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Landscape Message: Dec 7, 2018

Dec 7, 2018

Issue: 23

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 2018 season... thanks to all of our readers for your support and continuing interest! To receive immediate notification when the next

Landscape Message update is posted, be sure to [join our e-mail list \(/landscape/email-list\)](/landscape/email-list).

This issue of the Landscape Message is dedicated to Jacqueline Hoyle, our newest contributor for the Southeast Region, who has passed away after a brief illness. We join her family and friends in their sorrow and her contributions will be missed.

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 December 5, 2018. Total accumulated growing degree days (GDD) represent the heating units above a 50° F baseline temperature collected via our instruments for the 2018 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.

MA Region/Location	GDD		Soil Temp (°F at 4" depth)		Precipitation (4-Week Gain)	Time/Date of Readings
	4-Week Gain	2018 Total	Sun	Shade		
CAPE	45	2905.5	39	35	11.5	5:00 PM 12/5
SOUTHEAST	n/a	n/a	n/a	n/a	n/a	n/a
NORTH SHORE	29.5	2934	35	35	7.36	10:00 AM 12/5
EAST	30	3177.5	38	35	10.11	5:00 PM 12/5
METRO	13.5	2834	33	33	10.08	8:00 AM 12/5
CENTRAL	14.5	2970	20	22	10.54	7:30 AM 12/5
PIONEER VALLEY	15.5	3049	37	33	8.48	12:00 PM 12/5
BERKSHIRES	12	2699	36	35	6.39	9:00 AM 12/6
AVERAGE	14	2938	34	33	9.21	

n/a = information not available

Drought conditions update: There is no drought in any part of Massachusetts.
<http://droughtmonitorstaging.unl.edu/CurrentMap/StateDroughtMonitor.aspx?MA>
(<https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?MA>)

Regional Notes

▾ Cape Cod Region (Barnstable)

General Conditions: The average temperature over the last month has been 43°F with a high of 69°F on November 1 and a low of 15°F on November 23. Temperatures for the month of November have been more seasonable than in recent years. During the period, more than 11 inches of precipitation fell. Over the month, numerous precipitation events have dropped 1-2 inches each. Topsoil and subsoil moisture conditions are excessive. For those with winter construction projects – care should be taken to avoid compacting soils from heavy equipment.

Pests/Problems: Insects or damage observed over the period have been minimal. Winter Moth adults began to appear in mid-November. Ticks are still active so keep yourself protected. Occasional massive populations of Collembola (springtails) can be found on structures such as decks on moist mild days.

▾ Southeast Region (Acushnet)

No report available this month.

▾ North Shore Region (Beverly)

General Conditions: November started off with seasonably mild temperatures. Day temperatures were in the mid-50s to low 60s and night temperatures were in the mid-30s to low 40s. Things changed by the middle of the month when a cold front came through bringing very cold temperatures and snow. Plowable snow fell on November 16 and temperatures dropped into the mid-teens to low 20s. Since mid-November, we have experienced cold temperatures and rain most of the days at Long Hill. Day temperatures have been in the mid-30s to low 40s and night temperatures have been in the mid-20s to low 30s. Temperatures below freezing were recorded for 12 days. Approximately 7.36 inches of rain were recorded at Long Hill. The month of December started off milder with average temperatures in the low to mid-40s. The few plants observed in bloom in November include: American Witchhazel (*Hamamelis virginiana*), hardy fall blooming cyclamen (*Cyclamen hederifolium*), and Daphne (*Daphne x burkwoodii*). In spite of the interruption by early snow mid-month, November was a busy month for many landscapers and homeowners raking leaves and doing other activities for fall cleanup. Fall cleanup continued into early December and landscapers are busy doing fall cleaning in the areas where they were temporarily halted by snow until it melted.

Pests/Problems: Deer browsing damage has been observed on newly planted shrubs in some places in the area.

