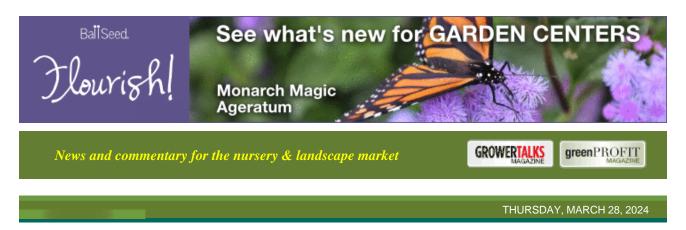
# Beyond Peat, HRI Survey, Augmented Reality & More









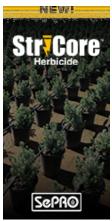


News and Commentary for the landscape and nursery market

#### COMING UP THIS WEEK:

Substrate-Needs Survey
Results
The Paradigm Shift
Beyond Peat
Women in Horticulture
Webinar on Fall, Winter Crops
Bloomin' Easy Augments
Reality
Cultivate Education Announced





# **Substrate-Needs Survey Results**

Soilless substrates are a key aspect of most nursery production systems that are often overlooked. However, much like "Atlas," the mythological figure who carried the world on his shoulder, substrate forms the basis for all other production inputs, dictating efficiency of other resource inputs like water and fertilizer application.

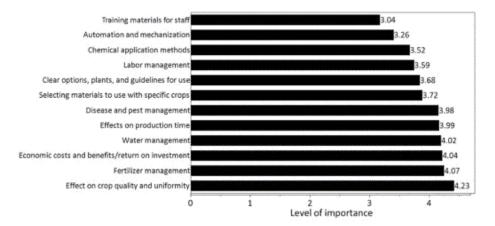
So I thought I would start this newsletter off with a discussion about a national substrates survey that our research team published last year. Our team surveyed growers across the country, as well as allied industries, to get a better hold on the average knowledge surrounding substrates and their use. We wanted to know what they know about their substrates, but also what they would like to know more about—and most importantly, their opinions on the future direction for soilless substrate use in the U.S. We wanted to know what type of substrates were being used across the country, and we wanted to hear from growers who do not use soilless culture, to learn a bit more about why. Perhaps there were extension and education paths we could pursue to





support adoption now or into the future.

We learned that many growers believed that using a substrate to improve crop quality (and uniformity) and reducing disease occurrences were very important. Growers also expressed that important research needs of soilless substrate research were to continue improving fertilizer quality and economic costs/return on investments—many things we currently understand. I hope that you have time to check out our paper HERE, which can shed some light on the pulse of the industry and what direction you and your peers see us moving towards.



Growers average response for substrate-related research. 1 = not important; 5 = most important.

One specific item I wanted to discuss was the interest in and concerns for the future of substrate security. We know that globally growers are adopting soilless culture at a rapid pace, as production of perishable fruits and vegetables as well as "new" crop systems, like cannabis, continue to shift to soilless production. With the onset of all these new soilless growers, our industry is using a much larger volume of substrate every year. We also see limited availability of our most desired substrate materials, peat moss. Poor weather conditions in recent years have limited peat harvest in Canada. Combine that with growing tension from the media outlets, and you have a perfect storm.

And those concerns are why our current team has pushed to go Beyond Peat.



# **The Paradigm Shift**

We are currently entering a paradigm shift in the world of soilless culture.

For thousands of years, we filled containers with field soils, sometimes using various other mineral aggregates or local waste products sparsely sprinkled in, but the base materials were always mineral soils.

Enter the 1960s. A social revolution ongoing across the world, and a horticultural revolution happening in the pot. This revolution was started, like so many others, in California; where a few scientists dared to dream and the peat moss revolution was born.

For the last 60-plus years, peat moss has been established as the primary substrate component of global horticulture. Many other materials are being used in this time, and like peat moss they are often materials that are specifically mined or harvested for their horticultural use, such as perlite and vermiculite. While some industry byproducts have been used in this time, particularly tree bark, a byproduct of the forestry industry, peat remains a mainstay in the horticulture community.

In recent years, peat prices have risen, availability has declined, and public outcry surrounding environmental concerns has grown louder. Scientists have identified various new materials that can plausibly be used as alternatives with successful results. However, none have been able to outperform the standards across the divers production systems found in our industry.

Until now ...

We are entering the third paradigm for substrate use in human history. This paradigm shift encompasses the use of forest products, agfibers and regional biomasses as soilless substrate bases—not just components.

With the onset of this paradigm shift, we are well-poised to enter a world that goes ...

**Beyond Peat** 



## **Beyond Peat**

Thanks for reading my little hype statement about our current research proposal. But really, "Beyond Peat: Substrate Security for a Changing Climate" is a transdisciplinary team organized to secure transformative funding through the USDA-SCRI (Specialty Crops Research Initiative) board in support of U.S. nursery and greenhouse growers and substrate producers. Our long-term goal is to reimagine soilless substrates to meet future needs by simultaneously reducing inputs and maximizing efficiency.

