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Landscape Message: Aug 11, 2017

Aug 11, 2017

Issue: 18

UMass Extension's Landscape Message is an educational newsletter intended to inform and guide Massachusetts Green Industry professionals in the management of our collective landscape. Detailed reports from scouts and Extension specialists on growing conditions, pest activity, and cultural practices for the management of woody ornamentals, trees, and turf are regular features. The following issue has been updated to provide timely management information and the latest regional news and environmental data.

The Landscape Message will be updated bi-weekly July through September. Due to vacation schedules, the next message will be posted on Monday, August 28. To receive immediate notification when the next Landscape Message update is posted, be sure to [join our e-mail list](#).

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 data was collected on or about August 9. Total accumulated growing degree days (GDD) represent the heating units above a 50° F baseline temperature collected via our instruments for the 2017 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 | | Soil Temp (°F at 4" depth) | | Precipitation (2-Week Gain) | Time/Date of Readings |
|-----------------|-------------|------------|-------------------------------|-------|--------------------------------|-----------------------|
| | 2-Week Gain | 2017 Total | Sun | Shade | | |
| Cape Cod | 267 | 1566 | 70 | 66 | 0.42 | 12:00 PM 8/9 |
| Southeast | 221 | 1406 | 68 | 64 | 0.20 | 11:20 AM 8/9 |
| North Shore | 260 | 1599 | 68 | 64 | 0.27 | 9:30 AM 8/9 |
| East | 289.5 | 1798 | 74 | 71 | 2.39 | 4:30 PM 8/9 |
| Metro West | 251 | 1637 | 63 | 61 | 3.77 | 5:45 AM 8/9 |
| Central | n/a | 1642 | 72 | n/a | 0.81 | 3:14 PM 8/9 |
| Pioneer Valley | 234 | 1687 | 70 | 66 | 1.62 | 7:00 AM 8/10 |
| Berkshires | 223 | 1416 | 65 | 61 | 1.14 | 8:35 AM 8/9 |
| AVERAGE | 249 | 1594 | 69 | 65 | 1.33 | - |

n/a = information not available

Drought Status: Approximately 98% of Massachusetts is **not** under official drought status at this time. The 2% classified as 'Abnormally Dry' includes the entire island of Nantucket. For more information see <http://droughtmonitor.unl.edu/Home/StateDroughtMonitor.aspx?MA>

▼ Phenology

| 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. | |
| <i>Sophora japonica</i> (Japanese Pagodatree) | Begin | * | Full | Full/End | * | Begin | Begin | * | |
| <i>Polygonum cuspidatum</i> (Japanese Knotweed) | Begin | * | Begin | * | Begin | * | Begin | Begin | |
| <i>Clethra alnifolia</i> (Summersweet Clethra) | Begin/Full | Full | Full | Full | Begin/Full | Full | Full | Begin/Full | |
| <i>Hibiscus syriacus</i> (Rose-of-Sharon) | Full | Full | Full | Full | Full | Full | Full | Full | |
| <i>Buddleia davidii</i> (Butterfly Bush) | Full | Full | Full | Full | Full | * | Full | Full | |
| * = no activity to report/information not available | | | | | | | | | |

Regional Notes

▼ Cape Cod Region (Barnstable)

General Conditions: The average temperature from July 26 - August 9 was 69° F with a high of 84° F on August 1 and a low of 51° F on July 31. Overall the period has been dominated by days in the 70s and nights in the 60s. Just under a half inch of precipitation fell on August 8. Precipitation has been fairly scarce over the last month. Topsoil moisture and subsoil moisture are short. Many unirrigated lawns began showing symptoms of wilt and dormancy at the end of July.

Pests/Problems: Insect pests or damage seen during the period include Japanese beetle, oriental beetle, Asiatic garden beetle, viburnum leaf beetle, two spotted spider mite, chilli thrips, andromeda lacebug, azalea lace bug, leaf hoppers, aphids, hibiscus sawfly, Prionus beetles. Powdery mildew is present on lilac, monarda, rose, coreopsis, phlox, and dogwood. Rabbits are still causing a lot of damage. Weeds in bloom include; white clover (*Trifolium repens*), yellow woodsorrel (*Oxalis stricta*), purslane (*Portulaca oleracea*), plantain (*Plantago lanceolata*), prostrate spurge (*Euphorbia maculata*), Pennsylvania smartweed (*Polygonum pennsylvanicum*) yellow toad flax (*Linaria vulgaris*), annual toadflax (*Linaria canadensis*), Queen Anne's lace (*Daucus carota*), common milkweed (*Asclepias syriaca*), spotted knapweed (*Centaurea maculosa*), bittersweet nightshade (*Solanum dulcamara*), Japanese knotweed (*Polygonum cuspidatum*), redroot pigweed (*Amaranthus retroflexus*), and sowthistle (*Sonchus oleraceus*).

▼ Southeast Region (Hanson)

