http://ipm.osu.edu/fruit/index.html



Newsletter Extension



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Calendar

June 22 & 23: North Central Horticultural Risk Management Workshop, Marriott Hotel, 305 E. Washington Center Road, Exit 112 off I-69, Fort Wayne, Indiana. The focus of this workshop is "managing the variations in profits and protecting business equity". Contact Ted Gastier for a registration form and additional information.

June 30: 1999 Ohio Fruit Growers Society Annual Summer Tour, Eshleman Fruit Farm, near the intersection of U.S. 20 and St. Rte. 101, Clyde, OH. Tour wagons begin rolling at 8:00 a.m., lunch is at noon, and annual business meeting begins at 1:00 p.m.

July 8: Twilight Summer Fruit School, Lynd's Fruit Farm, Western Licking County, 6:30 - 9:00 p.m. Agenda includes direct marketing, cultivars, & cultural practices. Resource people will be Dick Funt and Mike Ellis. For more information contact Howard Siegrist, (740) 349-6904.

July 21 & 22: Small Fruit Tour, Wooster/Mt. Hope area. Pre-tour gathering begins Wednesday evening at Maurer Farms near Wooster. Thursday morning the group begins its self-guided, self-driven tour at Farmers' Produce Auction in Mt. Hope. Demonstrations at OARDC in Wooster round out the afternoon, and the day ends at Moreland Fruit Farm near Wooster with a walking tour, discussion, and fruit pies. \$5.00 registration fee. For more information contact Mike Pullins at (614) 249-24424.

August 5: Young Grower Tour, northwest Ohio. Designed for, but not limited to, producers and their spouses age 40 and under. More information will follow.

Dr. Joseph Kovach will be starting July 1 as Ohio's new Integrated Pest Management/Pesticide Impact Assessment Coordinator. Joe comes to us from Cornell University's Agricultural Experiment Station at Geneva, NY.

His degrees include a Ph.D. and M.S. in Entomology from Clemson University and a B.A. in Zoology from Miami University of Ohio. Dr. Kovach's doctoral thesis was titled "Life cycle, seasonal distribution and tree responses to scolytid beetles in South Carolina peach orchards". His master's thesis at Clemson was "Twospotted spider mite: Effect on peach production and response to various fungicides and insecticides".

Summer Tree Fruit Tips

Source: Dr. Dave Ferree, Professor, Horticulture and Crop Science, OARDC, Wooster Under dry conditions, keep the row middles mowed short and use good weed control to conserve all the soil moisture you can. Mowing stops transpiration for several days with a slow recovery.

Young trees - Trees planted this year need to be checked several times to eliminate shoots lower than you want them. Rub off shoots competing with the leader and use clothes pins or rubber bands on desirable shoots which are too vertical. As you're doing the training, be alert for disease and insect symptoms and take appropriate action. Don't squander your investment by not caring for new trees.

Thinning - You can now assess how successful you were and do the hand thinning necessary. Be sure to check young trees that haven't cropped before and make sure the amount of fruit on them will not alter the tree structure you want. Don't leave fruit on the ends of branches that at harvest will pull branches below horizontal or bend the leader over.

Peach thinning - Thinning should be nearly complete, especially on early cultivars. If you have a heavy crop and were light on your fertilizer rate, a second application can be applied now, but shouldn't be applied much later. A good practice is to apply about 2/3 of the fertilizer in March and, if the crop is heavy, apply 1/3 in early June.

June Drop in Apples

Some of the "June Drop" of apple fruit is a natural adjustment or thinning. Dr. Ross Byers, who spoke at this year's Fruit and Vegetable Congress, has conducted thinning studies at Virginia Tech in partnership with Dr. Rich Marini. Much of the following discussion is based on information found in the 1996-1997 Pennsylvania Tree Fruit Production Guide.