▾ East Region (Boston)

General Conditions: We have experienced the 4th wettest fall and the third wettest November since 1873, when the Blue Hills Weather Station began recording data. We received precipitation on 15 of the 30 days of November. We have received 10.11 inches of precipitation since November 2 and a total of 52.74 inches for 2018. We received our first snowfall on the evening of November 15 as heavy wet snow fell overnight into the morning of November 16. Warmer temperatures melted the 4 inches that fell overnight, leaving a slushy mess by the morning. It has been an unusually cool month. Daytime temperatures ranged from 20.8°F to 67.8°F and averaged 46.9°F, with overnight lows ranging from 11.5°F to 51.1°F and averaging 33.2°F. Boston tied the second lowest high temperature for Thanksgiving on November 22 at 24°F. The record cold temperature for Thanksgiving of 11°F was set in 1873 while the record low for November 22 was 9°F set in 1879. On November 24 the overnight low dipped down to 11.5°F with the daytime temperature reaching a chilly 20.8°F. The soil is adequately moist heading into winter. The majority of leaves have fallen and many remain on the ground as weather conditions have prolonged fall clean-up. *Ilex verticillata* (winterberry) is full of berries at this time of year.

Pests/Problems: Winter moth was first observed flying on November 14 and numbers so far have been down from previous years. Woolly adelgid is active, with the crawler stage just becoming visible. The abundance of rain received over the last month has left soils saturated and has made fall leaf pickup challenging.

▾ Metro West (Acton)

General Conditions: Winter has arrived. Well, not officially, that doesn't occur until December 21st but all signs of it have surfaced. Our first plowable snow fell on November 16th with 6" of heavy, wet snow. The temperatures have dropped into the single digits, with lows of 6°F and 8°F recorded on November 22nd and 23rd. For the month of November, the average rainfall is 4.43" and the precipitation recorded for the month in the Acton area was a grand total of 10.08", far exceeding the average.

Pests/Problems: Soils are well saturated. Winter moths have been seen in flight amongst headlights and outdoor lights in the evening hours. Numbers appear less than in previous years.

▾ Central Region (Boylston)

General Conditions: November was a tumultuous month - incredibly wet, unseasonably cold and generally quite bleak. The month was marked by more than 10 inches of rain, an unconscionable amount of precipitation in a month that averages around 4 inches of precipitation. In addition to the coldest Thanksgiving in decades, we also had an early

snowfall dumping over 6 inches in mid-November. We're looking forward to a drier, warmer month in December.

Pests/Problems: Deer browse continues to be a continual problem. Repellants have been helpful, but frequent, repeated applications are necessary because of the frequent rainfall. No other significant pests were observed, but winter moth has been active in the evening hours, albeit far fewer than were observed several years ago.

▾ Pioneer Valley Region (Amherst)

General Conditions: November was another wet month in the Pioneer Valley, continuing a trend that began in the middle of July and, despite a few periods of dry weather, never really ended. Rainfall totals for the month ranged from 7.5 – 10" through the tri-county region, well above the monthly average. The wet fall weather was beneficial in providing a deep watering to mature trees and shrubs (such as hemlock, oak and rhododendron) that have been suffering from various stresses. For the past several years, autumn weather has tended to be fairly dry, which can increase the risk of winter injury. Overall, soils are very wet to saturated at this time. Surface soils are frozen in some locations while others are still hovering in the upper 30s. The entire region experienced significant snowfall on 11/16 when 6–9" of accumulation occurred. The snow was heavy, wet and lingered as temperatures became unseasonably cold. Thanksgiving Day saw temperatures climb only into the teens with lows in the single digits. The hill towns have since received more wet, heavy snow from various, isolated storms.

Pests/Problems: Now that we've entered the dormant period, pathogen activity has also ceased for the year. In areas where rabbit or vole damage is a concern, the base of smaller diameter trees and shrubs should be protected with guards or wraps. Deer repellents should be used to dissuade browse on highly susceptible trees and shrubs, such as arborvitae and yew. Applications should be made when temperatures are above freezing to avoid damaging needles.

▾ Berkshire Region (Great Barrington)

General Conditions: After a high temperature of 63°F on November 1, it's been all downhill temperature-wise. A low of 1°F occurred on the morning of November 23, the day after a very cold Thanksgiving Day which had a high of 14°F and low of 4°F. November was also very wet with soils remaining saturated throughout the month and into December. Several snowfall events occurred during the month with amounts varying depending upon location. At this West Stockbridge monitoring site, 5-6 inches fell on the 16th and 8-9 inches on the 27-28th. After traveling in several parts of the county, it appears that the area around West Stockbridge and west Alford received more snow than the Great Barrington, Pittsfield and North Adams areas from the 27-28th storm. The top crust of soils in most areas is currently frozen.