General Conditions: Nice summer weather over the past two weeks, however, rain has been scarce and Hanson received only 0.20 inches of rain. The following plants are in full bloom: *Albizia julibrissin*, *Clerodendron trichotomum*, roses, Rose-of-Sharon, *Oxydendrum arboreum*, *Campsis radicans*, *Aesculus parviflora*, *Clethra alnifolia*, Weston hybrid azaleas, *Hydrangea paniculata*, *Hydrangea macrophylla* (mostly lacecaps), *Hydrangea quercifolia* (Oakleaf Hydrangea), *Hydrangea arborescens* (Smooth Hydrangea), Tiger lilies, *Echinops ritro* (Globe Thistle), *Rubus odoratus*, *Lysimachia ciliata*, *Phlox paniculata* (Garden Phlox), *Echinacea* sp., perennial *Hibiscus*, *Hosta* sp., *Persicaria amplexicaulis* 'Firetail', *Persicaria polymorpha*, Joe-pye-weed, *Heliopsis* 'Summer Sun', *Helianthus* sp., Hollyhocks, *Monarda didyma* (Beebalm), *Silphium* sp., *Liatris spicata*, *Lysimachia clethroides*, *Perovskia atriplicifolia*, daylilies, *Ligularia dentata* 'Desdemona', *Alcea rugosa* (Russian Hollyhock), Shasta daisy, *Nepeta* sp., *Actea racemosa*, *Veronicastrum virginicum*, *Macleaya cordata* (Plume poppy), *Rudbeckia triloba*, *Asclepias tuberosa*, *Rudbeckia fulgida*, *Rudbeckia* 'Herbstsonne', *Coreopsis* sp., *Platycodon grandiflorus*, *Astrantia major* and *Campanula* sp. The last flowers of *Stewartia pseudocamellia* are finally dropping after a several weeks of bloom. It is a very good year for monarch butterflies, with many people reporting seeing them this summer. In Hanson, MA, the Pipevine swallowtail has been seen this summer and larvae were observed feeding on *Aristolochia durior* (Dutchman's pipe). Hanson has 2,629 GDD (Growing Degree Days) base 40.

Pests/Problems: Lack of rain, especially in unirrigated landscapes, is not helping trees, like oaks that were defoliated by gypsy moth caterpillars and those trees are struggling to put out that second flush of foliage. Many of these trees were also defoliated last year and this may not bode well for their future. Continue to remind clients to water defoliated trees and those that were planted this year and last year.

The following insects remain active: Japanese beetle; Asiatic Garden beetle; Oriental beetle; elongate hemlock scale; yellow jackets and other stinging wasps; spider mites; redheaded pine sawfly; introduced pine sawfly; mosquitoes; stinkbugs; Andromeda, rhododendron and azalea lacebugs; aphids; snail; slugs and leafhoppers. Beneficial insects also remain active.

Continue to monitor susceptible trees like maples, horsechestnut, elm, poplar, willow, etc. for signs of Asian Longhorned Beetle (ALB), as peak emergence is usually in August and this insect attacks healthy trees.

The sunflower moth caterpillar also remains active and damage to flowers is showing up on a number of plants in the composite (*Asteraceae*) family: *Echinacea*, *Rudbeckia*, *Helianthus*, *Bidens*, *Heliopsis*, marigolds, etc.

Powdery mildew is showing up on susceptible plants like: lilac, *Cornus florida*, *Cornus controversa*, etc.

Poison ivy is very visible in the landscape. Tansy, chicory, pokeweed, and clover are in bloom. Goldenrod is beginning bloom.

August is a good time to renovate an existing lawn or construct a new one.

Deer, rabbits and chipmunks continue to be a nuisance.

▼ North Shore (Beverly)

General Conditions: This reporting period was relatively mild for this time of the year with scattered storms on some days. Temperatures were in the mid 70s to low 80s during the day and mid-50s to low 60s during the night. During the last two weeks of this reporting period, Long Hill gained 260 growing degree-days (GDD) and approximately 0.27 inches of rainfall were received. Rain storms were very spotty and scattered within the region. Woody plants seen in bloom include: Japanese pagoda tree (*Sophora japonica*), Bottlebrush buckeye (*Aesculus parviflora*), Bebe tree (*Tetradium danieilii*), Sourwood (*Oxydendrum arboreum*), Silk tree or Mimosa (*Albizia julibrissin*), Oakleaf hydrangea (*Hydrangea quercifolia*), Butterfly bush (*Buddleia davidii*), Rose-of-Sharon (*Hibiscus syriacus*), and Trumpet vine (*Campsis radicans*). Herbaceous plants seen in bloom include: Milkweed (*Asclepias* spp.), Globe thistle (*Echinops ritro*), Garden phlox (*Phlox paniculata*), Hostas (*Hosta* spp.), Sedums (*Sedum* spp.), Sedums (*Sedum* spp.), Astilbe (*Astilbe* spp.), Summer flowering roses (*Rosa* sp.), Clematis vines (*Clematis paniculata*), and Water lily (*Nymphaea odorata*). An assortment of annuals are also adding more color in the landscapes

Pests/Problems: Diseases observed include cedar-hawthorn rust (*Gymnosporangium globosum*) on hawthorn, cedar-apple rust (*Gymnosporangium juniperi-virginianae*) on crabapples, and yellowing of needles on branches of *Taxus*. Also observed was Powdery mildew on lilac and phlox. Japanese beetles were also observed causing problems on some plants. Weeds are thriving due to moist soil and warm temperatures. Oriental bittersweet (*Celastrus orbiculatus*) is growing vigorously. Oriental bittersweet seedlings are easy to remove when the soil is moist and the population is small. Pull steadily and slowly to minimize soil disturbance. Goldenrod (*Solidago* spp.) is in bloom on roadsides. Watch for poison ivy as you walk or work in the woods. Remember also that ticks and mosquitoes are still very active. Protect yourself with insect repellent

▼ East Region (Boston)

General Conditions: Weather conditions have been moderate over the past two weeks. We had daytime highs averaging 80° F (ranging from 74° F to 88° F) and lows averaging 61° F (ranging from 52° F to 67° F), ideal summer temperatures, if not slightly cooler than typical averages for this time of year. We experienced high humidity for several consecutive days, which culminated in thunderstorms. On the afternoon of August 2nd, this included heavy downpours, high winds, and hail and delivered over two inches of precipitation in a relatively short period of time. We gained 289.5 GDDs; we are at 1798 GDDs for this growing season. The frequent precipitation has kept the landscape lush and green. Summer flowering plants in the landscape include *Amorpha fruticosa* (indigo bush), *Campsis radicans* (trumpet vine), *Cyrtilla racemiflora* (titi), *Hibiscus moscheutos* (crimson-eyed rose-mallow), *Perovskia atriplicifolia* (Russian sage), *Spiraea alba* (white meadowsweet), and *Spiraea douglasii* var. *menziesii* (Menzies' spirea). The meadow continues to be colorful with *Helianthus tuberosus* (Jerusalem artichoke), *Silphium perfoliatum* (cup plant), *Typha latifolia* (broadleaf cattail), and the invasive *Lythrum salicaria* (purple loosestrife). Fruit of *Sorbus* sp. (mountain ash), *Malus* sp. (crabapple), and *Viburnum* sp. (viburnum) are adding color in the landscape. The unusual *Poliathyris sinensis* (Chinese pearlblow) native to China, is flowering and being visited by many pollinators.

