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A Message from the Chair

Happy to share another Organic Connections Newsletter and MOFFA update as we transition from summer to fall crops and harvests. I hope you have had the opportunity to savor the summer sunshine and the many flavorful and nutritional gifts it provides us. The recent months have been personally productive for me and I continue to be filled with a sense of gratitude.

Ten members of the MOFFA Board of Directors met in July at the Biernbaum house and homestead in Haslett. With several new Board members, the afternoon provided a great opportunity for us to get to know each other better. We had a nearly 3-hour patio conversation that included MOFFA history, a discussion of our important shared values and beliefs, and a SWOT analysis (strengths, weaknesses, opportunities, threats). Notes from these discussions will eventually be shared after review by the Board. Our goal is to distill a limited number of priorities that will help keep us focused. Equally important, for the first time in a long time we enjoyed a delightful pot-luck meal together.

The Board of Directors is growing and so is our membership. At 144 members we reached a high



point since starting annual January-to-December membership in 2010. Many members also made donations with their membership which helps our efforts and progress. There are still members from last year who have not renewed yet but [the option is still available](#). A few weeks ago I was sharing what we did with our strategic planning at the July meeting to a friend. He said he was glad to hear it because he just submitted his membership renewal. He shared that he was a bit surprised that he was six months late and wondered how six months had gone by so fast. Sound familiar?

Seems like I did more travel than normal this summer. Some of the travel was to visit student interns on organic farms. One of the events was the first MSU Extension sponsored local food event held at the Upper Peninsula Research and Education Center (UPREC). Over 200 people attended the day-long "Together at the Farm" event on Saturday



UPREC North Farm Manager Collin Thompson with Eliot Coleman and John Biernbaum
Eliot Coleman (center) with Matt Gougeon and Natasha Lantz of the Marquette Food Coop

July 30. Our keynote was Eliot Coleman and it was nice to have the chance for him to see the North Farm, the high tunnel and root cellar, and to meet many people he inspired to practice organic farming and season extension. It was also great to see the old barn at the farm used for the evening square dance. I think I may have mentioned this already in a previous newsletter, but the North Farm in Chatham was certified organic earlier this year and is now one more organic light on the landscape that helps people see the opportunities.

This edition of Organic Connections continues our efforts to help focus more discussion about why we use organic farming and just what defines or describes organic farming. New board member Amy Newday shares her thoughts and regular contributor Leah Smith offers some ideas to help you with conversations about what might look like organic but might not be. Our continuing theme or perception is that not enough people understand organic farming and we can do something about that. There are also articles about organic hydroponic and organic livestock regulations that are being developed to provide much needed clarification about what will be considered organic going forward. I am waiting to

see just how serious the USDA is about their stated goal of trying to fix some of the mistakes of the past.

Included in this edition is the schedule and list of topics and presenters for the Organic Farming Expo held in Grand Rapids. The Organic Sessions are a small part of the three-day program but another light of opportunity for those that are interested. Several of our Michigan organic farmers will be presenting.

Next big MOFFA education effort is planning the 2017 Organic Intensives. We are considering moving from the first week of March at MSU to early January at an off campus site. We may not be able to make it happen this year, but stay tuned. As always all of you are welcome to participate in the planning in any way that you can. [Contact me directly](#) with ideas or ways you would like to participate.

Julia has provided information at the MOFFA [website](#) that we have to date on the upcoming farming conference season. Some of you may be working to get to the end of this farming season and starting winter harvest crops, but don't forget to plan for your continued winter growth and rejuvenation by participating in one or more conferences. Start thinking about who you might invite to carpool and go with you this year. More details on conferences in the December Organic Connections.

A final thought of gratitude to share. When traveling this summer, I finally got to stop by Ware Organic Farm and visit with Bernie and Sandee Ware. Some of you may know that Bernie had an unexpected up close and personal experience with some very hot tractor radiator fluid this spring. I arrived on a day at the start of August that found him well along on the road to recovery and starting to get back into the sunshine again after many weeks of healing. I was able to hear about the critical help he got the day of the accident as well as for many weeks after. He was also able to share how perhaps a bit too much work and thinking about what needed to be done next contributed to making a rushed decision and taking an unnecessary risk. I left with another reminder of the importance of being in the moment and being aware, and that doing so requires going at the appropriate pace. Part of keeping healthy is remembering our organic connections—to our family and friends, to our community, and to the larger oneness that can help us, if we take the time that is needed. You may be one of the many farmers working hard to help

provide much needed healthy food for your community. Please remember that health for others starts with health for you.

Dr. John Biernbaum is Professor of Horticulture at MSU, one of the founders of the MSU Student Organic Farm, and recently-elected Chair of MOFFA's Board of Directors.

Ethics, Esthetics & Ecology: Why I Farm Organically

by Amy Newday

Since the last MOFFA newsletter, which included several great articles on the “what” of organic agriculture, I’ve been pondering the “why.” For me and most of the farmers I know who use organic growing practices, certified or not, the reasons are more complicated than a market-driven response to consumer demand. After all, there are a lot of easier ways to make a buck.

I farm organically because before she married my dairyman grandfather, my grandmother taught nature studies. My primary babysitter when I was too young to help with farm chores, she introduced me to many farm residents who I still count among my friends: the bullfrogs that moo in the duck pond on warm spring evenings, the thrushes whose bell-choir holds the ravine rapt in summer. On clear nights she’d spread a blanket in the hay field so I could learn constellations and ponder my small place in the nature of things.

It seems to me that “conventional” agriculture as it is currently practiced has its root in a fallacy that runs through our culture—that the human place in the nature of things is one of inherent opposition: Humans vs Nature. Which also seems to me to be a really weird way of thinking about ourselves. We don’t talk about other species this way. To think about “bears vs nature” would be absurd. We might even say that bears are nature, or part of it. Certainly, their lives depend upon it—for bears to thrive, they need functioning ecosystems within which they play vital roles. Somehow we have convinced ourselves that we are the only species to whom this doesn’t apply.

And so we pollute air as if it does not constantly pass through our lungs, spread poisons in water as if our bodies were not over fifty percent composed of it, strip life from soil as if it were not the source of our own living energy, and diminish the diversity of our ecosystems as if we didn’t know that other threads plucked from the ecological web tremble our own.

To counter these acts, botanist Robin Wall Kimmerer calls for “acts of restoration, not only for polluted

waters and degraded lands, but also for our relationship to the world.” She encourages us “to live as if this is the land that feeds you, as if these are the streams from which you drink ... to take care of the land as if our lives and the lives of all our relatives depend on it. Because they do.”

