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Calendar of Events

MFGC Board Meeting
June 2014
TBD

2014 Board of Directors:

- Donny Marvaso - President
- Bill Tuinier - Vice-President
- Dick Derks - Secretary/Treasurer
- Andy Buist
- Paul Karlovich
- Ken Tuinier
- Dennis Crum
- Erik Runkle - Educator Appointee
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- Mike Faber - Allied Trade Appointee
- Mark Watkins- MDFGA Appointee
- Scott Stiles - WMGA Appointee
- Policy Chair - Bill Tuinier
- Membership Chair - Ken Tuinier

MAEAP Certified Members

- Great Lakes Greenhouses - Kalamazoo
- GreenDorr Greenhouse - Dorr

Dear Member,

Most of you are very busy immersed in the spring season and gearing up for May sales. We wish you the very best as we come out of a difficult winter. You will find in this newsletter several articles of value to help with your business.

The board of directors is planning a membership meeting for June and we will have that information to you soon. This meeting will take place on the west side of the state.

Many of you have experienced a dramatic increase in your recent natural gas bills. We are working with the Attorney General on this issue and with those of you who have submitted you bill. If you have been impacted with this high increase and feel there may be price gouging, please contact Val at the MFGC office.

Happy spring!

Sincerely,

Dominic Marvaso
President



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Protecting Pollinators in the Yard and Garden David Smitley, Michigan State University, April 3, 2014

Why are some people concerned about bees and other pollinators? Beekeepers in Europe and North American have faced some difficult problems in the last 20 years, including a parasite of bees called the Varroa mite and Colony Collapse Disorder—a disorder in which bees seem to mysteriously disappear over a short period of time. Initially, the decline in health of bee colonies in general, and specifically Colony Collapse Disorder, was suspected to be associated with the use of insecticides on agricultural crops, especially in Europe. Extensive research on Colony Collapse Disorder suggests that the most important causes of this syndrome are a bacterial disease of bees and several bee viruses.

At this time insecticide use is NOT considered to be a primary cause of Colony Collapse Disorder, but it may be a contributing factor.

Are flowers, shrubs and trees purchased at a garden center safe for bees and other pollinators?

There does not appear to be any reason to think that flowers, trees and shrubs grown in nurseries and greenhouses for garden centers have any connection to the decline of managed honey bee colonies. In fact, planting flowers or encouraging wild flowers helps bees.

What are neonicotinoid insecticides?

Neonicotinoids are a group of insecticides with a chemical structure that is similar to nicotine. They have been used extensively in agriculture and in yard and garden products.

1) They are more selective (e.g. they have greater toxicity to insects than with mammals), and are less harmful than most of older classes of insecticides.

2) They are usually systemic. They can be absorbed by the roots and move through the entire plant. The most widely used neonicotinoid insecticide, imidacloprid, is less toxic to people than caffeine, and about twice as toxic as ibuprofen.

What can I do to protect bees and other pollinators in my yard and garden?

People that would like to protect pollinators in the yard and garden should avoid spraying open flowers with any insecticide with the exception of *B.t. (Bacillus thuringiensis)*. Horticultural oil and insecticidal soap can also be used on cool mornings (< 50° F), after sunset, or at any time that bees are not present because the spray residue is not toxic to bees. Soap and oil can cause some plant injury, especially to open flowers. Plants that need to be protected against damaging insects by using a conventional insecticide should be sprayed after petal-fall (after the plant is done blooming), or after removing the flowers.

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Nutritional problems on geraniums

In the last few weeks, several growers have contacted us about leaf discoloration on geraniums, especially the purpling of lower leaves.

[Erik Runkle](#), Michigan State University Extension, Department of Horticulture



Caliente geranium showing the purpling of lower leaves that can be caused by low temperatures and insufficient phosphorus. Photo credit: Tom Dudek, MSU Extension

Geraniums are one of the most commonly produced floriculture crops this time of year, but recently [Michigan State University Extension](#) specialists have received several inquiries from growers about their geranium crop. The most common symptom reported is a purpling of the lowest leaves, while in other cases marginal chlorosis or necrosis is reported.

Lower-leaf purpling

The two most common causes of purpling of the lower leaves are excessively low growing temperature and phosphorus deficiency. In some cases, the leaves can even turn a bright magenta color. Crops grown cool, or less than 55 degrees Fahrenheit, for a period of time can develop such symptoms. Little or no phosphorus can also cause the purpling of foliage. If you've been using a fertilizer with little or no phosphorus, especially if the media EC is low or less than 1.0, there's a good chance you need to provide more fertilizer. With the extremely cold weather, it's also possible the plants have been kept too cold for too long. If the growth rate is slow, increase the temperature to 60-65 F.

Marginal leaf chlorosis or necrosis

There are several potential causes of this symptom which is the yellowing or browning of the edge of leaves, including drought stress, excessively high salts where EC is greater than 2.5, potassium deficiency and nitrogen deficiency. A nitrogen deficiency can also cause a purpling of the leaf veins. Leaf yellowing can also be caused by insufficient micronutrient fertility, such as low sulfur, iron or zinc.

When a nutritional problem is suspected, test the pH and EC of the growing media. Recommended pH values are 6.0 to 6.4 for zonal geraniums and 5.5 to 6.0 for ivy and regal geraniums. The substrate EC should generally be between 1.0 and 2.0. If outside that range, adjust your fertility program or acid injection to get within those targets. Also, collect and send a media sample for nutritional analysis, including macro- and micro-nutrients. You may also want to contact an [MSU Extension educator](#) or [MSU Diagnostic Services](#) for advice and possible additional testing.

