

NORTHERN MICHIGAN FRUITNET 2018
NORTHWEST MICHIGAN HORTICULTURAL RESEARCH CENTER
Weekly Update

FruitNet Report – February 9, 2018

CALENDAR OF EVENTS

3/7 NW MI AGRICULTURE LABOR MEETING
NWMHRC, 9AM – 4:30PM
Please contact Jenn at 231-946-1510 or goodr100@msu.edu by March 1, 2018 to register.

What's New?

- **Welcome to the 2018 Agricultural Labor Meeting Theme: All things considered – Agenda**
- **How did SweeTango and Red Delicious apples respond to Promalin after the 2017 spring frost?**
- **How did Rome apples respond to Promalin after the 2017 spring frost?**
- **Esfenvalerate is losing its efficacy against oriental fruit moth in Michigan**

New Articles

Welcome to the 2018 Agricultural Labor Meeting Theme: All

things considered – Agenda

March 07, 2018

NW MI Horticulture Research Station 6686 S Center Hwy, Traverse City MI 49684

Moderator: Emily Pochubay, MSU Extension

- 9:00 am **National Farmworker and Immigration Update**
Brandon Fewins, *Senator Debbie Stabenow*
Eric Keller, *Senator Gary Peters*
Melanie Collingsworth, *Representative Jack Bergman*
- 9:30 am **Jobs and Recruiting – How do I find workers? Who do I contact if I can't find them?**
Laurie Swanson, *Great Lakes Ag Labor Services, LLC*
Kevin Benson, *Migrant Services Worker, Talent Investment Agency*
- 10:30 am **Break:** Thank you to MSU Extension for providing coffee and snacks
- 10:40 am **Human trafficking on farms, immigration compliance and legal updates**
Hillary Scholten, *Michigan Immigrant Rights Center*
- 11:10 am **Making your farm attractive to workers**
Dr. Nikki Rothwell, *MSU Extension and AgBioResearch*
- 11:25 am **How to be a more attractive employer and get the workers needed**
Gladys M. Muñoz, B.S, MSA, *Justice and Peace Advocacy Center (JPAC), Executive Director and co-founder*
Luke Bakker, *Reliant Ag Labor Contractor*
- 11:35 am **Farm worker housing – what if I don't have housing, what can I do? How to make the housing you do have easier to manage**
Ginger Bardenhagen, *Michigan Department of Agriculture and Rural Development (MDARD) Migrant Labor Housing Inspector*
- 11:45 am **Childcare and education for farm workers' children**
Ashley Harma, *Traverse Bay Area Intermediate School District Migrant teacher*
Carolina Tabora or Dee Fisk, *Telamon Migrant Head Start*

- 12:00 pm **Lunch:** Provided by Ethnic Catering and sponsored by Crop Production Services (CPS) and the Northwest Michigan Horticultural Research Foundation with support from the Grand Traverse Regional Land Conservancy
- 12:45 pm **Food Safety Modernization Act (FSMA): Produce safety, worker health and hygiene**
Chris Olsen, *Grand Traverse Conservation District*
- 1:30 pm **Burning and waste management at the camp and on the farm**
Dan Busby, *Michigan Department of Agriculture and Rural Development, MAEAP Verifier*
- 1:45 pm **Pesticide applications, the Application Exclusion Zone, and worker housing; Michigan Agricultural Environmental Assurance Program (MAEAP) waste management**
Eric McCumber, *Michigan Department of Agriculture and Rural Development (MDARD) Pesticide and Plant Pest Management Inspector*
Lizzy Freed and Lauren Silver, *Michigan Agriculture Environmental Assurance Program Technicians, Grand Traverse Conservation District*
- 2:30 pm **Break**
- 2:40 pm **Services for farm workers lighting talks**
Ester Paredes, *Department of Health and Human Safety*
Beatriz Cruz, *Traverse Bay Area Intermediate School District*
Lady Palmer, *Community Health Worker Northwest Michigan Health Services Inc.*
Gladys M. Muñoz, B.S, MSA, *Justice and Peace Advocacy Center (JPAC), Executive Director and co-founder*
Kevin Benson, *Migrant Services Worker, Talent Investment Agency*
Liz Ham, *Benzie Area Christian Neighbors*
Egan McGlynn, *The Laundry Project*
Mary Stanton, *Leelanau Christian Neighbors Director*
- 3:50 pm **Supporting agriculture via public education and advocacy**
Marian Kromkowski, *President, League of Women Voters Leelanau County*
Suzanne Hoff, *League of Women Voters Leelanau County*

Barb Krause, *League of Women Voters Leelanau County*
Christi Bardenhagen, *League of Women Voters Leelanau County*

4:15 pm **Closing comments**

4:30 pm **Meeting concludes**

*Registration is required, free of charge and includes lunch catered by Ethnic Garden Catering. To register, please contact Jenn Zelinski at 231-946-1519 or goodr100@msu.edu by **March 1, 2018**.*

Thanks to Crop Production Services (CPS) and the Northwest Michigan Horticultural Research Foundation with support from the Grand Traverse Regional Land Conservancy for sponsoring lunch and MSU Extension for providing coffee and snacks.

