

Poa annua Terminology Clarified

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The terminology related to the common names of the *Poa annua* group has been confusing. This is because there is great variation within the *Poa annua* species in terms of numerous key plant characteristics, as shown in the accompanying table.

The comparative summary between the annual and perennial *Poa annua* biotypes shown in the table really is not that straightforward in nature. Actually there are numerous intermediate biotypes between these two extremes—the annual and perennial—that evolve in naturalized populations under field conditions. The scientific name implies the species is an annual, but in fact there are numerous biotypes, some of which are distinctly perennial. This situation has been accentuated by their culture as turfs, in which the perennial types increase and may become dominant within 5 years on fairways and sports fields that are mowed at a close height, fertilized with high nitrogen levels, and intensely irrigated.

However, for the first time we now have a perennial cultivar of *Poa annua*, released by the Minnesota AES under the name DW-184, which

is described as forming a dense, erect, dark-green turf that sustains this green color under low nitrogen nutritional levels. Furthermore, DW-184 produces few seedheads and only for a short time in the spring, and has improved resistance to a number of diseases.

To avoid confusion, *Poa annua* var. *reptans* types have been assigned the common name creeping bluegrass, while the *Poa annua* type will continue to be called annual bluegrass. Hopefully, this distinction between the two extreme types will reduce the confusion from a common name terminology standpoint.

Plant Characteristics	Annual Bluegrass (<i>Poa annua</i>)	Creeping Bentgrass (<i>Poa annua</i> var. <i>reptans</i>)
life cycle	annual	perennial
growth habit	erect, bunch-type	creeping, stolon-type
rooting	few adventitious	many adventitious
seedhead formation	many	few
seed dormancy	significant	minimal
herbicide tolerance	less	greater

Petroleum Spill Injury Symptoms

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There are occasions when injury occurs to a turf which is attributed to a petroleum spill that is of an unknown source or is due to vandalism. In this case, the injury symptoms are important clues in diagnosing the particular type of petroleum spill. With this information one can then implement the appropriate corrective treatment, including the possible need for turf reestablishment.

With symptoms related to petroleum spills, there is always the variable relating to the actual volume of the spill involved. If there is penetration of the petroleum spill into the root zone, in addition to turf kill, then removal of the contaminated soil may be required. The lighter volume spills may affect only the turfgrass canopy, and can be more easily and sometimes quickly corrected. In addition, the temperature of the petroleum fluid at the time of the spill can affect the speed and extent of injury to the associated turfgrass. Based on these qualifying principles the typical symptoms of five types of petroleum spills are described as follows.

Brake Fluid. Initially, the leaves have a shiny, wet appearance, plus a distinctive brake fluid odor. The leaf blades retain the shiny appearance for about 30 minutes, but then begin to darken and dry, with some longitudinal leaf rolling evident. There may be no change after about 1 hour. The turf has a pale grayish-green color after about 16 hours, with extensive leaf rolling apparent. All shoots may be dead after 48 hours, with a distinct light-yellow color.

Gasoline. The turf is shiny, with a slight oily appearance. The most distinguishing initial feature of a gasoline spill is the pungent odor emitted from the turf. Within 30 minutes the turf is drying rapidly, as evidenced by its darker color and longitudinal leaf rolling. Severe leaf rolling occurs after 1 hour. The turf is completely brown after about 16 hours, with a faint smell of gasoline still lingering. Then, 40 hours after spillage, the turf is yellow to yellowish-brown in color.

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