



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

May 27, 2005

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Technician

Do you have questions? Give us a call at 301-596-9413

May Beetles – *Phyllophaga sp*

Marty Adams from Bartlett Tree Company brought in large beetles that were tearing up the foliage of river birch. These are adult beetles in the genus *Phyllophaga*, commonly called the May beetle.

Control: Astro, Onyx, Orthene



Aphids on the trunk of Oak Trees

We received in a call about large clustering of aphids on the trunks of oak trees in the Bethesda area. These are an aphid called *Stegophylla quercicola*.

Control: Since the aphid cluster in large numbers on the trunks of trees just about any contact material give good control. Insecticidal soap is effective on this aphid.



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Ash Beetle Borer

Bartlett Tree Company found an ash in Frederick that was dying and it had small D-shaped holes in the trunk and serpentine mines under the bark. It looked like this might be damage from Emerald ash borer. We called Dick Bean at MDA and Dick visited the site on May 18th. He found that it was *Neoclytus* sp. It is suspected that it was *Neoclytus acuminatus* which is the red headed ash borer. They make a small d-shaped exit hole much like the emerald ash borer adult.

The good news it was not emerald ash borer. Keep a look out for any ash with D-shaped holes and give us a call at 301-596-9413 if you see any. Thanks.

San Jose Scale, *Quadraspidiotus perniciosus*

San Jose Scale can be found damaging a wide range of plants including crabapple, apple, pyracantha, and ornamental plum. The crawlers are just starting to emerge this week in the Clarksville area.

Control: Horticultural oil at 1 % rate and Distance IGR should give good control.



Female San Jose scale



Crawler of San Jose scale

Calico Scale

Steve Sullivan with The Brickman Group brought in a Zelkova and Kevin Nickle with ProLawn dropped off a sweet gum branch from the Columbia area that were loaded with Calico Scale.

Monitoring: Look for the honeydew. This scale produces copious amounts of honeydew.

Control: Crawlers are not out yet but should be active very soon. Examine the stems for crawler activity.



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Artillery Fungus

David Snell called in inquiring about artillery fungus this week. Their customers are calling in asking why they have small dark green to black circles attaching to the sides of their houses in areas where hardwood mulch was laid this season. These are the results of artillery fungus growing in the mulch areas.

Glyphosphate Injury in Nurseries

I was visiting a nursery in Anne Arundel County this week and noticed curling, twisting and yellowing of Village Green Zelkova. There are two ways that the Round-up applied to the trees could have entered the tree: The sucker shoots were not removed around the base of the Zelkova and these sucker shoots will serve as an entry point for the glyphosphate moving into the plant. The trees were planted in 2004 and were still young with green tissue present on the trunk. The Round-up applied directly to the trunk can also be taken into the tree and cause this type of injury.



Cankerworms

While conducting site visits on May 20 in the Pasadena area, Damian Varga with Plant Scientific Services saw high numbers of cankerworms on red oaks, chestnut oaks, black cherries, and silver maples. *Paulownia tomentosa* was in full bloom.

Camphor scale

Marty Adams brought in a sample of *Acuba japonica* that John Davidson identified as camphor scale.



European peach scale (*Parthenolecanium prunisum*)

Marty Adams brought in *Ilex verticillata* that John Davidson identified as European peach scale.



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Pieris lace bug, *Stephanitis pyrioides*

Pieris lace bug is in the nymphal stage at this point in time in the Woodbine area. We examined the sample at a nursery in West Howard County on May 23.

Monitoring: Examine the undersides of foliage for the presence of spiny appearing nymphs.

Control: Several systemic insecticides to choose from including: Acephate (Orthene) imidacloprid (Merit in landscape, and Marathon in Nursery), Flagship (in nursery only), Tristar in landscape and nursery.



Japanese maple scale, *Lopholeucaspis japonica*

We have been monitoring trees here at the Central Maryland Research and Education Center in Ellicott City for crawler emergence of the Japanese maple scale. As of today, there are none present yet. Please let us know when you find crawlers in your areas.

Control: Distance and 1% horticultural oil when crawlers are active.

Ambrosia beetles

Back in April we put out an alert when we found large numbers of ambrosia beetle flying. One nursery applied Onyx to the trunk of the trees but they were a little late and some beetles had made it into the heartwood before the spray was applied. Below are pictures of a *Cornus kousa* that died from the activity of ambrosia beetle.



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Beneficial Insects:

Praying mantids emerged from one of three egg sacs on an Arborvitae here at CMREC, Ellicott City on May 27, 2005. Last year, they emerged in early May.