How did SweeTango and Red Delicious apples respond to Promalin after the 2017 spring frost?

Results of a common post-freeze practice on commercial SweeTango and Red Delicious apples in 2017.

Posted by [David Jones](#), Michigan State University Extension, MSUE News

Promalin, manufactured by Valent BioSciences, is commonly used by apple growers after freeze events that occur during bloom to promote fruit set from damaged flower tissue that would not otherwise survive to set a crop. This product contains two distinct gibberellic acids, GA-4 and GA-7, as well as a cytokinin, 6-Benzyladenine. These three plant growth hormones are designed to promote various elements of cellular division in plant tissues, leading to higher survivorship of freeze-damaged blossoms.

While this product has been on the market for over 20 years, the unpredictable nature of spring freezes makes replicable study on the outcomes of this product difficult. As a result, we have only scattered experiences as an industry in understanding how this product behaves on specific apple varieties, and what degree growers can expect to see benefit based on the severity of the freeze event.

Following the freeze events during bloom on May 8 and 9, 2017, this product was used by many Michigan growers in efforts to combat damage to the apple crop. Following these applications, four apple varieties at commercial sites in west central Michigan were followed through the growing season and compared with controls at the same locations to measure effects on fruit set, diameter, mass, color, russet, seed count, average seed number and incidence of parthenocarpic fruit. [Rome](#), [Idared](#), Red Delicious and SweeTango were the selected varieties.

This three-part [Michigan State University Extension](#) article series summarizes the results for the varieties, in addition to a brief synopsis of the environmental conditions during and immediately after the freeze events. To read the summaries of the other varieties tested, see "[How did Rome apples respond to Promalin after the 2017 spring frost?](#)" and "[How did Idared apples respond to Promalin after the 2017 spring frost?](#)"

Red Delicious

On May 8, the nearest [MSU Enviroweather](#) station to this site recorded 8 hours below freezing with a minimum temperature of 23.2 degrees Fahrenheit. On May 9, another 5 hours below freezing was recorded with a minimum temperature of 26.8 F. Promalin was applied at the site at pint per acre in the morning on May 10. Following the application, daily high temperatures rose to 68.4 F on May 10, 70.3 F on May 11 and 68.7 F on May 12.

One hundred percent of control and 90.5 percent of Promalin-treated blossoms were damaged on Red Delicious at this site. No fruit set at the site in either the control or treatment groups. In this situation, the level of damage on this variety was likely too great for Promalin to have any effect. No product can save a flower that has been killed outright by a frost, and always keep this in mind if freeze events are severe.

SweeTango

The same MSU Enviroweather station applied to the SweeTango site; on May 8, we recorded 8 hours below freezing with a minimum temperature of 23.2 F. On May 9, another 5 hours below freezing was recorded with a minimum temperature of 26.8 F. Promalin was applied at pint per acre in the morning on May 10. Following the application, daily high temperatures rose to 68.4 F on May 10, 70.3 F on May 11 and 68.7 F on May 12.

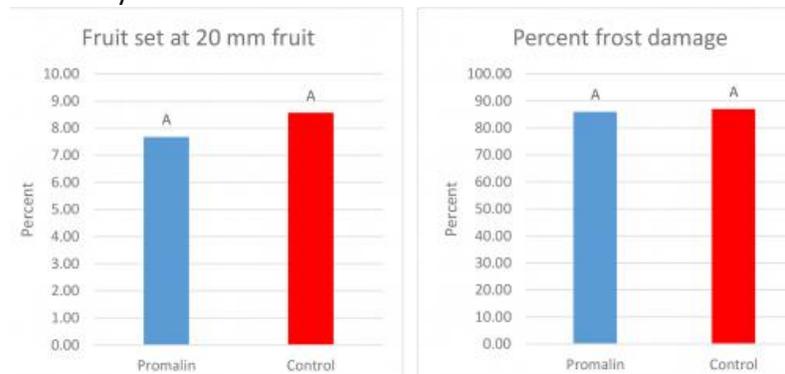


Figure 1: Fruit set (total flowers divided by counted fruitlets after bloom) and percent frost damage to flowers.

There was no statistical difference in fruit set at 20 millimeter fruit, but the control group (8.6 percent) showed a slightly higher percentage of successful fruit set than the Promalin treated group (7.8 percent). Frost damage was the same across treatment trees.

