Watch Out Aphids & Spider Mites, Plus Getting Acclimated

News and commentary for the perennial market

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Perennial PULSE

News and commentary on the global perennial plant market

COMING UP THIS WEEK:

Watch Out Aphids & Spider Mites
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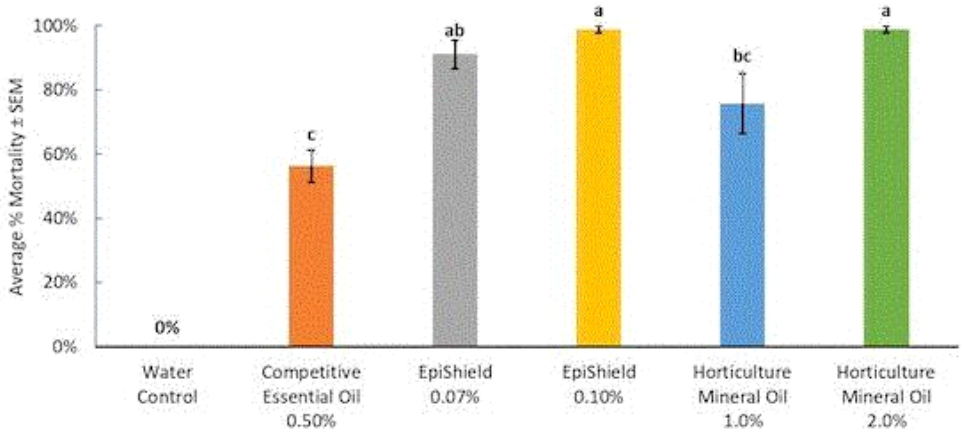
Watch Out Aphids & Spider Mites!

There's not a new sheriff in town, but a highly effective new miticide/insecticide on the market. It's EpiShield from BioWorks. EpiShield contains a unique formulation that uses a synergistic blend of clove oil, peppermint oil and sodium lauryl sulfate. It utilizes multiple modes of action including suffocation, paralysis and desiccation.

Just how effective is it and how does EpiShield stand up to other oils on the market? Below are the results on two-spotted spider mites from a trial conducted on lima beans.



The graphic shows the results two days following a single application. As you can see, EpiShield provided over 90% mortality. Equally impressive is the fact that EpiShield provides this amount of efficacy at 10 to 28 times lower rates than those achieved by horticulture mineral oil.

EpiShield is labeled for greenhouses, shadehouses, interiorscapes and nurseries, and can be

applied to outdoor food crops, indoor plants, turfgrass, outdoor shrubs, trees and ornamentals. It's highly effective at controlling aphids and spider mites, and can also be used for suppression of mealybugs, thrips and whiteflies.

With multiple modes of action, EpiShield is an effective IPM tool for resistance management and EpiShield has no restricted entry interval (REI) and no post-harvest interval (PHI). This sounds like a good tool for the pest management toolbox to me.

Getting Acclimated

Acclimation refers to the process plants go through in the late fall and early winter that allows them to become acclimated, or should I say more tolerant, of cold temperatures. It's a gradual process and a plant's ability to withstand cold temperatures changes throughout the dormancy period depending on the temperatures the plants are exposed to. Plants will become acclimated to cold temperatures when they're exposed to them for a period of time and will become deacclimated or less able to tolerate cold temperatures when they're exposed to warmer temperatures.

Acclimation is a necessary and important component of the overwintering process. Improperly acclimated plants will be more sensitive to cold and more susceptible to plant injury and/or death during the winter months. Unfortunately, acclimation cannot be measured and there are no signs or indicators that a plant is properly acclimated. Acclimation varies by geographic location. For example, an echinacea plant in the South will require and reach a different level of cold tolerance than the same cultivar of echinacea in the North.

