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UT Extension
W204
TURFGRASS SCIENCE
at the University of Tennessee

Annual Bluegrass (*Poa annua*) Control

in Overseeded Bermudagrass Turf

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Introduction

Annual bluegrass (*Poa annua*) infestations are a common problem in bermudagrass (*Cynodon spp*) turf. In Tennessee, bermudagrass growth slows during the fall as temperatures cool, and the species eventually enters winter dormancy. Dormant bermudagrass turf is often overseeded with cool-season turfgrasses, like perennial ryegrass (*Lolium perenne*), to provide green color throughout the winter months. While overseeding provides competition against various winter annual weed species, certain herbicidal measures must be taken to provide complete control of annual bluegrass in overseeded bermudagrass turf.

Annual Bluegrass Life Cycle in Tennessee

Annual bluegrass is a winter annual grassy weed that germinates in the late summer, grows throughout the winter and produces seeds in the spring. Once soil temperatures fall below 70 degrees F, germination of annual bluegrass seeds will begin and continue for the next 2-3 months. In upper East Tennessee, germination may begin as early as August. An individual annual bluegrass plant can produce up to 100 seeds. Failure to control annual bluegrass can lead to the development of an annual bluegrass seedbank in the soil profile.

Annual Bluegrass Identification

Annual bluegrass has a bunch-type growth habit (Figure 1) and plants often form distinct patches or clumps. The leaf blade is folded and has a boat-shaped tip (Figure 2). Blades can also be rippled or slightly wrinkled. Annual bluegrass has a long, membranous, slightly pointed ligule. It produces a panicle-type seedhead that is triangular in shape with spikelets bunched toward the ends (Figure 3). Seedheads start to emerge in the spring and viable seed can be produced in just a few days after pollination. This feature allows for the production of viable seed even in frequently mowed turf.

Figure 1. Annual bluegrass (Poa annua)

Figure 2. Annual bluegrass (Poa annua) leaf blade

Figure 3. Annual bluegrass (Poa annua) seedhead

Bermudagrass Growth Cycle in Tennessee

In Tennessee, bermudagrass green-up usually begins in late March, and by late April most turf areas exhibit 100 percent green color. Bermudagrass grows rapidly throughout the summer months, allowing the species to recuperate quickly from the stresses of foot traffic. Growth continues until the first killing frost, at which point leaves start to turn brown and plants begin to enter winter dormancy. In September or early October, bermudagrass turfs are often overseeded with a cool-season turfgrass, like perennial ryegrass, to provide green color throughout the winter months.

Annual Bluegrass Control Options in Overseeded Bermudagrass Turf

Prior to Overseeding with Perennial Ryegrass

Certain preemergence herbicides are labeled for annual bluegrass control prior to overseeding; however, treatments must be applied from 10-16 weeks prior to overseeding. If applied to close to the overseeding date, perennial ryegrass germination and seedling emergence will be severely reduced. Additionally, the level of annual bluegrass control that these herbicides provide at 16 weeks after application can be less than optimum. For this reason, the use of preemergence herbicide for control of annual bluegrass prior to overseeding is not recommended.

Several herbicides are labeled for postemergent control of annual bluegrass in bermudagrass turf. However, many of these herbicides cannot be applied less than 28 days prior to overseeding without affecting seed germination. Revolver™ (foramsulfuron) can be applied up to seven days

Table 1. Herbicides used to control annual bluegrass (*Poa annua*) before and after overseeding

	Herbicide	Formulations	Active Ingredient	Rate/a	Comments
Prior to Overseeding					
	Revolver	0.19SC	foramsulfuron	17.4 oz.	Revolver can be applied up to 7 days prior to overseeding
After Overseeding					
	Prograss	1.5EC	ethofumesate	0.67 gal.	Apply two applications of Prograss in late fall to early winter. Make the initial application of Prograss around the last week of November with a sequential application 3 weeks later. Spring applications of Prograss will often delay bermudagrass green-up.
	Velocity	17.6SG	bispyribac-sodium	6-9 oz.	Apply two applications of Velocity in the spring. Make initial Velocity application in early spring/late winter with a sequential application 3 weeks later. Fall/early winter applications of Velocity will injure overseeded perennial ryegrass.

prior to overseeding to provide postemergent control of annual bluegrass (Table 1). Unfortunately, applications made seven days prior to overseeding will not control annual bluegrass seeds that have not yet germinated. Delaying the date of overseeding will allow more annual bluegrass seedlings to emerge, making Revolver™ applications more effective.

After Overseeding with Perennial Ryegrass

Postemergence herbicides can provide control of annual bluegrass in bermudagrass turf that has been overseeded with perennial ryegrass (Table 1).

An initial application of Prograss™ (*ethofumesate*) should be made around the last week of November, with a second application made three weeks later. Spring applications of Prograss often delay bermudagrass green-up.

Velocity™ (*bispyribac-sodium*) should be initially applied around the first week of March, with a second application made three weeks later. Applications of Velocity in late fall and early winter will injure overseeded perennial ryegrass turf.

Final Thoughts

Multiple products can be used to provide control of annual bluegrass in overseeded bermudagrass turf. However, a sparse stand of perennial ryegrass will not prevent infestations of annual bluegrass. It is important to implement the cultural management practices necessary to ensure that a dense, vigorous stand of perennial ryegrass is established after overseeding.

Disclaimer

This publication contains herbicide recommendations that are subject to change at any time. The recommendations in this publication are provided only as a guide. It is always the herbicide applicator's responsibility, by law, to read and follow all current label directions for the specific herbicide being used. The label always takes precedence over the recommendations found in this publication.

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