



**TPM/IPM Weekly Report for Arborists,  
Landscape Managers & Nursery Managers  
University of Maryland Cooperative Extension  
Central Maryland Research and Education Center**

**June 2, 2006**

**Regular Contributors:**

**Pest and Beneficial Insect Information:** Stanton Gill and Paula Shrewsbury

**Disease Information:** Ethel Dutky, David Clement, and Rich Anacker (MDA)

**Weed of the Week:** Chuck Schuster

**Cultural Information:** Ginny Rosenkranz

**Fertility Management:** Andrew Ristvey

We need you – please call in if you are finding insect, disease, weed cultural plant problems. Your input will help us keep this weekly report up on the leading edge. Send submissions to [Sklick@umd.edu](mailto:Sklick@umd.edu) or Call Stanton Gill at 301-596-9413. Thanks! We look forward to hearing from you.

**Hot Weather**

The temperatures reached the 90s this week and the stress on plant material is becoming apparent. We are under drought conditions and combined with these 90 °F temperatures expect to see scorching of foliage on shallow rooted plants. Try to get customers to use trickle irrigation for white pine, Chinese dogwood and native dogwood.



**Bagworms Are Out**

We had a report last week of bagworm hatching on the Eastern Shore. This week we are receiving reports of bagworm hatch from various central Maryland locations including Beltsville and Sparks (May 30<sup>th</sup>), Burtonsville (Eastern Red Cedar - May 29<sup>th</sup>), Woodbine (over the weekend), College Park (Juniper – May 20<sup>th</sup>), Beallsville (May 31<sup>st</sup>), Baldwin (May 31<sup>st</sup>), Fallston (June 1<sup>st</sup>), Lanham (June 1<sup>st</sup>) and Sterling, VA (May 30<sup>th</sup>).

**Control:** Bt is one of the safest materials to use to control these early instar larvae. Conserve will also give good control.

**Cottony Maple Scale**

Bryan Lilly, Plant Health Care, found cottony maple scale on dogwood, but no crawlers yet, on May 30<sup>th</sup> in Sterling, VA. This scale goes to crawler in June so they should be out soon.

**Japanese Beetles**

Mike Raupp found one adult Japanese beetle on roses in College Park on May 26th. Wow - is this early!

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### **Camellia Taxus Scale**

Mark Schlossberg, Pro Lawn Plus, submitted a yew sample on May 30<sup>th</sup> from Stevensville with active crawlers of camellia taxus scale.

**Monitoring:** Look for crawlers as they start to appear this month.

**Control:** Distance, TriStar or Horticultural Oil



### **Seed Corn Maggot, *Dehlia platura***

Joe Fiola, Extension Grape and Small Fruit Specialist, sent in a photo of flies that he found dead attached to grape leaves at his research plot in Keedysville. These flies are the adult stage of the seed corn maggot, *Dehlia platura*. I thought we should share this picture with you because you will see these dead flies attached to landscape plants over the next couple of weeks. They are harmless to the ornamental plants. The adults are infected with an entomopathogenic fungus that kills the insect.

**Control:** Not necessary.



### **Dusky Sap Beetle, *Carpophilus lugubris***

The dusky sap beetle is a pest of several field crops in addition to the ornamental yucca plant.

**Monitoring:** It is found feeding on the flower buds and open flowers of yucca in late spring. The adult beetle is gray or brown and oblong to oval in shape. The yellowish to pinkish grubs feed on flowers and mine slightly into the flower-petal tissue. There are at least 3 to 4 generations per year, but it's generally the first generation that causes the damage.

**Control:** Applications of neem when flowers are developing may act as a repellent.



### **Calico Scale – Crawlers Are Out**

Steve Sullivan, The Brickman Group, reports that calico scale is producing crawlers this week in the Columbia area. Amanda Laudwein, IPM Scout, is also seeing crawlers in Beallsville.

Fernando with The Brickman Group saw crawlers in Northern Virginia.

**Control:** Horticultural oil, TriStar or Distance.

### **Gypsy Moth**

Dan Yates, Bartlett Tree Experts, found gypsy moth larvae moving up trunks on May 31<sup>st</sup> in Mt. Airy. He is also seeing larger caterpillars in Ijamsville. So far, he isn't seeing any signs of defoliation.

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## Wool Sower Gall

Dick Bean, MDA, received an e-mail picture from Mark Weiss, National Academy of Sciences, of a wool sower gall. Dick Bean provided the following information:

The wool sower gall looks similar to the woolly leaf gall. However, it arises from the twigs. The galls are produced by the cynipid wasp, *Callirhytis seminator*. Immature galls can be cut open to reveal the interesting seed-like structures that contain the immature wasps. The off-white, woolly galls may expand to 1-2" in diameter. As with the woolly leaf gall, once the wasps mature and emerge as adults, the gall drops from the tree.



