Farmers use creative mix of new technology, adapted equipment to grow row crops

By Carolyn Olson

When Jonathan and I started farming together 28 years ago, computers were still large desk-top models, car phones had cords, and all tractors had to be guided manually. Today, we can search the internet for parts on our smart phones while the tractor is driving itself down the field. On our 1,100-acre organic crop farm, we use a mix of old and new ideas to ensure our equipment fits our needs.

Upgrading equipment and electronics can be expensive—it doesn’t happen overnight. We have pieced together our equipment lineup slowly over the years. We really enjoy organic farming. We feel good about the technology that we have adopted, which helps us to be better stewards of the land. Here’s some of the equipment and tools we use on our farm.

Soil Tests
Soil testing is an important way to determine soil health and fertility. We have our soil grid sampled by our local agronomist following our new ideas to ensure our equipment fits our needs.

Manure Spreader
We use hog manure from confinement barns as our primary source of fertilizer, but our soil tests have shown that we need to increase our phosphorus in certain areas. After doing some research and looking at available options, pelleted poultry litter seemed like it would be a good choice for spot spreading on the areas that need the boost. We purchase the pellets by the semi-load, and store them in a shed. It makes it pretty easy to fill the spreader with a tractor and loader bucket.

A couple of years ago, we purchased a Chandler poultry litter spreader with another organic farmer. There are spreaders available with variable rate technology (VRT), but at the time we purchased the spreader, we decided that the VRT wasn’t worth the extra cost.

The agronomist creates a map of the areas

Expanding market offers opportunities for herb growers to create value-added products

By Jane Hawley Stevens

The market for herbal products is flourishing. U.S. consumers spent approximately $480 million more on herbal products in 2015 than in the previous year, according to the American Botanical Council. Domestic organic herbs are needed, especially as more regulations come down the pike on imported medicinal herbs.

This interest in herbal products offers organic farmers a unique opportunity to develop value-added products from herbs they grow.

Herbs can be used to create value-added products in three categories: culinary, medicinal, and cosmetic.

Culinary
If you’re interested in creating a product within the culinary category, you should be aware of new laws that have been passed to allow growers to create edible products in their home kitchens to sell directly to consumers. Most states have a “cottage food law,” as they’re commonly called, stipulating the kinds of foods that can be made without a commercial kitchen. The exact regulations vary from state to state. Before you develop a value-added product, be sure to check with your state Department of Agriculture for regulations regarding manufacture and sale of these products in your area.

Culinary herbs can be used to create pickles, jams, jellies and fermented foods. Other ideas include herb blends, herbal salts, garlic and garlic braids, herbal vinegars, chutney, salsa, and salad dressings.

Use farmers’ markets to see how well a recipe, packaging and product story can sell a product.

To Value-Added Herbal Products on page 8
From the Executive Director

Thank you to everyone for the warm welcome to MOSES! I have appreciated your emails and calls. If we haven’t already met, I’m looking forward to meeting you at an event this winter—possibly at the MOSES Conference at the end of February.

As a longtime supporter and advocate for organic and sustainable agriculture, farmers, and food, I have been familiar, of course, with the great work of MOSES over the years. Like you, I’ve watched MOSES grow into a leading voice in farmer education for organic farmers and all of agriculture. Now, I have the pleasure of working alongside the staff, board, and volunteers who make up this well-oiled machine, and I’ve been very impressed.

In agriculture, particularly in the Midwest, there are plenty of organizations providing pieces of support, training and advocacy. Yet amidst that group, MOSES stands out for its leadership, the quality of its programs, and its impact on farmers. Alongside our partners, we will continue to lead the effort in supporting farmers who seek to adopt organic farming practices and become certified organic producers. We will also be reaching out to new audiences with this important message.

MOSES not only hosts the world’s largest organic farming conference, but also offers year-round programming, free resources, and one-to-one practical advice to give farmers the tools they need to flourish in organic and sustainable agriculture. MOSES also teams up with many partners on projects to train specific farming populations. From the success of the MOSES Organic Farming Conference to its influence in the public policy arena, MOSES’s impact on agriculture can be felt across the country.

Another way that MOSES reaches farmers is through this publication. I know that many of you, like me, look forward to its arrival in your mailbox or via email. It always delivers a good mix of stories written by farmers, researchers, and ag experts who have knowledge and experience to share.

This issue is no exception. MOSES Senior Organic Specialist Harriet Behar, who also serves on the National Organic Standards Board, updates us on the status of ivermectin for use on organic livestock. Farmer Carolyn Olson gives us an inside look at the technology and equipment she and her husband use to manage their large-scale organic crop operation. Finance expert Paul Dietmann offers tips to help farmers choose a lender. There also are many other stories I think you’ll find pertinent to your operation.

So, please sit back and enjoy reading this issue. And, the next time you have a question about organic or sustainable farming practices or certification, look to MOSES. We’ll provide the answers you need.

John Mesko, MOSES Executive Director

MOSES is a 501(c)(3) nonprofit qualified to receive tax-deductible donations.

Please support our programs and this FREE publication with a donation:

MOSES, P.O. Box 339, Spring Valley, WI 54767
Online: mosesorganic.org/donate

MOSES educates, inspires, and empowers farmers to thrive in a sustainable, organic system of agriculture.
Say goodbye to ivermectin for organic livestock

By Harriet Behar

By the time you read this, the National Organic Standards Board (NOSB) will have had its 2016 fall meeting in St. Louis. The agenda included a petition to remove the long-time allowed material for controlling parasites in livestock, ivermectin. As a member of the NOSB, I believe the vote will remove ivermectin, which will give organic farmers approximately 18-24 months to modify parasite management systems.

Ivermectin has been present on the National List since the National Organic Program rule was first printed in the Federal Register in December 2000. Before the regulation was implemented in October 2002, some certifiers allowed its use and some did not. It has been controversial since then, and at each five-year sunset review, both members of the NOSB and the public have urged removal. The recent petition for removal was submitted by a member of the NOSB, a somewhat unusual but allowed practice.

There are two main reasons for concern about the use of ivermectin: its scope and persistence in manure. It is a very broad-spectrum parasiticide and even has some antimicrobial activity, which means it could be considered to be an “antibiotic” as well. The law upon which our regulations are based prohibits the use of antibiotics in organic livestock.

Ivermectin remains toxic in excreted feces of a treated animals and can persist in the sediment of an aquatic environment for months. The manure of animals given ivermectin is especially toxic to the highly beneficial dung beetle, as well as being lethal or sub-lethal to many dung-breeding invertebrates that are beneficial to our ecosystem. Incorporating this manure into the soil can mitigate the negative effect of ivermectin, since it readily binds to soil which enables a more rapid breakdown of this substance and its toxic effect. However, for pastured animals, soil incorporation is not an option.

Routine use of parasiticides in organic livestock has never been allowed. Instead, organic standards give preference to the development of methods that lessen the exposure of their livestock to parasites.

While systems-based approaches can be effective in managing parasites, farmers still need tools to deal with parasite infestations in livestock when the situation is considered an “emergency.” Parasite management is an essential aspect of alleviating animal suffering and promoting animal health. It is also part of our regulation that a farmer cannot withhold necessary medical treatment in order to preserve the organic status of an animal. In these emergency situations, many producers favor ivermectin for its broad-spectrum effectiveness, its ready availability across the U.S., and its comparatively low cost.

The NOSB is working on a document which will further clarify what constitutes “emergency treatment” when referring to parasiticide use, and will hopefully have this ready for its spring 2017 meeting. This clarification will aid in a consistent review by organic certifiers of emergency treatment, as well as provide examples of what system approaches are expected before the remaining two parasiticides (fendendazole and moxidectin) on the National List can be used.

At its spring meeting, the NOSB voted to lessen the time between use of moxidectin or fendendazole and the sale of a variety of organic livestock products. This spring’s vote also added the use of these parasiticides in fiber-bearing animals with a wait time of 90 days between use and harvest of organic fiber.

From previous NOSB meetings and public comments, it’s clear that most people believe fendendazole and moxidectin are sufficient tools for livestock producers to manage parasites in their organic livestock. It appears to be time for ivermectin to be removed from the National List.

It surprised me how few public comments were made on the proposal removed ivermectin from the National List. This product has been used for a long time on organic farms. Hopefully, this lack of input from organic livestock producers means this removal will not negatively affect their farms, and they are in agreement that ivermectin should be no longer allowed.

I do have some concerns that there is only one meeting to discuss this issue, unlike at sunset when a material that might be removed is discussed at two NOSB meetings. If there had been concerns, producers could have made these known and there would have been an opportunity for a limiting annotation on ivermectin use, if a good case would have been made. Once the NOSB has voted at this meeting for removal, the process will begin and there will not be further opportunity for input.

Built into the organic system of production is the concept of continuous improvement. The sunset process of reviewing every material on the National List every five years, in order for it to remain allowed or prohibited, is a recognition that things change and a material’s necessity or prohibition may need to be modified. Have new methods been developed that make an allowed synthetic no longer needed? Have negative human or environmental effects come to light for materials currently allowed? Have new natural materials been identified that perform the same function as the approved synthetic? Does the prohibition on a natural product need to be revisited?

Organic operators know their annual organic inspection will include discussion of changes that could be made to their organic system of production in order to continually improve their compliance to the organic regulations. These changes mean less reliance on inputs, which positively affects the bottom line of the farmer.

An economic impact analysis must be done before the National Organic Program can make final changes to the organic regulation that removes a material, like ivermectin, which has been allowed for many years. With the allowance of other parasiticides in organic production, I do not see that this removal would have a significant negative economic impact.

Changes to allowed inputs can be stressful for an organic operator, since keeping track of what is allowed and what is not can seem to be a full-time task. Modifying what we do, where we buy inputs, and keeping track of how and when we can use a material, especially if they are changed over time, can be frustrating. However, the integrity of the organic label is the foundation of our marketplace, and continuous improvement that recognizes we can do better, keeps consumer trust in the organic label.

Harriet Behar is the Senior Organic Specialist for MOSES & a member of the National Organic Standards Board.
Questions about organic farming?
Ask a Specialist

MOSES Organic Specialists answer your questions about organic production and certification.

CALL: Organic Answer Line 888-551-4769 or 715-778-5775
SUBMIT: Click “Ask a Specialist” button at mosesorganic.org/ask.
READ: Browse answers to questions at mosesorganic.org/ask.

Since many organic seed varieties are not the exact variety you are used to growing, you need to look at several factors to determine if the organic seed is equivalent to the non-organic untreated seed you are accustomed to planting. Compare the characteristics listed for both type of seeds, such as days to maturity, compatibility with your soil type and climate, resistance to pests or disease, and more. If the organic seed offers nearly the same characteristics, it’s likely your certifier will consider it “equivalent.”

The best way to judge a new seed is to trial it on your farm. Purchase a packet/bag or two of several organic varieties and plant them on the edge of a field where you’re growing your favorite variety (and document which varieties are planted where). During the growing season, look over all varieties to assess how they stand up to the tried-and-true version you are growing in the remainder of the field, and keep track of yields from each. You may be surprised how good the organic varieties are!

Trial organic seed, both when you are in transition to organic and when you are certified, will result in finding the best organic seed varieties for your own operation. I’ve heard many organic farmers say this method has led them to plant organic varieties that perform better than the non-organic ones they had preferred.

“Can I raise livestock on forage if I don’t have a perennial pasture?”

Answer by Lauren Langworthy

The National Organic Program states that ruminants must receive a significant portion of their daily nutrition (30%) from pasture. This means that they must harvest (eat) living plants that have roots in the soil. However, the rule does not state that the pasture must be perennial.

There are a few different reasons a farmer might not choose to establish perennial pasture. These include economic considerations, land tenure, or the desire to utilize livestock as part of a soil-building rotation with crops or between alfalfa establishments. Other farmers have perennial pastures, but wish to extend the grazing season in either spring or fall outside their perennial pasture fields. In these scenarios, it may make sense for a farmer to consider annual forage rotations.

Depending on the species you are raising, different species of forages may be a better fit. For example, there are some wonderful forage varieties of sorghum-sudangrass that provide high yields and good feed value. They can also be grazed multiple times if managed properly. However, they grow best in midsummer and should not be grazed below 18-20 inches due to concerns for prussic acid poisoning that is more likely to occur when younger plants are grazed. Sorghum-sudangrass can also provide benefits within a crop rotation by suppressing weeds and offering a large amount of biomass to be grazed or turned into the soil.

