Just Picked

Newsletter of the
Midwest Organic
Tree Fruit Growers Network

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Welcome to the Fall Issue of Just Picked,

the newsletter of the Midwest Organic Tree Fruit Growers Network

In this issue find some new changes afoot for our Network in an article by Harry Hoch of the Advisory Council. We thank MOSES for their on-going support for this fledgling Network over the last four years. Also learn what is being planned for 2009 and decide to get involved.

ó Eric Mader brings you another valuable article on pollinator conservation.

ó Jim Koan's project to integrate organic pork with apple production continues to be exciting—and delicious.

ó Deadlines approach for crop insurance. If you haven't yet, educate yourself on these resources and find what works for you. Use our list-serv to discuss with other growers your questions on crop insurance.

ó Michael Phillips continues to use his intellect and creativity to come up with a new website for growers and apple lovers who wish to 'push the envelope' on holistic, organic orcharding.

ó Three new fact sheets are going up on MOSES website. Check out these topics, whether you are old or new to organic orcharding.

ó One suggestion in those fact sheets is the use of disease resistant cultivars. The Good Fruit Grower has allowed us to reprint their July article on four varieties: Juliet, Pixie Crunch, Crimson Crisp, and GoldRush. See the web version of this newsletter to see those varieties in color.

ó New items are being posted to our website. Use them!

ó The Advisory Council and I want to hear from you. All of our contact information is found on this page.

Hoping your harvest is bountiful. *Deirdre Birmingham*, Network Coordinator

Advisory Council

The Network has an Advisory Council that started in February 2007 to guide the future direction of the Network. Most of the Council members were at the meeting in 2004 at the Organic Farming Conference that launched our Network. David and Maury had been trying to start such an organization for several years before that. Network Council members are listed below with their contact information. Their email addresses are also posted on our website. Feel free to contact them with any comments or questions regarding the Network, soon to be reorganized as an "Association."

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MIDWEST ORGANIC & Sustainable Education Service MOSES

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RMA

Crop Insurance –What Every Grower Needs to Consider

Note: I asked Roger Schnitzler of FARMCO Crop Insurance in Wisconsin to draft an educational article for our newsletter on crop insurance options for tree fruit growers. He was involved in getting the new Adjusted Gross Revenue-Lite program into midwestern states. He is also tracking the new programs in the last farm bill. You may have heard Roger at our two field days in MN this summer. In this article he talks about existing disaster programs and changes to them, AGR-Lite, and a new program called SURE. Thanks to Cynthia Cruea of the RMA for reviewing this information. –Deirdre

The farm bill recently passed by Congress will present both organic farming operations and diversified fresh fruit and vegetable growers with new crop insurance decisions unlike ever before. There are two major new programs in the farm bill that will dictate much of agricultural policy and agricultural support for farming operations for the next five years.

The two programs go by the acronyms, SURE and ACRE. (SURE stands for Supplemental Revenue Assistance Payment. ACRE stands for Average Crop Revenue Election. Both programs are run by the Farm Service Agency of the USDA.) The ACRE program is designed as a partial replacement for the payments that farmers with "program crops" (corn, oilseeds, wheat, barley, etc.) receive. For those growers with few, if any, "program crop" acres the ACRE program will have little financial impact, while the SURE program will impact all growers.

SURE is the government's answer to problems arising when farm disaster programs are created on an as-needed basis (so called ad hoc programs) since these programs are not included in the USDA budget. The SURE program is designed to create a permanent disaster assistance program that is in the USDA budget and thus, at least in theory, does not require Congress to scramble to find money for disaster payments. This is probably a good thing if you believe that the government like the rest of us should have to live with some form of financial limits. However, the SURE program requires that a producer have crop insurance on ALL his/her crops in order to participate in any future disaster assistance. This means that the producer will have to buy one of the following. 1) At least a catastrophic level of Multi-Peril Coverage Insurance (MPCI), or 2) n acceptable substitute such as Adjusted Gross Revenue-Lite or Group Risk coverage if available, or 3) when MPCI coverage is not available, a Noninsured Crop Disaster Assistance policy. Again, coverage must be purchased for each crop.

This latter policy, known as NAP, is available from the USDA's Farm Service Agency (FSA) office in one's county. The FSA has a fact sheet on NAP at http://www.fsa.usda.gov/fsa. (See NAP article in this issue.) You may qualify as a "limited resource producer" for whom fees are waived. Other policies are available from insurance agents.

Buried in the farm bill was the further requirement that catastrophic (CAT) level MPCI will be $300 and NAP policy fees will be $250 per crop per county. This includes fall insured crops such as apples. In most cases the maximum amount that has to be paid is $1875 for NAP only when a farmer has multiple crops in multiple counties. Failure to have either a NAP or MPCI policy on all crops will prevent a grower from receiving any disaster assistance in the SURE program.

Oh, and one other thing to consider. Experts, including Prof. Art Barnaby of Kansas State University, have estimated that the grower who buys only the basic catastrophic level or a NAP policy will receive, in the event that a disaster is declared, a much lower level of disaster payments than those who purchase a "buy-up" or higher level of coverage. The payment from SURE is based on the crop insurance level you select.

A grower, whether conventional or organic, with a large number of crops could easily find that the cost of basic compliance with the SURE program could easily cost several thousand dollars or more each year. Experts advise purchasing MPCI coverage above the CAT level to maximize potential SURE payments. However, many growers will have crops for which MPCI coverage is not available. They must resort to purchasing a NAP policy from their local Farm Service Agency. The NAP policy is essentially the same coverage as a CAT policy so potential SURE payments will be limited.

Adjusted Gross Revenue-Lite (AGR-Lite) may be the perfect answer for the growers of multiple crops. Many of these crops, such as fresh market vegetables

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What's Coming for You in 2009

As you will see in the article on the next page written by Harry Hoch, in 2009 the Network will be taking on a new name and structure. We will be making changes in the year ahead as we become an independent organization.

