Landscape Message: Jun 10, 2016

Jun 10, 2016
Issue: 12

UMass Extension’s Landscape Message is an educational newsletter intended to inform and guide Green Industry professionals in the management of our collective landscape. Scouts compile and record environmental and phenological data for locations throughout Massachusetts to aid in the monitoring of plant and pest development, the planning of management strategies, and the creation of site-specific records for future reference. Detailed reports from Extension specialists on growing conditions, pest activity, and cultural practices for the management of woody ornamentals, trees, and turf are regular features. UMass Extension has updated the following issue to provide timely management information and the latest regional news and environmental data.

The Landscape Message will be updated weekly April through June. The next message will be available on June 17. To receive immediate notification when the next Landscape Message update is posted, be sure to join our e-mail list.

NEW! To read individual sections of the message, click on the section headings below to expand the content:

Scouting Information by Region

Environmental Data
The following growing-degree-day (GDD) and precipitation data was collected for an approximately one week period, June 2 through June 8. Soil temperatures and phenological indicators were observed on or about June 8. Total accumulated growing degree days (GDD) represent the heating units above a 50°F baseline temperature collected via our instruments for the 2016 calendar year. This information is intended for use as a guide for monitoring the developmental stages of pests in your location and planning management strategies accordingly.

<table>
<thead>
<tr>
<th>Region/Location</th>
<th>GDD</th>
<th>Soil Temp (°F at 4&quot; depth)</th>
<th>Precipitation (1-Week Gain)</th>
<th>Time/Date of Readings</th>
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<td>GDD</td>
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<td>†-Week Gain</td>
<td>2016 Total</td>
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n/a = information not available
**Phenology**

Phenological indicators are a visual tool for correlating plant development with pest development. The following are indicator plants and the stages of bloom observed for this period:

| Indicator Plants - Stages of Flowering (BEGIN, BEGIN/FULL, FULL, FULL/END, END) |
|-----------------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| PLANT NAME (Botanic/ Common)                  | CAPE            | S.E.            | N.S.            | EAST            | METRO W.        | CENT.           | P.V.            | BERK.           |
| Catalpa speciosa (Northern Catalpa)           | *               | *               | *               | *               | *               | *               | *               | *               |
| Syringa reticulata (Japanese Tree Lilac)      | *               | Begin           | *               | Begin           | Begin           | *               | Begin           | Begin           |
| Cladrastis lutea (Yellowwood)                 | *               | *               | *               | *               | Full            | *               | *               | *               |
| Philadelphus spp. (Mockorange)                | Begin           | Full            | Full            | Full            | *               | Begin/Full      | Begin/Full      | Full/Full       |
| Cornus sericea (Red Osier Dogwood)            | *               | Full            | Full            | End             | Full            | *               | End             | Begin/ Full     |
| Cotinus coggygra (Common Smokebush)           | Begin           | Full            | *               | Full            | Full            | *               | Full/End        | Full            |
| Kalmia latifolia (Mountain-laurel)             | Begin           | Full            | Full            | Begin           | Full            | *               | Full/End        | Full            |
| Hydrangea anomala petiolaris (Climbing Hydrangea) | Begin           | Full            | *               | Begin           | Full            | *               | End             | Begin/ Full     |
| Robinia pseudoacacia (Black Locust)           | Full            | Full            | Full            | End             | Full            | *               | End             | *               |
| Kolkwitzia amabilis (Beautybush)               | Full            | Full            | Full            | Full            | Full            | *               | Full/End        | Full            |
| Weigela florida (Old Fasioned Weigela)        | Full            | Full            | Full            | Full            | Full            | *               | Full/End        | Full            |
| Deutzia spp. (Deutzia species)                 | Full            | Full            | Full            | Full            | Full            | *               | Full/End        | Full            |
| Syringa meyeri (Meyer Lilac)                   | Full            | End             | Full/End        | End             | Full / End      | *               | End             | Full/End        |
| Rhododendron catawbiense (Catawba Rhododendron) | Full            | Full            | Full/End        | Begin/Full      | Full / End      | *               | Full/End        | Full            |

* = no activity to report/information not available

**Regional Notes**

**Cape Cod Region (Barnstable)**

**General Conditions:** This reporting period’s weather fluctuated between mild and sunny and slightly cooler and overcast. While rain threatened at times, the Cape only received less than a quarter of an inch and soils are dry. Pine pollen is still casting a yellow dust over everything but is beginning to lessen. Kousa dogwood (*Cornus kousa*) and Alternate leaf dogwood (*C. alternifolia*) are in full bloom. In the perennial garden, Bearded Iris and Siberian Iris (*Iris siberica*) are blooming, along with many species and cultivars of the hardy geranium (*Geranium spp.*) Dandelion is past bloom but Hawkweed (*Hieracium spp.*) is beginning to bloom.

**Pests/Problems:** The lack of good rainfall is beginning to be of concern. Be sure to water in all newly planted landscape materials and monitor for dry conditions in landscapes.

In areas where defoliation is continuing, the culprit is gypsy moth caterpillars, which are in the 4th and 5th instar. The “epicenter” for the Cape is Nickerson State Park in Brewster, but there are hot spots in most towns. In the Rt. 28 corridor between Mashpee and Hyannis, one can observe defoliated oaks right next to oaks with seemingly full canopies. In home landscapes, they are feeding on a variety of ornamental plants, including River Birch (*Betula nigra*), Roses, and Winter hazel (*Corylopsis spp.*). Lily leaf beetle larvae are in the 4th instar and are large and covered with frass. Rose slugs are about ¾” long and feeding on both surfaces of the foliage. Azalea sawfly larvae are still active on deciduous azaleas. Earwigs are skeletonizing newly planted annuals.

Azalea gall is beginning to sporulate and should be removed when observed. Apple scab and rust spots are beginning to show up on susceptible crabapples. Sycamore anthracnose is active. Red thread has been observed in lawns.

