Landscape Message: Dec 2, 2016

Archived Messages

Dec 2, 2016
Issue: 24

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.

This is the final Landscape Message of the 2016 season... thanks to all of our readers for your support and continuing interest! Messages will resume in March 2017. In the meantime, to receive immediate notification when the next Landscape Message update is posted, be sure to join our e-mail list.

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

Scouting Information by Region

Environmental Data

The following growing-degree-day (GDD) and precipitation data was collected for an approximately four week period, November 3 through November 30. Soil temperatures and phenological indicators were observed on or about November 30. Total accumulated growing degree days (GDD) represent the heating units above a 50°F baseline temperature collected via our instruments for the 2016 calendar year. This information is intended for use as a guide for monitoring the developmental stages of pests in your location and planning management strategies accordingly.

<table>
<thead>
<tr>
<th>Region/Location</th>
<th>GDD</th>
<th>Soil Temp (°F at 4” depth)</th>
<th>Precipitation (4-Week Gain)</th>
<th>Time/Date of Readings</th>
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<tbody>
<tr>
<td></td>
<td>4-Week Gain</td>
<td>2016 Total</td>
<td>Sun</td>
<td>Shade</td>
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<td>48</td>
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<td>AVERAGE</td>
<td>21</td>
<td>2894</td>
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</table>

n/a = information not available

Drought Conditions Update: Greater than 99% of Massachusetts is currently under official drought status, of that approximately 98% of the Commonwealth is classified as at least 'Moderate Drought', 64% is classified as 'Severe Drought', and approximately 41% is classified as 'Extreme Drought'. For more information see http://droughtmonitor.unl.edu/Home/StateDroughtMonitor.aspx?MA.

For UMass Extension drought resources for landscapers, see https://ag.umass.edu/news/dry-dry-dry-resources-for-landscapers.
Regional Notes

Cape Cod Region (Barnstable)
The month started off on a chilly note, with a low of 30° F on the morning of the 8th. Milder weather soon made a comeback and for the beginning of the month temperatures averaged in the low to mid 50s with overnight lows in the low 40s. November weather patterns continued to be powdery dry.

Pests/Problems:

Winter moth adults were first observed on the evening of 11/14 but numbers were low. A larger emergence began the week of 11/21 and continues as of this report. Adult deer ticks are still active. Rabbits continue to browse on the remaining green vegetation and they are grazing on lawns.

Southwest Region (Hanson)
General Conditions: Early November daytime temperatures were mild, with cooler conditions starting mid-month. There was a light freeze and a dusting of snow overnight on Nov. 20-21; the lowest overnight temperature was 27 degrees. Hanson received 2.25 inches of much needed rain since Nov. 3rd. Although Hanson received 1.25 inches of rain on Nov 15-16, soils continued to be powdery dry and drought-stressed. In some areas, gopher damage is still a problem as well as some landscape roses! Some much needed rain fell during the month but often it was only in the tens of an inch. The Cape did receive 0.71" on 11/15 and then a good drenching of 1.59" on 11/29.

Pests/Problems: Winter moth adults were first observed on the evening of 11/14 but numbers were low. A larger emergence began the week of 11/21 and continues as of this report. Adult deer ticks are still active. Rabbits continue to browse on the remaining green vegetation and they are grazing on lawns.

North Shore Region (Beverly)
General Conditions: The first 1/3 of the month of November was unseasonably mild with day temperatures ranging from the high 50s to the low 60s. Night temperatures were in the mid 40s to the low 40s. The latter part of November was more seasonable for this time of the year with day temperatures in the mid 40s and night temperatures in the lower 30s. snowfall was below freezing. Temperatures below the freezing point were recorded for 9 days during this period. A total of 38 growing degree days were accumulated, and approximately 3.36 inches of rain were received at Long Hill during this month. However, this was just a first on the drought condition in this area. Much more precipitation is needed to move us from drought. Hopefully we will get more rainfall and snow during the winter season. The few plants observed in bloom include: American Witch Hazel (Hamamelis virginiana), hardly fall blooming cyclamen (Cyclamen hederifolium), Daphne (Daphne x burkwoodii) and Ajanja (Ajania pacifica). November was a busy month for many landscapes raking leaves and doing other activities for fall clean up.