But whatever we are called, thanks to continued funding from the RMA, we will be having what I like to call "1, 2, 3 types of opportunities" next year. That is, we will have 1) one Advanced Grower Retreat, this time in Michigan; 2) two field days, one in Michigan and one in either Wisconsin, Iowa, or Minnesota; and 3) we will be issuing three newsletters. In addition we will be moving our website to a new host location. We will continue our list-serv discussion forum. You are invited to participate in each of these. How do you do that?

"Just Picked" The newsletter is not just for me to communicate, but for you, too. Suggest a topic that we explore. Write an article yourself. Make time for that this winter. Provide an item of interest to other growers.

List-serv. The list-serv is our electronic discussion forum. Topics are limited to the organic production and marketing of tree fruits. There are about 275 participants to date. Not just anyone can join. Subscription requests are assessed for their appropriateness before being added. Requests do come in from around the world. It ebbs and flows with the tasks of the season. At harvest time, it is predictably quiet. Yet throughout the year, the conversation is interesting and manageable and never means a deluge of email for one's inbox.

The Advanced Grower Retreat. The winter Retreat is for those already involved in organic tree fruit production and marketing to discuss their issues in detail and in depth, which conference sessions and seminars just cannot provide. The idea is for experienced minds to come together to collectively push the envelope on organic production and marketing. That way all growers will benefit, particularly when outcomes are shared. Those outcomes will be shared via the spring newsletter, our list-serv, and the summer field days.

Since last year's Retreat was in Wisconsin, yet close to Minnesota and Iowa, we'll go to the other side of Lake Michigan to bring this closer to Network growers there. Michigan is the largest tree fruit producer in the Midwest. We will try to piggyback the 09 Retreat with another event in Michigan, such as the Michigan Organic Farming Conference, to help optimize your travel during the winter months. Watch the January issue of "Just Picked", our website, and list-serv for details and registration information.

Summer Field Days. Jim and Karen Koan, of Al-Mar Orchard in Flushing, Michigan, are excited about possibly hosting our Network on their farm in early July. If you have not met Jim yet, you may almost feel like you do from all the articles on his efforts to integrate organic pork with organic apple production, his role on our Network's Advisory Council, and his posts to our list-serv. He leads the pack with 120 acres of apples grown organically.

We will be looking for a host orchard in Iowa, Wisconsin or Minnesota to host a field day in 2009. Think about it.

The newsletter, website, and list-serv will announce each of these events and provide advance registration information. Advance registration is required to all our events.

The Organic Apple Grower Hour

On 18 Thursday mornings from April 24 through August 28 a group of growers came together over the phone to discuss holistic orchard management. Leading the calls was Michael Phillips, organic orchardist and author of *The Apple Grower: A Guide for the Organic Orchardist*. The breadth and depth of information covered was very impressive, ranging from soil health, to tree health, and minimizing inputs. To see the topics covered, go to the Network website at: www.mosesorganic.org/treefruit/growerhour.html

The calls were popular. Eighteen people participated on the call at least once, about 30 people listened to a recording at least once, and 22 people downloaded at least one audio recording. Many found that the calls helped them to stay on track and gave them new ideas to improve their orchard systems.

If you missed some of the calls, fear not! If you have a high-speed internet connection, you can download the audio recordings any time. The recordings are available on Apple Talk, which is a blog run by the UW-Madison Center for Integrated Agricultural Systems' Eco-Apple Project. To access the recordings, contact Lisa at ldipietro@wisc.edu or 608-265-3637 for a user name and password.

And there's one more chance to participate on a live call! Mark your calendars for our "After the Harvest" call on Thursday, November 13 at 8am. On this call, Michael will lead a discussion to evaluate the performance of this season's management strategies. Did the Surround sprays keep the plum curculio away? Did the liquid fish give the trees a boost? Let's talk about it on the 13th. We will use the same dial-in number (712-432-1284) and access code (868736) as in the summer.

Will the Organic Apple Growers Hour happen next year? We're gathering input on what kind of impact the calls made, if they should happen again, and how they could be better. Based on your input, we'll write a grant to continue the calls. We sent out an evaluation form via the list serve in late August. Many thanks to those who have given their imput. Even though our deadline was Sept. 22, we'll be happy to receive them now. We'll share results from the survey and our plans for next year in the Winter 2009 issue of "Just Picked." Thanks to the Organic Farming Research Foundation for funding these calls! ó

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Announcing the Formation of the Organic Tree Fruit Association

By Harry Hoch,
Acting Chair of the OTFA Advisory Board

Advisory Board Members: Maury Wills, David Sliwa, Tom Rosenfeld, Jim Koan, Harry Hoch,

In February of this year several Network members met at our winter retreat and agreed to create a formal tree fruit association. All the individuals involved contributed $10 toward funding this group. We elected an advisory board and made a commitment to develop a new organization. We are currently working on a membership fee and business structure. We are calling our new group the Organic Tree Fruit Association and we plan to remain under the umbrella of MOSES. A governing body that is elected by and representative of its members will run the new association.

The new structure will give us the ability to take over the management of the Network from the MOSES staff. Our board will make the management decisions and hire a director and/or others to carry out the functions of our new group. Deirdre Birmingham will still be coordinating aspects of the new organization. The degree to which Deirdre continues to work with the Network depends on how much time she can afford to commit to our group as her young orchard and cidery business grows and demands more of her time. We will work out the details in the upcoming winter months. Our intention is to create a nonprofit organization that is affiliated with, but run independently of MOSES. The association will represent the views of organic tree fruit growers and advocate for organic tree fruit growing in the US.

Membership in the new association will be voluntary. The newsletter and website will continue. The list serve and all the Network functions will be sponsored by the association. The Network will continue to function as it has the past few years. No one will be expected to join or pay additional fees. We will keep you informed as the association develops. ó

MOSES and the Network Get Ready for Change!

By Jody Padgham, MOSES Education Director

This "Just Picked" newsletter is the last you will receive coming from the office of the Network's host organization, the Midwest Organic and Sustainable Education Service, MOSES.