Annual forages can also be used to extend the grazing season for your livestock as your pastures slow down for the season. An example of this might be planting turnips in July or August to be grazed late into the fall and early winter. Some farmers will plant into standing oat or wheat stubble; some fly-over seed into standing corn; and, others prepare a rough bed with tillage. Depending on your field, early weed control may be necessary to make certain that you have adequate yields for your livestock. Livestock will graze the greens and pull up the root masses late into the season, sometimes even digging into the snow to retrieve these high-protein treats. You can also use annual forages for early spring grazing. Crows or annual hardy brassicas like winter rye, triticale, or spring oats can be used for early spring forages. Depending on your location, soil, and forage needs, some spring forages can be planted in the fall to emerge in spring. Others may be best frost-seeded early in the season and grazed from mid-spring to early summer.

With some research and experience, many farmers are learning how to leverage the nutritional support of these annual forage crops to extend their grazing season, build soil, and manage field rotations for their livestock. If this appeals to you, reach out to other graziers in your area and see what has worked on their farms.

MOSES Organic Specialists answer your questions about organic production and certification.

CALL: Organic Answer Line 888-551-4769 or 715-778-5775
SUBMIT: Click “Ask a Specialist” button at mosesorganic.org/ask.
READ: Browse answers to questions at mosesorganic.org/ask.

Since many organic seed varieties are not the exact variety you are used to growing, you need to look at several factors to determine if the organic seed is equivalent to the non-organic untreated seed you are accustomed to planting. Compare the characteristics listed for both type of seeds, such as days to maturity, compatibility with your soil type and climate, resistance to pests or disease, and more. If the organic seed offers nearly the same characteristics, it’s likely your certifier will consider it “equivalent.”

The best way to judge a new seed is to trial it on your farm. Purchase a packet/bag or two of several organic varieties and plant them on the edge of a field where you’re growing your favorite variety (and document which varieties are planted where). During the growing season, look over all varieties to assess how they stand up to the tried-and-true version you are growing in the remainder of the field, and keep track of yields from each. You may be surprised how good the organic varieties are!

Trial organic seed, both when you are in transition to organic and when you are certified, will result in finding the best organic seed varieties for your own operation. I’ve heard many organic farmers say this method has led them to plant organic varieties that perform better than the non-organic ones they had preferred.

“Can I raise livestock on forage if I don’t have a perennial pasture?”

Answer by Lauren Langworthy

The National Organic Program states that ruminants must receive a significant portion of their daily nutrition (30%) from pasture. This means that they must harvest (eat) living plants that have roots in the soil. However, the rule does not state that the pasture must be perennial.

There are a few different reasons a farmer might not choose to establish perennial pasture. These include economic considerations, land tenure, or the desire to utilize livestock as part of a soil-building rotation with crops or between alfalfa establishments. Other farmers have perennial pastures, but wish to extend the grazing season in either spring or fall outside their perennial pasture fields. In these scenarios, it may make sense for a farmer to consider annual forage rotations.

Depending on the species you are raising, different species of forages may be a better fit. For example, there are some wonderful forage varieties of sorghum-sudangrass that provide high yields and good feed value. They can also be grazed multiple times if managed properly. However, they grow best in midsummer and should not be grazed below 18-20 inches due to concerns for prussic acid poisoning that is more likely to occur when younger plants are grazed. Sorghum-sudangrass can also provide benefits within a crop rotation by suppressing weeds and offering a large amount of biomass to be grazed or turned into the soil.

Annual forages can also be used to extend the grazing season for your livestock as your pastures slow down for the season. An example of this might be planting turnips in July or August to be grazed late into the fall and early winter. Some farmers will plant into standing oat or wheat stubble; some fly-over seed into standing corn; and, others prepare a rough bed with tillage. Depending on your field, early weed control may be necessary to make certain that you have adequate yields for your livestock. Livestock will graze the greens and pull up the root masses late into the season, sometimes even digging into the snow to retrieve these high-protein treats. You can also use annual forages for early spring grazing. Crows or annual hardy brassicas like winter rye, triticale, or spring oats can be used for early spring forages. Depending on your location, soil, and forage needs, some spring forages can be planted in the fall to emerge in spring. Others may be best frost-seeded early in the season and grazed from mid-spring to early summer.

With some research and experience, many farmers are learning how to leverage the nutritional support of these annual forage crops to extend their grazing season, build soil, and manage field rotations for their livestock. If this appeals to you, reach out to other graziers in your area and see what has worked on their farms.

MOSES Organic Specialists answer your questions about organic production and certification.

CALL: Organic Answer Line 888-551-4769 or 715-778-5775
SUBMIT: Click “Ask a Specialist” button at mosesorganic.org/ask.
READ: Browse answers to questions at mosesorganic.org/ask.

Since many organic seed varieties are not the exact variety you are used to growing, you need to look at several factors to determine if the organic seed is equivalent to the non-organic untreated seed you are accustomed to planting. Compare the characteristics listed for both type of seeds, such as days to maturity, compatibility with your soil type and climate, resistance to pests or disease, and more. If the organic seed offers nearly the same characteristics, it’s likely your certifier will consider it “equivalent.”

The best way to judge a new seed is to trial it on your farm. Purchase a packet/bag or two of several organic varieties and plant them on the edge of a field where you’re growing your favorite variety (and document which varieties are planted where). During the growing season, look over all varieties to assess how they stand up to the tried-and-true version you are growing in the remainder of the field, and keep track of yields from each. You may be surprised how good the organic varieties are!

Trial organic seed, both when you are in transition to organic and when you are certified, will result in finding the best organic seed varieties for your own operation. I’ve heard many organic farmers say this method has led them to plant organic varieties that perform better than the non-organic ones they had preferred.

“Can I raise livestock on forage if I don’t have a perennial pasture?”

Answer by Lauren Langworthy

The National Organic Program states that ruminants must receive a significant portion of their daily nutrition (30%) from pasture. This means that they must harvest (eat) living plants that have roots in the soil. However, the rule does not state that the pasture must be perennial.

There are a few different reasons a farmer might not choose to establish perennial pasture. These include economic considerations, land tenure, or the desire to utilize livestock as part of a soil-building rotation with crops or between alfalfa establishments. Other farmers have perennial pastures, but wish to extend the grazing season in either spring or fall outside their perennial pasture fields. In these scenarios, it may make sense for a farmer to consider annual forage rotations.

Depending on the species you are raising, different species of forages may be a better fit. For example, there are some wonderful forage varieties of sorghum-sudangrass that provide high yields and good feed value. They can also be grazed multiple times if managed properly. However, they grow best in midsummer and should not be grazed below 18-20 inches due to concerns for prussic acid poisoning that is more likely to occur when younger plants are grazed. Sorghum-sudangrass can also provide benefits within a crop rotation by suppressing weeds and offering a large amount of biomass to be grazed or turned into the soil.

Annual forages can also be used to extend the grazing season for your livestock as your pastures slow down for the season. An example of this might be planting turnips in July or August to be grazed late into the fall and early winter. Some farmers will plant into standing oat or wheat stubble; some fly-over seed into standing corn; and, others prepare a rough bed with tillage. Depending on your field, early weed control may be necessary to make certain that you have adequate yields for your livestock. Livestock will graze the greens and pull up the root masses late into the season, sometimes even digging into the snow to retrieve these high-protein treats. You can also use annual forages for early spring grazing. Crows or annual hardy brassicas like winter rye, triticale, or spring oats can be used for early spring forages. Depending on your location, soil, and forage needs, some spring forages can be planted in the fall to emerge in spring. Others may be best frost-seeded early in the season and grazed from mid-spring to early summer.

With some research and experience, many farmers are learning how to leverage the nutritional support of these annual forage crops to extend their grazing season, build soil, and manage field rotations for their livestock. If this appeals to you, reach out to other graziers in your area and see what has worked on their farms.
SILT offers permanent solution to affordable land access in Iowa

By Denise O'Brien

Kayla grew up on an organic farm and always assumed farming was her future, but the land was the first casualty in her parents’ contentious divorce. At 27, she now works for county extension, helping local food farmers instead of being one.

Jamal is a junior in an Omaha high school. He signed up for a summer program to teach kids like him how to grow food. When the group visited a farm with plans for community gardens, helping local food farmers instead of being one.

He approached the person in charge and said, “Ma’am, I can manage your farm for you.” But he had no experience farming and little chance of getting any.

Shanti has had to move her farm three times in four years because of well-meaning landowners whose plans changed. With nine years of experience in organic farming, Shanti knows how to farm. She just needs long-term, reliable access to land near a major metro area.

These farmers are why I and two dozen other Iowa leaders came together in late 2014 to form the Sustainable Iowa Land Trust (SILT), a new model that reduces land costs for sustainable food farmers for generations to come.

When I was running for Iowa Secretary of Agriculture, I had a lot of time in the car. I can’t tell you the number of times I talked with people about permanent, affordable land access for our kind of farming. After a lifetime of fighting for family farmers, I believe SILT is taking that fight the next mile.

The name “SILT” makes farmers smile. When silt stays where it belongs, we know it’ll grow anything we ask of it. But environmentalists frown; the only time they see it is as a result of poor farming practices. But this SILT permanently protects land not only from encroaching development, but also for (truly) sustainable production of food for human consumption – fruits, vegetables, pastured meat, nuts, hops, wine, etc.

In Iowa, sprawl and commodity prices keep land on the edges of cities out of reach. But not all Iowa landowners count on land speculation for retirement or inheritance. Dozens of landowners with thousands of acres have already come forward to discuss donating their land outright or permanently reducing its value to guarantee healthy food for Iowa.

SILT already acquired two farms in its first year, including 53 acres just 10 minutes from downtown Omaha (on the Iowa side) for half of its market value. We agreed to take on debt for this threatened land because it’s what we created SILT for. If we can pay it off in two years, we’ll offer a long-term lease to a farmer and encourage the farmer to involve the local community, since young people like Jamal mentioned above would love to learn, and our land donor, Joe Driscoll, has a dream of that land becoming a young people’s farm. (At 72, Joe took on the task of raising the $200,000 we owe!) If we don’t raise the funds, we’ll sell the farm with a SILT easement on it, and some lucky farmer will get prime farmland for an affordable price that we will monitor for good. Either way we’ve secured that land for sustainable food production for generations to come.

The tillable ground is already out of conventional corn and bean and is transitioning to organic hay with a next-generation farm family nearby who needed it for their rotational grazing operation. They hope to graze goats in the oak savanna and overgrown woods as well. We’ve agreed to a three-year lease so they could make the investment we all wanted to see in the soils.

SILT also acquired 40 acres in southern Iowa donated with something called a reserved life estate. Mary Ellen Miller gave SILT her deed, but she still has the right to live on her land and use it for as long as she chooses. We have another 22 acres we just acquired in Northeast Iowa this year under the same terms. We work with those land donors to find a sustainable farmer. Housing and finding a good match are both issues we all are addressing together.

“We farmland owners have had only two choices in the past: either we sell or rent the land to the highest bidder when we’re done working it, or we leave it to our kids who, if they’re not farmers, have only the same two choices,” said landowner and sheep farmer Lyle Luzum. “We had no way to assure that it would be treated well. SILT gives us a third option—handing it on to the next generation of farmers who want to grow food for our community and protect a multi-generation conservation legacy.”

Lyle is working through the process of donating his 170-acre farm to SILT. He and the group are facing complicated first-time-ever questions. For example, how can he donate the farm while still being able to sell the house so he has proceeds for a retirement home, but do it in a way that keeps the farm and home together for the future? Or what guarantee does anyone have that a farmer will want that farm five years from now when Lyle and his family are ready to move? (To SILT on page 15)
where the field is low in phosphorus which is then downloaded onto the auto-guidance computer in the tractor. The driver watches for the areas where the spreader needs to be activated, and flips the switch on or off as needed. This is done ahead of our soybean rotation. Spot spreading helps to make sure we are not over-applying nutrients, and saves on the overall cost of our fertilizer program.

