



Just Picked!

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In this Issue

- Annual Meeting
- Scion Wood Exchange
- Meet the OFGA Board

Articles (p. 3-7)

- Organic Control of Canada Thistle in an Apple Orchard
By Chris McGuire
Two Onion Farm
- Considerations for Organic Apple Disease Management
By Leslie Holland
UW-Madison

Organizational Partners (p. 8)

- ACDI/VOCA Farmer to Farmer Program
By Diana Shipman

Upcoming Events (p. 9)

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From the Coordinator's Desk



This Just Picked! arrives just before the return of long days in the orchard and fields. I am Amy Bacigalupo the new OFGA coordinator and an organic apple and pear grower from West Central Minnesota. My family and I manage Kalliroe Orchard, a two-acre, high density organic apple and pear business.

We have been growing trees since 2004. I hope this season brings OFGA members more opportunities to connect either virtually or through smaller, local farm tours.

Annual Meeting

OFGA members will host our first virtual Annual Meeting on **Wednesday, March 10th from 7 – 8:30 pm CST.**

Starting at 7:00 with introductions and then moving into two great presentations:

Dan Shields will give us a video tour of **Stone Creek Farm's high tunnel peach and apricot production** system.

Leslie Holland, a Plant Pathologist from UW Madison will share a presentation about **strengthen fruit trees to prevent diseases.**

Hang around and vote for new board members. Then join us for an online 'happy half-hour' to get to know other OFGA members.

Scion Wood Exchange

The scion wood exchange goes virtual this year. Please contact me through email at ofgacoordinator@gmail.com with a list of scion wood varieties you have for the exchange and approximate lengths. I will compile the list until 4 pm on Friday, March 5th.

Meet the OFGA Board

At our Annual meeting on Wednesday, March 10th we will be electing new OFGA board members. For more information about current board members visit OFGA's [website](#).

Rami Aburaomia, *President* Elected to OFGA Board 2015
 Atoms to Apples, Mt. Horeb, WI (term expiring)
 Favorite Varieties: Apple – Zestar, Liberty and Goldrush

John Knisley *Secretary* Elected to OFGA Board 2016
 Alternative Roots Farm, Madelia, MN
 Favorite Varieties: Apples - Stark, Spartan and Carters Blue

Rachel and Sam Kedem *Treasurer, Board Member* Elected to OFGA Board 2019
 Sam Kedem Nursery, Hastings, MN
 Favorite Varieties: Regent, Haralson and Sweet Tango

Liz Griffith Elected to OFGA Board 2020
 Door Creek Orchard, Cottage Grove, WI
 Favorite Varieties: Apple - Belle de Boskoop, Crimson Crisp and Blushing Golden

Don Albrecht Elected to OFGA Board 2015
 Albrecht's Nursery, Chippewa Falls, WI (term expiring)
 Favorite Varieties: Apple – William's Pride, Kinderkrisp and Golden Russet

Dan Shields Elected to OFGA Board 2016
 Stone Creek Farm, Shafer, MN
 Favorite Varieties: Plum – Black Ice, Superior and Elephant Heart; Peach – Diamond

Lisa Rettinger Elected to OFGA Board 2020
 Grandview Orchard, Antigo WI
 Favorite Varieties: Apple – Wealthy, McIntosh (fresh picked), Haralson

OFGA's Board needs you!

We are looking for two new OFGA board members. The board meets quarterly or more frequently as needed. Joining the board helps you connect with other organic fruit growers and is an opportunity to help shape OFGA. If you are interested or want to nominate someone please contact John Knisley at johnknisley@ymail.com.

Organic Control of Canada Thistle in an Apple Orchard

By Chris McGuire, Two Onion Farm, twoonionfarm@gmail.com

We raise organic apples on our farm in Lafayette County, southwest Wisconsin. Our trees are on dwarfing rootstocks and we rely on a thick, 4-6 inch layer of hardwood bark mulch to control weeds in the tree row. Mulch works well for controlling annual weeds, but perennial weeds which spread underground can sometimes establish in the mulch and form dense patches. Of these weeds, Canada thistle has been the most troublesome in our orchard.



It spreads via deep underground roots which are impossible to remove from the soil without uprooting nearby apple trees. As organic growers, we have no systemic herbicide which will kill Canada thistle with a single spray. For many years we chopped down thistle patches under our trees several times each growing season, but the weed persisted and patches expanded.

Research has showed that it's possible to eradicate thistle by repeatedly killing Canada thistle shoots on three week intervals. This gradually exhausts the plant's underground

stored resources. We wondered if this would be true in our orchard, and if so, how we could fit this task into our busy farm schedules. In 2019-2020, we received funding from a USDA-SARE Farmer Rancher grant to evaluate organic methods for killing Canada thistle shoots. Our goals were to determine whether killing shoots every three weeks would actually eliminate the weed, and if so, to determine what was the most economical and effective method for killing the shoots.