Since it's origination at the MOSES Organic Farming Conference in February of 2004, the Organic Tree Fruit Growers Network has been intimately tied to MOSES. MOSES has facilitated the majority of Network funding by including it in larger grants received from the USDA –Risk Management Agency. Annual RMA agreements secured by MOSES have funded the Network for its primary activities and the coordinator's compensation from October 2004 through the end of September 2008. In addition, MOSES has acted as the group's fiscal agent, hosted the Network's website and provided administrative support, such as grant reporting, bookkeeping, web design and management, newsletter layout and distribution, and data base management.

MOSES Executive Director Faye Jones has been intimately involved in helping the Network's development, as have several other MOSES staff. Faye notes that "The Organic Tree Fruit Growers Network has done a great job of reaching out to provide a communication link and educational resources for this vastly underserved community. MOSES is proud to have helped it succeed. We wish them well as they develop their independence."

The new Organic Tree Fruit Growers Association Board of Directors, currently in the midst of the busy harvest season, plans to meet later this fall to discuss next steps for the organization. Ideas being discussed are legally incorporating under a new structure and slightly different name, and the distribution of administrative tasks. MOSES will most likely continue to play a role as decisions are made by the new governing group, and perhaps into the future.

MOSES is a non-profit organization, headquartered outside of Spring Valley, WI, whose mission is to educate and support farmers and others interested in organic and sustainable agriculture. To learn more about MOSES, including details about the upcoming 20th anniversary MOSES Organic Farming Conference, visit the MOSES website at www.mosesorganic.org.

Congratulations Midwest Organic Tree Fruit Growers Network on your four years of success, and your vision for the future! ó

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Resistant Varieties Gain Popularity:

Interest in disease-resistant apple varieties is gaining with the rise in organic production.

By Geraldine Warner

First published in Good Fruit Grower, July, 2008.

French nurseryman Benoit Escande has taken a new disease-resistant apple variety called Juliet and run with it. He is the world licensee for the Juliet apple and is promoting the variety as an organic apple for children. Juliet (formerly known as Co-op 43) is from the cooperative PRI apple-breeding program in the United States that involves Purdue University, Rutgers University, and the University of Illinois.

Escande said about 240 acres of the variety have been planted or grafted over in France. The goal is to have 625 acres planted in Europe in the next three or four years and ultimately production of 10,000 metric tons of organic Juliet apples. Dr. Jules Janick, horticulturist at Purdue, said that while Escande is heavily promoting the variety to organic growers in France, no one appears interested in championing the variety in the United States.

The PRI program, which has focused on developing scab resistant varieties, has named and released 16 varieties since 1970. Juliet was released in 1999. It is a bi-colored apple with good storability. Friends of Juliet describe it as juicy and perfumed, with a subacid flavor and an old-fashioned appearance (meaning large and flat). It is resistant to apple scab and mildew.

The three most recent PRI releases are Pixie Crunch, Sundance, and CrimsonCrisp. Janick has high hopes for Pixie Crunch and CrimsonCrisp, but admits that GoldRush, which was released in 1993, hasn't achieved the level of success he anticipated. "I think GoldRush is wonderful," he said, noting its good flavor and storability. However, it matures too late for some areas and "is not the most beautiful apple in the world," he admitted.

CrimsonCrisp. Adams County Nursery in Aspers, Pennsylvania, holds the U.S. rights to CrimsonCrisp (Co-op 39). Phil Baugher, vice president at the nursery, said that in the past there seemed to be more interest in disease resistant varieties in Europe than in the United States, but that's been changing with the increasing interest in organic production.

"Here in the East, we've seen more and more interest over the last five to 10 years in disease-resistant cultivars in response to the growth of the organic market," he said. Whereas the quality of disease-resistant cultivars of the past hasn't been up to par, recent releases from the PRI program appear to have good commercial qualities, such as a long shelf life, he said.

Adams County Nursery has been shipping Crimson Crisp trees to growers for the past two years. Though the commercial blocks have yet to come into production, trial plantings indicate that the variety has some very good qualities, Baugher said. "The people I've talked to that tried it seem to be very impressed with it." He describes it as an attractive apple with a deep red blush over about 80 percent of the fruit surface. In trials it has had very little russet and few skin blemishes. It matures in mid- to late September. "What we really like are it's keeping qualities," Baugher said. "It stays firm in cold storage for well into the late winter and spring months—even in regular storage. I think it probably keeps as well as Fuji."

Another advantage of the disease-resistant varieties is the potential to lower production costs. Growers of processing apples need to find ways to produce apples more cheaply, he said. "Disease-resistant cultivars address that concern. We've seen an interest in the processing sector to plant these resistant cultivars to get away from the high costs of disease management."

Pixie Crunch: Pixie Crunch (Co-op 33) is a small, full-red apple that ripens around the first week of September. It is crisp and juicy, and tastes good, Janick said. "It has a terrific flavor. People tell me it's their favorite apple. "Small it may be, but Janick doesn't see that as an insurmountable problem, as he thinks it would be suitable for children and a good variety for U-pick operations. "I think a smaller apple could go," he said. "Apples get too big. Who wants to eat an apple that weights half a pound?"

Mitch Lynd of Lynd Fruit Farm near Pataskala, Ohio, said Pixie Crunch has a better flavor than Honeycrisp and is much sweeter, but is barely half the size. "The big disadvantage of small fruit size is the cost of pick-

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Resistant Varieties....from page 5

ing is high and the retail grocery trade doesn't want a small apple," he said. "But they're out of touch with what consumers want. There's an awful lot of older people who don't want a great big apple. They prefer a small-sized apple—in fact, smaller than they could buy in the supermarket."

Small apples mean lower yields, but Lynd said that growers who sell directly to the public, and are price makers rather than price takers, can set their prices to offset the low yields with higher margins. "We don't worry about small size," he said. "Pixie is the ideal apple for us for a niche-apple marketing slot where we're providing something they can't find anywhere else. It's too early to say whether there's going to be a consumer stampede to get that one, but the preliminary indications are very favorable."