Planting

When the planter is moved from its winter home in the machine shed to the shop, it’s always an exciting time of year—especially if you live in the upper Midwest where the winters can be long. A few years ago we installed the very first part of the Precision Plant system on our planter. The SeedSense 2020 monitor allowed us to see how well our planter was working, including spacing and accuracy. We were able to make adjustments to the planter to improve seed spacing and population.

Two seasons ago we installed the vSet and DeltaForce systems, which also enabled us to use variable rate technology. Using the Precision Plant technology means that getting the planter ready involves more than just greasing the chains and filling the boxes. There are software updates to run, and adjustments to make on each row. We use a John Deere 7300 18 row planter, so making adjustments can take a little time.

Our agronomist can take our fertility maps, soil type maps, as well as yield data from previous seasons, and create a seeding rate map for the Precision Plant system to read. When we are planting corn or soybeans, we have the John Deere 2630 monitor for the auto-guidance, the SeedSense 2020 monitor, and an iPad in the cab of the tractor. The SeedSense monitor and the iPad are connected, which enables us to monitor the population, accuracy, and spacing while the iPad monitors the variable-rate seeding map. Using this system, we are doing everything we can to set us up for maximum yields.

Using this system, we are doing everything we can to set us up for maximum yields. iPad monitors the variable-rate seeding map. The population, accuracy, and spacing while the iPad are connected, which enables us to monitor the tractor. The SeedSense monitor and the iPad are connected, which enables us to monitor the population, accuracy, and spacing while the iPad monitors the variable-rate seeding map. Using this system, we are doing everything we can to set us up for maximum yields.

Flame Weeder

Probably the coolest—and scariest—piece of equipment we own is our flame weeder. This was another winter shop project that started with conversations about how we could make our existing flame weeder better. Instead of tweaking our basic flamers that was made out of an old anhydrous bar, it was decided that a complete change was needed.

Jonathan watched a few online auctions and found a heavy duty sprayer with nozzles that could raise and lower. He and Adam started by tearing apart the sprayer to get it down to the basic structure. They painted it John Deere green and yellow before starting to assemble the new flame weeder. The 96 burner units from the old flame weeder were cleaned up and installed on the booms of the new flame. The tank holds 1,000 gallons of LP, and is attached to the platform where the water tank used to sit. We kept the water in the tank in the combine and opened when flaming corn that is above the six leaf stage. The idea of flame weeding may be old, but there are ways to improve their safety and efficiency.

Clean-Out Blower

There are many times when thinking outside the box has led to a great idea. We have all tried to figure out how to clean out the planter, grain tank, or combine between buffer strips and organic crops. We used to haul an air compressor in the back of the tool truck to blow out equipment. It worked great until the little tank ran empty, which would require a trip home for a refill, and a little longer down time. Then we started using a gas-powered leaf blower. That had great power, but it was heavy, and sometimes the fumes could be nauseating when blowing out the grain tank in the combine.

We used the gas-powered blower until the day that Adam came to the farm with a DeWalt 20-volt rechargeable battery leaf blower. It is lightweight, but strong enough to clean out equipment. Cleaning out trucks and equipment is so much easier when using a lightweight blower that isn’t attached to a hose. I’m not sure DeWalt thought about their product being used to clean equipment, but we’re all happy that Adam did.

Cultivator

It has been said many times that organic farmers like to collect cultivators. The thought is, there must be one out there that will be the magic cultivator. We, too, have amassed a small collection. The Olsons use a leaf blower to clean equipment when they move from buffer zones to organic crops. They have a small water supply in case we accidentally镐e the spreader needs to be activated, and flips the switch on or off as needed. This is done ahead of our soybean rotation. Spot spreading helps to make sure we are not over-applying nutrients, and saves on the overall cost of our fertility program.

Auto-Guidance

Organic farming doesn’t necessarily mean that we cannot take advantage of newer electronics and technologies. We use the John Deere auto-guidance system so we can use the same wheel tracks for every pass in the field that we take, with the exception of the combine and fall tillage. Not only does that make us more efficient with fuel and time, but it also minimizes compaction in the field. The auto-guidance system works in conjunction with the other systems we use, and helps us to determine what we need to do to make next year even better.

At the same time, dragging, cultivating and flame weeding are often mentioned as things grandma used to do. We are not farming like grandma did, but we do appreciate where we have been, and where we are going. Don’t be afraid to think outside the box when it comes to equipment and technologies that can help you to meet your soil health and yield goals.

Carolyn Olson and her husband, Jonathan, own and operate Fairview Farms near Cottonwood, Minn., where they grow certified organic corn, soybeans, and small grains on 1,100 acres, some of which have been in the family for over 100 years.

Jonathan Olson of Fairview Farms will present a workshop at the 2017 MOSES Conference on innovative weed control in row crops. See mosesorganic.org/conference/workshops.
Research looks at integrating crops, livestock to enhance organic farm resilience

By Brad Heins, Kathleen Delate, and Hannah Phillips

Currently, organic production in the U.S. is dominated by cash grain crops, with the majority of organic farmers in the Midwest and Northeast using off-farm purchases to feed their organic animal herds. Integrating crops and livestock on a multi-function operation could have multiple benefits and the potential to improve the profitability of these kinds of operations.

Researchers at Iowa State University, the University of Minnesota, and Rodale Institute are in the second year of a four-year project, funded by the USDA Organic Research and Extension Initiative, to evaluate the production, environmental, and economic benefits of growing cash crops with forage crops for grazing, including small grains and hay crops for livestock feed. They are comparing two crop rotations—pasture-winter wheat-soybean-pasture and pasture-winter rye/hairy vetch-corn-pasture—and grazing dairy steers on the cover crops as a method of integrating livestock and organic cropping systems.

Pasture, Animal Productivity

At the University of Minnesota West Central Research and Outreach Center’s organic dairy in Morris, Minn., the dairy bull calves are: Holsteins; crossbreeds, including combinations of Holstein, Montbéliarde, and Swedish Red (HMS); and, crossbreeds, including combinations of Normande, Jersey, and Swedish Red (NJS). These steers are grazing on a pasture divided in half for the two crop sequences (S1: Pasture-winter wheat-soybean-pasture, and S2: Pasture-winter rye/hairy vetch-corn-pasture)—and grazing dairy steers on the cover crops as a method of integrating livestock and organic cropping systems.

Steers graze the rye cover crop at the University of Minnesota’s West Central Research and Outreach Center. Photo submitted

with a non-grazed enclosure in each paddock.

Winter wheat and winter rye forages were planted on Sept. 11, 2015, for grazing during spring 2016. During this spring, calves were randomly assigned to replicated groups (winter wheat or winter rye), but balanced by breed group to reduce potential breed bias. Twelve-month old dairy steers started grazing the wheat and rye pastures on April 25, 2016. Forage samples were collected when steers moved to new paddocks, which was about every three days.

Crude protein (Figure 1) was very high in both the winter wheat and winter rye across the grazing season, which lasted until June 14, 2016 for these grasses. From early May through the end of the grazing season, the crude protein was lower than at the start of grazing; however, the steers were probably more efficient at utilizing the protein when it was lower compared to high protein levels observed during late April.

Digestibility of the winter wheat and rye also was very high (Figure 2). As the wheat and rye matured, the digestibility was lower; however, the dairy steers grazed each paddock and wheat and rye four times in a two-month period.

At the Rodale Institute in Pennsylvania, dairy steers grazed an eight-acre pasture in 2015, subdivided into four rotationally grazed strips that were each one acre. The steers were allowed to graze each one-acre paddock for about 14 days. Over the 150 grazing days, the steers gained an average of 1.68 lbs/day. There was no difference in the rate of gain on the two pastures.

Grazing enhanced pasture production, as biomass in the enclosures was only 1.85 kg m-2 compared to 12.16 kg m-2 in grazed areas. Rye and wheat were planted in fall 2015 and mob grazed for 14 days in early spring 2016 with plots designed for moving the steers daily. Preliminary data showed higher steer weights after grazing on rye compared to wheat plots. For rye, grazing had a positive effect on plant biomass and grain yield, which averaged 1.5 tons/hectare. By comparison, grazing in wheat plots reduced biomass and grain yield, which averaged 2.6 tons/hectare.

In Iowa, organic steers brought from the Minnesota organic dairy were raised on an organic pasture and rotationally grazed throughout the year on an average rotation of eight days.
Value-Added Herbal Products — from page 1

The value in this cannot be overstated. It will give you feedback on the flavor or results you want your product to evoke, as well as ideas on how to fine-tune your recipe.

Craft and seasonal shows also are excellent retail opportunities where consumers are more attuned to quality and willing to pay for your efforts. These venues are great for product research, too.

Medicinal

When using organic plants to make medicinal products meant to be taken internally, a commercial kitchen is required. Again, your state Department of Agriculture can guide you on the specifications for a commercial kitchen. Most states will require commercial kitchens to have:

1. Washable floors, walls and ceiling
2. Four units of stainless steel sinks
3. Doors that close automatically with a spring or latch
4. Bleach and pH strips present for cleanliness

Cosmetic

You don’t need a commercial kitchen to make cosmetic products for topical use from functional or medicinal plants. Currently, laws are being drafted to restrict those who generate $500,000 or more per year on cosmetic preparations.

At Four Elements Organic Herbals, our most popular products in this category are soaps, lip balms, and salves. We also make insect repellent, bath salts, and deodorants.

Herbal products can have a variety of scents and attributes. Pay attention to what attracts you or products you need—that can guide you, as it did me, toward a potential bestseller!

My bestselling product was designed for my infant daughter who had a severe case of eczema. It was horrifying to be an herbalist selling skin care products while my daughter’s skin was breaking out. After much research and interviewing, I came up with a product that reaps most of my testimonials, as it helps people across the country. We eventually made soap with the same herb combination, which became my next best-selling product until the Minus Sinus Tea bumped it out of second place.

Other top-selling cosmetic products for a large-scale grower are distilled hydrosols. Hydrosols are a by-product from making essential oils with steam distillation.

At Four Elements Organic Herbals, we make four kinds of hydrosols using a small still. Five to ten pounds of fresh herb make just about two gallons of hydrosol. We package these in four-ounce glass jars and sell them as an aromatic spray, a skin toner, an after-shave, or a room freshener.

Four Elements Organic Herbals

My personal journey towards value-added products within the cosmetic market started with my organic certification. As a University of Wisconsin-Madison horticulture graduate in 1981, the only growing methods I knew were conventional. Just tossing out the N-P-K fertilizer did not produce an organic crop of potted herbs! My herb plants became chlorotic and stunted. I was planning to sell pot-ted herbs at a farmers’ market, but I didn’t have enough to fill the market booth. Something had to take the place of herb transplants.

The idea of honoring the Earth by not using chemicals started my journey towards organic certification that led to growing and manufacturing value-added products within the cosmetic market category. I started making creams, soaps and lip balms. Now, 30 years later, Four Elements Organic Herbals has national distribution! Unlike a strategic plan of acquiring millions of dollars in sales per year, this organic evolution was the result of wanting to be at home to raise my kids and capture Nature’s healing wisdom into each jar I filled. Experimenting with dynamic, but simple, remedies for my family and friends, I quickly realized these cosmetic value-added products captured the interest of more people than I could have reached with my 200 species of herb transplants. These products also extended my season year-round, and made me a firm believer in the efficacy of herbs.

In 2010, I applied for and was awarded a three-year USDA Value-Added Producers Grant. I hired a grant writer to secure the grant for Four Elements Organic Herbals.

Value-Added Producer Grants

The USDA Value-Added Producer Grant (VAPG) program provides grants of up to $75,000 for business planning and up to $250,000 for working capital. Producers must contribute a 50 percent match. Even though the 2017 application period is not expected to open until next spring, interested producers are encouraged to begin the process now, since it can require a lot of business planning and preliminary steps.

Michael Fields Agricultural Institute and the Wisconsin Farmers Union offer a free grant advisory service.

Contact Kitt Healy at 630-346-4749 or gracekhealy@gmail.com.

Learn more about VAPG:

www.rd.usda.gov/programs-services/value-added-producer-grants

Cowsmo Compost

Visit our online store for new ways to buy!

Our Premium Quality manure-based Compost & Potting Mixes meet the NOP Organic Standards!

Use Cowsmo Compost for:
• Soil amendment
• Mulch
• Source of organic matter

Available in 1.6 cu. ft. bags, 1.25 cu. yd. totes and in bulk.

