Just Picked

Newsletter of the
Midwest Organic
Tree Fruit Growers Network

Volume 4, Issue 3, Summer 2008

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Newsletter Layout by Jody Padgham, MOSES

Summer 2008 Issue

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Welcome to the Summer Issue of Just Picked,

the newsletter of the Midwest Organic Tree Fruit Growers Network

In this issue, you will find event information, both past and future. The Hoch Orchard event was an incredible opportunity. But more opportunities abound, starting with the Elm Tree Farm Field Day on August 2nd to the south of the Twin Cities. On August 2nd Patricia Bliska is orienting the sharing of her orchard and experience to newer growers. A registration form is enclosed. On August 8th, we'll be in the southern tip of Illinois where we team up with the Agro-ecology Program of the University of Illinois to look at U of I's research on organic apple production. You are reminded of a unique opportunity to talk with Michael Phillips and other growers every Thursday morning this summer about organic apple production. Eric Mader continues to help you with native pollinator habitat on your farm and opportunities to help finance the development of such habitat. Growers in Michigan held a meeting before the season began to look at past research and discuss their quest to tackle with Michigan State University organic apple production's deepest challenges. Dan Kelly shares the progress on his project to develop a system every grower can use to predict insect pest outbreaks. The enclosed checklist will help remind you of the summer tasks that are all important to improve our organic production of quality apples.

While this issue if rather apple oriented, I invite ideas for other tree fruit topics and article contributions. I always value hearing from you. Thank you to those who do share their thoughts and critiques

Deirdre Birmingham, Network Coordinator

Site-Specific Apple Insect Control Through a Web-Based System

By Dan Kelly, Blue Heron Orchard, Canton, MO www.blueheronorchard.com

Blue Heron Orchard is located in the northeastern corner of Missouri near the town of Canton. On a bluff above the Mississippi River Valley, the orchard consists of five acres of certified organic apples: a dozen varieties on a mix of semi-standard, semi-dwarfing, and seedling with spur-type apples.

The apple orchard is my teacher. Pay attention and she will reveal herself to you. I use the pronoun 'she' in reference to "Pomona", the Roman goddess of tree fruit. Of course 'she' is not the only inspiration for my time among the trees. Back in 1986, I had taken over an abandoned orchard outside of my town with about 100 trees. My only guide at the time was "The Orchard Almanac" by Stephen Page and Joseph Smillie.

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MIDWEST ORGANIC & Sustainable Education Service MOSES

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Insect Control....from page one

This book contained the seed that would lead me down the road on which I now find myself. In an 'endocarp' (nutshell) I quote from the book's introduction:

"The life of the orchard is revealed to those who take the time to amble open minded down the rows of trees. Nature's patterns are incredibly complex and interwoven, a tapestry too fine to be fully comprehended. Yet there is a pattern, and as surely as bud turns to bloom we can learn to recognize the fibers in the weave."

Shelter for keeping the temperature gathering sensor

In a project I started in 2007 I am attempting to focus efforts of monitoring the "weave" of an orchard through use of a few basic tools that are necessary in any alternative orchard with a cyber twist: a computer, a digital temperature gathering device, and insect traps, both visual and pheromone-based. Conventional orchard systems could utilize the same information.

My motivation for this project is that many orchards throughout the Midwest need better access to more accurate information for controlling apple insect pests. Lack of accurate data and ignorance of degree-day models for orchard pests can frustrate the grower and can accelerate the use of pesticides. I want to give orchard operations of any size a simplified tool that uses existing integrated pest management information to accurately control the most economically threatening apple pests.

In 2007 I was awarded a grant from the Farmer Rancher Program of the North Central Region Sustainable Agriculture Research and Education (SARE) Program for this project titled "Sight Specific Apple Insect Control (Management) Through a Web-Based System." The project will provide growers with information for insect control based on their local conditions.

There are four cooperators in the project in different locations to represent three climatic variations. One is in central Missouri, two are in northeastern Missouri and one is west of Des Moines, Iowa.

Pendant temperature sensor that hangs in the shelter canopy

Temperature data is kept by each of the cooperators and submitted to a computer specialist, Chad. From the temperature data, degree-days are calculated and that data accumulated. A degree-day is the amount of heat units that are accumulated by averaging the daily high temperature and the daily low temperature. This average is subtracted from what is called a 'degree-day base'. Most apple pest models use either a 45°F or a 50°F degree-day base. The rational is that at lower temperatures some moths are active and degree-days will accumulate. If using the higher degree-day base, some degree-day accumulations would be missed for that particular insect. Based on predetermined insect models, the grower receives back early and late control dates for specific larval populations.

The following is an example of the information a grower receives back for oblique banded leaf rollers. The two sets of degree-day data are from my upper and lower orchard. The first sensor data has been gathered since Feb. 29 and the second April 4.

