



**Greenhouse TPM/IPM Weekly Report**  
**University of Maryland Cooperative Extension**  
**Central Maryland Research and Education Center**

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**October 5, 2007**

**Getting Green: Sustainable Energy  
Use for the Green Industry**

November 8, 2007

Maryland State Fairgrounds, Timonium

For more information: 310-596-9413

**Chrysanthemum White Rust Update from Carol  
Holko, Maryland Department of Agriculture**

Chrysanthemum white rust (CWR) is turning up in nurseries in the Northeast. CWR, in addition to being a serious pest of chrysanthemums, is a quarantine significant pest in the United States. Importation of chrysanthemum species is prohibited from several countries in order to prevent its introduction into the U.S. Whenever CWR is detected in the United States, USDA works cooperatively with the States to eradicate it.



**Photo by John Bowers**

Chrysanthemum white rust may be recognized by the small white to yellow spots, up to 4 mm wide, on the upper surface of the leaf. These slightly dimpled spots become brown over time. Pustules form on the underside of the leaf, beneath the small spots. These are buff to pink-colored but become white as they age.

If you think you have seen chrysanthemum white rust in Maryland, please call the Maryland Department of Agriculture, 410.841.5920. For more information, visit [http://www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/cwr/](http://www.aphis.usda.gov/plant_health/plant_pest_info/cwr/) on the Web.

## Zinnias

This week at the Association of Specialty Cut Flower Growers' national conference in Raleigh, North Carolina, growers from both NC and VA said that they are seeing beet armyworm on zinnias. In our September 10, 2004 report we noted that Debby Smith-Fiola was finding armyworms feeding on the flowers of Zinnia in the Keedysville, MD area.

**Control:** Conserve



## Powdery Mildew

Powdery mildew is also being detected on Zinnia this week. This disease shows up with the cool nights and sunny days. The powdery mildew grows on the surfaces of the plant and can be easily seen as a white coating on upper and lower leaf surfaces, on stems and on flowers. Infected foliage, shoots and flowers may be distorted, cupped or curled. Powdery mildew produces small, dark overwintering structures on the white patches that look somewhat like ground pepper.

**Controls:** Milstop, Strike, Terraguard, Heritage, Compass

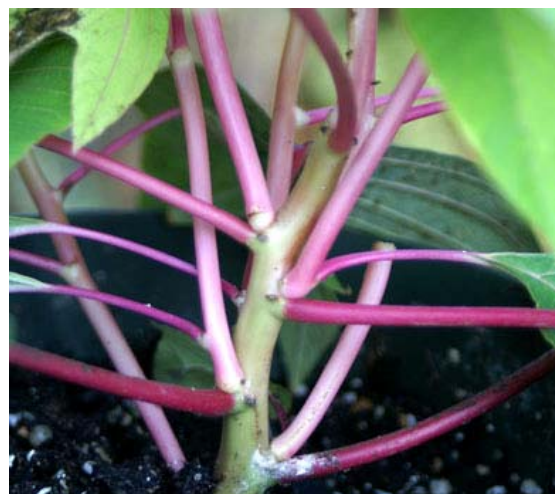


## Poinsettias

We visited a grower last week who was having trouble with his 'Freedom Red' poinsettias. Both the petioles and stems had faded to a pale pink color. They thought that it might be caused by low fertility, and gave the plants some more fertilizer. Over time some of the red pigment has returned, but not entirely.

I sent this photo to Will Healy at Ball International for his opinion. Here are Will's comments...

*"When you have a severe whitefly infestation, the whitefly will inject an agent into the leaf that bleaches the stem white. With time the petiole will return to the original color. Back in the days before imidacloprid, this was a very common occurrence."*



**Don't Mistake Silverleaf Whitefly Damage for a Nutrient Problem**

## Bitter Melons

In our June 14<sup>th</sup> report we showed how one innovative grower was using his roll-up side greenhouse for mid-summer sales. After he finished with bedding plants in this spring, he moved into cut flower and vegetable production. He grew celosia in media sacks and bitter melons in containers with water supplied through a drip irrigation system. We checked in with them this week to see how the bitter melons performed. The managers said that they were a big seller for them this year. The bitter melons are especially popular with customers from Southeast Asia, India, and Pakistan.



June 2007



October 2007



At the Harvesting Stage



Over-ripe Melon with Seeds

**Basil:** We are seeing damage from cucumber beetles, leafminers, and slugs on basil this week.