***Gymnosporangium* Rusts are having a very good spring.**

The Plant Diagnostic lab is hearing from arborists that landscape junipers are showing unusually heavy symptoms of the *Gymnosporangium* rusts. Cedar-apple rust (*G. juniperi-virginiana*) makes leaf galls on the juniper. These round galls produce orange gelatinous tendrils in spring. Quince rust (*G. clavipes*) makes shoot cankers, seen as splits in branch and trunk bark with orange-red fungal material bulging out of the cracks. The callers want to know what to do to get rid of the conspicuous symptoms. The very short answer is that there is not anything that can be done to get rid of these symptoms this year or for next spring.



Several major points are important in understanding why nothing that is done this year will alter the severity of rust next spring on junipers. These rusts require two kinds of plant to complete the life cycle. The spores (basidiospores) being produced on the junipers infect the “apple” hosts causing leaf spots, twig galls and fruit galls. This takes place only during a short time in spring (March through May). The infections on the “apple” hosts ripen by mid-summer to produce orange spores (aeciospores) that are carried by wind to infect the junipers. It takes 18 months for the infections on the junipers to ripen into mature galls. The juniper galls we are seeing this spring began as infections during the mild, very wet summer of 2003. Fortunately for the rust fungus, 2004 also had an unusually wet summer. Thus, these rusts infect the apple hosts during a short period in spring, and then have most of the summer and into the fall to infect the juniper. Usually our summer weather is hot and dry, inhibiting infection of the juniper. But not so in 2003 and 2004.

Usually the concern for control of these rusts is concentrated on the “apple” hosts (apple, crab apple, *Amelanchier*, hawthorn, etc). This control is pretty easy to attain because infection is happening during a short period so two or at most three sprays applied in spring do an excellent job. We usually don’t advise any sprays on the junipers because infection is going on for such a long time. In addition, although conspicuous, the rust does not cause serious harm to the

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junipers. If the junipers are sprayed to runoff weekly from mid-July through frost with a fungicide, new infections can be prevented. This is not a reasonable or economical practice, and it is not recommended. In addition, even if the junipers are sprayed weekly this year, it won't have any effect on the severity of rust seen in spring 2006 because these infections took place in 2004. If we have a hot, dry summer in 2005, we will see much less rust on the junipers in 2007.

What's in bloom?

Plant	Plant Stage (Bud with color, first bloom, full bloom, first leaf)	Location and Degree Days (DD) (Location in parenthesis indicates degree day site close to reported site of bloom)
<i>Cornus kousa</i> (Kousa dogwood)	Full bract (May 27 – Ellicott City) Expanding bracts (May 27 – Salisbury)	509 DD 310 DD
<i>Kalmia latifolia</i> (Mountain laurel)	Full bloom (May 27 – Salisbury)	310 DD
<i>Lonicera heckrottii</i> 'Gold Flame' (Gold flame honeysuckle)	Full bloom (May 27 – Salisbury)	310 DD
<i>Philadelphus lewisii</i> (Mockorange)	Full bloom (May 27 – Salisbury)	310 DD

Degree Day Information (as of May 26, 2005):

Annapolis	368
College Park	520
Ellicott City	509
Frederick	353
Germantown	484
Glen Burnie	391
Rockville	448
Salisbury	310
Silver Spring	559
Waldorf	558
Washington DC	520

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Weed of the Week

Canada Thistle (*Cirsium arvense*)

Canada Thistle is a creeping perennial that reproduces by seed and rhizomes. It is frequently found in patches because of its horizontal rhizome growth. Seeds will germinate about the same time as the appearance of root derived shoots starting in April and going through May. Two flushes are found most years, one in late spring and then again in late fall. It can be distinguished from other members of the thistle family by looking at the stem, and flowers. The stem on Canada Thistle will be spineless unlike Bull Thistle or Musk Thistle, and the flowers lack spines or prickles as well unlike Bull or Musk Thistle.



Seedlings have cotyledons that are club shaped; leaf margins are not regular and have spines. Leaves will be alternate, sessile, simple and oblong. They will have an irregular lobe with spiny margins.

Control can be accomplished by using many broadleaf post emergent herbicides. In turf areas 2,4-D with chlorsulfuron, clopyralid and dicamba are effective. In beds and nursery rows glyphosate is effective. Cultural controls would include fertility management, maintaining a dense turf, but not being mindful of nitrogen applications, as excess nitrogen will increase weed growth and maintaining a high mowing height to allow shading of newly germinating seeds. Burning is not an effective method of control for Canada thistle. Photo courtesy of Virginia Tech

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