



Hort Notes[©]

An educational newsletter with research-based information for businesses and individuals involved in selling, planning, designing, servicing, and enjoying landscapes and gardens.

Lawn Establishment, Renovation, or Overseeding During the Fall Season

M. Bess Dicklow, UMass Extension Plant Pathologist

Late summer to early fall is the best time for seeding cool season turfgrasses, although spring enthusiasm may have waned. Warm soil and moderate air temperatures encourage seed germination, rainfall is often more abundant, and weed competition less intense. The turf can develop a strong root system which leads to earlier spring green-up and less winter damage. Establishment is the installation of lawn on bare soil, while renovation is the restoration of a lawn that is in poor condition. Renovation can be complete (involving the removal of existing vegetation) or partial (improving turf quality by best management practices and overseeding). Best management practices include adequate fertilization, aeration to remove thatch and soil compaction, and weed control. See www.umassturf.org/publications/online_pubs.html

Fundamental to successful turfgrass renovation and establishment is the selection of adapted turfgrasses. In fact, a major cause of lawn deterioration is the selection of poorly adapted turfgrass cultivars or species. Consider such factors as soil type, cultural intensity, intended use, shade, and desired quality. Other factors include site conditions such as drainage and prior insect or disease infestations. Select high quality seed free of weed and undesirable grass seeds. Seed is commonly sold in mixtures or blends which are recommended both for their genetic diversity and ability to establish in different micro-environments. Using mixtures and blends increases a lawn's ability to resist diseases and overcome insect infestations. A mixture is a combination of two or more grass species (i.e. Kentucky bluegrass and rye) while a blend is three or more cultivars of the same grass species.

Some characteristics of cool season turfgrasses:

- Turf type **tall fescues** produce only a fair quality lawn. Although characterized by good drought tolerance, good insect resistance, and good performance in full sun to part-shade, and high traffic, they have poor disease resistance and a slow recovery to excessive wear.
- **Fine fescues** require less fertilizer, water, and mowing but have poor heat tolerance. Fine fescues do well in the shade and, if part of a mixture, will dominate shady areas.
- **Kentucky bluegrasses** require more maintenance than other grass species including higher nitrogen demand, tendency to accumulate excessive thatch, and poor insect and disease resistance. It does well in full sun and high traffic and is considered the premier lawn grass species when given adequate cultural intensity.
- **Perennial ryegrass** is often used in seed mixtures because its rapid germination provides quick cover. Rather drought tolerant, it doesn't tolerate heat or cold very well. It tolerates high traffic, but is only fair in shaded areas.

Site preparation is crucial to successful renovation. Perform soil tests at least four weeks before starting a project to allow time to amend the soil, apply fertilizer, and adjust soil pH. Addition of organic matter (compost, leaf mold, well-aged manure) can improve soil structure and optimize air, water, and nutrient levels for healthy turfgrass. Till the ground to loosen soil and incorporate needed amendments, remove debris such as stones, gravel, and stumps, and final grade the soil by raking.