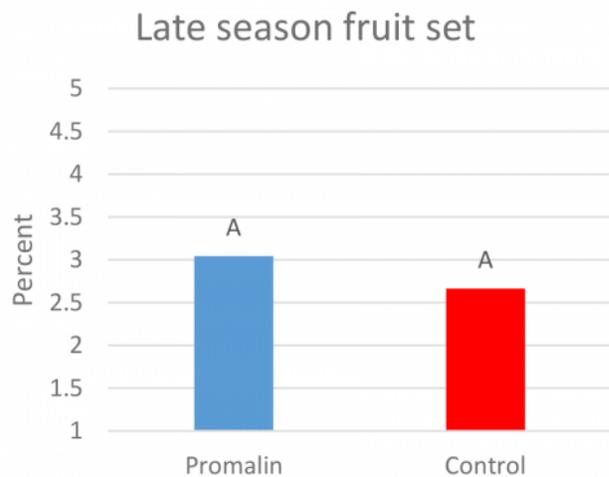


Figure 2. Late season fruit set (total set fruits on measurement branch divided by initial number of flowers). *Independent t-test, $p>0.05$.*

In spite of having slightly higher fruit set at 20 millimeter fruit, the control group fell below the Promalin group in fruit set by late July. While the difference was not significant, it matched the results seen in Idared and Rome with a small numerical increase in fruit set. However, the observed increase on SweetTango was less than 1 percent and cannot be considered significant.

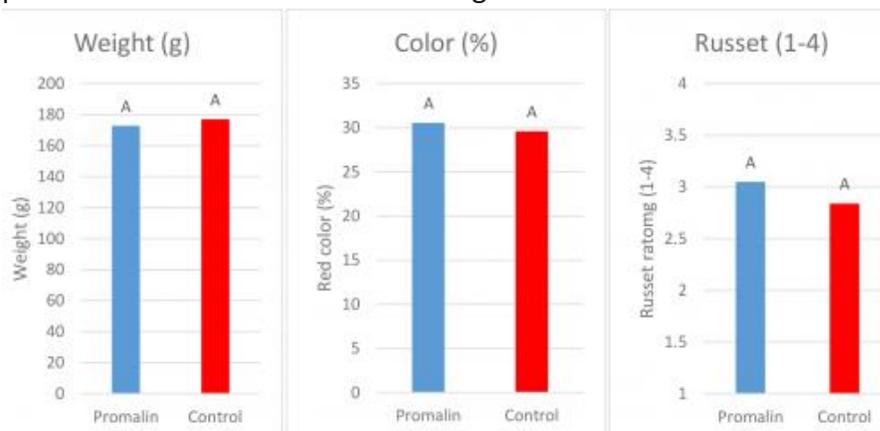


Figure 3. Weight (g), color (%) and russet rating at harvest for control and treatment groups. *Weight, color, and russet: independent t-test, $p>0.5$.*

No difference in the weight, color or incidence of russet was recorded between SweetTango treatments. While very slight numerical differences were measured, difference were not statistically significant.

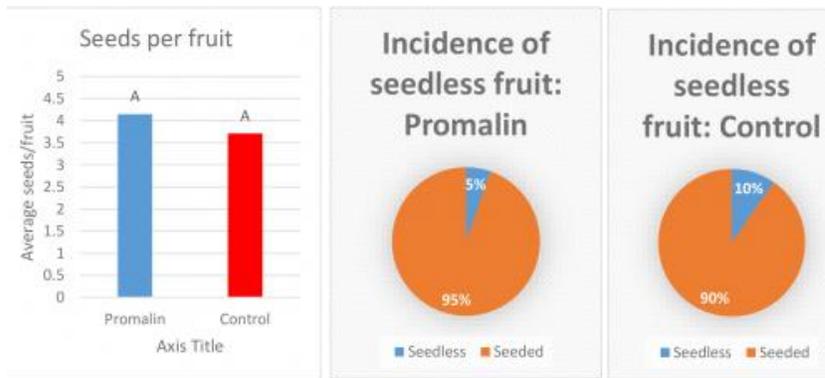


Figure 4. Average seeds per fruit and incidence of parthenocarpic fruit in control and treatment groups. *Seeds per fruit: independent t-test, $p > 0.05$.*

No significant difference in average seeds per fruit was recorded between control and treatment groups. Promalin-treated fruits had slightly more seeds per fruit numerically, but the difference was not significant. Incidence of seedless fruit was higher by 5 percent in the control group than the Promalin treatment group.

Summary

The results for Red Delicious and SweeTango highlight one of the chief grower frustrations with using this product in a challenging year: Achieving positive results are not always certain and can be difficult to quantify. There were no measurable differences in any major fruit quality or yield category in this particular trial for SweeTango, and applying it made no difference, numerical or statistical, at our trial site on Red Delicious. While Promalin remains an important tool for farmers to consider in post-frost situations and has been demonstrated to help alleviate frost damage in many situations, there are many considerations that factor into the decision to use it. Is the apple variety high in value? Is the possibility of a potentially small yield increase worth trying for based on the cost of the product and potential return? Are all of the blossoms dead prior to the application? Can you rely the product to deliver on an increase in yield consistently? Further examination of this product on different varieties and under different environmental parameters is clearly needed based on the variability observed this season. It is clear we still have much to learn about the response of various varieties and the role that duration and severity of the freeze event and subsequent weather play on setting fruit.