Oblique Banded Leaf Roller
Total degree days (2008-02-29 - 2008-06-24): 1931
Average daily DD accumulation for last week: 28
Degree-days since biofix* (2008-06-05): 635
Target degree days for control: 400 - 450
Early control date occurred: 2008-06-16
Late control date occurred: 2008-06-18

Oblique Banded Leaf Roller
Total degree days (2008-04-07 - 2008-06-24): 1698
Average daily DD accumulation for last week: 28
Degree days since biofix (2008-06-05): 636
Target degree days for control: 400 - 450
Early control date occurred: 2008-06-16
Late control date occurred: 2008-06-18

**Biofix is when insect traps capture the target pest on consecutive days. Often models will describe how many captures indicate an economic threshold.*

Note that the temperatures between the two orchards vary by 2°F. The brand Onset HOBO sensors are used in my orchard because they are compatible with my Mac computer, but other sensors can be used.

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Hoch Orchard Field Day, Tours, and More

If you weren't there, you missed it! "Best field day ever!" was the common refrain.

Harry and Jackie Hoch, indeed, went all out to host a landmark event for our Network on June 27-28, 2008. Not only was attendance at a new high, but so was the quality and quantity of in-depth information shared, all that we got to see, the fellowship, and oh, the food! Much of the food was from the Hoch farm and made in their commercial kitchen by Jackie Hoch. Harry's 18-year old daughter, Missy, was a huge help in hosting this event, as were Harry's three international interns, Nena of Honduras, Timur of Uzbekistan, and Renaldo of Peru.

The traditional cider tasting was appreciated!

This field day was the first of its kind in the Midwest. There has never been offered an event that covered not only all the key issues of organic apple production with such practicality, but also markets, pricing, and value-added production. These latter topics included new ways to market organic fruit locally, a new price information sharing system for growers only, and tours and discussions on juicing and jelly making, as well as the Hoch's packing shed, coolers, and systems to preserve the freshness of their fruit products from field to consumer. There was also a traditional (hard) cider discussion and tasting that was enthusiastically received. Chef Monique Hooker was a treat to listen to and watch as she advised growers on selling to restaurants and demonstrated how to make parmesan-encrusted chicken breast with chive cream sauce (just before lunch while our mouths watered!)

Chef Monique Hooker demonstrates her chicken recipe served at the event

An additional item to the agenda was a presentation on the new insurance program available in Wisconsin and Minnesota called Adjusted Gross Income-Lite, or AGR-Lite. Roger Schnitzel of Farmco was instrumental in bringing the AGR-Lite program to Wisconsin. He explained to growers its unique features and use, which are better suited than most insurance programs to diversified and/or organic farms. Growers in Door County who lost their cherry crop this year and those flooded (again) in southwestern Wisconsin who purchased this insurance for the 2008 crop are very pleased. Others who opted out are … well, not so happy.

The event was made possible not only due to the Hoch's hospitality, but from the generous support of the Risk Management Agency of the USDA, the IPM Program of the MN Department of Agriculture, a contribution for beverages from UAP initiated by Brian Nelson, the in-kind donation of a tent and speaker systems from the University of Wisconsin's West Madison Agricultural Research Station, initiated by Judith Reith-Rozelle, which was at least a $350 value, and the ongoing administrative support of the Midwest Organic and Sustainable Education Service (MOSES).

When I asked Harry for a quote about the event for this newsletter, Harry added that "I would like to thank all the speakers that came from around the country to make this a great educational event. I got a lot out of it."

While it is impossible to capture this event in an article of any length, a few highlights are noted.

Rarely do growers get to see all the equipment one might use (and discontinue) in an orchard. Harry had all his equipment laid out and explained each piece. He brought the Weed Badger company in to also give a demonstration of his weed badger unit.

While some did not understand why solar water heating was included in this event, they understood after hearing from David Sliwa and Mark Shepard. Hot water is needed by all commercial processing facilities,

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Financial Incentives for Pollinator Conservation

Eric Mader, Pollinator Outreach Coordinator
The Xerces Society for Invertebrate Conservation, www.xerces.org 503-232-6639

In previous issues of "Just Picked" I've discussed the importance of wild bees as an insurance policy against ongoing honey bee declines, and I've discussed specific orchard management practices that support wild bee populations. In this issue I outline some of the financial incentives available to landowners for the enhancement of pollinator habitat. First, however, I am excited to announce a personal transition.

The Xerces Society

In May of this year I joined the Xerces Society for Invertebrate Conservation, as the new national Outreach Coordinator for the organization's Agriculture Pollinator Conservation Program.

The Xerces Society is the nation's largest non-profit organization devoted specifically to the conservation of invertebrates such as insects. Some readers may recognize the organization from our publications like Farming for Bees, and the Pollinator Conservation Handbook, as well as a presentation at the MOSES 2006 Organic Farming Conference by our Conservation Director, Mace Vaughan.

