



Ohio Fruit ICM News



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Calendar

February 5: Berry Pruning Demonstration, East Sparta, OH. Gary Vogely will be hosting a bramble and blueberry pruning demonstration on his farm in East Sparta, Ohio on February 5th. The demonstration will be held from 9 a.m. to noon and will include demonstrations on the proper pruning of raspberries, blackberries, and blueberries. Sandy Kuhn, Berry Coordinator, OSU South Centers will be the presenter. Vogely Enterprises is located at 3245 Battlesburg Street SE, East Sparta, OH. For more information call either Gary Vogely at 330- 484-4387 or Sandy Kuhn at 800-297-2072 (Ohio), 740-289-2071, or e-mail kuhn.37@osu.edu.

February 10-12: North American Farmers' Direct Marketing Conference and Trade Show, Boston Park Plaza Hotel, Boston, MA. Contact 413-529-0386, e-mail info@nafdma.com, or click on <http://www.nafdma.com>.

February 16: Addressing Regulations for Farmers Direct Marketing Fresh and Value-Added Products, Ohio Department of Agriculture, Reynoldsburg, OH.
See <http://www.ohioagriculture.gov> for directions.
Register with Debra Strait at 614-728-6250. No fee.

February 16: Southwest Ohio Fruit & Vegetable School, Valley Vineyards & Winery, Morrow, OH. Contact Vickie Butler or Gary Gao at Clermont County Extension, 513-732-7070.

February 16-19: North American Berry Conference, Doubletree Hotel Nashville, Nashville, Tennessee.
See the Web site for info:
<http://www.nasga.org/meetings/2005/berry_conference/reg_brochure.htm>.

February 17: Ohio Fruit Growers Committee Meetings, Fisher Auditorium, OARDC, Wooster, OH. Tree Fruit and Small Fruit committees meet at 10:00 a.m., Program and Juice committees meet at 1:00 p.m. Lunch will be provided at noon for all committee members.

February 17: Ohio Apple Marketing Program Board Meeting, Fisher Auditorium, OARDC, Wooster, OH. at 1:00 p.m. Lunch will be provided at noon.

February 22-23: Ohio River Valley Farm Marketing Conference, Mason, Ohio. Brochure for conference can be viewed on-line at <http://ocdc.osu.edu>.

February 25: Berry Growers' School, OSU South Centers, Piketon, OH. See issue #4 for details.

February 28: Central Ohio Fruit and Vegetable School, Licking County Extension Office, 771 East Main Street, Newark, OH. Please phone your reservation to 740-349-6900 or e-mail Howard Siegrist at: siegrist.1@osu.edu.

March 1: Fourth MAAHS Annual Meeting and Employer Seminar, Wilmington, OH. See issue #3.

March 5: Fruit Tree Pruning Clinic, Rouster's Apple House, Milford, OH. Contact Vickie Butler or Gary Gao at Clermont County Extension, 513-732-7070.

Are the Mild Temperatures Earlier This Winter Going to Set Fruit Trees Up for Winter Injury?

Source: Dr. Jim Schupp, PennState University Fruit Research and Extension Center

The short answer to this question is probably not. This is because the trees are still at a stage of dormancy called rest, or endodormancy. Trees in this stage are incapable of responding to warm temperatures until exposed to a certain amount of chilling temperatures.

After the leaves drop in autumn, the trees have entered into endodormancy. Once this stage is initiated, the trees cannot respond to warm temperatures until exposed to a minimum amount of chilling. Chill units accumulate when temperatures are between 30° and 58°F. Below 30°F, hours are not accumulated, while hours accumulate more rapidly as temperatures increase toward 45°F. Maximum chill units are accumulated at 45°F, and the accumulation of chill units falls off rapidly above 45°F.

Hours above 59°F during endodormancy negate previously accumulated chill units. The required amount of chill hours to break endodormancy varies with species and by variety, but most fruit trees require something in the range of 800-1000 chill units.

A quick check of our weather records shows that from early November through the end of December 2004 we had 685 hours of chilling (32-45°F). Even without reducing the rate of chill unit accumulation for sub- or supra-optimal chill temperatures, or subtracting for hours over 59°F, it seems very unlikely that the trees have accumulated enough chill units to satisfy endodormancy.

Scholarships Available

Source: Tom Shockey, Student Services Coordinator, OSU Horticulture

It is now time to apply for scholarships in the Department of Horticulture and Crop Science at The Ohio State University. Scholarships will be awarded in April for the 2005-2006 academic year. Here are two scholarships of special interest to you.