Pests/Problems: Deer browsing on plants in managed landscapes has increased as plants in unmanaged landscapes have become less palatable. Application of repellents is in order at this time. Home and barn invasion by mice is a common occurrence as the critters seek more comfortable winter quarters and possible sources of food. Mice will use materials found in outbuildings especially to build nests. Proper storage of fabric materials, i.e. tarps, canvases, ropes, etc. is warranted. Mice will also nibble on insulation around wires of power equipment resulting in costly repairs.

▼ Regional Scouting Credits

- CAPE COD REGION - Russell Norton, Horticulture and Agriculture Educator with Cape Cod Cooperative Extension, reporting from Barnstable.
- SOUTHEAST REGION -
- NORTH SHORE REGION - Geoffrey Njue, Green Industry Specialist, UMass Extension, reporting from the [Long Hill Reservation \(http://www.thetrustees.org/places-to-visit/north-shore/long-hill.html\)](http://www.thetrustees.org/places-to-visit/north-shore/long-hill.html), Beverly.
- EAST REGION - Kit Ganshaw & Sue Pfeiffer, Horticulturists, reporting from the [Arnold Arboretum \(https://www.arboretum.harvard.edu/\)](https://www.arboretum.harvard.edu/), Jamaica Plain.
- METRO WEST REGION - Julie Coop, Forester, Massachusetts Department of Conservation & Recreation, reporting from Acton.
- CENTRAL REGION - Dawn Davies, Interim Horticulture Manager, reporting from [Tower Hill Botanic Garden \(http://www.towerhillbg.org/\)](http://www.towerhillbg.org/), 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

▼ Diseases

Recent pests and pathogens of interest seen in the UMass Extension Plant Diagnostic Lab ([https://ag.umass.edu/services/plant-diagnostics-laboratory_\(/services/plant-diagnostics-laboratory\)\)](https://ag.umass.edu/services/plant-diagnostics-laboratory_(/services/plant-diagnostics-laboratory)))):

Dieback and decline of a dwarf two-needle pine cultivar (*P. mugo* or *P. sylvestris*). The tree (approximately 30-years-old, 5' tall and 4' wide) is suffering from significant dieback on one side of the canopy with needle browning and shedding. The following pathogens were isolated from the needles and stems: *Diplodia sapinea* (Diplodia shoot and needle blight), *Lecanosticta acicola* (brown needle spot), *Cyclaneusma minus* (Cyclaneusma needle cast) and *Pestalotiopsis* (shoot and needle blight). The tree resides in full sun but also receives overhead irrigation, which in conjunction with its dense canopy, likely helped to facilitate disease development.

Stem and branch cankering of Sakhalin fir (*Abies sachalinensis*) caused by *Thyronectria balsamea*. Tree is 41-years-old and has been present at the site for 36 years. Limb dieback was observed in the lower canopy while the upper canopy appeared healthy. The tree resides on a hillside in full sun with good air circulation. Conspicuous, red to orange-colored fruiting bodies were found rupturing through the bark on larger diameter segments of the submitted branches. The fungus is present across the northern hemisphere, but is found most often attacking true fir in landscape settings and at Christmas tree farms.

Boxwood blight, caused by *Calonectria pseudonaviculata*, on edging boxwood (*Buxus sempervirens* 'Suffruticosa') in the Boston metro area. The plants are approximately 15-years-old and have been present at the site in four parterres for many years. In two of the plantings, scattered leaves developed sporadically this season. In mid-October, the symptoms intensified, spreading throughout the hedges. A boxwood blight epidemic has been reported at various locations of the northeast in 2018 as the abundant late summer and autumn rain created ideal conditions for pathogen dispersal and infection.

