# UMass Extension Landscape Message #19 - 2014

**Aug 22, 2014**

*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 bi-weekly July through September. The next message will be available on September 5. To receive immediate notification when the next Landscape Message update is posted, be sure to join our e-mail list.**

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## Scouting Information by Region

### Regional Notes

#### Cape Cod Region (Barnstable):

**General Conditions:** It hasn't really felt much like August here on the Cape. The weather is beautiful but just not really hot or humid. Daytime temperatures have been averaging in the mid 70s F with night temperatures in the mid 50s F. There is heavy dew on the lawn in the mornings. For the most part the weather continues to be dry. There was a severe thunderstorm that grazed Cape Cod Bay and came inland at Hyannis on Aug. 7th and then continued down the Cape, bringing high wind gusts, drenching downpours, and in several areas pea-sized hail. *Vitex* and Panicle hydrangea are proving color in the landscape. **Pests/Problems:** As observed and reported by Deborah Swanson in Plymouth County, the Sunflower moth, *Homoesoma electellum*, has now been observed on various flowers in the Composite family here on the Cape. The adult moth lays her eggs on the developing cones. Upon hatching, a small whitish caterpillar bores into the cones and consumes the developing seeds. *Echinacea, Heliopsis, and Rudbeckia* spp. have all been observed with blackish frass oozing out of the cones. The flowers will go by quickly and the cones are rendered unsightly. Be on the lookout for this pest in perennial borders and pick and destroy any infested cones. Oak leave skeletonizer damage is readily visible on the foliage of Black and Red oaks. Hibiscus sawfly larvae were observed skeletonizing the foliage of perennial hibiscus. Wasp and hornet colonies are quite large at this time. Be aware of ground nesting bumble bees and hornets. Mosquitoes are biting. Powdery mildew is visible on native Flowering dogwood, lilac, phlox, and bee balm. Red thread, which is usually gone in August, continues to be active under cooler weather conditions. Soils are quite dry, even at a depth of several inches. In the vegetable garden, tomato anthracnose is quite common, along with early blight and septoria leaf spot. Anthracnose, along with foliar damage, causes rapid fruit rot. Powdery mildew is taking out summer squash and cucumbers.

#### Southeast Region (Wareham):

**General Conditions:** We had mild temperatures in the last two weeks with day temperatures in the mid-70s and night temperatures lower 60s and high 50s. Wareham received 1.28 inches of rain in the last two weeks. Soil moisture remains adequate and most plants in the landscape are thriving. Weeds are also thriving. Plants

providing color in the landscape include Rose-of-Sharon, *Hydrangea paniculata, Achillea* (Yarrow), *Astilbe* spp., *Coreopsis*, *Echinacea* (Coneflower) and its cultivars, *Hemerocallis* spp. (Daylily), *Hosta* spp, *Rudbekia* 'Goldsturm' (Black-Eyed Susan), *Solidago* sp. (Goldenrod). **Pests/Problems:** Powdery mildew on some lilac shrubs, cedar apple rust on some crabapple trees and leaf spots on aronia bushes. Mosquitoes and ticks are still active. It is important to use bug repellants when working outdoors especially at dusk.

