



Ohio Fruit ICM News



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Calendar

June 28: Ohio Fruit Growers Society Board Meeting, Burnham Orchards, Berlin Heights, OH, 6:30 to 8:00 p.m. Contact Tom Sachs at 614-246-8290 or e-mail Tsachs@ofbf.org or Kathy Lutz at 614-246-8292 or e-mail growohio@ofbf.org.

June 28: Ohio Apple Marketing Program Board Meeting, Burnham Orchards, Berlin Heights, OH, 8:00 to 9:30 p.m. Contact Tom Sachs at 614-246-8290 or e-mail Tsachs@ofbf.org or Kathy Lutz at 614-246-8292 or e-mail growohio@ofbf.org.

June 29: Ohio Fruit Growers Society Summer Tour, Burnham Orchards, Berlin Heights, OH, 8:00 a.m. to 3:00 p.m. Contact Tom Sachs at 614-246-8290 or e-mail Tsachs@ofbf.org or Kathy Lutz at 614-246-8292 or e-mail growohio@ofbf.org.

Poster Requirements for Farm Operations

Source: Dee Jepsen, Program Director, Ag Safety and Health, Ohio State University Department of Food, Agricultural, and Biological Engineering

The State Safety Office has received questions about farmers being solicited by a poster service and the mandatory poster requirements for farm operations. We have reviewed the federal and state regulations and found this **IS** a labor regulation, and that farmers **NEED TO BE IN COMPLIANCE**.

Here's a summary of the regulations: The poster requirements apply to **ALL EMPLOYERS** in the state of Ohio. So this is not an agricultural regulation, but one that affects businesses that hire employees. (More specifically, it is regulated under the Ohio Department of Commerce, Division of Labor and Worker Safety.) There are no exemptions for agricultural operations, and the requirements apply if at any time during the year an employee is hired (even for one hour). Three posters are mandatory:

- State of Ohio Minimum Wage
- Unemployment Compensation Coverage
- Ohio Fair Employment Practices Law

If the farm hires minors, then the Ohio Minor Labor Law poster is also required. If the farm hires large labor forces (more than 500 man hours in a year) or migrant workers, and/or contracts with the federal government, there are several other poster requirements.

A useful website for farmers to know about is: <http://www.dol.gov/elaws/posters.htm>. This service walks farm employers through a series of questions to determine their exact poster requirement for federal compliance.

The solicitation many Ohio farmers received was from a service that charges a fee to help get them into compliance for the type of poster(s) they need on their farm. While these service providers are legitimate and will certainly provide the posters meeting the regulations, they may not be tailored to the specific farm operation. In other words, the farmer will still have to decide which posters to display.

We have found that these posters are **FREE** from the regulatory agency, whereas the poster service company charges \$60. Thanks to Gene McCluer in Hardin County, we found a one stop shop phone number for all of the posters. It is through the Bureau of Civil Rights within the Ohio Department of Job and Family Services at 614-644-2703.

If you have additional questions about this recent discovery of poster requirements for farm employers, please let me know. You can reach me at 614-292-6008 or jepsen4@osu.edu.

Early Spring Disease Controls for Stone Fruits

Source: Dave Rosenberger, Plant Pathology, Highland, Cornell University Control of the following stone fruit diseases is enhanced if control measures are initiated at or before bud break in spring:

- Black knot of plums and tart cherries
- Bacterial canker of sweet cherries and apricots
- Bacterial spot of peaches and nectarines
- Peach leaf curl of peaches and nectarines

If the early season controls outlined below are omitted, disease control later in the season may be compromised.

Black Knot

Black knot is caused by the fungus *Apiosporina morbosa* (= *Dibotryon morbosum*). The disease is common in both plums and tart cherries. The knots appear as black, gnarly growths on twigs and branches and release ascospores in spring, beginning at about the time trees reach white bud and continuing until about shuck split.

The critical action required before bud-break is to remove all visible knots from orchard trees and

from wild *Prunus* species growing within several hundred feet of plum or tart cherry orchards. Knots should be pruned out by cutting at least 6-8 inches below the visible knots, and the knots should be removed from the orchard and burned or otherwise destroyed. Knots pruned out of trees and left on the ground at this time of year will still release ascospores. Black knot cannot be spread on pruning tools, so there is no need to disinfect pruning tools between cuts.

