

UMass Extension | Landscape, Nursery & Urban Forestry Program

Newsletters & Updates

Landscape Message

[Archived Landscape Messages](#)

Hort Notes

[Archived Hort Notes](#)

Garden Clippings

Subscribe to
[GreenInfo Mailing List »](#)

Connect with UMass Extension Landscape, Nursery and Urban Forestry Program:



Landscape Message: Apr 7, 2017

Apr 7, 2017

Issue: 3

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 weekly April through June. The next message will be available on April 14. 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 April 5. 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 (1-Week Gain)	Time/Date of Readings
	1-Week Gain	2017 Total	Sun	Shade		
Cape Cod	0	16	46	44	0.59	12:00 PM 4/5
Southeast	1	19	45	39	1.04	4:50 PM 4/5
North Shore	0	28	38	36	1.33	9:30 AM 4/5
East	0	34	45	44	1.34	4:00 PM 4/5
Metro West	0	22.5	37	34	2.10	7:25 AM 4/5
Central	2	24	38	38	1.85	n/a
Pioneer Valley	0	16	43	41	1.63	12:00 PM 4/5
Berkshires	0	12	42	40	1.00	10:30 AM 4/5
AVERAGE	0	21	42	40	1.36	-

n/a = information not available

Drought Conditions Update: We have made great progress with the recent precipitation. Approximately 67% of Massachusetts is currently under official drought status (down from nearly 100% just two weeks ago). For the area under drought status, approximately 17% of the Commonwealth is classified as 'Severe Drought'. The area still classified as severe drought includes much of the Connecticut River valley and northern Worcester County. For more information see <http://droughtmonitor.unl.edu/Home/StateDroughtMonitor.aspx?MA>.

Phenology

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

Indicator Plants - Stages of Flowering (BEGIN, BEGIN/FULL, FULL, FULL/END, END)								
PLANT NAME (Botanic/ Common)	CAPE	S.E.	N.S.	EAST	METRO W.	CENT.	P.V.	BERK.
<i>Pieris japonica</i> (Japanese Pieris)	Begin/Full	Begin	*	*	*	*	*	*
<i>Cornus mas</i> (Corneliancherry Dogwood)	Begin/Full	Begin/Full	Begin/Full	Begin/Full	Begin/Full	Full	Full	Begin
<i>Acer rubrum</i> (Red Maple)	Begin	Begin	Begin/Full	Full	Begin/Full	Begin	Begin	Begin
<i>Acer saccharinum</i> (Silver Maple)	Begin/Full	End	Full/End	*	Begin/Full	*	End	Begin/Full

Regional Notes

Cape Cod Region (Barnstable)

General Conditions: The temperature has averaged approximately 40° F over the last week with a low of 30° F and a high of 56° F both occurring on April 3. Since the last report 3.96 inches of precipitation has fallen in Barnstable, the majority about three inches falling on April 1 (April Showers...) causing significant puddling and street flooding. Blooming plants include winter daphne (*Daphne odora*), Lenten rose (*Helleborus* spp.), Japanese Coltsfoot (*Petasites japonicas*), Crocus (*Crocus* spp.), and Snowdrops (*Galanthus* spp.).

Pests/Problems: Winter moth eggs are still orange. Weeds seen in flower: Whitlow grass (*Draba verna*), Bittercress (*Cardamine hirsuta*), Chickweed (*Stellaria media*), Fig Buttercup (*Ranunculus ficaria*), and Speedwell (*Veronica* spp.)

Southeast Region (Hanson)