Jane Hawley Stevens and her husband, David Stevens, grow diverse herbs and flowers to produce a variety of herbal products for culinary and cosmetic uses. Some of these products are pictured below.

Photos submitted

Healthy Calves are Easier to Raise

Calf Milk Mate™
• Vitamins
• Selenium & Trace Minerals

Calf Shield™
• Reduce Scour Risk
• Improve Calf Performance

1-888-376-6777

Order Online www.crystalcreeknatural.com
For best support with farm finances, build relationship with a lender

By Paul Dietmann

If you are farming, odds are good that a day will come when you need to approach a lender about getting a loan. Maybe you’ll need a mortgage to buy land. Perhaps you’ll need funds to construct a new building or buy machinery. You might want to set up a line of credit. Regardless of your needs, there are a few things to consider when starting and building a lending relationship.

It’s important for farmers to develop a strong relationship with their lenders, even if their funding needs are modest. A lender who knows you and understands your farm can be a great resource. He or she will be able to help you better understand your financial position, cash flow, and borrowing capacity. A really good lender will not just tell you “yes” every time you apply for a loan; a good lender will tell you “no” when a loan is likely to put you in a precarious financial situation.

From a farmer’s perspective, borrowing money is a lot like renting a piece of equipment. However, instead of renting a machine to help you accomplish a physical task more quickly and efficiently, you are renting the use of money to help you accomplish a financial goal more quickly. And, just as using a rented machine can be dangerous, using borrowed money can be risky, too. You wouldn’t operate a dangerous piece of machinery without first reading the user manual. You don’t want to borrow money before carefully considering the pros and cons.

From a lender’s perspective, lending money to a farm is not really selling a loan, it is buying a farm’s debt. The lender approaches a debt-buying decision very carefully, and really doesn’t want to make a mistake that could prove costly down the road for either the borrower or the lender. He or she is making a long-term investment that needs to benefit the farmer and the lending institution.

It is essential to find a lender that you like and trust, and who understands the business of farming. You want one with whom you can easily communicate and who takes the time to understand your business. He or she should ask good questions, be a good listener, and be willing to learn about production or marketing methods outside what the lender is used to seeing. Your lender should be able to clearly explain all of the terms and conditions of a loan commitment and how the institution’s lending decisions are made.

The best way to narrow your search for a lender is by asking other successful farmers in your area which lender they use. You should be able to generate a short list of potential lenders pretty quickly.

Your first meeting with a prospective lender could take place either in the lender’s office or on your farm. It’s a good sign if the loan officer offers to meet on your farm. He or she is saving you the time and trouble of getting cleaned up and driving into town, and is showing a genuine interest in learning more about your farm by seeing it first-hand. You’ll also be more likely to have all of the financial and production records you might need at your fingertips.

You don’t need to have a formal business plan and loan request ready to present at the first meeting. Part of the first meeting will be the lender explaining what materials are needed to consider a loan request. However, you and your lender will both find it helpful to have a good idea of your financing needs, a recent balance sheet, and at least a rough projection of the farm’s cash flow.

When you are ready to submit a loan application, the lender will consider a combination of quantitative and qualitative measures to make a loan decision. These measures are commonly called the “Five Cs of Credit,” and include: Character, Capacity, Capital, Collateral, and Conditions.

Character is all about you as a potential borrower. The lender will consider your farming experience, education and training, and the historical financial performance of your farm. A credit bureau report will be ordered. The report will be compared with your balance sheet to see if all liabilities match up. Your credit bureau score will be considered as an indication of your propensity to pay all of your financial obligations on time.

Capacity is all about the farm’s cash flow. Is there enough cash coming in to cover all operating expenses, family living costs, loan payments (including payments on the new loan being proposed), and still have some cash left over to both reinvest in the farm and put something into savings.

Capital is where your balance sheet comes into play. The lender will consider all of the farm’s assets and liabilities, and your owner’s equity position. He or she will calculate the farm’s “working capital” position (short-term assets and liabilities), and consider its strength relative to the farm’s annual gross income. Most lenders will want to see that the borrower is willing and able to advance some personal funds or equity to support a loan request.

Collateral is the asset or assets that are formally pledged by a borrower to secure a loan. In a worst-case scenario in which the borrower isn’t able to follow through on a loan commitment, the collateral is sold and the sale proceeds are used to pay off the loan. The loan amount that a lender will be able to approve will be limited by the value of the collateral. For example, if you are buying a tractor worth $50,000 and are simply pledging the tractor as collateral, the lender may only be able to provide a loan of $35,000.

Conditions are stipulations that are included in the loan agreement after a lending decision has been made. For instance, a lender may require you to carry property and casualty insurance on your tractor as long as the tractor loan is in place.

A good relationship with a lender will give you more than just a farm loan; it will provide you with a better understanding of your farm’s financial position and performance, and will help you position your farm for long-term success.

Paul Dietmann is the Emerging Markets Specialist with Badgerland Financial, a Farm Credit System institution in southern Wisconsin. He will present an Organic University course Feb. 23, 2017 on managing risk during transition. Details are at mosesorganic.org/organic-university.

He’ll also present a workshop at the MOSES Conference on preventing or responding to pesticide drift incidents.

 Others know ag lending.
 WE KNOW IT BETTER.

When it comes to lenders, you have options—except when your farm doesn’t fit the “traditional agriculture” umbrella. At Badgerland Financial, we focus on serving farms of all types and sizes. With our non-traditional ag loans, we can finance more types of projects than most people can imagine.

If you haven’t already, get to know Badgerland Financial. Let us prove why we’re the better option. And ask us about our Beginning with Badgerland grant program.

(877) 789-9058 badgerlandfinancial.com

Non-GMO & Organic

HFI

Call 844-375-3443
Visit www.healthyfoodingredients.net
E-mail hfi@healthyfoodingredients.net
© 2016 Healthy Food Ingredients.
Full-day courses provide chance to dig into farming topics

By Audrey Alwell

Organic University™ gives farmers the chance for in-depth education on a particular farming topic. These 10 courses, offered just prior to the MOSES Organic Farming Conference, are taught by experienced farmers and educators. Each course includes a custom-made resource book with course content plus additional resources.

Courses run from 10 a.m. to 5:30 p.m. Thursday, Feb. 23, 2017 at the La Crosse Center in La Crosse, Wis. Registration opens Dec. 1. For more information on these in-depth courses, see moesorganic.org/organic-university.

1 - Organic Transplant and Compost Production

Transplants are integral to vegetable, cut flower and herb farms. By producing your own transplants, you ensure not only that they meet requirements for organic certification, but also that you have the cultivars you want in a timeline that suits your planting schedule. Plus, you prevent the introduction of off-farm pests and diseases to your fields or high tunnels.

Instructor John Birnbaum from Michigan State University will explain organic transplant production from planning and seed handling to growing systems and transplant management. He’ll share results from research using compost and vermicompost specifically for root media and fertility in potting mixes and high tunnels. Katie Prochaska of River Root Farm in Decorah, Iowa will share insights from her own experience, plus what she’s doing to ramp up production to sell 150,000 transplants in 2017.

2 - Get Started in Organic Beekeeping

Bees provide pollination services and products to market. Before you invest in all the necessary equipment, take this overview to know what’s involved in beekeeping and how to manage your hives organically.

Ross Conrad, the author of Natural Beekeeping: Organic Approaches to Modern Apiculture, will explain how to choose an apiary site and source bees, beekeeping equipment needs and basic hive management. He’ll also cover honeybee biology and ways to control pests and diseases without using toxic chemicals and drugs.

3 - ‘Lean’ Approach to Farming Success

“Lean” is a production system invented by Japanese automakers that minimizes waste, increases efficiency, and maximizes value and profits with less work. Learn the Lean System and how it can be used by any size and type of farm to boost profits with less work. Ben Hartman, author of The Lean Farm, credits the lean system for the success of Clay Bottom Farm, the under-an-acre farm in Indiana where he and his wife earn a comfortable living growing organic vegetables for restaurants, a CSA and a farmers’ market.

4 - Manage Risk During Transition to Organic

The three-year transition to organic production is the time to establish the foundation for your farm’s future success. This course will help you understand how to get through the transition years economically sound and ready to enter the organic marketplace.

Learn about market demand, various sales channels and pricing expectations of organic crops, as well as crop diversification as part of the overall farm strategy for a sustainable farm system. See how to use transition time to get comfortable with a new crop rotation, organic seed varieties, cultivation techniques, and organic soil-building strategies. Plus, get details on organic crop insurance options and tips to explain your farm strategy to your lender.

Instructors are Paul Dietmann, Badgerland Financial; Mark Doudlah, organic grain farmer; Mark Kopecky, Soils Agronomist for Organic Valley and CR OPP Cooperative; Gary McDonald, organic transition consultant; and, Harriet Behar, MOSES Senior Organic Specialist.

5 - Practical Route to Healthy Soils and Better Crops

A healthy organic farming system depends on biologically active, mineralized, balanced soils. This course provides an in-depth discussion on what you can do to improve your farm’s soil through the use of rotations, thoughtful selection of plant species, and better sources of minerals, with the goal of high-yielding, high-quality crops without the need for chemical intervention.

Course instructors are Gary Zimmer and Ellen Polshuk, both well-known soils experts. They’ll provide practical, farm-tested methods to improve your farm’s soil, help you understand when to do soil tests, and how to use your observation skills to judge what your soil needs.

6 - Successful Organic Grazing

Learn the principles of successful grazing systems from Sarah Flack, author of The Art and Science of Grazing. She’ll discuss grazing first from the perspective of pasture plants, and then from the perspective of livestock. Her practical approach will cover ideal pre- and post-grazing heights, length of rest periods for pastures, and mix of plant species—all to encourage healthy soils and increase pasture productivity and forage quality. She’ll also cover paddock sizes, stocking rates and acreage needs, as well as strategies to maximize livestock’s dry matter intake while grazing to improve pastures.

7 - Sustainable Farm Law 101

Leasing, hiring help, buying land, hosting events, managing liability, ensuring food safety, forming an LLC, filing taxes, transferring farm ownership—legal issues work their way into every aspect of the organic and direct-to-consumer farm. Attorney Rachel Armstrong of Farm Commons, joins forces with Cassie Nolnerwysa, a certified organic market farmer, to integrate legal education with practical, on-the-ground experience. By focusing on federal law and empowering farmers to ask the right questions, this course is geared for farmers in any state.

8 - Start Right with Organic Dairy

Veterinarians Paul Dettlaff and Sarah Slaby will share insights gleaned from helping farms of all sizes make the switch to organic dairy production. They’ll cover practices to improve soil health in the fields providing grains, forages and pastures for your herd, and show you what to look for, when to amend and how to monitor the effectiveness of your soil fertility program. They’ll provide a wide variety of animal health tools to address issues such as fly control, mastitis, milk fever,

To Organic University next page
California farmer’s message will resonate with Midwest farmers

By Linda Halley

What does a California peach farmer and a Midwestern row crop farmer have in common? No, this is not the first line in a stand-up joke. It’s a real question you just may get the answer to when you come to the MOSES Organic Farming Conference in February when peach farmer and author, Mas Masumoto, will be keynoting the 2017 not-to-be-missed gathering.

Mas will speak at the Friday General Session at 1:30 p.m. His topic is “Organic Farming: The Next Generation,” focusing on who will take over our farms, and the rewards of farming organically.

I first met Mas at his farm in California’s Central Valley in the late 1990s. After a walking tour of his orchard and ancient grapevines, he and his wife, Marcy, a Wisconsin native, invited me to stay for dinner. I don’t remember the details of our conversation, but I do recall I came away with the sense that farmers are just farmers everywhere. We share similar lives that revolve around the seasons. Our children, not so different in ages, are growing up on family farms, helping and grumbling and finding joy, too. Our days are filled with struggles, successes and decisions, big and small. And, of course, our underlying motivation of being good stewards of agricultural land is held in common.

In the 1990s, Mas was riding the wave of the nascent local foods movement. Heirloom fruit and vegetable varieties became cool and coveted, certainly, in part, because of books like Mass’s own first publication, *Epitaph for a Peach*. Farmers’ markets everywhere are facing face-changing decisions. Will we borrow our way forward, change what we grow or how we grow it? Who will be the next farmer to farm this land? Which lawmaker will set policy that helps rural America and all scales of agriculture? The written word, from a farmer’s own hand can play an influential role.