We want to ensure you that, while our team is called "Beyond Peat," we by no means promote the removal of peat. We simply recognize that we cannot rely solely on this material as we advance into the future. We further realize that the success of the research in this proposal will ensure the long-lasting support of our peat industry, helping to bridge supply gaps during years or reduced or lower than expected peat harvests.

To that end, we aim to develop technologies and strategies to support growers as we move into what we consider to be the third paradigm in soilless culture, where globally, another rapid expansion of soilless culture is necessitating the use of regional biomass and forest residues to meet growing demands. In short, we are exploring the use of localized, lignocellulose materials (i.e., wood fibers and regional bioresidues) on a massive scale to support growers into the future.

Our team has been assembled bringing top substrate scientists and materials engineers in the U.S. together with experts in the exploration and understanding of the social, environmental, and economic ramifications of adopting and utilizing new substrate systems.

We are approaching the final stages of the application process. If any of this sounds exciting or important to you, we would love to have your support. If anyone feels strongly enough about our work, a letter of support would be well appreciated. Just briefly explain why this topic is important to your business, put it on letterhead and address it to me. Every letter we get helps us take one step closer to supporting all of you.



#### Women in Horticulture Interview with Leigh Geschwill

Make sure to check out next month's Inspiring Interview Series from the AmericanHort Women in Horticulture program featuring Leigh Geschwill. Leigh is one of the owners of F&B Farms and Nursery, a family-owned business in Oregon, and she is going to share her personal journey, balancing her many roles. Leigh's insights on the dynamics of a family-owned business will be relatable to many of us. She will also discuss the importance of advocacy work and the evolution of the industry.



Leigh has a strong track record for leadership, a trait instilled in her by her parents. She started her leadership with the Oregon Association of Nurseries board before becoming president. In her spare time, Leigh now serves as the president of the Horticultural Research Institute board, putting her time and effort into supporting HRI's mission.

Leigh is passionate about our industry, advocating on the local, state, and national levels. She has spent a great deal of time in Washington D.C. speaking with representatives to support the green industry.

The webinar is scheduled for April 24 at 2:00 EST. Considering Leigh's broad experience, you definitely don't want to miss this one.

#### **Best Production Practices for Fall and Winter Crops**

Mark your calendars for Wednesday, May 29, when the *GrowerTalks* webinar series will continue with Stacey Rocklin. Stacey, a Michigan State University graduate, is a grower adviser for Berger Horticulture with extensive experience with a wide variety of crops.

In this webinar, Stacey is going to talk about challenges we experience when transitioning from Spring and Summer to Fall and Winter crops As the seasons change, so do growing conditions. You need to adapt light, temperature, water, and fertilizer inputs. This webinar will help support smart decisions regarding media, irrigation and fertility, managing diseases, and more.

Register **HERE** for the webinar.

#### **Bloomin' Easy Reveals Augmented Reality Experience**

A week ago, Bloomin Easy' announced that it will now be the first ornamental plant brand to use augmented reality (AR) to experience their top varieties in any space on mobile devices. This AR feature is currently available for 10 of their top varieties, just in time for the 2024 spring season. They aim to offer AR options for more varieties in 2025 within their smartphone app.

What is AR? Well, I have to admit I had to look this one up. This is an interactive experience that combines the real world with computer-generated content, in real time. So, you can visualize the shrubs in your landscape!



"As a younger brand, it's important that we continue to differentiate and offer the market unique, premium value," says Consumer Marketing Manager Madison House. "Young homeowners are already using augmented reality through retail experiences from Ikea and Nike – why not give them a fun try-before-you-buy experience with buddleias and hydrangeas?"

Now I really feel old, I didn't know this existed for any of those options. CHECK IT OUT for yourself!

#### **Cultivate Education Schedule Announced**

In about four months, the horticultural community will descend on the streets of Columbus, Ohio, for a trade show jam-packed with opportunities. Yes, Cultivate'24 is coming, so why not get started planning your trip? There is hardly a second to waste as we have so much to experience—exhibitor booths, industry visits and education all squeezed into one extended weekend.



Do yourself a favor and take some time now to peruse the educational show lineup and pick out what you want to see the most. That will come in handy when you get to the floor and the wave hits you!

In the coming weeks, I plan to promote a few sessions that I am excited to see. I started to count the sessions to describe the crazy number of educational activities that are available, but I gave up—there are that many. Absolutely something for everyone.

So for todays promotion, I thought I would shamelessly plug one of my talks!



Sunday July 14 at 4 p.m. I'm going to team up with my old advisor Dr. Jim Owen (with the USDA-ARS) and talk about my favorite topic: stratifying substrates. Over the past few years, we have learned quite a bit about substrate stratification, particularly ways to improve water and fertilizer efficiency, root productivity, drought stress and weed inhibition. Most of all, we have identified a way to cut peat moss (or any substrate component) by 50% using filler materials. We will be discussing more about stratification practices in an upcoming newsletter, but the best way to learn would be to attend our session.