For three quarters of my life, this piece of farmland has fed me and I have drunk from the stream beneath it that feeds my well. Organic farming is my act of restoration, of giving back to this land and my community. Though since my farm isn’t certified, perhaps I should find a different term for what I do. I like “ecological farming” because it reminds me of Aldo Leopold’s call to recognize that I am a “plain member and citizen” of an ecosystem community that includes “soils, waters, plants, and animals, or collectively: the land.” When it comes to the “whats” of ecological farming, I follow NOP guidelines, but I also measure my decisions against Leopold’s prescription for cultivating an ethical relationship to land: “Examine each question in terms of what is ethically and esthetically right, as well as what is economically expedient. A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise.”

Of course, my ability to live up to this ethical ideal (and to do so without engaging in practices that degrade and destabilize ecosystems other than my own) is constrained, in part, by the socio-economic structures built by my human community. It’s hard to farm ecologically within a culture that doesn’t recognize the inextricable ties between human well-being and ecological health and that doesn’t include downstream and long-term consequences when factoring value. I’ve got some work to do before my farm is able to sustain a truly reciprocally supportive relationship with the biotic community in which I live while also remaining economically and energetically sustainable. Pursuing that goal means both refining my farming practices and working to increase ecological awareness and sustainability within my human culture and community.

When my grandmother let nettles grow tall in the corner of her yard and taught me to peek between their folded leaves to find Red Admiral caterpillars, I learned more than butterfly identification. I learned that I have the ability and responsibility to nurture beauty and diversity in this world. Each year I farm I realize a little more of what that means. Sometimes the lessons are hard, reminding me of just how much more I have to learn. I'm grateful to be a part of this organic community, which inspires, supports, and teaches me. Together I hope we are moving toward a cultural change that will enable all of us to live with more integrity and beauty in relationship to each other and our ecosystems.

Works Referenced

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Amy Newday is a professor at Kalamazoo College and operates Harvest of Joy Farm in Shelbyville, Michigan. She currently serves on MOFFA's Board of Directors.

Observations from the USDA Organic Hydroponics Task Force

by John Biernbaum

Part of what makes organic farming “organic” are the written regulations that provide the legal definitions and rules. Organic farming regulations provide consistency and a sense of trust in the system. What follows is my attempt to share what I am learning about those rules and the process involved in maintaining or changing them.

For many years I have shared with students in the MSU Organic Farming Principles and Practices class my perception that organic farming rules and regulations were on pretty solid ground and provided a strong dependable foundation. That perception was based on my reading of the 1990 Organic Food Production Act (OFPA), the actions of the USDA National Organic Program (NOP), and personal interactions with people involved in the National Organic Standards Board (NOSB) or as organic certifiers or inspectors or as certified organic farmers. I am disappointed to say that one of the outcomes of serving on the USDA Task Force (2015-2016) for Organic Hydroponics is that I have much less confidence in the people responsible for administering and implementing the USDA-National Organic Program (NOP), the role of the National Organic Standards Board (NOSB), and the NOP-accredited agencies implementing organic certification.

The Organic Hydroponic and Aquaponic Task Force was formed to gather relevant information pertaining to the alignment of hydroponic growing with organic regulations. We were repeatedly reminded from the start that our task was not to make recommendations but instead to provide information for the NOSB to use to help them make recommendations.

The perspectives of the members of the Task Force were so divided from the start that a decision or recommendation would not have been possible. Part of the committee had been involved in organic farming certification, regulation, education or production for many years and were looking to maintain the historical expectations. Others on the committee were new to organic farming and mostly looking for a way to do greenhouse production that could be certified organic and therefore would benefit from the organic price premium. The subcommittee I served on had over 150 years of organic farming experience. My perception is that the other subcommittee had experience with hydroponics or aquaponics but lacked experience with organic farming or growing outside a greenhouse.

The final 196-page task force report is available here: <https://www.ams.usda.gov/sites/default/files/media/2016%20Hydroponic%20Task%20Force%20Report.PDF>

The first 100+ pages were prepared by the subcommittee that supported the 2010 NOSB recommendations not to allow organic certification for hydroponic operations. We worked to provide details and justification for why organic hydroponics should not be allowed. The next part of the report is by the subcommittee made up in part by hydroponic farmers that are currently certified and want to continue to be certified. They provided information about the various types of systems in use, although detailed organic nutrient management information was not provided because it was “proprietary”. The

third part of the report is by a subcommittee that considered alternative practices or labels.

Apparently when the NOP regulations were first released (2001), the USDA stated that additional definition of greenhouse practices would be put in place within the first year. While a greenhouse proposal was developed by the NOSB in 2001, no official action was taken by USDA to make rules. Due in part to the lack of regulation, the exception for growing transplants in soilless growing media gradually was extended by some certifiers to apply to growing finished / harvestable crops. The assumption appears to be that if it's ok to fertilize peat-based transplant media with fish emulsion and other water soluble fertilizers on a regular basis, it is also ok to grow crops to maturity in peat-based growing media with routine use of water soluble fertilizers. And if that is organic, why not allow growing of crops in sand or gravel or troughs of water routinely fertilized with OMRI approved organic fertilizers? These methods were initially only allowed by a limited number of certifiers while other certifiers would not allow them for finished crops. Canada does allow container crop production to be certified organic, but has worked to specify container size. With limited exceptions, container crop production of harvestable food crops including organic hydroponics is not allowed in IFOAM accredited certifications. The NOSB again provided greenhouse recommendations in 2010 that recommended no use of hydroponics but still the USDA did not take action. The lack of clarity in the regulations led to the formation of the Organic Hydroponic Task Force.

To summarize, organic hydroponics is using USDA-NOP approved nutrient sources to routinely (weekly, daily or multiple times a day) apply water soluble nutrients. Unlike conventional hydroponics, microorganisms and biology in the growing medium or nutrient solution are encouraged and considered essential. I saw two certified organic greenhouse installations in California growing lettuce and basil with a nutrient film technique (NFT). We heard about hundreds of acres of outdoor or protected container grown raspberries and blueberries grown with routine liquid fertilization and certified organic. Based on information provided primarily by one committee member, a large percentage of the organic tomatoes in large US retail food stores are currently hydroponically grown in Mexico, Holland, or a limited number of US locations. We were told that there are many greenhouse organic hydroponic producers waiting for the ruling and ready to build many more acres of greenhouse space if the growing method continues to be allowed.

