Celebrating Students, Cultivate & More

News and commentary for the nursery & landscape market

GROWERTALKS MAGAZINE | greenPROFIT MAGAZINE

WEDNESDAY, JULY 15, 2026

Nursery & LANDSCAPE INSIDER

News and Commentary for the landscape and nursery market

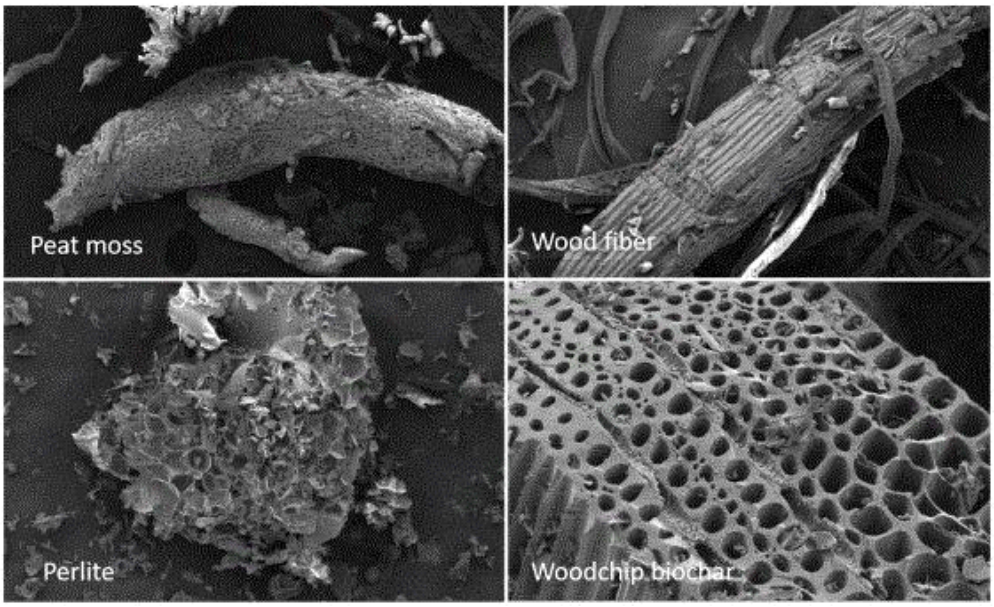
COMING UP THIS WEEK:

Congratulations to Megan!
My Cultivate Experience
It's About Time
Martha's Cultivate Experience
Kris' Cultivate Experience
S3 Students—Michael & Dennis
S3 Students—Allison

Congratulations to Megan!

Some very exciting news I want to share from my lab. Last week, Megan Gibb, a graduate student in my program successfully defended her thesis and completed her Masters! Megan has been with my program since my time in Louisiana and graciously and openly followed me across the country to this wonderful place we call the University of Florida.

Megan’s research focused on identifying value-added benefits for biochar materials in substrates. She found improved nutrient retention and root productivity in substrates amended with biochar materials. Moreover, she continued to develop pieces of knowledge for understanding the variability in biochar materials as the global “we” continue to build this understanding. Using biochar derived from sugarcane bagasse she was able to improve nutrient retention and fertilizer efficiency in greenhouse flower production. Then she used coarse woodchip biochar in nursery production to support shrub production—an all around effort to move our understanding of biochar substrates forward.



In addition to her thesis research, Megan helped unlock more insights into the structure of various substrate components, particularly evaluating them through a scanning electron microscope.

I look forward to following Megan’s career as she moves into the next stage of her life, but for the immediate future we're preparing her data for publication. Look for her biochar research to pop up as time progresses.

Go Megan and Go Gators!