Other articles in series

- [How did Rome apples respond to Promalin after the 2017 spring frost?](#)
- [How did Idared apples respond to Promalin after the 2017 spring frost?](#)

How did Rome apples respond to Promalin after the 2017 spring frost?

Results of a common post-freeze practice on commercial Rome apples in 2017.

Posted by [David Jones](#), Michigan State University Extension, MSUE News



Frost damage and initial fruit set. Healthy (top) and damaged (bottom).

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On May 8, the Rome sites used for these trials recorded 5 hours below freezing with a minimum temperature of 23.2 degrees Fahrenheit. On May 9, another 5 hours below freezing was recorded with a minimum temperature of 28.5 F. Promalin was applied at 1 pint per acre in the morning on May 10. Following the application, daily high temperatures rose to 66.1 F on May 10, 64.4 F on May 11 and 64.4 F on May 12.

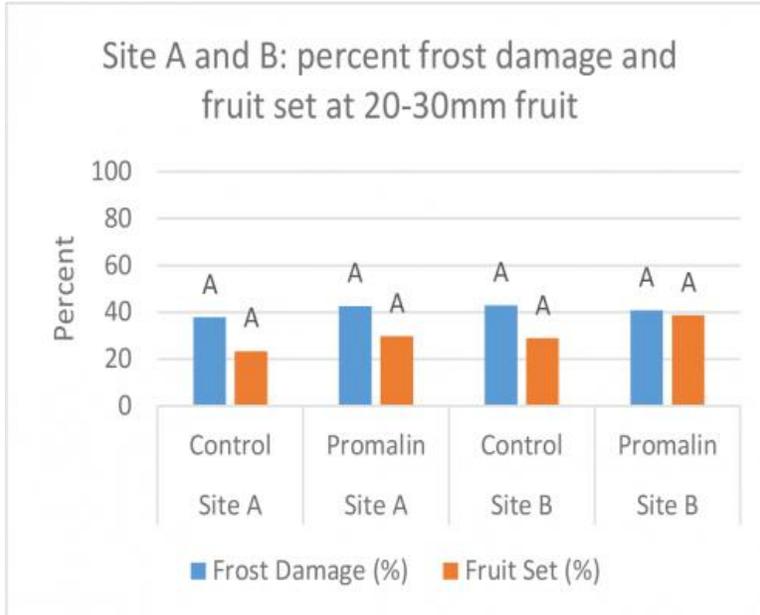


Figure 1. Percent frost damage and fruit set at sites A and B. ANOVA: $p > 0.05$.

Frost damage was measured on all varieties by cutting open all blossoms on 10 randomly selected branches for each site and treatment, and dividing the number with visible browning of the ovary tissues by this total blossom number. Frost damage was uniform at sites A and site B, indicating any difference observed in fruit set was not due to differences in initial frost damage.

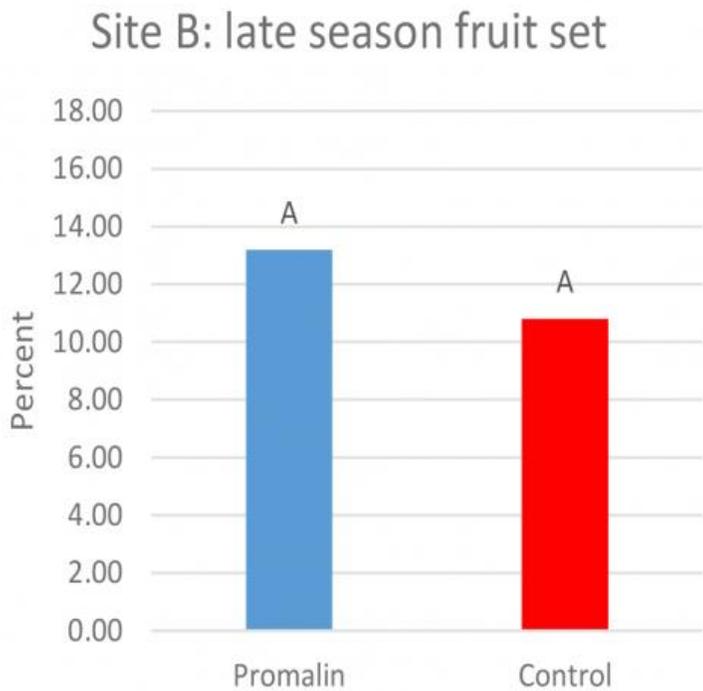
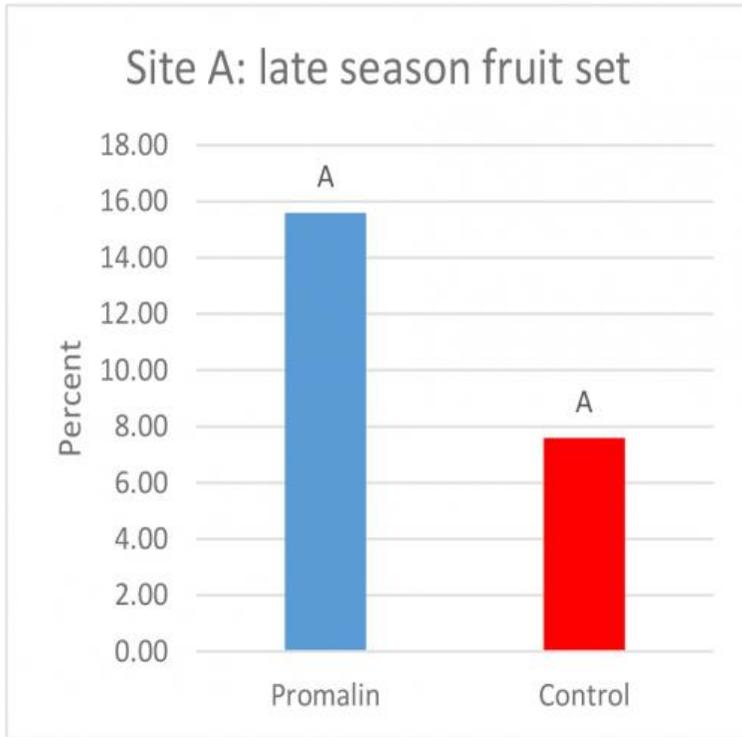


