



Hort Notes

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

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Current Monitoring Checklist for September:

http://www.umassgreeninfo.org/fact_sheets/ipmtools/2400_2999_GDD.html

PLANT PHENOLOGY: BETWEEN 2400 - 2800 GROWING DEGREE DAYS

Fall Planting: To Do or Not To Do

Highly visible at this time of year is the Green Industry's promotion of fall planting of trees, shrubs, and perennials. Some may feel that this is merely a ploy to promote business during a traditionally slow time of year for planting when compared to spring. However, research has shown that fall planting has a lot of merit. However, not all plants can be successfully planted in the fall. This article will explore the basis for fall planting and identify some plants that should not be planted at this time.

One of the reasons why fall planting is successful, and in some cases preferable to spring planting, is that soils are warmer and less likely to be saturated with water - hence oxygen levels tend to be higher at this time of year. Warmer soils with moderate moisture levels promote faster root development and therefore faster recovery from transplant shock.

Furthermore, shorter day length, less intense sunlight, and generally cooler temperatures, especially at night, reduce the amount of evapotranspiration from plants and hence the amount of moisture stress on newly set trees, shrubs, and perennials. The same conditions also reduce evaporation of moisture from soils so that soil moisture levels are not usually deficient in fall.

The term "fall planting" is a bit of a misnomer. The climatic conditions that favor successful planting begin to occur as early as mid August. However, the extent of the planting season will vary according to plant species. Generally, deciduous trees and shrubs can be planted later into the fall. This is because the roots of deciduous species will continue to grow despite declining soil temperature, at least to 45° F.

However, it is best to plant while soil temperatures are above 55° F at the 4 inch depth. Nevertheless, plants that have slowly developing root systems must be planted early, i.e. mid-August through September or not at all. This especially applies to the planting of tree species. Oak and birch trees regenerate their roots very slowly, even in spring. So, these trees are not good candidates for fall planting.

Needled evergreens such as spruce and pine are best planted in late August and early September since soil temperatures are warm enough to favor good root development and establishment. This is critical because conifers need to take up abundant water in September and early fall to reduce the likelihood of desiccation-related winter injury.

Generally, plants that have fibrous root systems are more successful in fall planting than are those with large roots. Most perennials and shrubs can be planted now with no problem. However, perennials and evergreen shrubs establish best if planted before the end of September. Trees that can be successfully established in fall include alder, Amur corktree, ash, buckeye or horsechestnut, catalpa, crabapple, elm, hackberry, hawthorn, honeylocust, Kentucky coffeetree, linden, maple, pine, spruce, and sycamore.

Some of the trees that have been reported to be difficult to establish with fall planting include American hornbeam, American yellowwood, bald cypress, beech, birch, Callery pears, fir, ginkgo, hemlock, hornbeam, Katsuratree, larch, magnolia, oak, Pagoda dogwood, red maple, sweetgum, tulip tree, and willow. Among shrubs, broadleaved evergreens including rhododendrons have been reported to establish better with spring planting.

Plants that are container-grown have a better chance of survival with fall planting than those that have been dug from the field. These plants generally have well developed root systems, making establishment easier. This applies only if the plants are not root-bound in the pots.

Bare root trees and shrubs should only be planted during the dormant season but not in the fall. Most of the root system of these plants is severed in the digging and preparation-for-storage process. Since initiation of new root development of dormant trees and shrubs does not occur until their buds begin to swell, bare root trees and shrubs should only be planted in late winter and early spring.

Digging and transplanting established trees and shrubs can also be done successfully in late summer and fall. The same principles apply to these plants as to those that are sold as container or balled and burlapped specimens at nurseries. That is, only plants that have root systems that redevelop quickly in late summer and fall should be moved at this time.

There are other factors that influence the successful planting of trees and shrubs in fall. Large specimens of trees and shrubs are often poor risks for fall planting. Proper planting is a major factor in the success or failure of transplanted ornamental plants. Attention must be given to planting if plants are to survive and grow well. Watering, pruning, fertilizing, and buying good quality plants will not overcome a poor planting job. For more information on proper planting techniques for trees and shrubs, visit our web site (www.UMassGreenInfo.org) and see the fact sheet *Recommendations for Planting and Maintaining*

Trees and Shrubs. The fact sheet may also be obtained by sending a SASE with your request to Trees, UMass Extension, French Hall, 230 Stockbridge Rd., Amherst, MA 01003.