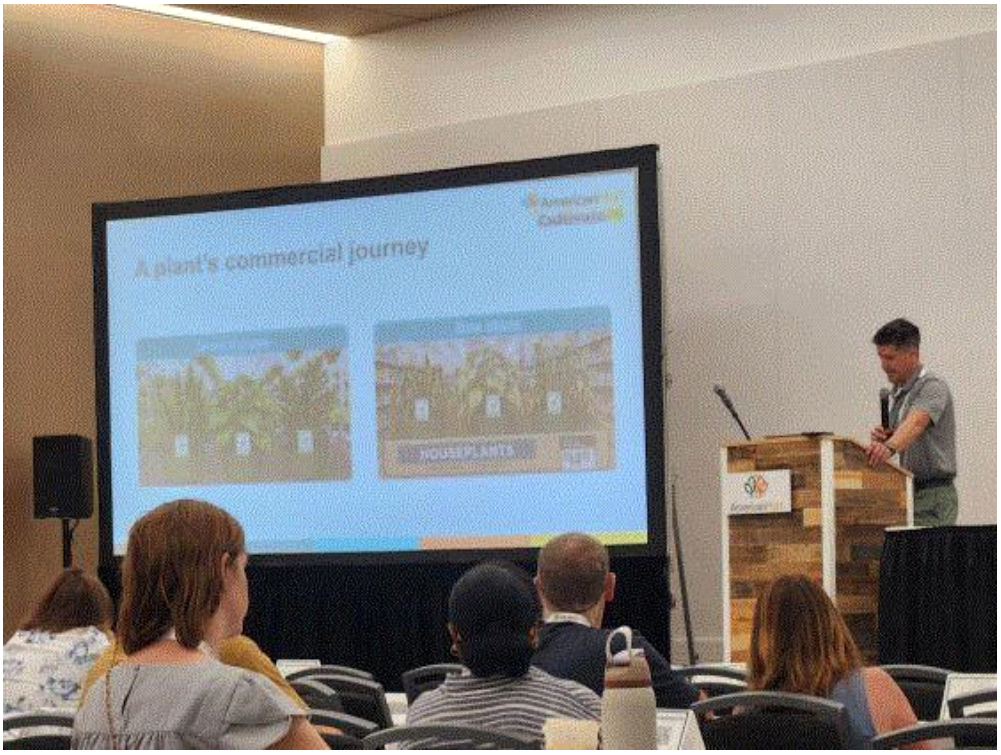
My Cultivate Experience

Another Cultivate is here and gone. It’s a bit surreal flying home Tuesday thinking about all the action that was jam-packed into the past 72 hours. So many connections, so much fun and, of course, the excitement surrounding all the new products.

I had a longer-than-usual trip this year. I typically come on Saturday, but this year I got to Columbus Friday afternoon in preparation for our Soilless Substrate Science (S3) annual advisory board meeting.

Our board is full of some of the most insightful and knowledgeable people in the country. From growers to substrate researchers, we have an awesome team that helps keep our project moving in the right direction. For those that don't know, when we get large grants, it's often the case that

we organize an advisory board to help steer and guide the developments of the project. As you might imagine, when the academics get in the room we can often get hyper focused on our topics of interest. These meetings are great opportunities to make sure our projects stay aligned with the industry needs and having a good board makes a world of difference. Our board meeting was a great success and I look forward to building insights as I decompress from the show.



Sunday was my education day. I spent much of my day in talks, including one of my own (more on that next). My favorite talk this year had to be the shelf life talk by Pierre-Marc de Champlain of Berger. If you follow this newsletter, you probably know that my lab is working quite a bit on extending the shelf life of potted plants in retail settings. This talk was excellent and very informative. I have to admit, my favorite part was when he identified stratified substrates as a potential option for solving shelf-life issues—something I've been religiously preaching for years. Seeing research get picked up by the industry is what makes this job worth the effort. I can’t express how exciting it was when I saw my image pop up on his screen.

Monday was trade show day and, as expected, the busiest day for me. I popped onto the floor a bit on Sunday, but Monday is when I go all out. Sticking with a theme, there was quite a bit of shelf life research being discussed (and some more industry stratification talk, but more on that later).

A great highlight about how controlled-release fertilizer can support retail longevity from the Profile booth.

I had to take a photo of the container color display, particularly with my work in root zone temperature highlighting the need for more light-colored containers.

I always love visiting the new plant zone in the back—so many new exciting cultivars. I have an article about all the new varieties hitting retail in 2027 being published in the August issue of *GrowerTalks*, so I won't spoil the surprise. Needless to say, there are a lot of excellent plants coming to market next year and I don't know how I'm going to fit them all in my yard.


New
LUBING
Inky Whiskers

Overall, Cultivate was spectacular, as always, and I need a couple weeks to recover. Of course, that's not how I roll. Instead, I will be in Houston next week setting up a demonstration at Everde Growers Nursery for the upcoming IPPS Southern Region conference in October for the new scientist stations to highlight the S3-Soilless Substrate Science project. I'll be sure to fill you in.

