



JUST PICKED

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From the Coordinator's Desk

Happy New Year, Fruit Growers!

This is the time of year when we page longingly through seed and tree catalogs, feeling excitement about new varieties, and confident that the year's harvest will be abundant. It can feel like a precious moment before any disappointment or disillusionment of the season sets in -- a good time of year to take advantage of the optimism that comes from returning daylight. I'm happy to have a couple of articles in this newsletter that reflect that sense of anticipation and curiosity about our farms and ecosystems. And one that should help us all prepare for our inevitable pest problems...

At Mary Dirty Face Farm we're embarking on our second year of using Holistic Financial Planning for our farm business, and we're working on projecting both expenses and income for the year. On the expense side, this brings up questions about THE right tractor for our orchard (bad memories of mowing from 2016, thoughts about fence offsets and turning radius), and if it's finally time for orchard ladders. On the income side, this year we're thinking about where we focus our marketing time and attention -- adding farmers markets, investing in CSA expansion, or moving into wholesale?

Some of these questions can seem so particular and personal that it's hard to talk about them out loud. Many of us struggle with concerns about competition, and uncertainty in approaching one another with ideas and concerns. But our movement has thrived through collaboration, and conference season is such a good time to reflect and share. I continued to be amazed by the inspiration I draw from off-hand conversations. We recently attended a CSA farmer gathering and though we were the only dedicated fruit growers there, we learned so much and came away with some unexpected great thoughts for our season.

I'm most excited for our OFGA Retreat coming up later in the month, along with one of my favorite yearly rituals of the grafting workshop and scionwood exchange, and for seeing many of you at MOSES and other conferences!

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Keep up with events and other news at our website
organicfruitgrowers.org!



Have a newsletter story or idea to share?

Email
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On Farm Processing Field Day

Anton Ptak, OFGA Treasurer

November is a great time for a field day for orchard types and fruit slingers in the Midwest. The crop is off (or it should be) and nights come early, so you can't push yourself to work outside too much past 6pm, or 5 in the latter part of the month. We convinced Dan Kelly of Blue Heron orchard to host a field day at this time of year and introduce some of our members to his operation, which most of us had only heard about, as his place of business is well outside OFGA's comfort zone of MN and WI. Blue Heron Orchard is outside of Canton, MO in the far northeast part of the state, a handful of miles to Illinois and only a few handful of miles to Iowa. Dan's operation (both fresh and processed) is certified organic. For those who do not know much of our organization, Dan is also the president of OFGA's board.

The weather last November was exceedingly warm for the season, and some of us (me!) had a hard time grappling with sacrificing these glorious days of Indian summer which would otherwise have been perfect for checking things off the end of season to-do list. But equally fortuitous was being able to attend a late season field day with sunny weather and 60 degrees on the Fahrenheit scale. Several folks made a few-day mini-vacation out of it, making pit stops to see friends on the way down, and then gathering at Dan's the evening before for some great food, cider, and conversation amongst orchard types.

The day of the formal event began with coffee and greetings to the day's arrivals. The day had a varied agenda covering everything from cold storage to value added production grants to art films. The focus of the day was on processing and the value-added side of Blue Heron Orchard. I reckon we started in the cider room. . .

Dan has a uniquely constructed 30' by 40' cider and processing facility that definitely shows some personality. He also has the knack for obtaining equipment at bargain store prices. He has become pretty savvy at seeking out and obtaining grants for some of the aspects of his processing enterprises. In many places, salvaged construction material was used handily and tastefully in the construction. I'll spare the fine details of the specific set-up (for that ask Dan over a beer sometime) but just mention that a good time was had mulling around his cidery area, discussing fun stuff such as phase inverters (make 3 phase motors run on single phase service), oiling of the press, and sanitizers.

A couple of presentations by Matt Moore of USDA's Rural Development office in Missouri and David Camphouse of Market on Main in Ottumwa, IA took place in the middle of the day, which were informative diversions into 1) value-added grants and 2) an attempt in rural SE Iowa to bring some local producers to the local consumers.

The most, might we say, unorthodox portion of the events of the day was the showing of an art film by Dan's wife Cherie. I will not pretend to remember the exact context of the film, but just say that (east) Indian chants and movements found some representation in an organic Missouri apple orchard for 15 minutes or so. Cherie gave some personal account of the film which was very interesting.