For those with clients who have vegetable gardens, both Colorado and old fashioned potato beetles are active. Colorado potato beetle beetles are laying bright orange egg masses on potatoes and tomatoes. Cucumber beetles are skeletonizing foliage of cucumbers and squash. Asparagus beetle adults and larvae are present on asparagus.

**Southeast Region (Hanson)**

**General Conditions:** The warm weather continued over the past week, although it cooled down midweek and the forecast is for slightly cooler weather this coming weekend. Hanson received 0.80 inches of rain and needs more. Soils were powdery-dry before the rain. Remember to water their plants. A rain gauge is helpful to determine how much rain landscapes may or may not be receiving. The following plants are in full bloom: *Sinocalycanthus chinensis*, *Cladrastis kentukea*, *Magnolia virginiana*, *Liriodendron tulipifera* (*Tuliptree*), Rutgers’ Hybrid dogwoods, *Cornus kousa*, *Hydrangea anomala petiolaris*, *Syringa x prestoniae* ‘James Macfarlane’, *Syringa ‘Miss Kim’, Wisteria floribunda* (Japanese Wisteria), *Robinia hispida* (bristly locust), *Rhododendron sp.*, *Cotinus obovatus*, *Cotinus coggygra*, *Calycanthus floridus* (Common Sweetshrub), Indigofera sp., Beautybush, *Weigela florida*,...
again this year. Gypsy moth caterpillars are in 3 and mostly 4 instars and will continue to feed for a few more weeks and can do significant damage in that.

reports coming in, it appears that where there were heavy infestations last year, those are the areas that are seeing high numbers of gypsy moth caterpillars.

roses, etc) are also seeing gypsy moth caterpillar action. There are heavy pockets of gypsy moth caterpillars in various areas of southeastern, MA and based on

moth caterpillars falling on their neck and arms while doing landscape work.) The caterpillars are feeding most heavily on oak trees, but other plants (willow,

Carver sent a video showing his shed and garage covered with caterpillars. (This gardener and a landscaper also reported that they received rashes from gypsy

adequate soil moisture. Many people are now commenting about the number of gypsy moth caterpillars they are seeing, primarily on oak. One gardener in

previous years. However, trees that were damaged are now starting to put out new foliage and in order to do that, it is important that these trees receive

recommended for fabulous fragrance, few pest problems and wonderful yellow fall color. Also, it is a North American native plant. Rhododendron catawbiense

which will soon produce the “smoke” which will come later. Spiraea sp. and Itea virginica are beginning bloom. Abelia mosanensis, Buglossoides

purpureovariegata and Mutisia reptans are ending bloom soon, but this is one plant that comes highly recommended for fabulous fragrance, few pest problems and wonderful yellow fall color. Also, it is a North American native plant. Rhododendron catawbiense ( Catawba Rhododendron) look particularly good this year.

Pests/Problems: Winter moth caterpillars are done feeding for the year. Foliage damage by the winter moth caterpillars was not bad this year, compared to

previous years. However, trees that were damaged are now starting to put out new foliage and in order to do that, it is important that these trees receive

A few oak sawfly larvae were observed on oak, but are vastly outnumbered by gypsy moth caterpillars. Dogwood sawfly is now active. Monitor dogwoods and

manage if needed. Andromeda lace bug is active on Japanese andromeda (Pieris japonica).

The native White-spotted pine sawyer is now active. This is one of the many Asian Longhorned Beetle (ALB) look-alikes. There is a good handout to refer

clients to educate them to the ALB imposters: [link to handout].

Ninebark (Physocarpus opulifolius) is a native shrub usually with few insect problems. Today, for the first time, I observed two ninebarks, (Physocarpus opulifolius ‘Diablo’) whose foliage resembled ragged lace, the result of feeding by small, numerous, as yet unidentified, caterpillars. Also, on the plants was a cottony scale similar to Cottonty Camellia scale.

Four-lined plant bug nymphs (orange-red with black coloration) are active. The nymphs, as well as the adults, (gold-green, with 4 longitudinal black stripes) feed on the foliage of many perennials. Feeding by their piercing-sucking mouthparts results in numerous, small, round, brown-black spots on the foliage; often mistaken for a disease.

The small white maggot of the Orthacheta Bud Fly (Iris bud fly) remains active. Remove and destroy the newly damaged flowers and stems.

Lily leaf beetle adults and the feces-covered larvae remain active on true lilies. Euonymus caterpillars remain active. Look for branch tips webbed together by the cream-colored larvae with black spots, feeding on the foliage. Manage as needed and remember that Bacillus thuringiensis (Bt) does not work on sawfly larvae.

Cottonty camellia scale (also known as Cottonty Taxus Scale) remains active on Taxus and Meserve hollies; monitor and manage as needed.

Roseslug sawfly remains active and will skeletonize rose plant foliage if not managed. Azalea sawfly is done feeding for the year.

Biting flies (deer flies and horse flies), azalea whitefly, elongate hemlock scale, hemlock woolly adelgid, spider mites, spittlebugs, aphids, deer tick nymphs, dog ticks, carpenter ants, snails, woolly beech aphid, ants, wasps, hornets, boxelder bugs, carpenter bees, and mosquitoes remain active. Mosquitoes are numerous and aggressive. Encourage clients to empty containers of standing water and to consider using Bt (Bacillus thuringiensis israelensis) in plant saucers, birdbaths, and other water features where mosquitoes breed.

Sod webworm moths are active. At dusk, look for the small tan moths, flying low, and zigzagging over turf, as the females lays eggs, which will hatch into sod webworm caterpillars that feed on turf species. [link to fact sheet].

Azalea leaf gall (Exobasidium vaccinii) continues to show up on deciduous azaleas; hand-pick and destroy the galls before they turn white. The foliage of ‘Arnold Promise’ witchhazel continues to be affected by Phyllosticta hamameledis (Witchhazel blight) turning the foliage brown.

