

Mums ... Get Ready!; Sanitation; Spring Motivation



THE BIGGEST GREENEST
TRADE SHOW IN THE WEST

AUGUST
20-22

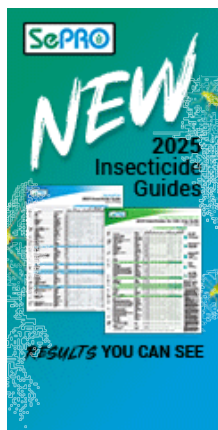
REGISTER

Cultural and Technical Information for Greenhouse Professionals

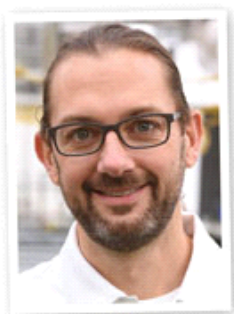


FRIDAY, MAY 3, 2024

subscribe



**Stay Ahead.
Get Connected.
Grow Your Business.**
Join Today!



TECH
ON DEMAND

brought to you by

GROWERTALKS

COMING UP THIS WEEK:

Mum-Planning Podcast
Nick's Tip: Garden Mum Prep
Spring Reports from the Field
Team Profiles
Post-Spring Sanitation
Finish Line ...



NEW PODCAST: Starting to Think About Mums?

Okay, I will admit it ... every year, I sort of dread this newsletter: the fall mum kickoff that comes right in the middle of your spring shipping. It seems too early to start sharing garden mum tips .. But then again, upon further review, I'm actually more than a month late dropping this bombshell on you compared to 2023. Bottom line: If you're not already putting mum production plans on the to-do list, it's about that time.

Some of the Tech On Demand team has been down to Florida recently, looking at garden mum stock, assessing quality and sending back positive reports. That means cuttings will be arrive soon. So let's start preparing.

And if you just can't stomach the thought of fall mums yet, save this newsletter and refer back ... but don't wait too long!



Let's begin with a **NEW AUDIO FILES PODCAST** I released this week. In less than 10 minutes, you'll get a quick primer on putting together an agronomic plan for garden mums, as shared by Syngenta technical expert Nancy Rechcigl in a past issue of *GrowerTalks*.

She begins the lesson by reminding everyone the production of garden mums during the summer months is not without some challenges. A large percentage of mums are produced outside where they're subject to varying weather conditions, along with some insect and disease pressure. Being prepared for the potential challenges ahead can help avoid losses and ensure plant quality for successful fall sales.

As you listen along, you'll hear about common pests like aphids, thrips, mites and worms. Then Nancy dives into diseases, including *Pythium* and *Fusarium* before sharing strategies for developing a solid management program. If you go back to the **ORIGINAL ARTICLE**, there's a handy chart for 12- and 16-week crop scheduling to assist in avoiding and controlling pests and diseases.

This episode **AND 120+ MORE** can be found on **SPOTIFY**, **APPLE PODCASTS** and just about any other podcast platform you use. Be sure to subscribe so you never miss an episode. And if you have a minute to leave a positive review, it will be greatly appreciated!

Stop the Whitefly Train
before it leaves the station.

Click for more information. **Enermix** + **Swirski-Mite** + **Isarid™**

Koppert

Nick's Tip of the Week: Mum Prep & Production Basics

Each week, I'll work with my buddy Nick Flax, a technical services expert at Ball, to share a concern that's come up during one of his numerous calls with growers across North America.

This week, he's taking my lead and sharing some pre-season garden mum pointers.

PROBLEM: With weather warming up and garden mum stock in production, I'll supplement the info Bill shared above with some reminders and resources to help you fill your "grower tool box" with what your team will need when mums hit your dock. I get many of the same core questions during mum season each year, so let's try to head some of them off.



NICK'S TIP: This week, I'll speak to some of the more common questions I've gotten over the years, and I'll share links to additional info if you want to go further down the proverbial rabbit hole.