## Southeast Region (Hanson):

**General Conditions:** Plymouth County continued to see cooler than normal temperatures the last two weeks. Sunny days and cool nights have prevailed. Although Hanson received 0.80 inches of rain over the last two weeks, soils are now very dry and plants are showing signs of stress with many plants developing brown leaf margins. *Clerodendron trichotomum*, Rose-of-Sharon, *Albizia julibrissin*, *Campsis radicans*, *Hydrangea paniculata*, *Hydrangea quercifolia,* Butterflybush, *Veronicastrum*, roses, *Rudbeckia* 'Herbstonne', *Rudbeckia subtomentosa* 'Henry Eilers', *Rudbeckia trilobum*, *Rudbeckia* 'Goldsturm,' *Persicaria amplexicaulis, Ligularia dentata,* Joe-pye-weed, *Echinacea purpurea and hybrids, Corydalis lutea*, *Nepeta*, *Hosta plantaginea* and other late blooming *Hosta, Heliopsis* 'Summer Sun'*, Helianthus* 'Lemon Queen', Japanese anemone, ornamental grasses, *Hibiscus* 'Summer Storm', 'Old Yella' and other perennial hibiscus, *Lobelia syphilitica*, *Lobelia cardinalis, Lobelia hybrids, Platycodon grandiflorus*, *Coreopsis* 'Harvest Moon', *Perovskia* sp.*,* and *Phlox paniculata* are in full bloom. *Monarda didyma, Astrantia, Acanthus spinosus and Lysimachia clethroides* are ending bloom. Crabapples, Staghorn sumac and *Viburnum trilobum* fruit are beginning to color-up. **Pests/Problems:** There is not too much going on that is new in the pest area and right now the bigger concern is the lack of rain which is clearly stressing plants. Unirrigated plants like *Hosta* are wilting and displaying brown leaf margins. *Cercidiphyllum japonicum* (Katsuratree) is dropping leaves. Remind clients to water plants, especially those that were planted this season or were heavily damaged by winter moth feeding last spring. Monitor for dogwood sawfly which should be showing up soon and may already be active. In the last Landscape Message, I reported damage to *Echinacea* flowers by the sunflower moth caterpillars, *Homoeosoma electellum*. Since then, I have also observed sunflower moth caterpillar damaged flowers on *Rudbeckia fulgida* and *Heliopsis* 'Summer Sun'. I have also found damage to *Echinacea* plants at two retail locations. If the centers (cones) of *Echinacea* and *Heliopsis* flowers are looking messy, and turning a frazzled brownish-black, break open the center and you might find a small caterpillar, or two, inside. The sunflower moths lay eggs which hatch into caterpillars which burrow into the cone and feed. Flowers do not last as long and seed heads are not formed, overall creating an unattractive flower. Japanese, Oriental and Asiatic garden beetles are just about done for the year. Hibiscus sawfly is still active along with the following insects: snails, slugs, *Pieris* lacebugs, spider mites, boxelder beetles, cicada killing wasps, annual or dog-day cicadas, stinkbugs, earwigs, aphids, leafhoppers, wasps, hornets, ticks, horse flies, deer flies and mosquitoes. Powdery mildew continues to show up on dogwood and garden phlox. Japanese knotweed, goldenrod and ragweed are in full bloom and deer continue to browse.

## East Region (Boston):

**General Conditions:** We gained 263.5 GDDs over the last two weeks to bring us up to 1945.5 on the year. The average low was 58° F (ranged between 51° F and 65° F) and the average high was 79° F (ranged from 70° F to 87° F). The last week has cooled significantly as is evidenced by the shift in high temperatures where highs have dropped to the 70's, compared to highs being in the 80's during the previous week. Evening temperatures continue to cool and morning dew has been apparent on these days. The last two weeks have been slightly dry, we received rain on three occasions, two of which were trace amounts; the third was an all-day rain event on the 13$^{th}$ which dropped 1.35 inches of rain, leaving soils with average moisture levels. Despite having only received 1.41 inches of rain during the month of August, soils are not dry and plant stress in the landscape is minimal. Days continue to get shorter and shorter, over the last 2 weeks, we have lost 35 minutes of daylight. The landscape remains predominantly green, late summer flowering herbaceous plants continue to add color to the landscape. The rare and endangered *Franklinia alatamaha* (Franklinia) is in full bloom. The Giant Swallowtail (*Papilio cresphontes*) has been spotted in the wilds of the Bussey Brook Meadow – the first time this lepidopteron has been spotted in Suffolk County in many, many decades. Over the last few years, there have been sightings throughout the state as this southern butterfly is slowly moving forward due to the climate change. **Pests/Problems:** Perennial weeds continue to thrive: black swallowwort (*Cynanchum louiseae*) continues to produce seed as does common burdock (*Arctium minus*) and pokeweed (*Phytolacca americana*). The fast growing and high seed producing annual wild buckwheat (*Polygonum convolvulus*) has flowered and is covered in seed, waiting to mature. Certain unmowed colonies of Japanese knotweed (*Fallopia japonica*) have started to flower. Sunny days combined with the cool nights that we have been receiving create ideal conditions for powdery mildew, which is prevalent on susceptible plants. All stages of lacebug continue to be observed throughout the landscape on many plants as we have experiencing more generations of the pest this year. Pollen index is high; culprits include common ragweed (*Ambrosia artemisiifolia*) and stinging nettle (*Urtica dioica*) which have just come into bloom, marking the beginning of the fall allergy season.