Many people have commented about now noticing white pine decline, as a result of reading Nick Brazee’s White Pine Decline fact sheet in the disease section of the Landscape Message last week.

White pine yellow pollen has been falling constantly and thickly this past week, covering everything in its’ way with yellow “dust”.

Wild turkeys (pecking at plants), chipmunks (chewing and digging up plants) and numerous rabbits (eating lilies, Echinacea, Baptisia, Rudbeckia, etc) are becoming more troublesome and annoying in the landscape.

Multiflora rose, another Massachusetts invasive plant is in full bloom. Clearweed has emerged. Continue to remove weeds and mulch landscapes to manage weeds before they become too large.

North Shore Region (Beverly)

General Conditions: The weather during first part of this reporting period was cool and partly sunny, with overcast skies most days. Day temperatures were in the mid 60s to low 70s except on Saturday June 4th when the temperature rose up to a high of 77 degrees Fahrenheit. Night temperatures were in the
mid to high 90s. There was a shift in the last part of the reporting period. Day temperatures were in low 80s and night temperatures in low 60s. During this reporting period we received a significant amount of rainfall. 1.6 inches of rain was recorded at Long Hill on Sunday, June 5 and 0.30 inches was recorded on Tuesday, June 7. We gained 97 growing degree days during this reporting period. Woody plants seen in bloom include: Autumn Purple Rhododendron (Rhododendron fastigiatum), Kousa dogwood (Cornus kousa), Arrowwood viburnum (Viburnum dentatum), Chinese Neillia (Neillia sinensis), Slender Deutzia (Deutzia gracilis), Fringe tree (Chionanthus virginicus), American cranberrybush viburnum (Viburnum trilobum), Constellation Rutgers (R. rugosa ‘Rutgers’), Edgeworthia chrysantha (Peach (Frangula chrysantha), Flume azalea (Rhododendron calendulaceum), Nova Zembla Rhododendron (Rhododendron ‘Nova Zembla’), Catawba Rhododendron (Rhododendron catawbiense), Mountain Laurel (Kalmia latifolia), Weigela (Weigela florica), Mapleleaf viburnum (Viburnum acerifolium) and Tulip tree (Liriodendron tulipifera). Non-woody plants seen in bloom include: Fetterbush (Leucothoe fontanesiana), Scotch rose (Rosa spinosissima), Peony (Paeonia sp.), Cranesbill (Geranium sp.), Bleeding heart (Dicentra spectabilis), Redleaf rose (Rosa glauca), Rodgers’s flower (Rodopera aesculifolia), Goat’s beard (Aruncus dioicus), Japanese primrose (Primula japonica), Water lily (Nymphaea odorata), Columbine (Aquilegia sp.), Yellow Corydalis (Corydalis lutea), Sweet woodruff (Galium odoratum), and several annuals.

Pests/Problems: Woolly beech aphid (Phyllaphis fagi) continues to be observed on European beech (Fagus sylvatica). Also observed were Azalea bark scale (Ericoccus azaleae) on Pieris (Pieris japonica). Cedar quince rust (Gymnosporangium clavipes) was observed on twigs of Eastern red cedar trees (Juniperus virginiana). Galls of azalea leaf and flower gall (Exosadix vaccinii) continue to enlarge on some azaleas. Prune them off and discard before they turn white with spores. Viburnum leaf beetles continue to cause serious damage on viburnums. Doublefile viburnum is resistant to viburnum beetle. Mosquitoes and ticks are still very active. Protect yourself with a repellent when working outdoors.

East Region (Boston)

General Conditions: We gained 118 GDDs over the last week to bring us up to 494.5 GDDs on the year. We started the week with below average high temperatures and finished out the week with warmer than usual conditions. High temperatures averaged 75°F compared to the historical average of 72°F. Low temperatures averaged 59°F. We received rain on two occasions: almost an inch fell during the afternoon of the 5th and a fast moving thunderstorm delivered 0.16 inches of rain on the evening of the 7th. Plants in bloom include: Achillea ‘Moonshine’ (yarrow), Alumum schoenoprasmus (chives), Anemone canadensis (Canada anemone), cultivars of Clematis sp. (clematis), Cornus kousa (Kousa dogwood), Cornus racemosa (gray dogwood), Cornus sanguinea (common dogwood), Deutzia x magnifica (tall deutzia), cultivars of Heuchera sp. (coral bells), Hydrangea heteromalla (Himalayan hydrangea), Ilex amelanchier (swamp holly), Iris sp. (tall bearded iris), Lapinus sp. (lupine), Magnolia macrophylla (bigleaf magnolia), Magnolia virginiana (sweetbay), Nyssa sylvatica (black tupelo), Paeonia lactiflora (peony), Paeonia suffruticosa (tree peony), Papaver orientale (Oriental poppy), Phlox subulatus opulifolius (common ninebark), and Stylos japonica (Japanese snowbell).

Pests/Problems: Weeds in bloom include: common buckthorn (Rhamnus cathartica), European black nightshade (Solanum nigrum), field bindweed (Convolvulus arvensis), flox (Flox multiflora sp.), multirose (Rosa multiflora sp.), pineappleweed (Matricaria discoidea), red clover (Trifolium pratense), spindrift (Cynosus roseus), and white clover (Trifolium repens). Weeds that have recently germinated include: Asiatic Sweetleaf (Symposcos paniculata), black swallowwort (Cynanchum luteum), and burdock (Arctium sp.). Adult pine sawyer beetles (Monochamus scutellatus) are emerging. Eunomius webworm (Yponomeuta cagnagella) is active on many eunomius species as webbing can easily be spotted along with defoliation. For the crabapples which have released out following winter moth damage and defoliation, the next pest, gypsy moth caterpillars, now in the 4th and 5th instar continue to feed and cause additional damage. The wiper colored nymphs of azalea bark scale are at the base of many azaleas. Rhabdocline needle cast is visible on douglas-fir. Cytosphora and Sphaeropsis have caused complete foliage collapse on elderberry (Sambucus nigra). Cynosus roseus, and white clover (Trifolium repens). Galls of azalea leaf and flower gall (Exosadix vaccinii) continue to enlarge on some azaleas. Prune them off and discard before they turn white with spores. Viburnum leaf beetles continue to cause serious damage on viburnums. Doublefile viburnum is resistant to viburnum beetle. Mosquitoes and ticks are still very active. Protect yourself with a repellent when working outdoors.