Propagation

Interestingly, lots of new mum growers want to try their hand at rooting their own cuttings. While mums are not the toughest crop to propagate, there are a few things that you absolutely need to get right if you want to do this yourself rather than purchase rooted liners.

Timing: Most mum liners should be planted in early- to mid-June in North America to be ready for sale September through October. Since rooting takes approximately three weeks

(occasionally four for less-experienced propagators), unrooted cuttings need to be stuck in early to mid May. At this point (Week 26), you could possibly direct-stick a smaller container program and finish on time. However, by now, even well-rooted liners or larger inputs like 50-cells going into larger container programs would need to be pushed very hard to get an appropriate amount of size on them before flower initiation occurs.

Facilities: Successfully rooting mums requires an appropriate propagation area. Rooting mums in a Quonset-style house with minimal environmental control and no overhead mist emitters isn't impossible, but it will likely be difficult for inexperienced propagators. Ability to provide rootzone heat, shade in early stages of propagation, and the capacity to keep relative humidity high but minimize excess moisture accumulating in liner media and on foliage are all key factors to rooting high-quality mums.

Check out our [Ball Mums Propagation Guide](#) for more details on best practices if you want to try your hand at growing mums from URCs ... next year (wink, wink).

Premature Budding

A LOT of growers have encountered premature budding (also known as "crown budding") these last few weeks. Old-school growers often default to ethephon (Florel/Collate) sprays to overcome this, and newer growers are often caught off guard and don't know what to do when they start to see buds on their 5-inch-tall mums. There are a few things you can do to overcome this, but here are a few key take-homes if you aren't sure what to do. :

- *Don't pinch them.* We do this frequently with other crops to try "reset" them, but it is not necessary for mums. Some folks also take the time to disbud each plant, and this is really just a drain on you and your team's time.
- Avoid use of ethephon (Florel/Collate) if possible. Many modern varieties are quite sensitive to ethephon, and while your plants may branch a bit more vigorously after an effective treatment, these applications lead to smaller plants at finish. If liners are very well-rooted when you apply it and the crop gets pushed hard with fertilizer after ethephon treatment(s), the risk of small plants is much lower. However ...
- If you just push hard with fertilizer at the first sign of crown budding, you can avoid pinching, disbudding and ethephon applications altogether. Apply an ammonia-based fertilizer like a 20-10-20 (or even a triple-20 once or twice) at 300+ ppm N a few times in a row and new axillary shoots will push out from beneath the crown buds and cover them up entirely. This is so much easier, but you really need to keep the pressure on with fertilizer until you start to see results.

Check out our [Crown Budding Part I](#) and [Crown Budding Part II](#) documents for more info.