Pests/Problems: Moths were observed flying at night under street lights and streetlights. Squirrels were observed at Long Hill gathering piles of nuts at the base of trees, probably for winter storage.

East Region (Acton)
General Conditions: The first 1/3 of the month of November was unseasonably mild with day temperatures ranging from the high 50s to the low 60s. Night temperatures were in the mid 40s to the low 40s. The latter part of November was more seasonable for this time of the year with day temperatures in the mid 40s and night temperatures in the lower 30s. snowfall was below freezing. Temperatures below the freezing point were recorded for 9 days during this period. A total of 38 growing degree days were accumulated, and approximately 3.36 inches of rain were received at Long Hill during this month. However, this was just a first on the drought condition in this area. Much more precipitation is needed to move us from drought. Hopefully we will get more rainfall and snow during the winter season. The few plants observed in bloom include: American Witch Hazel (Hamamelis virginiana), hardly fall blooming cyclamen (Cyclamen hederifolium), Daphne (Daphne x burkwoodii) and Ajanja (Ajania pacifica). November was a busy month for many landscapes raking leaves and doing other activities for fall clean up.

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Metro West (Acton)
General Conditions: We experienced a number of extreme weather events during this recording period for the month of November. A total of 5 growing degree-days were picked up at the beginning of the month on the 23rd and 24th. A high of 69°F for the month was recorded on the 23rd and only a couple of days later, the low temperature of 23°F was recorded on the 24th. For the month of November 19 growing degree-days were recorded for this area. The precipitation recorded for this month was a meager total of 2.09", falling far short of the average. In one last weather related event, the first light snowfall was recorded on the 20th and then a flurry was observed days later on the 24th.

Pests/Problems: Drought conditions remain in effect throughout the state with extreme conditions existing for this area and for most of the central and northeastern regions of the state and severe conditions exist for most of the remaining portions of the state as declared by the National Drought Mitigation Center. Remember to keep your plants well-watered through the fall. Winter moth caterpillars have been seen in flight in the area in the evenings and headlight streets and streetlights.

Central Region (Boshytown)
General Conditions: As far as this message goes, the month is falling steadily - a welcome sight and sound since we are still well below the optimal rainfall for the year. The month has brought both expected cold, and unexpected warmth in measured doses throughout the period. Surprisingly Knockout Roses, Geranium 'Rosanne', and Cokhium waterfally come to bloom. Fruits and berries are making their debut as leaves have dropped away. There is a smaller than normal fruit set on many crabapples due to a late freeze in the spring. Winterberry fruit production is spotty - quite heavy in some locations, sparse in others. Viburnum dilatatum, Cullucroga dichotoma and C. bodneri, Ilex x meserveae cultivars and other Ilex species, and Cotoneaster 'Winter King' are also providing a colorful fruit show.

Pests/Problems: Ticks remain active, skunks have been seen rooting about on warmer evenings and bunks are raking tree trunks with a fury.