The Fred O. Hartman Scholarship is awarded to support an undergraduate or graduate student in good academic standing with a fruit crops interest (Crop Science major) in Horticulture and Crop Science, and/or demonstrating an association or involvement with the Ohio fruit industry. The fund was established by the Ohio Fruit Growers Society in honor of retired pomology professor, Fred O. Hartman (PhD, 1951).

The Gene Wittmeyer Vegetable Scholarship is given to students with an interest in vegetable crops (Crop Science major), and/or students demonstrating association of involvement with the Ohio vegetable industry. This scholarship was established in 2002 with gifts from the Ohio Vegetable and Potato Growers Association, and alumni and friends honoring Professor Emeritus Gene Wittmeyer (BS, 1946).

Applications are available on-line at the Department's web site. The applications can be downloaded and **must be completed and returned to Tom Shockey by March 11**. Go to <<http://hcs.osu.edu/students/scholarships/index.html>>. Make sure you include a resume and personal statement with your application. If you are on campus, applications are also available in Howlett, Room 241. You can contact Tom by e-mail: Shockey.2@osu.edu or telephone: 614-292-3846.

Rimon, a New Insecticide for Apples in Ohio

Source: Dr. Celeste Welty, OSU Extension Entomologist

A special local need label (24c) has been issued in Ohio for use of Rimon 0.83EC on apples for control of codling moth. Rimon should be used at a rate of 20 to 40 fl oz per acre. In my codling moth trial in 2004, the 20 oz/A rate worked well. There is a limit of four applications or 150 oz per year, and a 14-day preharvest interval. Best timing of application is 50 to 150 degree days (base 50F) after biofix based on moth flight, and a second application 14 to 17 days later. Application at 50-150 degree days is prior to egg laying.

Rimon is manufactured by Makhteshim-Agan, and distributed by Crompton/Uniroyal. This 24c label is being posted on the web at OSU's pesticide education site <<http://pested.osu.edu/>> where you need to go to the section called general information, then the section called 24c registrations.

Rimon is an insect growth regulator that contains the active ingredient novaluron. Its mode of action is interference with the insect's exoskeleton production. Rimon, which is also called Diamond in another formulation that is not yet registered, has been one of the top performing insecticides in recent apple trials in nearby states. It is an excellent choice of insecticide in orchards where resistance to organophosphates is suspected.

Although codling moth is the only target pest listed on our 24c label, other apple pests known to be controlled by Rimon are Oriental fruit moth, red-banded leafroller, oblique-banded leafroller, tufted apple budmoth, spotted tentiform leafminer, and European apple sawfly.

I collected data on performance of Rimon along with some of the new neonicotinoids and pyrethroids in 2003 and 2004 in a research orchard in central Ohio where we have had difficulty controlling codling moth with phosmet. In 2003, novaluron was the best of eight products tested for codling moth control. In 2004, novaluron was third best of eleven products tested; although two pyrethroids provided slightly better control of codling moth, they were associated with flareups of spider mites, while for novaluron was not.

EPA Launches New Spanish Web Site

Source: Will Smith, Cornell Senior Extension Associate, Pesticide Management Education Program (PMEP)

The U.S. Environmental Protection Agency has launched a new consolidated Spanish web site as part of its ongoing effort to provide environmental information both in Spanish and English. The new site compiles EPA's Spanish language materials on a wide variety of areas, from lead poisoning prevention to controlling asthma triggers, recycling to proper management of pesticides. The site was developed through a series of focus groups to respond to the environmental needs and interests of Hispanics.

In addition to environmental health information, the site also offers educational resources for students and teachers who often seek Spanish language learning tools on the environment. The site also provides information about EPA grants, small business opportunities, and environmental jobs at EPA.

To view EPA's Spanish site, visit: <<http://www.epa.gov/espanol>>.

OSU Studies a Switch to Organic Farming

Source: Kurt Knebusch, Ohio State University Horticulture & Crop Science

Successful small farms near sprawling big cities. And more fresh organic veggies for people who live in those cities. Those are two of the hoped-for results of a four-year, \$400,000, U.S. Department of Agriculture-supported study at Ohio State University.

Led by scientists with the Organic Food and Farming Education and Research (OFFER) program on the Ohio Agricultural Research and Development Center's (OARDC) Wooster campus, the project is evaluating eight ways for farmers -- specifically, those who farm on the edges of urban areas -- to switch to organic vegetable production.

"Peri-urban farmers face a special set of circumstances that differentiates them from farmers operating in more rural areas, and there are potential advantages and disadvantages to that," said Project Coordinator Matt Kleinhenz, an associate professor in the Department of Horticulture and Crop Science.