General Conditions: The heavy rain, sleet and some snow, on March 31- April 1, and rain during this week has been substantial and needed. Hanson received 5.25 inches of precipitation and soils are wet. Many landscapes are littered with branches and debris from the high winds during that time. March was a cold month and as referenced in the Boston Globe, "went out like a ram, instead of a lamb". Cold, raw, wet weather continues this week and plant development is somewhat behind. *Lonicera fragrantissima* (Winter honeysuckle), *Daphne mezereum* (February Daphne) *Salix* sp. (pussy willow), *Cornus mas* (Corneliancherry Dogwood), *Cornus officinalis*, *Abeliophyllum distichum*, *Helleborus niger*, *H. foetidus*, *H. x hybridus*, early daffodils (in warm, sunny locations), *Galanthus nivalis* (snowdrops), *Iris reticulata* and *Crocus* are in bloom. *Pieris japonica*, *Omphalodes verna*, *Corydalis solida*, *Scilla siberica*, and *Pulmonaria* sp. have started to bloom. This past winter, while not bad overall snow-wise in SE MA, was on a 'temperature roller-coaster'. Warm days in January and February followed by days with temperatures well below freezing have resulted in damage to plants. In mid-February, *Helleborus x hybridus* started to emerge and produce flowering stems and buds, which were caught later in the freezing weather. Usually, the plants rebound and are not affected by the cold. However, for the first time in the 20 years that I have grown these plants, many of the flowers are dead and the flower display is greatly reduced. Many *Hydrangea macrophylla* buds are also dead, and some expanding *Viburnum* and *Spiraea* 'Ogon' buds appear to have damage; the shoots of emerging daylilies and *Camassia* are brown, but the plants should be fine. Only time will tell the extent of damage to plants as we go into the season. Lawns are slowly greening up. Now is a good time to assess trees that need to be pruned or removed and also a good time (when the soil is workable) to transplant those plants that need to be moved. Hanson has 191 Growing Degree Days at Base 40.

Pests/Problems: Cool weather continues to delay spring and there is not much going on pest-wise. The big question has been, "have winter moth eggs hatched". The answer is "no". Winter moth eggs are still orange-red in color and as the eggs mature, they will turn a light blue and eventually a dark blue-black, just before hatch. We will continue to monitor winter moth eggs and will report when they hatch. (Please see Tawny Simisky's Insect Section of the Landscape Report).

Right now, with few active pests to contend with, is a good time to monitor the landscape for potential problems later in the season. Make a note of those affected plants and put them in a plan to manage at a later date at the appropriate time. Damage to rhododendrons and azaleas last season is apparent now on many of these plants including PJM rhododendron. Also, monitor the needles of spruce, fir, arborvitae and other conifers for last year's damage from cool-season spider mites, such as Spruce Spider Mite; a hand lens is useful when inspecting for mite damage. Continue to monitor for Hemlock Woolly Adelgid. (HWA). Deer ticks are active and according to news reports, this could be a banner year for ticks. With the number of potential diseases (Lyme disease, etc.), transmitted by these ticks it is important to continue to take precautions against them especially when conducting landscape cleanups.

Monitor cherries and plums (ornamental and fruit-bearing) for the fungal disease, black knot, and if found, prune out and destroy the "knots".

The weed bittercress is starting to bloom. Deer continue to actively browse, turkeys and rabbits remain active and skunks are digging up lawns.

North Shore Region (Beverly)

General Conditions: The weather over the last week was cold and wet. Although the official spring arrival was a few weeks ago, actual spring continues to be elusive. The month of March was unseasonably cold and this has continued into the first week of April. In the last four weeks we have not gained any growing degree days at Long Hill. Throughout the month of March we had several days of rain showers going into this first week of April. The rains and snow melt during this past month have contributed to a significant amount of precipitation which has put a significant dent on the drought conditions in the area. The cold weather in the last several weeks has significantly slowed down the flowering of most plants that bloom during this time of the year. Wood plants seen in bloom or beginning to bloom include Cornelian Cherry Dogwood (*Cornus mas*), Goat willow (*Salix caprea*), February daphne (*Daphne mezereum*), White Forsythia (*Abeliophyllum distichum*) and Red Maple (*Acer rubrum*). Early spring flowering bulbs seen in bloom include: Siberian squill (*Scilla siberica*) and Puschkinia (*Puschkinia libanotica*), Glory of the Snow (*Chionodoxa*), Snowdrops (*Galanthus* spp.) and White Tommy crocus (*Crocus tommasinianus*).

Pests/Problems: Yellow buttercup weed (*Ranunculus ficaria*) has started blooming on lawns. As temperatures start to rise tick activity will also rise. Take precautions when working outdoors. Apply repellents such as DEET before you go outdoors. Wild turkeys have been observed in the landscape but have not caused damage.