There’s change afoot in rural America. From the west coast’s drought, to the heartland’s depressed commodity prices, to the east coast’s development pressure and the heartland’s depressed commodity prices, farmers everywhere are facing life-changing decisions. Will we borrow our way forward, change what we grow or how we grow it? Who will be the next farmer to farm this land? Which lawmaker will set policy that helps rural America and all scales of agriculture? The written word, from a farmer’s own hand can play an influential role.

This winter consider picking up a book written by a farmer. Let it inspire and encourage you. Share it with a neighbor, your pastor or your doctor. Then come to the conference in February and hear what farmer-author Mas Masumoto has to say in person. Hope to see you there.

Linda Halley is a longtime Midwest organic farmer.
Grow better.

Attend the country’s premier organic conference:

- 65 workshops over 6 sessions
- Knowledgeable and respected presenters
- More than 170 exhibitors
- Roundtable discussions
- Organic meals
- 3,500 participants

Registration opens December 1: mosesorganic.org/conference

Dig into a topic with an all-day course.

MOSES ORGANIC UNIVERSITY
Pre-Conference Courses: Feb. 23, 2017
Courses listed at: mosesorganic.org/organic-university

Integrating Crops, Livestock — from page 7

Pasture biomass production, in general, was greater in the grazed areas of the paddocks, with one of the higher-producing paddocks averaging 2,372 lbs/acre biomass in mid-season, compared to 1,677 lbs/acre in the non-grazed enclosure.

Soil Quality

Six surface soil samples (0-15 cm) from each sample plot and enclosures were collected for nutrient availability and biological activity among the sites in spring 2016. Microbial biomass carbon, and enzyme activity for acid and alkaline phosphatase, beta glucosidase, and arylsulfatase were found to be highest in Minnesota, intermediate in Iowa, and lowest in Pennsylvania. These three enzymes are directly related to the phosphorus, carbon and sulfur turnover in soil. Pennsylvania soils had the highest levels of available phosphate, nitrate, and ammonium. The higher nutrient availability could have provided soil microbes with readily available nutrients and therefore required less effort from the microbial community to obtain nutrients. In contrast, the lower nutrient availability in Minnesota and Iowa led to greater enzyme levels to facilitate nutrient turnover during the season.

Social Aspects

Three farmer focus groups were conducted in summer 2016 to understand farmers’ experience and interest in livestock-crop integration. Groups were convened in Kutztown, Penn., Greenfield, Iowa, and Morris, Minn. Recruitment prioritized livestock farmers who were currently growing, or interested in introducing, small grains for grazing. The farmers in these groups expressed concerns about: economic risk of transitioning to a new system; potential food safety risks associated with livestock proximity to crops; demands on time and labor; physical demands of livestock/crop integration; and, lack of local markets/educated consumers to fully support alternative systems. Researchers plan to address these concerns through this study.

The integration of livestock in organic cropping systems is a prerequisite for long-term agricultural stability. We are studying methods to integrate crops and livestock to determine this model’s effect on animal performance, crop productivity (including small grains for grazing), soil quality, food safety and social acceptance. During the third year of the project, we will harvest organic row crops, and produce crop/livestock budgets.

* Brad Heins is an assistant professor of organic dairy management at the University of Minnesota’s West Central Research Center in Morris, Minn. Kathleen Delate is a professor of organic agriculture at Iowa State University, and directs the Organic Agriculture Program there. Hannah Phillips is a graduate student in animal science at the University of Minnesota.

---

**FIVE TOUCH SYSTEM:**

1. Mineral rich, biologically active soil
2. Dynamic root growth
3. Strong resilient plant structure
4. Increased size and yield, faster finish
5. Efficient stubble composting

Application at these key growth points = Increased quality and production yields

www.TerraBioticsInc.com • 877.519.8873 • P.O. Box 1439, Deming, NM 88031

TerraBiotics

Great Harvest Organic Seeds

2017 PRODUCTS

NOW AVAILABLE

Take advantage of our early order and cash discounts. Contact us today for a seed guide or visit our website for product information. Order while supplies last.

GreatHarvestOrganics.com | 866.834.7888

---

**TUFF-BILT TRACTORS MANUFACTURING, INC.**

Toll free, call today! 844-486-3268

www.tuff-bilt.com

THE BEST CULTIVATING GARDEN TRACTOR MADE TODAY

• 26” ground clearance
• 64” tilling radius
• 21” 3-point category 0

Tuff-Bilt Tractors Manufacturing, Inc.
Farmers’ love of land foremost in new book

By Jennifer Nelson

Our rich history of learning from stories, told and written, is long and enduring. In *The Future of Family Farms: Practical Farmers’ Legacy Letter Project*, Teresa Opheim has compiled some important, and really good stories about the experience of farmers and landowners as they transfer land from one generation to another. More than 25 farmland owners are featured in the new book, recently published by University of Iowa Press. We can learn from these stories as we experience the current huge transfer of farmland happening in our country.

Dale Nimrod’s mother raised her three children on their Southwest Iowa farm after their father died. He and his siblings didn’t want to farm, and did very much want to contribute to the growth of their little rural community of Stanton. They worked with a local pastor to find a farm family in the area, the Petersons, and were able to work out a contract that benefitted both parties.

Nimrod says, “We are just enormously pleased that this farm is in the Petersons’ hands. I hear about people who have land for sale, and it’s like it would be a sin if you sold it for less than what an auctioneer could get for you. I just can’t understand it. There are things more important and much more satisfying than money.”

Opheim says in the introduction, “This book is not about farm business transfers…the book is simply about farmland – how families acquired it, what they treasure most about it, and their hopes for its future.” These are stories that can inspire, comfort, and be our North Star as we navigate the future of farmland in the U.S.

Jennifer Nelson is a MOSES Organic Specialist.

Deeply Rooted – Unconventional Farmers in the Age of Agribusiness

By Lisa M. Hamilton

2009 | Counterpoint Press

336 pages | $25 list price

On a trip through rural backroads, Hamilton introduces us to Harry Lewis, a Texas dairyman who takes a stand against agribusiness; Virgil Trujillo, a rancher in New Mexico who attempts to restore the value of farming to his community; and the Podoll family of North Dakota (the 2014 MOSES Organic Farmers of the Year), who develop new plant varieties to face the challenges of climate change and seed patenting. They are backing the industrialized agriculture system to bring goodness and sanity to our food and food production system.

Turn Here Sweet Corn

By Atina Diffley

2012 | University of Minnesota Press

344 pages | $24.95 list price

Atina Diffley’s paean to her partner Martin and the farming life they lived at Gardens of Eagan. Diffley vividly describes the wonder and beauty of being close to nature and the soil, and the frustrations and struggles when bad weather and suburban development threaten their crops and family farm. *Turn Here Sweet Corn* is also a legal thriller about the Diffleys’ fight to preserve their farm from the devastation of a crude oil pipeline Koch Industries proposed to build across their land.

Locally Laid – How We Built a Plucky Industry-Changing Egg Farm – from Scratch

By Lucie B. Amundsen

2016 | Penguin Random House

320 pages | $26 list price

This is an entertaining account of how Lucie Amundsen and her husband—liberal-arts educated urbanites—became chicken egg farmers from the bottom up. They jump headlong into their venture and find they are too big for direct-to-consumer sales and too small for the commodities market. Learning as they go, Amundsen and her family struggle to find their niche as they evolve into humane and sustainable producers of wholesome food. It’s a charming book full of stories, lessons and humor.

Call Chd (989) 213-677

Organic Dry Bean and Soybean Contracts

State-of-the-Art Facility

Munger, MI

The Leading Company for Mechanical Weed Control

www.bayshoresales.com

www.everbestorganics.com

*Committed to the Future of Organic Farming*

SOM Organic is committed to remaining an integral part of the long term success of America’s organic farming.

We have been part of the U.S. organic farming program for nearly 20 years, and are pleased with the continued strong growth of organic agriculture in the U.S. and worldwide.

At SOM Organic we are proud of our many farmer customers practicing responsible use of Allganic™ Nitrogen as part of their overall nutrient management strategy. They understand the value this tool provides them as a supplemental nitrogen source in their overall organic farming nutrient-management program.

As you make your nutrient use plans for this growing season, we urge you to follow the lead of these farmers. For more, visit the Allganic™ Nitrogen website.

www.somorganic.net

SOM North America

4111 S. 60th Street

Omaha, NE 68127

To find out more about Allganic™ Nitrogen, please contact us today!
Beginning farmers beefed up farming, finance skills at New Farmer U

By Jennifer Nelson

Over 100 beginning farmers gathered last month in beautiful Lanesboro, Minnesota for our first New Farmer U weekend training to learn from “rock star” organic farmers and agriculture experts about a variety of farming best practices.

We dug into farming topics with 10 workshops, got great advice from the “Ask the Expert” roundtables, and took advantage of many opportunities for networking. When we needed to take a breath to digest all this great information, we could walk on the beautiful, groomed hiking trails at the Eagle Bluff Environmental Learning Center, where the weekend training took place.

A highlight of the weekend for many was the panel of farmers who talked about things they’d do differently in their beginning years. The panel featured Dayna Burtness-Nguyen of Nettle Valley Farm, Eduardo Rivera of Sin Fronteras Farm and Food, Lauren Langworthy of Blue Ox Organics, and Andrew Pierre of Clover Bee Acres.

“Know thyself” was their main message—if you don’t want to or aren’t able to farm veggies, choose a different scope of production. Also, learn from your mistakes, and let them go.

New Farmer U was “wonderful, informative, with great networking opportunities and education all wrapped in a single weekend,” said attendee Ronda Snow.

Tammy Tarbell said, “I loved the atmosphere, and meeting people that have the same aspirations as me.”

In addition to New Farmer U, participants could take a Fearless Farm Finances all-day training on Friday. Presenters Craig Chase, Iowa State University, and Paul Dietmann, Badgerland Financial, covered basic farm financial management beginning with the Schedule F, completing a balance sheet and managing cash flow, and wrapping up the day with enterprise budgets and profit analysis. The one-day training is based on the book Fearless Farm Finances, published by MOSES and developed by the presentation team.

MOSES partnered with Renewing the Countryside and Land Stewardship Project on these events, which are supported by a grant from the USDA-NIFA Beginning Farmer and Rancher Development Program.


Jennifer Nelson is a MOSES Organic Specialist. She manages the New Organic Stewards and New Farmer U programs.
My family has been planning for our farm transfer as well, and we’re discussing a SILT easement for our farm. We trust our daughters and son to honor Larry and my life’s work, but we don’t know what their kids or their grandchildren will do with the land. A SILT easement will make sure that if and when they ever sell, they’ll sell to a sustainable food farmer who can reap the reward of our years of work building our soils.

For farmers trying to buy land, interest payments nearly double the cost of any land over the life of a 30-year mortgage. SILT easements reduce mortgage debt because only sustainable food farmers are eligible to use the land, removing developing corn and bean farmers from the buyer pool and keeping values low. (Landowners who place these permanent restrictions on land can be eligible for extensive tax benefits. Farmers can receive a 100 percent federal tax deduction of Adjusted Gross Income for eliminating developers and conventional corn and bean farmers from the land equation entirely. Farmers can farm with the confidence of long-term leases they can pass on to their children. They can purchase or build a home, barn and business. This reduces the burden on beginning and disadvantaged farmers and keeps the land affordable one farmer after the next."

“As a beginning farmer, if I have the assurance of a long-term lease at a reasonable cost, I don’t have to own the land,” said Kayla Koether, the young woman who lost her family’s organic farm of a long-term lease at a reasonable cost, I don’t have to own the land,” said Kayla Koether, the young woman who lost her family’s organic farm of a long-term lease at a reasonable cost, I don’t have to own the land,” said Kayla Koether, the young woman who lost her family’s organic farm of a long-term lease at a reasonable cost, I don’t have to own the land.”

When the land can’t be put up for collateral, or where fruit and vegetables are the business model, it’s hard to tap traditional sources of capital.

2. Developers are skittish. SILT leaders are changing the land equation for sustainable food farmers means facing multiple challenges.