Pests/Problems: The violent thunderstorm that came through on August 2nd did not cause significant damage to the landscape despite the heavy downpours and hail. The majority of evidence was many fallen leaves and wash out on slopes and along waterways. Landscape weeds continue to flourish including crabgrass (*Digitaria* sp.), black swallow-wort (*Cynanchum louiseae*), Oriental bittersweet (*Celastrus orbiculatus*), *Portulaca oleracea* (common purslane), *Cyperus esculentus* (yellow nutedge), and dodder (*Cuscuta* sp.). Woody weed seedlings are germinating in mulched beds. VLB adults have been observed actively feeding on untreated *Viburnum dentatum* (arrowwood viburnum).

▼ Metro West (Acton)

General Conditions: Again, as with the past three months, the precipitation measured and recorded for the month of July exceeded the historical monthly average rainfall. The average is 4.07" and 4.12" of rain was recorded last month. This month's historical monthly average rainfall is 3.72" and we've almost exceeded this month's average since 3.7" of rain has been recorded so far this month. What a growing season! The warm and hot days are followed by brief periods of rain; enough so that the grass is still green and gardens require little if no watering. Woody plants seen in bloom this past week are: *Albizia julibrissin* (Silk Tree), *Buddleia* spp. (Butterfly Bush), *Clethra alnifolia* (Summersweet), *Hibiscus syriacus* (Rose-of-Sharon), *Hydrangea paniculata* (Panicle Hydrangea), and its many cultivars including 'Tardiva', *Oxydendrum arboreum* (Sourwood), *Potentilla fruticosa* (Potentilla), *Rosa* 'Knockout' (The Knockout family of Roses), and *Rosa* spp. (Rose). 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: *Alcea rosea* (Hollyhocks), *Asclepias syriaca* (Common Milkweed), *Astilbe* spp. (False spirea), *Boltonia asteroides* (Bolton's Aster), *Campanula takesimana* 'Elizabeth' (Bell Flower), *C. spp.* (Bell Flower), *Cichorium intybus* (Chicory), *Ceropepis* spp. (Tickseed), *Daucus carota* (Queen Anne's Lace), *Echinacea purpurea* (Coneflower), *Gaillardia aristata* (Indian Blanket Flower), *Hemerocallis* 'Stella D'Oro' (Daylily), *H. fulva* (Orange Daylily), *H. spp.* (Daylily), *Hosta* spp. (Plantain Lily), *Kirengeshoma palmata* (Yellow Wax Bells), *Lamium maculatum* (Dead Nettle), *Lavandula angustifolia* (Lavender), *Leucanthemum* sp. (Shasta Daisy), *Liatris spicata* (Spike Gayfeather), *Lilium* spp. (Lily), *Lysimachia clethroides* (Gooseneck Loosestrife), *Monarda didyma* (Bee-Balm), *Patrinia gibbosa* (Patrinia), *Perovskia atriplicifolia* (Russian Sage), *Phlox carolina* (Carolina Phlox), *P. paniculata* (Garden Phlox), *Platyocodon grandiflorus* (Balloon Flower), *Rudbeckia fulgida* var. *sullivantii* 'Goldsturm' (Black-eyed Susan), *Senna marilandica* (Wild Senna), *Solidago* spp. (Goldenrod), *Tradescantia* sp. (Spiderwort), and *Verbena hastata* (American Blue Vervain).

Pests/Problems: On August 2nd, a strong storm system bringing hail, winds and rain passed through the Acton area late afternoon and into the evening causing random power outages, erosion, flooding and downed tree limbs. Observed in the landscape these past two weeks were leaf blotch on *Aesculus* sp. (Horsechestnut), powdery mildew on *Monarda* (Beebalm), *Phlox*, and *Syringa* (Lilac) and Cedar Apple Rust on *Amelanchier* sp. (Serviceberry). Not only has this been a great growing season for our landscape plants but our herbaceous weeds and woody weedy vines are thriving as well

▼ Central Region (Boylston)

General Conditions: Generally pleasant summer conditions have prevailed throughout the reporting period with expected periods of heat and humidity punctuated by cooler days, and near adequate rainfall. Many annuals and perennials are blooming including *Geranium* 'Rozanne', *Senna marilandica*, *Phlox paniculata*, *Perovskia atriplicifolia*, *Persicaria bisorta* 'Superba', *Persicaria polymorpha*, *Rudbeckia* 'Herbstsonne', *Hemerocallis* cvs., *Hosta* cultivars, *Calamintha nepeta*, *Rudbeckia* 'Goldsturm', *Echinops bannaticus* 'Taplow Blue', *Echinacea* cultivars, and *Anemone* *macrophylla*. In addition *Clematis* 'Diana', *Oxydendrum arboreum*, *Clethra barbinervis*, *Clethra acuminata*, many *Hibiscus syriacus* cultivars, *Hydrangea arborescens* 'Hayes Starburst', *Hydrangea paniculata* cultivars, *Hydrangea quercifolia*, *Hydrangea aspera* subsp. *sargentiana*, *Solidago* cultivars, *Eupatorium purpureum*, and *Iris domestica* are among the plants enlivening the landscape.

Pests/Problems: Japanese beetles, Blister Beetles, Colorado Potato Beetles, Mosquitoes, ticks, Hibiscus Sawflies, and many Hickory Tussock Moth caterpillars are active. Powdery mildew is evident on *Phlox*, Peonies, *Syringa* and *Monarda*. White faced hornets are strengthening their nests. Woodchucks and rabbits are particularly abundant (and problematic) this year.

