oz/A
Methoxyfenozide (Intrepid 2F)	150	16 oz	14 days	4 hr	64 fl oz/A
Pyriproxyfen (Esteem 35WP)	100	5 oz	45 days	12 hr	2 applications (see label)

Local Berries Are Better

Adapted from the Ohio Fruit Growers Society, Tom Sachs, Executive Director

Are your customers looking for strawberries, raspberries, blackberries or blueberries for their sweet flavor and juicy texture? Or are they more interested in the health benefits of fresh berries? Well, have them look no further than your market or local farmers' market or country farm market for already picked berries or a local pick-your-own berry producer.

Local berries are ripened on the plant for the best flavor and have not spent days in a truck or warehouse. Concerned consumers usually have access to the producer for questions about production practices, varieties, and crop conditions for future availability. And buying at these country farm markets provides a great family outing opportunity, especially when parents and children can pick their own berries, learn first hand where their food originates, and have absolutely the freshest product with the best flavor.

"This has been a perfect strawberry growing season so far" says Brad Bergefurd, Ohio State University Horticulturist at Piketon. "The cool weather has slowed the ripening process and should spread out the strawberry harvest season. Black raspberries have just finished flowering with good fruit set, blackberries are in full bloom, summer red raspberries are beginning to flower and set fruit, and most blueberries have a good fruit set. Blueberry and black raspberry harvest should begin the third week in June, followed by blackberries the 1st of July. Summer red raspberries should also begin harvest in early July in southern Ohio."

Dale Stokes, of Stokes Raspberry Farm in Wilmington, promotes the health benefits of his fresh strawberries and raspberries. According to Dale, "Medical research indicates that fresh-from-the-plant fruits and vegetables have higher levels of beneficial antioxidants that keep the body healthy." He also cited research that indicates antioxidants help reduce the oxidation of LDL cholesterol and may help prevent cardiovascular disease. Dale is proud to supply consumers with healthy products while

providing an excellent pick-your-own experience for his customers.

Consumers interested in finding local farm markets and pick-your-own operations may locate them on several Internet web sites. The Grower Directory of the Ohio Fruit Growers Society is at web address: <http://www.ohiofruit.org> and the Ohio Vegetable and Potato Growers Association Grower Directory is at <http://www.ohiovegetables.org>.

The Ohio Department of Agriculture also has an excellent Farmers Market Directory at <http://www.ohioproud.org>. The Ohio Direct Agriculture Marketing Association has farm market information at <http://www.farmtomarkets.com>. With all these options, consumers can look forward to a bountiful harvest of fresh, healthy Ohio berries.

Important Grape Sprays

Source: Bruce Bordelon, Purdue Plant Pathologist, Facts for Fancy Fruits 03-06

Grapes have been blooming across the state over the past two weeks. Cool weather is causing the bloom period to be extended. The next few fungicide applications are very important for controlling the major fruit pathogens. May has been a fairly wet month, so disease pressure should be high.

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 new strobilurin fungicides such as Abound or Sovran. On bunch rot susceptible varieties, addition of a botryocide such as Rovral, Vanguard, or Elevate may be beneficial.

For a complete discussion of grape pest management, refer to the *Commercial Small Fruit and Grape Spray Guide* at <http://www.hort.purdue.edu/hort/ext/sfg/> and the *Midwest Small Fruit Pest Management Handbook* at <http://www.ag.ohio-state.edu/~sfgnet/>.

Crop Load Adjustment in Grapes

Source: Bruce Bordelon, Purdue Plant Pathologist, Facts for Fancy Fruits 03-06

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 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 early budding varieties that may have suffered frost damage this year, the secondary shoots should probably be retained. 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.

Degree Day Accumulations for Ohio Sites June 11, 2003

Ohio Location	Degree Day Accumulations			
	Base 45° F		Base 50° F	
	Actual	Normal	Actual	Normal
Akron/Canton	882	927	529	619
Cincinnati	1205	1327	812	930
Cleveland	863	884	531	590
Columbus	1144	1086	759	744
Dayton	1076	1113	701	769
Kingsville	686	786	388	520
Mansfield	825	908	479	606
Norwalk	828	876	496	588
Piketon	1275	1331	849	930
Toledo	803	865	472	581
Wooster	971	859	605	564
Youngstown	771	833	436	546