A few web sites on the wool sower gall, caused by *Callirhytis seminator*, on white oak are:  
[www.agnr.umd.edu/ipmnet/03June13L.pdf](http://www.agnr.umd.edu/ipmnet/03June13L.pdf)  
<http://www.ces.ncsu.edu/depts/ent/notes/O&T/trees/note05/note05.html>  
<http://whatsthatbug.com/galls.html>

## Pine Bark Adelgids

Tony Murdock found pine bark adelgids on both white and black pine on May 25<sup>th</sup> in Frederick. Monitoring: This aphid produces an abundance amount of white wax but trees usually suffer little harm. There are several generations each year.

Control: Monitor for natural enemies because they commonly control this insect. If populations are high, you can use oil.

## Spider Mites

Tony Murdock found spider mites on blue rug juniper on May 23<sup>rd</sup> in Bethesda. There were also predatory mites on the juniper.

## Witchhazel Gall Aphids

Damian Varga, Scientific Plant Service, found aphids on river birch on May 26<sup>th</sup> in Halethorpe and Catonsville. Dave Barylski, Sun Nurseries, has been seeing quite a few samples from customers who have this aphid on their birches at home. We are also seeing many aphids on the river birch here at the research center. There are large numbers of lady bird beetles feeding on the aphids.

**Monitoring:** As a result of its feeding, this aphid causes the leaves to develop reddish rippled areas. You can find the aphids on the underside of the leaf with a white granular material.

**Control:** Usually not necessary. Let the beneficial organisms keep this aphid under control.



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## Aphids

Steve Sullivan had a bad infestation of a black aphid (species not identified) on burning bush in Columbia recently. Even though beneficial insects took care of this infestation, he had to prune about 4 inches of distorted growth. Damian Varga, Scientific Plant Service, found aphids on river birch on May 26<sup>th</sup> in Halethorpe and Catonsville. Tony Murdock reported woolly aphid adults on river birch on May 27<sup>th</sup> in Frederick. We are seeing many aphids on sedum here at the research center. There are large numbers of beneficial organisms such as syrphid fly larvae, lady bird beetle larvae and various spiders feeding on the aphids.



Sedum aphids found on sedum



Syrphid fly larva that feeds on aphids.  
Coloration depends on host species.

## Lace Bugs

Damian Varga reported lace bugs on azalea on May 26<sup>th</sup> in Clarksville.

## Report Note:

We commonly list certain products in these reports, but other products are effective as pointed out in an e-mail from Richard Fletcher, Cleary Chemical Corporation. He commented on the absence of TriStar for wax scale control in a May report. Richard mentioned that as a result of their research, it is labeled for pest groups such as caterpillars, hard and soft scales, plant bugs, adelgids, midges, leaf-eating beetles, and leafminers.

## Spindle Galls

Dave Barlowski reports receiving several samples this week from customers at the garden center of spindle galls on oak, maple, and hickory.

**Control:** Not necessary.

## Exobasidium Gall Also on Camellia

Mitch Baker, American Plant Food Co, had a customer who brought in several stems from a fall blooming camellia with the camellia leaf gall, *Exobasidium camelliae*. The foliage resembled a sedum. Early in May, we reported that this type of gall was being found on azalea.

## Powdery Mildew

Steve Sullivan found powdery mildew on garden phlox this week.

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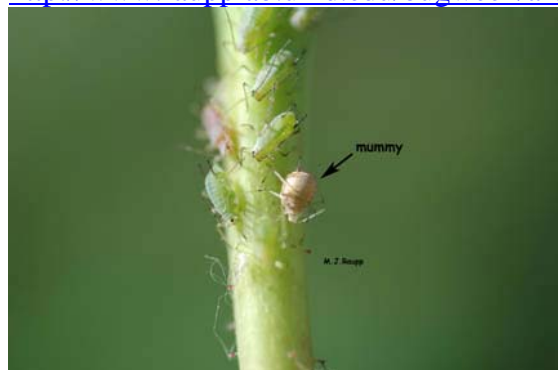
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## **Beneficial of the Week: Aphids and their Mummies**

Over the last several weeks there have been numerous reports of aphids on various plants. I have made the important point that in many situations chemical controls are not needed for aphids because there are a suite of natural enemies that ultimately reduce, and often eliminate, the aphid populations. I have reported on lady beetles (5/5/06 Pest Report) and syrphid (flower) flies (5/12/06 Weekly Report) and the tremendous impact they can have in reducing aphid populations. Well these guys are still out there working the aphid colonies. We've had numerous reports from many of you who were or have become astute at recognizing these beneficial insects (thanks!).