Disease Pressure

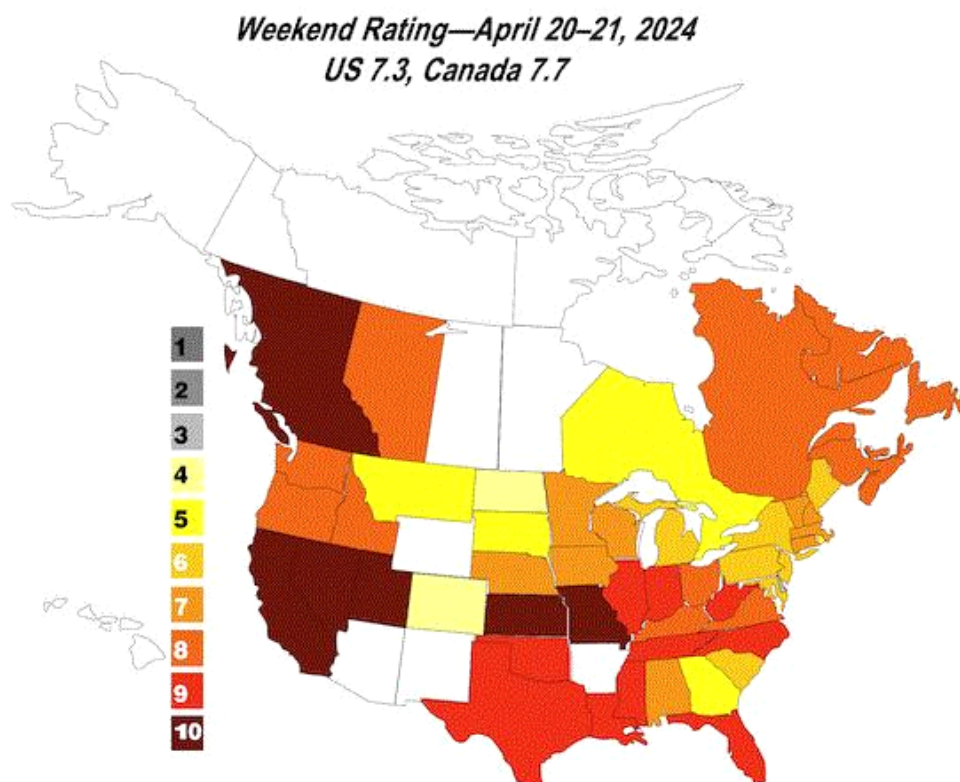
To keep preventative management in the front of everyone's minds, I want to take the opportunity to share some of the resources we have on management BMPs on the Ball Mums webpage that are free for anyone to access. Check out the links below for info on key mum diseases such as:

- [Bacterial Leaf Spot](#)
- [Botrytis](#)
- [Fusarium](#)
- [Pythium](#)
- [White Rust](#)

As always, if you have questions on prevention and/or cleanup for pest or disease pressure in your mum crop, don't hesitate to reach out to [your favorite diagnostician for help](#). Folks like me would much rather spend some time working with you to develop a management strategy ahead of time than talk you through a cleanup and crop remediation process a few weeks from now.

Spring Reports in AO

One of the things I look forward to each year is reading reports from the field—shared by Chris Beytes in his venerable [ACRES ONLINE E-NEWSLETTER](#). Every week from April 1 to late June, he ranks and reports on greenhouse and garden center sales activity across North America. Since most of us are stationed in one location and are hyper-focused on our local market, having an opportunity to hear what's going on in other locales is fascinating.



Here's what your peers are saying about last week. Be sure to [SUBSCRIBE](#) to *Acres Online* if you don't already receive it and send Chris your score and notes from the field! The more the merrier.

North Carolina (10+). "Second-best day ever! Great weather!"—*Judy Mitchell, Mitchell's Greenhouse*

Utah (10). "Mother Nature was very kind to our region for most of last week and the weekend was great! Customers were active and everyone was happy! We may squeeze out a good April if this coming week's weather forecast improves some."—*Scott Engh, Sun River Gardens*

Ohio (10). "A great week of sales. Well above last year, but if I'm remembering correctly, the weather was very cool last year."—*Kim Grant, Strait Gate Greenhouses*

British Columbia (10). "Warm, sunny temperatures, overnight not freezing. We are up about 70% over last year. The only year that beat us was 2021 and I know I will never see those numbers in a long time."—*Pamela Pilling, Canadian Tire Garden Centres*

Washington (9.5). "Excellent, excellent weekend once again. The only thing holding me back from a perfect 10 was stormy weather that blew in late afternoon on Saturday, which (maybe) tamped sales down a bit at the end of the day. I'm not complaining, though—a half inch of rain right after closing on Saturday meant no hand watering any of the outside plants on Sunday!"—*David Vos, Vander Giessen Nursery*

California (9+++). "Great weekend, building nicely."—*Tom Courtright, Orchard Nursery*

Minnesota (9). "The numbers are still small when compared to any day in May, but we had as good a three-day stretch as anyone could hope for in a Minnesota April when Mother Nature is usually at her most unpredictable."—*Derek Lynde, Lynde Greenhouse*