Metro West (Acton)

General Conditions: Finally, the area received some much-needed precipitation. 1.27” of rain was recorded this past Sunday. The historical monthly average rainfall for June is 3.93”, so with the combined week’s total, the total for the month so far is now at 1.32” Woody plants seen in bloom this past week are Aesculus hippocastanum (Horsechestnut), Chionanthus retusus (Chinese Fringe Tree), C. virginicus (Fringe Tree), Cornus kousa (Kousa dogwood), C. x rutgerrsenis ‘Ruth Ellen’ (Rutgers Hybrid Dogwood), Cornus sericea (Redosier Dogwood), Cotinus coggyria (Common Smokebush), Kalmia latifolia (Mountain Laurel), Lobelitza annulata (Beautybush), Leucothoe axillaris (Coast Leucothoe), Ligustum sp. (Privet), Liriopodendron tulipifera (Tulip Tree), Philadelphus coronarius (Sweet Mock Orange), Phlox subulatus opulifolius (Common Ninebark), P. opulifolius ‘Summer Wine’(Summer Wine Ninebark), Potentilla fruiticosa (Potentilla), Rhododendron spp. (Rhododendron and Azalea), Robinia pseudoacacia (Black Locust), Rosa rugosa (Rugosa Rose), R. ‘Knockout’ (The Knockout family of Roses), Rosa spp. (Rose), Rubus spp. (Blackberry, Bramble, Raspberry), Spirea japonica ‘Alpina’ (Daphne Spirea), Suringa spp. (late blooming Lilac), Toxicodendron radicans (Poison Ivy), Viburnum cassinoides (Withered Viburnum), V. dentatum (Arrowwood Viburnum) and Weigela florica (Old Fashioned Weigela). Woody vines in bloom are: Clematis sp. (Clematis) and Lonicera sempervirens (Trumpet Honeysuckle). Contributing even more color and interest to the landscape are some flowering herbaceous plants including: Achillea millefolium (Yarrow), Alchemilla mollis (Lady’s Mantle), Allium giganteum (Giant Onion), A. schoenoprasmus (Chives), Amsonia hubrichtii (Arkansas Blue Star), Aquilegia spp.(Cranberry), Aruncus dioicus (Goat’s Beard), Baptisia australis (False Blue Indigo), Campanula tinctamis ‘Elizabeth’ (Bellflower), Centaurea montana (Cornflower), Chrysanthemum (Greek and Gold), Cynanchum virginianum (Partridge) (Clematis), Delphinium spp. (Tieweed), Dicentra eximia (Fringed Bleeding Heart), Dictamnus albus (Gas Plant), Filipendula sp. (Meadow Sweet), Gallium odoratum (Sweet Woodruff), Geranium cantabrigiense ‘Biokovo’ and ‘Cambridge’(Hardy Craneshill), G. maculatum (Wild Geranium), G. macrorrhizum (Bigroot Geranium), G. sanguineum (Craneshill Geranium), Hemerocallis ‘ Stella D’Or’ (Daylily) and H. sp. (early blooming Daylily), Heuchera spp.(Corn Bells), Iris germanica (Bearded Iris), I. sibirica (Siberian Iris), Lupinus ‘Russell Woodfield Hybrids’ (Lupine), Nepta spp. (Ornamental Catmint), Oenothera macrocarpa (Oxarck Sundrops), Paeonia spp. (Peony), Papaver orientale (Poppies), Salvia nemerosa (Salvia), Saponaria ocymoides (Rock Soapwort), Stylorhorum diphyllum (Wood Poppy), Thymus paeonifolius (Trachel), Trandscenta sp. (Spiderwort), Veronica repens (Speedwell), and U. umbrosa ‘Georgia Blue’ (Speedwell).

Pests/Problems: Pine Sawyer Beetles have recently emerged and are often very confused with the Asian Longhorned Beetle; the Pine Sawyer can be distinguished by the single white dot found at the base of its wing cover. Rosa multiflora is in full bloom and is now easy to detect growing in and amongst shrubs. Also in bloom is Aegopodium podagraria (Goutweed), another Massachusetts’ invasive plant. Lack of significant rainfall is a
concern, particularly this early in the growing season.

**Central Region (Boylston)**

No report available this week.

**Pioneer Valley Region (Amherst)**

**General Conditions:** We finally received a soaking rainstorm in the Pioneer Valley during this past reporting period on Sunday 6/5. The rain was steady but light for most of the day until approximately 7 PM when a very strong band of showers barreled through from the west. Total accumulations from the day-long storm averaged 1.10” across the valley. Hopefully, this event represents a shift towards at least average rainfall during the month of June. The soaking rain was welcome but it did come at a cost to tree and shrub flowers and tender perennials. The downpour late in the day caused shoots of lupine, bearded iris, among others to collapse while flowers of Catawba rhododendron were washed away. Brown white pine needles were also flushed from their respective branches and some trees have only the current season’s growth at the shoot tips. Temperatures were mild during this past week, with highs ranging from the upper 60s to middle 80s. Trees with indeterminate growth rates are producing new foliage (e.g. red/silver maple and crabapples). The new, succulent foliage stands out in contrast to the older foliage. White pine pollen is very abundant right now, coating most surfaces with a dusty, light green film. Prior to the rain on 6/5, lawn grass growth had slowed considerably and, along with turf weeds, were beginning to brown from drought stress in full sun settings.