East Region (Boston)

General Conditions: Wet, wet, wet. The landscape is soggy from all the rain over the last week. Low-lying areas have standing water, the three ponds are filling, and brooks are flowing! We received a total of 3.62 inches of rain from two systems. The first began on the 31st with rain before transitioning into snow and slush overnight. On the 20th anniversary of the 1997 April Fool's Day storm that delivered 2 feet of snow, the threat of a repeat event was looming. Luckily, conditions were warm enough and accumulations totaled only ¾ of an inch of slush and snow mixture. Sunday and Monday saw sunny conditions with temperatures in the high 50s, melting all signs of snow. Cloudy conditions returned as the second storm delivered just under an inch of rain on the fourth. Temperatures remain below average for the week, with highs ranging from 37° F to 60° F, averaging 48° F while lows ranged from 30° F to 38° F averaging 34° F. Despite a couple warm days, we have gained zero GDDs this week. Cloudy conditions continue to prevail. Things are progressing slowly in the landscape: *Acer x freemanii* (Freeman maple) is in full flower, *Forsythia* 'Meadowlark' (meadowlark forsythia), and *Forsythia x intermedia* 'Arnold Brilliant' (border forsythia) are just beginning to open. *Petasites japonicus* (fuki) is starting to bloom. Bulbs in bloom include *Chionodoxa forbesii* (Forbes' glory-of-the-snow), *Crocus* sp. (crocus), *Galanthus nivalis* (snowdrop), *Puschkinia scilloides* (striped squill), and *Scilla siberica* (Siberian squill). We have observed many mantis egg cases (ootheca) in the landscape.

Pests/Problems: The abundant rainfall over the last two weeks (4.96 inches) has left the landscape extremely wet and inaccessible in some areas. *Lamium purpureum* (purple deadnettle) is just beginning to bloom in sunny locations. *Cardamine hirsuta* (hairy bittercress) is in full bloom. *Ficaria verna* (lesser celandine) is about to flower as yellow buds can be seen in sunny areas.

Metro West (Acton)

General Conditions: April showers...yes, indeed, every day this month so far has brought some degree of rain. With the rain, the snow is melting, soils are now well saturated, water is collecting in lowland areas, high amounts of water are flowing in our streams and rivers and the threat of flooding is imminent especially with the heavy rain predicted for later this week! The average rainfall total for the month of March is 4.83" and I recorded a total of 2.68". The average rainfall total for the month of April is 4.16" and I have recorded 2.68" for the first four days of this month so far. Since, the last report, one week ago, there has not been any gain in growing degree-days or any real extremes in temperatures, other than the wintry mix of snow and rain that fell on the 31st and 1st that threatened power outages and damage to trees. Was that an April fool's joke? Fortunately, the storm arrived and left without damage. In the past week, a high of 61° and a low of 28° was recorded on the 3rd. In bloom at this time are: *Acer rubrum* (Red Maple), *Acer saccharinum* (Silver Maple), *Cornus mas* (Cornelian Cherry Dogwood), *C. officinalis* (Japanese Cornelian Cherry), and *H. x intermedia* 'Diane' (Diane Witeh hazel). The following bulbs and herbaceous plants in bloom are: *Adonis amurensis* (Adonis), *Crocus* spp. (Crocus), *Galanthus nivalis* (Snowdrop), *Helleborus niger* (Christmas Rose), *Petasites japonicus* (Japanese Butterbur), and *Symplocarpus foetidus* (Skunk Cabbage).

Pests/Problems: I am anxious to hear what the Drought Management Task Force will declare for this area. Let's hope that with all of the precipitation this area's drought status will be downgraded from a drought advisory to normal! Ticks are active, as well as rabbits. *Draba verna* (Spring Whitlow Grass) and *Lamium purpureum* (Purple Deadnettle), both winter annual weeds are in bloom. *Pinus strobus* (White Pine) are badly discolored for a second year in a row due to a number of factors including scales and stress.

Central Region (Boylston)

General conditions: All is soggy and cool right now – our region received between 4 and 8" of wet heavy snow, coupled with sleet, rain and freezing rain (melted equivalent of 2" of precip.), between March 31st and April 1st. Fortunately there was very little tree damage. Early blooming *Abeliophyllum distichum* and *Jasminum nudiflorum* flowers were damaged by the cold. *Cornus mas* & *C. officinalis* continue to bloom as do the early minor bulbs (Snowdrops, Winter Aconite, *Iris reticulata* cultivars). We are beginning to see color on Siberian Squill (*Scilla siberica*) and Glory of the Snow (*Chionodoxa* sp.).

Pests/Problems: Deer are hungry and nibbling on apple trees and looking for tulips and other early rising herbaceous plants. Cedar waxwings are stripping the last fruit from Crabapples, the damage from voles continues to be revealed.