Pest Phenology

Coming Event	Degree Day Accum. Base 50° F
Peachtree borer 1 st catch	299 - 988
Codling moth 1 st flight peak	307 - 824
Lesser peachtree borer flight peak	392 - 1526
Lesser appleworm 1 st flight subsides	449 - 999
Spotted tentiform leafminer 2 nd flight begins	449 - 880

San Jose scale 1 st generation crawlers present	569 - 784
Apple maggot 1 st catch	629 - 1297
Redbanded leafroller 2 nd flight begins	656 - 1381
Codling moth 1 st flight subsides	673 - 1412
Oriental fruit moth 2 nd flight begins	772 - 1215

Fruit Observations & Trap Reports

Insect Key	
AM:	apple maggot
CM:	codling moth
ESBM:	eye-spotted budmoth
LAW:	lesser apple worm
LPTB:	lesser peachtree borer
OBLR:	obliquebanded leafroller
OFM:	oriental fruit moth
PTB:	peachtree borer
RBLR:	redbanded leafroller
SJS:	San Jose scale
STLM:	spotted tentiform leafminer
TABM:	tufted apple budmoth
VLR:	variegated leafroller

Site: Waterman Lab, Columbus
 Dr. Celeste Welty, OSU Extension Entomologist

Apple: 6/4 to 6/11/03

CM: 22.7 (up from 16.0)
 ESBM: 0 (same as last week)
 LAW: 22 (up from 10)
 OBLR: 8 (up from 6)
 RBLR: 0 (same as last week)
 SJS: 0 (same as last week)
 STLM: 78 (up from 38)
 TABM: 0 (same as last week)
 VLR: 2 (up from 0)

Peach: 6/4 to 6/11/03

OFM: 0 (same as last week)
 LPTB: 1 (down from 2)
 PTB: 0 (same as last week)

Site: Medina, Wayne, & Holmes Counties

Ron Becker, IPM Program Assistant

Apple: 6/04 to 6/11/03

STLM: Holmes: Holmes: 593 (up from 0)
Medina: Medina: 13.8 (up from 0)
Wayne: 0 (same as last week)
RBLR: Holmes: 0 (same as last week)
Medina: 0 (same as last week)
Wayne: 0 (same as last week)
CM: Holmes: Holmes: 2.0 (up from 1.4)
Medina: 1.7 (up from 0.8)
Wayne: 21.8 (down from 33.4)

Peach: 6/04 to 6/11/03

LPTB: Holmes: 11 (up from 9)
Medina: 0 (down from 1.5)
Wayne: 1 (down from 6)
OFM: Holmes: 3 (up from 1)
Medina: 0 (down from 2)
Wayne: 0 (down from 1)
PTB: Holmes: 0 (same as last week)
Medina: 0 (same as last week)
Wayne: 0 (same as last week)

Scab, European red mite, two-spotted spider mite, white apple leafhopper, rosy apple aphid, and spotted tentiform leafminer present in apple trees. Peaches and strawberries showing powdery mildew.

Site: East District: Erie & Lorain Counties

Jim Mutchler, IPM Scout

Apple: 6/03 to 6/10/03

CM: 5.1 (down from 5.4)
LAW: 30.6 (up from 13.3)
OFM: 3.5 (up from 2.4)
RBLR: 0.0 (same as last week)
STLM: 26.3 (up from 11.0)

Other pests include green apple aphid, rosy apple aphid, and white apple leafhopper. Beneficials include green lacewing and ladybeetle.

Peach: 6/03 to 6/10/03

LPTB: 3.9 (down from 19.7)

OFM: 1.3 (up from 0.3)
PTB: 0.3 (up from 0)
RBLR: 0.0 (same as last week)

Site: West District: Huron, Ottawa, Richland, & Sandusky Counties - Gene Horner, IPM Scout

Apple: 6/03 to 6/10/03

CM: 5.8 (up from 0.4)
LAW: 0.7 (up from 0.3)
OFM: 0.9 (up from 0.0)
RBLR: 0.0 (down from 0.2)
STLM: 8.9 (down from 12.7)

Peach: 6/03 to 6/10/03

LPTB: 1.2 (down from 3.8)
OFM: 0.7 (down from 1.3)
PTB: 0.2 (up from 0)
RBLR: 0.0 (same as last week)

Beneficials include banded thrips.

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Information presented above and where trade names are used, they are supplied with the understanding that no discrimination is intended and no endorsement by Ohio State University Extension is implied. Although every attempt is made to produce information that is complete, timely, and accurate, the pesticide user bears responsibility of consulting the pesticide label and adhering to those directions.

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