British Columbia (9). "Another great April weekend. Night temperatures are up, so people are ready to plant! Sales were very good, so close to a 10!"—*Tim & April Vaandrager, Vaandrager Nurseries*

Alberta (8). "The eager beavers were out in full force, eager to plant whatever they could. It was almost disheartening to tell them it was too early to put plants in the ground. After all, there are still small patches of snow everywhere."—*Kristen Busse, Greengate Garden Centres*

New York (7.5). "Still cold, but on Saturday the sun did peak out and sales were better than expected. Still, the week as a whole was 15% behind a year ago. Sunday there was no sun and the sales reflected it."—*Jim Boxberger, Monticello Farm Home and Garden*

Alabama (7). "Good, but slower than I'd like. Losing some of our early gains in the last two weeks. Busy, but should be a little busier."—*John David Boone, Dothan Nurseries*

Colorado (5). "Several days of snow, rain, cold couldn't be saved by a halfway decent Sunday."—*Gene Pielin, Gulley Greenhouse & Garden Center*



Tech On Demand Team Profiles: Nathan & Nick

I was assigned the task of writing up profiles of my fellow members of the Ball Tech On Demand team for *GrowerTalks* magazine, and happily accepted the job. Not that I can really say 'no' to editor Jen Zurko ... but I was excited to find out more about the guys I work with every day. So, on a trip to visit a greenhouse with the team, I whipped out my trusty notebook and started interviewing them. They were trapped in a minivan and couldn't escape.

Going through the questions I prepared ahead of time was fun and what emerged was far more than I expected. Each of the team members is brilliant (at least I think so and many of the growers they work with would no doubt agree) but they each have unique skill sets and, of course, unique personalities, hobbies and goals.

So far, two have been published so now I can share them with you. (Josh Henry will be profiled in the June issue and I'll share that one as soon as the magazine is in the mail.)

This is not to brag on the team (well, maybe a little) but to give you insight into how a technical team is assembled to meet the needs and help solve the challenges of today's growers. As I get to know technical specialists from other companies across the industry, I think the folks working day and night to share information, empathy and technical wisdom are some of the best and brightest we have in horticulture.



As I wrote in the April issue of *GrowerTalks*: *Research drives innovation. Innovation leads to improvement. This is true in most aspects of business—and it is integral to the success of greenhouse professionals producing high-quality crops using the most cutting-edge methods. Applied research in the greenhouse is where Ball Seed’s Culture Research Manager Dr. Nathan Jahnke truly shines.*

Nathan leads a team whose dedication to finding better ways to grow plants is top of mind daily. What Nathan learns is directly applicable to Ball Seed’s grower customers—whether directly improving how they grow their own crops or leveling up production strategies for the greenhouses that supply them. Fun facts: Nathan had a small greenhouse growing up and this sparked his passion for plants and learning how they grow. He’s also played violin since first grade. [READ NATHAN’S FULL PROFILE HERE.](#)

You all know Nick Flax—he writes a tech tip every week in this newsletter! But did you know he’s an accomplished scuba diver? It’s interesting that Nick Flax’s title is “Technical Services Specialist.” He’s certainly highly skilled in the field of horticulture. But when it comes to his range of knowledge—it’s quite wide. His peers and the Ball Seed customers he works with consider him a jack of all trades when it comes to solving greenhouse challenges and helping ensure crops go to market at the highest possible quality. [READ NICK’S FULL PROFILE HERE.](#)