Among the advantages of farming near cities: proximity to thousands or even hundreds of thousands of potential customers, plus lower transportation costs. Drawbacks, however, include high land prices and objections by seemingly more and more neighbors -- many of them new, non-farmers or both -- to the use of farm chemicals.

“Going organic is one way for growers to offset those problems, tap a growing market, and if all goes well, have a profitable business,” Dr. Kleinhenz said. Organic farmers, among other things, rely strongly on crop rotation, cultivation, natural predators, and other ways to manage weeds, insect pests, and soil fertility. The decreased chemical use that results is likely to please the farm’s neighbors.

And organic vegetables bring premium prices, sometimes more than double what their conventional counterparts earn. Profit potential per acre is thus often higher, a boon for farmers whose land holdings are small but expensive.

USDA’s national organic standards require a three-year transition period between stopping the use of synthetic chemicals and other conventional-crop practices and applying for organic certification. During that time, the farmer must follow organic practices and the crops may be unqualified to earn organic premiums. The soil, crop, and ecosystem improvement strategies that typify organic farming haven’t fully kicked in yet.

It’s often a rocky time, Kleinhenz said, and the lack of research evaluating transition methods has only made it rockier. The project aims to rectify that. Its goals are to evaluate the economic and environmental impacts of eight major strategies; characterize the “signature” (the weed pressure, soil conditions, and crop health and quality) of each strategy; and then, by knowing those impacts and signatures and by working with OSU Extension educators, conduct workshops that help interested farmers choose the best-suited system for their farm.

Co-researchers on the project are John Cardina, also of the Department of Horticulture and Crop Science; Brian McSpadden Gardener and Sally Miller of the Department of Plant Pathology; Parwinder Grewal and OFFER Coordinator Deborah Stinner of the Department of Entomology; and Marv Batte of the Department of Agricultural, Environmental, and Developmental Economics. Also assisting are graduate students and staff

including Sonia Walker, coordinator of field activities, data collection and record-keeping.

The eight strategies are based on four approaches -- clean fallow, mixed-species hay, low-intensity vegetables and high-intensity vegetables under high tunnels -- with each being tested with two subtreatments: adding no organic amendments to the soil and applying composted dairy manure every year. The strategies vary in terms of their intensity. Each requires different amounts of time, money, and attention, from a little to a lot. Each brings in a different amount of income, from none to relatively a lot. And each improves the soil and farm ecosystem at a different pace.

Least intensive is the clean-fallow/no-amendments strategy. Most intensive is high-intensity vegetable production under high tunnels with dairy compost. Both achieve the transition to organic farming, as do the other six. The former takes the least work and generates no income. The latter takes the most work and potentially earns the most money.

“Situations vary from farm to farm -- based on how much time a farmer has, how much cash-flow he or she needs, his or her interests, and so on -- and so too will decisions,” Kleinhenz said. The breadth of the study reflects that diversity and aims to assist a wide range of farmers. When it comes to planning a switch to organic, “It’s *not* one size fits all,” he said.

Each year, the overall ecological health and economic profitability of each strategy will be measured. The result will be an accurate assessment of each system’s costs and benefits, vital knowledge for comparing the systems and deciding which way to go, Kleinhenz said. Ultimately, the effort will benefit and also further link farmers, their neighbors, and Ohio’s economy, he said.

“Ohio has an incredibly robust agricultural economy,” Kleinhenz said. “But at the same time, the state is urbanizing. Our metropolitan areas are growing. So the connections between active farmers and active consumers are growing, too. There simply are more people in close contact with farms than there may have ever been before.

“For farming to remain a significant and valued way of life and source of income,” he said, “farmers operating at the edge of these metropolitan centers, especially ones who want to farm organically, need specific information.”

“Paths of Transition: Strategies for Peri-urban Organic Farmers,” now in its second year, is funded by the Organic Transitions Program of USDA’s Cooperative State Research, Education and Extension Service. The study will be completed in 2006.

Progress Continues in the Plum Pox Battle 2004 PPV Update

Source: Michael Celetti, Plant Pathologist, Horticulture Crops Program Lead, OMAF

The battle against Plum Pox raged on in Ontario during 2004, resulting in significant progress towards eradication. However, the war against this insidious disease is not over. Plum Pox (PPV) is one of the most serious diseases of stone fruit worldwide, infecting peach, nectarine, plum, and apricot. There are no pesticides or resistant varieties available to manage this disease, and destroying the infected trees before the disease spreads further is imperative.