**Pests/Problems:** The soaking rain temporarily eased the dry conditions in the landscape but closely monitor soils near recently transplanted trees and shrubs. At present, most soils remain moist but dense conifer canopies may have shielded the rain from soaking the soil in the root ball zone (e.g. emerald green arborvitae). Sycamore (*Platanus occidentalis*) and to a lesser degree London planetree (*Platanus × acerifolia*) are exhibiting thin, sparse canopies due to sycamore anthracnose (*Apiognomonia veneta*; see photo in ‘Diseases’ section). While we experienced below-average rainfall in May, we did receive regular rain showers throughout the month that were sufficient to spur disease development. Most often, diseased sycamores will eventually leaf out and produce a full canopy of foliage. Phyllosticta leaf blotch was observed on witchhazel (*Hamamelis × intermedia ‘Arnold Promise’*). The purple-colored, circular leaf spots can coalesce to create large, necrotic blots on the foliage. Lower canopy, shaded branches are the first to show symptoms of the disease. A prolific number of *Exobasidium* galls were observed on Catawba rhododendron. The pathogen, *Exobasidium vaccinii*, will overwinter within the canopy if the galls are not removed. Scattered crabapples have been prematurely shedding blighted foliage. In some (perhaps all) cases, these trees were injured during the early April (4/5 & 4/6) freeze event. At the time, young leaves were burned on the margins but continued to develop normally once conditions warmed. However, the injury like facilitated invasion by opportunistic foliar pathogens, such as anthracnose fungi. Many crabapples are producing new foliage (indeterminate growth) so they will likely compensate for the older, blighted foliage. Apple scab leaf spots are just beginning to develop on apple and crabapple leaves. For the most part, this disease is of little consequence for landscape trees. Hosta virus X was found in a residential landscape in Amherst. This viral disease was first identified in Massachusetts in 2006 and causes leaf distortion, mottled yellowing and puckering (see photo in ‘Diseases’ section). There are no known vectors and the virus is spread vegetatively. Twig and branch canker fungi are active now and any blighted woody parts should be pruned from trees and shrubs, especially on recently transplanted and stressed plants.

**Berkshire Region (Great Barrington)**

**General Conditions:** After a long period of sparse rain, except for a few isolated areas, heavy rainfall occurred on Sunday, June 5th. Lighter rain fell on Tuesday, June 7th, at this site but heavier amounts were recorded at other locations. As a result, soil moisture levels are good and irrigation is not currently warranted. A cooling period has begun today, June 8th, and the forecast is for continued cool weather through the week with night time temperatures dipping into the mid to low 40s. Overall, landscapes appear lush with abundant blooms. Turfgrass growth rate is normal and lawns show no ill-effects from the below normal rainfall this spring. Currently, rainfall deficit for the year is about 2.5 – 3 inches below normal. Pine pollen release has been huge. Often clouds of pollen can be seen drifting across the landscape, much like a dust storm.

**Pests/Problems:** New pests/problems observed this week: Leaf spots are appearing on leaves of many woody species including witch-hazel, viburnums, maples, and hickories. Galls (possibly *Phomopsis* galls) have appeared on tips of twigs of Shagbark Hickory. Eggs of oak leaf lace bug were found on leaves of bur oak. Spittle bugs are on several herbaceous plants. Leaf tiers and leaf rollers were found on several tree species. Peach leaf curl caused by the fungus...
Woody Ornamentals

Diseases
Recent pathogens of interest seen in the UMass Extension Plant Diagnostic Lab:

A special report from the UMass Extension Plant Diagnostic Lab on needle browning and canopy dieback of Eastern white pine this spring:

Pests, pathogens and abiotic stress associated with eastern white pine (Pinus strobus) samples recently submitted to the Diagnostic Lab -

1. Pine bark adelgid (Adelges strobi). Many of the submitted samples this spring have been harboring moderate to severe infestations of this insect pest. While generally considered a secondary pest, populations appear to be high right now and the adelgid will feed on young, succulent growth.

2. Needle blight caused by Septorioides strobi.

3. Secondary (?) needle blight caused by Stagonospora sp.


5. Insufficient light. White pine will naturally regenerate in partial shade, but if trees fail to obtain full sun as they mature, they will decline and may be preferentially attacked by insects and pathogens.

Maple anthracnose, caused by Discula canestriss, of sugar maple (Acer saccharum). Approximately 100 trees, 15-years-old and 3” in diameter (with 40” root balls) were planted four weeks ago. Very recently, the foliage became symptomatic of anthracnose with marginal leaf browning and angular, water-soaked blotches along the primary veins. The trees are growing in full sun with supplemental watering. However, transplant shock could with anthracnose could severely weaken the trees, making them susceptible to opportunistic pests, pathogens and winter injury.

Canopy dieback of snow fountain weeping cherry (Prunus ‘Snofozam’) caused by suspected cold injury and Phomopsis stem cankering. Tree is 20-years-old and has been present at the site for 15 years. This spring, numerous dead twigs and branches were observed in the canopy. Most of the dead parts are 3-4’ branches at outer edges of the canopy. The extreme cold in mid-February may be partly responsible while Phomopsis is highly opportunistic and can spread rapidly within stressed, injured canopies.

Needlecast of blue spruce (Picea pungens) caused by Rhizosphaera and Stigmina. Tree is 20-years-old, has been present at the site for 10 years and is growing in full sun. Symptoms of needlecast were visible in years past but in recent weeks, the tree has been shedding a large number of needles. Increasingly, both Rhizosphaera and Stigmina are present on declining blue spruce.

Stem cankering of Japanese pagoda tree (Sophora japonica ‘Pendula’) caused by Fusarium lateritium. Tree is approximately 10-years-old and has been present at the site for three years. This spring, dead branches with splitting and cracked bark was observed. Cream-colored discolorations on...
the bark were also observed near branch wounds, which represented spore masses. Tree was planted as an understory tree beneath mature oaks.