Monitoring Checklist for October

VZ1, #10 October 4, 2010

PLANT PHENOLOGY: OVER 2800 GROWING DEGREE DAYS

PLANT	PEST OR PROBLEM	GDD OR ENVIRONMENTAL CONDITIONS	WHAT TO LOOK FOR	WHAT TO DO
Viburnum	Viburnum leaf beetle <i>Pyrrhalta viburni</i> (Paykull) p. 224	GDD: Now	An invasive pest now well established in Berkshire County (MA) and becoming more prevalent in Franklin County (MA). Also has been found in many other areas of Massachusetts as well, and is expected to become a common and serious pest throughout the state within a few more years. Adults can move from one area to another by flying but is commonly moved on nursery plants from areas of established populations. Once established, becomes a very serious defoliator of many of our commonly used viburnum. Inspect plants for leaves that contain many holes. The drab colored beetles remain active until the first frost but their numbers are now limited. Inspect the terminal 10" of shoots for the signs of eggs, which appear as raised bumps along the stems.	When this pest is found to be present on a plant, treat the adult beetles with a registered and labeled chemical insecticide. In the spring, soon after budbreak, inspect for the larvae and treat those with a product that contains Spinosad. Inspect from now through the winter for the presence of eggs imbedded within stems. When eggs are found, prune away the infested stems and destroy. Monitor the plants again in the spring for renewed activity and treat if necessary.
Eastern (Canadian) hemlock	Hemlock woolly adelgid <i>Adelges tsugae</i> p. 78	Mid-October	Has been dormant in the second instar nymph stage since mid-July and settled on the stems of hemlocks. Under a lens, they now appear as flat, black, oval nymphs with a margin of white wax around the body perimeter. Will break dormancy around mid-October and resume feeding. As the adelgid develops, it becomes larger and produces more white wax. Maturity is reached around mid-March next year when eggs will be produced. Atypically, cold winters can lead to large mortality numbers of this adelgid but the last such event in MA occurred in 2005 and populations now are building to significant (and potentially damaging) numbers.	Monitor for building populations of this pest and treat affected plants with a horticultural oil spray in the spring of next year.
Leaf and twig spots on broadleaf trees and shrubs	Tar spot on maple <i>(Rhytisma sp.)</i> pp. 66-67 Apple scab (<i>Venturia inequalis</i>) pp. 86-87 Hawthorn leaf spot <i>(Entomosporium mespili)</i> pp. 78-79	These fungi survive winter within infected leaves and twigs. In the spring, spores spread via rain, wind, and splashing water to new leaves and shoots. Cool to mild temperatures and extended wet periods favor spore dispersal by fungi. When spores land on wet immature leaves of susceptible hosts, they germinate and begin to establish an infection.	Diseased trees and shrubs develop yellow to brown spotted leaves and prematurely shed them. Tar spot on maple infects immature leaves only during spring. The fungus grows within the leaves for a few weeks before yellow-black spots become evident during summer. The other four leaf and twig spot diseases listed initiate infections in spring, but soon will be forming new fruiting structures that will release spores, causing secondary infections when conditions are wet.	When replacement is an option, consider gradually replacing susceptible with disease resistant trees and shrubs. Collect and remove fallen leaves to reduce inoculum that initiates infections next spring. Make note of heavily infected, weakened, or high value plants this year. Next spring begin protective fungicide applications as buds break open. If wetness persists, reapply them to help protect subsequent leaves and twigs.
	Black spot on rose <i>(Diplocarpon rosae)</i> pp. 80-81 Leaf blotch on horse chestnut (<i>Guignardia sp.</i>) pp. 40-41			

The page numbers in the second column, after the pest, refer to the texts *Insects That Feed on Trees and Shrubs*, 2nd ed., Johnson and Lyon, and *Diseases of Trees and Shrubs*, Sinclair, Lyon and Johnson, Cornell University Press. These references provide color photos and more detailed information on the specific problems.

Bob Childs, Extension Entomologist
Dan Gillman, Extension Plant Pathologist

Complete renovation is necessary when a lawn contains more than 50% undesirable grass species or weeds. The existing vegetation can be killed with a non-selective herbicide containing glyphosate. Remove thick thatch layers using a core aerator, vertical mower, or rake. Go over the ground twice, in different directions. Apply a starter fertilizer, broadcast seed or slit seed, gently rake the seed into the top 1/4" of soil, and lightly roll or tamp the soil to ensure good seed-to-soil contact. Mulch areas larger than 1 to 2 ft² with straw, marsh hay, hydromulch, or pellets.

Overseeding can be performed if turfgrass density is low using a slit seeder. Mow existing turf as low as possible to expose the soil and ensure good seed-to-soil contact. Control weeds by hand pulling or selectively control broadleaf weeds with an herbicide. If the soil is compacted,

a better approach is to use a core aerator, filling holes with compost. Use twice the recommended seeding rate to ensure good germination. A dethatcher or drag mat can be used to break up the cores.

Water is crucial after renovation or overseeding. Newly seeded areas require consistent moisture and once wet, grass seed should not be allowed to dry out. As seedlings grow and mature, the frequency of watering can be reduced. After establishment (4-6 weeks), employ proper mowing techniques (correct mowing height and frequency). Begin mowing turf when it is one third taller than desired and follow the one third rule during subsequent mowing. Mower blades should be sharp. Hand pull the weeds in small areas as weed pressure is not high at this time of year.

2011 Perennial Plant of the Year: *Amsonia hubrichtii*

Deborah C. Swanson, Extension Educator, Plymouth County Extension / UMass

The Perennial Plant Association (PPA) is a trade association dedicated to improving the perennial plant industry. For anyone interested in the marketing, growing, or anything related to the subject of herbaceous perennials, this association is a terrific resource. Every year the PPA membership selects a perennial that is worthy to be titled the "Perennial Plant of the Year."