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

▼ Insects

2019 Insect-Related Conferences and Webinars:

****Please mark your 2019 UMass Garden Calendars with the following educational events coming soon!****

Spotted Lanternfly Preparedness Conference

Thursday, February 7, 2019 (Snow Date – Feb. 14) 8:00 AM – 3:30 PM

Milford, MA

For the agenda and registration information, visit:

<https://ag.umass.edu/landscape/events/spotted-lanternfly-preparedness-conference>
(/landscape/events/spotted-lanternfly-preparedness-conference)

This conference includes speakers from the “front lines” from Penn State Extension, USDA-APHIS PPQ Science and Technology, and MDAR. Speakers will discuss the life cycle, identification, and Pennsylvania’s response to the spotted lanternfly, host plants and survey tools, mechanical and chemical management options, biological control, and pesticide use and safety. 6 pesticide contact hours will be provided for a wide range of categories (including Tree Fruit and Small Fruit; categories 25, 27, 29, 35, and 36) and applicators license. Association credits have been requested. This conference is partially funded by support from a grant received from the MA Department of Agricultural Resources.

Ticks and Tick-Associated Diseases Conference

Wednesday, April 24, 2019, 8:00 AM – 3:30 PM

Milford, MA

For the agenda and registration information, visit:

<https://ag.umass.edu/landscape/events/ticks-tick-associated-diseases-conference>
([/landscape/events/ticks-tick-associated-diseases-conference](https://ag.umass.edu/landscape/events/ticks-tick-associated-diseases-conference))

This conference includes our very own MA tick experts Dr. Stephen Rich of the Laboratory of Medical Zoology and Larry Dapsis of Cape Cod Cooperative Extension as well as the Connecticut Agricultural Experiment Station's Dr. Kirby Stafford. Join our speakers as they discuss updates about ticks in Massachusetts, personal protection, habitat and winter survival of the deer tick and lone star tick as well as establishment of the lone star tick in Connecticut, and management of ticks in landscapes. 5 pesticide contact hours will be provided for categories 29, 35, 36, 37, and applicators license and 3 for category 40. Association credits have been requested.

There will also be a **FREE webinar series** (TickTalk with TickReport!) which will be advertised here shortly: <https://ag.umass.edu/landscape/upcoming-events> ([/landscape/upcoming-events](https://ag.umass.edu/landscape/upcoming-events))/([/landscape/upcoming-events](https://ag.umass.edu/landscape/upcoming-events)). This series is in partnership with Dr. Rich and the Laboratory of Medical Zoology (<https://www.tickreport.com/> (<https://www.tickreport.com/>)), where he will share his expertise on a wide range of tick and TBD (tick borne disease) topics in the spring and fall of 2019.

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

- **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. Now that leaves are gone from the trees, some of these signs of ALB activity may be more easily viewed.

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, please call the Asian Longhorned Beetle Eradication Program office in Worcester, MA at **508-852-8090** or **toll free at 1-866-702-9938**.

To report an Asian longhorned beetle find online or compare it to common insect look-alikes, visit: <http://massnrc.org/pests/albreport.aspx> (<http://massnrc.org/pests/albreport.aspx>) or <https://www.aphis.usda.gov/pests-diseases/alb/report> (<https://www.aphis.usda.gov/pests-diseases/alb/report>) .

- **Deer Tick/Blacklegged Tick:** (*Ixodes scapularis*) **Adult male and female deer ticks are active. Adult deer ticks may be primarily active from October-May, at any time day-time temperatures are above freezing.** Keep in mind that deer ticks take 2 years to complete their life cycle. Adult deer ticks prefer to overwinter on larger hosts

(such as deer) and may be found “questing” or searching for an appropriate host on low growing plants. **Adult female deer ticks will readily feed on people and pets, and are known to transmit Lyme disease, human babesiosis, human anaplasmosis, and deer tick virus.** The seasonal activity of the deer tick is outlined here: https://tickencounter.org/tick_identification/deer_tick (https://tickencounter.org/tick_identification/deer_tick).

Preventative activities, such as daily tick checks, wearing appropriate clothing, and permethrin treatments for clothing (according to label instructions) can aid in reducing the risk that a tick will become attached to your body. If a tick cannot attach and feed, it will not transmit disease. For more information about personal protective measures, visit: http://www.tickencounter.org/prevention/protect_yourself (http://www.tickencounter.org/prevention/protect_yourself) (http://www.tickencounter.org/prevention/protect_yourself).

It is important to note that the UMass Laboratory of Medical Zoology has reported that approximately 34-42% of the 14,675 deer ticks they have tested from Massachusetts since 1/1/2006-12/5/2018 have tested positive for *Borrelia* spp. and *Borrelia burgdorferi sensu lato*, the spirochete bacteria responsible for causing Lyme disease. This data can be searched and viewed here: <https://www.tickreport.com/stats> (<https://www.tickreport.com/stats>).