## Metro West (Acton):

**General Conditions:** Summer is not over yet but it sure feels like it waking up to some cool starts to the day. A low temp of 45° was recorded on the 19th! 86°, the highest temp for the month was recorded on the 5th and a 90° day was last recorded on July 23rd. The Acton area gained 208.5 GDD over the past two weeks and received 1.49" of rain. The historical monthly average rainfall for this area is 3.72". Woody plants seen in bloom this week are *Albizia julibrissin* (Silk Tree), *Buddleia* spp. (Butterfly Bush), *Clerodendrum trichotomum* (Harlequin Glorybower), *Clethra alnifolia* (Summersweet Clethra), *Hibiscus syriacus* (Rose-of-Sharon), *Hydrangea paniculata* and its many cultivars including 'Tardiva') and *Rosa* 'Knockout' (The Knockout family of Roses). Woody vines in bloom are: *Campsis radicans* (Trumpet vine) and *Clematis* spp. (Clematis). Contributing even more color and interest to the landscape are some flowering herbaceous plants including: *Astilbe* spp. (False spirea), *Cassia marilandica* (Wild Senna), *Cichorium intybus* (Chicory), *Coreopsis verticillata* (Threadleaf Coreopsis), *Daucus carota* (Queen Anne's Lace), *Echinacea purpurea* (Coneflower), *Eupatorium purpureum* (Joe Pye Weed), *Hemerocallis* 'Stella D'Oro' (Daylily), *H. fulva* (Orange Daylily), *H.* spp. (Daylily), *Hosta* spp. (Plantain Lily), *Impatiens capensis* (Touch Me Not), *Leucanthemum* sp. (Shasta Daisy), *Liatris spicata* (Spike Gayfeather), *Limonium latifolium* (Sea Lavender), *Lobelia cardinalis* (Cardinal Flower), *Macleaya microcarpa* (Plume Poppy), *Malva alcea* 'Fastigiata' (Hollyhock Mallow), *Monarda didyma* (Bee-Balm), *Patrinia gibbosa* (Patrinia), *Perovskia atriplicifolia* (Russian Sage), *Phlox carolina* (Carolina Phlox), *C. paniculata* (Phlox) and its many cultivars, *Platycodon grandiflorus* (Balloon Flower), *Rudbeckia fulgida* 'Goldsturm' (Black-Eyed Susan) and *Solidago* spp. (Goldenrod). **Pests/Problems:** The first Asian Longhorned beetle of the season was captured within the Worcester County ALB regulated area and a 2nd one was caught in a trap on the 18th in Worcester so continue to check your trees for oviposition sites, frass, exit holes and the beetle. Monitor the 13 host genera which are: *Acer* (Maple), *Betula* (Birch), *Ulmus* (Elm), *Salix* (Willow), *Aesculus* (Horsechestnut), *Fraxinus* (Ash), *Platanus* (Plane Tree), *Populus* (Poplar), *Celtis* (Hackberry), *Sorbus* (Mountain Ash), *Albizia* (Mimosa), *Cercidiphyllum* (Katsura) and *Keolreuteria* (Golden Raintree) for signs of this invasive pest.

## Central Region (Boylston):

**General Conditions:** Cool nights and pleasant days have dominated the last two weeks with the exception of a very rainy Wednesday, August 13th, which brought much needed rainfall. Gardens are lush and colorful – summer annuals and vegetables are peak and ripening. Perennials in bloom include *Persicaria polymorpha*, *Geranium* 'Rozanne', the tail end of Daylilies (*Hemerocallis*), Blackberry Lily (*Iris domestica*), *Anemonopsis macrophylla*, Tube Clematis (*C. heraclaeifolia* var. *davidiana*), *Hibiscus moschuetos* cultivars, and many ornamental grasses are full and beginning to bloom. Among the shrubs in blooms are Rose of Sharon (*Hibiscus syriacus*), Heathers (*Calluna vulgaris* cultivars), *Vitex rotundifolia*, Sweet Pepperbush (*Clethra alnifolia* cultivars); Pee Gee Hydrangeas (*H. paniculata* cultivars); Butterfly Bush (*Buddleia davidii* cultivars), *Lespedeza bicolor*, *Indigofera heterantha*, and *Indigofera ambylantha*. **Pests/Problems:** The pests that we are seeing include Fall Webworm, Japanese Beetles, Three-lined Potato Beetles, Blister Beetles, Grasshoppers, Cabbage Loopers and Hibiscus Sawfly caterpillars. The appearance of fireblight strikes on *Malus* are slowing down, powdery mildew is showing up on *Verbena* as well as Summer Phlox (*Phlox paniculata*).

