Hort Notes 2017 Vol. 28:3

A monthly e-newsletter from UMass Extension for landscapers, arborists, and other Green Industry professionals.

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

Hot Topics

Have unwanted pesticdies you need to dispose off? MDAR is providing an opportunity for Massachusetts Pesticide applicators to dispose of their unwated pesticides at no cost. In order to participate you **MUST** register by May 15, 2017. For more information on the program visit the MDAR website (https://www.mass.gov/orgs/massachusetts-department-of-agricultural-resources).

Questions & Answers

Q: What diseases should I be most concerned about for the upcoming growing season?

A: White pine needle damage continues to be a problem for landscape and forest white pines. Research has shown that several fungal pathogens are responsible for the damage. Branch and trunk cankering of white pine from the fungal pathogen Caliciopsis is also a primary concern. Due to the effects of drought and defoliating insects on oak, foliar pathogens (oak anthracnose, tubakia leaf blotch), opportunistic stem cankering fungi (Botryosphaeria) and root and butt rot (Armillaria root rot) are major concerns this season. When oaks are stressed, they are particularly susceptible to a range of pathogens and insects that will invade and ultimately cause death. Winter injury may be more severe this season. Drought stress is known to disrupt or inhibit cold hardiness acclimation in the fall, making plants more susceptible to injury. In addition, the unseasonably warm weather in late February may have caused some plants to break dormancy. The subsequent return to winter, with very cold temperatures and strong winds may have caused freeze injury. Regular scouting in late spring will help to identify these damaged parts. Prune and discard as they become noticeable.

Q: How can I make my landscape more resistant to tree and shrub diseases?

A:Many plant pathogens are either host specific or attack a narrow range of closely-related plants. Therefore, increasing diversity can help to create a disease resistant landscape. If a landscape is dominated by a single plant species (e.g. boxwood), its associated diseases can readily spread and large volumes of inoculum (diseased plant material that harbors the pathogen and allows it to spread and persist on the site) can develop. By increasing diversity and thereby reducing the total number of any particular plant species, you decrease the risk of losing many plants to a single disease and ensure that large amounts of inoculum cannot develop. Focus on plants that are adapted to your particular site. For example, if your landscape is heavily shaded, avoid planting trees and shrubs that require full sun. A lack of sufficient sunlight is a major predisposing stress for certain trees and shrubs (e.g. white pine and Douglas-fir). Conversely, if your landscape is windy and sunny, choose plants that are tolerant of drought and thrive in full sun, exposed settings. The drought of 2016 is a good reminder that creating stress resistant landscapes can help to avoid significant losses in expensive plant material.

Nicholas J. Brazee, Plant Pathologist, UMass Extension Plant Diagnostic Lab, UMass Amherst

Trouble Maker of the Month

They don't get any tougher than *Equisetum*!!!!

Horsetails are a member of the genus *Equisetum*, the only genus in the plant family Equisetaceae. Species in the genus Equisetum are commonly considered to be living fossils as

they are vestiges of the Carboniferous geological period of 325 million years ago.

Arthur Haines, in Flora Novae Angliae: A Manual for the Identification of Native and Naturalized Higher Vascular Plants of New England, describes eight *Equisetum* species found in the six New England states. These species occur in a variety of habitats including lawns, landscapes, roadsides, stream banks, lake and pond shores, meadows and riparian forests. Of the species found in New England, landscape and turf professionals most commonly encounter field horsetail, *Equisetum arvense*.

Equisetum is most closely related to fern. Akin to ferns, they do not produce seed. Horsetails reproduces sexually by spores. These spores are relatively unimportant in the spread of horsetail. The extensive underground rhizome system, commonly reaching depths greater than three feet, are the primary means of reproduction and spread. In the absence of tillage or other forms of soil disturbance, lateral spread of horsetail is relatively slow compared to other weed species that reproduce by vegetative propagules.