Figure 2. Fruit set on July 25. Site A and B: independent t-test, $p > 0.05$.

There was a numerical increase in fruit set in Promalin treated Rome at sites A and B. This slight increase is not statistically significant, but was frequently observed over the scope of this work in other varieties. The increase in yield/branch in Rome had high variability, but was typically between 3 and 8 percent on average. However, this very slight increase highlights one common grower comment from this season—it could often

be hard to tell by a simple visual analysis if there was a difference between treated and non-treated areas.

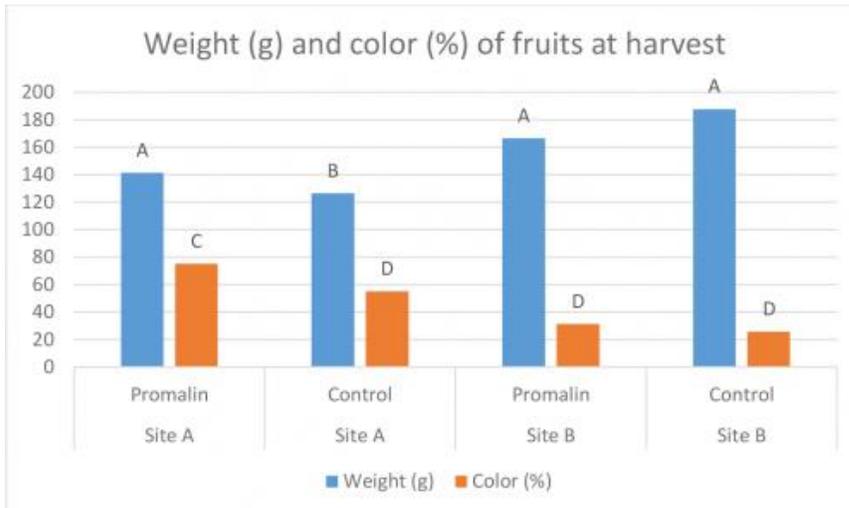


Figure 3. Fruit weight (g) and color (%) in control and treatment groups. Site A, weight and color: $P < 0.05$, independent t-test. Site B, weight and color: $P > 0.05$, independent t-test.

Mean weights for Promalin-treated fruits were higher at site A. While a slight numerical decrease was noted in mean weights at site B, it was not significant. Promalin fruits were more highly colored at site A, while no difference was observed at site B. While results were variable, there was no apparent negative effect of this product on weight or color at either site.

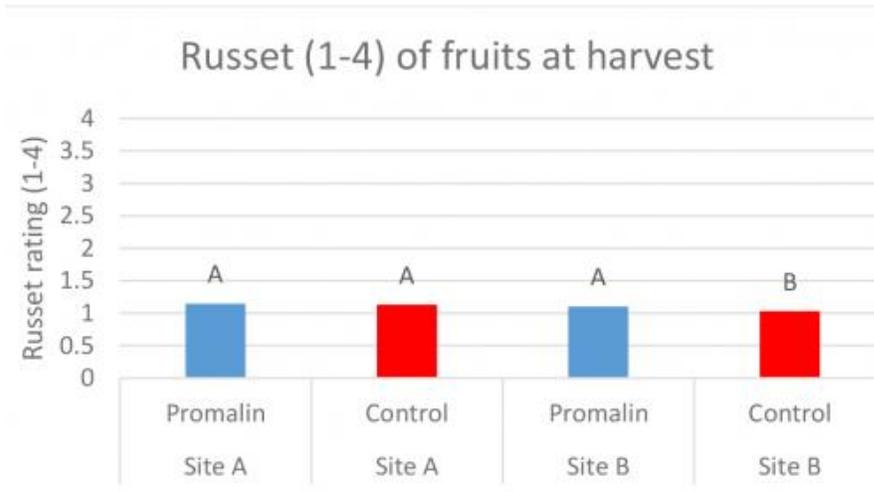


Figure 4. Average fruit russet in control and treatment groups. Site A: $P > 0.05$, independent t-test. Site B: $P < 0.05$, independent t-test

Promalin-treated fruit scored numerically higher in russet rating at both sites, although only one site was significantly different from the control. However, no treatment group averaged higher than 1.5 out of four on the russet scale. Fruit russeting was generally minimal on this variety regardless of treatment group.