## Pioneer Valley Region (Amherst):

**General Conditions:** In one day, much of the Pioneer Valley received an entire month's worth of rainfall. The Commonwealth can expect on average around 3.5-4" of rainfall in August, but on Wednesday 8/13 that entire amount was recorded. Heavy rainfall during the morning and early afternoon led to flash flooding throughout Hampshire and Hampden Counties. Low lying roads were flooded, streams and creeks were overflowing, and sewer drains were overwhelmed from Northampton to Springfield. While the Connecticut River and its major tributaries swelled, there was enough capacity to contain the water and no river flooding was reported. Many locations received over 3" of rain, while in Easthampton and Amherst over 4" of rainfall was recorded. Oddly, this strong band of rainfall was concentrated primarily in the valley, with Berkshire and Worcester Counties receiving considerably lesser amounts. Without the heavy rainfall that occurred on the 13th, August would be relatively dry in the valley to date, with less than 0.75" of total accumulation since the beginning of the month. Conditions have been unseasonably cool this reporting period. High temperatures in the upper 70s to low 80s and nighttime temperatures in the 50s have been common throughout the region. Coupled with plentiful sunshine, the weather has been near ideal for just about any activity. The heavy rain on the 13th and mild conditions have continued what's been an excellent growing season for landscape trees and shrubs, which was just what many needed after a harsh and damaging winter season. **Pests/Problems:** If trees are beginning to show fall colors, this is usually a good indication they are under severe stress and should be monitored closely in the future. With the plentiful rainfall this growing season and a lack of drought stress, foliage exhibiting scorched margins or tips could suggest root disease, stem cankering or insect infestation. As reported many times earlier this season here, anthracnose fungi continue to have a solid year, causing damage to numerous trees and shrubs. One of the more prominent symptoms of infection this year is underdeveloped and distorted foliage on deciduous hardwoods. This has lead to sparse-looking canopies and branch tip dieback. Japanese beetle populations are lessening as the females migrate back to the soil to lay eggs that will develop into destructive white grubs. Continue to monitor for the white prunicola scale on fruit trees, especially *Prunus*.

Specifically, look for the pale white crawlers on leaves and shoots and treat if necessary. Scouting can also continue for fresh D-shaped exit holes of the bronze birch borer. Stressed birch with crown dieback and early leaf drop should be sought out first to inspect for this wood-boring pest. Carefully inspect the base around large, landscape conifers for fruiting bodies of the velvet top fungus, *Phaeolus schweinitzii* (see Fig. 1 in the Woody Ornamental Disease Report below). This soilborne pathogen causes a brown cubical root and butt rot mainly to pine, spruce and larch in our region. The annual fruiting bodies may be the only indication the tree is infected, as symptoms are often cryptic or non-existent.

### Berkshire Region (Great Barrington):

**General Conditions:** Sub-normal temperatures occurred throughout the monitoring period. On three occasions, night time temperatures dipped into the 40s with a low of 45° F on the morning of August 19. It is likely that there were more such temperatures in Berkshire communities at higher elevations. Soil moisture levels remain moderate to high, depending upon soil texture. Keeping landscapes and gardens watered has not been an issue this summer as rainfall has been frequent enough and ample. Though gardens are attractive with hydrangea, Rose-of-Sharon, asters, *Rudbeckia*, *Echinacea*, and various daisy species in full bloom, there are signs of senescence and general decline in plant quality, so typical as the end of summer nears. Leaf drop on *Amelanchier*, birches, and many other tree species due to from pests and disease, and weather factors is another common sight as is premature fall coloring on stressed woody plants. **Pests/Problems:** Yellow jackets, mud daubers, carpenter bees, mosquitoes, ants, slugs and snails are still plentiful and major nuisances around homes and gardens. Japanese beetles are common though numbers seem to be declining. Other pests which remain active include: aphids, Oak Leaf Scale, Magnolia Scale, stink bugs, spruce spider mite, and two-spotted spider mite. Elongate Hemlock Scale was found on the yellowing shoot tips of hemlock. Vole, rabbit, and woodchuck are still a major nuisance in many of the more rural garden sites and continue to feed on herbaceous plants in flower and vegetable gardens. Downy mildew was reported a few weeks ago on Impatiens and recently downy mildew of basil has become a problem. Cedar apple rust on leaves of apples and crabapples is now producing fungal structures, called aecia, on the underside of the leaves. Aecia produce spores which are released into the air and infect the leaves of cedar.