In this new role I am working closely with government agencies and private landowners to raise awareness about the value of native bees, and to train agricultural professionals in pollinator conservation techniques. As part of this mission Xerces is developing a series of new fact sheets, technical notes for conservation agency staff, and workshops for growers and conservation professionals. Xerces currently has funding specifically allocated for work here in the Midwest, and I encourage readers to contact me for more information. Details about our pollinator conservation efforts can be found on the web at: http://www.xerces.org/Pollinator_Insect_Conservation/index.htm

Funding for Pollinator Habitat

You might be surprised to learn that a number of financial incentive programs are available to landowners who are interested in setting aside some of their land for pollinator habitat.

Typically these are USDA programs administered through either the Natural Resources Conservation Service (NRCS), or the Farm Service Agency (FSA), that provide cost-sharing for the creation of new wildlife habitat, and in some cases actual rental payments to growers.

Historically these programs were intended to reduce erosion, protect water quality, and provide habitat for wildlife such as pheasants and whitetail deer. Recent rule-making within the USDA, however, has made the promotion and conservation of pollinator habitat a priority. This is great news for growers who depend on bee pollination for the production of their crops.

Among the most well known of these programs is the Conservation Reserve Program (CRP), which pays landowners for the conversion of marginal cropland to a less intensive use. State Acres for Wildlife (SAFE), a subprogram within the CRP, is currently targeting pollinator habitat for special consideration in many areas, most notably to "Just Picked" readers, in Michigan.

Under CRP-SAFE, the state FSA, NRCS, growers, and other partners submit an application for a specific project in each state. Last year, Michigan applied for funding through SAFE to support a pollinator project downstate that targeted pollinator habitat for blueberry farms. The state was awarded 2500 acres of funding for this project, which translates into annual rental payment to growers, cost-sharing of the initial habitat installation, and one-time incentive payments just for participating. Growers must agree to enroll their land for a certain number of years, and there are usually minimum acreage requirements.

Two other programs, the Wildlife Habitat Incentives Program (WHIP), and the Environmental Quality Incentives Program (EQIP), may offer even more flexibility in terms of contract length and minimum acreage. Several state NRCS offices have already implemented, or are in the process of developing pollinator habitat guidelines for interested growers. Currently EQIP-funded pollinator projects have been implemented in Michigan as well as areas outside of the Midwest.

A number of other USDA conservation programs may also be suitable for growers who are interested in setting aside land for pollinator habitat. The exact

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Pollinator Conservation....from page 4

requirements for these programs vary slightly from state-to-state, and for specific details you should contact your local NRCS office.

Do These Programs Actually Work?

Typically pollinator habitat projects funded by these programs involve the creation of flowering hedgerows, or designated ''bee pastures'' consisting of native wildflowers. In addition to building a large resident population of wild bees, these sorts of habitat improvements provide refuge for other beneficial insects, and depending on their design can incorporate other conservation purposes including serving as shelterbelts, filter strips, or even orchard floor cover crops.

The value of these types of habitat improvements on resident wild bee populations is real and well documented. One recent study found that squash farms in New Jersey (which like apples, absolutely require bee pollination), received sufficient pollination entirely by native bees in areas adjacent to natural habitat. A similar recent study on canola (which requires even more intensive bee coverage than tree fruits) demonstrated that native bees alone could provide effective pollination when 30% of the overall land area was maintained as wild pollinator habitat. Currently Xerces Society scientists are working to document how native bee communities respond to the creation of flowering hedgerows designed specifically for pollinators, thanks in large part to funding from the NRCS National Agricultural Wildlife Conservation Center.

The multi-function conservation value of these projects, combined with their documented ability to produce wild bees makes real economic sense as honey bees continue to be in short supply.

Other Resources

In addition to the USDA programs, other state and regional funding opportunities may be available for pollinator conservation projects.

The Defenders of Wildlife maintains a nice summary of state and regional financial incentive programs for conservation projects through their Biodiversity Partnership project. A number of these incentive programs might be used in conjunction with NRCS conservation efforts. Information can be found at http://www.biodiversitypartners.org/state/index.shtml

As I mentioned earlier, the Xerces Society currently has some capacity to assist with these types of projects. We are currently working with growers and NRCS offices around the country to help with the design, technical implementation, and management of pollinator habitat. If you are interested in the programs outlined in this article I encourage you to contact your state or local NRCS biologist for more information. ó

Summer Checklist

– by Michael Phillips, from *The Apple Grower: A Guide for the Organic Orchardist*

ó Hang out perimeter traps for apple maggot fly by mid-June. Renew the sticky every three weeks or so, if you're using the "older version" of this strategy.