Plant description

Field horsetail produces two distinct types of shoots. Produced in the spring, fertile reproductive shoots (photo 1) are 6 to 10 inches tall, are short-lived and do not usually appear in landscape populations. These reproductive shoots are tan to light brown with a spore producing cone at the tip. Sterile vegetative shoots are produced after the fertile shoots. In most cases these shoot are 6 to 8 inches tall and resemble miniature pine trees (photo 2 & 3). Both fertile and sterile stems are grooved and hollow.


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Managing field horsetail in landscape areas

Newly installed balled & burlapped nursery stock should be monitored carefully as occasionally horsetail can be introduced via nursery stock. Areas with a population of field horsetail should never be planted to landscape until horsetail is controlled. Proposed landscape areas can be grown as turf for a period of time where attempts to manage horsetail are easier and usually more successful. Although it may take several years, repeated mowing or mechanical removal (hand-pulling) where the dedicated removal of sterile stems depletes the carbohydrate reserves and will eventually exhaust the energy in the rhizome system. Tillage can make the problem worse by spreading the rhizomes and should never be used as part of a management strategy. Growing best in full sun, shading has been known to decrease horsetail vigor.

Landscape herbicides management options

dichlobenil: Barrier Ornamental Landscape Herbicide, Casoron

Formulated as a granular, these preemergence products are applied as a soil treatment. In New England applications are made in early spring after the ground has thawed. Dichlobenil products can be used in landscapes with woody ornamentals only and should not be used where herbaceous landscape ornamentals are present. Conifers may be injured if granules lodge in foliage. Do not apply in sloped areas where runoff and the washing of granules may enter areas such as lawn or areas with herbaceous ornamentals.

halosulfuron-methyl: Sedgehammer, Prosedge 2

Halosulfuron product are used for the postemergence control of horsetail. Applications are to be made as directed sprays and can be applied as over-the-top applications to landscape ornamentals. Applications should be made after horsetail has leafed out and stems are less than 6 inches. Application made when stem height exceeds 6 inches will suppress but not control horsetail. Herbicide symptoms can be observed within 2 weeks after application as a

necrotic ring at the base of the plant, while the leaves and stems remain green in color and plant death will follow shortly.

Managing field horsetail in turf areas

Horsetail is usually less of a problem in turf. Horsetail in first noticed in turf where it has spread from existing landscape populations. Horsetail is best management in turf with broadleaf turf herbicides that contain MCPA.

Randy Prostak, UMass Extension Weed Specialist

Plant of the Month

Magnolia x loebneri 'Leonard Messel'

It seems fitting, seeing as the last Friday in April is Arbor Day, that the "Plant of the Month" for April should be a tree. The tree selected is *Magnolia* x *loebneri* 'Leonard Messel' or Leonard Messel magnolia, an elegant spring-blooming magnolia.

Named after Colonel Leonard Messel, the Leonard Messel magnolia is a chance hybrid found and raised at the Messel family's Nyman's Gardens, Handcross, Sussex., England; it is a natural cross between *Magnolia kobus* and *Magnolia stellata* 'Rosea'.

M. 'Leonard Messel' is a deciduous, medium-size tree, slowly growing to a height of 15 - 25 feet, with an equal spread. It can be grown as a single trunk, or as a multi-stemmed clump, and is often used as a specimen tree in a landscape. This is a tree for all seasons. The silvery-grey, slightly furry-looking buds, and silver-grey bark, add winter interest to the landscape. The silvery bud scales open in mid-late April to deep fuchsia-pink buds that open to beautiful, fragrant 4-6 inch wide flowers, comprised of 12-15 fuchsia-pink ribbon or strap-like tepals (petals); white on the inside. The ribbon-like tepals move nicely in the wind, catching the sunlight, adding texture and movement in the garden. Another attribute for this magnificent magnolia, is that flowers are more frost resistant than star magnolia (*Magnolia stellata*) and saucer magnolia (*Magnolia* x *soulangeana*). Additionally, *M.* 'Leonard Messel' produces colorful yellow fall foliage, adding interest in the autumn landscape. *Magnolia* x *loebneri* 'Leonard Messel' is a sustainable tree, with no significant insect or disease problems and adds color and interest in multiple seasons.