## Environmental Data

The following growing-degree-day (GDD) and precipitation data was collected for an approximately 2 week period, August 7 through August 20. Soil temperature and phenological indicators were observed on or about August 20. Total accumulated GDDs represent the heating units above a 50° F baseline temperature collected via our instruments for the 2014 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.

| **Region/Location** | **GDD** (2-Week Gain) | **GDD** (Total 2014 Accumulation) | **Soil Temp** (°F at 4" depth) | **Precipitation** (2-Week Gain in inches) |
|---|---|---|---|---|
| **Cape Cod** | 238 | 1761 | 75 | 0.80 |
| **Southeast** (Wareham) | 269 | 1701 | 72 | 1.28 |
| **Southeast** (Hanson) | 238 | 1876 | 73 | 0.80 |
| **East** | 263.5 | 1945.5 | 73 | 1.37 |
| **Metro West** | 208.5 | 1724 | 70 | 1.49 |
| **Central** (Boylston) | 225 | 1643 | 72 | 1.72 |
| **Pioneer Valley** | 250 | 1959 | 68 | 3.80 |
| **Berkshires** | 176 | 1500 | 64 | 1.47 |
| **AVERAGE** | 234 | 1764 | 71 | 1.59 |
| 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. (Wareham)** | **S.E. (Hanson)** | **EAST** | **METRO W.** | **CENT.** | **P.V.** | **BERK.** |
| *Clematis paniculata* (Sweet Autumn Clematis) | * | * | * | * | * | * | begin | * |
| *Sophora japonica* (Japanese Pagodatree) | begin/full | * | full/end | full/end | full | * | full | begin |
| *Polygonum cuspidatum* (Japanese Knotweed) | begin | full | full | begin | * | * | full | full |
| *Vitex agnus-castus* (Chastetree) | full | full | * | * | * | * | full | * |
| *Clethra alnifolia* (Summersweet Clethra) | full | end | full/end | full/end | full/end | full | full/end | full |
| *Hibiscus syriacus* (Rose-of-Sharon) | full | full | full | full | full/end | full | full/end | full |
| *Buddleia davidii* (Butterfly Bush) | full | full/end | full | full/end | full/end | full | full | * |
| ***** = *no activity to report/information not available* | | | | | | | | |

- *CAPE COD REGION - Roberta Clark, UMass Extension Horticulturist for Barnstable County - Retired, reporting from Barnstable.*
- *SOUTHEAST REGION (Wareham) - Geoffrey Njue, Green Industry Specialist, UMass Extension, reporting from Wareham.*
- *SOUTHEAST REGION (Hanson) - Deborah Swanson, UMass Extension Horticulturist for Plymouth County - Retired, reporting from Hanson.*
- *EAST REGION - Kit Ganshaw & Sue Pfeiffer, Horticulturists, reporting from the Arnold Arboretum, Jamaica Plain.*
- *METRO WEST REGION – Julie Coop, Forester, Massachusetts Department of Conservation & Recreation, reporting from Acton.*
- *CENTRAL REGION (Boylston)- Joann Vieira, Superintendent of Horticulture, reporting from the Tower Hill Botanic Garden, Boylston.*
- *PIONEER VALLEY REGION - Nick Brazee, Plant Pathologist, UMass Extension Plant Diagnostic Lab, reporting from UMass Amherst.*
- *BERKSHIRE REGION - Ron Kujawski, Horticultural Consultant, reporting from Great Barrington.*

# Woody Ornamentals

## Insects

**Fall Webworm caterpillars** have been active for weeks but their numbers are low again this year. This pest has an extended deciduous host range that includes oak, maple, crabapple, birch, lilac, and others. The caterpillars feed in congregations and produce silken webs over the foliage as they feed. By September, when feeding is mostly finished, these webs can be quite large and unsightly. If reachable, webs can be pruned away and destroyed. Sprays can be challenging given that the silken webs are dense and can prevent the product from reaching the caterpillars within. This pest is thought of as primarily being of aesthetic concern and not so much as causing actual damage to the plant.

**Hibiscus Caterpillar** remains actively feeding, primarily on 'Rose-of-Sharon' in Massachusetts. If necessary, a spray of a Spinosad product should be effective.

**Red-headed Pine Sawfly** is active, primarily on mugo pine in MA. It can feed well into October if temperatures remain mild. This pest can cause severe defoliation if left untreated. A product that contains Spinosad works well on the larvae of all ages.