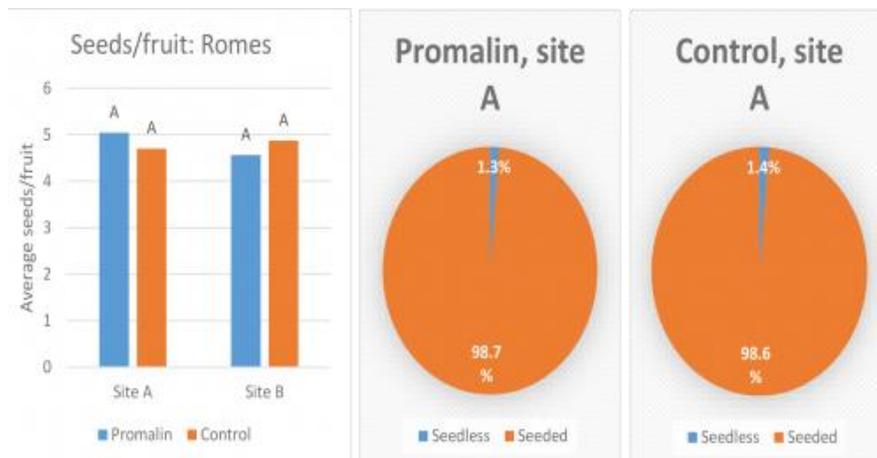


Figure 5: Average seeds/fruit in control and treatment groups and proportion of seedless fruit at site A. (Site B's seed count results nearly identical, data not shown). Site A and Site B average seed per fruit: independent t-test, $p>0.05$. Incidence of seedless fruit: independent t-test, $p>0.05$.

There was not a significant difference in the number of seeds per fruit between the control and Promalin-treated fruits at either site. Individual fruits were also no more likely to be seedless when treated with Promalin.

Summary

Promalin resulted in a slight numerical increase in fruit set at both sites (slightly higher yield/branch), but these differences were not statistically different from controls. Promalin application at these sites did not result in significantly different fruit mass or color at harvest, although it did result in more fruit russetting at one site.

Promalin also did not increase the average number of seeds per fruit or the incidence of seedless (parthenocarpic) fruit set at either location in Rome. This finding is contrary to the common grower perception that any increase in yield when using this product is due to the setting of larger numbers parthenocarpic fruit. The Promalin-treated fruits of this variety were no more likely to be seedless than those in the control group.

In general, using Promalin on Rome at these sites did not result in any major negative responses in size, color or weight of harvested fruits. However, there was also not a very strong positive yield response to the product in Rome at these sites either. Average yield increase was less than 5 percent across the two sites, and had high variability.

A grower in this situation may not have viewed the application to have rendered much economic benefit. However, this result is not to say that Promalin application would not be warranted on this variety: Further study of post-freeze applications is still needed. The environmental conditions during and after the freeze play an important role that can be difficult to quantify.

Other articles in series

- [How did Idared apples respond to Promalin after the 2017 spring frost?](#)

- How did SweeTango and Red Delicious apples respond to Promalin after the 2017 spring frost?
-

Esfenvalerate is losing its efficacy against oriental fruit moth in Michigan

Research conducted in 2017 provides new information on the use of esfenvalerate to manage oriental fruit moth.

Posted by David Jones, and Bill Shane, Michigan State University Extension, and David Mota-Sanchez, MSU Department of Entomology



Peach shoot damage and fruit ooze from oriental fruit moth damage. Photo by Dave Jones, MSU Extension.

Oriental fruit moth, *Grapholita molesta*, is a common insect pest in Michigan peach and apple orchards. In peach orchards, this moth causes damage to the shoots in the early season and fruits following shuck split. Oriental fruit moth has three generations per season, and peach growers must time effective insecticides to target the peak flights of the pest. Historically, the pyrethroid class of insecticides has been a popular choice in Michigan peach orchards because of their high efficacy, broad spectrum of activity and

low cost.

However, following heavy damage to Michigan peach orchards during the 2016 growing season in spite of management with these products, many peach growers began to suspect resistance to the pyrethroid class of insecticides could be developing. In 2017, Michigan State University conducted insecticide bioassays on field-trapped adult oriental fruit moth collected from peach orchards in west central and southwest Michigan. Groups of oriental fruit moth were exposed to three concentrations of esfenvalerate. Esfenvalerate is the active ingredient in the widely used pyrethroid insecticide for oriental fruit moth, Asana, and its generic equivalents.