Black knot commonly infects wild chokecherry (*Prunus virginiana*) and wild black cherry (*Prunus serotina*). Chokecherry is usually a bush or short tree, and knots on chokecherry are often found from 1-10 feet above ground level. Wild black cherry trees can be 80 feet tall. Binoculars may be needed to scan the tops of these trees for evidence of black knot. Severely affected trees should be removed if they are situated close to susceptible crops. Black knot spores released from the tops of tall trees can be blown considerable distances into orchards.

Fungicides applied to plums and tart cherries during the period of ascospore release provide some protection against black knot infections, but fungicides rarely provide 100% control where black knots were not removed during winter pruning. Finding black knots in hedgerows and border areas is virtually impossible after bud-break, so this job must be completed before growth begins in spring.

Bacterial Canker

Bacterial canker of sweet cherries and apricots is caused by two species of bacteria, *Pseudomonas syringae* and *P. morsprunorum*. The bacteria can enter leaf scars in autumn or injuries and pruning wounds in spring. The bacteria are favored by cool wet conditions, by frost injury (which provides entry sites), and by other spring stress factors such as waterlogged soils or drought conditions that make trees less able to ward off infection. In sweet cherries, bacterial canker usually appears as gummy cankers on twigs and branches. In New York apricot plantings, however, *Pseudomonas* seems to become systemic and probably contributes to the tree decline and mortality of young trees (< 5-yr old) that is common in many apricot plantings.

Virtually no research has been done on the epidemiology of bacterial canker in apricot in northeastern US, but casual observations suggest that *Pseudomonas* species may be a limiting factor in tree survival. To minimize risks of *Pseudomonas* infection, no pruning should be done in young apricot plantings between bud swell and petal fall, the time when bacterial populations are high and trees are very susceptible to infection. If pruning can be delayed until after petal fall (or perhaps until after harvest), pruning wounds are less likely to become infected with *Pseudomonas* because these bacteria do not survive well in hot temperatures. Removing wild *Prunus* species adjacent to apricot plantings may also help to reduce infection because I suspect that wild *Prunus* sometimes harbor large populations of the pathogen that are then blown into orchards during windy spring rains.

Apricots should be protected with a copper spray at bud swell. Copper residues from a spray at bud swell slowly release copper ions during subsequent rains, thereby suppressing bacterial populations within the tree canopy. Copper sprays can be phytotoxic to leaves of most stone fruits, so copper applications after bud break are not usually recommended in New York.

A dormant copper application will also help to control bacterial canker on sweet cherries, but some Hudson Valley growers feel that copper applied in spring may reduce fruit set on sweet cherries. It seems possible that in dry years copper residues that persist on sprayed trees might be released during rains at bloom, thereby reducing viability of the pollen. This is unlikely to happen if more than an inch or two of rain occurs after the copper spray is applied and before trees begin to bloom, but growers concerned about this risk should either apply their copper sprays in autumn and omit the spring copper spray, or they might try lower rates of copper on sweet cherries in spring. Effects of spring copper sprays on pollination in apricots is not a concern because apricots tend to over-set and any reduction in pollination would hardly be noticed.

Bacterial Spot of Peaches and Nectarines

Bacterial spot of peaches and nectarines, caused by *Xanthomonas arboricola* *pv* *pruni*, has been a sporadic problem in NY, but it is gaining importance as more acres are planted to disease-susceptible nectarine and cling-stone peach varieties. Over the past few years, several growers in the Hudson Valley have lost their entire nectarine crop to early fruit infections (Fig. 1). This disease is best controlled by applying oxytetracycline (Mycoshield) in at least three applications beginning at shuck split. However, highly susceptible varieties should be sprayed with copper at bud swell to reduce the amount of overwintering inoculum in trees, especially in orchards where the disease was prevalent the previous year.

Bacterial spot can also become a problem on apricots, but Mycoshield is not labeled for apricots. Therefore, bacterial spot on apricots can only be controlled by planting resistant cultivars or by using copper sprays.

Peach Leaf Curl

Peach leaf curl, caused by the fungus *Taphrina deformans*, can be controlled with fungicide applications either at leaf drop in the fall or at bud-swell in the spring. Although Bravo, Ziram, and Ferbam are all effective for controlling peach leaf curl, a copper spray may be preferred in spring because copper will also provide some protection against bacterial spot, whereas the fungicides will not. If green tissue appears before the leaf curl spray can be applied, then a fungicide should be used instead of copper so as to avoid the potential for phytotoxicity (unless the variety being sprayed is highly susceptible to bacterial spot, in which case the risk of phytotoxicity from a slightly late copper spray may be dwarfed by the risk of crop loss to bacterial spot).