Pioneer Valley Region (Amherst)

General Conditions: Every form of precipitation was on display during this past reporting period. We had snow, sleet, freezing rain, heavy rain, light rain, mist and fog. The April Fools' Day storm resulted in accumulations ranging from 1–7" across the tri-county region. The lowest elevations along the Connecticut River saw only minor accumulations, in the realm of 1–3", while the western hill towns, especially in Hampshire and Franklin Counties, experienced the highest volumes of snowfall. Weather conditions before and after the snowfall were decidedly raw, with temperatures in the middle to upper 30s. Warm sun and calm winds followed on Monday, 4/3 and Tuesday, 4/4. Overall, it was an extremely wet week, with over 2.5" of precipitation (including the liquid equivalent of the snow) at many weather stations. More significant rainfall is forecasted for Thursday, 4/6 which could push our 10-day total well over 3.5–4". That would be a staggering amount of moisture for the region given what we experienced in 2016 and 2015 at this time. As a result of the rainfall, attention is shifting to the mighty Connecticut as the potential for minor to moderate flooding increases. At the time of writing, "action stage", the precursor to minor flooding has been met at multiple monitoring sites. Drought conditions have lessened in severity based on the most recent report from the U.S. Drought Monitor (<http://droughtmonitor.unl.edu/Home/StateDroughtMonitor.aspx?MA>). However, the lowlands of the Connecticut Valley continue to exhibit within the severe classifications. Hopefully the additional rainfall on 4/6 and 4/7 can further reduce the rainfall deficit that has existed now for almost one year. Buds are slowly expanding on some early flushing trees and shrubs. The cold nights and sporadic warm temperatures have kept most trees and shrubs from advancing forward. The long-term forecast calls for high temperatures in the upper 60s to upper 70s by early next week. Serviceberry and crabapple should begin leafing out shortly after those temperatures. *Forsythia* on the UMass campus are starting to flower. Turf grasses are noticeably greening but soils will continue to remain saturated for days to come, making compaction an issue for the foreseeable future.

Pests/Problems: Next week we should see an increase in growing degree days with higher temperatures and clear skies. Continue to scout for and destroy egg masses of eastern tent caterpillar on cherry and crabapple. White pine weevil will feed on terminals of white pine and Norway spruce when temperatures exceed 60° F. Last year, the prolonged dry periods allowed many spider mite populations to explode. The spruce spider mite (SSM) can be very destructive to a wide range of landscape conifers. While the SSM won't be active until roughly early to mid-May, now is a good time to identify trees damaged by this pest last season and prepare management plans. Once the damage is observed in June and July, the SSM will be dormant for the summer, only to reemerge during cooler weather in September. There are many natural predators of spider mites, therefore do not use a broad-spectrum insecticide if chemical management is desired. A targeted miticide is a better option. Many spider mites are easily dislodged from leaves and needles by a strong stream of water. Spraying foliage with a hose on regular intervals in May can help to reduce populations and minimize damage. Rabbits and deer are still very active, destroying new growth of spring annuals and perennials and last year's growth on trees and shrubs.

Berkshire Region (Great Barrington)

General Conditions: Snow, sleet, and rain dominated the past week while temperatures on average were below normal. With this precipitation, combined with snow melt, water levels in rivers and streams were high and near overflowing. It is expected that flooding will occur in the normally flood-prone areas as a result of heavy rain due to fall on Thursday, April 6th, and into Friday, April 7th. Melting snows and precipitation have left soils saturated. Though there is no longer any frost in the ground, it is common to see standing water in many landscapes. This would be a good time to assess the drainage features of these sites. Plant development lags, compared to recent years. Currently in bloom are many bulbs including snowdrops (*Galanthus* spp.), winter aconite (*Eranthis hyemalis*), Siberian squill (*Scilla sibirica*), Grecian windflower *Anemone blanda*, *Iris danfordiae*, *Iris reticulata*, and crocus. Also in bloom is *Heliborus niger*. The blossoms of *Hamamelis x intermedia* cultivars still cling to the plants but are shriveling. Wildlife is quiet active and sightings of predatory animals including bobcats, coyotes, and bears are frequently seen.

Pests/Problems: The cold, damp weather has also put a damper on pest development. Nevertheless, deer ticks are active and plentiful. Outdoor workers and woodland trekkers are frequent hosts for attachment by these ticks. The usual precautions, including repellents, should be observed by anyone working or traversing both managed and unmanaged landscapes. While deciduous woody plants are still leafless, this is a good time to scout for the egg masses of gypsy moth and Eastern tent caterpillar and destroy these.