Pioneer Valley Region (Amherst)
General Conditions: November began with mild weather and very little rainfall in the Connecticut River Valley, furthering the drought conditions that plague much of the Commonwealth at this time. However, the month was cut short by the final 1/3 of the month, conditions have become far more seasonable with several rounds of rain showers crossing the region and high temperatures only reaching the 40s. At the time of writing, we're sandwiched between two large storm systems tracking through the eastern U.S., with the first bringing soaking rains on 11/28 and 11/29. The second is set to begin later on 11/30 and is forecasted to dump more than an inch of rain across the valley. While this current rain would have been better served in June and July, any and all rain is welcome to help lessen the grip of the year-long drought in the northeast. The valley bottom experienced almost none of the snowfall that accumulated in Berkshire County and the western valley hill towns from 11/15 - 11/22. Total accumulations were highest in the westernmost towns of the tri-county region while upper elevations in the eastern hill towns were subject to minor snowfall amounts (~1-2”). Forecasters are predicting above-average snowfall for the northeast during this upcoming winter. Last winter, a strong El Niño in the Pacific lead to dry and very warm weather. In fact, it was one of the warmest winters on record in the northeast according to the National Weather Service. This winter, the subsequent counterpart to El Niño, known as La Niña, is expected to be relatively weak but will cool Pacific Ocean temperatures below normal and this is more likely to bring increased precipitation to northern U.S. states.

Pests/Problems: Now that soil temperatures have dropped into the lower 40s and the region has experienced regular (and sometimes heavy) rainfall over the past several weeks, supplemental watering is no longer required for the season. If we do experience above-average snowfall totals this winter, we can only hope that soils stay moist from the resulting snow melt well into the spring season to help drought-stressed trees recover in 2017. The needle cast pathogens Rhizosphaera has been very abundant on blue and white spruce this autumn season. When trees are drought-stressed, needle cast infections can develop more rapidly than they would under normal conditions. Even regular cultural and chemical management has not slowed the disease on many landscape spruces in the region.

Berkshire Region (Great Barrington)
General Conditions: November started off with temperatures well above normal and with little rainfall. By mid-month, the weather began to change with a few significant rains – though total for the month is still below normal. The largest change occurred on November 21 and 22 when a snowfall of 12 inches occurred at the Great Barrington monitoring site. That amount was about typical for the Berkshire Region and is nearly twice the amount that fell in the same period the previous year. A second snowfall occurred on November 24 with a total of 1 1/2 inches of snow. The first snowfall of the season was recorded on November 21 and was followed by a series of additional snowfalls with a total of 12 inches noted on November 22. This amount was typical for the Berkshire Region and is nearly twice the amount that fell in the same period the previous year. The second snowfall occurred on November 24 with a total of 1 1/2 inches of snow. The first snowfall of the season was recorded on November 21 and was followed by a series of additional snowfalls with a total of 12 inches noted on November 22. This amount was typical for the Berkshire Region and is nearly twice the amount that fell in the same period the previous year. The second snowfall occurred on November 24 with a total of 1 1/2 inches of snow. The first snowfall of the season was recorded on November 21 and was followed by a series of additional snowfalls with a total of 12 inches noted on November 22. This amount was typical for the Berkshire Region and is nearly twice the amount that fell in the same period the previous year. The second snowfall occurred on November 24 with a total of 1 1/2 inches of snow. The first snowfall of the season was recorded on November 21 and was followed by a series of additional snowfalls with a total of 12 inches noted on November 22. This amount was typical for the Berkshire Region and is nearly twice the amount that fell in the same period the previous year. The second snowfall occurred on November 24 with a total of 1 1/2 inches of snow. The first snowfall of the season was recorded on November 21 and was followed by a series of additional snowfalls with a total of 12 inches noted on November 22. This amount was typical for the Berkshire Region and is nearly twice the amount that fell in the same period the previous year. The second snowfall occurred on November 24 with a total of 1 1/2 inches of snow. The first snowfall of the season was recorded on November 21 and was followed by a series of additional snowfalls with a total of 12 inches noted on November 22. This amount was typical for the Berkshire Region and is nearly twice the amount that fell in the same period the previous year. The second snowfall occurred on November 24 with a total of 1 1/2 inches of snow. The first snowfall of the season was recorded on November 21 and was followed by a series of additional snowfalls with a total of 12 inches noted on November 22. This amount was typical for the Berkshire Region and is near...
Woody Ornamentals

Diseases

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

Verticillium wilt and foliar anthracnose infection (caused by Colletotrichum) of a mature sycamore maple (Acer pseudoplatanus). Tree is approximately 60-years-old and has been present at the site for nearly as long. Symptoms of decline have been visible for several years now and include shoot and branch dieback, peeling and shedding of bark and premature leaf drop. Tree resides in a residential area with sandy soils in full sun with periodic lawn watering providing some supplemental water. Verticillium invades through the roots and spreads systemically throughout the host. Chronic infections lead to the upper canopy dieback and a buildup of inoculum in the host and surrounding soil.