Hardy to zone 4, this plant grows best full sun to very light, dappled shade and a well-drained organic, slightly acidic soil; watering during a prolonged drought is recommended.

Magnolia x loebneri ‘Leonard Messel’ has been the recipient of numerous plant awards including:

- Cary Award, Tower Hill Botanical Garden Boylston, MA
- Kentucky’s Theodore Klein Plant Award
- Award of Garden Merit - Royal Horticultural Society


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(/sites/ag.umass.edu/files/newsletters/images/798px-magnoliaceae_-_magnolia_stellata_rosea.jpg)

(/sites/ag.umass.edu/files/newsletters/images/magnols1.jpg)

Deborah C. Swanson, Horticulturist

Upcoming Events

Featured Event:UMass Earth Day & Arbor Day Celebration with Dr. Michael Dirr

- Lecture, walkabout, and book signing with Dr. Michael Dirr
- Grand Opening of the UMass/Eversource Utility Arboretum
- Gordon King Memorial Tree Planting

For most people who work with trees, Dr. Michael Dirr needs no introduction. He is the author of numerous books on woody plants that have become staples on our desks. He also has some

New England roots, as he earned his PhD from UMass. His fingers are always on the pulse of the nursery industry, scouting for new introductions, and having himself introduced 15 trees into commerce.

Michael Dirr is the author of seven books, including *Manual of Woody Landscape Plants: Their Identification, Ornamental Characteristics, Culture and Propagation and Uses*, a widely used and best-selling reference text, *Dirr's Hardy Trees and Shrubs, Hydrangeas for the American Gardner, and Viburnums: Flowering Shrubs for Every Season*. A Mercer scholar, Dirr is considered one of the green industry's most celebrated plant experts. An Emeritus Professor of Horticulture at the University of Georgia, his teaching, lectures, seminars, garden study tours and plant introduction programs have contributed greatly to industry awareness.

Event Date/Time:

Friday, April 21- 2:00 to 3:30pm
Saturday April 22 - 8:00am to 1:00pm

Event Location: UMass Amherst

Registration for this event. (/landscape/events/umass-earth-day-arbor-day-celebration-with-dr-michael-dirr)

Other Upcoming Events:

- **4/11**: Developing an Invasive Plant Management Program (B)
- **4/19**: EPA WPS Update and Train-The-Trainer Workshop
- **4/21:** Lecture by Dr. Michael Dirr : The Origins of New Shade and Ornamental Trees: The Roles of Serendipity and Breeding
- **4/22:** Tree Walk and Talk with Dr. Michael Dirr and Grand Opening of the UMass/Eversource Utility Arboretum
- **4/26**: EPA WPS Update and Train-The-Trainer Workshop
- **4/27**: EPA WPS Update and Train-The-Trainer Workshop
- **5/10:** Spring Blooming Tree and Shrub ID Walk
- **5/18:** Landscape Pests and Problems Walkabout - Insects, Diseases and Weeds
- **7/26**: UMass Turf Research Field Day

For more information and registration for any of these events visit the UMass Extension Landscape, Nursery, and Urban Forestry Program Upcoming Events Page

(/landscape/upcoming-events). For more information and registration for the EPA WPS workshops please visit the UMass Pesticide Education Program (http://www.umass.edu/pested/).

Additional Resources

For detailed reports on growing conditions and pest activity – Check out the Landscape Message (/landscape/landscape-message)

For commercial growers of greenhouse crops and flowers - Check out the New England Greenhouse Update (http://negreenhouseupdate.info/) website

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

For home gardeners and garden retailers - Check out home lawn and garden resources (/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)

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

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