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 - 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:

Marginal leaf blight of *Euonymus* caused by *Botrytis cinerea*. Several plants, approximately seven-years-old, established at the site since 2013. In 2016, widespread browning of the foliage and a general thinning of the canopy was observed. Because the plants are young and recently established at the site, some type of environmental or cultural issue may be predisposing the plants to decline (i.e. poor root development). Supplemental drip irrigation is provided. On woody plants, *Botrytis* is often a secondary pathogen of weakened and stressed plant parts. At times, it's capable of both a foliar and shoot blight. The fungus prefers cool temperatures and high humidity. As a result, it's most abundant during rainy periods in autumn.

Leaf browning with dark-colored spots on holly (*Ilex opaca*) caused by *Phomopsis* and *Phyllosticta*. A combination of foliar blight caused by a fungal pathogen and winter injury is very common on ornamental holly in this region. *Phyllosticta* is often associated with the injury but in this case, *Phomopsis* was also present. The plant is eight-years-old and has been present at the site for two years. Symptoms were not observed last year at this time. Premature leaf shedding can result from the infections but overall, most holly shrubs seem to tolerate these infections without significant or lasting damage. Supplemental irrigation has been provided.

Diplodia blight, caused by *Sphaeropsis sapinea*, on eastern white pine (*Pinus strobus*). Tree was roughly 30-years-old and naturally seeded at the edge of a pine grove. The site has a steep slope with well-drained soils, making drought a likely predisposing stress along with the partial shade the tree received. Diplodia blight is much more severe on two- and three-needle pines but can be an important contributor to white pine decline when other stresses are present.

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

Insects

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

- **Winter Moth:** *Operophtera brumata*. The eggs of this insect, laid by the females who emerged in November of 2016 and were active through the winter months (mainly November through December when temperatures are above freezing) are currently present in the landscape and hidden in cracks and crevices of bark or beneath lichen on host plants such as oak, maple, apple, blueberry, crabapple, etc. Eggs are tiny and green when first laid, but quickly turn a red-orange color soon after. As the egg develops, it will turn a bright blue color, and then a very dark blue-black just prior to egg hatch. For more information about the life cycle and management of winter moth, please visit this **newly updated (March, 2017)** fact sheet: Winter Moth Identification and Management (<https://ag.umass.edu/landscape/fact-sheets/winter-moth-identification-management>).

According to reports, winter moth eggs have begun to hatch at a single site monitored in Franklin, MA (Heather Faubert, University of Rhode Island) as of 4/6/2017. At this time, egg color change and hatch has not yet been observed at other locations in Massachusetts and Rhode Island where the emergence of winter moth caterpillars is being tracked. Reports suggest that the site in Franklin, MA typically experiences earlier egg development, hatch, and that *only a very small percentage of those eggs have changed from orange to blue and even fewer have hatched as of 4/6/2017*. Coastal areas also suffering from winter moth defoliation typically have later egg hatch due to cooler temperatures. **We will continue to monitor winter moth egg hatch and will report any additional development reported by scouts in the next Landscape Message due April 14th. You may also visit the UMass Landscape, Nursery, and Urban Forestry Facebook page @UMassExtLandscape for announcements regarding winter moth activity.**

For more information about using growing degree days to predict insect development, please visit: <https://ag.umass.edu/landscape/fact-sheets/growing-degree-days-for-management-of-insect-pests-in-landscape>.

Blueberry and apple growers looking to manage winter moth caterpillars early before damage to the buds can occur may consider an application of dormant oil just prior to egg hatch, when temperatures are above 40°F for at least 48 hours following application, which can help suffocate overwintering winter moth eggs if good coverage is achieved. Observe all precautions on the label regarding phytotoxicity and the environmental conditions required for increased effectiveness of the product. Once egg hatch occurs, before the tiny winter moth caterpillars wriggle their way into the expanding blueberry or apple buds (where they will be protected from insecticide applications until the buds open fully), a follow-up application of a product containing the active ingredient spinosad (which is effective by contact) can aid in protecting these crops.