Decline of eastern hemlock (Tsuga canadensis) due, in part, to infestations of the elongate hemlock scale (Florinia externa) and the hemlock rust mite (Nalepella tsaugfoliae) coupled with infection by the opportunistic cankering pathogen Phomopsis. Five trees are approximately 40-years-old and were planted at the site as young saplings. Until 2012, the trees were subject to four annual applications of horticultural oil to control HWA. At that time, the needles were chlorotic and appeared to be suffering from oil burn. Oil application ceased and the trees recovered over the past several years. In late 2015 and early 2016, two of the trees began shedding large volumes of needles. Based on the submitted sample, the insect pest infestations are not severe, but some of the symptoms were clearly associated with the scale and mite feeding. Phomopsis was abundant on declining and dead shoots. Overhead watering is used and the subsequent wetting of the canopy is likely facilitating disease development. Its likely that some abiotic stress, perhaps winter injury or drought stress depending on the volume of water provided, is also associated with the premature needle shedding.

Edema on Chionoides rhododendron (Rhododendron ‘Chionoides’). Plant is three-years-old and nursery grown with overhead watering. This summer, chlorotic spots developed on the surface of the leaves while on the abaxial side, brown-colored, raised blisters developed. Edema is a physiological disorder that develops when there is an imbalance between water uptake from the roots and transpiration from water of the foliage. Essentially, the plant roots take up water at a rate faster than what the canopy can use for physiological processes and transpiration/respiration. The calluses are enlarged leaf cells that continue to divide and then rupture. The condition is not threatening to the overall health of the plant as long as corrective action is taken, which often only requires reduced watering.

Needle blight of Hinoki falsecypress (Chamaecyparis obtusa) caused by Phyllisticta and Pestalotiopsis. Tree was approximately 6’-7’ tall at the time of planting in 2010. It was planted in the understory of a forest at the edge of a residential property and receives minimal sunlight. Phyllisticta and Pestalotiopsis have become a destructive combination of foliar pathogens on arborvitae and to a lesser degree, falsecypress. Interior needles on lower canopy branches often harbor the highest populations but these fungi can also be found causing a shoot tip blight in the upper canopy on Thuja and Chamaecyparis. Trees injured from excessive pruning, drought and winter/freeze damage are more susceptible to needle blight diseases.

Insects

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

- **Winter Moth** (Operophthera brumata) adult emergence has begun. Emergence began in some areas around November 23 according to reports from the Eikon lab. Adult moths have been seen in areas such as, but not limited to, Dennis, East Bridgewater, Falmouth, Hanson, West Bridgewater, and Wompatuck State Park in Hingham, MA. Male winter moths have wings and are able to fly. They are light colored moths with a band of black marks extending across the tip of the wings. Adult female winter moths have greatly reduced wings (and are sometimes said to be wingless) and are incapable of flying. No management options are recommended or effective against the adult moth stage of this pest. Adult winter moths do not feed. Females will lay the eggs that will hatch next spring, approximately between 20-30 hatched eggs per plant. Typically, this occurs between late March (warm years) and early-mid April (cooler years). Each female is capable of laying 150-350 eggs. At the time of egg hatch, it is the tiny caterpillars that will wriggle between expanding bud scales and begin feeding within the buds of their host. Their hosts, oak, maple, apple, crabapple, and blueberry.