It's About Time

I had a blast at Cultivate and one of my favorite parts was co-presenting research on irrigation with my former student Dr. Kris Criscione. Kris and I have strengthened our collaborative research, as we move to develop more practical and effective irrigation strategies.

This year, we presented our two research projects that were focused on improving cyclic irrigation—a form or irrigation, which splits applications into multiple different times throughout the day. Kris started the talk off with a thorough background of cyclic irrigation strategies and history before moving into his research, which focuses on helping growers with adoption by minimizing burden on scheduling programs and clocks. He looked at just using cyclic irrigation for establishment before shifting the production block back to standard irrigation and transferring cyclic programs to another crop. It worked and even better the root growth benefits of cyclic irrigation persisted even as irrigation was transferred back to standard. Basically, the more you cyclic irrigate the better—but even a small amount is great.

After Kris, I talked about my research on frontloading or backloading irrigation. The idea being that instead of splitting irrigation into three even applications, we can add a larger portion in the first application of the day and lower volumes over the day (frontloading). We can also use the inverse strategy to start small and add volume over the day (backloading). Both have benefits for plant growth and temperature management.

The crowd had several questions, but overall it felt good and like we were building on previous work to advance irrigation science. Overall, a wonderful experience and I look forward to continued collaborations. Even better, we had a companion article in the July issue of *GrowerTalks*, which was on stands at the conference. If you flip to the center of the issue, you can read more about the projects or check it out HERE.

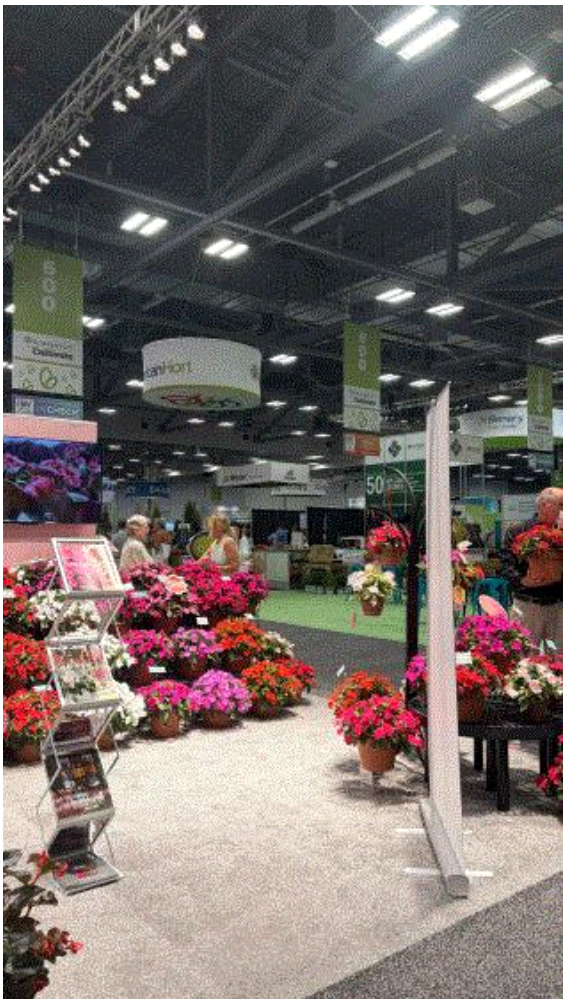
Martha Vilchez's Cultivate Experience

More Cultivate talk. I brought one of my graduate students to the show this year and thought it would be fun to get her take on the show. Martha Vilchez is a graduate student in my lab and this was her first time at Cultivate. I wanted to know what Martha experienced and how she liked the show, so why not ask Martha about her first Cultivate experience?

This year, I had the opportunity to attend AmericanHort's Cultivate'26 in Columbus, Ohio, one of the largest horticulture conferences and trade shows in America. As a graduate student researching soilless substrates at the University of Florida, it was an incredible experience to connect my research with the latest innovations being developed and used throughout the horticulture industry. Walking through the trade show allowed me to meet people from companies across the industry and learn about new technologies, products and production practices that are shaping the future of greenhouse and nursery production.