1. Bankers and financiers are not ready for this. When the land can’t be put up for collateral, or where fruit and vegetables are the business model, it’s hard to tap traditional sources of capital.

2. Developers are skittish. SILT leaders are encouraging agri-communities in which SILT owns the farm while homebuyers enjoy that backyard view. After a lot of national press for this model, SILT is finally seeing some interest.

3. Iowa = corn and bean. Most of Iowa’s farmers grow commodity crops and Iowa’s economy rewards them for that. But we know diversity builds resilience in the environment and on our farms, and a diverse ag economy can do that for Iowa’s economy. Iowa recently made its Top 10 organic farm states. There’s room for us to grow here too.

4. SILT faces legal, social and financial obstacles. Experienced Iowa attorneys have vetted SILT’s model, yet some politically-motivated “experts” tell landowners it’s not legal. Some people say farmers won’t work on land they’ll never own, but our experience contradicts that. Finally, as a young nonprofit, it’s expensive to get the word out about a complicated solution worthy of solving the complicated problems we face.

Time is running out. SILT is racing the clock to make land affordable to aspiring sustainable food farmers before local food fades away or gets co-opted, and young people go elsewhere to follow their dreams. Meanwhile, more than half of Iowa land is owned by people over 65. We must act soon to be a player in the oncoming avalanche of land transfer.

SILT has a waiting list of beginning farmers looking for affordable land and leases. We imagine a day when people from all walks of life can grow and sell food. They don’t have to be from a farming family. They don’t have to know the right people. They can just check a website for affordable Iowa farms protected by SILT and fill out an application being developed right now by farmers just like them.

We know farmers on SILT-protected ground will improve the stream of fresh healthy food into the food shed, improve water and soil quality for multiple Midwest states and bring young people back to our dying small towns. As an organic farmer, I also like the idea that SILT can serve as a clearinghouse of information among its farmers to reduce the chance of them oversaturating markets and can be a place they can build cooperatives or other coordinated marketing projects.

In a state that’s been losing its young people, watching its collective weight go up and struggling with water quality, SILT can be a welcome solution. See details and contact us at silt.org.

Denise O’Brien is a certified organic farmer in Atlantic, Iowa. She founded the Women Food and Agriculture Network, and currently serves on the boards of the Pesticide Action Network and the Sustainable Iowa Land Trust.

The Ahimsa Alternative, Inc.
For all things Neem & Karanja

Neem Leaf, Neem Bark Powder, Soap Nut Powder
Personal Care products, Animal Care products
Order @www.neemresource.com or call 1-877-873-6336

100% Cold Pressed, from seed kernels
Neem Oil
Karanja Oil
Neem & Karanja Cake

NimbioSys

NEEM OIL

BIOLOGICAL INSECTICIDE

OWHRI

OMRI

100% Cold Pressed Neem Oil from certified Neem trees
Now accepting applications for Master Dairy Grazers (employers) and Apprentices
www.dga-national.org

Dairy Grazing Apprenticeship is an accredited national training program that provides a structure of support for the transfer of knowledge, skills, and farms from current and retiring organic dairy farmers to the next generation.

Upcoming Farm Conferences

Mosessorganic.org | 715-778-5775 | 15
Value-Added Herbal Products — from page 8

I used this $300,000 matching grant to expand our tea line and package it into individual bags, allowing us to expand our market from natural food stores to mainstream grocery stores. In 2015, we shipped our first dried herb products to California to be blended, minced and packed into our nine flavors of USDA certified organic teas. Receiving this grant was a big challenge to my business, as it required me to spend the money strategically. Four Elements Organic Herbals was matching the grant funds. My best business decisions were hiring an office manager, moving the office and production off the farm to a separate location, and rebranding Four Elements. This economic development grant also allowed me to hire local labor to do meaningful earthwork, and hand harvest the plants going into the teas. This grant project demanded that Four Elements Organic Herbals increase herb production from hundreds of pounds to thousands of pounds per year. Thankfully, Four Elements Organic Herbals has a dedicated staff, and fields that were ready for growth. My husband, Dave, had cultivated and cover-cropped these fields following organic standards, making the soil prime for planting.

To handle the new volume of herbs we produced, we expanded our drying facilities to a larger 10-by-15-foot herb dryer. This addition included an industrial dehumidifier, which removes moisture and releases heat with an electric motor, keeping the dryer at an optimal 100-130 degrees. Inside the dryer, three feet by three feet racks act as garbling trays. Plants that contain little moisture like Urtica dioica (nettle), dry overnight; while more succulent herbs like thyme, lobelia or mullein. When you have about half without boiling. This is where you can get these practices including having washable racks, a dark interior to maintain quality, and a good dehydration and heating system.

We also found it helpful to have a wilting area for managing large quantities of plant material. We retrofitted a wagon with several covered racks that can be hauled into the field for herbs to wilt in the wind before a low back to the dryer. While this would be more efficient in an arid climate, it still contributes by holding herbs if the dryer is full.

Proper recordkeeping is essential for traceability and to fill the organic requirement. Our lot numbers include herb field designation, the Latin initials and date. Separately, our harvest log contains field, date, the name of the person handling the herb, dried weight and amount of time in dryer.

Four Elements Organic Herbals has developed some traction and is motivated for growth and market share. Many new possibilities developed out of the Value-added Producers Grant that allowed our Four Elements Organic Herbal teas to enter the grocery store.

Developing value-added products is not the hardest part of the business — marketing is. Wouldn’t it be great to get the lucky break of a celebrity endorsement? More than likely, you will be working your way up to step by step, as I did. So think about what you grow and harvest. Think about how you will develop the market with the value-added product you intend to offer. Receive feedback; be open to creative and add other antiinflammatory and immune-enhancing herbs like echinacea, coltsfoot, violet, thyme, lobelia or mullein. When you have about 50% of the liquid left, strain off added herbs. Add one quart of herb, three cups liquid. Warm to mix, bottle, label (with a clever name that can be hauled into the field for herbs to wilt in the wind before a low back to the dryer. While this would be more efficient in an arid climate, it still contributes by holding herbs if the dryer is full.

Collect a quart jar of cherry bark in the fall or spring. Any of our three native cherries will work: Prunus serotina (Black Cherry), P. pensylvanica (Pin Cherry), or P. virginiana (Choke Cherry). To collect the bark, remove small branches or suckers around one inch diameter. Peel with a penknife rather than a filet knife, fill a jar. Fill jar with water and let sit overnight.

The next day, pour off liquid and put into double boiler or crockpot to reduce the volume by half with heat. You can get creative and add other antiinflammatory and immune-enhancing herbs like echinacea, coltsfoot, violet, thyme, lobelia or mullein. When you have about 50% of the liquid left, strain off added herbs. Add one quart of herb, three cups liquid. Warm to mix, bottle, label (with a clever name that makes no health claims), and refrigerate.

Cherry Bark Cough Syrup

Here’s how to make a homemade cough remedy. It may surprise you how well this works!

Preparing roots and barks usually requires simmering for at least one hour, but choke cherry bark is highly aromatic—excessive heat would lift all that flavor and aroma captured in the volatile oils right into your kitchen ceiling. So cook this recipe slowly at a low temperature.

1. Collect a quart jar of choke cherry bark in the fall or spring. Any of our three native cherries will work: Prunus serotina (black cherry), P. pensylvanica (pin cherry), or P. virginiana (choke cherry).
2. Prepare the bark for use. Remove small branches or suckers around one inch diameter. Peel with a penknife rather than a filet knife, fill a jar. Fill jar with water and let sit overnight.
3. The next day, pour off liquid and put into double boiler or crockpot to reduce the volume by half with heat. You can get creative and add other antiinflammatory and immune-enhancing herbs like echinacea, coltsfoot, violet, thyme, lobelia or mullein. When you have about 50% of the liquid left, strain off added herbs.
4. Add one quart of herb, three cups liquid. Warm to mix, bottle, label (with a clever name that makes no health claims), and refrigerate.

Jane Hawley Stevens owns Four Elements Organic Herbals, which includes a 130-acre certified organic farm and a processing facility near Madison, Wis. She’ll present a workshop at the 2017 MOSES Conference on value-added herbal products.

She also teaches classes locally. See www.fourelementsherbal.com.

OFARM executive urges NOP to step up scrutiny of organic grain imports

By John Bobbe

The U.S. organic market has been deluged with imports of organic soybeans and corn—almost a million bushels of corn per month in 2016—that are highly suspect as to their organic integrity. Imports from Turkey especially raise concern.

A 2016 report by USDA’s Foreign Agriculture Service summarized the potential for fraudulent activity deepened in Turkey, saying, “Although inspections and transparency in the Turkish organic food sector are improving, the integrity of organic farming, production, shipping and marketing is not always guaranteed.”

One Turkish organic certifier, ETROKO, has been decertified by the European Union and the Canadian Food Inspection Agency. Yet ETROKO is still acceptable on the USDA Integrity Data Base.

With regard to Turkey and Ukraine, an Anti-Fraud Initiative has been established to “improve cross-border harmonization between inspection and certification bodies, trade companies, label operators and authorities to strengthen organic integrity.” The fact that fraud is serious enough to trigger the creation of this network should provide sufficient motivation to the NOP to dedicate more effort to this issue.

In meetings I’ve had in both Europe and western Asia with farmers and an NOP-accredited certifier, people commented that there is less chance of getting caught for fraudulent organic exports to the U.S. than almost anywhere in the world.

In July, the NOP reminded importers of handling regulations and fines, which is commendable, but simply not enough. A fine of the stated amount is unlikely to be sufficient to fill the US market and be sold as organic. We asked:
• What procedures does NOP have to assess whether the EU’s processes for accreditation and certification are adequate to ensure the integrity of bulk shipments of commodities that are pooled from many farms?
• Does NOP have an adequate system to track bulk commodities from one country to another?
• Do standards for handling of source of imports, back to the certifier and farm level?

The widespread fraud in Turkey has been publicly known for at least a year, while the NOP has been slow to address these issues until now.

Prices of domestic organic corn have dropped from $12 a bushel 18 months ago to $6 to $8 a bushel today. U.S. organic producers are losing an average of $300 per acre, far below the cost of production, which is around $10 per bushel.

The market signal to organic farmers is to produce less, not more at a time when we are encouraging increased transitions to organic production domestically. Unless immediate steps are taken by the NOP to strengthen organic import protocols to be equivalent to what U.S. producers and the industry face here, in the EU and Canada, this will be a major commodity trade war setting back industry growth for years to come.

OFARM executive urges NOP to step up scrutiny of organic grain imports

By John Bobbe

Editor’s note: This is a followup article to “Organic imports hurt U.S. organic grain producers,” published in the Sept./Oct. 2016 Broadcaster. John Bobbe, OFARM’s executive director, presented this article to the National Organic Standards Board at its meeting Nov. 16.

In a joint letter Sept. 1. by the Food and Water Watch and OFARM to the USDA’s Office of Inspector General, we called attention to this major problem and urged the OIG to take a careful look at the potential for non-organic products, especially bulk commodities like grains, to enter the U.S. market and be sold as organic. We asked:
• What procedures does NOP have to assess whether the EU’s processes for accreditation and certification are adequate to ensure the integrity of bulk shipments of commodities that are pooled from many farms?
• Does NOP have an adequate system to track bulk commodities from one country to another?
• Do standards for handling of source of imports, back to the certifier and farm level?

The widespread fraud in Turkey has been publicly known for at least a year, while the NOP has been slow to address these issues until now.

Prices of domestic organic corn have dropped from $12 a bushel 18 months ago to $6 to $8 a bushel today. U.S. organic producers are losing an average of $300 per acre, far below the cost of production, which is around $10 per bushel.

The market signal to organic farmers is to produce less, not more at a time when we are encouraging increased transitions to organic production domestically. Unless immediate steps are taken by the NOP to strengthen organic import protocols to be equivalent to what U.S. producers and the industry face here, in the EU and Canada, this will be a major commodity trade war setting back industry growth for years to come.

OFARM executive urges NOP to step up scrutiny of organic grain imports

By John Bobbe

Editor’s note: This is a followup article to “Organic imports hurt U.S. organic grain producers,” published in the Sept./Oct. 2016 Broadcaster. John Bobbe, OFARM’s executive director, presented this article to the National Organic Standards Board at its meeting Nov. 16.