Those in favor of organic hydroponics propose that consumers would benefit from a greater supply of organic produce, organic farming could be done in urban environments where soil is not available, and crops could be produced with the use of much less water. My perspective is that if container based growing continues to be approved, all of these objectives can be met with compost-based growing media that include some soil and do not require routine fertilization.

While concerns can be raised about the lack of action from USDA NOP regarding developing a greenhouse organic practice, another concern can be raised about the certifiers who are allowing organic hydroponic. The intended ideal of providing consistency across states and farmers cannot be achieved if the regulations are left open to interpretation by the 90+ certifiers accredited by the USDA-NOP.

Over the 7-month information gathering and sharing process, I learned about the implications of a system where NOSB members are provided expenses for travel, lodging and meals for meetings but serve without monetary compensation for their time, which includes a 3-year period of service and 4 meetings a year. It is very difficult for me to see how something so important can be dependent on volunteer service. I also learned that some NOSB members are focused on just one area or responsibility such as crops, livestock, processing, certification or representing consumers. Apparently when it comes to new regulations we can't count on NOSB members being knowledgeable about key topics or even having read the pertinent background material prior to discussion. Then there is the fact that the NOSB is only advisory to the USDA-NOP.

Over the past 15 years I have had the opportunity to meet some of the original members of the organic community who worked to help make the USDA-NOP a reality, starting with the preparation of the 1990 Organic Food Production Act (OFPA) which is the federal law that led to a national standard for organic certification. The actual USDA-NOP regulations (issued in 2001) were developed from the OFPA during a 10-year process. The people that participated in this process deserve our appreciation for the difficult job they did.

I am reminded of the importance of not making assumptions and being as accurate as possible when it comes to choosing what to say and what not to say, and which words to use. The fact that organic farming is a soil based production system was so widely accepted by the early crafters of the

regulations, it appears that stating the foundational essential premise of using soil or defining soil was not considered a necessary part of the regulations. The end result is that some with no prior organic farming experience interpret the rule as requiring soil biology and organic matter but not requiring soil itself because the rule does not say so. A justification was given by this group was that consumers don't associate "soil" with "organic".

Another example of how not being specific can lead to unintended consequences is that the NOSB greenhouse recommendations in 2001 and 2010 state that artificial lighting is allowed. The intent according to one member of the NOSB at the time was to allow supplemental lighting in a greenhouse. Organic transplants are allowed to be grown on light shelves in homes, basements and garages with no sunlight, but such production was not intended for

harvested crops. But because details were not stated, there are now certified organic crops coming from warehouses and shipping containers with only electrical lighting and no sunlight. Does that sound like organic farming?

It will be interesting to see what happens next. There are many issues to be resolved. I have heard speculation that if organic certification of hydroponic systems continues to be allowed, the future validity of organic certification as a whole may be irreparably damaged.

There will be opportunity for public comment at the fall NOSB meeting, and online once the NOSB develops their recommendation. I hope you will be involved and express your perspective about "What is Organic".

What Looks Like Organic But Is Not?

by Leah Smith

I attended farmers' markets for years prior to 2002, the year the USDA's National Organic Program (NOP) certification went into effect and prohibited the use of the word "organic". There had always been vendors who had claimed to be organic farmers, but having never been members of an organic organization with guidelines and literature, and apparently never having done much reading on the subject personally either, seemed to have little real knowledge of all that was involved in organic agriculture. They just knew they didn't spray "bad chemicals." It would probably take another organic farmer to recognize the difference, however, and would not have been noticed by the average customer. So the need for clarification was there prior to 2002; and it still is.

Even today, organic produce seems to abound at farmers' markets. Whether the produce is suitable for organic certification or not is hard to say. However, there is no denying the fact that there is a lot that can be said about how food is grown and what this means to you. Where does organic farming end and other similar farming techniques begin? What is organic? Is all organic the same? What does it mean when people say, "Beyond Organic?" Well, here's a look at an "organic" spectrum of farming styles.

Locally Grown—This seems fairly easy to understand. Produce labeled as locally grown was

grown somewhere quite close! Which means what (for Michiganders)? Some say that it was produced in the Midwest. Some say that it was produced in Michigan. Some say that it was produced within 100 miles (this tends to be the most recognized definition). And some, who want to be hyper-local, want produce only from the county they live in. Those who only eat what they themselves grow must be uber-hyper-local. Obviously, nothing in the previous statements addressed the type of farming practiced to produce this local food. Locavorism is said to decrease food spoilage, provide fresher (thus healthier) food for consumers, and decrease fuel consumption and greenhouse gas emissions due to transportation. It also aims for many community benefits by supporting the local economy, encouraging community interactions, and connecting farmers directly to consumers. All of this could certainly be achieved by a conventional (chemical) farmer just as it is done by an organic farmer.

Organically Grown—Organic agriculture uses fertilizers of organic origin, including composts, animal manure, green manure and rock minerals. Organic farmers aim to use crop rotation, companion planting, intercropping, and various biological pest management methods to produce healthy crops and maintain healthy soil. And there are certain naturally occurring compounds that are used as pesticides. In contrast to conventional farming, they do not use synthetic fertilizers and pesticides, genetically

modified organisms, or growth agents. Unfortunately, over the last number of years, many people seem to have distilled the organic/non-organic question down to a simple matter of no spray/spray. No doubt this is partly because chemical (pesticide) residues, which should not be present on organic produce, is a simple concept to understand and easy to test for. So it is the easiest difference to identify when discussing organic agriculture. But organic farming is more than what you do or do not spray on your garden. Organic farms are supposed to be integrated farming systems, designed with sustainability in mind, soil fertility as the objective, and ideally animal and plant production working together.

Certified Organic—How are certified organic farming techniques different from plain organic farming techniques? You pay for them. Standards for the certification of organic agricultural practices in the United States are governed by the [USDA NOP](#), and are internationally regulated by the [International Federation of Organic Agriculture Movements \(IFOAM\)](#), established in 1972. Those who are organically certified keep good records and have their farm inspected and re-certified every year through a USDA accredited, third party certification agency.

Certified Naturally Grown—Like organic, yes! In fact, I think it is organic. Not so much a change of or refining of farming practices at all, but rather created as a response to government involvement. The NOP prohibited the use of the word “organic” (or even the term “non-certified organic”) by those who didn’t pay for it, at the same time increasing the cost and bureaucracy involved for those who did want to continue with/seek certification. Hello third-party inspectors (who have to be paid), goodbye farmer certifying farmer. Basically, a major blow to any family farmer who wanted to let their customers know what kind of food they produce. Created in 2002, the [Certified Naturally Grown](#) program has a certification process, and all CNG farms are subject to random pesticide residue testing. It is for those who follow the USDA organic standards but don’t want to go through a USDA accredited certifier and pay their price for the certification. After all, those who were in organic farming previous to USDA involvement didn’t have to pay so much for the privilege to use the word. They just farmed that way, and I expect still do. This certification is perfect for the small farmer who sells locally and directly to the customer.