▼ Pioneer Valley Region (Amherst)

General Conditions: This past reporting period was difficult to characterize as we experienced a wide range of weather in the Pioneer Valley. Conditions varied from warm and very humid (dew points at or near 70° F) to mild with cool nights in the lower 50s (almost autumn-like). Overall, it was fairly dry but scattered thunderstorms produced locally heavy rainfall, with the majority of the recorded precipitation (which varied from <1" to well over 2" across most of the valley) taking place between 8/3 and 8/5. On the latter, it was an oppressively humid day with repeated downpours that netted over 1.25" of rainfall at the Easthampton gauge station. According to the Northeast Regional Climate Center, July precipitation was below normal for most of the Pioneer Valley, save for southern Hampden County. The most parched region was eastern Franklin and Hampshire Counties, registering only 50-75% normal rainfall for the month. Despite the drying surface soils, subsurface soils remain fairly moist even at this late point in the season. Kousa dogwood, Arnold Promise witchhazel and crabapple have continued to flush new growth into early August this year. A landscape red oak that produced a second flush of leaves this summer (known as lammass growth) had scattered shoots that flushed a third set of leaves. For landscape trees and shrubs that are healthy, it's been a great year.

Pests/Problems: After the abundant rainfall early in the growing season and the removal of drought classifications across the Commonwealth, we were eager to move on from last year's drought. But the ghosts of 2016 are increasingly evident on landscape trees, with drought-induced dieback and mortality continuing to develop with each passing week. The Dutch elm disease pathogen, *Ophiostoma novo-umi*, has taken advantage of many drought-stressed American elms and a large number of "survivor" elms continue to decline and die this year. In contrast, tar spot of maple, especially Norway maple, is particularly bad this year across the region. Premature leaf shedding has been observed on both young and mature trees in some cases. For many of these affected trees, maple anthracnose is likely present as well. Management is usually not warranted for tar spot, but due to the heightened levels of disease severity this year, cleaning up and discarding infected leaf material may be worthwhile. Additional late season foliar pathogens are showing up earlier this year, including leaf blight pathogens of cherry and crabapple/apple. Marginal leaf scorch is developing on landscape lindens in exposed settings. Now is the time to prepare fall miticide treatment plans for conifers impacted by the spruce spider mite. Late August to early September applications of appropriate miticides will help to control this destructive pest of spruce, arborvitae, falseyypress, fir and hemlock, among others. The SSM prefers cooler temperatures and mostly goes dormant during the heat of summer, only to reemerge during the early autumn season. Japanese beetles continue to feed, especially on birch, oak and elm, but populations still appear smaller compared to previous years. West Nile virus was detected from multiple mosquitoes in the valley in recent weeks, so precautions should be taken to protect against mosquito bites when working or recreating outdoors. Yet, the risk of contracting WNV is generally low and additional towns in the Commonwealth have also detected positive mosquitoes over the same time period. The heavy rainfall over the past week has resulted in an increase in local mosquito populations. Removal of standing water from properties can reduce the number of egg-laying sites.

▼ Berkshire Region (Great Barrington)

General Conditions: The weather of the past two weeks has followed much the same pattern as early summer, that is, a few days of sunshine with temperatures a little above normal, followed by a day or two of cloudy conditions with light rain or brief downpours and temperatures a little below normal. All in all, it has been a good growing season. Lawns have shown little or no slowing of growth, little or no browning, and no summer dormancy. In the mid-summer landscape, *Phlox paniculata* cultivars are at or near peak of bloom, Russian sage (*Perovskia atriplicifolia*) has come into bloom, and meadow species such as butterfly milkweed (*Asclepias tuberosa*), cone flower (*Echinacea purpurea*), Joe-pye weed (*Eupatorium purpureum*), and bee balm (*Monarda fistulosa*) are hitting their stride. Soil moisture levels are very good and negate the need for any irrigation.

Pests/Problems: Pests still active include cutworms, flea beetles, slugs, earwigs, Asiatic garden beetle, and Oriental beetle. Some spider mites can be found on a variety of plants but the numbers may be held in check by frequent rains. Euonymus scale crawlers are present but most have settled. Tussock moth caterpillars are common at this time of year. The hickory tussock moth caterpillar was found on both hickory and on copper beech. The caterpillar is characterized by white hairy body and black head. Deer ticks remain a serious problem and reports of deer tick bites are very common. The Lyme Alliance of the Berkshires has declared Lyme disease to be epidemic in the County but no such declaration has come from official medical facilities.

Leaf spot diseases have been quite common as reported in previous messages and have been causing quite a bit of premature leaf drop. Raking and destroying infected leaves is one management option in reducing future infections. With high humidity and warm temperatures, powdery mildew is prevalent on all the usual hosts, i.e. lilac, non-resistant phlox, and ninebark.

Browsing damage has been a big problem this year as the populations of rabbits and chipmunks in particular have been very high. Browsing by deer, voles, and woodchucks is also common but not quite as severe as that of the aforementioned critters.

▼ Regional Scouting Credits

- CAPE COD REGION - Russell Norton, Horticulture and Agriculture Educator with Cape Cod Cooperative Extension, reporting from Barnstable.
- SOUTHEAST REGION - Deborah Swanson, UMass Extension Horticulturist for Plymouth County - Retired, reporting from Hanson.
- NORTH SHORE REGION - Geoffrey Njue, Green Industry Specialist, UMass Extension, reporting from the [Lona Hill Reservation](#), Beverly.
- 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 - Joann Vieira, Superintendent of Horticulture, reporting from the [Tower Hill Botanic Garden](#), Boylston.
- PIONEER VALLEY REGION - Kelly Allen for 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

▼ Diseases

Recent pests and pathogens of interest seen in the [UMass Extension Plant Diagnostic Lab](#):

Swiss needle cast, caused by *Phaeocryptopus gaeumannii*, on Douglas-fir (*Pseudotsuga menziesii*). Young tree, approximately 10- to 15-years-old, in a landscape setting with many conifers. The tree was planted in a partially shaded setting, which is not appropriate for Douglas-fir. This conifer requires full sun to thrive and typically does not tolerate any shade. It will persist in shaded locations, but is weakened by lack of light and is attacked by needle cast pathogens. In the lower canopy, branches are devoid of needles except at the shoot tips. The fungus attacks newly developing needles in the spring and leads to premature needle shedding, often leaving trees with only the current season's foliage.