In a joint letter Sept. 1, by the Food and Water Watch and OFARM to the USDA’s Office of Inspector General, we called attention to this major problem and urged the OIG to take a careful look at the potential for non-organic products, especially bulk commodities like grains, to enter the U.S. market and be sold as organic. We asked:
• What procedures does NOP have to assess whether the EU’s processes for accreditation and certification are adequate to ensure the integrity of bulk shipments of commodities that are pooled from many farms?
• Does NOP have an adequate system to track bulk commodities from one country to another?
• Do standards for handling of source of imports, back to the certifier and farm level?

The widespread fraud in Turkey has been publicly known for at least a year, while the NOP has been slow to address these issues until now.

Prices of domestic organic corn have dropped from $12 a bushel 18 months ago to $6 to $8 a bushel today. U.S. organic producers are losing an average of $300 per acre, far below the cost of production, which is around $10 per bushel.

The market signal to organic farmers is to produce less, not more at a time when we are encouraging increased transitions to organic production domestically. Unless immediate steps are taken by the NOP to strengthen organic import protocols to be equivalent to what U.S. producers and the industry face here, in the EU and Canada, this will be a major commodity trade war setting back industry growth for years to come.
Call for Research Posters
The 2017 MOSES Organic Farming Conference will include an organic research poster session Feb. 24 and 25 as part of the Organic Research Forum, with support from Ceres Trust. The poster session will document completed and ongoing research projects related to organic agriculture. Researchers, academic faculty and staff, graduate/undergraduate students and farmer researchers may submit poster proposals for consideration by Dec. 16, 2016. Space is limited to 25 posters. See mosesorganic.org/organic-research-forum for details.

MOSES Conference Scholarships
Registration opens Dec. 1 for the 2017 MOSES Organic Farming Conference: Scholarships are available on a limited basis now, with priority given to farmers who have not attended the conference in the past. The deadline to apply is Dec. 19. See mosesorganic.org/conference/scholarships.

Cheers for Farmers
"Cheers for Farmers" is a new section on the MOSES website created to recognize the good work organic farmers are doing. We also feature a farm on the MOSES Facebook and Twitter pages to document the work organic farmers are doing. We also feature a farm on the MOSES Facebook and Twitter pages to document the work organic farmers are doing. We also feature a farm on the MOSES Facebook and Twitter pages to document the work organic farmers are doing. We also feature a farm on the MOSES Facebook and Twitter pages to document the work organic farmers are doing.

Child Care Options for Farmers
Many young farm families struggle with the balance of raising young children and working for their family farm business. Child care, off or on-farm, may be an option. Learn more on the MOSES Child Farm Safety blog, funded by the National Children’s Center for Rural and Agricultural Health and Safety. See mosesorganic.org/child-farm-safety.

Organic Grain Listserv
Farmers and educators interested in organic grain production can join the new OGRIN listserv to share information, data, produce, production issues, resources, and equipment to buy or sell. Like other electronic listservs, the OGRIN service allows any subscriber to send an email to the entire group. Members can reply to all or just to the sender who can post “digests” of the responses they receive. To join the list, send an email to join-ograd@lists.wisc.edu with the subject line “join OGRIN list.” OGRIN is a partnership between MOSES and the University of Wisconsin-Madison.

Survey on Organic Vegetable Seed Priorities
Organic vegetable growers can influence future organic seed options by completing a 10-minute survey conducted by the University of Wisconsin-Madison with support from the Organic Seed Alliance. The survey will be used to better understand plant breeding priorities for organic vegetable growers. Survey deadline is Dec. 30, 2016. See www.surveymonkey.com/r/YKZKZYC.

Farm Credit Merger
Plans are moving forward for merging Badgerland Financial of Prairie du Sac, Wis., and AgStar Financial Services of Mankato, Minn., and 1st Farm Credit Services of Normal, Illinois. The merger will create an association that covers 144 counties in the three states. Headquarters will be in Sun Prairie, Wis., under Rod Hebrink, current CEO of AgStar. As cooperatives, all three associations are owned by their member-stockholders, so the proposed merger decision will culminate in the first quarter of 2017 with a stockholder vote.

Season Extension Resources
Sustainable Agriculture Research and Education (SARE) has a new four-page brief titled "High Tunnels and Other Season Extension Techniques" to go with its online season extension resources. The brief provides an overview of structure types and construction, cultivar selection, and management of fertility, pests, water, and temperature. The topic brief is available as a free download at www.sare.org/Learning-Center/Topic-Rooms/High-Tunnels-and-Other-Season-Extension-Techniques, or by mail; order by calling 301-779-1007. The MOSES website includes this topic brief as well as many other season extension resources; see mosesorganic.org/season-extension.

SEA-90® Sea Minerals
InCREASE PROFIT AND PRODUCTION
Add SEA-90 to Fertility and Mineral Programs and Save Money while Improving the Quality of Farm and Garden Production
• Increase crop and pasture yield
• Improve microbial populations and soil health
• Raise healthy livestock and improve reproductive rates
SeaAg® Offers:
• SEA-90 Natural Fertilizer: Broadcast on soil to replenish missing elements
• SEA-90 Foliar Fertilizer: Blended and spray on crops and pasture throughout growing season
SEA-90 is a blend of trace metals, seaweed, and seaweed extracts. Use as directed and see Improvement in 60-90 days.

Improves Soil, Crop and Livestock Health
770-361-7003
7751, Box MSC17 • Dawsonville, GA 30534
www.seaagi.com

Certification Resource
MOSES has revised and updated its popular Guidebook for Organic Certification. The new version walks farmers through the steps to become certified organic, and provides insights into organic standards and production practices. The 32-page book also includes guidelines for organic processing and handling. Single copies are available free as a PDF download at mosesorganic.org/guidebook-for-certification or by calling 715-778-5775 to request a mailed copy. Multiple copies are $1 each. Email Eric@mosesorganic.org for bulk orders.

Loans for Small-Scale/Urban Farms
The USDA has opened a public comment period for its new EZ Guarantee Loans program, which offers a simplified application process to help beginning, small-scale, and urban farmers get loans to purchase farmland or finance agricultural operations. Banks, credit unions, and other traditional USDA-approved lenders can offer borrowers up to $100,000 of EZ Guaranteed Loans. Micro-lenders including Community Development Financial Institutions and Rural Rehabilitation Corporations will be able to offer their customers up to $50,000. Review and comment on program details by Jan. 19, 2017 at www.regulations.gov. Reference RIN 0560-AI34 and follow the instructions to submit comments.

New Service for Specialty Crop Growers
The Tiny Crop Report is a new service to help small-scale farmers connect with restaurants, craft brewers, and independent grocers within 250 miles that are looking for specialty crops. Buyers pay to receive the report, which will be published 20 times a year; it is free for farmers to list available crops. See tinycropreport.com.

Organic Farm Diversification Publications
Wild Farm Alliance has released two new publications: biological conservation. An Organic Farmer’s and Certifier’s Guide and its companion, How to Conserve Biodiversity on the Farm: Actions to Take in a Continuum from Simple to Complex. These provide insight into the wide range of benefits provided by biodiversity conservation practices. Both are available for free download. See wildfarmalliance.org/biodiversity.

Organic Soybean Research
A new report from researchers at the University of Illinois, “Organically grown soybean production in the USA: Constraints and management of pathogens and insect pests,” aims to give organic soybean growers more tools to combat crop pathogens and insect pests affecting the crop. The report summarizes specific biological, cultural, varietal, application practices that can be used to manage pest and disease pressures for organic soybean producers. It also looks at the potential production constraints caused when these factors are left unmanaged. See bit.ly/OrganicSoybeans.
New Service for Vegetable Growers
University of Wisconsin-Madison researchers need vegetable growers’ input as they create a service that will share benchmarks, such as gross income per acre, profit margin, return on investment and other comparative measures. The more farmers who participate, the more useful the data will be, allowing growers to better compare outcomes and strategies and make more informed decisions about markets, prices, equipment purchases, and hiring labor. All data will remain confidential. To participate, go to tinyurl.com/vegfarmbenchmarks. For more information, contact John Hendrickson: jhendric@wisc.edu or 608-265-3704.

USDA Organic Website
The USDA has updated and consolidated its online resources for organic producers into a new USDA Organic Portal. The portal offers information about organic certification, crop insurance, training opportunities, and data, such as the organic production surveys. The new site also offers quicker access to market news price reports. See http://bit.ly/USDAorganicPORTAL.

NCR-SARE Administrative Council
There are open seats for farmers/ranchers on the North Central Region - Sustainable Agriculture Research and Education Program (NCR-SARE) Administrative Council. This council represents various agricultural sectors, states, and organizations. It sets program priorities and makes granting decisions for the region. Nominations are due by Dec. 1, 2016. See www.northcentralsare.org/ About-Us/NCR-SARE-Leadership-and-Policy/ Administrative-Council. Scroll to the bottom of the page for a link to the nomination page.

Organic Cucumber Research
Michigan State University (MSU) has received nearly $1 million in funding from the USDA’s National Institute for Food and Agriculture to develop new tools for cucumber producers. Cucurbits are among the top five organically produced vegetable crops in the country. MSU will lead a team of research and extension experts from MSU, Purdue and University of Wisconsin, and a grower advisory panel to develop an integrated production system addressing grower-identified challenges including cucumber beetle, downy mildew and Phytophthora; and reduced tillage practices, cover crops, nitrogen management and pollination. For more information see http://bit.ly/MSUresearch-cucurbits.

Animal Health on Organic Farms
The University of Minnesota has received a three-year grant from the USDA Organic Research and Extension Initiative (OREI) to advance animal health on organic farms. Brad Heins, Associate Professor of Dairy Science at the university’s West Central Research and Outreach Center in Morris will lead the research with partners from the University of Colorado, Kansas State University, and The Ohio State Veterinary College. The project will focus on innovative preventive and curative approaches for mastitis, lameness, reproductive disorders, calf health, and fly management. The project also will look at alternative therapies and prevention strategies for common cattle diseases on several large organic dairy farms in Colorado as well as at the university’s research center. See wcroc.cfans.umn.edu/news/advance-organic-health.

Organic Soybean Research
A new report from researchers at the University of Illinois, “Organically grown soybean production in the USA: Constraints and management of pathogens and insect pests,” aims to give organic soybean growers more tools to combat pathogens and insect pests affecting the crop. The report summarizes specific biological, cultural, varietal, application practices that can be used to manage pest and disease pressures for organic soybean producers. It also looks at the potential production constraints caused when these factors are left unmanaged. See bit.ly/OrganicSoybeans.

Organic Farmers & U.S. Farm Policy
Two different groups are working on providing a policy voice for U.S. organic farmers. The Organic Farmers Alliance is still in its organizing phase, working with organic farmer groups from around the country to develop a democratic structure for regional representation of both organizations and individual members. MOSES Organic Specialist Harriet Behar is involved in this organization and can answer questions at harriet@mosesorganic.org.

Rodale Institute recently launched another group, the Organic Farmers Association, which is a membership organization for individual farmers. It is managed by Elizabeth Kucinich, Rodale Institute’s Board Policy Chair. Both groups have similar goals: providing a platform for organic farmers to advocate for their unique perspective to policy makers and regulatory agencies, a place for networking among organic farmers, and a place to share educational resources. The two groups are discussing ways to work together. To become a member, see rodaleinstitute.org/dfa.

Proposals for 2017 Agroforestry Conference
The Association for Temperate Agroforestry is accepting session proposals for its 2017 North American Agroforestry Conference. Sessions are to be one hour in length, and can be panel discussions or special topics. Deadline for submissions is Dec. 9. The conference will be June 27-29, 2017 in Blacksburg, Va. To submit a proposal, see region.com/builder/site/tab2.aspx?EventID=1863066.

Research on Effective Use of Manure
The USDA recently awarded a $2 million grant to a multidisciplinary team to research effective use of manure in organic fresh produce production. This is in response to proposed changes to the Food Safety Modernization Act (FSMA) that impact the use of compost and manure and the required interval for untreated manure application crop harvest. The research team includes the University of California-Davis, University of Minnesota, University of Maine, USDA, the Produce Safety Alliance, and The Organic Center. See http://ota.com/news/press-release/10271.