Pixie Crunch is licensed in the United States to Gardens Alive, Inc. of Indiana and is available from Gurney's Seed and Nursery Company and Henry Field Seed and Nursery Company. Ed Fackler, who handles requests to propagate Garden Alive's exclusive varieties, said Pixie Crunch is smaller than Gala but has exceptional flavor and crispness. "I think in some ways it's more crisp than Honeycrisp but it has a little different texture," he said. "It has a very unique full flavor. I do know some people who've made a lot of money on this in direct marketing because it's that good."

Sundance. Fackler also enthuses about Sundance (Co-op 29), a very large, semi-conical yellow apple that matures in October. It is the only yellow apple he knows of that has excellent resistance to cedar apple rust as well as scab. "I think Sundance has some value to the commercial organic grower," he said. However, it is hypersensitive to a disease called frogeye leaf spot, which can be a problem in the eastern United States. It can also develop some stem bowl russet or scarf skin. Fackler said Sundance has a unique citric flavor and stores well. It holds up well at room temperature for up to two weeks. ó

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Coop Variety Descriptions

for color pictures view this newsletter online at www.mosesorganic.org/treefruit/intro.htm

GoldRush (Co-op 38). GoldRush is derived from a cross of Golden Delicious and Co-op 17 made in 1972 at the University of Illinois. It was released by the PRI program in 1993. The name refers to its golden ground color with bronze blush and its rush of flavor, according to information from the PRI program. The fruit is of average size with a rich, spicy, sweet-acid flavor and firm texture. It has outstanding storability. The tree is slightly upright and moderately vigorous with limited branching and a strong tendency to develop a central leader. Crotch angles are wide and the tree is heavily spurred. It is resistant to scab and powdery mildew and moderately resistant to fireblight. It is susceptible to cedar-apple rust and sooty blotch.

Pixie Crunch (Co-op 33). Pixie Crunch comes from a cross made at Rutgers University, New Jersey, in 1971. It was released by the PRI breeding program in 2004. The apple is red over a green-yellow background and doesn't russet. It has a rich, complex sweet-tart flavor. It is juicy, with a crisp and breaking texture. The fruit has excellent storage quality. The tree has a spreading, moderately vigorous growth habit, with some tendency toward biennial bearing if overcropped. It is resistant to apple scab and moderately resistant to fireblight and frogeye leafspot. It is susceptible to powdery mildew and cedar-apple rust.

CrimsonCrisp (Co-op 39). CrimsonCrisp comes from a cross of two breeding selections made in 1971 at Rutgers University, New Jersey. It was released in 2005. The fruit is a full bright red color and very crisp. It has yellow flesh and a rich subacid flavor. The fruit matures in mid-September. The tree is a standard nonspur with moderate to low vigor. It can bear biennially if overcropped. It is resistant to apple scab, but susceptible to cedar apple rust and fireblight. ó

Photos courtesy of Jules Janick.

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No Rush for GoldRush

This high quality apple has a long growing season, making it a possibility for California

By Geraldine Warner

When Ohio apple grower Mitch Lynd first saw the GoldRush apple, he was excited about it. It's remarkably sweet, with soluble solids seldom under 17 percent. It has tremendous keeping quality, probably better than Fuji. Consumers can keep it in their refrigerator until July or August and still have an apple with good texture, good flavor and a lot of zip, he says.

In fact, he was so excited about the apple that he sent a single-layer gift box to more than 60 retail chain buyers. "Without exception, 63 out of 63 said they would not give that apple any shelf space at all because it was cosmetically borderline disgusting," he said. "The fascinating thing, to me, was that out of the 63 there were around a dozen or so of those chain store buyers who asked, 'How can I get some of those apples myself?'"

Lynd laments that marketing hype and outward appearance tend to trump other attributes of a product when it's sold in a supermarket. "Its underlying value is not considered. It's whatever triggers the hand to move out and put it in the basket."

Lynd, who operates Lynd Family Fruit Farm at Pataskala, not far from Columbus, Ohio, sells all his crop at the farm, and says his customers love GoldRush. The only drawback is that it matures in late October. Its extremely high sugar level protects it from freezing on the tree, he said, and it's survived temperatures as low as 22°F, but it's lateness limits how much he wants to produce. It matures during the last couple of weeks that his farm market is open for the year and if the weather is cold at the end of October, business drops off significantly.

"It's not the best timing from that standpoint," he said. "It would be a bigger seller if it were at the front end of the picking schedule, rather than the back end, but you can't manufacture a great apple in 120 to 140 days. The great apples need to be on the tree for 180 days."

Ed Fackler, a fruit consultant in Indiana, is a great fan of GoldRush, though he admits it's not for everyone because of its long growing season. He thinks it's a better apple than Pink Lady, which matures at around the same time, and believes it would be a good choice for areas with a long growing season. "Why people in Southern California don't grow Gold Rush by the bazillions is beyond me," he commented. "It's one of the easiest things to grow in my life."

It's a very sweet apple with incredible storability, he explained. The tree sets a heavy crop but is easy to thin to achieve good-sized fruit. The tree is naturally small. "This is just a moron-proof apple," he said. "Why these people haven't planted it, I don't have a clue." ó

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Three New Fact Sheets!

With RMA and MOSES support and the expertise of Harry Hoch and Bill Wright, we have three new Fact Sheets that address some frequently asked questions.

ó Managing Risk in Starting an Organic Orchard
ó Planning the Organic Orchard
ó Resources for Organic Orchardists

The first fact sheet is to help the many people that have been attracted to the Network because they are considering starting an orchard to be managed organically. Before they take that plunge, Bill Wright, who runs the Organic Learning Center and other projects with UW-Extension in Brown County, has organized a framework of questions to be considered beforehand.

The second fact sheet is for those who decide they do wish to start an orchard. This fact sheet will help one design and prepare the orchard to make it easier (or shall we say, less challenging) to manage it organically. One of the major considerations is to build soil health before planting and to use disease resistant cultivars.

