

Annual Bluegrass

Poa Annua

Annual bluegrass is a native of Europe and is found worldwide. It is one of the most troublesome grassy weeds found in turf, ornamental plantings and gardens in the US and is a particular problem in golf course greens and fairways. Researchers have identified 56 types of annual bluegrass.

Some relatives in the *Poa* family are Kentucky bluegrass, rough bluegrass and bulbous bluegrass. Kentucky bluegrass (*Poa pratensis*) is a cool-season grass that is well adapted to cool, well-watered sites. Rough bluegrass (*Poa trivialis*) is less desirable in turf as it does well in moist, shaded areas, but lacks heat and drought tolerance. Bulbous bluegrass (*Poa bulbosus*) is sometimes found as a weed. Annual bluegrass is a grassy weed that, unlike Kentucky and rough bluegrass, is able to survive low mowing heights (less than 1 inch) and still reseed. There are actually two types of annual bluegrass. *Poa annua* var. *annua* is a true annual and *Poa annua* var. *reptans* is a perennial. It is hard to distinguish between the two varieties, but the annual type has a more upright growth habit and produces more seed than the lower-growing perennial type. The annual type also tends to produce a higher percentage of dormant seed and is more common in lawns and parkways. The perennial type produces seed that germinates readily under optimum conditions and is common in golf course greens where a low-growing grass is desired.



Annual bluegrass is bright green and has somewhat flattened smooth stems which can be spreading or erect. The stems are from 2 to 12 inches long and sometime form dense clumps. The leaves are smooth, about 1/8 inch wide, and curl at the tip, resembling the prow of a canoe (this curling of the leaf tip is typical of the genus *Poa*). The whitish-green seed heads are branching with a triangular outline. The seed is amber-colored and about 1/16 inch long. *Poa annua* likes cool, moist weather, damp shady locations, and moist, rich, compacted soils. It grows rapidly in the spring, especially if it has been fertilized. *Poa annua* does not withstand intense traffic, heat, or cold because of its shallow, weak root system.

In addition to the seed produced by the plant itself, mowing, foot traffic, birds, and cultivation can spread seed. It only takes a few plants to become established in turf or ornamental areas because it spreads very quickly. It is a rapid and prolific seeder with each small plant producing about 100 seeds from midspring to early summer with germination in the fall and plant establishment before cold weather. If the winter and summer are mild and moist it can act like a perennial. Viable seed can be produced just a few days after pollination, which allows the plant to reseed even in frequently mowed turf because it has adapted to grow below the mower height.

The first step in controlling annual bluegrass is the maintenance of a healthy turf area. This will provide competition, preventing or slowing annual bluegrass establishment. Overseeding desirable turfgrasses into the bare areas where the annual bluegrass has died or is dormant will also provide competition for emerging *poa annua* plants.

Use of low phosphate fertilizers to reduce seed production is one form of cultural control. Another cultural option is limiting the degree of soil compaction by aerating the soil, but not during the peak annual bluegrass germination times. Providing deep and infrequent watering to discourage the development of the shallow-rooted plant is another cultural option. Careful digging to manage weed populations is another option. However, this can bring more of the seed to the surface that can germinate. Cultivation such as rototilling or hoeing will eliminate plants, but this is difficult, if not impossible, in a turf situation with a heavy infestation. Removal of grass clippings may help reduce the number of seeds that reach the soil. Mowers and cultivation equipment should be cleaned prior to moving from an infected area to a weed free area.



Chemical control is all a matter of timing and knowing what type of desirable turfgrass the annual bluegrass has invaded. Before chemical control is considered identify the type of turfgrass that is to be treated, because some herbicides that are labeled for *Poa annua* can harm these desirable turfgrasses. Pre-emergence herbicides can be used to help limit annual bluegrass. Pre-emergence herbicides prevent seeds from germinating, but do not control emerged plants. These need to be applied from early to mid-fall and again in mid-March to mid-April. Disturbance of the soil surface after treatment may allow seeds to germinate, so do not walk on the treated area for at least one week.

Post-emergence herbicides can limit the growth of annual bluegrass and seed production, but have been of little benefit when used as the sole method of control. Several growth regulators and seed head inhibitors for *Poa annua* are labeled for commercial application only. As always, read and follow label directions if chemical control is selected.

RESOURCES:

Annual Bluegrass; Pest Notes Pub. #7464; Univ. of California; Agriculture & Natural Resources

Annual Bluegrass Control in Turfgrass for Homeowners EB1600; WSU Extension.

Hortsense—<http://pep.wsu.edu/hortsense>; Weeds: annual bluegrass: *Poa annua*

Weeds of the West

Weedy Grasses C153; WSU Extension