To wrap up the day, we chilled a little bit in Dan's cooler. This structure, as the previous, was a bit unique, and perhaps more so. It was a timber frame, straw bale structure, with a bonafide refrigeration setup. I don't recall exactly the dimensions but I want to say about 24' by 30' with 12' ceilings. I probably won't see another one of those any time soon. According to Dan, it works quite well. Again, for specifics, buy him a beer and ask for a few more details.

I was quite happy to be able to attend the 2nd OFGA field day this year and to be able to see Dan's place. It speaks to the desire of the organization to expand its footprint and the health of the organization to draw a decent attendance way down in MO! I'm looking forward to what's on deck for 2017.

Musing on Grafting

By John Knisley, *Alternative Roots Farm* and OFGA board member

While the temperatures are still below freezing the heart of a fruit grower is again stirring with excitement. Poring over farming catalogs, researching historic or new growing techniques, finalizing planting plans for the approaching spring and thinking once again about grafting.

Grafting trees in late winter is one of the things I look forward to most each year—with each cut brings hope for another successful season in the orchard and endless potential of the new tree you just put together. Bench grafting in late winter is just one of multiple ways you can propagate certain varieties of fruit for your growing purposes, and can be one of the most successful. While grafting may seem intimidating when starting out, after a couple of seasons (and some calloused fingers) cuts become more intuitive and the motions smooth and more fluid. Soon enough you will be able to enjoy each fleck of wood being carved away and the perfect alignment of cambiums you are attempting to marry.

To many, grafting your own trees is a tradition of times past, when families had time to wait for a trees to produce; however, grafting your own trees can be an affordable option for the new and established grower, while also offering endless possibilities of varieties (many not available in commercial nurseries). Purchasing from a nursery does have many benefits—you get a tree that was grown in a well-controlled environment, is multiple years old and will likely produce fruit in a shorter amount of time. The downside for new growers is the cost of purchasing from a nursery, which can be a substantial capital investment. It may be wise to consider purchasing some trees from a nursery to get started, while developing your fruit market, while grafting the remainder of your orchard—giving it a couple more years to come into production.



Left: Grafted apple trees at Alternative Roots Farm. Photo by John Knisley

Right: John presenting on grafting at 2016 MOSES Organic Farming Conference – see him again this year! Photo by Rachel Henderson

Musing On Grafting

Continued...

Before diving headlong into grafting your own fruit trees I would highly suggest taking a grafting class from folks with years of expertise in the practice. There are some tremendous literary resources available to the beginning grafter, but nothing can beat a class from a knowledgeable instructor, who can look over your shoulder and help you with your technique and fine details. To find out where grafting classes are available check with your state “fruit growers” group, local extension agent, area sustainable farming groups, NAFEX (North American Fruit Explorers), or your area orchardist. Keep in mind these classes are typically held in late winter if bench grafting, or late July-August if bud grafting. The Organic Fruit Growers Association (OFGA) offers a bench grafting class and scion exchange annually at the MOSES conference in LaCrosse, WI—this is the perfect opportunity to learn how to graft, trade scion wood and hang out with some like-minded people (aka tree nerds).

The life of a fruit grower is never a dull one, with each changing season brings new excitement and hope. Now we are thinking about grafting, how to organize that new planting, what rootstock am I going to use, how many varieties do we now have planted. If you can learn how to graft you can open up endless possibilities for your fruit growing operation—perhaps growing rare apples like ‘knobbed Russet’, ‘Scott’s winter’ or ‘smokehouse.’ Or perhaps, focus on specific traits like long storage life or disease resistance. As I sit here, with the cold winter wind blowing outside begin to feel a little warmer with thoughts of grafting and the possibilities awaiting for the upcoming season.

Getting ready to plant!



Right: Anton Ptak uses a borrowed auger to dig holes for new trees – a great improvement over a shovel

Below: Farmers at Two Onion Farm dig in tree stakes



Three Questions on Spotted Wing Drosophila

By *Thaddeus McCmant, Central Lakes College*

The Three Questions Every Grower Must Ask Themselves about Spotted Wing Drosophila

Few insect pests have caused as much disruption to fruit producers as the spotted wing Drosophila (SWD). The new fruit flies have a wide and variable host range along with short generation times, which allows their populations to explode over a short period of time. The new fruit flies have also managed to fool every scientist who has tried to understand them.