The third fact sheet supplements the MOSES' Upper Midwest Organic Resource Directory with information for organic orchardists. The Resource Directory is available in hardcopy from MOSES' office and is available on their website (www.mosesorganic.org). The fact sheet focuses on suppliers of products used by growers in the Network. The list is not an endorsement, however, of any business listed. If there are any consultants, brokers, buyers, or cooperatives you would like listed, let us know.

The Fact Sheets will be available on MOSES website by the end of September. They will eventually be moved to the Network's new website this winter. They will be updated at least annually. Your input will be appreciated. Contact the Network Coordinator.

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Frequently Asked Questions About Native Bee Conservation in Farm Settings

By Eric Mader, Pollinator Outreach Coordinator The Xerces Society for Invertebrate Conservation
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The 2008 Farm Bill has made pollinator conservation a priority for the USDA through new research funds and conservation incentive programs. This mandate is in response to both the ongoing honey bee colony collapse disorder and the decline of native pollinators. To implement these goals, government agencies and farm organizations are developing technical guidelines and best management practices that support native bee populations. Often the keystone of these efforts is the planting of habitat enhancements, such as native wildflower meadows and flowering hedgerows.

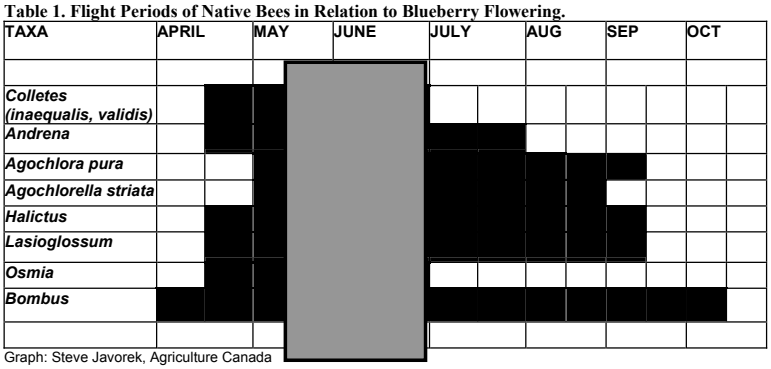
In this column I tackle some of the frequently asked questions that I receive about native bee conservation. Readers are encouraged to submit additional questions to me via my email address: eric@xerces.org.

What good are native bees as crop pollinators?
American agriculture has been so dependent on the managed European honey bee for so long that we've taken the approximately 4,000 native North American bee species for granted. And yet these native bees are currently estimated to contribute $3 billion worth of crop pollination to the U.S. economy. As honey bees continue to decline, both due to health problems like Colony Collapse Disorder and beekeeper attrition (the number of managed hives in the U.S. has dropped by 50% since 1945), the role of native bees is becoming more important than ever. In addition, for many crops that bloom in cool weather (almonds, apples, cherries), or that have unusual flower morphology (blueberries, tomatoes, alfalfa), native bees can be more effective pollinators. Finally, new research suggests that the interaction of native bees and managed honey bees on flowers results in more complete pollination than the presence of either type of bee alone.

Native bees need wildflowers to sustain themselves when crops aren't blooming.

Can native bee populations be supported through blooming crops alone?
Generally no. Most commercial crops have a short bloom period that does not span the length of the growing (and bee nesting) season. The following graph produced by Steve Javorek, a biologist with Agriculture Canada illustrates this point:

Table 1. Flight Periods of Native Bees in Relation to Blueberry Flowering.



Graph: Steve Javorek, Agriculture Canada

As the table illustrates, the foraging and nesting season for the very native bees that are blueberry specialists, is longer than the actual bloom period of the crop. What this means is that unless other blooming plants are nearby (weeds, wildflowers, etc.) to support those bee populations outside of the main crop bloom, they will fly away and nest elsewhere. The result will be an inadequate future population of resident pollinators. While Steve uses blueberries to illustrate this problem, the same situation exists with nearly every monoculture cropping system, from apples to sunflowers!

How much wild habitat is necessary for native bees to replace honey bees as crop pollinators?
We know from studies of melon pollination in California that wild bees can provide all of the necessary pollination the grower needs when 30% of the habitat within 1 Km of the field is maintained as a natural area. For example, a grower with 10 acres of watermelon, whose land is adjacent to a 2-acre natural area, could create an additional 1-acre pollinator preserve and achieve that 30% habitat target.

There is little research about the habitat requirements necessary to pollinate other crops, but there are similar 30% findings for canola pollination in Canada. Until additional studies are performed, that 30% number is probably a good baseline to aim for.

In addition, it is important to consider that not all wild habitat is created equally. For example, grassy pastures or grazed rangeland do not provide the same abundance of floral resources that a wildflower meadow, or forb dominated prairie will. Many of the conservation

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Crop Insurance....from page two

and most fruits and berries, do not have MPCI coverage available. They can only be insured under a NAP policy for each crop. That adds up quickly, but only to a maximum of $1875. The newer AGR-Lite covers all crops under one policy. It often costs less than buying insurance for each crop types under MCPI and/or NAP. It also provides more than catastrophic level coverage. In the event of a disaster, the payments to growers could be up to three times what would have been received with only catastrophic-level MPCI coverage and/or NAP coverage, but for a higher premium.

An example would be an organic (or conventional) farm growing 10 separate types of fruits and vegetables with a gross annual income derived from agricultural product sales of $100,000. (AGR-Lite adjusts out income from the resale of purchased products.) A combination of CAT-level MCPI and NAP premiums on the 10 crops would be purchased. The costs would vary depending on whether MCPI is available or not. The CAT/NAP coverage would only pay, in the event of a total loss, an estimated $27,500. However, the AGR-Lite policy would pay a maximum of $72,000 with an estimated premium cost of $2,200 annually.

The cost of coverage and the potential economic benefits of an AGR-Lite policy over other insurance choices will vary for each producer. Most fresh fruit and vegetable growers, whether following organic or conventional practices, should take steps to investigate the probable advantages of AGR-Lite for their situation, both as a way to comply with the insurance requirements of SURE and as a good risk management tool.

