



MFGGC UPDATE

For members of the Michigan Floriculture Growers Council

Summer Greetings,

The Michigan Floriculture Growers Council takes pride in the activities of 2016 and would like to share with you a brief list of benefits MFGC members have received thus far.

Monthly UPDATES: Newsletters that provide concise coverage of current events affecting our greenhouse businesses.

Regional Meetings: Giving members a firsthand presentation of activities and issues, as well as an opportunity to network. On June 27, members met at Micandy Gardens Greenhouse in Hudsonville for a tour and legislative discussion with the staff of Congressman Huizenga and Senator Stabenow. We also heard from USDA NASS on the results of the greenhouse survey and Mike Bryan, Nursery and Export Program Specialist with MDARD Pesticide and Plant Pest Management Division.

Legislative Activities: MFGC members delivered plants to legislators for Ag Day at the Capitol to raise awareness of the importance of Michigan's floriculture industry. MFGC members also joined other Michigan agriculture groups with booths in the Capitol hallways, to show our products, share our message and educate legislators on the impact the floriculture greenhouse businesses have on the Michigan Economy.

Our legislative team meets with legislators on a regular basis to keep them abreast of important news and needs of the industry, as well as, attend legislative committee hearings and meetings.

Industry Funding: As the industry association, MFGC is qualified to write/present grant proposals on behalf of the industry. Some successes have been the grant funding for the pollinator research, Specialty Crop Block Grant for the greenhouse survey and Make it a Real Michigan Christmas campaign - to name a few. We are currently working on a proposal to study the needs and feasibility of creating a recycling cooperative for MFGC members. We will keep you informed of the progress.

Your 2017 membership renewal will be mailed the 1st of August. We respectfully ask that you renew your membership and join with your peers to help make our businesses better.

On behalf of the board of directors, we thank you in advance for your membership renewal. We are dedicated to continued growth to keep MFGC a strong, sustainable voice for Michigan's floriculture industry. The MFGC board looks forward to another productive year in 2017 and the opportunity to serve your interest.

Sincerely,

Bill Tuinier, President



MICHIGAN FLORICULTURE GROWERS COUNCIL WEBSITE DIRECTORY

Please take a moment and complete the information below as this will be your listing on the website directory. The website is complete and ready for unveiling with the exception of a few members' directory information.

Company Name: _____

Contact Name: _____

Phone Number: _____

Email: _____

Distributions

- Retail
- Wholesale

Other

- Educator
- Student
- Friend of Industry

Products

- Spring Annuals
- Perennials
- Florist Pot Crops
- Vegetables/Herbs
- _____
- _____

Special information: _____

(Please return this form with your membership renewal to: MFGC, 235 N. Pine Street, Lansing, MI 48933)

Membership renewals are being mailed this week!

Meeting Recap

We had a great meeting at Micandy Gardens in Hudsonville.
Thank you to all who attended.



Thank you to the Buist family and Micandy Gardens for their great hospitality!

Which Pollinator Terms Appeal Most To Consumers?

Posted By: [Carol Miller](#)



When it comes to which terms most influence garden customers, more general terms like "pollinator friendly" have a bigger impact on which plants they buy, a recent study by University of Florida Institute of Food and Agricultural Sciences researchers says.

The researchers, postdoctoral research associate Alicia Rihn and assistant professor Hayk Khachatryan, wanted to know how labels such as "pollinator friendly" would influence consumer attitudes.

"We wondered, which pollinator insect-related labels are the most effective, and which do consumers prefer?" Khachatryan says. "At the time of our study, these topics had not been addressed."

The researchers surveyed more than 900 people from across the country who recently bought plants and measured their responses to several pollinator labels. [The study appears in the journal HortScience.](#)

"When developing these test labels, we wanted a variety of options - some that were pollinator specific (for example, 'bee attractive,' 'bee friendly,' 'butterfly friendly,' etc.) and others that were more general (for example, 'pollinator attractive,' 'pollinator friendly,' 'plants for pollinators')," Khachatryan says. "By covering both levels, we could determine if people were interested in helping pollinators (in general) or just specific types of pollinators ('bees' versus 'butterflies')."

The researchers found that people preferred general labels over specific ones, "pollinator friendly" being the most preferred overall.