We first found SWD in raspberry and strawberries in August of 2012, which means that Minnesota growers have been fighting them now for four full growing seasons (2013-16). After four years, certain patterns have developed.

- They love raspberries. Other crops like strawberries, pie cherries and blueberries are secondary hosts.
- If they are in your field one year, count on them being in your field the following year.
- They show up at the same time each year, which is the first week of July in southern Minnesota.
- In most of Minnesota, populations appear to decline sharply about September 1.

Keep in mind, SWD have fooled everyone, so we can't be sure that all four observations will hold in 2017. Keeping those four observations in mind, growers must ask themselves three questions.

Question 1. What level of infestation is acceptable for selling your products?

All growers would like to return to the days when every raspberry in a pint basket was free of small worms, but those days have disappeared. In September, 2012, I was finding SWD in one or two raspberries per pint at various markets. Nobody noticed the worms when only an odd berry was off. In July, 2013 a grower was selling pick-your-own raspberries where half the berries had worms. He received angry phone calls and one of the most unpleasant e-mails I have ever read. Growers must stop harvesting somewhere between 1% and 50% infestation rates. From my experience, when more than 10% of the raspberries have evidence of SWD, picking should be stopped. Many growers may want tighter standards. Keep in mind, there will be some berries with eggs, so if 10% of the berries have worms at 5:00 PM, another 5% could have worms the following morning.

Recently, many consumers have been educated about the presence of SWD. This past year there were reports of customers looking for and finding maggots in those odd soft berries. Which brings up the second question.



Above: *Spotted Wing Drosophila larvae in a raspberry*

Photo from ipm.msu.edu

Right: *Raspberries taking center stage in a fruit market box*

Photo by Rachel Henderson



Spotted Wing Drosophila*Continued...*

Question 2. Should you tell your customers about the possible presence of worms?

SWD could mark a fundamental shift in how consumers deal with insects. For the past fifty years, consumers have bought fruits and vegetables with the confidence that there were no bugs in their produce. California enforced a zero tolerance policy concerning cherry fruit fly in sweet cherries (a close relative of apple maggot). If an inspector found evidence of one fruit fly maggot in a load of sweet cherries, that load could not be sold in California. At this point, we don't have the control measures to enforce a zero tolerance for SWD.

I have heard good arguments for both telling and hiding the presence of SWD from your customers. Some growers prefer to tell customers to discard "soft" fruit. Last year a grower who goes to a Metro area farmers market heard that legally he had to tell his customers that there might be worms in his berries. He had a little sign saying that there might be insects in his product. I don't know what the law says or how it should be interpreted, but he claims that he didn't lose customers. Realistically, I am not sure we can hide this problem from the consumers much longer.

Question 3: Should you try to avoid or control the flies?

Some strawberry and raspberry growers are trying to avoid the flies by planting varieties that ripen before the fly population explodes in early summer or after populations drop in the fall. Other growers, including blueberry and cherry growers, are trying to control the flies with a combination of sanitation, insecticides, refrigeration and cultural controls. The details of how to control the flies are too great to be covered in this article and will be discussed at the OFGA retreat.

SWD is not the end of fruit growing, but they will change how growers pick and sell some crops, while hurting those who want to diversify into new crops. The two largest and most profitable fruit crops in Minnesota are apples and strawberries. Most June bearing strawberries are harvested before the flies are out of control. SWD don't like apples. Raspberry growers face the biggest challenge, because summer raspberries ripen when fly numbers peak, and SWD numbers can go from an acceptable 5% to an unacceptable 50% in one week. Blueberry growers in some cases have kept flies at low numbers by picking the berries clean. Cherry growers should be able to control the flies with one or two well-timed sprays. Meanwhile, all of us continue to learn about this difficult pest.

SWD acts very different in the eastern half of the country than on the West Coast, so the most applicable research for your operations is coming out of states east of the Great Plains. Michigan State University is doing great research: http://www.ipm.msu.edu/invasive_species/spotted_wing_drosophila

Wisconsin is taking the pest seriously: <http://labs.russell.wisc.edu/swd/>

In spite of the different climate, I see similarities between here and North Carolina, where some good research, including research on organic controls is being conducted.: <https://swd.ces.ncsu.edu/>