Manure™... The First Fertilizer & Still the BEST!
Belt Dried • Pelletized • Crumbles

✓ Call TODAY to lock in your fall fertilizer program
✓ 1 Ton Bags or Bulk
✓ Best N.P.K & Micronutrient Analysis of ALL manure products available
Call to receive full lab reports

Tom Ferguson
302-381-6050
tferguson@sreggfarm.com

For More Details
Visit our website! ChickMagic.net

Manure is a registered trademark of ChickMagic, Inc.
OMRI Listed for Organic Use
Distributed by Albert Lee Seed, providers of organic farm seed for more than 20 years
800.352.5247 | WWW.AALSEED.COM

Organic and Conventional Non-GMO Seed

VIKING ULTRA PURE®

Viking Ultra Pure seed corn is guaranteed to be 99.9% free of GMOs.
Finally, a liquid organic fertilizer that doesn’t clog your equipment!

You don’t have time for clogged sprinklers and plugged drip lines, so we developed a new fertilizer to give you the nutrients you need, without the hassle. Plus every batch is pathogen tested with a third-party certificate for your records.

Feed the Soil, Feed the Plant
- Nutrients when you need them most: broadcast, starter, side dress, foliar, and all fertigation
- Nutrients you want in a carbon-rich formula
- Amino acids and 20+ species of beneficial bacteria

Improve Your Yields
- 4 formulations available
- Easy to use with your current spray and drip equipment
- Meets USDA National Organic Program requirements without setback restrictions for food crops

Call or send for
Plant Pro Potting Soil
Fall Pre-Sale Discounts

Discounts are for soil ordered and paid for by Nov. 25, 2016
We now have 2 cubic yard sling totes

Introducing NEW “Seed Catapult”
Professional Growing Mix seed starter
With Mycorrhizae

Call, write or email our Ohio branch for details
Ohio Earth Food – 5488 Swamp St. NE
Hartville, OH 44632  330-877-9356
info@ohioearthfood.com

Nature Safe Fertilizers produces many OMRI listed quality protein fertilizers made with NO manures or sodium nitrate. Excellent for use on vegetable crops and row crops where you need a slow release fertilizer with very high nutrient availability. We have the highest organic concentration of any unrestricted fertilizer. Some of our formulations are 13-0-0, 10-2-8, 9-6-1, 8-5-5. www.naturesafe.com, Call 616-566-0307.

Start your season with the best locally produced berry plants! Grown by neighbors with nearly 50 years of berry experience. Select from 13 cultivars of black, pink, red, and white currants; 5 elderberry cultivars; available in 3 forms: cuttings, MaxiPlugs, or bare root. Contact Paul Otten (pomo@chof.net, 651-308-3901) for cultivar description, cultural practices, prices. Berry Communications 19060 Manning Trail N., Marine on St. Croix, MN 55047.

For Sale: Tempered, insulated, double-pane glass. Large panes for sunrooms, solar homes, ag buildings, greenhouses or ??? One hundred fifty thousand sold since 1979; 30" x 74" x 1" double-pane only $69.00. Arctic Glass, www.kissourglass.com, 715-639-3762 or joseph4249@gmail.com.

OMRI POULTRY FERTILIZER 3-2-2 with 9% Ca. Lots of microbes like zin, boron and sulfur. Pelleted and Crumbled. Bulk and Totes Sold by truckload only. AG ORGANIC, WWW.CHICKENLITTER.COM, info@chickenlitter.com, 217-725-4594.

For Sale: Organic Onion Plants. Sedona, Redwing, Candy, White Wing, Safrane, yellow and red Cipollini, and Leeks. Other varieties available upon request. $7 per 100, 1000 plant minimum, certified by MOSA. Glen, 563-379-3951 or gitsfresh@gmail.com.

ORGANIC FISH FERTILIZER 15-1-1, 100% dry water soluble, 5-7 times more nutritious than liquid fish. Will not clog drip irrigation. One lb., 5 lb. or 55 lb. packaging, can be shipped UPS. Frommelt Ag Service, Greeley, IA, 563-920-3674.

ORGANIC WEED CONTROL MADE EASY. As simple as 1-2-3. $50/acre. Plant Aroostook Rye Cereal at 3 bushels per acre in fall. 2. No-Till Soybeans into standing Cereal Rye seven days prior to anthesis. 3. Crimp Cereal Rye @ near 100% flowering. Contact Doudlah Farms for Aroostook Rye Pricing or call 608-574-2160.

Call, write or email our Ohio branch for details
Ohio Earth Food – 5488 Swamp St. NE
Hartville, OH 44632  330-877-9356
info@ohioearthfood.com
Webinar: Women Ag Program for the 21st Century
Nov. 29 | 10 a.m. | Online
https://learn.extension.org/events/2777

Green Lands Blue Waters Conference
Nov. 29-30 | 5 | Columbia, Mo.
Contact Michael at 573-884-1448 or GoldM@missouri.edu

Farmer Veteran Stakeholders Conference
Nov. 30 | $350 | East Lansing, Mich.
Contact Luke at 510-756-1395 or julien@farmvetco.net

Web Call: Cover Crop Roundtable Discussion
Nov. 30 | Laurens, Iowa and Online
Contact Andrea Patrick at 515-281-5221 or anda.m.pati
isa.ncadnet.net

Land Stewardship Project Winter Cover Crop Meeting
Dec. 1 | 1-3 p.m. | Lewiston, Minn.
Contact Caroline at 507-523-3366 or caroline@landstew
ardshipproject.org

Grant Opportunities for Farmers Workshop
Dec. 1 | 10 a.m.-2:30 p.m. | Aurora, Ore.
Contact Drew at 971-245-3262 or drew@thlf.org

Western Sustainable Ag Conference
Dec. 2-3 | 5 | Sidney, Neb.
Contact Karen at 308-254-4455 or kekoeaei@unl.edu

Feast! Local Foods Marketplace
Dec. 2-3 | SS-25 | Rochester, Minn.
Contact Feast at 507-405-4045 or info@local-feast.org

Strategic Business Planning & Management Workshop
Dec. 3 | 9 a.m.-5 p.m. | $150 | East Lansing, Mich.
Contact Megan at 734-718-5506 or demeleeuw@msu.edu

Small Dairy Intensive
Dec. 4 | 9 a.m.-4 p.m. | $75 | Champaign, Ill.
Contact Megan at 734-718-5506 or demeleeuw@msu.edu

Web Conference: Growing for the Future
Dec. 5-8 | Online
https://nfu.org/growing-for-the-future

Webinar: Introduction to Holistic Management
Dec. 9-10 | 8:30 a.m.-5 p.m. | $250 | Red Oak, Iowa
Contact David at 402-659-0691 or leslecarbaugh@yahoo.com

National Domestic Fair Trade Conference
Dec. 9-11 | 9 | Portland, Ore.
Contact Domestic Fair Trade Association at 347-589-3398

Advanced Strategic Business Planning & Management
Dec. 10 | 9 a.m.-5 p.m. | $150 | East Lansing, Mich.
Contact Megan at 734-718-5506 or demeleeuw@msu.edu

Webinar: Flooding and Farm Evacuations
Dec. 13 | 12 p.m. | Free | Online
https://learn.extension.org/events/upcoming

Webinar: Farm Animal Welfare Certification
Dec. 13 | 10 a.m. | Free | Online
www.fundafarmer.org/online-learning-humane-farmers

Soil Health, Cover Crops, & Winter Grazing Workshop
Dec. 13 | 8:30 a.m.-4 p.m. | Starbuck, Minn.
Contact Robin at 320-269-2105 or mmore@landstewardship
project.org

Webinar: Creating a Farm Loan Package
Dec. 14 | 11 a.m. | Free | Online
https://learn.extension.org/events/2721

Great Lakes Fruit, Vegetable and Farm Market Expo
Dec. 6-8 | 5 | Grand Rapids, Mich.
Contact Gleevo at 734-269-8027

Web Conference: Young Farmers Conference
Dec. 7-9 | $285 | Online
www.virtualrural.org/learn-young-farmers-conference

Managing Financial Risk in Organic Grains
Dec. 8 | 9 a.m.-4 p.m. | $25 | Atlanta, Ill.
Contact The Land Connection at 217-840-2128

Introduction to Organic Agriculture
Jan. 12-13 | 9 | St. Cloud, Minn.
Contact Cassie at 651-201-6134 or cassy.goho@state.mn.us

Winter Greens Short Course
Jan. 12-14 | $595 | South Burlington, Vt.
Contact the University of VT at 800-639-3210 or farmer@uvm.edu

Sustainable Foods Summit
Jan. 18 | 8:30 a.m.-5 p.m. | $1,199 | San Francisco, Calif.
Contact Mike at 415-254-1116 or info@sustainable-foods-summit.com

Practical Farmers of Iowa Conference & Short Courses
Jan. 19-21 | 5 | Ames, Iowa
Contact Erica at 515-232-5661 or erica@practicalfarmers.org

Organic Agriculture Research Symposium
Jan. 25-26 | 5 | Lexington, Ky.
Contact Chandra at 479-799-1235 or registration@ssawg.org

Southern SAWG Conference
Contact SS4WG at 479-251-8310 or info@ssawg.org

EcoFarm Conference
Jan. 25-28 | $1,020 | Pacific Grove, Calif.
Contact EcoFarm at 831-763-2111 or info@ecofarm.org

NPSAS Winter Conference
Contact NPSAS at 708-883-4304 or info@npsas.org

MOA Conference
Jan. 26-28 | $275 | Kansas City, Mo.
Contact MOA at 660-672-8515 or info@moaconference.org

Iowa Farm Bureau Young Farmer Conference
Jan. 27-28 | 5 | Des Moines, Iowa
Contact Mary at 515-557-2400 or mofyb@att.net

Winter Greens Short Course
Jan. 28-29 | 5 | Wisconsin Dells, Wis.
Contact WFU at 715-722-5561 or wisconsinfarmersunion.com

Wisconsin School for Beginning Market Growers
Jan. 6-8 | 5 | Madison, Wis.
Contact John at 608-265-3704 or jplenischki@wisconsin.edu

North American Beekeeping Conference
Jan. 10-14 | 5 | Galveston, Texas

Iowa Specialty Crops, Agtourism & Organic Conference
Jan. 11-13 | 5 | Springfield, Ill.
Contact ISCA at 319-557-5107 or clary@illinoisfarm.org

Temple Grandin Presents
Jan. 12 | 12 p.m. | New Hampton, Iowa
Contact New Hampton High School at 641-394-2144

Minnesota Organic Conference
Jan. 12-13 | 5 | St. Cloud, Minn.
Contact Cassie at 651-201-6134 or cassy.goho@state.mn.us

Winter Greens Short Course
Jan. 12-14 | $595 | South Burlington, Vt.
Contact the University of VT at 800-639-3210 or farmer@uvm.edu

Sustainable Foods Summit
Jan. 18 | 8:30 a.m.-5 p.m. | $1,199 | San Francisco, Calif.
Contact Mike at 415-254-1116 or info@sustainable-foods-summit.com

Practical Farmers of Iowa Conference & Short Courses
Jan. 19-21 | 5 | Ames, Iowa
Contact Erica at 515-232-5661 or erica@practicalfarmers.org

Organic Agriculture Research Symposium
Jan. 25-26 | 5 | Lexington, Ky.
Contact Chandra at 479-799-1235 or registration@ssawg.org

Southern SAWG Conference
Contact SS4WG at 479-251-8310 or info@ssawg.org

EcoFarm Conference
Jan. 25-28 | $1,020 | Pacific Grove, Calif.
Contact EcoFarm at 831-763-2111 or info@ecofarm.org

NPSAS Winter Conference
Contact NPSAS at 708-883-4304 or info@npsas.org

MOA Conference
Jan. 26-28 | $275 | Kansas City, Mo.
Contact MOA at 660-672-8515 or info@moaconference.org

Iowa Farm Bureau Young Farmer Conference
Jan. 27-28 | 5 | Des Moines, Iowa
Contact Mary at 515-557-2400 or mofyb@att.net

Wisconsin Farmers Union State Convention
Jan. 27-29 | 5 | Wisconsin Dells, Wis.
Contact WFU at 715-722-5561 or wisconsinfarmersunion.com

For more information or to register, go online or call toll-free! 1-800-355-5313 • info@acresusa.com
P.O. Box 30129, Austin, TX 78703