Since the discovery of PPV in Ontario during 2000, an eradication strategy has been developed and implemented to eliminate the virus from Ontario without destroying the stone fruit industry. One component of the eradication strategy includes research conducted by Agriculture and Agri-Food Canada (AAFC) and the Canadian Food Inspection Agency (CFIA) to develop better sampling and detection techniques to improve the ability to detect this virus at very low levels. These advances have allowed for more intensive sampling and surveying in and outside the quarantine zones of Ontario in an attempt to detect and remove all infected trees, including infected but asymptomatic trees.

During 2004, a total of nearly 600,000 stone fruit samples were tested for PPV in Quebec, Nova Scotia, British Columbia, and Ontario with the majority taken from the Niagara quarantine zone in Ontario. Results to date indicate the incidence of infected trees declined from 1,879 in the year 2000 to only 925 in 2004. This is a decrease of 50%

over the past four years and is a good indication that the eradication program is working. This decrease of infected trees occurred despite a 600% increase in the number of samples tested over the same period (100,914 samples taken in 2000; 598,108 samples taken in 2004).

The intensive sampling being conducted by the CFIA and ACRICORP, together with the improved detection methods developed recently, has resulted in the detection of very low infection levels in orchard blocks, much like finding a needle in a haystack. Unfortunately, a few more new positive blocks were found in 2004 (301 infected blocks) than in the previous year (234 infected blocks in 2003), most of which had a single positive tree.

In addition to the orchard survey conducted in the Niagara quarantine zones, 17,608 samples of potential PPV host material were collected from residential sites to determine if the virus had spread to nearby urban areas. Three residential trees were found infected with PPV, all within the quarantine zone. All infected trees in the quarantine zone have been destroyed.

In addition to the advanced detection and surveying techniques, the cool spring and summer of 2004 may have helped in the detection of infected trees with low virus concentration and without symptoms. Normally during the summer months in Ontario, the concentration of the virus in infected trees declines and sometimes disappears entirely for some unknown reason, during extended periods of hot weather usually experienced at the end of July and during August. Trees that may have recently become infected with very low virus concentration are more difficult to detect, particularly during or right after a hot spell.

In 2004, virus concentrations in infected trees were high throughout most of the season, with the highest concentrations recorded during the unusually cool end of July and beginning of August. The higher virus concentration allowed the labs to detect PPV in infected samples much more easily.

Unfortunately, there appears to be good evidence that the virus is still spreading by aphid transmission at a low rate within the quarantine zone and, in some cases, into newly planted orchard blocks.

During the survey in 2004, volunteer peach seedlings, found in an orchard that tested positive a few years ago and since removed, were found infected with the virus. In addition, a few recently planted orchard blocks propagated from PPV-tested budwood obtained from mother trees outside the quarantine zone were also found to contain the odd infected trees. The mother trees were rigorously tested again to ensure they were not the source of these new infections, and all tested negative for the virus. The only logical conclusion is that aphids spread the virus to the one or two trees that tested positive in these recently planted orchard blocks after planting. This indicates the necessity of a more aggressive approach to eradication when the virus is found within the Niagara quarantine zones. Full block removal when one infected tree is detected will be phased in over the next couple of years in the Niagara quarantine zones rather than removing individual infected trees or small groups of trees.

No positive samples were found for the third consecutive year in the quarantine zone around Vittoria, Ontario, so the quarantine will be removed in 2005. Testing of orchards around Vittoria will continue for several more years to ensure that no infected trees escaped detection.

In Pennsylvania, the Plum Pox battle has been even more successful. Plum pox was only found in four samples from two orchards and one homeowner site during the 2004 Plum Pox survey. No positive samples were found for the third consecutive year in three quarantine zones, and the quarantine will be removed in 2005 allowing some Pennsylvanian growers to replant their orchards. Plum Pox was not found in any other state that was surveyed in 2004. Clearly, the Pennsylvania eradication approach is succeeding. Unfortunately, USDA scientists and regulators anticipate that low levels of positive samples will be discovered over the next few years in Pennsylvania before complete eradication is declared.

Successful progress on the battle against Plum Pox continues in both Pennsylvania and Ontario; however, the war is far from over. The cooperation and support by growers for the eradication of this disease will be critical over the next few years before a victorious outcome is accomplished.