"Current thinking suggests that fruit abscission may be due to a temporary carbohydrate shortage. Conversely, when carbohydrates are in abundance then it is more difficult for fruit to abscise (or to induce abscission through the use of chemical thinning agents). Conditions such as cloudy weather, *high nighttime temperatures* (emphasis added), and cool daytime temperatures all adversely affect the carbohydrate reserves. Cloudy weather and cool temperatures result in lower photosynthesis rates and less carbohydrate production. *Warm nighttime temperatures* (emphasis added) mean an increase in respiration or consumption of carbohydrates. Recent work in England also indicates that flowers can provide a portion of the carbohydrates in the early season; therefore, sublethal damage to flowers can

result in a reduction in photosynthate manufacture, possibly reducing fruit set."

The use of Sevin, as a petal fall or first cover insecticide, can also act as a thinning with its effect variable between varieties.

From a fertility standpoint, low levels of nitrogen can cause heavy June drop, especially in young trees. High nitrogen levels may also adversely affect fruit set.

Growers sometimes judge the degree of drop by what they find on the ground. Rather, they should examine the tree closely to determine the set remaining. Even commercial growers are occasionally pleasantly surprised at harvest by the number and size of apple fruit, having believed that the crop would be light based on the June drop. This can happen especially when the trees exhibit heavy foliage. For more information, see http://www.ipm.iastate.edu/ipm/hortnews/1995/5-19-1995/fdrop.html

Fruit Observations

Insect Key

AM: Apple maggot CM: Codling moth DWB: Dogwood borer

LPTB: Lesser peachtree borer OBLR: Oblique banded leafroller

OFM: Oriental fruit moth
PC: Plum curculio
PTB: Peachtree borer
RBLR: Redbanded leafroller

SJS: San Jose scale

STLM: Spotted tentiform leafminer TABM: Tufted apple budmoth VLR: Variegated leafroller

Site: Waterman Farm, Columbus

Source: Dr. Celeste Welty, OSU Extension Entomologist

Apple: 6/10 - 6/16

RBLR: 47 (up from 31)

STLM: 1334 (down from 2368)

SJS: (no report)

CM (mean of 3 traps): 3.0 (down from 6.0)

TABM: 6 (down from 18)

VLR: 1 (up from 0) OBLR: 2 (up from 1) AM: 0 (first report)

Peaches:

OFM: 5 (down from 12)

LPTB: 2 (down from 4) PTB: 5 (first report)

Site: East District; Erie & Lorain Counties

Source: Jim Mutchler, IPM Scout

Apple: 6/9 - 6/15

RBLR: 9.5 (up from 0.2) STLM: 400 (up from 390) SJS: 0 (unchanged) CM: 2.2 (up from 1.5) OBLR: 4 (up from 0.3) VLR: 4 (down from 6.7)

Peach:

OFM: 10.8 (up from 7.8) RBLR: 8.3 (up from 0) LPTB: 50 (up from 42.8) PTB: 0 (unchanged)

Other pest activity: green apple aphid, rosy apple aphid, wooly apple aphid, and white apple leafhopper.

Beneficials at work: *Stethorus punctum*, orange maggot, lacewings (both brown & green), and other lady beetles.

Site: West District; Huron, Ottawa, & Sandusky Counties

Source: Gene Horner, IPM Scout

Apple: 6/9 - 6/15

RBLR: 36.6 (up from 0) STLM: 1840 (up from 288) SJS: 0 (unchanged)

CM: 3.8 (up from 1.6)

Peach:

OFM: 9.5 (up from 4.5) RBLR: 48.5 (up from 0.5) LPTB: 20 (up from 10) PTB: 3.5 (up from 0.5)

Other pest activity: green apple aphid, oak borer, lilac borer, white apple leafhopper.

Beneficials at work: Green and brown lacewings, banded thrips, and orange maggot.

New ODA Bulletin: Small Hive Beetle

The Ohio Department of Agriculture began a series of steps in April 1999 to stop a virulent new tropical pest, the small hive beetle, from destroying honeybee colonies in Ohio. The beetle has the ability to destroy a bee colony within a matter of weeks.

ODA has produced a new bulletin which describes an integrated pest management approach to help beekeepers prevent or halt an invasion of their hives.