Unfortunately, 2017 results indicate this material is no longer a good choice for managing oriental fruit moth. Mortality in field-collected males to esfenvalerate was less than 50 percent in all test groups, and fell as low as 13 percent in some treatments. Avoid depending on products with esfenvalerate for managing oriental fruit moth if you are in regions where pyrethroid insecticides have been routinely used on apples and peaches. Data on other pyrethroid insecticides is not yet available.

Pyrethroid insecticides have value for managing other insects such as tarnished plant bug, and there is some evidence that resistance of oriental fruit moth to pyrethroids declines when other effective insecticides are included in rotation. MSU will continue studies on oriental fruit moth susceptibility to this product and other pyrethroid materials in 2018.

Summarized below are the non-pyrethroid insecticide options to pick from when considering future management plans for this insect pest.

Non-pyrethroid insecticides registered for managing oriental fruit moth.			
Compound trade name	Chemical class	Effectiveness	Residual activity
Imidan	OP	Excellent	14 days
Exirel	Diamide	Excellent	10-14 days
Altacor	Diamide	Excellent	10-14 days
Delegate	Spinosyn	Excellent	7-10 days
Assail	Neonicotinoid	Excellent	10-14 days
Rimon	IGR	Excellent	10-14 days
Voliam Flexi	Premix	Excellent	10-14 days
Intrepid	IGR	Good	10-14 days
Diazinon	OP	Good	10-14 days
Avaunt	Oxadiazine	Fair	7-10 days
Lannate	Carbamate	Fair	7-14 days
Sevin	Carbamate	Fair	7-14 days
Esteem	IGR	Fair	7-10 days

Other insecticides with pyrethroid class active ingredients are also likely at risk at this time. While data on additional products will be coming in 2018, use caution with the products on the table below. Note that the rating label on all these products is “excellent,” but based on recent data there is some doubt on their accuracy.

Pyrethroid-based insecticides registered for managing oriental fruit moth.			
Compound trade name	Chemical class	Current labeled effectiveness rating	Residual activity
Danitol	Pyrethroid	Excellent	7-10 days
Lambda-Cy	Pyrethroid	Excellent	7-10 days
Baythroid	Pyrethroid	Excellent	7-10 days
Perm-Up	Pyrethroid	Excellent	7-10 days
Leverage	Premix	Excellent	10-14 days
Endigo	Premix	Excellent	10-14 days
Voliam Xpress	Premix	Excellent	10-14 days

MSU Extension suggests deploying mating disruption for oriental fruit moth in peach orchards to help combat the pest. Populations of oriental fruit moth in many areas of the state are very high at this time, and deploying this strategy will help curb population growth in orchards. Do not be discouraged if high populations of oriental fruit moth persist for a year or two after you begin using this practice; the oriental fruit moth populations likely took several years to get this high and may take time to go back down again.

Deploying effective insecticides timed with peak flights along mating disruption will help peach growers get back to a reasonable management scenario for this pest.

Articles featured in past FruitNet Reports

Watch the 2017 Spotted Wing Drosophila Summit Presentations Online

Did you miss the Summit? View presentations online!

Spotted wing drosophila continues to be a top priority of Michigan’s cherry industry. To provide the industry with the most up-to-date SWD information, MSU Extension and the Cherry Marketing Institute hosted the 2017 Spotted Wing Drosophila (SWD) Summit in late November. Growers, consultants, industry representatives, and researchers attended this day-long summit to learn about the accomplishments of the SWD Task Force’s recent grant funded research – topics included SWD monitoring, insecticide testing,

orchard modifications to reduce SWD populations in orchards, winter morphs, and on-farm management programs.

If you missed this important meeting, video recordings and PowerPoints of presentations of select presentations are now available online at http://www.canr.msu.edu/nwmihort/nwmihort_resources_and_reports#2017SWD.

Shining a light on agricultural solar energy development

Meetings designed to assist farmers in understanding solar lease agreements and the implications on property rights and taxes / March 8 in Traverse City



Since the first part of the year, solar companies have been actively contacting farm owners in an effort to secure land for solar energy projects. This is in response to the Michigan Public Service Commission raising the avoided cost of electricity to 9.5 cents per kWh. At this rate, solar projects are profitable. The new tariff on imported solar modules will most likely have little effect on this activity. The prevailing industry thought is that the cost of a solar project will probably increase 10 to 15 cents per dc watt, which puts projects at about the same cost as they were in September 2016, a banner year for solar projects.