Peach leaf curl can be especially severe in orchards where last year's crop was lost to frost and no brown rot fungicides were applied last year. Delaying leaf curl sprays past bud swell may result in less than complete control, but sprays applied after green tissue appears will still control the majority of infections.

Fruit Observations and Trap Reports

Site: Waterman Lab, Columbus

Dr. Celeste Welty, OSU Extension Entomologist

Apple: 3/30 to 4/6/05 Green tip on 4/6/05	
Redbanded leafroller	9 (first report)
Spotted tentiform leafminer	2 (first report)

Site: Medina, Wayne, and Holmes Counties

Ron Becker, IPM Program Assistant

Spotted tentiform leafminer traps have just been set out in the orchards south of Wooster. Traps in the northern part of the county will be set up next week.

In this area of the state we will forego the redbanded leafroller traps this year, as we rarely see any damage from them and have never sprayed specifically for RBLR. It doesn't seem worth the time and expense of trapping and scouting RBLR here.

Apples are at silver tip and peach buds are just starting to swell. The few peach buds that Ron checked seemed to be ok. Raspberries started showing leaf tips yesterday.

Pest Phenology

Coming Events	Degree Day Accum. Base 50°F
Pear psylla adults active	0 - 49
Pear psylla 1 st oviposition	1 - 72
Redbanded leaf roller 1 st catch	5 - 251
Green fruitworm 1 st catch	9 - 101
Spotted tentiform leafminer 1 st catch	17 - 251
Tarnished plant bug active	34 - 299

Thanks to *Scaffolds Fruit Journal* (Art Agnello)

Degree Day Accumulations for Ohio Sites

April 6, 2005

Ohio Location	Degree Day Accumulations Base 50°	
	Actual	Normal
Akron-Canton	32	45
Cincinnati	81	97
Cleveland	39	45
Columbus	62	66
Dayton	53	65
Kingsville	28	33
Mansfield	32	45
Norwalk	31	37
Piketon	81	110
Toledo	29	33
Wooster	42	40
Youngstown	30	38

**Preliminary Monthly Climatological Data for Selected Ohio Locations
March 2005**

Weather Station Location	Monthly Precipitation	Normal Monthly Precipitation	Year-to-Date Precipitation	Normal Year-to-Date Precipitation	Average High	Normal High	Average Low	Normal Low	Mean Temp.	Normal Mean
Akron-Canton	2.11	3.15	9.83	7.92	41.1	47.5	24.2	27.9	32.6	37.7
Cincinnati	4.09	3.90	12.63	9.57	47.8	53.9	30.1	33.8	38.9	43.8
Cleveland	1.66	2.94	9.62	7.71	39.9	46.1	25.2	28.9	32.5	37.5
Columbus	3.53	2.89	13.75	7.62	45.2	51.6	29.1	32.2	37.1	41.9
Dayton	2.31	3.29	13.16	8.18	44.4	49.3	27.3	31.2	35.9	40.2
Fremont	0.91	2.69	6.82	6.14	42.5	45.3	21.7	27.0	32.1	36.2
Kingsville	0.95	2.40	7.19	6.20	39.1	43.6	23.1	27.0	31.1	35.3
Mansfield	2.50	3.36	10.38	8.16	40.2	46.6	24.7	26.8	32.5	36.7
Norwalk	1.97	2.77	10.01	6.40	42.5	45.7	23.3	27.5	32.9	36.6
Piketon	2.47	4.20	8.91	10.60	48.8	52.3	29.2	31.8	39.0	42.0
Toledo	0.80	2.62	8.05	6.43	42.2	46.5	25.6	27.9	33.9	37.2
Wooster	1.25	2.92	8.76	6.84	43.7	47.7	25.5	27.7	34.6	37.7
Youngstown	1.64	3.05	10.30	7.42	40.7	46.3	23.8	27.1	32.3	36.7

Temperatures in degrees F, Precipitation in inches

Table Created by Ted W. Gastier, OSU Extension from National Weather Service, OARDC & Local Data