For more information call the ODA Apiary Inspection Office at (800) 282-1955 or check out http://www.state.oh.us/agr/

Ohio Apple Scab and Fire Blight Watch - SkyBit Products

	Central		North Central		Eastern Highlands		North East		West	
Date	apple scab	fire blight	apple scab	fire blight	apple scab	fire blight	apple scab	fire blight	apple scab	fire blight
May 30	a,ni	na	a,ni	na	a,ni	a,ni	a,ni	na	a,ni	pi
31	pi	pi	pi	pi	a,ni	pi	pi	pi	pi	pi
June 1	pi	pi	pi	pi	pi	pi	pi	pi	pi	pi
2	pi	pi	pi	pi	pi	pi	pi	pi	pi	pi
3	a,ni	na	pi	a,ni	a,ni	a,ni	pi	pi	a,ni	na
4	a,ni	a,ni	a,ni	a,ni	a,ni	a,ni	pi	a,ni	a,ni	na
5	a,ni	na	a,ni	na	a,ni	na	a,ni	na	a,ni	na
6	a,ni	na	a,ni	na	a,ni	na	a,ni	na	a,ni	na
7	a,ni	na	a,ni	na	a,ni	na	a,ni	na	a,ni	na
8	a,ni	pi	a,ni	na	a,ni	na	a,ni	na	a,ni	na
9	a,ni	na	a,ni	na	a,ni	na	a,ni	na	a,ni	na
10	a,ni	na	a,ni	na	a,ni	na	a,ni	na	a,ni	a,ni
11	a,ni	na	a,ni	na	a,ni	na	a,ni	na	pi	pi
12	a,ni	na	a,ni	na	a,ni	na	a,ni	na	pi	pi
13	a,ni	na	a,ni	na	a,ni	na	a,ni	na	pi	pi

14	pi	pi	pi	pi	pi	pi	pi	pi	pi	pi
15	a,ni	na	a,ni	na	pi	pi	a,ni	na	a,ni	na
16	a,ni	na	a,ni	na	a,ni	na	a,ni	na	a,ni	na
	Based on forecasts									
17	a,ni	pi	a,ni	a,ni	pi	a,ni	pi	a,ni	a,ni	na
18	a,ni	na	a,ni	na	pi	a,ni	a,ni	na	a,ni	na
19	a,ni	pi	a,ni							
20	pi	pi	pi	pi	pi	pi	pi	pi	pi	pi
21	pi	pi	pi	pi	pi	pi	pi	pi	pi	pi
22	pi	pi	pi	pi	pi	pi	pi	pi	a,ni	pi
23	a,ni	pi	a,ni	pi	a,ni	a,ni	a,ni	pi	a,ni	pi

na = not active; a,ni = active but no infection; pi = possible infection & damage

Degree Day Accumulations for Selected Ohio Sites January 1, 1999 to date indicated

	Actual DD Accumulations June 16, 1999		Forecasted Degree Day Accumulations June 23, 1999				
Location	Base 43° F	Base 50° F	Base 43° F	Normal	Base 50° F	Normal	
Akron - Canton	1319	789	1464	1392	885	845	
Cincinnati	1645	1018	1819	1890	1143	1213	
Cleveland	1311	792	1457	1342	889	812	
Columbus	1667	1070	1821	1594	1175	995	
Dayton	1539	968	1703	1631	1083	1032	
Elyria	1412	895	1562	1432	995	883	
Fremont	1211	728	1382	1363	850	842	
Mansfield	1318	793	1470	1371	896	830	

Norwalk	1332	815	1465	1334	906	814
Toledo	1349	837	1498	1324	937	807
Wooster	1378	841	1525	1308	939	776
Youngstown	1200	702	1337	1288	790	765

Phenology

	R	ange of Degree Day Accumulations
Coming Events	Base 43° F	Base 50° F
Lesser peachtree borer flight peak	733- 2330	392-1526
Peachtree borer 1 st catch	735- 1321	299-988
Spotted tentiform leafminer 2 nd flight begins	795- 1379	449-880
Obliquebanded leafroller 1 st flight peak catch	869- 1548	506-987
Apple maggot 1 st catch	1045- 1671	629-1078
Redbanded leafroller 2 nd flight begins	1096- 2029	656-1381
Codling moth 1 st flight subsides	1112- 2118	673-1395
Codling moth 2 nd flight begins	1355- 2302	864-1549

Thanks to Scaffolds Fruit Journal (Art Agnello)

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