There are two good online resources about geranium nutrition and deficiency symptoms. These resources can certainly help you identify the problems, although a media test is still encouraged.

- [Geranium nutrient deficiencies: A visual primer for grower diagnosis and correction](#): An article in the OFA Bulletin by Jonathan Frantz and colleagues at the USDA-ARS. This article includes a diagnostic key for identifying nutritional deficiencies, as well as good photos of individual nutrient deficiencies.
- [Fertility management for geraniums](#): An online resource from Brian Whipker of North Carolina State University. This webpage provides desirable substrate nutrient levels for geraniums as well as leaf tissue analysis standards.

This article was published by [Michigan State University Extension](#). For more information, visit <http://www.msue.msu.edu>. To contact an expert in your area, visit <http://expert.msue.msu.edu>, or call 888-MSUE4MI (888-678-3464)

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Take advantage of recent MSU research and treat impatiens now to prevent downy mildew

Greenhouse growers who grow bedding impatiens or double impatiens from cuttings are reminded to apply recommended fungicides to prevent downy mildew this season. Key changes for the 2014 spray guidelines based on MSU studies are presented.

by [Tom Dudek](#), Michigan State University Extension, and Mary Hausbeck, Michigan State University Extension, Department of Plant, Soil and Microbial Sciences



Underside of an impatiens leaf covered with downy mildew sporangia. Photo credit: Mary Hausbeck, MSU

Greenhouse growers have started seeding impatiens and transplanting them into flats, pots or baskets. Also, double impatiens are being rooted and transferred to their final container. According to [Michigan State University Extension](#), the time is right for growers to protect their impatiens by applying fungicides that target downy mildew.

Recommendations have been developed based on research by MSU Plant Pathologist [Mary Hausbeck](#), and her greenhouse research team. Many greenhouse and landscape studies have been conducted over the past two years. **PLEASE NOTE:** As a result of 2013 research trials and grower input, the 2014 downy mildew recommendations have been altered from last year. Below is a conservative example of a fungicide program that has been designed to ensure Michigan's impatiens are free of downy mildew.

2014 Greenhouse Downy Mildew Fungicide Recommendations

1. First Application

Subdue MAXX (1 fl oz/100 gal) + **Alude** (12.75 fl oz/100 gal) drench.

Treat soon after plants received unless propagator has treated just before shipment.

2. One week later

Adorn (1 fl oz/100 gal) drench.

3. One week later

A strobilurin (**Compass O** or **Disarm** or **Fenstop** or **Heritage** or **Insignia** or **Pageant**) spray, using high label rate + mancozeb (e.g. **Protect DF**) as a tank mix.

4. One week later

Segway (2.1 fl oz/100 gal) spray or ***Vital** (1.25 pt/100 gal)/**Alude** (12.75 fl oz/100 gal) drench. (*Vital and Alude are labeled for application as a foliar spray for downy mildew and as a drench for Phytophthora/Pythium; MSU studies indicate that only drenches at the high labeled rate are effective for downy mildew control.)

5. One week later

Orvego (11-14 fl oz/100 gal)/**Stature SC** (6.12 fl oz/100 gal) spray or **Micora** (4-8 fl oz/100 gal) spray.

6. Repeat # 3, 4, 5 at one-week intervals, as needed. Add mancozeb (Protect, etc.) to any treatment if desired for Alternaria leaf spot control.

Last application, shortly before shipment: Subdue MAXX (1 fl oz/100 gal) + **Adorn** (1 fl oz/100 gal) drench.

Follow all label instructions and note warnings; local restrictions may apply. Product names are given for information purposes only and are not an endorsement, nor is any criticism implied of products not mentioned.

Key elements of the 2014 suggested impatiens downy mildew fungicide program

For 2014, the first application could be **Subdue Maxx** alone this year or combined with Alude and applied as a drench. MSU research has indicated that some stunting and flower delay can occur when **Adorn** is applied to very young impatiens. **Adorn could** be applied alone at the 1 oz. rate as a second application treatment as noted above.

MSU research conducted during the past two years has shown favorable results when the **last fungicide that was applied** to impatiens shortly before shipment or sale to the final customer was the **Subdue Maxx plus Adorn** drench, as noted above. MSU research with impatiens treated with this combination drench just prior to planting in the *landscape showed that the impatiens were free of downy mildew for up to 12 weeks.*

Growers should treat impatiens plugs or pre-finished material immediately upon receiving it or confirm that they were treated with effective fungicides prior to being shipped to your greenhouse.

If you have further questions, please contact the authors or your local [Michigan State University Extension greenhouse educator](#).



Downy mildew-infected impatiens showing leaf abscission. Photo credit: Mary Hausbeck, MSU

This article was published by [Michigan State University Extension](#). For more information, visit <http://www.msue.msu.edu>. To contact an expert in your area, visit <http://expert.msue.msu.edu>, or call 888-MSUE4MI (888-678-3464).

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MSU Extension Educator Tom Dudek and MFGC Board Member Mike Faber speak with Governor Snyder during Ag Day at the Capitol

Reminder

The MFGC office is now located at: 235 N. Pine St., Lansing, MI 48933

When sending communication, it is important to use the new address. The PO Box has been closed.