Risk Mitigation Comments Requested for 2,4-D

Source: *EPA Pesticide Program Updates, from EPA's Office of Pesticide Programs 01/18/05, <<http://www.epa.gov/pesticides>>*

In a Federal Register notice published on January 12, 2005, EPA announced the availability of its revised risk assessments and preliminary risk reduction options for the herbicide 2,4-dichlorophenoxyacetic acid or 2,4-D. During a 60-day comment period closing March 14, 2005, the public is encouraged to suggest additional risk management ideas or proposals to address the risks identified. The widely used phenoxy herbicide 2,4-D helps to control a variety of broadleaf weeds in agricultural, forestry, aquatic, and residential/turf settings. EPA is offering an opportunity for interested parties to provide risk management proposals or otherwise comment on risk management for 2,4-D, considering the preliminary risk reduction options detailed in the Agency's "2,4-D Reregistration; Preliminary Risk Mitigation Proposals." Such comments and proposals should further discuss ways to manage 2,4-D's potential drinking water, residential (swimmer), occupational, and ecological risks resulting from its aquatic and terrestrial use.

Drinking water risk could potentially be of concern from direct application of 2,4-D to water for aquatic weed control. The Agency has proposed the following measures to mitigate this concern:

- application of 2,4-D to surface sources of drinking water will be limited to local, state, and federal agencies and cooperating water user organizations;
- applicators must be properly licensed;
- drinking water use restrictions must be communicated to the affected community.

Under the proposed mitigation, application amounts and rates would be limited, and posting treated areas would be required. Drinking water use restrictions would remain until it can be demonstrated that the 2,4-D concentration in the water is less than 70 parts per billion (ppb), the Agency's Maximum Contaminant Level (MCL) enforced under the Safe Drinking Water Act.

Potential residential risks to swimmers were identified when water bodies are treated with 2,4-D BEE. To mitigate this risk, the Agency has proposed a maximum concentration for 2,4-D BEE products, and that notification/posting requirements be added, to prohibit swimming in treated water for at least 24 hours after application.

Occupational risks were identified for workers handling wettable powder formulations of 2,4-D. Engineering controls (water soluble packaging) are being proposed to reduce exposure and mitigate these potential risks.

Ecological risks to non-target plants, animals, and birds have been associated with terrestrial use of 2,4-D. In addition, use of 2,4-D for aquatic weed control presents potential risks to aquatic organisms and plants. Proposed mitigation includes limiting maximum application rates to the application rates typically used. Additional suggestions are requested.

This review of 2,4-D is part of the Agency's process of reevaluating pesticides to ensure they meet current scientific and regulatory standards for health, safety, and environmental protection. EPA plans to complete a Reregistration Eligibility Decision (RED) for 2,4-D this year.

EPA's January 12, 2005, Federal Register notice is available on the Agency's web site at <http://www.epa.gov/fedrgstr/EPA-PEST/2005/January/Day-12/p505>. The 2,4-D risk assessments, Preliminary Risk Mitigation Proposals, and related documents are available in docket and EDOCKET #OPP-2004-0167, and will also be available on the Agency's pesticide re-registration status web page, <http://www.epa.gov/pesticides/re-registration/status.htm>.

Preliminary Monthly Climatological Data for Selected Ohio Locations January 2005

Weather Station Location	Monthly Precipitation	Normal Monthly Precipitation	Average High	Normal High	Average Low	Normal Low	Mean Temp	Normal Mean
Akron-Canton	5.63	2.49	33.9	32.8	18.8	17.4	26.3	25.1
Cincinnati	6.60	2.92	39.9	38.0	26.9	21.3	33.4	29.6
Cleveland	5.89	2.48	34.1	32.6	20.6	18.8	27.4	25.7
Columbus	8.95	2.53	37.2	36.2	24.1	20.3	30.7	28.2
Dayton	9.22	2.60	35.4	33.6	21.6	19.0	28.5	26.3
Fremont	4.35	1.79	34.1	32.0	13.3	16.2	23.7	24.0
Kingsville	4.38	2.00	34.3	31.8	18.3	17.1	26.3	24.4
Mansfield	6.08	2.63	33.1	32.4	18.0	16.2	25.5	24.3
Norwalk	6.14	1.90	33.6	32.5	17.3	16.7	25.5	24.6
Piketon	4.83	3.40	42.3	39.5	26.6	20.8	34.4	30.1
Toledo	4.52	1.93	31.1	31.4	17.2	16.4	24.2	23.9
Wooster	5.86	1.95	36.0	34.9	19.9	18.5	28.0	26.7
Youngstown	5.86	2.34	33.5	32.4	18.0	17.4	25.7	24.9

Temperatures in degrees F, Precipitation in inches

Record highs set: 12th; Mansfield 61, Norwalk 64, Piketon 68.1, Youngstown 60
13th; Norwalk 66

Record lows set: 27th; Kingsville -8.4, 28th; Kingsville -10.1
31st; Fremont -5

Table Created by Ted W. Gastier, OSU Extension from National Weather Service, OARDC, and local data