The real issues that need to be addressed are local government zoning provisions and the tax implications if a farmer chooses to sign a lease agreement for a solar project. In an effort to help farmers understand the renewable energy landscape, nuances of solar leases, zoning considerations and accompanying tax implications, MSU Extension and Michigan Farm Bureau are holding programs for farmers at various locations around the state. MSU Extension staff with lease agreement, tax and zoning expertise will provide the educational content. Farmers who participate in the programs will leave with valuable, practical knowledge they can use to determine if a solar lease agreement is a sound decision for themselves and their community. The program will cover the following topics:

- The context for solar energy development on Michigan farmland
- A community vision for solar energy systems
- Zoning approaches for solar energy
- Siting considerations for utility-scale solar
- Integrating solar with existing ag systems
- Understanding solar energy lease agreements
- Taxation guidance including the impact on PA 116

Meetings will be held around the state on the following dates and locations:

- March 7 - Powers
- March 8 - Traverse City
- March 13 - Big Rapids

- March 14 - Frankenmuth
- March 15 - Tecumseh
- March 21 - Ionia
- March 22 - Three Rivers

All programs run from 10 a.m. - 2:30 p.m., except for Tecumseh, which begins at 10:30 a.m. (doors open for all other locations at 9:30 a.m.).

To register for a meeting or for further information, go to <https://events.anr.msu.edu/shine>. The registration deadline is midnight Sunday, March 4. The registration fee is \$20/person because of the generous financial support provided by Michigan Farm Bureau. Preregistration is required and registration will not be available onsite.

If you have questions about the agriculture solar leasing meetings or would like more information on energy efficiency practices or renewable energy projects, feel free to contact Charles Gould at 616-994-4547 or gouldm@msu.edu.

4-H Tractor Safety Registration Now Open!

Teens can improve their chances of employment by completing a tractor safety training. MSU Extension will host a **4-H Tractor Safety Program** for 14 and 15-year-old youth on **Wednesdays, April 4, 11, 18, 25 from 6-8:30 pm** at the NW Michigan Horticultural Research Center, (between Suttons Bay and Traverse City, Michigan in Leelanau County).

The written and driving **test** will be held on **Saturday, May 5 from 8:30am – 2:30pm**.

Participants must attend all five sessions to become certified. The cost is **\$85 per student**, which includes the \$20 4-H participation fee, classes, manual, certificate and lunch on test day. Some scholarships are available if finances are an issue. Youth must be 14 years of age by June 1, 2018. Space is limited. The registration deadline is March 23, 2018.

Registration is online only in a two-step process. First, register and pay at <https://events.anr.msu.edu/TractorSafety2018/>, and second, become a 4-H member and create a profile online at www.4honline.com. For more information, contact **Rosali Collier** Leelanau County 4-H Program Coordinator at collierr@anr.msu.edu or 231-256-9888.

Learn About Emerging Tools for Visualizing, Mapping and Managing Land in Michigan

Wednesday, February 21, 2018
6:30 – 8:30PM

Boardman River Nature Center Community Room
1450 Cass Road, Traverse City

A presentation by Trevor Hobbs, owner of Contour Geographic LLC for landowners, foresters, ecologists, conservationists, or anyone with a love for maps, land information, geography, geology and local natural history.

This presentation will focus on two mapping technologies that are rising in popularity and use in Michigan: LiDAR and UAV photogrammetry. LiDAR (which stands for “Light Detection and Ranging”) detects the shape of the terrain and the 3D composition of forests in unprecedented detail. The technology allows us to see very subtle glacial landforms and patterns on the landscape, which were not possible to visualize before – even from the ground with your own eyes. In addition to LiDAR, the rising use of the Unmanned Aerial Vehicles (UAVs or “drones”) has presented conservationists and land owners with new opportunities to map land and natural resources in even higher detail than LiDAR – simply by collecting a series of overlapping photos. With recent advances in digital image processing, aerial photos can be turned into accurate maps and 3D models of landscapes, forests, dunes, rivers – almost anything. Topics to be presented on include:

- Forest inventory and mapping
- Coastal dune monitoring
- A tour of glacial features in NW Lower Michigan
- Soils as seen from above
- Maps for landowners
- Presenting a few Forest Atlas for NW

This program has been reviewed and is approved for professional CFE credits by the society of American Foresters for 1.5 Category 1 credits. Cost is \$10/person due by February 19 by contacting klong@leelanaucd.org or 231-256-9783.

MSU Extension programs and material are open to all without regard to race, color, national origin, gender, gender identity, religion, age, height, weight, disability, political beliefs, sexual orientation, marital status, family status, or veteran status. Michigan State University is committed to providing equal opportunity for participation in all programs, services and activities.

WEB SITES OF INTEREST:

FARMER TO FARMER - CONNECTING FARMERS, CULTIVATING COMMUNITY

<http://www.f2fmi.com>

Insect and disease predictive information is available at:

<http://enviroweather.msu.edu/homeMap.php>

This issue and past issues of the weekly FruitNet report are posted on our website:

http://www.canr.msu.edu/nwmihort/nwmihort_northern_michigan_fruit_net

60-Hour Forecast:

<http://www.agweather.geo.msu.edu/agwx/forecasts/fcst.asp?fileid=fous46ktvc>

Information on cherries:

<http://www.cherries.msu.edu/>

Information on apples:

<http://apples.msu.edu/>

Information on grapes:

<http://grapes.msu.edu>