**Needle and shoot blight of dark American arborvitae (Thuja occidentalis 'Nigra') caused by Phyllosticta thujae and Pestalotiopsis.** The tree is approximately 20-years-old and was established as a foundation planting many years ago. Since then, the tree has outgrown its setting and is aggressively pruned to keep the canopy away from the house. The shearing wounds provided a vast number of infection sites for both fungi, which are common on *Thuja* and *Chamaecyparis* in the region.

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**Insects**

Woody ornamental insect and non-insect arthropod pests to consider, a selected few:

- **Winter Moth:** Caterpillar activity for the winter moth is at its end. Pupation has occurred. The window to make chemical treatments for this insect is therefore closed. Recommendations regarding this insect will begin again in October with instructions for banding trees in order to monitor egg hatch next spring.

- **Gypsy Moth:** Caterpillars are actively feeding on the hosts including oak (mostly), maple, birch, poplar, willow, etc. Caterpillar numbers are elevated in certain areas this year, corresponding to locations with high numbers of egg masses laid last season. Therefore, caterpillar presence is patchy across the landscape and not all locations are experiencing high gypsy moth populations. Calls are flooding in, describing caterpillars crawling over many outdoor surfaces: host tree trunks, limbs, lawn furniture, patios, the sides of homes, sheds, garages, etc. Spotted areas in towns including but not limited to Sturbridge, Monson, Charlton, Northborough, Westborough, Plymouth, Carver, Kingston,
and Wareham are reporting frass (excrement) and caterpillars "coating everything". Caterpillars are getting larger by the minute, with many 3rd and 4th instars present. The heaviest feeding from this insect will occur over the next few weeks, with caterpillars growing ever larger until pupation begins in late June and early July. Adult emergence will occur primarily in July when mating and egg-laying will take place. At this point, *Bacillus thuringiensis* Kurstaki may not be effective on larger caterpillars. The active ingredient spinosad may be more effective at this time, however larger caterpillars are more difficult to kill. This active ingredient should not be applied to flowering plants as it is toxic to pollinators until it dries. The continued hope is that the fungus, *Entomophaga maimaiga*, and the NPV virus will catch up to the increasing populations of gypsy moth in these areas and provide some relief. That remains to be seen.

- **Andromeda Lacebug**: *Stephanitis takeyai*is active on Japanese Andromeda. Inspect plants known to have *S. takeyai* in the past (or exhibiting yellow stippling on the upper leaf surface) and inspect undersides of leaves for this season's lacebugs. Before populations become too large, treat with a summer rate horticultural oil spray as needed.

- **Azalea Sawfly**: *Amauronematus azaleae* is nearly finished feeding.

- **Birch Leafminer**: *Fenusa pusilla* is active at this time. The adult female sawfly wasps are small and dark and can be observed visually on host plant foliage. Eggs are laid within leaves. The use of yellow-sticky cards (1 per tree) works well for monitoring for this pest. Once the adult sawflies have emerged, the tree can then be treated with a chemical insecticide, such as a pyrethroid, to prevent egg-laying within the foliage. *Bacillus thuringiensis* Kurstaki is not effective against sawflies.

- **Black Vine Weevil**: *Otiorynchus sulcatus* damage is apparent on rhododendron and taxus, but can also be seen on azalea, mountain laurel, and *Euonymus*. Adult weevils feed along the leaf/needle margins and create rounded notches. Inspect foliage of these plants for notching as adults are feeding. Burlap laid around the base of plants during the time adults are active, now through August, can be inspected weekly for adult weevils which can be killed before egg laying.

- **Cottony Taxus/Camellia Scale**: *Pulvinaria floccifera* nymphs are hatching from white, ovoid cottony egg sacs. Holly, camellia, *Taxus*, rhododendron, and certain maples, English ivy, and others can be hosts of this pest. Inspect leaf undersides for this soft scale. Treat with a horticultural oil spray at the summer rate, targeting twigs and foliage where the pest is residing. Follow label instructions to avoid phytotoxicity where appropriate.

- **Dogwood Sawfly**: *Macremphytus spp.* caterpillars are actively feeding. Inspect chewed foliage of dogwood, particularly *Cornus racemosa* (gray dogwood) for caterpillars skeletonizing the leaves. Foliage will be consumed down to the mid-vein. Spinosad based products are successful where needed.

- **Eastern Tent Caterpillar**: Pupation will begin soon and last for a few weeks. *Forest Tent Caterpillars* are active and growing rather large. These caterpillars do not make tents like those of the eastern tent caterpillar, but rather web foliage together. Caterpillars are hairy, with blue lines and white, key-hole shaped spots down the center of their dorsal side, distinguishing them from eastern tent caterpillars where a white line is present dorsally.

- **Elongate Hemlock Scale**: *Fiorinia externa* is found on eastern, Carolina, and Japanese hemlock, as well as yew, spruce, and fir. Crawlers will be present throughout the growing season and the overlap of many developmental stages at any given time can be observed.

- **Emerald Ash Borer**: *Agrilus planipennis* readily attacks ash (*Fraxinus spp.*) including white, green, and black ash and has also been found developing in white fringe tree (*Chionanthus virginicus*). Adults will be emerging at this time. For a map of the known locations of emerald ash borer in the state, as well as further information about this insect, please visit: https://ag.umass.edu/fact-sheets/emerald-ash-borer.

- **Euonymus Caterpillar**: *Yponomeuta cagnagella* is currently active and still feeding. These small yellow caterpillars with black spots feed throughout the host plant and are capable of creating vast amounts of unsightly silk while feeding on the leaves. Inspect for the presence of this pest and treat with a product that contains Spinosad if deemed necessary. Handpick and destroy if caterpillars are small in number. Once pupation begins, it will be too late for chemical management.