We performed the project in an orchard block with trees at 6 x 10.5 foot spacing and a 5.5 foot wide strip of bark mulch under the tree row. We evaluated four different methods for killing the shoots: (1) hand-pulling, (2) slicing off the shoots at ground level with a diamond hoe, (3) cutting the shoots as low as possible with a gas-powered string-trimmer, and (4) spraying the shoots with Avenger Weed Killer, an OMRI-listed, non-systemic herbicide. Each of the four methods was performed in two ways: in our standard bark mulch and in areas where we applied a layer of recycled cardboard mulch underneath the bark, thus making eight treatments in total. We thought that the cardboard might reduce thistle emergence and lessen the time required to kill shoots. Each of the eight treatments was performed for two years on 14 different plots in our orchard. We counted the number of thistle shoots in each plot every three weeks, right before killing the shoots, and we measured the time and materials costs for applying the different treatments.

All the methods of killing shoots were extremely effective. Near the beginning of 2019 we counted 1329 thistle shoots in our plots; by the end of 2019 there were 5, and by the end of 2020 none remained. We had expected some decrease in the population, but the speed of the decrease was surprising – and gratifying! We observed several important differences between the treatments:

Thistle density declined to zero in all plots, under all treatments. However, the decline in June and early July of 2019 was much more rapid in plots with a layer of cardboard mulch underlying the bark. By August 2019, thistle counts were similar in all treatments. Accordingly, the time required to kill shoots was less in cardboard-mulched plots in early 2019.

Of the four shoot-killing methods, string-trimming and hoeing were least expensive, costing \$2.11 and \$2.64 per tree over the two years of the study. These costs include labor and operating expenses but not upfront costs to purchase tools. “Cost per tree” means the cost to perform the treatment in the 6’ x 5.5’ area under one tree, for two years. Hand-pulling was most time-consuming and treatment and was expensive (\$4.96 per tree) because of high labor costs. Spraying actually required the least time, but was the most expensive method (\$7.86 per tree) because of the high cost of the spray product. Although cardboard mulch reduced the time needed for killing shoots, it did not save money because the time required to lay the mulch was greater than the subsequent time savings.

It is possible to eradicate Canada thistle with a rigorous schedule of killing the growing shoots every three weeks. Of the methods we tried, we favor hoeing with a diamond hoe. String-trimming was somewhat faster and less expensive according to our data, but it does have several disadvantages which we did not quantify, including occasional damage to trunk guards, noise, fumes, vibration, and annoying maintenance issues. In addition, we observed that string trimming was ineffective against low-growing weeds, such as dandelion and crabgrass, which sometimes occur in our orchard, whereas hoeing can be used to control most other weeds in addition to thistles.

A detailed report of our results is available online at www.twoonionfarm.com/research/ and I am happy to answer questions by email: twoonionfarm@gmail.com.

Disclaimer: This product was developed with support from the Sustainable Agriculture Research and Education (SARE) Program, which is funded by the U.S. Department of Agriculture – National Institute of Food and Agriculture (USDA-NIFA). Any opinions, findings, conclusions, or recommendations expressed within do not necessarily reflect the view of the SARE program or the U.S. Department of Agriculture. USDA is an equal opportunity provider and employer.

Greetings from UW's new extension fruit crops pathologist

Hello Organic Fruit Grower's Association! My name is Leslie Holland and in August 2020, I started my new position as the extension fruit crops pathologist at UW. It's great to be in Wisconsin. I grew up in Ohio but spent my college and graduate school application out west, where I completed my BS at New Mexico State university, my MS at Washington State university, and my PhD at UC Davis. My research background is the etiology and management of fungal canker diseases in grapes and almond. I am excited to continue my research and extension activities in fruit crops at UW-Madison, and I look forward to working with growers throughout the state.



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Considerations for Organic Apple Disease Management

by Leslie Holland, UW Extension Fruit Crop Pathologist

Spring is around the corner which means it is time to put all that winter planning into practice this growing season! Good disease management programming is a multi-pronged and year-round practice. Below are disease management considerations for five major apple diseases (apple scab, fire blight, powdery mildew, bitter rot, sooty blotch & flyspeck) focusing on pre-harvest and post-harvest cultural practices.