One of the highlights of the conference was visiting companies focused on growing media and substrate components. Since my research evaluates sugarcane bagasse to reduce peat moss, I enjoyed learning about the different wood fiber products and other renewable substrate materials being developed for growers. It was interesting to see how each company approaches substrate formulation, with innovations designed to improve aeration, water-holding capacity and sustainability while reducing dependence on traditional materials. Seeing these products firsthand showed me the importance of continuing research on alternative substrate components and provided new ideas that I can apply to my own work.

Beyond substrates, I also enjoyed exploring the plants and nursery exhibits featuring new ornamental varieties and breeding advancements. It was exciting to see the diversity of plants entering the market and to learn how breeding, production practices and new technologies work together to produce high-quality crops. Overall, attending Cultivate'26 was an invaluable experience that strengthened my understanding of the horticulture industry, expanded my professional network and reminded me how research can directly support growers.



Dr. Criscione's Cultivate Experience

From the present to the past as they say. Since I asked my current student for her impressions

at Cultivate, I thought it would be fun to ask a former student the same question. Here's what Kris Criscione, Assistant Professor at Virginia Tech, had to say about his Cultivate experience.

After walking throughout the trade show floor at Cultivate'26 this year, I quickly realized that so many booths were showcasing photographs, displays or cross-sections of root systems. Navigating through the labyrinth of booths, it seemed everywhere you looked there were roots being highlighted. Proper root growth and development in horticulture production systems is an incredibly important metric that we must always aim for when growing greenhouse or nursery plants. It was energizing to see that our industry is focusing and prioritizing more on generating healthy root systems.

As I spoke with many industry professionals at booths, growers or allied suppliers, it was evident that the industry is moving towards critically thinking more about how roots respond to stress, how they explore substrate environments and, of course, how they ultimately contribute to the selling part of the plant (… shoots!). Generating healthy root systems are a foundation in crop quality, efficient production and long-term resilience to stress. The more that we understand how to produce stronger, faster and more robust root systems, the better plants we can grow. This concept was even reinforced and delivered in some educational presentations like “Good **Shoots** Require Good **Roots**."

I had a wonderful time at Cultivate'26, and after seeing this industry shift, I'm even more excited about Cultivate'27.

S3 Students: Michael Batame & Dennis Baffour-Awuah—UGA

Over the next few issues, I'm going to be highlighting and promoting some of the incredible graduate students from around the country that are working on our S3-Soilless Substrate Science project. Hopefully, these tidbits will not only show you what our team is doing, but give an insight into just how these students help carry our projects forward. Below is a highlight from two University of Georgia students—Michael Batame & Dennis Baffour-Awuah.

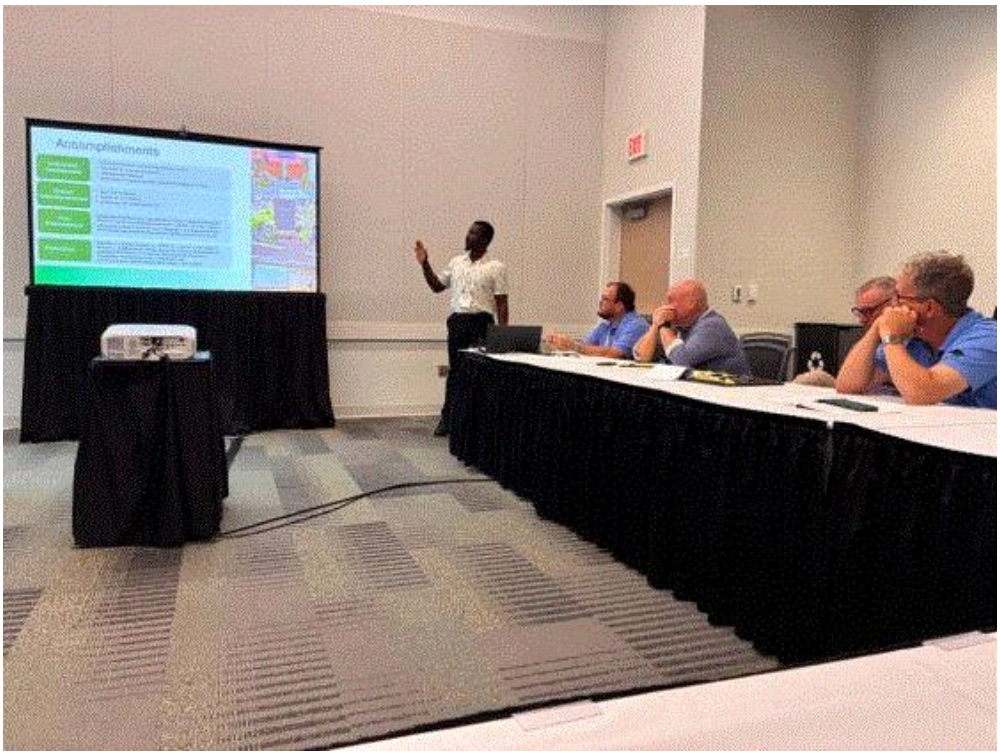
Lamm Lab Shares S3 Research with Growers & Scientists