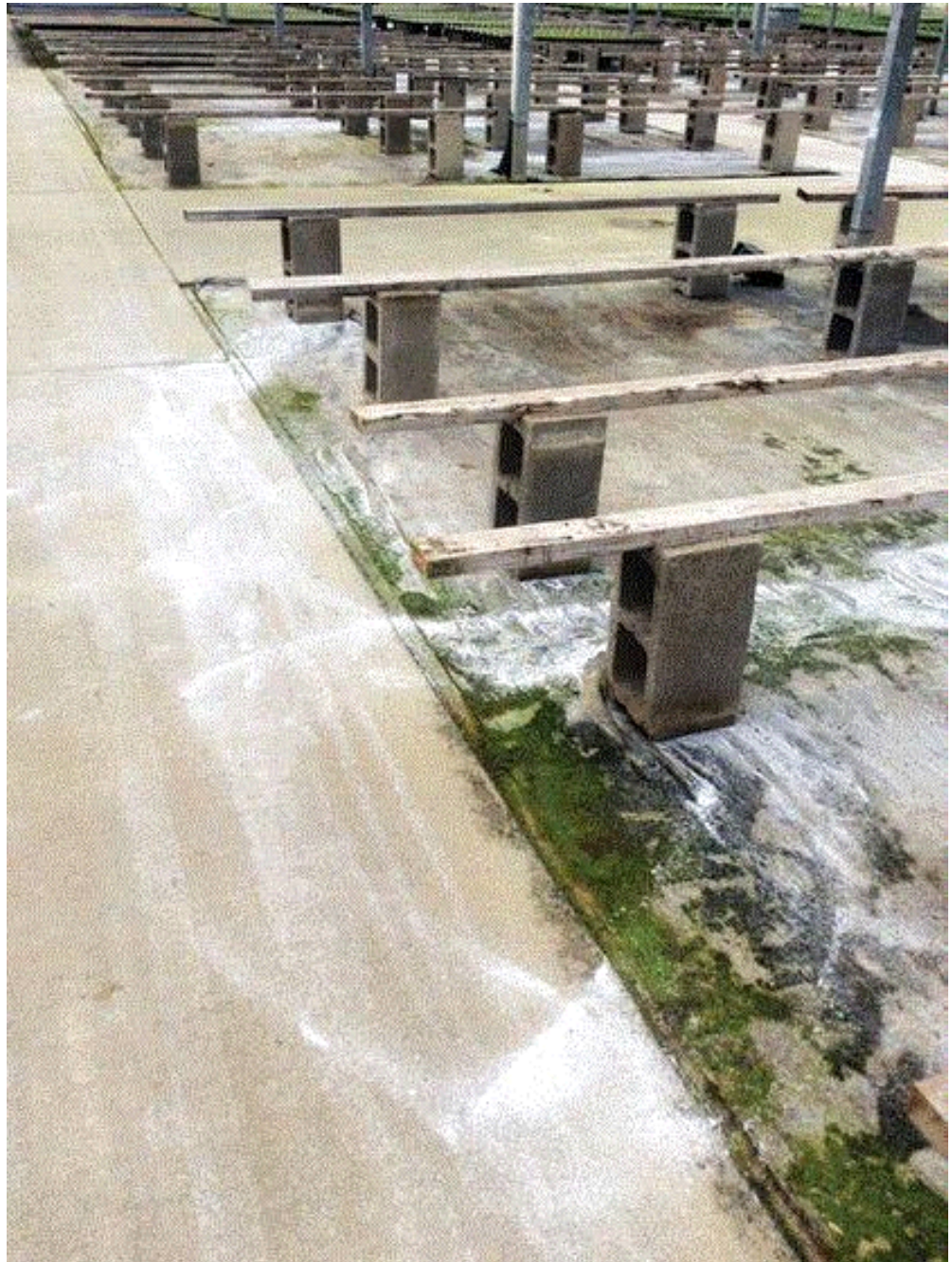


Post-Spring Sanitation

Sort of like the mum content I shared at the start of the newsletter, it’s time to think about the bright, sunny days ahead when your greenhouse benches and floors are again visible because your spring crops have been shipped. Before you head to the beach or out on the lake, take this time to clean up before the inevitable days when you lay down fall crops and start pansies, mums, cabbage, kale and whatever else you offer in autumn.

Tech On Demand expert Josh Henry recently shared some sanitation tips to help you break the proverbial “green bridge” that can carry problems like pests, weeds and diseases over from

season to season.