- **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. 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, on susceptible host tree like maple, please call the Asian Longhorned Beetle Eradication Program office in Worcester, MA at 508-852-8990 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://massnovc.org/pests/albreport](http://massnovc.org/pests/albreport) or [https://www.aphis.usda.gov/pests-diseases/alb](https://www.aphis.usda.gov/pests-diseases/alb).

- **Emerald Ash Borer** (EAB: Agrilus planipennis) readily attacks ash (Fraxinus spp.) including white, green, and black ash and has also been found developing in white fringetree (Chionanthus virginicus). For a map of the known locations of emerald ash borer in the state, as well as further information about this insect, please visit: [http://ag.umass.edu/fact-sheets/emerald-ash-borer](http://ag.umass.edu/fact-sheets/emerald-ash-borer).

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://massnovc.org/pests/pestreports.htm](http://massnovc.org/pests/pestreports.htm).

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 page on the UMass Laboratory of Medical Zoology ([www.tickdiseases.org](http://www.tickdiseases.org)) and click on the red Test a Tick button for more information.

Report by Taunya Siminsky, Extension Entomologist, UMass Extension Landscape, Nursery, & Urban Forestry Program

Management Practices

**Plant of the Week: Cornus sericea**

Cornus sericea is large, multi-stemmed shrub commonly planted for the red stems that give the plant its common name, red-twig dogwood. Plants can grow 6-10’ tall and wide if not pruned and have a rounded to spreading, open habit. The flat clusters of small, white flowers are present in late May to early June. Leaves are medium to dark green 2-5” long and 1-2” wide. Fall color can be variable, but is usually a nice mix of red and purple. Fruits are white to pale blue berries that appear in August and September. Removing ¼-1/3 of the oldest stems in early spring helps to promote growth of new stems which have the best color. Stems are most effective in the winter. Native to eastern North America, Cornus sericea’s natural habitat is in wet, swampy areas or along streams and ponds. Plants do best in full sun to part shade and are adaptable to many soils but likes moisture. Cultivars offer dwarf forms or yellow stems.

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

Other Relevant News/Pest Alerts

Two brand new insect pest educational opportunities planned for 2017:

**Invasive Insect Certification Program for Landscape, Nursery, and Urban Forest Pests:** This 3-day program scheduled for February-March 2017 will look at the characteristics, impacts, and costs of invasive insects. Highlights include the biology, ecology, and identification of some of the most destructive insects with a focus on species important to Massachusetts. This includes, but is not limited to, Asian longhorned beetle, cynipid oak gall wasp, emerald ash borer, gypsy moth, hemlock woolly adelgid, winter moth, and more. For more information and to register for this training, please visit: [https://ag.umass.edu/landscapes/education-events/invasive-insect-certification-program](https://ag.umass.edu/landscapes/education-events/invasive-insect-certification-program).

**Bark Beetle Identification and Related Topics Training:** This 3-day training scheduled for August 2017 will bring together Scolytinae taxonomy experts and provide a small group of participants with hands-on, one-on-one training on how to identify specimens to genus and species in this difficult subfamily of insects. Space is limited. For more information and to register for this training, please visit: [https://ag.umass.edu/landscapes/education-events/bark-beetle-identification-and-related-topics-training](https://ag.umass.edu/landscapes/education-events/bark-beetle-identification-and-related-topics-training).
Additional Resources
To receive immediate notification when the next Landscape Message update is posted, be sure to join our e-mail list and follow us on Facebook and Twitter.
For a complete listing of upcoming events, see our Upcoming Educational Events page.
For commercial growers of greenhouse crops and flowers - Check out the New England Greenhouse Update at http://negreenhouseupdate.info
For professional turf managers - Check out Turf Management Updates at https://extension.umass.edu/turf/management-updates
For home gardeners and garden retailers - Check out home garden resources. UMass Extension also has a Twitter feed that provides timely, daily gardening tips, sunrise and sunset times to home gardeners, see https://twitter.com/UMassGardenClip

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

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

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

CAFE: Units, Programs, Projects, Interest Areas

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