Biodynamically Grown—A form of agriculture described as very similar to organic farming in some

key practices. It makes use of manure and compost, and doesn’t use synthetic chemical pesticides and fertilizers, etc. What really sets biodynamics apart for many people is the inclusion of particular principles and practices created by Rudolf Steiner and put into practice by farmers like Ehrenfried Pfeiffer. This includes a focus on soil fertility, plant growth, and livestock health, of course, but greatly stresses that they are interrelated and all cared for as a whole, a single interrelated system. Absolutely no getting away from it with biodynamics. Additionally, there are spiritual and mystical components of biodynamic agriculture which leave some critics feeling that it is pseudoscientific and a touch too “magical” for the realm of agriculture. These include an emphasis on understanding planetary and low energy forces and the use of herbal preparations and mineral additives. It is interesting to note that the importance of local food production was emphasized in biodynamics from its very beginnings, which were in the 1920’s, some feel more so than in organics. Biodynamics also stresses the use and preservation of heritage animal breeds and heirloom plant varieties with a focus on selecting new local breeds/varieties from this diverse gene pool for your own region. There are certifying agencies for biodynamic agriculture ([Demeter International](#) is the name of the standards group to which they belong), so you can be “Certified Biodynamically Grown.”

Biointensive—Rather than certifying farming practices, with [Biointensive Farming](#) there is an educational process one must go through that involves taking courses and learning the methods. The individual pays for the classes and the person becomes certified, rather than paying for an inspection and review where the growing practices become certified. This is the method popularized by John Jeavons. The methods are very much like organic, although the emphasis is usually on smaller scale intensive production with limited tractor equipment.

Veganically Grown—I must admit I knew little about what this meant before I looked in to it. I had seen it on packages and of course I know what a vegan is—just not the precise extent to which this would apply to farming techniques. Now I know. Vegan gardening does not make use of many of the products that are freely used in the aforementioned farming techniques, such as bloodmeal, bone meal, numerous animal feces, and fish emulsion, for example. It is called stock-free farming, making no use of animals or products of the animal husbandry industry. No animals on the farm and no animal products used for the farming. Other techniques

that veganic farmers do have in common with organic farming include using green manures, mulch, compost (of the purely vegetable kind), cover crops, and mineral supplements. There is also an emphasis on non-soil compacting surface cultivation, so I imagine a lot of hand hoeing and weeding and not many tractors. The term veganic was coined by Geoffrey Rudd as a contraction of “vegetable organic,” to stress that this style of farming was different both from chemical based farming and animal based farming of the organic variety.

Heirloom Varieties—Heirloom varieties are being mentioned a lot these days. A grower who uses heirloom seed has promised nothing about the farming practices used to raise their produce. Exactly what qualifies as an heirloom variety of produce) may be confusing to many, probably because the definition differs depending on who you are asking. Some consider heirlooms to only be varieties strictly true to the definition of the word heirloom, as being handed down through a family. Others think any cultivar that is over 50 or 100 years old (one or the other, depending on who you ask) is an heirloom variety. Still others believe cultivars that predate 1945 or 1951 (again, one or the other) all have the right to heirloom status as they predate the hybrid seed era. However, there is some unchallenged common ground. Heirloom varieties come from seeds that are open-pollinated, not hybrids. They have been maintained over the years with traditional breeding and selection techniques. You will find no GMO’s here. Many heirloom varieties of produce are unique to specific ethnic groups or prized for their flavor, durability, or unique looks and not because they travel well cross-country, are favorable to mechanical picking, or simply produce well in conventional (chemical) farming systems. For one reason or another, heirlooms don’t have broad appeal and the large-scale agriculture and food industry have no use for them. Or at least they didn’t. With the increased interest in heirloom varieties of produce (unique and colorful and different) on the part of consumers, you can now find heirlooms popping up where you never would have before, from Walmart to Horrocks. But where and what did they come from?

And the Others—I was unable to find anyone who is certifying or even explicitly defining biologically, ecologically, or holistically grown produce. The implication seems pretty clear, though. Emphasis is being placed on living soil, biological interactions for pest control and improved crop growth, and integrated farming set-ups, for example. Is this emphasis being used to stand out as being better

than organics? Or are phrases simply being used that suggest organics, but that won’t get you in trouble for using them? And what about sustainably grown produce? I have read definitions that describe sustainable agriculture as socially just, humane, economically viable, and environmentally sound. All agricultural attributes well worth pursuing, though perhaps difficult to pin down at points, no so much a farming method as general farming ideas that all should follow.

It really depends on why the words are being used. I recently asked a young man about his “biologically” raised crops. He was off, talking about nitrogen fixation, cover crops, and soil biology. He was enthusiastic and informed and I was impressed. I also asked a young woman about her “ecologically” raised produce. She said it doesn’t get sprayed with anything, and that was it. I was not impressed on this occasion. Additionally, I have heard some certified organic operations being referred to as “organic by neglect.” They simply do not spray, and they also don’t do anything to improve soil, foster beneficial insect population, implement buffer strips, etc.

Deep Organics/Beyond Organic—The emergence of “deep organics” and “beyond organic” terminology is probably a response to “organic by neglect” operations, the USDA’s NOP certification, and to large-scale, agribusiness type organics. Farms hold themselves to stricter standards than the USDA NOP standards. They want to highlight that there is a difference between local, family farm organics and cross-country shipping of organic produce from large farming operations. Or perhaps they feel that even if the shaky letter of organic law is being followed in some situations, the spirit isn’t there. It just isn’t the same organics.



There is obviously a lot of farming going on out there. Whether it is being done certified organically, biodynamically, locally, with heirloom seeds and seed saving, or with some combination of various principles, it is clear that why it is being done goes a long way to explaining how it is being done. Wendell Berry said, “An organic farm, properly speaking, is not one that uses certain methods and substances and avoids others; it is a farm whose

structure is formed in imitation of the structure of a natural system that has the integrity, the independence, and the benign dependence of an organism." It should be encouraging to know that there are so many ways in which many people are doing their parts to foster and share in a healthy environment.

Leah Smith is a MOFFA member and a Michigan State alumna (B.S., Crop and Soil Sciences). She works at Nodding Thistle, her family's farm, which has a history of organic gardening and farm marketing since 1984.