More information is available on crop insurance on the following websites. The RMA website has a calculator to help you determine what your fees or premiums might be for varying programs and levels of coverage, and what your payments might be in the event of varying levels of crop loss.
www.fsa.usda.gov - Find Fact Sheets and local offices by state
http://www.rma.usda.gov/tools/premcalc.html - Premium calculator
http://www.lrftool.sc.egov.usda.gov/tool.asp. Limited Resource Producer status can be determined using this Online Self Determination Tool.

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Using a Crop Disaster Assistance Program for the Orchard

You see in this newsletter that the NAP deadline is December 1. So what is this NAP about? Are growers in our Network using it?

At the Growers Retreat last February Dan Kelly said he is using NAP for the first time and encouraged growers to look into it. NAP is the Non-insured Crop Disaster Assistance Program that is available only from the Farm Service Agency (FSA) of the USDA; it is not sold by insurance agencies. It is used when the Multi-Peril Crop Insurance is not available in one's county for the crop concerned. Multi-Peril Crop insurance is sold by insurance agents.

NAP became attractive to Dan after he suffered a complete crop loss due to late freezes at bloom in 2007. For $100 he could have had his crop insured under the NAP. In fact, Dan qualified for the "limited resource producer" provision that waives the fee to enroll, so for zero dollars he could have been insured. Not to be burned again, Dan contacted his FSA office last year and enrolled by the normal November 20th deadline for his 2008 crop. And so far he is glad he did.

While a freeze did not hit this year, hail did. On May 15th the damage was done. Dan took photos and reported the event on the required forms. This month, he reported the rain-induced cracking that his Galas suffered after four days of rain in northeastern Missouri thanks to Hurricane Ike. The Farm Service Agency will be out 15 days after harvest to appraise the damage from both events. So the story is yet unfinished.

Dan is using NAP because he could not find other crop insurance programs for his apple orchard In fact, he believes another grower in our Network advised him to consider this.

For the NAP, Dan keeps production records that note the date, the variety picked, by whom, and the quantity. Actually, he does this anyway to keep track of inventory and because some of his pickers are paid in apples. They get one bushel for every five they pick, or the 6th bushel. They may take some bushels home and store some at Dan's for later in the season.

To receive any payments, the natural disaster must have reduced the expected production by at least 50%. This is based on your crop records for the last four years, or if you do not have records, on the county's average production for that crop type. Payment is based on 55% of the average price for the crop in the state. The state FSA office determines price annually. There is no premium for certified organic tree fruits, at least not yet. In the case of Iowa County, Wisconsin, the average yield for fresh market apples is 200 bu/ac @ $10.05/bu and for processing apples it is $3.10/bu. In Dan's case, he will use his production records times the price Missouri is offering . While these are not great prices, they sure beat the complete and avoidable loss of income from his apples that he suffered in 2007.

Stay tuned for Part II of Dan's use of NAP in our January issue. ó

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Integrating Organic Pork and Apple Production – An Exciting Project Update

Jim Koan's dream continues to live on as he moves closer and closer to making organic pork and apple production a practical reality for growers. The enthusiasm of the researchers involved continues to grow not just due to Jim, but also due to the exciting and unexpected data being gathered. In this update, we'll summarize what is being studied and the results to date. In our January 2009 issue more data will have been analyzed and results ready to share. Check out five earlier issues of Just Picked to get the background to this project.

Jim Koan and his Berkshires enjoy their favorite beverage

David Epstein, an IPM specialist at Michigan State University, continues to lead the research on Jim's farm. And he is doing so with bulldog tenacity. The team of researchers continues to expand so that Jim's efforts can be analyzed from every angle "This is an ecosystem approach," said Dave. "This is far more complex than running a pesticide efficacy trial." While Dave's second proposal was not funded (surprisingly) by the USDA's Integrated Organic Program (IOP), all the media attention this project received helped convince MSU administrators that they needed to keep this exciting project alive. Dave will again be submitting to the IOP when the next call for proposals is announced in early 2009.

Plum Curculio. Controlling what Jim coined the 'dreaded plum curculio' was what sparked his imagination to deploy pigs to the orchard. This year's results for PC damage corroborate last year's results leading to "pretty conclusive findings" according to Dave Epstein-- the pigs do help control PC damage.

Dave went so far as to quantify June drop this year. He weed-whacked the ground bare under 10 trees this June and then counted the apples that dropped weekly for three weeks. Last year they got 122.7 apples per tree. This year they got 123.7, although some drops may have been due to frost damage. Dave measured the ovi-position stings. He found 47% of the apples had stings. The stung apples were then placed on vermiculite and the larvae allowed to hatch. Sixteen percent of the stung apples produced live larvae. Thus about 20 larvae hatched per tree. The pigs do a great mop-up job too, removed 99% of the dropped apples. Therefore, if Jim has 200 trees in an acre in this older plot, the pigs could remove about 4000 potential PC larvae in one acre.

What is interesting is the difference in the percent of PC-stung fruit in plots without pigs grazing to those grazed by the pigs. PC stings were 8.7% on the non-grazed and only 4.1% on the grazed. This difference is real.

And it doesn't stop there. When the larvae move into the soil and reemerge to feed on the apples, the feeding injury was much lower, almost four-fold lower in the grazed vs. non-grazed plots (2.7% vs. 0.8%). While such results the first year might have been a fluke, to get the same results the second year means pigs are having a serious impact.

Codling Moth. While Jim thought of pigs originally to control PC, Jim and the research team are looking to see what if there is any impact on the codling moth population and resulting damage. Matt Grieshop, MSU's new assistant professor of organic pest management, is in charge of this aspect. While Matt did not expect to see a major difference, the initial results have yielded a pleasant surprise for Jim and the MSU research team. Codling moth populations are being assessed at three stages: pheromone trapping of adult males, bands capturing migrating late larvae, and through fruit damage evaluations. Trap captures were slightly lower in the grazed plots and the banding data has yet to be analyzed. However, fruit injury was evaluated and found to be three-fold lower in grazed plots compared to ungrazed plots (about 7% and 2.3%, respectively). Cardboard bands will be collected later this month and the final results included in our January issue. It will only be one year's worth of data, and thus not conclusive, but Jim is sure feeling optimistic.