Have you just removed an attached tick from yourself or a loved one with a pair of tweezers? If so, consider sending the tick to the UMass Laboratory of Medical Zoology to be tested for disease causing pathogens. To submit a tick to be tested, visit: <https://www.tickreport.com/> (<https://www.tickreport.com/>) and click on the blue “Order a TickReport” button. **Results are typically available within 3 business days, or less.** By the time you make an appointment with your physician following the tick attachment, you may have the results back from TickReport to bring to your physician to aid in a conversation about risk. **Watch Cape Cod Cooperative Extension’s Larry Dapsis, Entomologist and Tick Project Coordinator, explain how to submit a sample to the UMass Laboratory of Medical Zoology here:**<https://bit.ly/2IAGPIY> (<https://bit.ly/2IAGPIY>).

The UMass Laboratory of Medical Zoology does not give medical advice, nor are the results of their tests diagnostic of human disease. Transmission of a pathogen from the tick to you is dependent upon how long the tick had been feeding, and each pathogen has its own transmission time. TickReport is an excellent measure of exposure risk for the tick (or ticks) that you send in to be tested. Feel free to print out and share your TickReport with your healthcare provider.

You can also **download TickReport’s new, free mobile app** which allows you to submit photos of ticks you find and have them identified by the Laboratory of Medical Zoology, for free. Information about downloading this app is available here:

<https://www.tickreport.com/> (<https://www.tickreport.com/>)
(<https://www.tickreport.com/>).

- **Emerald Ash Borer:** (*Agrilus planipennis*, EAB) This wood-boring beetle 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, has been reported in cultivated olive (*Olea europaea*). Signs of an EAB infested tree may include D-shaped exit holes in the bark (from adult emergence), “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 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 further information about this insect, please visit: <https://ag.umass.edu/fact-sheets/emerald-ash-borer> (/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 here: <http://massnrc.org/pests/pestreports.htm> (<http://massnrc.org/pests/pestreports.htm>) .

- **Gypsy Moth:** *Lymantria dispar* adult activity is at an end for the 2018 season. The Massachusetts Department of Conservation and Recreation (DCR) has released **their final numbers for the total acres defoliated by gypsy moth caterpillars in 2018**. MA DCR officials estimate that approximately **159,705 acres were defoliated by gypsy moth in 2018**. This pales in comparison to the over 923,000 acres of defoliation due to gypsy moth estimated in 2017. (We can thank *Entomophaga maimaiga* for the population decrease between last year and the beginning of this year.) **A map of the locations of this defoliation is now available here:** <https://www.mass.gov/guides/gypsy-moth-in-massachusetts> (<https://www.mass.gov/guides/gypsy-moth-in-massachusetts>) **courtesy of the MA Department of Conservation and Recreation**. Multiple reports of tree mortality due to the defoliation from gypsy moth during the extent of this outbreak (some communities have had defoliation since 2015/2016-present) have come in to UMass Extension. **MA DCR now estimates there were 23,602 acres of oak mortality across Massachusetts in 2018, much of which may be attributed to gypsy moth defoliation and an influx of secondary pest organisms attacking weakened trees (Ex. pathogens such as armillaria root rot and native beetles such as the Buprestidae, or jewel/wood-boring beetles).**

One worrisome note is that *Entomophaga maimaiga* does not seem to have been as active in the gypsy moth caterpillar population in 2018 as it was in 2017. This allowed many healthy adult moths to mate and females to lay egg masses that will overwinter and provide us with a population of caterpillars in 2019. More information can be found in the August issue of Hort Notes, which is available here under “Trouble Maker of the Month”: <https://ag.umass.edu/landscape/newsletters/hort-notes/hort-notes-2018-vol-298> (/landscape/newsletters/hort-notes/hort-notes-2018-vol-298) .