The Future of Organic Farming in a Changing Climate

by Maynard Kaufman

We do not know just when farming in Michigan will be seriously impacted by climate change, but we do know that other places are already suffering droughts or flooding attributed to global warming. We also know that greenhouse gases, mainly carbon dioxide, methane, and nitrous oxide, are accumulating in our atmosphere and as they help to trap the warmth of the sun, global temperatures are slowly rising. These greenhouse gases are emitted when fossil fuels, such as coal, oil, and gas, are burned, but emissions began much earlier from deforestation and soil erosion. The warming this causes is very slow, and the danger lies in the fact that global temperatures are rising so slowly that the prospect of global warming has lost its urgency. In 2007, 71% of Americans believed that burning fossil fuels caused global warming, but two years later this percentage was down to 51%. People in this country are not inclined to change their energy-intensive lifestyle and so carbon dioxide, the main greenhouse gas, has increased from 280 parts per million before the Industrial era to about 400 ppm today. Eventually, of course, emissions of carbon dioxide must be reduced by using more renewable sources of energy, and less energy, but that is not a likely possibility to solve the problem of climate change for the time being.

The other possibility, getting carbon dioxide out of the atmosphere through the natural process of photosynthesis, is rejected by many scientific writers in our urban society even as it is affirmed by many others who know more about farming. It is this possibility that is explored in this essay. We do know that before the industrial era, organic matter, which is 58% carbon, had accumulated quite naturally in soils and plants and did not concentrate in the atmosphere. Prairie soils in our Great Plains had 10 to 20% of organic matter before they were plowed. Since farming began soils have lost 30 to 80% of their organic matter. Although carbon has always circulated through the atmosphere, the soil, and the oceans, the current excess in the

atmosphere and in the oceans (which are being acidified as a result) and the loss of carbon from the soil, is caused by both destructive farming practices and the burning of fossil fuels.

These destructive practices included deforestation and the loss of organic matter as plowing for annual grain crops caused the oxidation of carbon in the soil and its escape as carbon dioxide. The loss of organic matter was much greater as chemicals for fertilizers and pest control were adopted. The use of fossil fuels for the manufacture of agricultural inputs and for mechanization added to the carbon emissions from agriculture. Rattan Lal, a soil scientist from Ohio State University who has written much on this topic, has suggested that "more carbon may have been emitted into the atmosphere from deforestation and land use conversion than from fossil fuel combustion until the end of the twentieth century." (Lal, Preface to *Geotherapy* edited by Thomas Goreau, p. xvi.)

Destructive farming practices include deforestation and the loss of organic matter as plowing for annual grain crops causes the oxidation of carbon in the soil and its escape as carbon dioxide.

Can this carbon dioxide be returned to the soil as organic matter by better farming practices? This is what organic farmers have always tried to do, and they have recently been joined by soil scientists such as Lal, mentioned above, and many others. Some of them make extravagant claims, as when Allan Yeomans, in his book *Priority One*, says (p. 101) we could beat global warming "in well under ten years." This may be possible, but it assumes that the world's farmers will all become organic farmers immediately. And even Yeomans complains about

the lobbying power of the fossil fuel industries as they resist a transition to organic farming.

In a special paper published a couple of years ago, the Rodale Institute provided a more carefully-reasoned statement of carbon sequestration through regenerative organic agricultural practices. It lends some support to Yeoman's claims, and, recognizing that not all farms will shift to organic methods, it states that "if we extrapolate to half rather than all of global pasture and cropland, transition to regenerative modes of production may sequester 55% (29GtCO₂) of 2012 annual emissions." This is a bit over half of the total global emissions of

Getting the excess greenhouse gases out of the atmosphere is more urgent than the reduction of the rate of burning fossil fuels because it helps to postpone the warming of the planet immediately even as it builds up soil fertility, which is the aim of organic farmers.

greenhouse gases in 2012, so it is possible to sequester greenhouse gases in soils and plants.

Getting the excess greenhouse gases out of the

atmosphere is more urgent than the reduction of the rate of burning fossil fuels because it helps to postpone the warming of the planet immediately even as it builds up soil fertility, which is the aim of organic farmers. And it is necessary for all of us as eaters if we remember that chemical fertilizers, which came into use to maintain yields after chemical farming methods had destroyed soil fertility, may not be as easily available and widely used in the future. Organic methods are the alternative. Also, it is urgent to reduce greenhouse gases in the atmosphere because the warming they cause in turn causes the melting of methane hydrates in tundra and in the oceans, and these emissions of methane can add more warming very rapidly.

What the Rodale Institute calls "regenerative organic farming" includes some specific emphases that add up to a reformed method of organic farming. They are not proposing a simple return to the good old days of organic farming even though they still emphasize feeding the organisms in the soil rather than the plants. It is farming and gardening without any or very reduced tillage, along with temporary cover crops planted between the main crops to cover the soil and help to control weeds and erosion. It also depends on crop rotation, retention of crop residue on the soil, and the use of compost for

fertilizer which helps to fix carbon in the soil as humus. All this adds up to a more management-intensive system which has to be adapted to different soil types and climate conditions.

Some critics have rejected the possibility of carbon sequestration in soil because they argue that the carbon would escape sooner rather than later. According to the Rodale paper, arbuscular mycorrhizal fungi secrete a protein called glomalin which remains in the soil for decades as a stable form of organic carbon. Mycorrhizal fungi can also be added in the soil to seedlings through inoculations especially in places where heavy tillage had destroyed the native population of fungi.

The Rodale paper mentions both cropland and global pasture, or grasslands, which include 40% of global land surface area. Efforts have been made recently, informed especially by the work of Allen Savory's Holistic Management System, to develop grazing methods that can restore these grasslands. These depend on the intensive grazing of ruminants in relatively small paddocks where large herds are pressured as by the presence of predators. Their hoofs help to mix their manure and dead grasses into the soil to replenish its organic matter. This process is described by Adam D. Sacks and colleagues in a long article entitled "Reestablishing the Evolutionary Grassland-Grazer Relationship to Restore Atmospheric Carbon Dioxide to Preindustrial Levels" which is included in *Geotherapy* edited by Thomas Goreau et. al.

Another way to sequester carbon includes greater reliance of perennial crops as emphasized in Permaculture. This has been advocated by Eric Toensmeier in his recent book, *The Carbon Farming Solution: A Global Toolkit of Perennial Crops and Regenerative Agricultural Practices for Climate Change Mitigation and Food Security*. Because of their extensive roots and reduced need for tillage, perennial plants and trees can sequester more carbon in the soil than annual crops. This is also true of the perennial grains under development at the Land Institute co-founded by Wes Jackson. Tree crops can also be competitive with annuals in net productivity, as argued by J. Russell Smith in his book of 1950, *Tree Crops*. The shift to more perennials will happen, but it is a long-term process. In the meantime annual crops can be produced with regenerative organic methods.

