Lawn and Turfgrass Weeds: Roughstalk Bluegrass (Poa trivialis L.)

Roughstalk bluegrass, more commonly known by its Latin name of Poa trivialis, is an invasive perennial grass weed that thrives in moist soils and in lawns and parks with heavy to moderate shade from trees and buildings.

It can also persist in full sun on golf courses and athletic fields that are routinely irrigated. Its yellow-green color, coarse-textured leaf blades, and patchy appearance are often objectionable to homeowners and professional turf managers in stands of cool-season turfgrass.

Commercial cultivars of *P. trivialis* are available for overseeding bermudagrass putting greens for winter play on golf courses in the southeastern portion of the United States and are occasionally used for heavily shaded and poorly drained lawns in northern states. Commercial cultivars are typically darker green and finer textured than volunteer weedy types found in lawns.

Life Cycle and Growth Habit

*Poa trivialis* is a member of the Poaceae family and has a perennial life cycle. It produces runners or stolons, which allow it to spread horizontally and creep over desirable grasses forming roughly circular patches. During periods of cool, moist conditions in spring, the vertical growth rate of *P. trivialis* can be 2-3 times faster than Kentucky bluegrass. In non-irrigated turf, during periods of high-temperature stress and/or drought in summer, *P. trivialis* begins to decline and foliage turns brown, leaving poor quality turf and openings for other weeds to develop. Patches of *P. trivialis* usually recover when cool temperatures return in fall.
Identification

*Poa trivialis* has leaf characteristics similar to Kentucky bluegrass, including a prominent midvein running lengthwise in the center of the blade, and a keeled leaf tip. However, leaves of *P. trivialis* have a glossy underside, whereas Kentucky bluegrass leaf surfaces are not glossy or shiny. Other identifying features include a papery, membranous tissue called a ligule that occurs at the junction of the leaf blade and leaf sheath and stolons that root at nodes. Stems are produced in April and exhibit a reddish color at the base. Root systems are relatively shallow and can be easily pulled from the soil. Seedheads are rarely observed in mowed turf, but can form in non-mowed areas in May and June. Foliage of *P. trivialis* typically has a yellow-green hue.
Cultural Management

*Poa trivialis* seed can be introduced into new turf stands accidentally as a contaminant in bags of turfgrass seed, or from cultivation equipment and soil containing small stolon pieces. Use of *P. trivialis*-free seed for new turf establishments and removing debris from cultivation equipment after use can help to reduce the potential for introduction of this weed species into lawns, parks, sports turf, and golf courses. Although there is no practical way to detect *P. trivialis* seed or stolons in soil, using soils from sites with no previous history of infestation can lessen the chances of contamination of turfgrass sites.

If *P. trivialis* is introduced into turf areas, the rate of visible patch development can vary depending on turf density, amount of shade, and soil moisture. Typically, patches are slow to develop in turf stands that are well-drained, not irrigated, and have little or no shade. Improving turf density through fertilization, removing trees or trimming branches to reduce shading, reducing irrigation, and use of turfgrasses well-adapted to site conditions will help slow the spread of *P. trivialis* but may not provide effective suppression once this weed is well established. If only a few small *P. trivialis* plants are infesting a lawn, they can be removed by hand pulling; however, all leaf, stem, and stolon material must be eliminated to prevent regrowth.

Chemical Control

*Poa trivialis* plants rarely produce seedheads and seed in mowed turf; thus, preemergence herbicides will not help to control this species. Unfortunately, there are no postemergence selective herbicides labeled for use in Pennsylvania that can remove *P. trivialis* from lawns, parks, and sports turf. Killing patches or the entire turf stand with non-selective glyphosate-containing products is the only way to eliminate this weed grass when significant contamination has occurred. When attempting to eliminate individual patches with glyphosate, treat at least 12 inches around the outside of the visible *P. trivialis* patch to make sure foliage and stolons obscured by desirable turfgrass are killed. Because glyphosate will also kill desirable grasses, treated areas will have to be re-seeded.

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