**Dogwood Sawfly** will be active soon, if not already in some areas. There is more than one species but all feed on margins of host plant foliage, consuming all but the mid-vein of the leaf. Monitor host plants carefully

and spray with a product that contains Spinosad. Host dogwoods include, but are not limited to: Osier dogwoods, gray dogwood, *Cornus mas*, and others. This pest can feed well into October if temperatures remain mild.

**Japanese Beetle adults** continue to emerge from the soil but the time of peak emergence is well passed us now in MA. However, this beetle can live for weeks under the right conditions and is still capable of causing much damage to a large variety of host plants. It is a sun-loving insect and is often found most congregated on the sunnier parts of the host plant. Continue to monitor susceptible plants and if controls are necessary, many of the pyrethroid insecticides are labeled for this pest. Read labels carefully in order to choose the best one for the particular site and host plant.

**Viburnum Leaf Beetle adults** are still actively feeding, mating and depositing eggs in terminal shoots. Monitor susceptible viburnum species and treat if necessary. This pest is capable of causing much defoliation late in the growing season if left untreated.

**Ticks remain very active**. Take extra precautions when working in tick habitat to protect oneself from contracting Lyme Disease. If infection is suspected, seek medical advice immediately.

**Hymenoptera (bees wasps, hornets)** often come into increased contact with humans starting around this time of year and extending into the fall. Many of these insects rely on flowers or other natural sweet attractions, and are finding that these sources are now in low numbers. Humans with food or sweet smelling drinks, etc. can become a great attraction for these hymenoptera at this time thus making them a nuisance. Also, most yellowjacket species make their nests underground and by this time of the year population numbers can be quite high (more than 1000 wasps). Should one accidentally dig into one of these nests, it is highly recommended that you vacate the area immediately to avoid multiple stings.

**Asian Longhorned Beetle adults** are most prevalent in MA during August and into early September. Be vigilant for new finds. To see detailed images of the various life stages, telltale damage, and how to report new finds in MA visit: http://massnrc.org/pests/albreport.aspx

**Lacebug Damage** can become quite severe at this time if left unchecked. Host plants that grow in sunnier locations can especially sustain unacceptable levels of feeding damage in the form of very chlorotic foliage. In general, lacebugs thrive during the hottest and driest times of the year: host plants lose the ability to outgrow new damage, natural control agents become less active, and activity and reproduction of lacebugs becomes accelerated. Common host plants for lacebugs in MA include: azaleas, rhododendron, and Japanese andromeda. This summer was not as hot and dry as most summers in MA but lacebugs are still quite active. Systemic Imidacloprid or a spray of horticultural oil at the summer rate (and targeted to the foliage undersides) can be effective.

**Hemlock Woolly Adelgid** remains dormant on the twigs of host plants settled there near the base of the needles. Currently, they are second instar nymphs that are flat, black, oval and have a small ring of white fringe (wax) around their bodies. Now is a good time to inspect for the level of infestation and to treat with a horticultural oil at the summer rate, when weather allows. These dormant nymphs will not awaken until around mid-October to resume feeding but they can be treated now if deemed necessary.

**Warm-Season Spider Mites**, such as the Two-spotted Spider Mite, remain very active on a variety of host plants. Monitor for chlorosis and the actual mites and treat if necessary.

**Cool Season Mites** such as the Spruce Spider Mite will resume activity soon. If Fall weather remains mild well through October, continue to monitor for their build up in numbers. A spray of horticultural oil at the summer rate can provide adequate levels of control if applied when weather conditions are conducive to such sprays.

**Fall House Invaders, such as Ladybugs, Western Conifer Seedbug, Boxelder Bug, Brown Marmorated Stinkbug,** and others are not yet attempting to seek shelter for the winter but over the next 6-8 weeks they will. Now is the time to examine and repair torn screens, faulty caulking, and any gaps around windows, doors and siding to prevent their entrance when they do attempt to become a household nuisance.

*Report by Robert Childs, Extension Entomologist - Retired, Stockbridge School of Agriculture, UMass, Amherst*

## Diseases

Recent pathogens and insect pests of interest seen in the UMass Extension Plant Diagnostic Laboratory:

**Woolly pine scale (*Pseuodphilippia quaintancii*) infestation of Tanyosho pine (*Pinus densiflora* 'Umbraculifera'; dwarf Japanese red pine).** Approximately 20-year-old tree present at site for 15 years. In the spring, it was noticed that lower canopy needles on one side of the tree were browning but the symptoms had been noticed in previous years, but were not as severe. Tree resides in sandy soil with full sun. The woolly pine scale produces a very conspicuous white, cottony secretion around its body. Severe infestations can make it appear the needles and shoots are covered in snow. This pest is more common in the southeastern U.S., but is known to occur in the northeast. Feeding on the shoots leads to needle browning and dieback by this presumed native insect.