The most comprehensive book on strategies for restoring carbon from the atmosphere to the soil is *Geotherapy*, published in 2015 and edited by Thomas J. Goreau, Ronal Larson and Joanna

Campe. The first 100 pages of this 600 page book consists of introductory essays by the editors, and the following pages include about ten chapters on biochar and another ten chapters on techniques for the remineralization of soils and organic additives. Biochar is essentially charcoal which has been “energized” with organic matter and helps plants grow. The charcoal embodies carbon in a form that stays in the soil. Any organic matter can be burned in the absence of oxygen to form biochar. Certainly it should be a vital component in the effort to sequester carbon.

Remineralization of soils may be questioned by some critics who remember the apocalyptic tone of a book in 1982 by John D. Hamaker entitled *The Survival of Civilization*. That book does include a section on the problem of increased carbon dioxide in the atmosphere, but relates it to the author's perceived need for a new glaciation to remineralize soils. In *Geotherapy* the issue of remineralization is presented as the addition of rock minerals much as organic farmers use rock minerals to restore minerals that have been depleted by intensive cropping.

Although Goreau was present as a Senior Scientific Affairs Officer in 1989 when the United Nations Framework Convention on Climate Change took on

the challenge of climate change, he failed to convince the UN FCCC to include soil as a sink for carbon even though it has four times more carbon than the atmosphere. This helps to explain why soil as a sink for excess carbon is not on the climate change agenda. He argues, and *Geotherapy* provides the evidence, that “if managed responsibly pastures alone, agriculture alone, or reforestation alone could absorb much of the carbon dioxide increase” (p. 37).

There will definitely be organic farming in our future. It is one of the essential strategies that can assure that we have a future, both because it can restore carbon from the atmosphere, where it is a pollutant, back into the soil, where it is a necessary nutrient that helps plants grow. Best of all, it thereby enriches the soil so that food can be grown without the chemicals that add to greenhouse gases in the atmosphere.

Maynard Kaufman was a founding member of both Organic Growers of Michigan and MOFFA. He was an organic farmer from 1971 to 2003, when he sold most of his land to three young organic farmers. This article is a preliminary version of the final chapter in the book he is editing on the organic movement in Michigan.

Internships Involve Inspire Initiate Immerse Integrate Invigorate and Impact Impressionable Inquisitive Innovative Intense Interns

by John Biernbaum

One of the many rewards of my career is the opportunity to advise MSU Horticulture students completing their internship experience. In the Horticulture Department students are required to complete the internship as a for-credit class. This summer I advised and visited four students working on organic farms including: Coveyou Scenic Farm (Petoskey), Providence Organic Farm (Crystal Lake), The MSU North Farm (Chatham), Hand Sown Farm (Manchester) and one at Dow Botanic Gardens (Midland). As I write this I just finished reading their sixth and final bi-weekly report of their activities and experiences and I am inspired to share with you the impact of the internship on the students.

In 12 weeks under the guidance of farm owners and supervisors the students had unique opportunities to be immersed in the day to day production and marketing activities and decisions that bring reality

to the classroom learning and their career choices. I continue to be inspired and invigorated by the efforts and thoughtfulness of our students.

The students were able to see how the farmer's choices of scale, number of employees on the farm, use of equipment, management style and marketing methods all impact daily activities and the chance for personal happiness. They were able to experience the effort and intensity required throughout the summer to bring healthy, high quality food to local communities. They experienced the impact of weather and factors that influence herbivores (pests), decomposers (diseases) and ground covers (weeds) that are competing for a share of the crops or growing space. And they were able to demonstrate their commitment and willingness to work for an ecological and just local food system.

The students are also required to work with their employers to identify a research or learning project to complete. For most it is their first time having to work through the process of identifying a problem or opportunity and developing a plan or process to test some aspect that will provide useful information. In essence we are cultivating the long term learning process.

This year is not unique in terms of student experiences on farms. For at least the last 15 years I have advised students working on organic and small scale diversified farms in Michigan and many other states. I hope I can begin to express the appreciation to all the farmers who have contributed

to growing the next generation of local food farmers and advocates. If you have hosted interns on your farm please accept my gratitude and take a moment to reflect on the immense impact and value of your contribution.

If you have not been able to host an intern yet, please think about what it would take for you to hire and mentor an aspiring future farmer. If you are not a farmer, consider how you could help your local farmer(s) host an intern. We are all in this together. Knowing that we are part of a team can help keep us going. If you would like to advertise an internship experience at your farm on the MOFFA website, send details to <mailto:moffaorganic@gmail.com>.

The IFOAM Guiding Principles

by John Biernbaum

Your MOFFA Board of Directors has been talking about the why and the what of organic as we look to build a stronger consensus with more people and seek a more defined path forward. One of the most accessible and clear doctrines of organic farming is the International Federation of Organic Agriculture Movements (IFOAM) Guiding Principles published initially in 2004. The principles were developed through a two-year participatory international process. They are described as “ethical principles to inspire action and to guide development of positions, programs and standards”.

The four principles are **Health, Ecology, Fairness** and **Care**.

- Organic Agriculture should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible.
- Organic Agriculture should be based on living ecological systems and cycles, work with them, emulate them and help sustain them.
- Organic Agriculture should build on relationships that ensure fairness with regard to the common environment and life opportunities.
- Organic Agriculture should be managed in a precautionary and responsible manner to protect the health and well-being of current and future generations and the environment.



Health

“This principle points out that the health of individuals and communities cannot be separated from the health of ecosystems—healthy soils produce healthy crops that foster the health of animals and people. Health is the wholeness and integrity of living systems. It is not simply the absence of illness, but the maintenance of physical, mental, social and ecological well-being. Immunity, resilience and regeneration are key characteristics of health. The role of Organic Agriculture, whether in farming, processing, distribution, or consumption, is to sustain and enhance the health of ecosystems and organisms from the smallest in the soil to human beings. In particular, organic agriculture is intended to produce high quality, nutritious food that contributes to preventive health care and well-being. In view of this it should avoid the use of fertilizers, pesticides, animal drugs and food additives that may have adverse health effects.”