- **Spotted Lanternfly:** (*Lycorma delicatula*, SLF) is **not known to occur in Massachusetts. If you believe you have found any life stage of this insect in MA, please report it here:** <http://massnrc.org/pests/pestreports.htm> (<http://massnrc.org/pests/pestreports.htm>). This insect is a member of the Order Hemiptera (true bugs, cicadas, hoppers, aphids, and others) and the Family Fulgoridae, also known as planthoppers. This insect is a non-native species first detected in the United States in Berks County, Pennsylvania and confirmed on September 22, 2014. Until November 2017, this invasive insect was only known to Pennsylvania. **It has now been reported from Delaware (Nov. 20, 2017), New York (Nov. 29, 2017, Sept. 11, 2018, and Oct. 19, 2018), Virginia (Jan. 10, 2018), New Jersey (July 17, 2018), Connecticut (Oct. 22, 2018), and Maryland (Oct. 25, 2018).**

The spotted lanternfly is considered native to China, India, and Vietnam. It has been introduced as a non-native insect to South Korea and Japan, prior to its detection in the United States. In South Korea, it is considered invasive and a pest of grapes and peaches. The spotted lanternfly has been reported from over 70 species of plants, including the following: tree of heaven (*Ailanthus altissima*) (preferred host), apple (*Malus* spp.), plum, cherry, peach, apricot (*Prunus* spp.), grape (*Vitis* spp.), pine (*Pinus* spp.), pignut hickory (*Carya glabra*), Sassafras (*Sassafras albidum*), serviceberry (*Amelanchier* spp.), slippery elm (*Ulmus rubra*), tulip poplar (*Liriodendron tulipifera*), white ash (*Fraxinus americana*), willow (*Salix* spp.), American beech (*Fagus grandifolia*), American linden (*Tilia americana*), American sycamore (*Platanus occidentalis*), big-toothed aspen (*Populus grandidentata*), black birch (*Betula lenta*), black cherry (*Prunus serotina*), black gum (*Nyssa sylvatica*), black walnut (*Juglans nigra*), dogwood (*Cornus* spp.), Japanese snowbell (*Styrax japonicus*), maple (*Acer* spp.), oak (*Quercus* spp.), and paper birch (*Betula papyrifera*).

The adults and immatures of this species damage host plants by feeding on sap from stems, leaves, and the trunks of trees. In the springtime in Pennsylvania (late April - mid-May) nymphs (immatures) are found on smaller plants and vines and new growth of trees and shrubs. Third and fourth instar nymphs migrate to the tree of heaven and are observed feeding on trunks and branches. Trees may be found with sap weeping from the wounds caused by the insect's feeding. The sugary secretions (excrement) created by this insect may coat the host plant, later leading to the growth of sooty mold. Insects such as wasps, hornets, bees, and ants may also be attracted to the sugary waste created by the lanternflies, or sap weeping from open wounds in the host plant. Host plants have been described as giving off a fermented odor when this insect is present.

Adults are present by the middle of July in Pennsylvania and begin laying eggs by late September and continue laying eggs through late November and even early December in that state. Adults may be found on the trunks of trees such as the tree of

heaven or other host plants growing in close proximity to them. Egg masses of this insect are gray in color and look similar to gypsy moth egg masses.

Host plants, bricks, stone, lawn furniture, recreational vehicles, and other smooth surfaces can be inspected for egg masses. Egg masses laid on outdoor residential items such as those listed above may pose the greatest threat for spreading this insect via human aided movement. Adults and nymphs also readily hitch-hike in vehicles and transport associated with commerce.

For more information about the spotted lanternfly, visit this fact sheet:

[https://ag.umass.edu/landscape/fact-sheets/spotted-lanternfly_\(/landscape/fact-sheets/spotted-lanternfly\)](https://ag.umass.edu/landscape/fact-sheets/spotted-lanternfly_(/landscape/fact-sheets/spotted-lanternfly)) .

- **Winter Moth:** *Operophtera brumata* adult emergence generally occurs around mid-November, particularly around the Thanksgiving Holiday in eastern Massachusetts. For specifics regarding winter moth in eastern MA this year, please see the Regional Reports above. 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 (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. For example, although some may attempt to apply bands of sticky material around trees they anticipate to be impacted by this insect, while they may capture some of the female winter moths as they crawl up the trunk to lay their eggs, this will not be 100% effective, as moths invariably make their way beyond the band. Adult winter moths do not feed. Females will lay the eggs that will hatch next spring. The winter moth population is at an all-time low in eastern MA, so hopefully residents in those locations will see fewer adult moths this year. For more information, visit: <https://www.umass.edu/newsoffice/article/umass-amherst-entomologists-report-major> (<https://www.umass.edu/newsoffice/article/umass-amherst-entomologists-report-major>) .