There is another important player in this game of nature between herbivores and natural enemies that you should be able to recognize – aphid mummies! These mummies are actually the result of tiny parasitic wasps that attack aphids. Female wasps in the genera *Aphidius* insert their ovipositor into the body of an aphid and deposit an egg. The egg hatches and the wasp larva feeds on the insides of the aphid. During this process the aphid's body becomes swollen or bloated looking, and the exoskeleton turns from its natural color to tan and has the look of a papery shell – hence the name aphid mummy (see image). Not surprisingly this results in the death of the aphid. As the wasp larva completes its development it pupates within the aphid. When the adult is formed it chews a discrete circular hole (see image) in the exoskeleton of the aphid and emerges from the mummy. At this point the female wasps can move on to parasitize other aphids (see image). Each female wasp can kill up to hundreds of wasps in its lifetime. In addition to these tan aphid mummies there is another genera of parasitic wasp, *Aphelinus*, which similarly attacks and ultimately kills aphids. However, the bloated bodies of *Aphelinus* parasitized aphids turn shiny black in color rather than tan. So as you are out scouting your plants and watching the lady beetles and flower flies devouring your aphids, be sure to look for those aphid mummies!

For more information on aphid mummies and other aphid biological control agents go to: [http://www.raupplab.umd.edu/bugweek/archive/BugOfWeek\\_19A.html](http://www.raupplab.umd.edu/bugweek/archive/BugOfWeek_19A.html)



*Tan aphid mummy image* – Rose aphid mummy with a parasitic wasp in the genera *Aphidius* developing within it.



*Tan aphid mummy with hole image* – Rose aphid mummy showing the circular hole formed when the adult parasitic wasp emerges from inside.

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Black aphid mummy image – Oleander aphid colony showing black aphid mummies which were parasitized by a wasp in the genera *Aphelinus*.



Adult wasp image – *Aphidius* adult wasp ovipositing into an aphid (image from HydroGardens).

### Fertility Management: Taking Ornamental Plant Samples for Nutrient Status

Knowing the nutrient status of your nursery crop fits in well with a monitoring program that includes checking your potting soil's EC's and pH. Here are some tips on plant sampling. Remember that some nutrients are very mobile and that these nutrients are moved around within the plant to suit growth. These nutrients include nitrogen, phosphorus, potassium, and chlorine. Other nutrients are moderately mobile like magnesium, sulfur or molybdenum. Still others have limited mobility and they include, iron, manganese, copper, boron, calcium, and zinc. For this reason sampling from the correct leaf is the key to accurate analysis and meaningful interpretation of results. It is important to take samples of the most recently matured leaves. Taking samples of older leaves or from new growth will not give accurate results. Additionally, you want to harvest enough sample for the laboratory. This is usually about two cups of fresh leaves if possible. You should also consider sending samples of healthy plant tissue, if you have it, for comparison. While you're at it, sending in some soil in which the troubled plants are growing is also recommended. The laboratory to which you send your samples should have explicit directions for packaging and labeling your samples.

If you have potential nutritional problems with your crop, call your local extension office or me, Andrew Ristvey at (410) 827-8056, for further assistance.

### Weed of the Week:

Buckhorn Plantain, *Plantago lanceolata*, is a perennial weed found in turf and landscapes found throughout the United States. This weed has a taproot with strong lateral roots. If roots are severed, new plants will arise from the portion left in the soil. This plant grows actively from April through July.

Leaves are long, narrow slightly pointed, and are a basal rosette. Ribs run the entire length of the 5 to 20 cm long leaf. Leaves can be slightly pubescent (with Hair) or be without. Flowers take on the foxtail shape, being 2 to 4 cm. long.

Cultural control of this weed would include mowing height, and soil fertility to maintain a dense turf. Chemical control of this weed must be done when the plant is actively growing and can be achieved using post emergent broadleaf herbicides in turf, and post emergent non



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selective herbicides in landscaped beds. Mechanical control through pulling can be less than effective as roots left in the soil will allow new plants to arise.

**What's in Bloom?**

<b>Plant</b>	<b>Plant Stage</b> (Bud with color, first bloom, full bloom, first leaf)	<b>Location</b>
<i>Catalpa speciosa</i>	Full Bloom (June 1)	College Park
<i>Cornus kousa</i>	Full Bloom (May 31)	Baldwin
<i>Cotinus</i> x 'Grace'	First Bloom (May 30)	Silver Run
<i>Kalmia augustifolia</i> 'Pumila'	Full Bloom (May 30)	Clarksville
<i>Kalmia latifolia</i> 'Olympic Fire'	First Bloom (May 30)	Silver Run
<i>Kalmia latifolia</i> 'Minuet'	First Bloom (May 30)	Silver Run
<i>Rhododendron maximum</i> 'Roseum'	First Bloom (May 30)	Silver Run
<i>Scutellaria serrata</i>	First Bloom (May 30)	Silver Run
<i>Veronica</i> 'Darwins Blue'	First Bloom (May 30)	Silver Run

**Degree Day Information (as of June 1):**

Baltimore, MD (BWI)	732
Hagerstown, MD	598
Mechanicsville, MD	683
National Arboretum	831
Salisbury	585

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