

STOP 15

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Effects of Poa annua Variability on Turfgrass Culture.

Annual bluegrass (Poa annua L.) is one of the most widespread turfgrass weed problems. It is considered a turfgrass pest due to its prolific seed-head production even at low cutting heights; and its lack of tolerance to environmental stresses. Although generally considered a bunch-type grass; variations within the species exist.

The annual subspecies predominates in non-irrigated rough areas of golf courses. It produces a more erect growth habit and is able to produce seedheads in a period of 50 days due to faster maturation of the plant. It was also found that the seed produced by the annual type Poa annua possesses post-harvest dormancy.

In contrast the perennial subspecies, is most often found in areas which receive moderate or intensive supplemental irrigation. Unlike the annual subspecies; it takes 81 days to produce the first seedheads. However, seed of the perennial subspecies will germinate immediately following harvest.

Three other distinguishing morphological characteristics of the annual subspecies are a (a) reduced number of nodes, (b) decreased secondary tiller numbers and (c) a reduced number of adventitious root numbers than the perennial subspecies. It is these morphological variations of Poa annua which affect turfgrass culture. Studies dealing with Poa annua control methods often produce contradicting results throughout the country. This was also found to be the case here at Michigan State University where endothall control studies were carried out. These studies showed that while endothall completely killed annual type plants of Poa annua; it merely stunted the perennial types. The recent studies of Po-San are another example of this situation. The results of these studies also vary around the country. This again suggests that Poa annua variability may be playing an important role in the experimental results. For this reason all professional turfmen should weigh the facts completely prior to choosing a Poa annua control program.