Marssonina leaf blotch (*Marssonina coronaria*), gypsy moth (*Lymantria dispar*) defoliation and sapsucker injury on a landscape apple tree (*Malus domestica*). The tree is >30-years-old and has many water sprouts growing at right angles from the main scaffold branches. A significant volume of foliage has been shed from the canopy and the symptoms were present in previous years. The abundance of water sprouts has created an overly dense canopy that prevents air flow and light from reaching lower canopy branches. Marssonina leaf blotch leads to yellowing and premature shedding of apple and crabapple leaves. During wet years, such as this one, a partial to nearly complete defoliation can occur.

Shoot and needle blight, caused by *Pestalotiopsis*, and an infestation of the spruce spider mite (*Oligonychus ununguis*) on Green Giant arborvitae (*Thuja × standishii* 'Green Giant'). 21 trees were purchased and planted in May this year to create a border screen between two neighboring properties. Shortly after planting, needle yellowing and browning developed on scattered trees in the screening row. To date, 8/21 trees have died. Supplemental irrigation was provided with a soaker hose and the setting is full sun. *Pestalotiopsis* was abundant on the submitted sample and is a common pathogen of *Thuja* in the landscape. Infections result in needle yellowing and browning as shoots are killed.

Verticillium wilt, caused by either *Verticillium dahliae* or *V. albo-atrum*, on American smoketree (*Cotinus obovatus*). The tree resides in a landscape setting with full sun, is less than 15-years-old and has been present at the site for 10 years. No supplemental irrigation is provided to the tree. In late July, the eastern half the tree's canopy began wilting and yellowing, becoming brown shortly after the initial onset of symptoms. The characteristic olive-green staining was present in the submitted stems and the fungus was visible after a brief incubation. Like maple (*Acer*), smoketree (*Cotinus*) is a primary host for this destructive fungal pathogen.

Shoot tip and foliar blight of a weeping flowering cherry (*Prunus* sp. 'Pendula') caused by *Colletotrichum*. Bacterial shot hole, caused by *Pseudomonas syringae*, was also present on the tree as a secondary pathogen. The tree is approximately 20-years-old and was treated for gypsy moth this season. The damage is scattered in the canopy, but a significant number of shoots are affected. Both anthracnose and bacterial shot hole are common diseases on ornamental cherry this season, causing significant damage in many cases.

▼ Insects

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



- **Emerald Ash Borer (EAB):** A new county detection of *Agrilus planipennis* (EAB) was made using green panel traps and a combination of a host plant volatile chemical and pheromone (sexual attractant) lures placed in Brookline, MA. This is unfortunately a new county detection (Norfolk County) in Massachusetts for 2017. (However, it is in very close proximity to a prior detection made in Suffolk County.) EAB has previously been detected in Berkshire County (2012), Essex County (2013), Suffolk County (2014), Worcester County (2015), and Hampden County (2016). In this case, two green panel traps, hung in close proximity to one another, captured 6 adult beetles between them, which were collected on 7/14/17 and sent to the [UMass Plant Diagnostic Laboratory](#) for confirmation. This identification was also confirmed by the USDA Animal and Plant Health Inspection Service (APHIS).

EAB readily attacks ash (*Fraxinus* spp.) including white, green, and black ash and has also been found developing in white fringe tree (*Chionanthus virginicus*) and most recently, cultivated olive (*Olea europaea*). (See:

<https://academic.oup.com/jee/article-lookup/doi/10.1093/jee/tox139>.) Adult insects of this species are active. Signs of an EAB infested tree may include D-shaped exit holes in the bark, "blonding" or lighter coloration of the ash bark from woodpecker feeding (chipping away of the bark as they search for larvae beneath), and serpentine galleries visible through splits in/upon peeling the bark, from larval feeding beneath. Positive identification of an EAB-infested tree may not be possible with these signs individually on their own.

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>. If you believe you have located EAB-infested ash trees, particularly in an area of Massachusetts not identified on the map provided, please report it at the Massachusetts Introduced Pests Outreach Project: <http://massnrc.org/pests/pestreports.htm>.

- **Asian Longhorned Beetle, *Anoplophora glabripennis*, ALB:** Look for signs of an ALB infestation which include perfectly round exit holes (about the size of a dime), shallow oval or round scars in the bark where a female has chewed an egg site, or sawdust-like frass (excrement) on the ground nearby host trees or caught in between branches. Be advised that other, native insects may create perfectly round exit holes or sawdust-like frass, which can be confused with signs of ALB activity. Adults of this insect are (historically) active at this time in the regulated area in Massachusetts.

The regulated area for Asian longhorned beetle is 110 miles² encompassing Worcester, Shrewsbury, Boylston, West Boylston, and parts of Holden and Auburn. If you believe you have seen damage caused by this insect, such as exit holes or egg sites, on susceptible host trees like maple, or have captured an adult beetle that you believe to be ALB, 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> or <https://www.aphis.usda.gov/pests-diseases/alb/report>.