Weeds. Matt again is leading the charge on this aspect too and is analyzing data. Matt has transects across six plots to take a random sampling of ground cover, plant species diversity, and biomass. Initial findings indicate that hogs greatly increase the amount of bare ground around trees but do so in a

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GrowOrganicApples.com

Michael Phillips and several Northeast grower friends are offering another opportunity on the tree fruit networking front. This new web site, www.GrowOrganicApples.com, speaks for the "holistic orchardist network" in several exciting ways.

The research pages address a whole farm perspective when looking at orchard management choices, with growers as the driving force behind shared discoveries. Michael's articles form a "biologic curriculum" where growers can check in for updates to the state of the art in growing healthy fruit.

Perhaps the most compelling aspects of this site are the ways "apple lovers" can get involved with the local community orcharding movement. Regional listings post contact information for member growers – let's build on this momentum! – as a means for potential customers to support small-scale orchards everywhere. Some of the writing in the pipeline will specifically answer consumer questions about "organic tolerance" and what indeed makes for nutritious fruit and healthy eating. Michael has begun spreading word of this grower movement through groups like Slow Food as part of the financial outreach necessary to make more site-based research possible.

"This is a big undertaking in some respects – and I really should have a national office complete with a hard-working staff! – if not a salaried research position! – but as is the usual case for my idealism – I do not," Michael says. "We all know the score. Anyhow, please check out all the 'nook and crannies' in touring around the site and seeing the potential just waiting to be released if enough growers deem this worthy of support. Locavore consciousness is going to help more people grow healthy fruit. We're going to figure out homegrown answers to our more vexing challenges. GrowOrganicApples guides our hopes and aspirations into an effective national forum for making good things happen in the orchard."

This site represents a huge investment on Michael's part. He inspired many of us with his book The Apple Grower. Regional networks are very important, particularly when it comes to getting to know other orchardists. Becoming part of Michael's vision of health-based orcharding is something beyond and yet very much a part of what we've achieved here in the upper Midwest. He's an apple visionary who has definite ideas of how we can accelerate our mutual learning curves and inspire even chemically based agriculture to embrace healthier notions. This idea of a partnership between orchardists and apple lovers may indeed be just the ticket to achieving great goals. So go check out www.GrowOrganicApples.com . ó

Pork and Apples....from page 10

"patchy" fashion. A full analysis will be generated once biomass collections are completed and we'll report on that in January. Meanwhile Jim is pleased, saying "I did nothing for weeds in these plots and didn't need to."

Scab. No stone is being left unturned in this project and that includes the overturning of leaf litter. George Sundin, plant pathologist at MSU, is taking the lead on this aspect. Jim's idea is to run the pigs in the plots in the fall and in the spring when the snow cover is gone. Probably not all the plots got the 'pig attack' last spring as soon as he would have wished. But George is not sure if the plot shape and sizes will yield data they can trust. While each plot is one acre in size, they vary in shape. Some plots have only two rows of trees. Since spores can discharge widely, spores don't necessarily stay within the boundaries of narrow plots. They will modify the plot shapes next year.

Soil. While diverse pests are being analyzed, a most important component of analysis is the soil. Eric Hansen of MSU is taking both soil and leaf samples to monitor over time. Conclusions will take years to form. Let's hope the IOP funding comes through.

The Pigs. Let's not forgot Jim's movers and shakers (eaters and poopers) and those are his Berkshire pigs. Dale Rozeboom, MSU's swine specialist, continues on the project, measuring pig weight gain and health, as well as PC larvae - they found none, .and microorganisms in the feces. This year he added tests to determine all the microorganisms present in the pig's feces. Then he is taking aged samples from pig feces in the plot and culturing the microorganisms to see which microorganisms persist over time. The research team is addressing head-on the concern that hog manure in the orchard poses a human health risk.

If their proposed four-year project is funded by the IOP, an animal welfare specialist will be added to the team.

Meanwhile, Jim is beaming that the line of Berkshires he is using has won national meat quality competitions three years running. He'll take that, and his apples, to the bank! ó

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Pollinators...from page 8

guidelines being developed around the country now by the Natural Resource Conservation Service (NRCS) call for seeding of pollinator enhancement areas at a rate of 45 to 75% forbs. The remainder of the seed mix typically consists of native bunch grasses that provide nest habitat for bumble bees and crowd out annual weeds. These bunch grasses also do not form a dense sod, which allows ground-nesting solitary bees access to the soil surface and a place to build their subterranean nest tunnels.

Because native forb seed is expensive, and because forbs are more difficult to establish than grasses, these seeding rates are often prohibitive over large areas. In these cases the best a landowner may be able to provide is a mixture of 20% forbs. Even if this is not ideal, it may be a substantial improvement over a weed monoculture or an existing plant composition of only 10% forbs.

Large areas can also be improved with low cost, non-native legumes like alfalfa and clover. The result is a planting mixture that closely resembles traditional recommendations for upland game birds. If this approach is taken, pollinators will likely be helped significantly. However, a diverse native mix has been shown by numerous studies to support a greater variety of native bees and other pollinators.

How many different flower types are necessary to support a population of bees?

According to several different research papers, between 15 and 30 forb species are needed during a single year in a given area to maximize bee diversity. Again, because bees are nesting throughout the season, flowering forbs should be available from early spring through late fall. This level of diversity also limits pest and disease problems in the conservation area. One suggestion used in previous NRCS pollinator management guidelines is that no single plant species should comprise more than 15% of a planting.

How do you know which flower types attract bees?