Ron Kujawski
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Urban Forestry Diagnostic Lab Report

*Noteworthy examples of diseases and abiotic disorders received at the diagnostic lab for the period
July 30 - August 10 , 2001*

***Juniper* - browning of shoots on the tips of scattered branches; Sclerophoma shoot blight**

***Apple* - otherwise healthy mature tree with one main branch that died this season;
Botryosphaeria canker**

***Red maple* - leaves are mostly green but have brown, curled edges as well as along veins;
maple anthracnose**

***Red maple* - two significant branches died back on an otherwise healthy, well-established tree;
environmental stress/Valsa (Cytospora) canker**

***Atlas cedar* - 2/3 of tree with thin foliage and shoot dieback; soil compaction/poor
drainage/worsened by opportunistic fungi (Pestalotia + Phyllosticta) and spider mites**

***Mugo pine* - extensive browning of older needles in lower section of a well-established tree;
Cyclaneusma needle cast and Sphaeropsis (Diplodia) shoot blight/canker**

***Colorado spruce* - mature tree exhibiting brown, curled branch tips scattered throughout;
Sirococcus shoot blight**

***Austrian pine* - 15-year-old tree with brown, stunted shoots at the ends of scattered branches;
Sphaeropsis shoot blight**

***Japanese pagoda tree* - large portions of a 20 year old tree have died back with numerous
lesions on trunk and main stem; Verticillium wilt with opportunistic Valsa canker infections**

***Boxwood* - leaves with numerous punctures followed by leaves and twigs turning yellow-
brown; adult boxwood leafminer injury worsened by secondary Volutella blight infection**

Questions from You

Q. Several weeks after having mulch applied to ornamental beds, a client began noticing tiny, persistent brown “spots” attached to siding, fencing, the deck and on lawn furniture. These spots are very difficult to remove. Is this something coming from the mulch?

A. What you are describing sounds like the peridioles (spore packets) of the Artillery fungus, *Sphaerobolus stellatus*. This fungus is commonly associated with wood byproducts, wood chips, bark mulch, decaying wood, and dung. It is not pathogenic to herbaceous plants or woody ornamentals. This fungus is called the Artillery fungus because it shoots its peridioles over a large distance, sometimes up to 6 to 12 feet. Growth of this fungus is enhanced by rainfall and moisture, both of which have occurred frequently this growing season. Fruiting structures usually form on the mulch surface in late summer to early fall. When they are mature, they release the peridioles over a period of two to three weeks. Light, as well as moisture, is a factor in the discharge process. The fruiting structure absorbs moisture and becomes turgid. When enough force is built up to discharge the peridioles, they are shot out towards the light, as the process is phototropic. The peridioles are very sticky which helps them to adhere to whatever surface they land on. After a peridiole has dried, it can be very difficult to remove.

One way to help prevent this problem is to disturb the surface of mulch or wood chips with a rake. This will break up the fungus and fruiting bodies. It also will help keep the mulch itself drier by increasing air circulation. This in turn makes the mulch less favorable for growth of the Artillery fungus. Mulches that are composed of at least 90% bark, as opposed to woody material, are less likely to support this fungus. Alternately, in areas where the peridioles might be an aesthetic problem, consider alternate materials for mulching.

Q. My clients are very interested in re-blooming daylilies but are interested in having more than just ‘Stella de Oro’. Could you suggest some other cultivars that have this characteristic?

A. Many of the re-blooming daylilies have either yellow or gold flowers. A nice clear yellow is called ‘Happy Returns’; others include ‘Bitsy’, ‘Lemon Lollypop’, ‘Darling Clementine’, ‘Siloam Tom Atkinson’, and ‘Perpetual Motion’. There are also re-bloomers in many other shades. Look for ‘Apricot Sparkles’, ‘Druids Chant’ (a lovely pink with an eye zone of a deeper pink), ‘Rosy Returns’, ‘Strawberry Candy’ and ‘My Sweet Rose’.

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Disclaimer: Where trade names (*) are used for identification, no product endorsement is implied nor is discrimination intended against similar materials. The authors have assembled the most reliable information available at time of printing. Due to constantly changing laws and regulations, UMass Extension can assume no liability for recommendations.

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