Given recent media coverage of bee health and population decline, the authors anticipated more interest in bee-related promotions. However, consumers preferred "pollinator friendly" labels over more specific bee-related labels.

"These results indicate that people want to benefit and attract all types of pollinators, not just insect pollinators," Khachatryan says. For example, hummingbirds are pollinators but not insects. A catch-all phrase, such as "pollinator friendly," lets retailers promote a plant in terms of its total - rather than specific - benefits to pollinators.

The study suggests that pollinator promotions could help plant nurseries and retailers build consumer satisfaction and trust.

"Providing consumers with a product they support and want to purchase in order to do their part and help the pollinators is one way that companies can better serve their clientele," Khachatryan says. "In turn, this has potential to increase the availability of pollinator friendly plants in the landscape and assist in improving pollinator health."

Producing Nursery and Greenhouse Plans in Michigan that are Safe for Pollinators

Principal investigator:
Dr. David Smitley
Michigan State University
Department of Entomology

Two field experiments were designed to test the impact of imidacloprid drenches applied to greenhouse or nursery plants on bumble bees after plants are sold. Also, a third experiment was conducted to determine how long before shipping should growers avoid a foliar spray of a standard insecticide in order to avoid leaving harmful residues on flowers. Results are shown in graphical or table form, along with an explanation of the experiments and results.

1. Impact of an imidacloprid basal drench applied to annual flowers grown in 12" pots on bumble bees. One popular cultivar each of petunia, verbena, geranium, marigold, portulaca, salvia and begonia were grown in the greenhouse with standard production practices. At 5 weeks before the finish date, half of all the plants were drenched with imidacloprid at the labeled rate. The remaining plants were drenched with water. One week after the finish date, four plants of each type were put into 16 different screen tents. Half of the tents were filled with imidacloprid-treated plants and half with control plants. One bumble colony was placed in each screen-tent. Bumble bee colonies were caged with treated or control plants for 3 weeks. After the exposure period, bumble bee colonies were moved to shelters and allowed to forage freely.



Results

The number of bees per colony declined in both treatments, but colonies in screen tents with imidacloprid-drenched plants declined more rapidly. Cold weather in early June when they first arrived was stressful for all the colonies. Also, in this experiment we marked and counted bees in a cold room (3°C) which may have suppressed larval development. Still, recovery from the screen-tent exposure period was better for colonies in the control treatment compared with the imidacloprid-drench treatment (Figure 1).

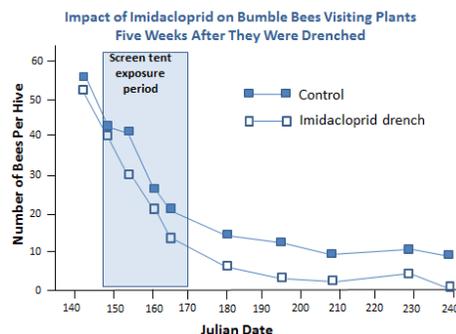


Figure 1. Survival of bumble bee colonies confined in screen tents with annual flowers for three weeks in June, 2015, then moved to shelters and allowed to forage freely. Each screen tent contained 12" pots previously drenched with imidacloprid or with water (Control). Data are means of eight colonies per treatment.

2. Impact of an imidacloprid basal drench applied to base of container-grown *Tilia* trees in early July 2014, on bumble bees caged with the same trees in June 2015. *Tilia americana* and *Tilia cordata* trees were grown in pot-in-pot containers at the Horticulture Farm at Michigan State University. Half of the trees received a basal soil drench of imidacloprid, applied at the labeled rate, in early July, 2014, after the trees had finished blooming and most of the flowers had dropped. The *Tilia* trees were moved into screen tents on June 15, 2015, when they first started blooming. One bumble bee colony was placed into each screen tent at this time, and remained in the tents for 10 days. Bumble bees were counted weekly or biweekly for the rest of the summer, until August 27th.