For individuals managing winter moth in ornamental plants, depending on the active ingredient being used, waiting until host plant leaves open completely may be important for management, particularly if *Bacillus thuringiensis* Kurstaki (Btk) is the active ingredient of choice. Btk must be ingested by actively feeding, young caterpillars to be effective. Applying Btk to closed buds for winter moth management will not have the desired effect. Spinosad is also effective through contact on winter moth (including older caterpillars) once ornamental plant leaves have fully expanded, however it should not be applied to flowering plants as it is toxic to pollinators until it has dried (which can take 1-3 hours depending upon local environmental conditions). The Elkinton Lab has reported that the number of pupating winter moth in 2016 (at their study sites) was much lower than what has been observed in previous years. Reports from Hanson, MA indicate fewer winter moth eggs are present on monitored trees than in previous years. Hopefully this will translate into fewer caterpillars at least for some areas in Massachusetts this year, however one should not expect them (or the damage they cause) to completely disappear in 2017.

Winter moth is a non-native insect that was identified in Massachusetts for the first time in 2003 following persistent reports of defoliation in eastern areas of the state such as Cape Anne and on the North Shore near Cohasset, Hingham, and Rockland on the South Shore in the late 1990's. For more detailed information about the history of this insect pest in North America and Massachusetts, please visit the **newly updated (March, 2017)** fact sheet: Winter Moth in Massachusetts: History and Biological Control (<https://ag.umass.edu/landscape/fact-sheets/winter-moth-in-massachusetts-history-biological-control>).

This fact sheet also includes updates regarding the progress of the work of Dr. Joseph Elkinton's laboratory group at the University of Massachusetts and their efforts towards the biological control of winter moth using *Cyzenis albicans*, a tachinid fly. The fly parasitizes the caterpillars of winter moth specifically. In other areas, such as Nova Scotia where winter moth was also problematic, this fly used for biological control has been successful in reducing winter moth to a non-pest. *C. albicans* has been released across 41 sites in Massachusetts and has been established in at least 17 of those sites as evidenced through the recovery of flies in winter moth in subsequent years. In one site in Wellesley, these flies have been observed to be spreading from the initial release location and their populations have increased alongside an observed decrease in the winter moth population there. For more information, please visit the above mentioned fact sheet.

- **Eastern Tent Caterpillar:** *Malacosoma americanum* eggs will begin to hatch and caterpillars will feed across the state between 50-400 GDD's, base 50°F. At this time, before the egg masses (which can hold 150-350 eggs each) begin to hatch on hosts such as cherry and crabapple, **prune out and destroy the eggs** before caterpillars have the chance to become problematic defoliators. Egg masses of *Malacosoma americanum* vary from those of *Malacosoma disstria*, the forest tent caterpillar, as they have a rounded edge whereas *M. disstria* egg masses have square edges. Scout for and remove these egg masses at this time on susceptible hosts. Other host plants impacted by this native insect can include apple, ash, birch, willow, maple, oak, poplar, and witch-hazel.
- **Forest Tent Caterpillar:** *Malacosoma disstria* egg hatch will occur between 192-400 GDD's, base 50°F. Scout for and prune out or otherwise remove any reachable forest tent caterpillar egg masses, which can hold 100's of eggs, on susceptible hosts such as oak, birch, ash, maple, elm, poplar, and basswood at this time. Once these egg masses hatch, these native caterpillars can defoliate their host plants.
- **Viburnum Leaf Beetle:** *Pyrrhalta viburni* is a beetle in the family Chrysomelidae that is native to Europe, but was found in Massachusetts in 2004. This beetle feeds exclusively on many different species of viburnum. This insect is now overwintering in the twigs of the host plant as eggs, which will hatch soon after bud break. Now is the time to inspect susceptible plants (including but not limited to viburnum such as *V. dentatum*, *V. nudum*, *V. opulus*, *V. propinquum*, and *V. rafinesquianum*) for over-wintering eggs on stems toward branch tips. Inspect branches for egg laying sites created by female viburnum leaf beetles last season. These will appear as small holes approximately 1 mm. in diameter that have been capped with a lid made of chewed bark and excrement, which may appear raised above the surface of the twig. **Removal and destruction of infested stems, if small in number, can help reduce populations of this insect pest.** 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/>.
- **Gypsy Moth:** *Lymantria dispar* egg masses laid by female moths in 2016 can be seen at this time. This is the stage of the insect that overwinters. Egg masses are "fuzzy" or hairy and brownish-tan in color. Each egg mass can hold up to 500-1000 eggs. These masses may be found on host plant trunks and branches such as oak (favored), maple, birch, poplar, and many others, but are also laid on inanimate objects including the surfaces of homes, outdoor furniture, camping equipment, firewood piles, etc. This may make the accidental movement of gypsy moth egg masses possible.