The Lamm Lab at the University of Georgia has had an exciting time collaborating with researchers on the Soilless Substrate Science (S3) project and sharing its work with audiences across the United States. Graduate research assistants Dennis Baffour-Awuah and Michael Batame have been on the road, presenting findings at several national conferences and engaging with researchers, industry professionals and growers.

The journey began in February at the American Society for Horticultural Science (ASHS), Southern Association of Agricultural Sciences (SAAS) Conference in Louisville, Kentucky, where Michael and Dennis presented “Identifying Specialty Crop Growers' Experiences, Challenges & Research Needs Associated with Substrate Transitions.” Their research found that although growers recognize the environmental benefits of reducing peat use, adoption ultimately depends on economic viability, material availability and confidence that alternative substrates will perform reliably in commercial production systems.

In June, the team attended the International Association for Society and Natural Resources (IASNR) Conference in Corvallis, Oregon, where they presented “Understanding Specialty Crop Growers' Needs and Communication Preferences for Peat Alternative Adoption.” Their research found that growers are typically receptive to peat alternatives, but adoption success hinges more on practical factors like cost, compatibility and performance than on sustainability.

In July, the conference season continued with the Cultivate event in Columbus, Ohio. There, Michael presented a poster titled “Exploring Growers' Adoption Decisions Through the Diffusion of Innovations Theory,” which analyzed how innovation traits influence growers' choices to adopt peat-alternative substrates. The findings indicated that growers don't adopt new substrates solely for sustainability reasons; instead, they consider the benefits, compatibility with existing systems, implementation complexity and their confidence, often testing alternatives themselves or observing other growers' successes. Michael also had the opportunity to brief the Advisory Board on the UGA team's progress.



From conference presentations to meaningful conversations with growers, researchers and industry leaders, it's been rewarding to share the team's work and contribute to discussions about the future of sustainable specialty crop production.

The journey isn't over yet. The next stop is the ASHS Annual Conference in Dallas, Texas. Stay tuned!

S3 Students: Allison Iwaszkiewicz—Ohio State

Wrapping up this issue, I want to highlight Allison Iwaszkiewicz, a master's student in the Horticulture & Crop Science department at Ohio State University. Allison is continuing her academic career after earning bachelor's degrees in Creative Writing and Botany from Miami University. Her thesis work centers on Soilless Substrate Science (S3) in collaboration with me under the larger Beyond Peat effort.

Allison's work comprises an economic analysis of the peat-alternative substrate sources that are being vetted in horticultural trials across the University of Florida, North Carolina State University and USDA. Importantly, Allison's research will provide growers with the key financial information they need to affect data-driven decision making for their businesses. Utilizing Stochastic Frontier

Analysis (SFA), Allison will provide growers with production efficiency estimations for each alternative substrate source, as well as individualized breakeven costs.

So far this summer Allison has visited two of the three total S3 substrate trial sites. Here at the University of Florida, she shadowed the Fields lab and lent an extra set of hands to the final-harvest processing and data collection of a petunia and bagasse experiment. Prior to her Florida visit, Allison aided in the installation of a peat-reduction alternative substate experiment at USDA's research facilities in her closer-to-home Wooster, Ohio, with Dr. James Altland.

Looking to the future, Allison plans on pursuing a Ph.D. in fruit production with a focus on extension work.

Think big,

Jeb Fields
Editor-at-Large
Nursery & Landscape Insider

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