



Funding Generations of Progress
Through Research and Scholarships

Special Research Report #602: The Floriculture Industry Roundtable of the Midwest (FIRM) Specialty Research Report

Claudio Pasian¹, Luis Cañas², and Beth Scheckelhoff³

¹2001 Fyffe Ct., Columbus, OH 43210

²105 Thorne OARDC Wooster, Wooster, OH 43691

³OSU Extension Henry County, 104 E Washington St. Ste. 302, Napoleon, OH 43545

Current collaborators: Michelle Jones, Peter Ling, Francesca Peduto-Hand, Nancy Taylor, Tim Malinich, & Randy Zondag

Background

The Floriculture Industry Roundtable of the Midwest (**FIRM**) was established in 1994 (then called Floriculture Industry Roundtable of Ohio, FIROO). Presently, it is a consortium of Extension Specialists, educators, growers, diagnosticians, government and industry representatives from Ohio and nearby states. Since its inception, **FIRM** has served as an efficient communication channel for participants to introduce and exchange information, ideas, and solutions regarding current issues and challenges affecting the green industry businesses. **FIRM** has also served as a much-needed forum to disseminate research-based information directly to the industry via the methods described below. While **FIRM** has predominately involved participants from the Midwest Region of the US (including OH, MI, IL, IN, KY, KS), the extent of **FIRM**'s reach is not limited to this region.

Information Delivery and Industry Involvement

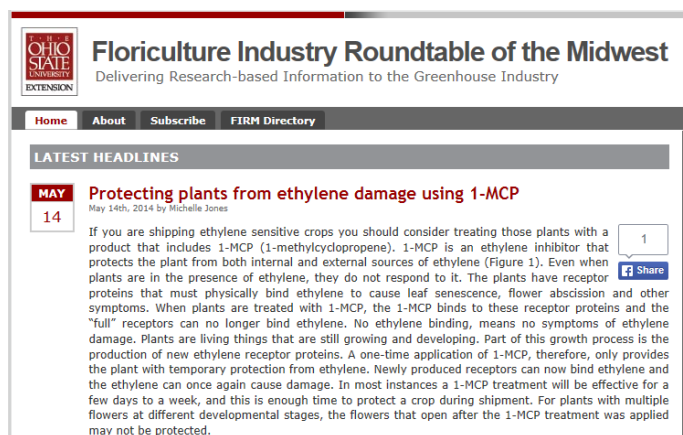
Team Meetings. **FIRM** members not only engage in monthly conference calls (previously by telephone and now via Adobe Connect) but also meet each year during the AmericanHort (formerly OFA) Short Course and Trade Show in Columbus, Ohio. The regular monthly calls enable participants to discuss issues and problems occurring in greenhouses across the region. This information often alerts other members and Extension educators to problems they may encounter during greenhouse visits or when speaking with growers. The call's interactive format allows members to share digital images, documents, presentations, etc., in real time utilizing Adobe Connect. This capability has enriched team discussions and improved the diagnostics of insect, disease, and other issues that require troubleshooting. The minutes from each conference call are prepared and distributed among **FIRM** members and they can be shared via various formats.

This regional sharing of information has been very beneficial to growers, in general, and, especially, the **FIRM** members. Over the years, **FIRM** has been an extraordinary communication tool for new faculty, e.g., Dr. Luis Cañas, Dr. Dennis Lewandowski, and Dr. Francesca Peduto-Hand and for Extension Educators. They have been able to gain knowledge the Midwest floriculture industry. In Ohio, County Extension Educators found the information helpful when visiting local greenhouses. It has also represented a means of getting advice from colleagues and Extension Educators from Ohio and beyond.

Floribytes. From 2006 to 2012, information was distributed via 20 issues of *FloriBytes*. This was distributed via e-mail to growers and via PDF file to Extension Educators and Specialists for use in their respective programs (e.g., newsletters, websites, etc.).

FIRM Blog and Facebook. In 2013, **FIRM** replaced the *Floribytes* newsletter with a blog format hosted by The Ohio State University at <http://firm.cfaes.ohio-state.edu/>. The blog allows team members to individually upload the content as it becomes available. It also serves as a searchable repository of research-based information for the industry. The blog enables **FIRM** to reach a greater number of growers than previous methods. The current analytics information indicates that while nearly 80% of the **FIRM** readership is from the U.S., the blog has been accessed from 40 different countries. To date, 900+ individuals subscribe to the blog and are notified via e-mail when new content is available online.

To further enhance **FIRM**'s social media presence, a Facebook page was created in 2014 to connect with the greenhouse industry and growers. Team members anticipate this to be a fruitful method of connecting the blog with Facebook and with younger members of the industry.



The goal of the **FIRM** blog is to provide research-based information to the greenhouse industry as it becomes available. Individuals that subscribe to the blog are notified via e-mail when new content is posted at <http://firm.cfaes.ohio-state.edu/>.

Extension Reloaded. **FIRM** has developed "Extension Reloaded", a hands-on program that enables Extension Educators, growers and industry representatives to openly tour greenhouse locations alongside Extension Specialists. Thus, learning from one another in a "real-world" environment. "Extension Reloaded" has served as a teaching tool for graduate students, providing them a great opportunity to become familiar with the floriculture industry and some of the most common problems faced by greenhouse growers. "Extension Reloaded" is generally delivered with the assistance of local Extension Educators and regional greenhouse associations. It has also been offered at the OFA Short Course and at Purdue University. Growers from a given area are informed of the tour schedule and are invited to visit each greenhouse location. While touring the location, Specialists capture images of the "good" and "needs improvement". Practices that they encounter throughout the day, and they

subsequently prepare a presentation that is used as a teaching tool. The entire group gathers for a meal or meeting following the tours and each. Specialist develop a presentation highlighting images from the tour that are familiar to the audience and provide insight and recommendations on why they are “good” or “need improvement”. In the past several years, “Extension Reloaded” has visited over 40 greenhouses in the greater Cincinnati, Cleveland, Columbus, and Toledo areas and reached over 800 growers via the tours and presentations.