Mycorrhizal Journey

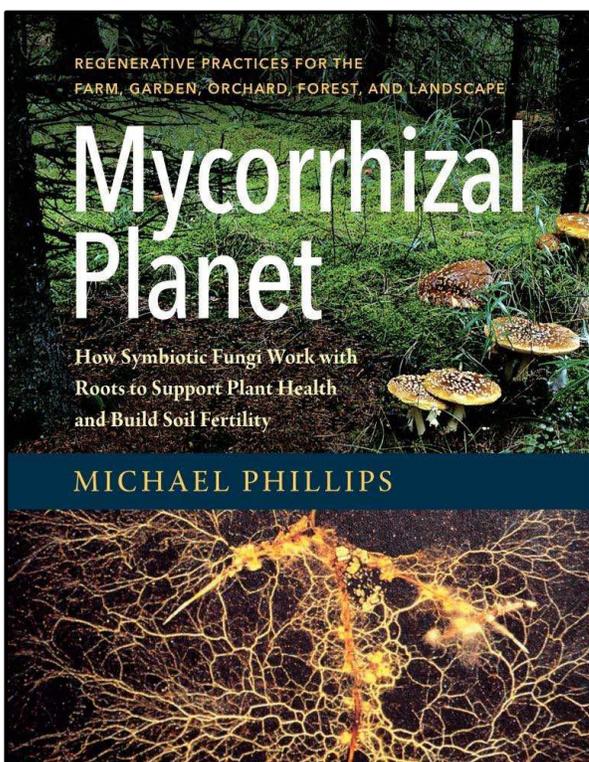
By Michael Phillips, Holistic Orchard Network

The invitation was tantalizing, to say the least. “We need to have someone write a book about mycorrhizal fungi.” My longtime editor and friend, Ben Watson of cider acclaim, said this to me in casual conversation at a Chelsea Green Publishing meet-up of authors and staff two years ago. You could say Ben was speaking my language, knowing as I do the critical importance of symbiotic fungi in growing healthy fruit.

The game was afoot! And for me, a book project always begins with a working title to go with a detailed outline of what needs to be probed, shuffled, and shaped into practical application for growers. A month or two of consideration during the start of pruning season led to a surefire proposal, and soon enough, the writing of *Mycorrhizal Planet* became a daily habit backed by pure fungal intuition.

Only that was not the title at the time. Imagine this. You get on an airplane in the predawn hours, having spoken at a distant conference one wintry weekend. A woman sits next to you, someone you’ve never met and yet absolutely know. “Are you Winona?” And indeed it was. Winona LaDuke, native activist and past candidate for vice president on the Green Party ticket. We talked about healing herbs, draft horses, and grafting. Next thing I knew I was watching the sun rise over the eastern horizon and it came to me that this book would be called *Mycorrhizal Ascendancy*. Just right for reflecting how the fungal realm is finally coming to the fore in so many ways.

Ahem, said those with more editorial prowess than I. The reading public will not be able to fathom that unknown m-word in a book title. Subdued but not out, I pondered the lyrics of Bob Marley’s *Redemption Song* as I continued to write. And I knew—I so totally knew—that the fungi and the plants together offer our human species a “soil redemption song” without which we would not enjoy this good life with its long orchard rows and sweet berries in the morning. *That*, I said to myself, is the title that will stir a grower’s soul.



The writing proceeds apace. I am grooving with the fungi as I peruse science paper after science paper to find gems of understanding (Phillips, 2017). I’ve known all along that this book needs to convey more than just an underground economy perspective but to fully explore what it means to be a healthy plant facing environmental reality as well. The following words happen one evening, launching the second chapter:

Healthy plant metabolism begins with a molecule of water, a breath of carbon, and light energy from our nearest star. The tangible science behind all this unlocks the righteous way to farm and garden, give honor to trees, and plain do right by this earth. Nothing has ever excited me more.

Mycorrhizal Journey

Continued...

Nearly a full year of writing with critical feedback goes into the completion of the manuscript. Developmental editing improves on my intentions. The copy editing that follows brings every meandering thought into surer focus. Some of my humor even gets by Ben's sharp pen. The book is moving along in the production process as I work with a fantastic artist to bring fungal conceptions alive through watercolor finesse. The marketing team now turns its eye to the final title. Of course, I think, these people must surely understand that "my hand was made strong by the 'and of the Almighty" and *Soil Redemption Song* on that reggae basis alone will be a shoo-in for the title.