After a hectic growing season, the site of an empty greenhouse is one of the biggest feelings of relief a grower can have. As the last pots ship and the stragglers are sent to the compost pile (very important to eliminate stragglers), it can seem like things are ready for the next crop. *However, have you taken a moment to check under the benches?* And not just at the front, but all the way down to the endwalls? Back under the cooling pads? While the house is empty, it is critical to eliminate the weed population.

There are postemergence herbicides that are safe to use in the greenhouse but be sure to follow the label. Not all products can be applied with crops in the house, and some are restrictive to applications only below benches. Preemergence herbicides can also be used on greenhouse floors to prevent weed emergence and keep your greenhouse weed-free. More information on herbicide use in the greenhouse is available from [North Carolina State University](#).

Contact your chemical representative to ensure you are purchasing the correct products. Always read and follow the label as instructed. For operations recirculating water, also consider that

herbicide residues can be reapplied through irrigation, but this varies based on the active ingredient, water volume and whether any water treatments are applied.

In-depth discussions on cleaning and disinfecting greenhouses are available from [University of Massachusetts](#) and [Michigan State University](#). Once larger debris is removed and surfaces are swept, consider cleaning surfaces with pressure washers, soaps, or other products such as Strip-It. This will remove any small organic particles and increase the efficacy of sanitizing products. Wet spots in the greenhouse turn greener as the season goes on, making a great place for pathogens, fungus gnats and shore flies to shelter between crops.

In addition to physically cleaning surfaces, utilize chemical disinfectants like quaternary ammonium compounds, hydrogen peroxide or a simple bleach solution. These disinfectants can be applied to floors, walls, benches, or other greenhouse surfaces that harbor pests and diseases. It is important to note that disinfectants typically kill pathogens on contact and have little to no residual activity, meaning they do not provide extended protection against pathogens after application.

Final Notes for Success

- Let the greenhouse sit empty for a few weeks after cleaning. The extra time helps eliminate any remaining pests and pathogens before the next crop comes in.
- While it's important to make sure the inside of the greenhouse is clean, don't forget to look outside. If you have tall weeds, piles of debris or other sources of contamination outside the vents or doors, this offers an additional route of contamination for pests and pathogens.
- Also consider employee traffic patterns, as people are often a major contributor to pest and pathogen dissemination.
- Deep cleaning and sanitizing are an important step between crop cycles, but always strive to keep houses clean all season long.

Start clean and stay clean this season by breaking the green bridge! For more information, check out these Tech On Demand resources:

- [Breaking the "Green Bridge"](#)
- [Start Clean. Stay Clean.](#)
- [Podcast: Greenhouse Sanitation](#)

Finish Line ...

Keeping yourself and your team motivated during the busiest time of year is critical. It not only keeps folks working to the best of their ability but also goes a long way toward achieving the business goals you set for the year. I saw a [HARVARD BUSINESS REVIEW POST](#) earlier this week on the subject and saved it to share with you.

Here are four suggestions from the author (paraphrased by me) for "how to keep working when you're just not feeling it":

Design goals, not chores. When your team has targets, intrinsic (not extrinsic) motivation is triggered.

Find effective rewards. Avoid incentives that undermine the goal, make rewards clear and tangible and consider random awards to keep things interesting.

Sustain progress. Breaking goals into smaller sub-goals can keep a team moving forward and striving to meet the agreed-upon end result.

Harness the influence of others. Identify your high achievers and work with them to talk to their

peers about ways to drive higher performance and ways to accomplish hard work in your particular business.

Until next week ... Keep at it! The products you grow and sell truly have the power to improve people's lives!

Please feel free to send your comments, constructive criticism and topic ideas to me at bcalkins@ballhort.com.



Bill Calkins

Editor - Tech On Demand

This email was received by you and 25,895 other fine subscribers!

If you're interested in advertising in Tech On Demand, contact **Kim Brown** ASAP and she'll hook you up.