ó Reapply kaolin slurry for borer protection in mid-July and mid-August. Include diluted latex paint in the final coast on younger trees to help prevent freeze/thaw injury.

ó Summer-prune young trees to correct errant branch structure and crowfoot situations. Prune out watersprouts on especially vigorous trees bearing a crop.

ó Spray foliar calcium (at monthly intervals) beginning when the fruit reaches the size of a nickel if bitter pit has been a problem on certain varieties.

ó Spray for summer moth control according to the timing of the species attacking your fruit. A rotation of Entrust and Pt is typical; summer oils (on border rows) and mating disruption are another possibility.

ó Alternate sprays for moths could include garlic extracts and pure neem oil, with the latter having a positive effect on summer disease. Horsetail tea and/or bicarbonates will help with sooty blotch and flyspeck as well.

ó Order custom-budded stock for future plantings

ó Collect leaf samples and send them to the lab for tissue analysis if it deemed useful.

ó Mow aisleways for better harvest access; spread mulch to provide a "landing pad" to facilitate the finding of dropped fruit.

ó Sow an oat (or legume mix) cover crop along the edges of dwarf tree rows.

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Michigan State University Organic Tree Fruit Research Meeting

On March 14, 2008, Michigan State University (MSU) hosted a meeting of growers, researchers, crop consultants, and extension staff to discuss issues in organic tree fruit research and development. This has become an annual meeting since Mark Whalon, entomologist at MSU, initiated the meeting about five years ago. Fourteen growers participated, as well as 8 faculty/staff from MSU. The following gives a summary of the discussion. If you have questions, or are interested in attending next year's meeting, contact Mark Whalon or David Epstein, of MSU's IPM program, whose contact information is provided at the end.

Matt Grieshop was introduced to the group as the new Organic Pest Management faculty with the MSU Department of Entomology. He took notes from which this report was drafted along with input from David Epstein.

Jim Koan and Gene Garthe reported on two events in which they participated in Wisconsin in late February: 1) Grower Retreat of the Midwest Organic Tree Fruit Growers Network in Trempealeau, February 20-21, and 2) the Organic Farming Conference in La Crosse, February 22-23. (The Grower Retreat is reported on in this issue and is not repeated here.)

The Organic Farming Conference (previously called the Upper Midwest Organic Farming Conference) has been held the last weekend in February for the last 19 years in Wisconsin. It starts with Organic University courses, which last for a day, and then the two-day conference.

This year Conference participants could also participate in the first Midwest Organic Farming Research Symposium organized jointly by MOSES and the Organic Farming Research Foundation. There was more on organic tree fruits in the Symposium than in the actual Conference.

The Conference is organized into areas of expertise, such as production of diversified vegetables, organic milk, field crops, but does not have much on other horticultural crops.

This Conference provides a very different experience compared to the other trade shows, noted Gene Garthe, who attended for the first time. Many certifiers were present, allowing growers to compare their services.

There was lots of talk about energy production, including biofuels for on-farm use, integration of animal production into plant-based agriculture. Pressing oil from seed crops for bio-energy generated discussion at the MSU meeting. Farmers are producing bio-diesel already in MI and the northern Midwest. It was clarified that bio-diesel runs cleaner than fossil-based diesel, thus mitigating concerns about engine wear. Bio-diesel is more viscous than regular diesel. Therefore, blends of the two may be the answer. The economics of oil-extraction only work if there is a feed market for the meal.

Mark Whalon lead a discussion on the future of organic tree fruit research at MSU's Clarksville Horticultural Experiment Station. Clarksville is a 250-acre farm on six acres of good tree fruit ground (the organic apple block at CHES occupies 5-10ac). It is the oldest organic apple orchard in the U.S. (Started in 1999.) Three varieties were planted one being scab-resistant. Rootstocks and ground cover treatments are being evaluated.

Orchard management for the entire Clarksville station (i.e., beyond the organic block) is changing with three potential visions. 1) Continue the current plantings. 2) Compare organic vs. conventional vs. genetically engineered (but not necessarily for tree fruit). 3) Sell the orchard and buy new land south of MSU. Grower involvement is needed to guide this decision-making process. There is a three-year window of time for input into the next model. Stakeholders need to speak up to help develop formative information. This is a departure from the past that was characterized by a largely political process limited to 'big players'. Early input is needed to guide this process. Whalon would like to have a working plan by the next Great Lakes Expo (early December 2008).

The new organic faculty member is seeking guidance also.

Students of organic horticulture could be engaged in the Clarksville orchard. They could get hands-on education and actual orchard operations experience.

Discussion included how to reconcile differences between funding needed to manage the orchard vs. that needed to conduct research. Organic management is needed at the research center but without shortchanging research power. Labor is particularly important. Allocating labor to particular tasks is complex when using a holistic approach.