- **Asiatic Garden Beetle, *Maladera castanea*** adults are active and are typically most abundant in July and August. These rusty-red colored beetles are bullet-shaped and active at night. They are often attracted to porch lights. They feed on a number of ornamental plants, defoliating leaves by giving the edges a ragged appearance and also feeding on blossoms. Butterfly bush, rose, dahlia, aster, and chrysanthemum can be favored hosts. When levels of damage reach a management threshold, pyrethroid-based insecticides may be necessary. Read and follow label instructions and avoid harming non-target organisms. Certain neem oil products are also labelled for use against adult beetles. Observe label instructions to minimize the potential for leaf injury.
- **Black Vine Weevil, *Otiorhynchus 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 from last season's feeding. Adults emerged in June and create new damage to leaves for this season. All individuals are females and reproduce asexually. This insect has developed resistance to many chemical insecticides. Entomopathogenic nematodes such as *Steinernema carpocapsae*, *S. feltiae*, and *Heterorhabditis bacteriophora* work well against this insect, particularly on containerized plants. Results in the landscape vary. Wetting the soil thoroughly prior to application and keeping it wet for at least 5 days following application can help increase the efficacy of the nematodes. Burlap laid around the base of plants during the time adults are active, through August, can be inspected weekly for adult weevils which can be killed before egg laying.
- **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.
- **Fall Webworm, *Hyphantria cunea*** is native to North America and Mexico. It is now considered a world-wide pest, as it has spread throughout much of Europe and Asia. (For example, it was introduced accidentally into Hungary from North America in the 1940's.) Hosts include nearly all shade, fruit, and ornamental trees except conifers. In the USA, at least 88 species of trees are hosts for these insects, while in Europe at least 230 species are impacted. In the past history of this pest, it was once thought that the fall webworm was actually two species. It is now thought that *H. cunea* has two color morphs – one black headed and one red headed. These two color forms differ not only in the coloration of the caterpillars and the adults, but also in their behaviors. Caterpillars may go through at least 11 molts, each stage occurring within a silken web they produce over the host. When alarmed, all caterpillars in the group will move in unison in jerking motions that may be a mechanism for self-defense. Depending upon the location and climate, 1-4 generations of fall webworm can occur per year. Fall webworm adult moths lay eggs on the underside of the leaves of host plants in the spring. These eggs hatch in late June or July depending on climate. Young larvae feed together in groups on the undersides of leaves, first skeletonizing the leaf and then enveloping other leaves and eventually entire branches within their webs. Webs are typically found on the terminal ends of branches. All caterpillar activity occurs within this tent, which becomes filled with leaf fragments, cast skins, and frass. Fully grown larvae then wander from the webs and pupate in protected areas such as the leaf litter where they will remain for the winter. Adult fall webworm moths emerge the following spring/early summer to start the cycle over again. 50+ species of parasites and 36+ species of predators are known to attack fall webworm in North America. Fall webworms typically do not cause extensive damage to their hosts. Nests may be an aesthetic issue for some. If in reach, small fall webworm webs may be pruned out of trees and shrubs and destroyed. Do not set fire to *H. cunea* webs when they are still attached to the host plant.



- **Fungus Gnats:** These insects are true flies (Diptera) often of the family Sciaridae which are referred to as the Dark-Winged Fungus Gnats. Fungus gnats can be pests in greenhouses and nurseries, especially in containerized plants if the substrate is watered to the point where it is not able to dry between waterings. Fungus gnats incorporate fungi into their diet whenever they can, and may even develop more rapidly and have greater survival rates when eating fungi. That being said, in the absence of a fungus, these fly larvae will feed on healthy plant tissues. Depending upon the species, a female fungus gnat may lay up to 300 whitish eggs in clusters of 20-30+ on moist soil or potting media rich in organic matter. Eggs hatch in about six days and larvae feed for 12-14 days. These insects pupate inside a silken pupal chamber in the soil. The pupal stage may last 5-6 days and adults live up to 10 days. The life cycle from egg to adult requires approximately 4 weeks depending on temperature. So why discuss fungus gnats in a **Landscape Message** if they are primarily pests of greenhouses and nurseries? A sample was recently submitted to the [UMass Plant Diagnostic Laboratory](#) of Solomon's seal (*Polygonatum* spp.) whose stems and rhizomes were loaded with fungus gnat larvae as seen in these photos. The sample was from a well-

established, apparently well-drained garden bed of Solomon's seal in Vermont. This garden bed was (perhaps annually) covered with manure or leaf-litter compost. It has been previously shown that composts that are lacking in maturity (not completely composted) may have high levels of fungal activity, creating an environment where fungus gnats may thrive; however the reason for the elevated activity of these insects in this particular sample is not known for sure. For more information about these insects, please visit: <https://ag.umass.edu/greenhouse-floriculture/fact-sheets/fungus-gnats-shore-flies>.

- **Gypsy Moth, *Lymantria dispar*** adult activity is at an end for the 2017 season. The Massachusetts Department of Conservation and Recreation (DCR) has released preliminary numbers for the total acres defoliated by gypsy moth caterpillars in 2017. MA DCR officials estimate that approximately **922,460 acres were defoliated by gypsy moth in 2017**. This is just over 2.6 times more defoliation than what was seen from this insect in the state in 2016, when approximately 350,000 acres of defoliation were estimated to have occurred due to gypsy moth.  [A preliminary map of this defoliation for 2017 can be viewed here](#). Given these numbers, we are certainly very lucky (in most locations) that the gypsy moth caterpillar-killing fungus known as *Entomophaga maimaiga* "kicked in" when it did.

Management at this time is typically not effective. The young, feeding caterpillars that will hatch from egg masses (currently stuck to trees, lawn furniture, and other inanimate objects) next spring are the life stage to be targeted for management.

For more information about gypsy moth and its management next season: <http://ag.umass.edu/landscape/fact-sheets/gypsy-moth> and for an overview of the 2017 season and gypsy moth activity, please visit: <https://ag.umass.edu/landscape/news/gypsy-moth-caterpillars-dying-across-massachusetts>.