Results

Imidacloprid drenches made in early July 2014 had no impact on the number of bumble bees per colony throughout the growing season, or on the number of queens produced per colony (Figure 2). Control colonies averaged 7.8 new queens produced per colony at the end of the summer, while colonies in the imidacloprid treatment averaged 5.8 queens per colony

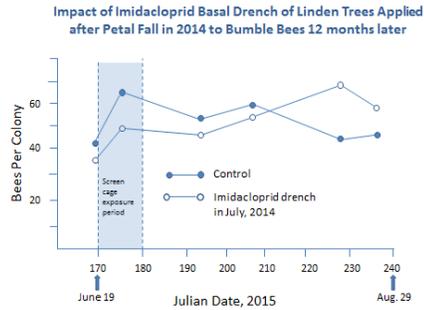


Figure 2. Survival of bumble bees after being caged with Tilia trees for 10 days in June, 2015, when the trees were blooming. Trees in the imidacloprid drench treatment were drenched in early July, 2014. Data are means of four colonies per treatment.

3. Determination of final date for applying a foliar spray of insecticide in the greenhouse without harming pollinators in the yard and garden after plants are sold. In a third experiment flowers were sprayed with imidacloprid at 1, 2 and 4 weeks prior to shipping. Analysis of dislodgable residues of imidacloprid suggest that sprays applied to flowers at 4 weeks or more before shipping will be safe for pollinators. Sprays applied at 1 week or less before shipping could be harmful to pollinators, and sprays applied at 2 weeks before shipping are mostly safe for pollinators, but it depends on the type of plant being sprayed.

Table 1. Results of experiment designed to determine the last safe date for spraying plants with imidacloprid, or other insecticides toxic to bees, before plants are shipped.

Weeks Before Shipping	Plant Type	Olefin (ppb)	Imidacloprid (ppb)*
1	Portulaca	70	110
1	Verbena	0	70
1	Salvia	20	200
1	Marigold	0	0.6
2	Portulaca	0	0
2	Verbena	30	430
2	Salvia	30	0
2	Marigold	0	0
4	Portulaca	0	0
4	Verbena	0	0
4	Salvia	0	0
4	Marigold	0	0

*Residue data were determined from a combined sample of four flowers collected from 10 different plants of each type, if enough flowers were present. If not, all available flowers were collected.

No dislodgable residue was detected on any plant type when flowers were sprayed 4 weeks before shipping (Table 1). All flower types except Verbena also appeared to have an insignificant residue when sprayed 2 weeks before shipping. Fairly high rates of residue were found on all plant types except marigold when sprayed at 1 week prior to shipping.

Conclusions from all experiments

A more rapid decline in colonies of bumble bees caged for 10 days with annual flowers in pots drenched with imidacloprid, compared with colonies caged with flowers soil-drenched with water, suggests that soil drenches of imidacloprid made in spring of the year that annuals or perennials are sold will be harmful to bees feeding on those flowers later in spring or summer.

Excellent survival of bumble bees after being confined with Tilia trees which had been treated the previous year in early July with an imidacloprid drench suggests that treatments made a year before trees are sold will not be harmful to bees. Good queen production in both treatments supports this conclusion. This experiment will help provide guidelines for nurseries. Imidacloprid applied as a soil drench to container-grown perennials, trees or shrubs are unlikely to be harmful to bees the following year after they are sold in garden centers.

The results of an experiment with four types of annual flowers indicates that annual flowers can be sprayed 3 or more weeks before the shipping date without leaving any residues on flowers that will be harmful to bees. This is because flowers were not yet present on plants three weeks before shipping, or if any flowers were present at that time, the same flowers were not present on the shipping date. As a general guideline, do not spray annual flowers with imidacloprid or any standard insecticide if flowers have already developed (even if they are not yet open).

As research continues on how to produce greenhouse and nursery plants that will be safe for pollinators after they are sold and planted in the yard and garden, it is becoming increasingly clear that growers should focus their efforts on plants that are highly attractive to bees. Many of the most popular annual flowers are not frequently visited by bees, and therefore production practices are not expected to impact bees. However many perennials, and some trees and shrubs are highly attractive to bees. For these plants it is important not to spray them with any insecticide the last three weeks before shipping, and to avoid soil applications of a systemic insecticide in spring of the same year that they are sold.

MAEAP Certified Members

Arborview Greenhouse, LLC * Deneweth Garden Center * Great Lakes Greenhouses
* Greendorr Greenhouses * Kalamazoo Specialty Plants, LLC * Ken's Greenhouse *
Micandy Gardens * Tom's Greenhouse * Westrate Greenhouse, Inc.



MFGC

235 N Pine St * Lansing, MI 48933

mifgc.org * msd@mifgc.org

(517) 367-2033