

### The Floriculture Research Alliance: Making a Difference

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In the new economic climate, where will the next generation of floriculture graduate students and applied production research come from? Just as our industry is challenged with the need to cut costs and consolidate, similar pressures are facing universities. Faculty members are increasingly serving a considerably larger area than their state as horticulture departments downsize. Institutional support for each faculty member has eroded while research costs increase. For example, it can cost \$50,000 per year to fund a graduate student taking into account stipend, health insurance, tuition, travel, supplies, and technical and student assistance. That can add up to \$200,000 for each new Ph.D. who will enter our industry as a technical manager or professor!

*Ken Altman of Altman Plants hosting a Floriculture Research Alliance meeting at his nursery in Southern California.*



The good news is (1) research universities are increasingly coordinating their efforts; and (2) many forward-thinking firms are willing to invest in university research to benefit their own company and advance the broader industry as a whole.

One such collaboration is a team of floriculture faculty from universities across the U.S. who have formed a research cooperative called the Floriculture Research Alliance (FRA). This year, we're pleased to add Charlie Hall and colleagues at Texas A&M University to the FRA.

In the past, each of us has had a group of growers and/or horticulture supply companies that directly supported our research programs, such as the Young Plant Research Center, P3, Michigan State University Floriculture, University of Minnesota Floriculture Supporters, etc. These previous groups fit under the new umbrella and the cooperation between faculty and service to each group will increase. The result is a "win-win" for growers, faculty and the industry as a whole.

The universities and industry supporters in the FRA span the United States geographically and include indoor and outdoor producers. Universities in the FRA are listed in Table 1. Our collaboration is partly supported by the USDA Floriculture and Nursery Research Initiative, which is championed by the Society of American Florists, the American Nursery and Landscape Association and others.

Table 1. Universities and institutions in the Floriculture Research Alliance

University/Institution	Project Leader	Collaborators
Clemson University	Jim Faust	Scott Whiteside
Michigan State University	Erik Runkle	Ryan Warner, Kristin Getter
North Carolina State University	John Dole	Brian Whipker
Texas A & M University	Charlie Hall	Terri Starman
University of Florida	Paul Fisher	Rosanna Freyre
University of Minnesota	John Erwin	Neil Anderson, Chenyan Yue
USDA-ARS (Toledo, Ohio)	Jonathan Frantz	

A team of innovative, industry-leading companies (Table 2) provide input on our research priorities, are actively involved in on-site trials (for example, evaluating water filtration systems and water quality in multiple sites, PGR trials, etc.), and donate funds towards published research. Given that many technical experts are now in the industry, this leads to a lively idea exchange between the "ivory tower" and commercial reality. In some cases, projects are further leveraged by funding from granting agencies, including the aforementioned Floriculture and Nursery Research Initiative through the American Floral Endowment, the USDA Specialty Crop Research Initiative and state grower organizations.

Table 2. Companies currently donating funds to the Floriculture Research Alliance

AgriStarts (Apopka, Florida)  
 Altman Plants Inc. (Vista, California; Arizona; Florida)  
 A.M.A. Plastics (Ontario, Canada)  
 Ball FloraPlant (West Chicago, Illinois)  
 Ball Horticultural Company (West Chicago, Illinois)  
 Blackmore Co. (Belleville, Michigan)  
 C. Raker & Sons (Litchfield, Michigan)  
 Costa Farms (Miami, Florida)  
 D.S. Cole Growers (Loudon, New Hampshire)  
 Ecke Ranch (Encinitas, California)

Fides-Oro (Germany)  
Fine Americas, Inc. (Walnut Creek, California)  
Four Star Greenhouse (Carleton, Michigan)  
Greencare (Kankakee, Illinois)  
Henry Mast Greenhouse (Byron Center, Michigan)  
InnovaPlant (Costa Rica)  
James Greenhouses (Colbert, Georgia)  
Kalamazoo Specialty Plants (Kalamazoo, Michigan)  
Knox Nursery (Apopka, Florida)  
Kube-Pak (Allentown, New Jersey)  
Lucas Greenhouse (Monroeville, New Jersey)  
Metrolina Greenhouses (Huntersville, North Carolina)  
Pindstrup (Denmark)  
Pleasant View Gardens (Loudon, New Hampshire)  
Premier Horticulture (Quebec, Canada)  
Rockwell Farms (Rockwell, North Carolina)  
Quality Analytical Labs (Panama City, Florida)  
Sakata Seed America, Inc. (Morgan Hill, California)  
Smith Greenhouses, Inc. (Bellingham, Washington; Aurora, Oregon; Watsonville, California)  
Smithers-Oasis/Floralife (Kent, Ohio)  
Stacy's Greenhouses (York, South Carolina)  
Sun Gro Horticulture (British Columbia, Canada)  
Syngenta Flowers (Greensboro, North Carolina)  
Wagner's Greenhouse (Minneapolis, Minnesota)

## What we work on

The scope of our research spans from propagation of the seed or unrooted cutting through to a finished plant at retail. We're conducting experiments to improve resource use efficiency at each step of production and distribution in our globally connected industry.

For example, research at Michigan State University and the University of Minnesota on high-pressure sodium and/or LED lighting for photosynthesis and photoperiod control in young plant production will provide an energy-efficient means to produce high-quality rooted cuttings and seedling plugs. Research at North Carolina State University on plant growth regulators applied to bedding plants during finished production will evaluate the potential to reduce water use and improve post-harvest performance at retail.

Our results are presented at conferences throughout the U.S., as well as in article series in trade publications like *GrowerTalks*. However, we realize that other methods of communication can help growers readily access information in the greenhouse. Therefore, we're putting new information into new tools that allow growers to get the answers they need quickly and easily, such as online tools and apps for smart phones. A website ([floriculturealliance.org](http://floriculturealliance.org)) includes many of these articles and tools.

Partnerships such as the Floriculture Research Alliance are essential if we want to continue to train new experts and support innovation. Industry input not only helps fund student research, but also ensures stakeholders guide projects so the results are meaningful and of value. The coming series of articles will detail specific examples of research-based solutions that can help your bottom line. **GT**