**Foliar blight of cherry (*Prunus* sp.) caused by *Mycosphaerella cerasella*.** Several young trees, 2-3" diameter, present at site for only one year. In the spring, the trees began to decline and several have died. No root or cankering diseases were present and soils were adequate for fruit trees. The foliage was harboring a severe infection from *M. cerasella*, which created grey, circular spots with reddish margins. The spots were so numerous that large sections of the foliage were blighted.

**San Jose scale (*Quadraspidiotus perniciosus*) infestation on espalier apple (*Malus* sp.) trees.** Approximately seven-year-old trees present at the site for two years. Symptoms included stippling and yellowing of the foliage. The San Jose scale is a widely distributed insect pest with a broad host range that causes serious damage to infested hosts. Numerous fruit and ornamental trees are infested by this non-native insect that originated from Asia.

**Spruce spider mite (*Oligonychus ununguis*) and eastern spruce gall adelgid (*Adelges abietis*) infestation coupled with stem cankering caused by *Phomopsis* on Norway spruce (*Picea abies*).** Six trees, roughly eight-years-old were planted three years ago within 15 yards of a busy state highway. Within the group, one tree has died while four others are in severe decline. Salt toxicity from the highway, in addition to a lack of supplemental water during extended dry periods, may have predisposed the trees to insect and disease.

**Verticillium wilt and stem cankering caused by *Nectria* on mimosa (*Albizia julibrissin*).** Tree is approximately seven-years-old and has been present at the site for five years. This spring, certain branches did not leaf out while others branches that flushed new growth soon wilted and died. The tree is double-stemmed and only one leader is currently exhibiting the symptoms, which also included oozing of white foam from the trunk. Small-diameter stems were heavily cankered by *Nectria* and larger-diameter branches had the characteristic vascular staining. *Verticillium* was observed after a short incubation of the symptomatic material.

**Needle cast caused by *Rhizosphaera* and *Stigmina* together with a spruce spider mite infestation (*Oligonychus ununguis*) on blue spruce (*Picea pungens*).** Tree is approximately 20-years-old and is experiencing premature needle shedding and branch dieback in the lower 1/3 of the canopy. The symptoms occur primarily on the northern side of the tree, which is typical of needle cast fungi, which prefer shade and free moisture on needle surfaces.

**Dutch elm disease, caused by *Ophiostoma ulmi* or *O. novo-ulmi* on American elm.** Two trees, approximately 100-years-old, with browning foliage and branch dieback. The trees have been regularly treated for DED with injections of thiabendazole hypophosphite, highlighting the difficulty in managing this devastating disease. One tree is being removed due to the severity of the dieback while the other will continue to be treated.

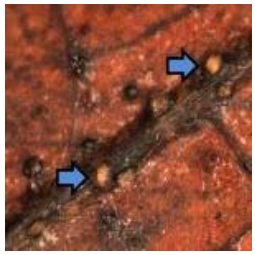
**Swiss needle cast, caused by *Phaeocryptopus gaeumannii*, on Douglas-fir (*Pseudotsuga menziesii*).** Sixty-year-old tree present at site for 40 years. The bottom 1/3 of the canopy has lost its interior needles. Swiss needle cast affects only Douglas-fir and causes a severe needle cast of older needles. While current year's needles are infected, they remain asymptomatic until the following year, when they become pale green to yellow and finally brown before prematurely shedding.

**Dogwood anthracnose, caused by *Discula destructiva*, on flowering dogwood (*Cornus florida*).** Tree is less than five-years-old and was planted five months ago. Recently, interior leaves began to yellow. To grow flowering dogwood requires constant management of the non-native dogwood anthracnose pathogen.

For more detailed management information for woody plant diseases in the landscape, refer to *UMass Extension's Professional Management Guide for Diseases of Trees and Shrubs*:
http://extension.umass.edu/landscape/diseaseguide

*Report by Nick Brazee, Plant Pathologist, UMass Extension Plant Diagnostic Lab, UMass, Amherst.*





## Weeds

Be sure to check out UMass Extension's Online Weed Herbarium!