Dealing with Disease Issues: The following is an example of how **FIRM** members recently engaged the Ohio floriculture industry on the topic of Impatiens Downy Mildew via programs, discussions, and grower tools. Drs. Pasian and Peduto-Hand presented talks to growers in Cincinnati, Columbus, and Medina (Cleveland area) on this important issue. Dr. Scheckelhoff worked closely with growers in Northwest Ohio to discuss the disease during grower meetings and develop retail information explaining the situation to consumers. Team members also made several visits to individual growers to scout, sample, and identify the presence of the disease. These efforts provided the necessary information that growers and retailers needed to make production decisions for 2013 and beyond using research-based information that could be shared with the general public.

In-service Trainings. **FIRM** offers in-service training programs for the increasing number of Extension Educators that are unfamiliar with greenhouse production practices. The most recent in-service was held in November 2013 at the Ohio Agriculture Research and Development Center (OARDC) in Wooster, OH. Seven educators were trained in various aspects of greenhouse production and were provided the opportunity to interact with Extension Specialists. The training sessions were recorded to be utilized in the future programs and also for educators that were unable to attend. In-service programs will be offered each year in varying locations to meet the needs and interest of Extension Educators.

Gus Poesch Funds

The Gus Poesch funds (See www.endowment.com) have been instrumental in insuring the success of **FIRM**. These funds cover the cost of Extension Educator and Specialist mileage to visit growers on “Extension Reloaded” tours and programs. Educators and Specialists routinely collect plant samples during greenhouse tours, and the funds are used to cover the diagnostic fees of these samples, especially with the outbreaks of *Xanthomonas*, Impatiens Downy Mildew, and Tobacco Mosaic Virus. These funds will continue to enhance the team’s ability to proactively identify and curtail industry problems.

Tools of the Trade. **FIRM** team members receive financial support (in the range of \$100 - \$200 per member) to purchase floriculture reference materials or inexpensive tools like portable pH and EC meters to be used in their programs. These are often utilized in grower visits, presentations, and “Extension Reloaded” programs throughout Ohio.



Dr. Francesca Peduto-Hand, Extension Specialist in Plant Pathology, discusses disease issues with an Ohio grower at Walter Krueger Greenhouses during an "Extension Reloaded" greenhouse tour.



Two former OSU graduate students (Nicole Waterland and Shaun Broderick) walking in the orchid production area at Green Circle growers during an "Extension Reloaded" tour.

iPads to enhance hands-on training. Some of the funds were used to obtain iPads that have been used to enhance hands-on learning experiences. In 2013, the iPads were used to present images of insect pests, and plant nutritional deficiencies at the OFA 2013 Greenhouse Learning and Diagnostics Tour. At the same time, participants compared the images with real specimens (insects) so they were able to identify the main characteristics of the pest. In the feedback of the tour, many participants liked the format and hands on approach. We will use a similar format during AmericanHort Cultivate 2014 meeting.



Dr. Luis Canas presented information about aphid management at the OFA 2013 Greenhouse Learning and Diagnostics Tour. The image above was presented on iPads to the participants and they were able to compare the image to real specimens before touring the Krueger-Maddux greenhouses in Indiana.



Dr. Claudio Pasian presented information about plant nutritional deficiencies at OFA 2013 Greenhouse Learning and Diagnostics Tour. The image above was presented on iPads to the participants before touring Krueger-Maddux greenhouses in Indiana.

Future Directions

The future success of **FIRM** depends upon the continued dedication and cooperation of team members and their involvement with the industry. The team recognizes the importance of balancing hands-on programs and traditional information delivery methods with technology and web-based communication tools. **FIRM's** future goals and direction include (1) Increasing the number of members involved in team activities, (2) Developing and delivering timely and relevant information to the industry via new and existing methods and programs, and (3) Training Educators and Specialists in all aspects of greenhouse production. These multiyear goals can be achieved in the following ways:

- Openly invite and encourage graduate students, faculty, Specialists, and county-based Educators that lack a specialization in floriculture to participate in **FIRM** activities and programs
- Develop fluid communication lines with growers in areas that do not have Extension Educators
- Schedule monthly conference calls to discuss current issues
- Post relevant, research-based information on the blog.
- Expand the audience and increase user interaction via the blog and Facebook page
- Increase the number of return users to the blog and Facebook sites. Currently, 56% of visitors return to the blog for additional information. We want the total number of users to increase over time.
- Monitor the pulse of the industry by gathering information and ideas on tours with growers
- Expand **FIRM** trainings to other state Extension services lacking in greenhouse expertise

2014, June © Copyright

American Floral Endowment

All Rights Reserved

For additional information contact Dr. Claudio Pasian at pasian.1@osu.edu.

The information contained in this report may not be reproduced without the written consent of the American Floral Endowment. For more information contact Debi Aker at (703) 838-5211.

American Floral Endowment

Phone: 703.838.5211

www.endowment.org

afe@endowment.org