- **Japanese Beetles, *Popillia japonica*** adult beetles were first reported as active in Massachusetts the week of June 23rd this year and continue to be spotted across the landscape. Adult female beetles will lay their eggs primarily by early August, however eggs may be laid into September. Females lay these eggs in groups in soil cavities they excavate 2-4 inches down. Japanese beetles overwinter as nearly grown grubs in the soil which are capable of evading freezing behaviorally by moving below the frost line. As soils warm in the spring, larvae become active and feed on the roots of grasses. Pupation occurs 1-3 feet below the soil surface. Adults emerge from these lawn areas and disperse to feed on foliage, mate, and return to turf-type locations for females to lay their eggs. Japanese beetle adults use aggregation pheromones (chemicals that signal between individuals) to call in others of the same species. These pheromones and volatile chemicals from

host plants being fed upon are thought to be the reason why large numbers of these beetles can be found feeding together. Adult beetles feed on foliage and flowers, often skeletonizing leaves until they appear lace-like. Larvae are highly damaging turf pests. Tree and shrub hosts are comprised of more than 300 species including but not limited to rose, mountain-ash, willow, linden, elm, Japanese and Norway maples, birch, sycamore, rose of Sharon, ornamental apple, and many others. Adult beetles are often attracted to feeding on sunny areas of the plant. Many organisms are parasitoids of Japanese beetles, such as two wasps that attack overwintered grubs in the spring, and a tachinid fly (wingsome fly: *Isocheta aldrichi*) which parasitizes newly emerged adult beetles. Other organisms act as generalist predators with Japanese beetles on their menus, including but not limited to ants, certain other beetles, small mammals, and birds.

- **Lace Bugs:** *Stephanitis* spp. lacebugs such as *S. pyriodes* can cause severe injury to azalea foliage. *S. rhododendri* can be common on rhododendron and mountain laurel. *S. takeyai* has been found developing on Japanese andromeda, leucothoe, styrax, and willow. *Stephanitis* spp. lace bugs should be monitored through September. Before populations become too large, treat with a summer rate horticultural oil spray as needed. Be sure to target the undersides of the foliage in order to get proper coverage of the insects. Fall or early spring soil treatment with imidacloprid has been effective, but be aware of the implications this may have for pollinators attracted to these flowering plants when making management decisions. Certain azalea and andromeda cultivars may be less preferred by lace bugs.
- **Oriental Beetle:** *Exomala (Anomala) orientalis* is another introduced species (first detected in CT in 1920 from Japan) in the scarab beetle family (Scarabaeidae) that is typically smaller than the Japanese beetle as an adult. Adults are typically 4/10 of an inch, with the stout (broad) body typical of scarabs. Adult coloration can be variable, ranging from a black color to mottled gray with black patches/patterned markings. Oriental beetles can feed on flowers such as daisies, roses, phlox, and petunia as adults; although typically, the feeding by the adults is not severe. Larvae often coexist with those of the Japanese beetle and can be very difficult to distinguish from them. Larvae can damage the roots of turfgrasses as well as the roots of many nursery plants and small fruits, including containerized plants. Common ornamental hosts include hemlock, holly, rhododendron, azalea, juniper, and andromeda. Adults are seen typically in mid-June and can be found through at least early August in MA. By late July, the larvae can cause serious damage to turfgrasses and ornamental plants. The roots may be eaten and the crown girdled. This may lead to wilting and yellowing of foliage. Management of the larvae may be most critical. Hand-pick adults when appropriate.



- **Two-marked Tree Hopper:** The *Enchenopa binotata* species complex is now thought to be made up of very closely related *Enchenopa* spp. that are morphologically very similar but separated by the different host plants that they are found on. These particular treehoppers are found on black walnut, wafer ash (*Ptelea trifoliata*), and viburnum. These insects will feed on the host plants with piercing-sucking mouthparts and drink plant juices from the leaves and petioles. Leaves will become shiny and sticky with their excrement. Eggs are starting to be laid by adult females, using saw-like ovipositors to insert them into plant stems, at a location being observed in Amherst, MA as of 8/7/17. Eggs are covered with a vivid white, sticky, frothy material that protects them but can easily be mistaken for a scale insect. These treehoppers, whether by their feeding activity or egg laying behavior into plant stems, are not considered to be damaging pests (even when high in numbers) and therefore management is generally not required.

- **Viburnum Leaf Beetle:** *Pyrrhalta viburni* is a beetle in the family Chrysomelidae that is native to Europe, but was found in Massachusetts in 2004. See the Regional Reports regarding areas where this insect has been noted to be active this season. Adult beetles have been spotted by scouts in the Cape Cod Region and are expected to be active roughly through October, or when the first frost hits. Adult beetles will create their own feeding damage, but will also mate and

females will lay eggs in the stems of the viburnums, typically beginning in late-June to mid-July until October. This beetle feeds exclusively on many different species of viburnum including but not limited to susceptible plants such as *V. dentatum*, *V. nudum*, *V. opulus*, *V. propinquum*, and *V. rafinesquinum*. Some viburnum have been observed to have varying levels of resistance to this insect, including but not limited to *V. bodnantense*, *V. carlesii*, *V. davidii*, *V. plicatum*, *V. rhytidophyllum*, *V. setigerum*, and *V. sieboldii*. More information about viburnum leaf beetle may be found at <http://www.hort.cornell.edu/vlb>.

- **Chilli Thrips:** The non-native, exotic chilli thrips (*Scirtothrips dorsalis*) has been confirmed from two samples of damaged *Hydrangea* spp. foliage from two residential landscapes located in Barnstable County, MA submitted to the UMass Plant Diagnostics Laboratory. **At this time, this pest has not been confirmed in nurseries or greenhouses in Massachusetts or on any other host plants.** Due to the limited number of samples, the significance of chilli thrips in Massachusetts is not yet known. This species of thrips is a significant global pest of economically important ornamental, vegetable, and fruit crops in southern and eastern Asia, Oceania, and parts of Africa. It was first determined to be established in the United States in 2005 in Florida, although previous interceptions of this pest were detected. It is reportedly a pest of over 100 host plants belonging to over 40 plant families, including, but not limited to, pepper, strawberry, blueberry, cotton, rose, peanut, Japanese privet, *Rhododendron* spp., *Viburnum* spp., eggplant, grapes, melon, tobacco, and tomato. For more information, please visit this Chilli Thrips Fact Sheet (<https://ag.umass.edu/landscape/fact-sheets/chilli-thrips>).