- **European Pine Sawfly**: *Neodiprion sertifer* caterpillar is finishing feeding. The primary host in MA is Mugo pine but it can be found on Scots, red, jack, and Japanese red pine, but is also found on white, Austrian, ponderosa, shortleaf, and pitch pine when near the aforementioned species.

- **Fall/Spring Cankerworm**: These two species of geometrid moth caterpillars have finished feeding for this season.

- **Hemlock Looper**: Two species of geometrid moths in the genus *Lambdina* are native insects capable of defoliating eastern hemlock, balsam fir, and white spruce. Adult moths lay their eggs on the trunk and limbs of hosts in September and October of the previous year, and eggs have hatched. Monitor susceptible hosts for small, inch-worm like caterpillars by shaking branches over a light colored surface. Where populations are low, no management is necessary. Treat with *Bacillus thuringiensis* Kurstaki if needed. Caterpillar feeding will end by early-July.

- **Hemlock Woolly Adelgid**: *Adelges tsugae* is present on eastern and Carolina hemlock. Infested trees may be treated with a summer rate horticultural oil spray as weather conditions allow. Be cautious when pruning or removing infested hemlocks as to avoid accidentally transporting
**Imported Willow Leaf Beetle**: Larvae are slug-like and bluish-green in color. They will feed in clusters and skeletonize the leaves. Most plants can tolerate the feeding from this insect, and foliage will appear brown. Repeated yearly feeding can be an issue, in which case management of the young larvae may be necessary. Take care with treatment in areas near water.

**Lily Leaf Beetle**: Larvae are actively feeding. Pyrethroids can be used against adult beetles, whereas spinosad products are most effective against the larvae.

**Roseslugs**: Two species of sawfly can be found on the leaves of roses at this time. These small, caterpillar-like larvae will skeletonize the upper leaf surface and leave a “window-pane” like pattern behind. When present in large numbers, these insects are capable of defoliating their entire host. Management options include an insecticidal soap spray or a product containing spinosad.

**Taxus Mealybug**: Dysmicoccus wistariae females are active. Inspect the inner branches of yew (Taxus) for the white, soft-bodied insects. Honeydew and sooty mold may also be present. When present in large numbers, plants may become stunted and unsightly. If treated, the inner branches with a horticultural oil spray at the summer rate.

**Viburnum Leaf Beetle**: Larvae are mostly finished feeding and will be moving to the soil to pupate. Any remaining larvae may be treated with a product containing spinosad if found. Adults will emerge by mid-July and will resume feeding on the plant. Adult beetles may be targeted with a pyrethroid. Planting species of viburnum that are most resistant to the viburnum leaf beetle can help manage this pest. Resistant varieties include *V. bodnantense* (dawn viburnum), *V. carlesii* (Koreanspice viburnum), *V. davidii* (David viburnum), *V. sieboldii* (Siebold viburnum), and others. Highly susceptible species of viburnum frequently attacked by this beetle can include *V. dentatum* (arrowwood viburnums), *V. opulus* (European cranberrybush viburnum), and *V. rafinesquianum* (Rafinesque viburnum).

**White Spotted Pine Sawyer (WSPS)**: Adults are emerging and will do so throughout July, depending on local temperatures. This is a native insect in Massachusetts and is usually not a pest. Larvae develop in weakened or recently dead conifers, particularly eastern white pine (*Pinus strobus*). However, the white spotted pine sawyer looks very similar to the invasive *Asian Longhorned Beetle*, *Anoplophora glabripennis*, ALB. ALB adults do not emerge in Massachusetts until July and August. Beginning in July, look for the key difference between WSPS and ALB adults which is a white spot in the top center of the wing covers (the scutellum) on the back of the beetle. White spotted pine sawyer will have this white spot, whereas Asian longhorned beetle will not. Both insects can have other white spots on the rest of their wing covers, however the difference in the color of the scutellum is a key characteristic. The regulated area for Asian longhorned beetle is 110 miles encompassing Worcester, Shrewsbury, Boylston, West Boylston, and parts of Holden and Auburn. If you believe you have captured an Asian longhorned beetle (particularly beginning in July and August) or have seen damage caused by this insect, such as exit holes, on susceptible host trees like maple, please call the Asian Longhorned Beetle Eradication Program office in Worcester, MA at 508-852-8090 or toll free at 1-866-702-9938. To report an Asian longhorned beetle find online or compare it to common insect look-alikes, visit: [http://massnrc.org/pests/albreport.aspx](http://massnrc.org/pests/albreport.aspx) or [https://www.aphis.usda.gov/pests-diseases/alb/report](https://www.aphis.usda.gov/pests-diseases/alb/report).

Concerned that you may have found an invasive insect or suspicious damage caused by one? Need to report a pest sighting? If so, please visit the Massachusetts Introduced Pests Outreach Project: [http://massnrc.org/pests/pestreports.htm](http://massnrc.org/pests/pestreports.htm).

A note about Deer Tick Awareness: deer ticks (*Ixodes scapularis*), the American dog tick (*Dermacentor variabilis*), and the lone star tick (*Amblyomma americanum*) are all found throughout Massachusetts. Each can carry their own complement of diseases. Adults and nymphs can be active when temperatures are above freezing and anyone working in tick habitats (wood-line areas, forested areas, and landscaped areas with ground cover) should check themselves regularly for ticks while practicing preventative measures. Have a tick and need it tested? Visit the web page of the Laboratory of Medical Zoology ([www.tickdiseases.org](http://www.tickdiseases.org)) and click on the red ‘Test a Tick’ button for more information.