Apple Scab

Apple scab is caused by a fungal pathogen (*Venturia inaequalis*). It is one of the most important apple diseases everywhere apples are grown. The pathogen infects leaves and fruits of susceptible varieties and can cause defoliation, necrotic spots, and reduce quality for storage. The pathogen persists (overwinters) on leaves and apples on the orchard floor. If apple scab is an issue in your orchard consider several pre-harvest management practices. If planting or replanting first, make sure your site is sunny, with good air flow, well-drained soil, and good soil fertility. Select scab resistant cultivars (see resources link at end of article for list of apple varieties based on susceptibility to different diseases). Pruning can be used to reduce canopy moisture and allow better coverage of organic spray products. Reduce the amount of wet fruit at harvest to reduce the risk for scab disease in storage.

There are several mechanical or physical approaches that can be used to reduce the apple scab fungus in your orchard. During dormancy, pruning infected one-year-old woody shoots can help reduce overwintering conidia (fungal spores of the pathogen). Remove leaf litter from the orchard is critical for apple scab! This is the best way to reduce the pathogen inoculum in the orchard. Fallen leaves in the fall contain the fungal fruiting bodies which can overwinter and cause new infections the following season.

Hand thinning of clustered fruit can also reduce disease incidence by allowing for better coverage of control products.

Powdery Mildew

Powdery mildew is caused by a fungal pathogen (*Podosphaera leucotricha*). Infection can result in considerable losses, and fruit infection causes russetting which decreases fruit quality. The pathogen overwinters as mycelium in dormant buds, and in the spring attacks young leaves, blossoms, fruit, and shoots. For issues with powdery mildew, the selection of resistant apple varieties is the first line of defense. See the link below regarding disease resistant apple varieties. Monitor your plant nutrition programs as excess application of nitrogen can increase shoot infections. Dormant pruning of terminal shoots to reduce overwintering fungal mycelium can help reduce infections. Complete removal of shoots is not economically feasible in large orchards, but small and young orchards can greatly benefit from this practice.

Fire Blight

Fire blight is caused by a bacterial pathogen (*Erwinia amylovora*); it is a destructive disease. Infection disrupts the vascular system and can kill blossoms, fruits, shoots, limbs, and the trunk of trees. There are several important pre-harvest practices for managing fire blight. If planting or replanting, make sure your site is sunny, with good air flow, well-drained soil, and good soil fertility. Select fire blight resistant varieties and fire blight resistant rootstocks. For a list of resistant varieties and rootstocks visit [Cornell University's Fire Blight Susceptibility page](#). Inspect trees from the nursery for any signs of infection (watery ooze on trunk or branches, dark streaks on trunk or branches, water-soaking on bark). Keep a close eye on nutrient management, too much nitrogen can increase the risk of shoot infections by causing succulent, susceptible growth. Use adequate tree spacing to reduce tree stress.

In the winter, prune out infected branches to reduce primary inoculum sources i.e. cankers. Dormant pruning of infected branches, twigs, woody shoots, and root suckers as they can serve as sources of inoculum for new infections. Sterilize pruning tools in between cuts. Prune in dry weather. Prune at least 10-12 inches into the healthy tissue (past the edge of cankers) to ensure adequate removal of infections. Dispose of infected plant tissue – do not keep in or near the orchard. Before bloom, scout for active fire blight cankers. Remove alternative hosts of the fire blight pathogen, as they can serve as sources of inoculum for new infections – examples include plants in the Rose family – serviceberry (*Amelanchier* spp.), hawthorn (*Crataegus* spp.), quince (*Cydonia* spp.), blackberries and raspberries (*Rubus* spp.)

Bitter Rot

Bitter rot is caused by fungal pathogens (*Colletotrichum* spp.). The fungi can overwinter in fallen fruit, dried fruit attached to the tree (mummies), and in dead wood. No cultivars are resistant to bitter rot, but selection of cultivars that are not highly susceptible to bitter rot will help reduce the impact of this disease. If planting or replanting, make sure your site is sunny, with good air flow, well-drained soil, and good soil fertility. Scout throughout the season for infected fruit and remove immediately. Remove

branches and shoots with mummified fruit or cankers. Infected fruits and cankers should not be disposed of in or near the orchard. Use adequate tree spacing to reduce tree stress.

Sooty Blotch and Flyspeck (SBFS)

Sooty blotch and flyspeck are caused by numerous fungi. They are common in humid areas and can cause russetting and reductions in external fruit quality. For cultural management of SBFS, pruning can reduce canopy moisture and allow better coverage of organic spray products. For Flyspeck - remove alternative hosts as they can serve as sources of inoculum for new infections, example: *Rubus* spp. Remove clustered fruit by hand thinning; clustered fruit creates a favorable microclimate for SBFS infection.