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>.

Pollinator Protection Resource Online: The Massachusetts Department of Agricultural Resources has developed a Massachusetts Pollinator Protection Plan. It is a set of voluntary guidelines that discuss best management practices for stakeholders seeking to promote the health of the European honeybee and other pollinators. This document includes information for beekeepers, pesticide applicators, land managers and farmers, nurseries and landscapers, and homeowners and gardeners. Please locate the MA Pollinator Protection Plan for more information here: <http://www.mass.gov/eea/docs/agr/farmproducts/apiary/pollinator-plan.pdf>.

A note about 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. 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 UMass Laboratory of Medical Zoology (<https://www.tickreport.com/>) and click on the red Test a Tick button for more information.

- For information about protecting yourself from ticks and tick-borne diseases, please visit: <https://ag.umass.edu/landscape/fact-sheets/information-regarding-ticks-tick-borne-diseases>.
- For information about managing ticks in landscapes, among other topics, please visit the following publication from the Connecticut Agricultural Experiment Station: "Tick Management Handbook": <http://www.ct.gov/caes/lib/caes/documents/publications/bulletins/b1010.pdf>.

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

▼ Management Practices

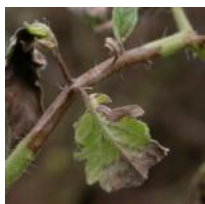


Plant of the week: *Hylolephium spectabile* (*Sedum spectabile*), stonecrop

Hylolephium spectabile, formerly known as *Sedum spectabile*, is a succulent, upright, mounding herbaceous perennial growing 18-24" tall and wide. The flat, fleshy leaves are coarsely toothed, dull-green to blue-green and up to 3" long. The star shaped, small pink flowers emerge in late summer and last until frost. Flowers fade to a darker pink as they age. The species is not commonly found in commerce, but there are a large number of cultivars offering different sizes and flower colors. Hybrids of *Hylolephium spectabile* and *Hylolephium telephium* are also common, and include *H. 'Autumn Joy'*. Plants are best grown in dry to medium soil in full sun. A floppy growth habit develops when plants are grown in too much shade. Plants are drought tolerant and need good drainage for best performance. *Hylolephium spectabile* has no serious insect or disease problems. Stonecrop can be planted as specimens or groups in perennial borders and rock gardens.

Report by Mandy Bayer, Extension Assistant Professor of Sustainable Landscape Horticulture, UMass Stockbridge School of Agriculture

▼ Other Relevant News/Pest Alerts



Late Blight of tomato has been detected in Massachusetts for the first time this growing season. This disease is caused by the fungus-like organism *Phytophthora infestans* and can affect both tomatoes and potatoes. It should not be confused with Phytophthora blight (caused by *P. capsici*), which affects squash as well as tomatoes and peppers. Late blight has also been reported to affect petunias and nightshades.

Symptoms of late blight include dark, water-soaked lesions on leaves, often with fuzzy white sporulation on the underside. Lesions can also occur on stems. Sporangia (asexually produced spores) are dispersed by splashing water or by wind. Under optimum conditions, three to four days may elapse between infection and the appearance of symptoms.

Infected plants should be removed and disposed of. Do not compost infected material. Volunteer potato plants should be removed from fields or gardens when they emerge in spring as the pathogen may survive the winter in infected tubers. Control solanaceous weeds such as nightshade and henbane.

Fungicides may be used to protect remaining healthy plants from infection. Keep in mind that infected plants should still be removed when possible and that plants may be infected but not yet showing symptoms. Fungicides will not make existing infections disappear, but can protect uninfected plants from becoming infected. Please see the New England Vegetable Management Guide (<http://nevegetable.org>) for information about fungicide options.

It is always best to start with disease-free plants. Purchase certified seed potatoes; do not save seed from infected crops or plant tubers purchased in grocery stores. Start tomatoes from seed (*P. infestans* does not infect tomato seed) or buy seedlings that have been produced locally. Keep vegetables and ornamentals well separated in the greenhouse. Grow resistant or tolerant varieties: these include tomato cultivars 'Iron Lady', 'Mountain Merit', 'Mountain Magic', 'Defiant PHR', 'Legend', and 'Matt's Wild Cherry', among others. Please see <http://vegetableonline.npath.cornell.edu> for more information on resistant and tolerant varieties.

Farmers, greenhouse growers, and home gardeners should have possible late blight infections positively identified by Extension personnel. Please see <http://ag.umass.edu/services/plant-diagnostics-laboratory> for information about submitting samples.

For additional information, refer to our Late Blight fact sheet: <https://ag.umass.edu/vegetable/fact-sheets/solanaceous-late-blight>

Report by Dr. Angela Madeiras, UMass Extension Plant Diagnostic Lab

State Public Health Officials Announce Moderate Risk for West Nile Virus in 36 New Communities: The Massachusetts Department of Public Health (DPH) this week announced that 36 additional communities are now at moderate risk for West Nile virus (WNV), bringing the total number of communities at moderate risk to 59 spread across eight counties. Moderate risk means mosquito activity is substantial enough that people should use personal protection to avoid being bitten by a mosquito. There have been no human cases of WNV this year. For the announcement, refer to <http://www.mass.gov/eohhs/gov/newsroom/press-releases/dph/36-communities-wnv.html>

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](#) website

For professional turf managers - [Check out Turf Management Updates](#)

For home gardeners and garden retailers - Check out [home lawn and 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 Diagnostics Laboratory](#)

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. 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](#)

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