Differences and similarities between organic and sustainable management were discussed. How is sustainable defined? Is it less off-farm input? More diversity in crops? Self-sufficiency?

Also discussed was if having organic plots at each research center (4 fruit extension stations, 15 total) would make more sense. How can information be generated applicable across locations? Does this require a reductionist scientific approach? A roadmap is needed on how to develop new technologies. This might provide an opportunity to keep refining the approach based on outcomes.

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MSU Research....from page 6

Jim Laubauch and Romain Lalone, independent crop consultants lead a review of tree fruit pest pressure on MI farms in 2007.

Cherries: European Brown Rot was difficult in foggy areas. It was a good year for orchardists regarding plum curculio. Perhaps this was because it was a hot, dry year, there were more soil pathogens, and/or more kaolin clay was used.
European red mite was a problem in 2007. Horticultural oil solution (1%) was applied. Kaolin and fungicides may have disrupted biocontrols. (Kaolin clay is a protectant that is antagonistic to beneficials as well as pests; it does not discriminate between the two. Sulfur has been linked with late season mite problems.)
Leaf spot in cherries was easy to control with copper and lime. They progressed to low copper rates with biweekly applications every other row. Control is totally dependent on copper; there is no alternative application.
Cherry fruit flies were not much of a problem in 2007. GF120 is fairly effective when there is no rain. Changing the height of application also seems to help. Placing CFF traps in top 1/3 of tree improves monitoring, particularly where CFF populations are low and growers have experienced damage w/o fly captures.
Weeds: Quack grass is a real problem in new plantings.

Apples: There was not a lot of overall pest pressure.
Plum Curculio: Burning brush piles at night may be used to attract and kill PC. [Editor's note: This is suggested for CM, but not sure about PC.]
Codling Moth: Virus and Entrust™ at low levels have done a good job.
Leaf rollers: Early application of Bt
Weeds: A major problem for young trees especially when planted in an old orchard.
Rosy Apple Aphid: A problem in Ida Reds. Peach trees may be planted as an insectary plant. Oil applications may also be used.

David Epstein reported on organic Lepidoptera CM controls. He showed data that showed CM mating disruption is cost-effective for growers. Block layout and surrounding habitat can impact mating disruption. Other control measures discussed included:
• Entrust™ and granulosis virus as larvicides.
• Horticultural oil as an egg suffocant.
• Entomopathogenic nematodes reduced banded capture of larvae by 50%.
• Flash grazing of hogs will be investigated in 2008 for impact on scab and overwintering CM larvae in the leaf liter under trees.

Discussion also involved observations that plum curculio may take up residence in organic orchards compared to conventional orchards.

Nikki Rothwell and Erin Lizotte reported on disease management. Where copper in the soil is a problem, alfalfa can be used as its roots take up copper.

George Bird talked on soils and microorganisms. Organically managed soils become more biologically active over time. Examining the nematode community can monitor this. The nematode community is greatest when mulch is used vs. flaming or tillage for weed control. The goal is a self-regulating, living soil. To achieve this inputs will probably always be necessary. Identifying the mycorrhizal fungi for tree fruit should be a research priority to boost tree fruit soil productivity.

Mark Whalon spoke on biopesticides for plum curculio control. Fungi worked better on PC adults compared to larvae in the soil. Steinernema riobravo appears to be the best-suited nematode strain to attack PC. He discussed the concept of replacing pesticides with the establishment of new microorganisms. It may be possible to grow one's own fungi and other pathogens. ó

For questions or to be invited to the next winter research meeting contact:
Mark Whalon, Ph.D.: whalon@msu.edu ; 517-353-9425
David Epstein: epstei10@msu.edu ; 517-432-4766

Insect Control....from page two

The end result of this project will be to have a program in which the user's information is turned directly around and can be viewed in 'real time' on the computer without having Chad be at the grower's beckoned call. As for now the effort is a walk-through for our data. We will go back to check for revisions on the models I have cobbled together.

A critical factor for success is gathering the most accurate insect model(s). Not all models have been deemed worthy of this designation, 'model'. In conventional orchards, some lesser apple pests are controlled with the use of chemical insecticides aimed at major adult apple pests. Organic production focuses primarily on larval population control. With further study, these lesser pests can be observed and incorporated into a system that gives them "model' designation.

As a side-note, this year has been rather challenging for monitoring insects. After a total-wipe out of all fruit within hundreds of miles of my orchard in 2007, trapping has been almost non-existent. So far, only one codling moth has been captured, and that was on June 26. ó

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Hoch Field Day....from page 3

primarily for cleaning and sanitizing. It is increasingly costly to use fossil fuels to heat water. But a solar water heating system is being installed at the Sliwa Meadow Farm. Mark Shepard designed a solar system separate from his hot water system to heat the floor in his cidery with radiant in-floor heating. The temperature needs to be in the 55°F range for his cider fermentation facility. He was able to achieve that last winter for relatively little cost with his solar system even when temperatures outside were –35°F.

