

Greenhouse Pest Posse

Colorado
State
University
Cooperative
Extension

Putting Knowledge to Work

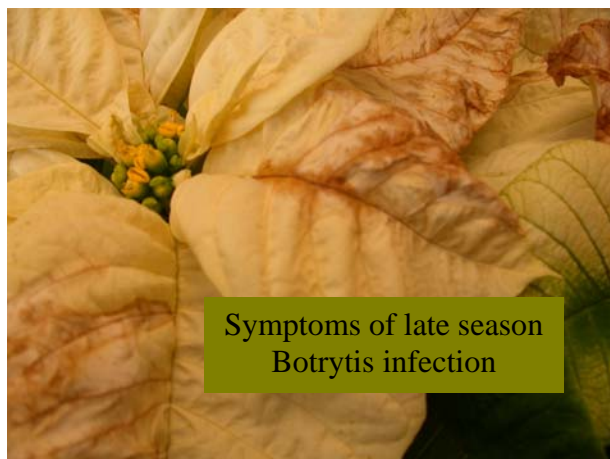
November– December 2004

Volume 2, Issue 6

“What’s current on the pest, disease and production scene”

BOTRYTIS ON POINSETTIA

No one wants to experience late season disease problems on poinsettias. However, it can happen to many. Since the risk of fungicide applications is often too great, prevention of these problems is key. Take for example, the disease symptoms caused by Botrytis, pictured below. Which include tan lesions on bracts and gummy latex which oozes out of leaf veins.



These plants are un-saleable and were thrown away. To prevent problems like Botrytis from developing, manipulation of the environment to reduce relative humidity is the main focus. An increase in pot spacing combined with providing ventilation while heating at sunset will help drive out humid air.



THIELAVIOPSIS AND FUNGUS GNATS— 'Tis the Season

High heating costs combined with winter temperatures means that it is the season to be on the watch for cool season pests and diseases. Whenever crops are grown at temperatures cooler than optimum, certain organisms are likely to take advantage of the situation. Those to be on the lookout for may include: Root rots caused by *Thielaviopsis* and *Rhizoctonia*; Foliage and flower problems caused by *Botrytis*; and pests such as aphids, fungus gnats, shore flies, whiteflies, thrips and slugs.

Careful consideration will need to occur between the trade offs of increased heating expense versus increased pesticide expense.

Cottony cushion scale and other unexpected "guests" arriving on tropical



Two unrelated problems came in on plants coming to Colorado from more 'tropical' climates. The most flamboyant problem was cottony cushion scale (above). This pest is common on citrus in both Florida and California. While there is history of great success at managing this pest with biological controls, it was in the best interest of this greenhouse grower to destroy the plants.

The other uninvited guest was anthracnose, a fungus disease on *Sansevieria*. Symptoms seemed to mimic



freeze injury, but fruiting structures were present within leaf spots, and leaf spots were "scattered" among leaves. In a dry climate, management of diseases like this can be accomplished by removing infected leaves. Typically this is enough to control the problem.



DIANTHUS MYSTERY- Nutrient problems related to low pH- CAN ALIETTE LOWER pH?

Three cultivars of *Dianthus* ('spotty', 'spangled star', and tiny rubies') began to show symptoms of leaf burning/blighting/purpling and leaf spot in November. Symptoms appeared the day after an application with the fungicide Aliette. The symptoms posed a mystery because common fungi, bacteria and viruses, normally responsible for disease on *Dianthus*, could not be found. Other cultivars of *Dianthus* in the same location were not affected. Discussions with other Diagnosticians around the U.S. revealed that these



symptoms had been seen by several, and on the same cultivars. In most cases, a disease organism had not been involved.

In this case it appears that the pH of the growing media was too low, leading to nutrient toxicity. How was the fungicide Aliette potentially involved?

The fungicide Aliette (Fosetyl Aluminum) has a pH of 4 and contains or produces phosphorous acid. It is a very effective pesticide that helps manage *Pythium*, *Phytophthora*, and many bacterial pathogens.



Miscanthus mealybug

MISCANTHUS MEALYBUG

2004 was the year for pests and diseases on *Miscanthus* in Colorado. This fall we were introduced to *Miscanthus Mealybug*. Unfortunately, another difficult organism to manage. *Miscanthus mealybug* crawlers are very small and hide in leaf sheaths, making detection of early infestations difficult. Once infestations are noted, they are often hard to manage due to high numbers.

Symptoms of infestation include plant stunting and leaf dieback. In general, Mealybugs have been managed successfully with the following insecticides:

- > Talstar
- > Marathon
- > Safari
- > Flagship
- > Orthene

The rotation of contact and systemic formulations is said to be very helpful.

LEAF SPOT ON ZAUCHNERIA

For several fall seasons in a row, an interesting leaf spot symptom has been appearing on scattered plantings of *Zauchneria* (humming bird plant). These leaf spots would occur on plants grown in the greenhouse as well as outdoors.

While symptoms were very characteristic of fungal disease, it wasn't until this fall, that a potential pathogen could be isolated from the symptomatic tissue.



The fungus *Pestalotia* was recovered from the spots, tests are underway to confirm Koch's Postulates, as *Pestalotia* isn't always an aggressive disease causing agent.

Fungus caused leaf spots can be managed with sanitation combined with a lowering of relative humidity. A variety of fungicides are also labeled including (but not limited to): Chipco 26019 (Iprodione), Dithane, Manzate, Heritage, Medallion, Stat-ure, Zyban, Spectro, Junction, Syst-hane and Terraguard.

DIANTHUS (continued from page 2)

In the case of the Dianthus, the medium pH prior to the Aliette application was approximately 5.6. Dianthus would prefer to grow at a pH of 6 or 7. Nutritional toxicity or deficiency symptoms may not have been noticeable at a pH of 5.6, but, we surmise that the application of a pesticide with acidic properties would have driven the pH of the media even lower, thereby inducing nutritional toxicities.

The plants have since, grown out of the symptoms, once the pH was back in an appropriate range.

QUESTIONS OR COMMENTS?

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*Dr. Richard
Lindquist at
Center
Greenhouse to
discuss
'Greenhouse
Insect Control'*

*January 27,
2005*

9:00—11:30

Don't miss this great opportunity to learn more about insect control from a respected and leading authority.

Center Greenhouse offers a "Spring Refresher" each year to educate their employees. This year, with the sponsorship of Olympic Horticultural Products they are able to open this event up to all members of the industry.

To register and for more information, contact :

Kim Crowther at Center
Greenhouse, 303-288-1209.

Center Greenhouse is located at
1550 E. 73rd Ave, Denver

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Greenhouse Pest Posse

A newsletter designed to keep greenhouse growers informed of current pest, disease and production information. Produced by Laura Pottorff, Regional Greenhouse Specialist, Colorado State University

Want to see the photos in color? Access this publication on the web at: www.colostate.edu/depts/coopext/adams/gh

UPCOMING EVENTS FOR 2005

Progreen Expo

Jan 10—14, 2005 Denver, CO

www.progreenexpo.com

Tomato Production Short Courses

Arizona—January 16—19, 2005

<http://ag.arizona.edu/ceac/>

Mississippi - March 1,2,3,4, 2005

<http://www.msstate.edu/dept/cmrec/ghsc.htm>

Colorado AgrAbility

February 9, 2005, farmers, ranchers, greenhouse growers, agriculture workers, and their family members with disabilities and the professionals that serve them are invited to a free AgrAbility workshop. **Contact Tom McBride-303-673-8110**

Subscription— FREE!

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