



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: Monitoring Checklist for June

http://www.umassgreeninfo.org/fact_sheets/ipmtools/400_499_GDD.html

PLANT PHENOLOGY for May: *BETWEEN 400 - 499 GROWING DEGREE DAYS*

The Dreaded Ground Ivy

Ground ivy (*Glechoma hederacea*) is a perennial and a member of the mint family. It is a common weed of turfgrass and landscapes. Other common names include creeping Charlie, gill-over-the-ground and creeping Jenny. The species was originally introduced to the United States from Europe as a ground cover and soon was considered a weed.

Leaves of ground ivy are round to kidney-shaped with round toothed margins. They are opposite and attached with petioles to four-sided, horizontal stems. Small funnel-shaped, purplish-blue flowers appear from April to June. A distinct mint-like odor is produced when the plant is cut or crushed. The species spreads primarily by



creeping stems which root at the nodes. These shallow-rooted nodes can become an independent plant if the main stem is severed. Propagation by seed is less common. Ground ivy thrives in shaded, moist areas, but can persist in full sun. In areas where shade limits the competitive ability of turf, ground ivy can form a dense mat of creeping stems. Ground ivy is difficult to control. Physical removal by pulling or hoeing can be effective in gardens and landscapes. This method is tedious due to the many rooted nodes along the stems.

Success requires persistence and removal of plant debris. Plants segments not removed or discarded properly can easily reroot.

Ground ivy can be effectively controlled with postemergence broadleaf herbicides. The most effective are two and three way combination products containing dicamba, dichlorprop and/or triclopyr. Avoid using

dicamba near the drip line of trees and shrubs. Correct timing of application is important. Applications should be made from mid-spring to early summer and in the fall, with fall generally being more effective. Applications should not be made in July and August or during periods when ground ivy is not actively growing. Liquid formulations tend to be more effective than those that are granular or dry. A single application should not be expected to provide 100% control; 2 or 3 applications at 2 to 4 week intervals may be necessary. Complete control may take a full season or more. Roundup can be used in ornamental plantings and lawn areas where infestations are severe enough to require renovation. Ground ivy is an aggressive weed and areas left untreated can quickly invade adjacent areas in which control has been obtained.

While ground ivy can be controlled with herbicides, the long-term approach to managing ground ivy effectively should focus on improving turf growth through proper management practice and correction of unfavorable site conditions including excessive shade and poor drainage.

Use ground covers and fast-growing annuals to minimize the amount of open ground in landscape plantings.

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Questions from You

Q. Recent hard frosts have injured leaves on many deciduous trees in landscapes and nurseries. Will these trees produce another set of leaves?

A. That depends upon how much of the developing leaf was injured. In many instances of spring frost injury, cells in parts of an emerging leaf may be killed, yet the surrounding undamaged cells will continue to develop. As the leaf continues to expand it will become distorted and appear as cupped, curled, or twisted. With further development, leaves may develop holes, but will persist. In other instances, a leaf may be so badly injured that the petiole will abscise. These leaves will drop from the tree. In this case, you can expect the tree to re-leaf. The degree of foliar injury and the amount of frost-induced leaf abscission will vary within a single tree.

Q. I have some compacted turf areas that I'd like to core aerate. However, I have applied a pre-emergent herbicide earlier this spring. Will the core aeration reduce the effectiveness of the herbicides?

A. It is popularly believed that core aeration will reduce the effectiveness of pre-emergent herbicides, yet there is no scientific evidence that I know of to confirm this conclusion. To the contrary, there have been studies that demonstrated no effect of core aeration on pre-emergent herbicide efficacy. The primary reason is that core aeration disturbs only a small percent (about 5%) of the soil surface. Therefore, the chemical barrier established by the herbicide essentially remains intact.

Q. What herbicides are best for control of poison ivy and when is the best time to apply herbicide?

A. Two materials that are very effective in controlling poison ivy are glyphosate and triclopyr. These materials are sold under various trade names so it is important to check the label of products to see what the ingredients

are. Since these herbicides are both taken up through the leaves of poison ivy, they are best applied in late spring or early summer, that is, before the leaves have developed a thickened cuticle. Since these herbicides are not specific, care must be taken during application to avoid drift onto valuable plants. In situations where the poison ivy is intermingled with desirable plants, the herbicide should be brushed onto the foliage of the poison ivy.

Q. What effect will this early spring drought have on the long term health of landscape plants?

A. It is too early to say with certainty what the effects will be. However, spring is a critical time for growth and development of plants. New growth in plants depends in part on newly divided cells being fully turgid to promote cell elongation, one of the stages in cell growth. On sites with the most severe water deficits, plant growth will be reduced. Leaves on affected plants may be smaller than normal. That can reduce the amount of photosynthate (sugars) produced and, in the long run, weaken plants, making them more susceptible to certain insect and disease problems. Spring is also an important time for development of root systems. The drought may mean plants such as turfgrass will have a diminished root system, making it more difficult for grass plants to tolerate normal summer heat and drought. In many areas, lawns have already begun to turn brown and go dormant.

The potential for problems will certainly increase with each passing week without significant rainfall. Watering now is a must to reduce the physiological impact on plants. When watering, apply it deeply. With the ground as dry as it is, there is a tendency for water to run off surfaces rather than seep in. So attention must be paid to the watering process.

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Urban Forestry Diagnostic Lab Report

Particularly interesting disease/abiotic disorder samples received at the diagnostic lab for the period, April 23 - May 4, 2001

- **Austrian pine** - scattered branches with stunted, brown needles/shoots; heat and drought damage amplified by Sphaeropsis shoot blight
- **Boxwood** - foliage blighted on scattered stems of spring 2000 transplants; Fusarium basal stem canker + root rot with wounding (e.g., freeze, mechanical) and wetness
- **Green ash** - stunted growth and twig dieback on trees transplanted 2 years ago; poor root development, planted too deep, over mulched (8-12" deep) and environmental stress
- **Juniper** - scattered browning of shoot tips on established plants; Phomopsis + Kabatina shoot blight/both fungi were found on the affected tissue
- **Pachysandra** - patches with brown, spotted leaves in established planting; leaf desiccation with Volutella leaf blight and stem cankers
- **Rhododendron** - curling, brown leaves on branches of well established plants; residual 1998-99 drought

damage caused inadequate hydration before winter sun reflecting off snow, warmed the area around leaves & increased leaf water loss during winter; only a few of many samples had disease or insects exacerbating the problem

- **White spruce** - scattered dieback of branches on a tree transplanted 4 years ago; drought/heat stress exacerbated by spider mite feeding

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