Steve Ela of Colorado finds no codling moth in Hoch's trap

Heather Hilleren received rave reviews for her presentation on Greenleaf Market. But you haven't missed everything, as she is giving upcoming presentations in varied locations and has a website at www.greenleafmarket.com .

The thinning panel should have been videotaped, as this was a detailed discussion complete with subtle nuances shared by three very experienced growers. While small orchards can hand thin, larger orchards are using various oils, primarily fish oil, with lime-sulfur, or dilute solutions of table salt. Panelists discussed issues of timing and stages of king and side bloom development. Dan Kelly reminded us of the value of Jim Schupp's work that is available on the web. (Links are listed on our website and list-serv. The URLs are too long to list here.)

Steve Ela of Ela Family Farms in Hotchkiss, Colorado, emphasized the need to monitor codling moth with traps. The small materials and time investment pales in comparison to the cost of materials used and time spent to apply them based on the CM pressure in the orchard. Steve starts by using mating disruption as his first strategy. But for heavy populations, this is only the beginning. He applies granulosis virus, either Cyd-X or Virosoft, as a second strategy. Entrust, being increasingly expensive and with some ramifications for beneficials, is a last resort. Cardboard traps on trees can help capture as larvae crawl up the trunk, particularly in areas of heavy infestation.

Regarding the importance of pest monitoring, growers heard from John Aue, of Threshold IPM Services, who got into the how's, why's and when's of monitoring insect pests in the orchard. He passed around samples found in the orchard along with his 10X lens, a must for all growers to purchase and use, as well as his copy of the northeastern guide to insect and disease pests in fruit trees, available at Cornell University's website.

Steve Ela spoke on the cover crops he is using in his orchard drive lanes to improve fertility with an on-farm input, rather than buying organic fertilizers from off-farm. Steve is focusing on legumes to increase nitrogen, such as alfalfa, red clover, and hairy vetch. He noted that one must consider soil types and climatic factors when choosing appropriate cover crops. He has also experimented with applying green chopped alfalfa to tree rows, which adds high nitrogen content. Growers can estimate the amount of N (as well as other nutrients) by reading the amount the crop type provides typically and estimating the weight of material they are adding per acre. The stage of plant growth affects the N-content of legumes as well. He recommended the Sustainable Agriculture Network publication "Managing Cover Crops Profitably."

The Advisory Council and Coordinator of the Network hope that we can continue this kind of information and idea sharing for the benefit of all growers, whether organic or not, whether beginner or 4th generation. Many thanks to the Hoch's for doing growers such a service and setting a marvelous example of hospitality and learning together. ó

Weed badger used at Hoch Orchard

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August 8th Organic Apple Field Day near Dixon Springs, Illinois

Come south on August 8 to the University of Illinois at Urbana-Champaign's southern most research station at the Dixon Springs Agricultural Center in Simpson, Illinois. If you have never been to this part of Illinois, you are in for a surprise. The terrain is in stark contrast to most of the state. It is more like the Driftless area of southwestern Wisconsin or the beginnings of the Appalachian hills. Beautiful state and national parks abound here. Consider making a long weekend trip out of this Friday event.

Also located in this lovely terrain is the Agricultural Center that includes apple research orchards established in 1999. Two demonstration plantings containing disease-resistant apple cultivars, each approximately 1-acre in size were planted. To observe and record the effectiveness of different management plans, one of these plantings is managed in compliance with organic certification standards, and the other is designated as an integrated pest management (IPM) planting, with pesticides applied according to results of insect and weather monitoring data. In each planting, there are three adjacent rows (19 trees per row) of each of the scab-resistant cultivars 'Enterprise,' 'Goldrush,' and 'Liberty.' Two border rows of the disease-susceptible cultivar 'Golden Delicious' are planted on each edge of each planting. In general, the insecticides used in the organic block since its establishment are dormant oil, Surround, Pyganic, Bt, and Entrust.

Entomologist Richard Weinzierl of UIUC will discuss insect pest management, as well as that of beneficial insects. These will include studies on controlling codling moth, oriental fruit moth, plum curculio, Japanese beetle, potato leafhopper, European red mite, and apple maggot.

The Network is co-sponsoring this field day that takes place from 9 AM to 1 PM. The morning begins with information about the Network and organic certification. Professor Weinzierl will discuss disease-resistant cultivars, orchard horticultural practices, how to identify insect pests, and managing insect pests, diseases, and weeds. Jeff Kindhart, who manages the research plots, will discuss the insecticide trials in the organic apple blocks.

