

Poa annua

The Problem

Considered the world's worst turfgrass weed, annual bluegrass (*Poa annua*) is a yellow-green winter annual that reaches about 7 inches in height when not mowed. *Poa annua* can be unsightly in dormant bermudagrass or zoysiagrass. *Poa annua* is also objectionable in golf greens due to its color and growth habit, as well as production of whitish-colored seedheads which negatively affect ball roll.

What To Look For

The majority of seed germinates in late summer to early fall when soil temperatures retreat to 70°F. Earlier germination may occur in shaded or wet areas, or at higher elevations. Some germination can continue into early spring. Seedheads are light green to whitish and can withstand mowing heights of golf greens. The majority of seedheads are formed during early spring. Up to 2,000 seeds are produced by each plant, and these can remain viable for at least 6 years in the soil. Most *Poa annua* eventually dies in early summer with the onset of heat, leaving voids in the turf. However, recent research shows *Poa annua* can survive throughout the summer in hot regions in shaded, damp, and/or fungicide-treated areas.

To compound the problem, *Poa annua* has become resistant to glyphosate, as well as dinitroaniline, triazine, sulfonyurea and triazine herbicides. Resistance also has been reported for ethofumesate and pronamide, and most recently for indaziflam. In addition to maximizing cultural controls, tank-mixing multiple herbicides and rotating between herbicides with different sites of action is the best approach to delaying resistance.

The Solution

Non-overseeded warm-season turf

In warm-season turf, annual bluegrass control begins with an application of a preemergence herbicide. Specticle® provides outstanding control of *Poa annua* in addition to many other winter annuals. Specticle should be applied prior to germination in the fall. Control has been excellent with this product, but should be used only on well-established turf. If the turf is not well established, or in extremely sandy soils, Ronstar® would be a more suitable for golf courses.

For postemergence control, Revolver® provides excellent control of *Poa annua* in bermudagrass and zoysiagrass. Tribute® Total is another postemergence herbicide that controls many other weeds in addition to *Poa annua*. Apply either of these postemergence solutions in mid-to-late fall, once small plants are visible. Repeat in late winter or early spring if additional germination occurs and/or combine with a preemergence herbicide to limit future germination.

Glyphosate at 5 oz/A (check label on specific product) can also be used on dormant or non-dormant bermudagrass to control *Poa annua* throughout the year.

Since resistance is major factor, combining PRE and POST herbicides for *Poa* control in the fall is now recommended. Combinations of Specticle and Tribute Total as well as other herbicides like simazine applied shortly after emergence of *Poa* is effective for combatting resistance plus also improves application flexibility and consistency of control over typical PRE only applications. Sequential applications of Specticle and Tribute Total can further improve control over typical PRE only applications.

Cool-season or overseeded warm-season turf

In warm-season turf to be overseeded with perennial ryegrass, control becomes more complicated, requiring multiple steps. The first is using a labeled preemergence herbicide 45-60 days prior to overseeding. Wait as long as possible in fall to overseed. This ensures more *Poa annua* germination prior to overseeding. Apply Revolver at labeled rates 7 days prior to overseeding to control any emerged *Poa annua* plants. For bermudagrass that goes completely dormant in winter, Prograss® can be used. The first application typically is in late November, which corresponds to 30-45 days following overseeding, followed by another application in late December.

In cool-season fairways, Prograss is used as suggested previously. Research shows that combining Prograss with a preemergence herbicide such as prodiamine or pendimethalin improves long-term control from residual activity.

Non-overseeded, warm-season turf

Solution	Rate (per acre)	Application Notes	Do NOT Use On
Specticle® FLO	6 - 10 fl. oz.	Preemergence herbicide, apply in late summer to early fall prior to weed seed germination. See zone recommendations for specific timing and rates.	Golf greens, collars or tees
Ronstar Flo Ronstar® on Fertilizer	2 - 3 lb. ai	Apply Ronstar Flo to dormant turf only. Preemergence herbicide, apply in late summer to early fall prior to weed seed germination. Ronstar does not control <i>Poa annua</i> that has germinated prior to the application.	Greens, tees, or residential lawns
Revolver®	8.8 - 17.4 fl. oz.	Postemergence <i>Poa annua</i> control. Lower rates are effective on smaller, less mature plants. Higher rates are needed for mature, flowering plants.	
Tribute® Total	1 oz.	Postemergence herbicide that can be applied on non-overseeded, dormant or nondormant turf. Higher rates can be utilized to control/suppress a number of broadleaf weeds and sedges, as well as dallisgrass and tropical signalgrass².	Greens or overseeded tees

Cool-season or overseeded warm-season turf

Solution	Rate (per acre)	Application Notes	Do NOT Use On
Revolver®	4.4 - 17.4 fl. oz.	A postemergence herbicide used just prior to overseeding for <i>Poa annua</i> control. Waiting as long as possible in fall to overseed enhances control.	Desirable cool-season or overseeded warm-season turf
Prograss®	0.66 - 1.33 gal.	A postemergence herbicide that controls <i>Poa annua</i> in cool-season or dormant bermudagrass overseeded with perennial ryegrass. On cool-season fairways, the first of 2 or 3 applications should be in mid-fall on small <i>Poa</i> within 30 days of germination. Combine with a preemergence herbicide for most effective control. On overseeded warm-season turf, the first application should be 30-45 days following overseeding, with the second application 21-28 days later. May cause premature dormancy if green bermudagrass is treated. Do not apply after January 15.	Greens



Closeup of annual bluegrass (*Poa annua*). (Dr. Bert McCarty, Clemson University.)



In ryegrass overseeded turf, *Poa annua* is typically not noticed until early spring when it forms numerous objectionable, whitish-colored seedheads. Complete control in overseeded turf is difficult to achieve and requires a strategy of proper herbicide selection and overseeding timing. (Dr. Bert McCarty, Clemson University.)