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

A note about **Tick Awareness:** deer ticks (*Ixodes scapularis*), the American dog tick (*Dermacentor variabilis*), and the lone star tick (*Amblyomma americanum*) are all found in Massachusetts. Each can carry their own complement of diseases. Anyone working in tick habitats (including but not limited to 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/> (<https://www.tickreport.com/>)) and click on the blue “**Order a TickReport**” button for more information.

▾ **Plant of the Week**

***Ilex verticillata*, winterberry**

The bright red berries that give *Ilex verticillata* its common name of winterberry, provide a vibrant pop of color in the winter landscape. The species grows 6-10' tall and wide with an upright spreading form. Flowers occur in June, although flowers are not showy. Winterberry are dioecious, meaning that there are both male and female plants. One male plant is needed for every 6-10 female plants to ensure good fertilization and berry set. Berries color in October and persist fall through winter.

An eastern North American native, *I. verticillata's* is often found along streams, woodland edges, or in swamps in its natural habitat. Winterberry is a good choice for wet areas or along ponds and streams, in shrub borders, native gardens, bird gardens, or as a hedge. Plants do well in full sun to part shade with an acidic soil. Fall color is not always good but can be purple-red. Winterberry does not have any serious insect or disease issues.

Cultivars of interest include:

'Afterglow' - a more compact (3-6') female cultivar with orange red berries

'Jim Dandy' - a male cultivar that serves as a pollinator for certain female cultivars such as 'Red Sprite' and 'Afterglow'

'Nana' (Red Sprite) - a dwarf (2-3') female cultivar with large red berries

'Winter Red' - 6-8' female cultivar with good fruit set or bright red berries

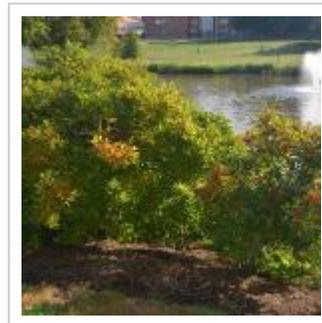
'Winter Gold' - 5-8' female cultivar with good fruit set of orange-yellow berries. Needs a late-blooming male pollinator



(/sites/ag.umass.edu/files/newsletters/images/winterberry-1.jpg)



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Mandy Bayer, Extension Assistant Professor of Sustainable Landscape Horticulture, University of Massachusetts Amherst

Additional Resources

To receive immediate notification when the next Landscape Message update is posted, be sure to [join our e-mail list \(/landscape/email-list\)](/landscape/email-list) and follow us on [Facebook](http://www.facebook.com/pages/UMass-Extension-Landscape-Nursery-and-Urban-Forestry/519809748159819) (<http://www.facebook.com/pages/UMass-Extension-Landscape-Nursery-and-Urban-Forestry/519809748159819>) and [Twitter](https://twitter.com/umasslandscape) (<https://twitter.com/umasslandscape>).

For a complete listing of upcoming events, see our [Upcoming Educational Events page \(/landscape/upcoming-events\)](/landscape/upcoming-events).

For commercial growers of greenhouse crops and flowers - Check out UMass Extension's [Greenhouse Update \(http://neginhouseupdate.info/\)](http://neginhouseupdate.info/) website

For professional turf managers - [Check out Turf Management Updates \(/turf/management-updates\)](/turf/management-updates)

For home gardeners and garden retailers - Check out [home lawn and garden resources \(/resources/home-lawn-garden\)](/resources/home-lawn-garden). 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> (<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 \(/services/plant-diagnostics-laboratory\)](/services/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 \(/services/soil-plant-nutrient-testing-laboratory\)](/services/soil-plant-nutrient-testing-laboratory) web site.

Alternatively, call the lab at (413) 545-2311.

Ticks are active any time that temperatures are above freezing! 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 \(/services/tick-borne-disease-diagnostics\)](/services/tick-borne-disease-diagnostics)

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[Civil Rights and Non-Discrimination Information \(http://ag.umass.edu/civil-rights-information\)](http://ag.umass.edu/civil-rights-information)

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