Although the tour will officially adjourn at 1 PM after lunch, visitors are welcome to stay for a tour of the Center's blueberry, blackberry, tomato, pepper, and strawberry crops. ''This tour will also include a look at the sweet corn insect control plot and products listed with the Organic Materials Review Institute,'' according to Deborah Cavanaugh-Grant of UIUC's Small Farm and Sustainable Agriculture program. If do not stay for the tour, Deborah suggests ''exploring a local winery on the way.'' Wineries continue to increase in southern Illinois

Registration at least one week in advance is required. The fee is $20 per person, which includes lunch. Visit web.extension.uiuc.edu/smallfarm/ to register as well as for the agenda and a map to the Dixon Springs Agricultural Center. To register by phone, contact Donna Cray at 217-241-4644. ó

The Organic Apple Grower Hour

You can still join in the Organic Apple Grower Hour every Thursday from 8:00 to 9:00 AM through August 28th. While our Spring newsletter had detailed information, a few reminders are that the calls are available to all open-minded apple growers.

To join the call, dial 712-432-1680, then enter this access code: 868736.
To listen to a recording of last call, dial (712) 432-1284, then enter this access code: 868736.

To submit your questions to be discussed on the call, email Michael Phillips before 8 PM on Wednesday at Michael@herbsandapples.com or leave him a voice message at 603-636-2286.

Submitting your orchard profile available on the Network website in advance of your participation will help Michael address your production concerns. To download recordings at any time of the year, contact Lisa DiPietro at ldipietro@wisc.edu, or 608-265-3637. Lisa is coordinating this project that is funded from the Organic Farming Research Foundation.

A project of the Midwest Organic and Sustainable Education Service Funded by the USDA Risk Management Agency

You Are Invited! Elm Tree Farm and Field Day - August 2

On August 2, Patricia Bliska will host growers at her Elm Tree Farm, east of the Twin Cities in Afton, Minnesota. Patricia is gearing this field day for the beginning organic apple grower. Now for a bit of background to wet your appetite for this event.

Patricia started her orchard five years ago and will share from this experience as well as her graduate degree work on organic apple production. Patricia did her "integrating project", a requirement to complete her Masters of Agriculture in Horticulture at the University of Minnesota (U of MN), on producing apples organically on her 1.5-acre orchard. She scoured all available information on controlling pests organically. After graduating, she honed her insect pest monitoring skills by scouting weekly at the Carpenter Nature Center's apple orchard.

Growing Fruit. While Patricia and her husband, Chris, are continually diversifying their operations on the farm's 40-acres, they have 1.5 acres of orchard comprised of 220 apple trees and 20 plum trees.

Her apples have been organically managed since their planting in 2003. She chose four University of Minnesota varieties that are popular with consumers: Fireside, Honeycrisp, Haralson, and Sweet 16 on M-26 rootstock. There are eight trees per row, in seven rows of each variety on 15' x 15' spacing. This year she added 18 Zestar on M-7 rootstock on a 20' x 20' spacing. All trees are freestanding. Expanding the orchard is a distinct possibility.

Patricia hand thins after fruit set. Orchard sanitation is followed so that fallen apples are removed to help break pest cycles. For deer control 7'-high, tied-wire fencing protects the orchard.

Her major challenges have been cedar apple rust, apple maggot, and red banded leaf roller. She uses not only products approved for organic production to manage insect pests and diseases and promote tree health, but also biodynamic preparations. She started this a few years ago by purchasing tree paste from the Porter Institute and applying it to the bark. This seemed to work well as she has not had problems with infected pruning cuts or dogwood borer. That success peaked her interest to more fully explore the biodynamic approach. She took a 2007 MOSES Organic University course on biodynamics. She now applies biodynamic preparations to her compost. She is making Equisetum (horsetail) tea and a stinging nettle tonic to spray on the trees for their health.

Patricia also has 20 plum trees, 10 Toka and 10 Superior. These, too, are managed organically.

Last year was Patricia's first sizable apple crop and her first year to market them. She sold apples to a store featuring organic products, called Fresh and Natural Foods in Hudson, WI, and Bloomington, MN.

She pressed apples for sweet cider, which being unpasteurized, was reserved for home use. She will be developing a farm retail operation from where she might market her sweet cider.

Diversifying Production. Patricia markets wild blackberries from their woodlands to River Market in Stillwater, MN. While she timed this field day for the peak of blackberry season, the crop barely exists this year. She speculates that a heavy crop last year and too much winter deer damage are to blame. This year's poor crop motivates her to explore if she can start managed blackberry cultivation from one-year primocanes taken from the wild blackberries.

Patricia not only sold fruit, but also honey from her husband's four hives on the farm, plus rhubarb and hay. They have 10 acres of hay ground that furnishes what their three horses need. The surplus is sold.

All their land is under organic management. Patricia will soon start the certification process with her orchard production.