The decision to select the perennial of the year is done in a democratic fashion. Each year, the PPA Perennial Plant of the Year Committee selects four garden-worthy perennials from a list of perennials nominated by members and places them on a ballot. The ballot is then mailed to the PPA membership to vote for one of the four nominated plants. The perennials nominated share the following criteria:

- Suitable for a wide range of climatic conditions
- Low maintenance
- Pest and disease resistant
- Readily available in the year of release
- Multiple season of ornamental interest
- Easily propagated by asexual or seed propagation

In addition to their vote for the Perennial Plant of the Year, each member then nominates plants for future consideration. The Perennial Plant of the Year Committee reviews the nominated perennials and then selects 3 to 4 plants to be placed on the ballot for the following year.

For 2011, the Perennial Plant Association has voted to select *Amsonia hubrichtii*, also referred to as Arkansas Blue Star, Threadleaf Bluestar, or Arkansas Amsonia, as the Perennial Plant of the Year. *Amsonia hubrichtii* is one of several reliable, native and low maintenance species found in the genus Amsonia. *Amsonia hubrichtii* is native to the south-central United States and was found in the wild in 1942 by Leslie Hubricht.

Like other Amsonia, Arkansas Blue Star, produces clusters of small, star-shaped light blue flowers in the early spring. However, one of the best attributes of this tough plant is its bright green feathery or threadleaf foliage. The narrow leaves are about three inches long and turn a bright golden yellow in the fall. To many people, it is this fall color attribute and the fine texture of the foliage which make this plant so special. Additionally, the plant is winter hardy to zone 5 and has no significant insect or disease problems.

Amsonia hubrichtii grows best in a moisture retentive but well-drained soil, in full sun to partial shade, but will usually perform best in full sun. Also, fall color is usually brighter in full sun. Growing approximately three feet high and wide, *Amsonia hubrichtii* often resembles a small shrub and can be used as a focal point or accent plant in a border. However, this fine textured Amsonia is often planted in groups or en masse for a stunning display, especially in the fall with its bright golden yellow color.

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Congratulations to the 2011 Perennial Plant of the Year, *Amsonia hubrichtii*! The PPA Perennial Plant of the Year began in 1990 and past winners include:

- 2010 *Baptisia australis*
- 2009 *Hakonechloa macra* 'Aureola'
- 2006 *Dianthus gratianopolitanus* 'Feuerhexe'
- 2005 *Helleborus xhybridus*
- 2004 *Athyrium niponicum* 'Pictum'
- 2003 *Leucanthemum* 'Becky'
- 2002 *Phlox* 'David'
- 2001 *Calamagrostis x acutiflora* 'Karl Foerster'
- 2000 *Scabiosa columbaria* 'Butterfly Blue'
- 1999 *Rudbeckia fulgida* var. *sullivantii* 'Goldsturm'
- 1998 *Echinacea purpurea* 'Magnus'
- 1997 *Salvia* 'Mainacht' (May Night)
- 1996 *Penstemon digitalis* 'Husker Red'
- 1995 *Perovskia atriplicifolia*
- 1994 *Astilbe* 'Sprite'
- 1993 *Veronica* 'Sunny Border Blue'
- 1992 *Coreopsis verticillata* 'Moonbeam'
- 1991 *Heuchera micrantha* 'Palace Purple'
- 1990 *Phlox stolonifera*

Last Chance to Register for UMass Extension's 2010 Green School

Location: Doubletree Hotel, 11 Beaver St.,
Milford, MA (at exit 19 off Route 495)

Dates: November 1 - December 10, meets two
days a week from 9:00 a.m. to 3:30 p.m.

This comprehensive 11-day certificate short course for Green Industry professionals is taught by UMass Extension Specialists and University of Massachusetts faculty. Designed for landscape professionals, lawn care specialists, arborists and other horticultural practitioners wishing to gain an understanding of horticultural fundamentals and strategies, as well as their relationship to environmental quality, but who can't fit a full academic course into their schedules. This will be the only opportunity until 2012!

Deadline for applications is October 29th.

THREE SPECIALTY TRACKS TO CHOOSE FROM:

Landscape Management
Turf Management
Arboriculture

For more details or a registration form, go to
www.umassgreeninfo.org or call (413) 545-0895.