Wind: Except in cases of extreme shortage, bees ignore most wind-pollinated plants like grasses, conifers, poplars, and hazelnuts. Bees, honey bees in particular, will gather pollen from these plants, especially in the early spring when there are few other sources available. However, the nutritional content (specifically the protein) of these types of pollen is tremendously low. The protein levels of different types of pollen can range from 2.5% to 60% by weight, with the rest of the content consisting of lipids, sterols, and carbohydrates. Protein level is important because pollen is the principal food source that bees feed to their young.

Flower consistency: Certain native shrubs have high quality flowers, but do not flower consistently. Instead they may devote their reproductive resources to suckering rather than flowering prolifically. Dogwoods and some viburnums fall into this category. This doesn't mean that they aren't valuable, just that in a habitat intended specifically for pollinators, a landowner might get more 'bang for their buck' with other species.

Morphology: The third criterion is a flower's pollination syndrome. This is a botanical term for the collective traits of a flower, including its color, shape, size, scent, and amount of available pollen and nectar. Basically the morphology of a flower tells us something about the animal that it's trying to attract. Pollination syndromes help us to pick plants that support pollinators with agricultural value (specifically bees). The following table illustrates some basic pollination syndromes:

Table 2. Pollination Syndromes

Pollinator Type	Flower Shape	Color	Examples
Bee Plants 1.	Simple, open, bowl-shaped	Blue, white, yellow	Apple, sunflower
Bee Plants 2.	Complicated, asymmetrical petals	Blue, white, yellow	Alfalfa, orchid, penstemon
Butterfly Plants	Large, showy, with deep recesses	Pink, purple, orange	Milkweed, liatris, purple coneflower
Moth Plants	Large, simple, with deep recesses	White, or pale colors	Yucca, datura, morning glory
Fly Plants 1.	Shallow, flat	White, yellow	Carrot, dill, yarrow
Fly Plants 2.	Deep, funnel-shaped	Brown, orange	Skunk cabbage, red trillium
Beetle Plants	Large, flat, bowl-shaped	White, green, yellow	Magnolia, water lily

In addition to pollinator syndromes, honey beekeepers, local researchers, and the astute observations of farmers and gardeners provide critical information about which plants support bees in different regions. Next time you see a plant buzzing with bees, you might want to make a note of it.

You will notice from the table that some non-native plants are valuable to pollinators. Conversely some native plants provide little value. It all comes down to individual species. If it is a high-quality pollen and nectar source, bees will visit it. Because they provide multiple ecological benefits, however, native plants should be used wherever possible.

Similarly, annual plants (like sunflower, buckwheat, phacelia) are all as good at supporting pollinator as some perennials. Again, it all comes down to individual species. The benefits of one over the other involve issues of cost, ease of establishment, and length of time until the first bloom. ó

The Xerces Society is an international nonprofit organization that protects wildlife through the conservation of invertebrates and their habitat. To join the Society, make a contribution, or learn more visit www.xerces.org.

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Important Annual Network Survey

The Network and its participants are providing quite a few opportunities for growers to date. These include web pages listing all available information on organic tree fruit growing and marketing; on-farm events; this newsletter; and a list-serv discussion forum. And five growers serve on the Advisory Council to guide the growth of this Network.

The Advisors, the RMA (our major funder), and I wish to know what aspects of the Network you value most. Perhaps there are things you learned from these diverse opportunities that you are using in your orchard or in planning a tree fruit-based business. This helps us know what impact these opportunities are having, what bang for the buck we are getting, and will influence our planning for the future.
(Feel free to add pages to answer any question below.)

I will appreciate receipt of your responses in October by email, fax, or mail (see page 1).
Thank you in advance!

A. I have used the following opportunities the Network offers: (please check all that apply)

□ web pages
□ field days, orchard walks
□ read the newsletter
□ list-serv discussion forum
□ Network mtg at organic conference

B. If I had to pick the top two or three opportunities that I want to see continue they would be:

□ web pages
□ field days, orchard walks
□ read the newsletter
□ list-serv discussion forum
□ Network mtg at organic conference
□ Other: Here's what I suggest: _____
_____

C. Two or more things I am doing as a result of what I learned at the opportunities I used above:

D. I would like more information on the following to reduce my risk in organic production and marketing of tree fruits?

E. My additional thoughts or ideas for future activities for 2009 are:

Crop Insurance...from page 9

The A Limited Resource Producer is a producer with both of the following: 1) Direct or indirect gross farm sales not more than $100,000 in both of the previous 2 years (as adjusted for inflation using Price Paid by Farmer Index as compiled by NASS); and 2) Total household income at or below the national poverty level for a family of 4, or less than 50 percent of county median household income in both of the previous 2 years (to be determined annually using Commerce Department Data).

http://www.agecon.ksu.edu/risk/ Strategies,newsletters, and decision-making tools to assist farmers with marketing and risk management decisions. By Prof. Art Barnaby at Kansas State University.

http://www.agrisk.umn.edu/ - Ag Risk Library at the University of Minnesota. ó

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Calendar of Opportunities

ó Organic Apple Grower Hour –November 13 at 8 AM is the end of season wrap up call. To join in, call 712-432-1680, and use passcode 868736. See inside for more information.

ó OFRF Research and Education Project Grant Proposal deadline: November 15. The Organic Farming Research Foundation has funds specifically for fruit research. Visit www.ofrf.org or call Jane at 831-426-6606.

ó NAP- Non-Insured Crop Disaster Assistance Program (NAP), which normally has a November 20 deadline to sign up a perennial crop such as tree fruits, has extended their sign-up deadline to December 1, 2008, for the 2009 crop. For more information, visit www.fsa.usda.gov/FSA and contact your local FSA office, also found on the FSA website.

ó 2008 Great Lakes Fruit, Vegetable and Farm Market Expo December 9-11. Grand Rapids, MI. Organic sessions on December 11. www.glexpo.com

ó January 2009 issue Just Picked: Submissions due December 15.

ó Organic University February 26, 2009. La Crosse, WI Organic Apple Production with Jim Koan, George Bird, and Steve Ela. www.mosesorganic.org

ó Organic Farming Conference. February 27-28, 2009. La Crosse, WI. www.mosesorganic.org

Just Picked is a publication of the 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 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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