**Name that weed!** (Click photo to enlarge, and click here for answer)

# Landscape Turf

## Diseases

The UMass Extension Plant Diagnostic Lab has recently seen four stress related, minor leaf spot and blight pathogens (*Colletotrichum*, *Curvularia*, *Leptosphaerulina*, and *Ascochyta*) on lawn specimens submitted. These fungi often appear when the turf is under stress from poor growing conditions such as excess thatch, soil compaction, mowing heights lower than recommended for the grass species present, high soil and air temperatures, or frequent light watering. They may also be secondary to other pathogens, especially root infecting fungi or nematodes that cause dysfunctional roots. Fungicide applications are seldom effective unless the underlying causes of stress are addressed.

All four fungi survive in the thatch and in infected plant debris and disease is more severe in areas of soil compaction, poor drainage, and/or heavy traffic. They infect through the tips of freshly mown grass. Anthracnose (*Colletotrichum*) is most serious on annual bluegrass (*Poa annua*) and bentgrass (*Agrostis* species), while *Curvularia*, *Leptosphaerulina*, and *Ascochyta* attack all species of turfgrass. Disease development is encouraged by light, frequent irrigation, overcast weather, and high relative humidity. *Curvularia*, *Leptosphaerulina*, and *Ascochyta* leaf spot and blights are favored by high nitrogen levels, while anthracnose is more serious when nitrogen levels are inadequate.

Steps to lessen the impact of these diseases include:

- Provide proper fertility based upon the results of a soil test. Sufficient levels of nitrogen, phosphorous, and potassium are required for robust turf growth and tolerance to disease.
- Address soil compaction with aeration. Perform aeration in late summer (best time) or early spring when the turf has the ability to recover from this potentially stressful practice.
- Reduce thatch levels if they are excessive as these fungi survive in the thatch. Excessive thatch causes the roots to grow mainly in the thatch layer where they are more exposed to the activity of both plant pathogenic fungi and insects.
- Avoid frequent, light irrigation which encourages the activity of these and other turf pathogens. Water deeply and infrequently. One inch of water per week is a good guideline.
- The optimum time to irrigate is early morning when the turf will dry rapidly and prolonged periods of leaf wetness are avoided. Avoid late afternoon and evening watering, especially when night temperatures are high.
- Reduce mowing frequency and mow at the height recommended for the grass species present.
- Avoid applying herbicides and installing sod during or just before an extended period of hot, humid weather.
- When leaf spots and blights are severe in most years, protective fungicide applications may be warranted. See our Turf Fungicide Charts for more information.

*Report by M. Bess Dicklow, Plant Pathologist, UMass Extension Plant Diagnostic Lab, UMass, Amherst.*

# Other Relevant News / Pest Alerts

**UMass Extension's 2014 Green School** is a comprehensive 12-day certificate short course for Green Industry professionals taught by UMass faculty and Extension Specialists. Three different track options are offered: Turf Management, Landscape Management and Arboriculture. Offering 60 hours of training, this popular course is designed for professionals who wish to gain a basic understanding of horticulture fundamentals and strategies, but who can't fit a full academic course into their schedules. For complete program information and registration instructions, refer to our **Green School page**.

**2015 Winter School for Turf Managers:** An excellent choice for turf professionals who seek to expand their knowledge and practical skills. Students are immersed in an intensive, full-time program scheduled Monday

through Friday for seven weeks. For complete program information and application instructions, refer to our **Winter School page**.

**Late blight** is widespread in organic fields across MA and several tomato fields have been plowed under. Growers are harvesting some infected potato fields now after mowing and letting skins harden for 2 weeks. In conventional fields of potato and tomato, targeted fungicides have generally prevented the disease from developing. LB was identified in greenhouse tomato in Windham Co., Vermont. Weather conditions continue to be favorable for spread of this disease. For a map of late blight reports and photos of symptoms, see usablight.org.

## Additional Resources

To receive immediate notification when the next Landscape Message update is posted, be sure to join our e-mail list.

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 at http://ag.umass.edu/topics/home-lawn-garden. UMass Extension also has a twitter feed, providing timely, daily gardening tips, sunrise and sunset times to followers, see https://twitter.com/UMassGardenClip

## Diagnostic Services

**A UMass Laboratory Diagnoses Turf and Landscape 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 Tissue Testing** - The University of Massachusetts Soil and Plant Tissue 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 Tissue 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 tissue Testing Laboratory web site at: http://soiltest.umass.edu/ Alternatively, call the lab at (413) 545-2311.

**Ticks are active at this time!** UMass tests ticks for the presence of Lyme disease and other disease pathogens. Learn more