Ecology

“This principle roots Organic Agriculture within living ecological systems. It states that production is to be based on ecological processes, and recycling. Nourishment and well-being are achieved through the ecology of the specific production environment. For example, in the case of crops this is the living

soil; for animals it is the farm ecosystem; for fish and marine organisms, the aquatic environment. Organic farming, pastoral and wild harvest systems should fit the cycles and ecological balances in nature. These cycles are universal but their operation is site-specific. Organic management must be adapted to local conditions, ecology, culture and scale. Inputs should be reduced by reuse, recycling and efficient management of materials and energy in order to maintain and improve environmental quality and conserve resources. Organic Agriculture should attain ecological balance through the design of farming systems, establishment of habitats and maintenance of genetic and agricultural diversity. Those who produce, process, trade, or consume organic products should protect and benefit the common environment including landscapes, climate, habitats, biodiversity, air and water.”

Fairness

“Fairness is characterized by equity, respect, justice and stewardship of the shared world, both among people and in their relations to other living beings. This principle emphasizes that those involved in Organic Agriculture should conduct human relationships in a manner that ensures fairness at all levels and to all parties—farmers, workers, processors, distributors, traders and consumers. Organic Agriculture should provide everyone involved with a good quality of life, and contribute to food sovereignty and reduction of poverty. It aims to produce a sufficient supply of good quality food and other products. This principle insists that animals should be provided with the conditions and opportunities of life that accord with their physiology, natural behavior and well-being. Natural and environmental resources that are used for production and consumption should be managed in a way that is socially and ecologically just and should be held in trust for future generations. Fairness requires systems of production, distribution and trade that are open and equitable and account for real environmental and social costs.”

Care

“Organic Agriculture is a living and dynamic system that responds to internal and external demands and

conditions. Practitioners of Organic Agriculture can enhance efficiency and increase productivity, but this should not be at the risk of jeopardizing health and well-being. Consequently, new technologies need to be assessed and existing methods reviewed. Given the incomplete understanding of ecosystems and agriculture, care must be taken. This principle states that precaution and responsibility are the key concerns in management, development and technology choices in Organic Agriculture. Science is necessary to ensure that Organic Agriculture is healthy, safe and ecologically sound. However, scientific knowledge alone is not sufficient. Practical experience, accumulated wisdom and traditional and indigenous knowledge offer valid solutions, tested by time. Organic Agriculture should prevent significant risks by adopting appropriate technologies and rejecting unpredictable ones, such as genetic engineering. Decisions should reflect the values and needs of all who might be affected, through transparent and participatory processes.”

More information and a brochure you may want to print and share can be found at <http://www.ifoam.bio/en/organic-landmarks/principles-organic-agriculture>

From my experience, the IFOAM principles go beyond the USDA-NOP and certainly well beyond the often-shared simple definition of organic as “no chemicals and pesticides”. If we cannot get more people beyond the basics of “no chemicals and pesticides”, it is likely that the future of organic farming will not be what we desire. It will be limited to something much less than the passion I have had the good fortune to experience from organic farmers and supporters in Michigan, the Midwest and across the country.

I am at a point in my personal development where I am questioning what I want to do next and how hard I am willing and able to keep working for the broader good. When I read the message of the four principles I cannot help but be inspired to keep living and demonstrating these simple organic ethics to live, garden and farm by. What about you?

MOFFA's Response to the Proposed Rule on Organic Livestock and Poultry

by Julia Christianson

This past April, the USDA issued a [Proposed Rule on Organic Livestock and Poultry Practices](#), and announced a public comment period which initially was to end on June 13, but was subsequently extended to July 13.

The proposed rule is extensive—55 pages in the [Federal Register](#)—and is intended to provide greater specificity on organic livestock healthcare practices, living conditions, transportation, and slaughter. The USDA anticipated that the provisions for outdoor access for poultry would be a focal issue. That was certainly true for MOFFA's policy committee as we deliberated about our response, especially since one of the members of the committee is an employee of one of the country's largest organic egg producers.

As a long-time organic observer, to me it was obvious that the wording of the original regulations published in 2001 requiring "outdoor access" meant a chance for the birds to be out in the sunshine, on pasture or at least well-managed runs with plenty of space to scratch, find juicy insects to eat, and generally live as nature intended. But the regulations didn't say that, and as a result we have had 15 years of differing interpretations by different certifiers, a [court case](#), and now, a new attempt to clarify what is really meant by the term. A summary of this history, for both livestock and poultry, is

included in the proposed rule under [II. Background](#) and it makes for interesting reading.

As a result of this lack of clarity, many large producers have invested significantly in structures which have until now been deemed acceptable for organic production but which would not be in compliance with the proposed rule. These large producers are significant buyers of organic feed, and were they to abandon organic production, a major short-term, and potentially long-term, disruption in the market for organic field crops in Michigan would be a certain result. Regardless of what one thinks of "factory farms" or the original intent of the term "outdoor access", it hardly seems fair that both large poultry operations and the many family-scale farms which provide feed to these operations are faced with potentially heavy losses as a result of the long history of insufficient action at the federal level.

MOFFA asked its members for input on the issue, and a number of members did respond. We submitted our [public response](#) to the proposed rulemaking on July 13, and await the next step in the process.

Julia Christianson is MOFFA's "very part time" Administrative Assistant and is Chair of the Policy Committee.

Dan Kittredge to Speak in Lansing

We are excited to announce a Lansing presentation by Dan Kittredge on Monday, October 3 from 3:00 to 5:00 at the Allen Neighborhood Center Market Place. Dan is a dynamic presenter, lifelong organic farmer, and the founder of the [Bionutrient Food Association](#).

Participants will get an overview of how biological growing methods:

- Improve the quality and nutrition of food crops, which improves profitability and promotes human health and environmental vibrancy
- Reduce the need for farm inputs thereby cutting costs
- Adjust soil chemistry and biology to build organic matter and optimize plant health
- Change agriculture from a greenhouse gas emitter to a carbon sequestering activity

(continued next pg)

Local Hosts:

- [Michigan Organic Food and Farm Alliance](#)
- [Greater Lansing Food Bank Garden Project](#)
- [Allen Neighborhood Center](#)

(Other organizations are hosting the same presentation by Dan in [Detroit](#) on Saturday, Oct 1, and in [Ypsilanti](#) and [Ann Arbor](#) on Sunday, October 2.)

TIME: 3:00 to 5:00

LOCATION: The Allen Market Place is located at 1629 E. Kalamazoo St. Lansing, MI 48912, behind Allen Neighborhood Center's main office. The complex is on the northwest corner of E. Kalamazoo and Shepard Streets on Lansing's Eastside.

Suggestions will be provided for participants desiring to get together for dinner at a local food establishment following the presentation.