Surveys are taken, writing friends more often than not stand by me, but yet I cannot sway the towering fortress of publisher might. We sally forth under the banner of *Mycorrhizal Planet*—yes, that big m-word after all now viewed as providing exactly the right buzz to excite every soil steward near and far. The cover art comes together: Showing the ecosystem above with fungal action in the root zone below is an absolutely smashing idea. Proofreader; final design; printer. Books are now in hand and this apple guy is ready and eager for all grower friends to have a go.

The notion that "plant toes being tickled by fungi" bestows life to our dear planet—and so many two-leggeds don't even have a clue—means the time has come to tell the full story about mycorrhizal fungi.

Michael Phillips is the author of two classic orcharding books, The Apple Grower and The Holistic Orchard, both OFGA favorites. We asked him for an inside perspective of how a next book comes to be. Anyone interested in obtaining a signed copy of Mycorrhizal Planet is best advised to go to the source by checking out the Bookshelf at groworganicapples.com. Be sure to click on the link to the "Fungal Bonus"!

Behold the Raspberry

Few fruits are more universally familiar in our region than the raspberry. Raspberries and their cousins can be found wild at the edge of woods and pond. Even in cities, most midwesterners have a neighbor or friend with a backyard patch. At the market, shoppers need no recipes or tips for using raspberries. For fruit growers angling for a market niche with unusual selections, raspberries can seem mundane. But these unassuming brambles have a long, rich history, ripe with symbolism and entendre.

Raspberries were gathered in the wild by cave-dwelling humans long before the dawn of agriculture. They have been cultivated widely since the 13th century, when English King Edward I is credited with having spread them around Europe, though they are commonly believed to have originated in Asia, probably Turkey. The earliest European settlers in the Americas brought canes with them. The little drupelets are grown so widely in the U.S. now that it may come as a surprise that a quarter of global production currently comes from Russia.

Historically, raspberries have been consumed nearly as much for the medicinal quality of their leaves as for the epicurean quality of their fruit. Modern medicine has born out the belief held throughout the ages that raspberry leaves aid in pregnancy and childbirth. Perhaps for that reason, raspberries are symbolically associated with fertility. Likely associated with the prickly canes, they were also valued for protection: in the Philippines, canes were hung outside one's door to ward off wandering souls. (Source: <https://www.thepracticalherbalist.com/holistic-medicine-library/raspberry-myth-and-magic/>)

Events!



Organic Fruit Growers Association Winter Retreat

February 22-23rd, 2017

OFGA will host a two-day growers' retreat prior to the MOSES Organic Farming Conference, at Hawksview Lodge in Fountain City, WI. See you there!

OFGA Annual Meeting

February 23rd, 2017 1:00-2:00 pm, Hawksview Lodge, Fountain City, WI

Held at the end of the OFGA Retreat. All are welcome to attend the meeting, but only current members may vote. At the meeting, we will discuss 2017 events, organization financials, and committees.

MOSES Organic Farming Conference

February 23rd-25th, LaCrosse, WI

Workshops of interest to members include

- Pruning for Organic Fruit Production, Thaddeus McCamant
- Manage Spotted Wing Drosophila, Aaron Wills and Mary Rogers
- Organic Farmers Alliance, Theresa Podoll and Michael Sligh
- Crop Insurance for Organic Producers, Roxann Brixen
- Federal Programs that Support Organic, Ben Howell and Carissa Spencer

Women's Environmental Institute

Apple Class: Pruning, Grafting, and Organic Methods

February 25th 10:00-4:00 \$50

WEI Amador Hill 15715 River Road, North Branch, MN 55056

<http://w-e-i.org/events/organic-orchard-care-pruning-grafting-organic-methods/>

University of Wisconsin, Madison Center for Integrated Agricultural Systems

Midwest School for Beginning Apple Growers

March 10-12th Madison, WI

This intensive, three-day course gives a realistic picture of what it takes to run a successful orchard operation—including capital, management, labor and other resources.

<http://www.cias.wisc.edu/midwest-school-for-beginning-apple-growers/>

Xerces Society

How to Manage Solitary Orchard Bees for Crop Pollination – Webinar

March 28th, 2017, 11:00 AM PST

<https://learn.extension.org/events/2938>

With the uncertainty of healthy honey bee hive availability and the high cost of hive rentals for crop pollination, an alternative, the blue orchard bee, is becoming more available and manageable. This presentation will describe the life cycle, and how it can be deployed for providing pollination services while also maintaining a managed pollinator population.