Patricia is beginning the production of woody ornamentals for specialty cut flowers. While she loves this work, she does not envision this becoming a large operation, but another piece of diversification. She got her start by buying bare root and containerized woody ornamentals from Bailey's Nursery where she worked this spring. She has pussy willows, forsythia, peonies, and witch hazel, among others.

In addition to being hard working and entrepreneurial, Patricia has quite a creative side. And she is a good project and business manager. Such skills are not always found together in one person. She has worked and continues to work in the landscape in-

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Elm Tree Farm....from page 10

dustry. She started taking design courses at the U of MN years before studying horticulture. She has also remodeled the farmhouse on their property that was built in 1865. She enjoyed it so much that she hopes to continue such work professionally.

The St. Croix Elm. You may wonder about the name of the farm. Patricia and Chris named the farm after its large elm tree that appears to be resistant to Dutch Elm disease, based on research done by the U of MN. They have even applied for a patent from the US Patent Office. The Bliska's have an agreement with Bailey's Nursery to propagate this elm as the St. Croix Elm.

You Are Invited. In addition to Patricia, at the field day you will hear from Roger Schnitzel of Farmco, who was instrumental in bringing a new insurance program to Wisconsin. The Adjusted Gross Revenue-Lite program is helping diversified farms, including organic farms. It is not based on average crop revenues, but on your total crop revenue history. There are many growers benefiting from this program this year after the severe cherry crop loss in Door County and the floods in southwestern Wisconsin. And there are those who chose not to go in the program and, … well lost out.

Advance registration for the field day is required by July 25 so that lunch can be ordered for each participant. Patricia will also be preparing handouts for attendees. Please use the registration form below or print one from the Network's Events page on the web. (www.mosesorganic.org/treefruit/events.htm)

While the field day will end by 3 PM, you are invited to stay and walk the trails on the Bliska's 40-acre property and to experience the various microclimates that this wooded and hilly land offer. The Elm Tree Farm field day on August 2nd promises to be not only a truly informative event, but also an enjoyable and beautiful one. ó

FIELD DAY REGISTRATION FORM **August 2, 2008 Elm Tree Farm, Afton, MN**

Your Name(s): _____

Farm Name: _____

Street Address: _____

City/Town _____ State and Zip Code: _____

Phone: _____ Email: _____

All interested in more ecological approaches to tree fruit production are welcome to attend. No host claims to have all the answers. They are simply sharing what they are learning with other open-minded growers and offering an orchard context for face-to-face sharing of information and ideas.

The event is from 10 AM to 3 PM, rain or shine. Lunch is included with your advance registration.
Registration is $20.00 per person by July 25. Please register as early as possible.

# of people _____ x $20.00 = _____

If July 25 or later, late registration is $5 per person

# of people _____ x $5.00 = _____

total _____

Mail this form and check payable to Midwest Organic Tree Fruit Network to:
Deirdre Birmingham, Coordinator, 7258 Kelly Rd, Mineral Point, WI 53565

Registration will be confirmed by email and directions to the farm sent by email after July 25
Any questions, contact Deirdre at deirdreb@mindspring.com or 608-967-2362.

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Calendar

ó Organic Apple Grower Hour - Every Thursday 8AM –running through August 28. See our website or contact Lisa for more information at ldipietro@wisc.edu, or 608-265-3637.

ó Elm Tree Farm Field Day – August 2nd. Host Patricia Bliska, of Afton, Minnesota, See article and registration form in this issue. Advance registration required.

ó Organic Apple Research Field Day, August 8, 2008 - Dixons Spring Agricultural Center, Simpson, IL. See inside for more information including registration.

ó Fruit Research Grant Proposal deadline: July 15. Organic Farming Research Foundation. www.ofrf.org 831-426-6606.

ó Future issues of Just Picked: Submissions due September 15 for the Fall issue.

July 15 is the next deadline for research and education project proposals to the Organic Farming Research Foundation. Funds from the Stretch Island Fruit Company are available specifically for fruit projects. Projects can be for up to three years in length at a maximum of $20,000 per year. Visit www.ofrf.org or call 831-426-6606 for more information. The next deadline will be this fall.

Don’t miss the August 2nd field day info inside on page 10!

Just Picked is a publication of the Upper Midwest Organic Tree Fruit Growers Network.
Our Mission is:
To share information and encourage research to improve the organic production and marketing of tree fruits in the Midwest, and to represent the interests of growers engaged in such.

The Upper Midwest Organic Tree Fruit Growers Network was started in 2004 for the purpose of sharing information and encouraging research to improve organic tree fruit production and marketing in the Upper Midwest. The Network is supported by the Midwest Organic and Sustainable Education Services (MOSES) and the Risk Management Agency of the USDA in addition to other event sponsors. This newsletter is produced by MOSES, layout by Jody Padgham.

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