Regardless of your location, it's important that you allow plants to become properly acclimated to cold temperatures prior to overwintering them. Perhaps it seems there's nothing you can do to aid with this process, but I'm telling you there's only some truth to this line of thinking. Have you ever thought about how covering a Quonset or coldframe structure too early in the fall will delay acclimation or may negatively impact the plant's ability to withstand cold when cold conditions arrive? Wait, there are more factors you may haven't considered. Let's briefly cover them:

- **Temperature.** Temperature is the most important factor during the acclimation process. During the fall, take every step possible to keep the plants as close to outside temperatures as possible. If overwintering inside covered structures, open the vents or ventilate the house to allow the temperatures inside to resemble those outside. Frost is acceptable and actually beneficial; it might feel uncomfortable, but I've never lost a perennial due to frost in the fall.
- **Irrigation.** Reducing the amount of irrigation in the fall should be a normal process, as the plants aren't using the same amount of water as they did when they were actively growing. However, a small amount of water stress (not drought) can reduce the time it takes plants to reach dormancy and can increase the cold tolerances of many perennials.
- **Fertility.** Similar to my comments above with irrigation, the amount of fertilizer being delivered prior to overwintering should be reduced due to the reduction of active growth.

High fertility levels aren't needed or beneficial in the fall and actually decreases a plants ability to become acclimated.

- **Light intensity.** Plants being grown under lower light intensities acclimate slower than plants being grown at high light intensities. Avoid keeping shadecloths over crops being prepared for their winter slumber.

Removing shadecloth in the fall will help improve the ability for plants to become acclimated in the fall.

Being aware of how temperature, irrigation, fertility and light intensity can affect a plant's ability to become acclimated can be useful when preparing them for the winter. Taking steps or managing these areas can greatly improve your ability to overwinter plants. If you can manage one or more of these factors this fall, I encourage you to do so.

Beytes on Perennials

I don’t know if you saw this or not, but Chris Beytes (aka Bossman Beytes) recently shared some observations from the Ball Trial Gardens in his *Acres Online* newsletter. If not, I thought this might be of interest.

What's awesome in the perennial garden this week?

Not a regular feature of *Acres Online* (perhaps it should be?) is "What I like the looks of in The Gardens at Ball" at any given time.

I was out there a couple days ago, getting some air and pondering a problem, when I found myself in the perennial area. Now, late September is not when I expect to see spectacular color leaping from perennial beds. But there it was, this rainbow of color looking fresh and cheerful.

What was it?

Bed 8, sedum and delosperma.

I've got sedum in my own garden, but not en masse like this. As for delosperma (ice plant), I've never even tried it! I certainly didn't know it offered this sort of color this time of year.

The delosperma varieties you're seeing are Ocean Sunset (Darwin Perennials), Wheels of Wonder (Concept Plants) and Delmara (Green Fuse Botanicals). They've held up through an interesting spring and summer of cool, hot, wet, dry … a bit of everything. (The few weeds you see are an indication that garden maintenance has been curtailed for the season.)

We all know that stonecrop-type sedum are great foliage fillers in the landscape, so no surprise there. Behind the delosperma, you're looking at Lemon Ball, Angelina, What a Doozie, Coral Reef and others; I particularly like the texture of Darwin's Prima Angelina (below).

Thank you, Bossman, for taking the time to not only take a breather, but for sharing your observations of these great perennials. Next time you want to cover perennials, please consider giving me an exclusive. You're always welcome here.

Aster x Thunderdome

Thunderdome is a recent introduction from Intrinsic Perennial Gardens. It combines the vibrant purple flowers of New England aster with the fragrant foliage and bushy habit of aromatic aster. This creative matchup results in a large, colorful show-stopping perennial. Thunderdome grows up to 30-in. tall and 3-ft. wide and is cold hardy all the way to Zone 3. Give this eye-catching new aster a try.

Building Better Plants With Biologicals

Here's one last reminder about the upcoming FREE "Building Better Plants With Biologicals" webinar. In this *GrowerTalks* webinar, Premier Tech Horticulture's Southeast Horticultural Specialist Nathan Wallace Springer will be sharing the benefits of using growing mixes containing beneficial microorganisms.

- Improved fertilizer uptake and reduce fertilizer costs
- Improved water uptake, increasing drought resistance
- Increased resistance of plants to stress
- Increased root mass, flower production, plant size and yield

Date: Thursday, October 19, 2023
Time: 1:00 p.m. Eastern/12:00 p.m. Central

Register for the webinar HERE.

This webinar has been generously sponsored by Premier Tech Horticulture, which is why it's FREE to you!

Thanks for reading this edition of *Perennial Pulse*. My email is paul@opelgrowers.com if you have any comments, article suggestions or if you'd just like to say hello.

Best regards,

Paul Pilon
Editor-at-Large—*Perennial Pulse*
Director of Growing—Opel Growers

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