### **HRI Fuels Five-Year National Green Industry Survey**

The Horticulture Research Institute is fueling a deeper dive into the dynamics of the U.S. Green Industry. The Green Industry Research Consortium, a group comprised of esteemed horticulturists and agricultural economists from various universities, is approaching its 8th iteration of the National Green Industry Survey. Sponsored by HRI, this comprehensive study aims to unravel the nuances of production, marketing, and retailing practices within the green sector.

This survey spans a five-year timeline and provides a critical barometer for the green industry. Stakeholders across the country will help paint a picture of new trends and current standing

impact. This survey is more than an academic exercise. The results of the survey will hold significant implications for the horticultural industry for years to come. Our contributions need to be quantified, from jobs to revenue, because we need to know the true economic impact of our industry as a whole. Moreover, the rest of the country and policy makers need to know the massive impact that the U.S. green industry has on everyone's lives.

The survey is open to all horticultural businesses. Any and all members of the green industry are encouraged to participate.

FOLLOW THIS LINK TO TAKE THE SURVEY

# University of Florida Announces 3 New Greenhouse Training Courses

The UF Online Greenhouse Training program has added new courses to its already packed lineup. Each year a series of courses are offered by University of Florida experts are offered to directly support production and help growers improve their knowledge and skills. These courses are great for your crew, but you might also want a refresher.

The program kicks off with Greenhouse 101 on June 3, and courses run through December 13.

There are eight learning modules in all. You don't have to take all of them, you can go a la carte and pick what you need. Courses are completely online, and include lectures, discussion boards with professors, and other helpful resources. You even get to take quizzes—everyone's favorite pastime!



This year's new additions include Success with Your Latino Workforce, Field Diagnosis for Disease Management, and Practical Disease Management.

CHECK OUT THE WEBSITE FOR MORE INFORMATION. Oh, they offer discounts for multiple registrations!

#### March Madness - A Gameplan for Success in the Landscape

I was planning on writing a fun blurb about the culmination of basketball season. However, seeing as my team had an uninspired exit on the first day of the tourney—thanks Florida—I thought I would hand this over to Dr. Damon Abdi, my office neighbor and the Louisiana state landscape specialist, to get his spin on the March Madness that the landscape industry enjoys.



Dr. Abdi stands atop his to-do list as he prepares for spring-like a conquering hero

March is an exciting time around the nation. As teams across the country compete to be crowned champions at the culmination of a successful basketball season, the landscaping season is only just getting ready to tip-off. A successful landscape season is marked by satisfied clients, superior blooms and sustainable management practices that deliver results to customers in an environmentally and economically efficient way. Quite different from basketball, indeed ... but one trait shared by successful landscape crews and basketball teams is that putting the effort in during the off-season improves the odds of bringing home the trophy.

The NCAA tournament starts with seeding teams in respective regions, filling in gaps of the bracket before the action gets started. Similarly, a championship caliber lawn may need to be (over)seeded, particularly in areas that look a little bare. Overseeding (if done in spring rather than fall) should be done early enough to allow lawn seeds to germinate and establish before summer gets into swing.

The first couple rounds of the NCAA tournament features matchups of teams who may have never met before. Playing a new team (or similarly, serving a new client's lawn) can be a daunting task. How can you win? By understanding the opponent. Soil tests are a great way to do some reconnaissance on a landscape – particularly for issues that are hard to defend against. While a soil test may not show how many points, rebounds, or assists occur, it will provide information such as soil pH, fertility requirements and soil texture. Having a baseline knowledge of site conditions of new client properties (and of course, the properties you manage perennially) can keep you out of foul trouble (such as inefficient fertilizing practices).

Only the best of the best survive and advance to higher levels of competition, both in basketball and in landscaping. To make that championship push in basketball, many hours are spent engaging in aerobic activities and conditioning so that when it's time to shine, players are not gasping for air. Similarly, plants in the landscape will suffer if roots do not have sufficient oxygen. Aerating a lawn breathes new life into the landscape, allowing oxygen, water and nutrients to reach the roots. Timing is everything with aeration, as this should be performed when grasses are actively growing—for our warm season turfgrasses, this window usually starts in late spring.

Looking for a few more tips to start the season off? Here is our Final Four:

- 1. Take a comprehensive site inventory—know which plants are present and what time of year to prune them for each site.
- 2. If this is a new client, take the time to learn what the historical maintenance practices were. For example, historically fertilizer-happy practices may negate the need for more fertilizer to be added initially.
- Work with clients to ensure that they understand why you are performing certain tasks.
   Emphasizing the importance of the management practices you suggest helps clients see the value in your offerings.
- 4. Work with crew members to ensure clear communication on job expectations for each client. Ensure that they have all the proper tools, PPE, and knowledge to effectively execute the job.

So whether you seek to cut branches off of a tree or to cut the net down from a hoop, follow these simple steps to have a successful season. Amidst the madness of March, a little bit of proper planning can ensure that your product is championship caliber.

Think big,

Jeb Fields Editor-at-Large

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