Report by Tawny Simisky, Extension Entomologist, UMass Extension Landscape, Nursery, & Urban Forestry Program

### Management Practices

**Plant of the Week: *Kalmia latifolia***

*Kalmia latifolia* is a native evergreen shrub growing 7-15’ tall and wide (growing larger in native habitats). Shrubs are denser when young, growing more open with age, especially if crowded by other plants. The glabrous dark green leathery leaves are 2-5” long and ¾-1 ½” wide with the underside being yellow-green. Mountain laurel is very showy in flower, blooming several weeks in May–June. The terminal flower clusters range from white to pink to red and can have a variety of markings. Corymbbs are around 6” across and consist of 1” cup shaped individual flowers. Flower buds can be a different color than the flowers adding additional ornamental interest. The gnarled branches that develop with age can also be an ornamental feature. Plants can grow in full sun to part shade but flowers best in more sun. Plants need a cool, moist, well-drained soil. Pruning should be done immediately after plants are done flowering.

*Kalmia latifolia* is susceptible to leaf spots and blights. Borers, scale, white fly, and lace bugs can also be problematic. Numerous cultivars provide a variety of bud and flower colors.
Landscape Turf

White Grubs

When I got home from a meeting the other night, I noticed several scarab beetles that had been attracted to the lights on the outside wall of the house. They looked like European chafers but it seemed a little early so I took a close look at the tips of the beetles’ feet and noticed that these beetles had a little projection on the tip of the tarsal claw. That means the beetles were NOT European chafers, but they are one of the species of May/June beetle (in the genus *Phyllophaga*). There are several species of *Phyllophaga* in New England, and most of them take two or three years to complete a generation.

I expect to start seeing European chafer adults flying at twilight any time in the next couple weeks. (Often the adult emergence begins to increase markedly around the middle of June but because this spring has been a little cooler than many of our recent springs, that emergence might be delayed a little bit. Meanwhile I also expect to start seeing oriental beetles flying within the next couple weeks. Japanese beetles will probably become noticeable pretty close to their “normal” emergence time of July 4th.

If you are planning to use a neonicotinoid as a preventive application to control white grubs, remember that the ideal time to apply is “when the beetles are laying eggs”. Normally it takes a week or two after the adults emerge before they become reproductively mature, and usually there is a period of two or three weeks during which adults begin to emerge. If you are in an area with mostly European chafers, the ideal timing would be the last week of June through the third week of July. If you are dealing mostly with Japanese beetles or oriental beetles, my opinion is that your ideal timing for application would be the second week of July through the first week of August.

Other Relevant News/Pest Alerts

The layer of yellow coating cars and outdoor surfaces reminds us that with spring weather comes pollen season... Pollen is produced as part of a plant’s reproductive cycle in order to produce seeds. Pollen development is based on accumulation of growing degree days (GDD) and differs between plant genera. GDD are heating units accumulated for average daily temperatures above 50° F. Daily GDD = average temp – 50. If the high temperature is 80 and the low is 50 the average temperature is 65, subtract 50 to get 15 GDD. 50° F is the base temperature used for GDD because it is around the temperature that plants begin to grow in the Northeast (it will differ for other areas of the country).

The amount of pollen at a given time can vary from year to year due to the impact of weather. A mild winter can result in plants blooming early, thus producing pollen earlier. A late freeze can delay or reduce pollen development when flower buds are damaged by the freeze. Dry, windy weather helps to spread pollen while rain reduces the amount of pollen in the air.

The length of time a plant produces pollen depends on biological factors and is influenced by temperature. Some plants can produce pollen for many weeks. Plants also produce different sizes of pollen, with pines producing larger pollen grains than hardwood such as maple. In general the larger pollen grains are the more noticeable pollen that coats outdoor surfaces, while finer pollens are what trigger allergies. The amount of pollen at any given time is influenced by what plants are in the area and how long they produce pollen.

MA Pollinator Week - Governor Baker will declare the week of June 20th MA Pollinator Week. Government officials will visit and learn more about the state apiary located at UMass Amherst Stockbridge School of Agriculture at the Agricultural Learning Center, 911 North Pleasant St., Amherst. The declaration recognizes the impacts of pollinators on agriculture and encourages the public’s support of pollinators. The kick-off is on Monday June 20 at 10 am, and the event is open to the public. Contact: Julia.Grimaldi@state.ma.us.
Additional Resources
To receive immediate notification when the next Landscape Message update is posted, be sure to join our e-mail list and follow us on Facebook and Twitter.

For a complete listing of upcoming events, see our Upcoming Educational Events page.

For commercial growers of greenhouse crops and flowers - Check out the New England Greenhouse Update at http://negreenhouseupdate.info

For professional turf managers - Check out Turf Management Updates at https://extension.umass.edu/turf/management-updates

For home gardeners and garden retailers - Check out home garden resources. UMass Extension also has a Twitter feed that provides timely, daily gardening tips, sunrise and sunset times to home gardeners, see https://twitter.com/UMassGardenClip

Diagnostic Services
A UMass Laboratory Diagnoses Landscape and Turf Problems - The UMass Extension Plant Diagnostic Lab is available to serve commercial landscape contractors, turf managers, arborists, nurseries and other green industry professionals. It provides woody plant and turf disease analysis, woody plant and turf insect identification, turfgrass identification, weed identification, and offers a report of pest management strategies that are research based, economically sound and environmentally appropriate for the situation. Accurate diagnosis for a turf or landscape problem can often eliminate or reduce the need for pesticide use. For sampling procedures, detailed submission instructions and a list of fees, see Plant Problem Diagnostics.

Soil and Plant Nutrient Testing - The University of Massachusetts Soil and Plant Nutrient Testing Laboratory is located on the campus of The University of Massachusetts at Amherst. Testing services are available to all. The function of the Soil and Plant Nutrient Testing Laboratory is to provide test results and recommendations that lead to the wise and economical use of soils and soil amendments. For complete information, visit the UMass Soil and Plant Nutrient Testing Laboratory web site at: http://soiltest.umass.edu/ Alternatively, call the lab at (413) 545-2311.

Ticks are active at this time! Remember to take appropriate precautions when working and playing outdoors, and conduct daily tick checks. UMass tests ticks for the presence of Lyme disease and other disease pathogens. Learn more