Egg hatch for this insect is not yet upon us, and occurs after winter moth egg hatch. (Note: winter moth and gypsy moth share some common host plants. Therefore, where populations of these two insects overlap in Massachusetts, the same tree may be defoliated by winter moth and then again by gypsy moth following in the same season.) Gypsy moth egg hatch typically occurs between 90-100 growing degree days, using a base of 50°F, average temperatures, and a March 1st start date. This is usually around the first week in May in Massachusetts, but variations in temperature may lead to early egg hatch in the last week in April. This can also coincide with serviceberry (*Amelanchier*) bloom. After egg hatch occurs, groups of tiny gypsy moth caterpillars may remain on their egg mass just before crawling to the canopy of their host plant, where they can disperse using a technique known as "ballooning". Ballooning occurs when very young caterpillars spin a silken thread and catch the wind to blow onto a new host plant once the thread breaks. This method of dispersal can lead to host plants becoming defoliated that previously did not have egg masses directly on them, however egg masses may be present on nearby oaks, for example, and provide a local population of caterpillars.

Patchy areas across mostly central and eastern Massachusetts experienced elevated populations of gypsy moth and significant amounts of defoliation in 2016 (see the Insects section of the archived 2016 Landscape Messages between April 29 and July 29). The Massachusetts Department of Conservation and Recreation aerially mapped approximately 350,000 acres of defoliation across Massachusetts last year, attributed to gypsy moth. State officials warn the public about another year of defoliation from gypsy moth as predicted for 2017: <http://www.mass.gov/eea/agencies/dcr/pr-2017/another-year-of-defoliation-from-gypsy-moth-in-2017.html>. That web page also links to a map of the 2016 defoliation from gypsy moth, which may provide a reference regarding areas that may be impacted by this insect again in 2017. To prepare for this insect, now (and before the last week in April) is a great time to scout the landscape and count the number of gypsy moth egg masses present not only on valuable landscape specimens that are hosts for this insect, but on nearby forested hosts such as oak which might provide sources of ballooning caterpillars. Egg mass counts can help us make decisions regarding whether or not to manage for this insect. Some individuals also use this opportunity to scrape egg masses into a container of soapy water, although this is time consuming and some egg masses will be missed.

We can hope for elevated rainfall in the months of May and June, which helps facilitate the successful infection of younger gypsy moth caterpillars with the insect-killing fungus *Entomophaga maimaiga*. This fungus is currently overwintering in the soil litter in tough, protected asexual resting spores, which can survive in this state for years. Having lacked much precipitation most recently during the springs of 2015 and 2016, it is thought that our current expanding populations of gypsy moth are at least in part a result of a lack of infection in the caterpillar population by this fungus. Hopefully Massachusetts will see more normal rainfall amounts this season. Only time will tell.

We can also hope areas in Massachusetts that do not have large numbers of gypsy moth egg masses present at this time and did not experience much gypsy moth defoliation last year (areas such as most of Berkshire County) will be mostly spared in 2017 in comparison to those areas who suffered last year in central and eastern Massachusetts. At this time, monitoring susceptible hosts for gypsy moth egg masses and educating and reminding ourselves about this invasive insect that has a long history in the state is the best way to plan for management this season. For more information about gypsy moth, please visit: <http://ag.umass.edu/landscape/fact-sheets/gypsy-moth> and return to the Landscape Message for timely updates about this pest and others throughout the season.

- **Chilli Thrips:** *A non-native insect has been confirmed in Massachusetts for the first time.* The non-native, exotic chilli thrips (*Scirtothrips dorsalis*) has been recently 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>) available on the UMass Extension Landscape, Nursery, and Urban Forestry Program web page.**
- **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. These particular signs of damage from the beetle may be more visible at this time of year, when host trees such as maples are leafless. 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.

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**. Adult insects of this species will not be present at this time of year.

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>.

- **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 fringe tree (*Chionanthus virginicus*). Adult insects of this species will not be present at this time of year. Signs of an EAB infested tree may include (at this time) D-shaped exit holes in the bark (from adult emergence in previous years), "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 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 follow the instructions below.

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>.

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 (www.tickdiseases.org) and click on the red **Test a Tick** button for more information.

