News on Pennant Magnum, Mealybugs, Strawberries; Plus RIP Marc van Iersel



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Pestalks

COMING UP THIS WEEK:

Pennant Magnum Crop Safety Mealybug Efficacy Fusarium-resistant Strawberry Biobest Acquires BioWorks RIP Marc van Iersel



Ball Culture Guide The encyclopedia of SEED GERMINATION By JIM NAU

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Updated Pennant Magnum and Mealybug Summaries

Pennant Magnum contains s-metolachlor, which is a preemergent herbicide for the management of broadleaf weeds, grasses and sedges in nurseries, turf and landscapes. IR-4 published an updated summary of the crop safety of s-metolachlor last week.

IR-4 completed 231 crop safety trials between 2004 and 2022 where s-metolachlor was tested at 2.5, 5 and 10 pounds active ingredient per acre when applied at four, six or eight weeks between applications. The crop safety for 97 plant genera was tested with significant injuries observed on 25 crops, including several agastache species, gerbera daisy, pentas and other commonly grown species. Click HERE to access the crop safety summary for s-metolachlor.

The label of Pennant Magnum contains long lists of container-, field- and liner-grown ornamental plants that are safe with Pennant Magnum. IR-4 has now documented several plant species that are also safe with Pennant Magnum. Before you use this herbicide, however, you should also do a test before you broadcast. A crop safety research program—doesn't matter how comprehensive it may be—can still miss some species and cultivars.

IR-4 also updated the mealybug efficacy summary. Mealybug was identified as a high research priority during the 2019 and 2021 workshops. Several new trials conducted in 2022 have been included in the updated summary, including one trial on striped mealybug I'd conducted.

Several products stand out in the IR-4 trials as being some of the most effective against multiple mealybug species. These are (in no particular order of efficacy): Aria (flonicamid), Flagship (thiamethoxam), Kontos (spirotetramat), Orthene (acephate), Pradia (cyclaniliprole), Rycar (pyrifluquinazon), Safari (dinotefuran), Talus (buprofezin), TriStar (acetamiprid), Ventigra (afidopyropen), and the experimental products A16901B (thiamethoxam + cyantraniliprole; by Syngenta) and ISM-555 (plinazolin; by Syngenta). MBI-205 (by Marrone Bio Innovations), SP3014 (by SePRO), and TetraCURB Concentrate (rosemary oil) also provided suppression of mealybug populations.

Some of you probably wonder where horticultural oil is in the list. Well, the list above was generated based on the products submitted for testing. Horticultural oil is still one of the best management tools

against mealybugs of different species in my opinion. Use it.



UC-Davis Releases Fusarium-resistant Strawberries

I have very little experience with strawberries, whether they're grown in a greenhouse or in the field or in the form of a preserve, jam or jelly in a jar. I guess I can trace this deficiency back to my childhood. When I was growing up in tropical Malaysia, I just never developed a taste for the exotic cool-weather strawberries. When you can have durian, why would you want strawberry?

Americans sure love strawberries, though. According to Statista, each American consumed, on average, 8 pounds of this red fruit in 2020. Much of the fresh strawberries we eat come from California. To be more precise, 88% of strawberries harvested in the United States come from California. This amounts to about 1.8 billion pounds per year. Not all is well, however. Before the recent flood, strawberry production in California has been plagued by Fusarium wilt for years.



Guess which one of these is the variety resistant to fusarium wilt? (Photo credit: Glenn Cole, UC-Davis.)

Here's another example of modern science to the rescue: Fusarium-resistant strawberry varieties. California nurseries can now buy five Fusarium wilt-resistant strawberry varieties from the Foundation Plant Services of the University of California—Davis.

The Strawberry Breeding Program at UC-Davis, under the leadership of Dr. Steve Knapp, has developed UC Eclipse, UC Golden Gate, UC Keystone, UC Monarch and UC Surfline based on their previous work on screening thousands of strawberry plants for Fusarium resistance genes.

Click HERE for characteristics of each of these new varieties.



See what you might have missed!

Biobest Announces Intent to Acquire BioWorks

Biobest and BioWorks are two names familiar to those who use biological control to manage pests. Biobest is one of the leading suppliers of biological control agents and pollinators, whereas BioWorks is a major provider of biopesticides and pest management solutions to the horticultural industry.

Biobest announced on May 5 that it has signed a non-binding letter of intent to acquire BioWorks. The acquisition will allow Biobest to expand into the biopesticide market via BioWorks' portfolio, and marketing and logistic channels. There's no word on when the acquisition will be finalized.



So what does the acquisition mean for those of us who use BioWorks' products? Nothing—apparently, at least for a while. According to Jean-Marc Vandoorne, CEO of Biobest, "BioWorks will operate independent of Biobest's beneficial insect and pollinator business and Biobest's North American subsidiaries."

Click HERE to read a news release about the acquisition.



In Memoriam: Dr. Marc van Iersel

It was with deep sadness that I received the news of the passing of Dr. Marc van Iersel. The horticultural industry has lost a dedicated scientist, teacher and leader.

To me, this loss is much more personal. Marc was the co-advisor in my Masters program at the University of Georgia and guided me through a project looking at how carbon dioxide elevation and light level impacted mealybug development.

Marc was famous for his work on light use efficiency in floricultural crops and his most recent efforts in leading Project LAMP and co-founding Candidus, Inc. (with Dr. Erico Mattos). These efforts have brought efficient and optimal lighting technologies to greenhouse production.

Marc has also contributed to automation of irrigation and lighting in greenhouse production systems through the use of various sensors and controllers. The overarching goal of his projects was to grow better plants with lower inputs and costs.



Marc passed away peacefully on April 20 at the age of 57. Marc is survived by his wife, Dr. Lynne Seymour, their family, and an army of pets. I still remember pet-sitting for Marc and took his two dogs on a walk like it was yesterday.

A memorial tribute honoring Marc has been established through the American Floral Endowment (AFE). Terril Nell, AFE's Research Director, noted, "Marc provided the flower industry with practical information based on sound science. He anticipated the needs of growers and sought funding to improve production and flower quality."

Click HERE to find out how to contribute to the Marc van Iersel Memorial Tribute.

See y'all later!

JC Chong Technical Development Manager at SePRO Adjunct Professor at Clemson University

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