Dan will be returning to Michigan for a 2-day intensive soils workshop titled "High Bionutrient Crop Production" scheduled for the weekend of November 12-13, 2016 at the [Washtenaw Food Hub](#) near Ann Arbor.

The cost is \$200 per person but efforts are underway to provide farmer scholarships. To find more information about the soils workshop, see: bionutrient.org/workshops. A detailed schedule of topics is available there.

Here are some links to more information about Dan through videos, podcasts and publications.

[Southeast Iowa Food Hub fundraiser appearance](#) (18 min)

[Appearance at the Carbon Farming Conference](#) at Tufts University (about 20 min)

Dan's perspective on [Bionutrient Rich Food and Health](#)

Podcast: "[Soil is Key to Quality Food](#)" (1:47:05)

Looking Forward to GLEXPO

Get ready for a great Agriculture Educational Program Right here in Michigan! GLEXPO, featuring "Organic Day" on Thursday Dec 8.

The Great Lakes Fruit and Vegetable Expo (GLEXPO) is just around the corner, can you believe it? This program is unique, combining current research findings that are relevant to farming issues along with practical applications. In addition to great educational programs you have the opportunity to visit probably the top trade show in the US for fruit and vegetable growers. Note the tradeshow closes at 1 pm on Thursday Dec 8. While this event combines organic and conventional systems Thursday focuses on Organic Systems. You will also find many sessions with great relevance to organic throughout the three days This program will take place Dec 6-8, 2016 at the DeVos Center in

Grand Rapids, Michigan. You can see the full agenda and registration info at GLEXPO.org.

Yes this is the horticulture program that offers something for all, especially growers seeking to produce or currently growing fruit and or vegetables! It offers three days of packed sessions on topics that I think you will find exciting, such as soil health, organic certification, hoop house production, organic fruit and vegetable top priorities, farmers markets and business planning, biological control of pests, and crop specific sessions that include an update on the status of crop challenges and production issues.

Here is the agenda for the "Organic Thursday", starting at 8:30 and going to 3:00 pm. We hope you can join us for this super event! December 8 at the DeVos Center in Grand Rapids.

Organic Production - Where to Start? Thursday morning 9:00 am	
Moderator: Vicki Morrone, Outreach Specialist for Organic Fruit and Vegetable Growers, MSU	
9:00 am	Knowing Your Place: Combining farm specific knowledge with scouting to form organic integrated pest management plans: Adam Ingrao, Vegetable Entomology Lab, Entomology Dept., MSU, and Jason Matlock, Entomology Dept., MSU
9:45 am	Understanding what your soil test says: Thomas Bjorkman, Horticulture Dept., Cornell Univ.
10:15 am	Experiences from the Field: Getting certified organic: Eric Pawowki, OEFFA, Jim Monroe, Monroe Family Farm, Pooh Stevenson, Owosso Organics, Owosso, MI
11:00 am	Session Ends

Organic Opportunities and Markets Thursday morning 9:00 am	
Three experienced diversified vegetable farming couples will share their organic production and marketing experience, highlight key farm practices, and answer questions. Moderator: John Biernbaum, Horticulture Dept., MSU.	
9:00 am	Large Scale CSA Farming in Northern Michigan: Ryan and Andrea Romeyn, Providence Organic Farm, Central Lake, MI
10:00 am	Training and Retaining Great Farmworkers: Katie Brandt and Tom Cary, Groundswell Community Farm, Zeeland, MI
11:00 am	Growing Our Farm to Feed Our City: Tomm and Trilby Becker, Sunseed Farm, Dexter, MI
12:00 noon	Session Ends

Organic Vegetable Production and Management Thursday afternoon 1:00 pm	
Moderator: Vicki Morrone, Outreach Specialist for Organic Fruit and Vegetable Growers, MSU	
1:00 pm	Ecological Weed Management in Organic Vegetables: Eric Gallandt, Weed Ecology and Management, University of Maine
1:40 pm	Permanent Beds in Organic Vegetable Systems: Mark Hutton, Extension Vegetable Specialist, Univ. of Maine Cooperative Extension
2:05 pm	Tarping Soil of Permanent Beds for Pest Management: Ryan Maher, Beginning Farmer Professional Development Coordinator, Ithaca, New York
2:25 pm	Biopesticides for Organic Production—Their effectiveness and how they work: Krista Coleman, Biopesticide and Organic Support, Food and Crop Grouping-IR-4 Project, Rutgers Univ., New Jersey
3:05 pm	Session Ends

Current Issues in Organic Fruit Production Thursday afternoon 1:00 pm	
Moderator: Matt Grieshop, Associate Professor of organic pest management, Dept. of Entomology, MSU	
1:00 pm	Organic Pomme Fruit Candidates and Trials and Tribulations of the Nursery Industry: Tom Callahan, Adams County Nursery, Aspers, PA
2:00 pm	Update on Organic Firelight Management: George Sundin, Plant, Soil and Microbial Sciences Dept., MSU
2:30 pm	Update on Organic Spotted Wing Drosophila Management: Matt Grieshop, Entomology Dept., MSU
3:00 pm	Session Ends

Vicki Morrone is organic field crop and vegetable outreach specialist with the Center for Regional Food Systems at MSU, and has been a MOFFA board member since 2009..

MOFFA News

Newsletter – Our final issue of the newsletter for this year will be in December, and will once again

focus on the what, why, and how of 'organic'. If you are interested in contributing, please [contact us](#). If

you're not interested in writing an article, please consider contributing photos of your farm or your harvest; we're always looking for more illustrations.

Website – We have recently completed a rewrite of the Organic Resources page. We'd love to hear your comments and suggestions.

New Board Members – At the June meeting, MOFFA's Board elected two new members, Amy Newday and Emily Nicholls. Photos and bios of Amy, Emily, and the other board members are available on the [Board page](#) of the website.

Membership – As of this moment, we have 144 members for 2016 — more than in any year since we began calendar-year memberships in 2010. While it's exciting to see that 27% of those are brand-new members, we also note that 38% of those who were members in 2015 have not renewed. Membership dues are a major source of funding for the activities we pursue in aid of expanding sustainable agriculture in Michigan. It's easy to join or renew online at <http://www.moffa.net/membership.html>, or if you prefer you can [download a membership form](#), or call us at 248-262-6826 to request a form, and send it along with your check to P.O. Box 26102, Lansing, MI 48909.

Keep up with MOFFA on our website: www.moffa.net, or email us at moffaorganic@gmail.com.

Write to us at:

Michigan Organic Food & Farm Alliance
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Lansing, MI 48909