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

Management Practices

Plant of the week: *Microbiota decussata*, Russian arborvitae



Microbiota decussata is a low growing spreading evergreen groundcover native to southeastern Siberia. Commonly known as Russian arborvitae, *Microbiota decussata* grows 8-12" tall and spreads to 12 feet. Shoots are somewhat arching with drooping tips. Foliage resembles that of *Thuja* (arborvitae) providing the common name. The feathery foliage is bright green in summer changing to bronze or purple in the fall and winter adding interest to the winter landscape. Fruits are small berry-like cones. Russian arborvitae is a good groundcover for banks or slopes and can also be used as a specimen or as part of a foundation planting. Plants grow well in full sun to part shade in an average, well-drained soil. This cold hardy evergreen can be a good alternative to Juniper.

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

Landscape Turf

Insects

Another roller coaster ride

As spring makes its soggy appearance in western Massachusetts, it is time to review weather conditions from the previous several months, and see if we can make some guesses about what to expect this year.

Much of southern New England was in severe or extreme drought for several months, beginning last summer. The recent rain has certainly provided considerable relief, and it appears that most areas are now only in "moderate drought". Additional rain may eventually restore enough moisture to the soils that we might even enter this growing season only a little behind.

But it is important to remember that several insects cause damage in the summer months that resembles summer dormancy. **Chinchbugs and billbugs** both feed actively during the summer months. Chinchbugs tend to cause more damage in sunny areas or where the soils are sandy or drain really well for other reasons. And chinchbug and billbug damage looks just like summer moisture stress or summer dormancy. So I am concerned that some turf managers may have assumed that the parched turf from last summer was just suffering from lack of water. If chinchbugs or billbugs were also contributing to the demise of the turf, large populations of adults will become active this spring and they will lay plenty of eggs. So the potential certainly exists for major chinchbug or billbug damage this summer as well, especially if we have dry conditions in June and July. You would be wise to scout for chinchbug and billbug adults from mid May through mid June.



A heads up - a relatively new caterpillar has been showing up more often in recent years. The **winter cutworm** (*Noctua pronuba*) has a very different life cycle than the "standard" turf caterpillars. Adults fly in mid to late summer (moths are "yellow underwing moths"), and lay eggs in late August to late September. The caterpillars hatch out and feed through the winter, any time the air temperature is above 40° F. They even feed under snow cover, so some of you may find some unpleasant surprises in the next week or two as you begin to check your properties or facilities. The caterpillars apparently finish their development in spring and probably pupate in early to mid summer.

The caterpillars are typically a tan or slightly pink base color. The distinguishing feature is that each segment of the abdomen has a pair of dash marks on each side of the back - black and light tan dashes. I found two of these critters on my own driveway in January this year!!! The caterpillars often feed on the surface and create depressions in the turf. You may notice one or more caterpillars huddled in such a depression.

Please let me know (and send pictures) if you see any of these winter cutworms. We are trying to determine how widespread they are in the Northeast. (If treatment is deemed necessary, it should be made in September when the new young caterpillars are emerging.)

On a side note - many of you know that I retired from UMass on 26 March (after almost 37 years at the university, believe it or not!!!). But I will continue to be involved with the turf industry for a year or two, or until UMass fills the position. I will be posting updates to the website about as frequently as I have in previous years, and will be conducting some of the field work that we have always enjoyed. And I am very excited that I will finally be able to work on revising my textbook, "Turfgrass Insects of the United States and Canada" (Vittum, Villani, and Tashiro). The second edition is 20 years old and the revision is 10 years overdue. So the short story is that I will keep doing the things I have always enjoyed doing, and I won't have to do the things that weren't so much fun! I don't see a downside to that arrangement!

Feel free to continue to e-mail or call the lab with your questions. E-mail will be the more reliable way to reach me, and I will respond as quickly as I am able. The turf industry in the Northeast has been incredibly supportive over the years, and I look forward to continuing to work with you, at least for a year or two!

Report by Pat Vittum, Professor Emeritus and Extension Turf Entomologist, UMass Amherst Stockbridge School of Agriculture

Other Relevant News/Pest Alerts

Pesticide applicators please note that the recently announced Pesticide Disposal Program for Licensed Pesticide Applicators by the Massachusetts Department of Agricultural Resources (MDAR) has reached the funding limit and is closed.

For more information see <http://www.mass.gov/eea/agencies/agr/>

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 whenever 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](#)

CAFE: Units, Programs, Projects, Interest Areas



Connect with CAFE

Civil Rights and Non-Discrimination Information

This site is maintained by Center for Agriculture, Food and the Environment in the College of Natural Sciences.

© University of Massachusetts Amherst • Site Policies