Things to Remember:

- Use disease resistant varieties and rootstocks – this is your first and best line of defense, especially in places with high humidity.
- Sterilize pruning tools in between cuts with 70% ethanol or a 10% bleach solution.
- Do not prune in wet weather!
- Crop protection agents (ex. OMRI-approved fungicides) are necessary in addition to cultural control practices, to manage disease in organic apple orchards. Application of these agents should depend on:
 - Phenological stage of apple cultivar
 - The target disease
 - Weather conditions
 - Orchard history
 - Availability of equipment

Scout early and often (weekly)! A good scouting program will help you catch and diagnose a problem and take corrective action.

Helpful Resources and References:

- Disease Susceptibility Rankings of Apples (Cornell, Khan Lab): <https://blogs.cornell.edu/applevarietydatabase/disease-susceptibility-of-common-apples/>
- Network for Environment and Weather Application (NEWA) – <http://newa.cornell.edu/>
 - Models for apple scab, fire blight, and sooty blotch/flyspeck
- Disease Diagnostics – UW-Madison's Plant Disease Diagnostic Clinic
- Submit samples for diagnosis: <https://pddc.wisc.edu/> Compendium of Apple and Pear Diseases [Digital](#) or [Print](#)



Partnership Update

By Diana Shipman, Director, Volunteer Program

Volunteer opportunities are available through ACDI/VOCA, an OFGA organizational partner. This USAID sponsored farmer to farmer program seeks to foster connection and information exchange to support emerging farmers and agribusinesses in the Eastern Caucuses and Central Asia. Due to the pandemic ACDI/VOCA is implementing remote paired assignments. US farmers and agribusiness specialists are paired with local volunteers in the same industry to collaborate and provide trainings on a variety of topics. The volunteers meet and share information using Zoom, WhatsApp, email, etc. Additionally, ACDI/VOCA field office staff in the Republic of Georgia, Armenia, Kyrgyzstan and Tajikistan will provide support to translate materials or serve as an interpreter on calls if needed. The total time commitment from US volunteers is anticipated to be about 5-7 days spread over 2-3 weeks. Please visit www.acdivoca.org/volunteer to learn more and view all current opportunities.

Here is a sample of current opportunities

Tajikistan: Greenhouse Lemon Production

ACDI/VOCA is currently seeking a Greenhouse Specialist for an upcoming volunteer assignment in Tajikistan. Local farmers are requesting volunteer assistance to learn best practices in growing Meyer Lemons in a greenhouse. The selected volunteer will help the host farmer manage temperature, understand grafting and best fertilization methods, among other topics.

<https://volunteeropportunities-acdivoca.icims.com/jobs/5755/tajikistan--greenhouse-lemon-production/job>

Georgia: Tangerine Orchard Specialist

ACDI/VOCA is currently seeking a Citrus Specialist for an upcoming volunteer assignment in the Republic of Georgia. The host farmer has 10 hectares of tangerine trees and they would like a specialist to review their current production methods and offer suggestions for improvement.

<https://volunteeropportunities-acdivoca.icims.com/jobs/5713/georgia--tangerine-orchard-specialist/job>

Armenia: Fruit Orchard Management

ACDI/VOCA is currently seeking a Fruit Orchard Specialist for an upcoming volunteer assignment in Armenia. Local farmers are requesting volunteer assistance to improve their understanding of proper pruning practices for their trees growing apricot, plum, peach, apple and almonds.

<https://volunteeropportunities-acdivoca.icims.com/jobs/5754/armenia--orchard-management%2c-ashnak/job>

Upcoming Events

Saturday, March 6th, 9 am to Noon.

Organic Apple Tree Management, Virtual Workshop

The [Cider Farm's](#) Deirdre Birmingham is presenting at the Organic Apple Tree Management workshop hosted by the [Michael Fields Agricultural Institute](#). If you are curious about apples and orchard management, sign-up! This workshop will focus on organic apple tree management in the Upper Midwest. Applications will be mostly geared toward backyard growers but some commercial management considerations will be touched on.

OFGA Micro Field Days and YouTube Farm Tours

With the uncertainty of COVID-19 restriction OFGA is planning on hosting smaller, shorter, socially responsible local field days in different areas this summer. We will also be offering a couple of virtual farm tours either through zoom or shared through YouTube in the next couple of months. Stay tuned. There will be more information on the way.

About OFGA



The Organic Fruit Growers Association is a not-for-profit organization formed exclusively for charitable, scientific and education purposes. We share information and encourage research to improve organic production and marketing of fruit and represent the interests of organic fruit growers.

For more information, contact coordinator Amy Bacigalupo at ofgacoordinator@gmail.com

Visit OFGA on our website at <https://www.organicfruitgrowers.org/>

Or on Facebook at <https://www.facebook.com/organicfruitgrowers>