

Perennial Subspecies of *Poa annua* Complicates Control

If you're having more trouble controlling annual bluegrass lately, perhaps its because you have a resistant perennial subspecies mixing with the annual type. After decades of research, *Poa annua* remains the most troublesome annual grass weed in bentgrass greens. While pre-emergence herbicides generally give good control, poor results have also been seen. Earlier workers discovered that a resistant perennial subspecies of *Poa annua* was often the culprit in cases of poor control.

Several dozen annual and more than a dozen perennial subspecies of *Poa annua* have been described. Both subspecies occur extensively throughout the U.S. Unfortunately, the resistant perennial species is a prostrate, creeping type ideally suited to the growing conditions provided on heavily irrigated and closely mown greens. Both perennial and the annual subspecies also thrive in higher cut situations.

The annual subspecies of *Poa annua* is an erect, compact, and dense bunch-type grass, with many primary but few secondary tillers. Panicles are open, abundant, and densely seeded. The pe-

rennial type is prostrate, with numerous secondary tillers, fewer seeds, and is more heat and stress tolerant than the annual subspecies.

Researchers at the University of Tennessee Agricultural Experiment station, Knoxville, conducted trials to determine the relative susceptibility of both types of *Poa annua* to bensulide, while monitoring for any injurious effects of the herbicide to bentgrass. The research was conducted on a Penncross research green, similar in construction to USGA standards. Eleven different treatments were used over a period of 4 years, targeting strips of the annual and perennial subspecies seeded and sodded into the green. Timing of applications was found to be more important than rate of material applied, as poorest results were obtained when applications were delayed beyond seed germination. Good control (97%) of the annual subspecies was achieved in the most successful treatment after 4 years, but only 18% of the perennial subspecies was ever controlled. Maximum damage to the bentgrass was 3-5% in year 4. However, the researchers caution that higher bentgrass sod loss might occur on greens with heavier or native soils.

(From: L.M. Callahan and E.R. McDonald, 1992. *Effectiveness of Bensulide in Controlling Two Annual Bluegrass (Poa annua) Subspecies. Weed Technology* 6:97-103.)



Scanning the Journals

A review of current journal articles

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Cornell Cooperative Extension's Turfgrass Management Short Course

Since the first Cornell Turfgrass Management Short Course was held in January of 1986 more than 400 professional turfgrass managers from New York, New Jersey, Connecticut, Delaware, Pennsylvania, Maine, Massachusetts, Vermont, California, Wisconsin, Colorado, Canada, and France have graduated. Forty instructors and assistants from Cornell University, the SUNY Agricultural and Technical Colleges and the turfgrass industry are involved in teaching the lectures and laboratories. Class enrollment is limited so that laboratory sessions can maximize hands-on experiences.

The 2-week long Short Course includes 72 teaching hours, covering the principles of turfgrass establishment and maintenance. Topics include grass morphology, identification and selection, soil science, drainage, irrigation, fertilization, cultivation, renovation, and pest management topics (including identification and control strategies for insects, diseases and weeds). Other topics that help develop turfgrass professionals include the selection, establishment and maintenance

of ornamentals; developing budgets, communication skills, customer relations, and motivation in management; and turfgrass management strategies. Daily student evaluations are collected and summarized to help improve subsequent Short Courses. A pass/fail final exam is given at the end of the course to assess achievement of the course's educational goals from both the instructor's perspective as well as from the student's perspective.

The Cornell Turfgrass Science Program promotes continuing education and maintains contact with graduates throughout the year at regional and statewide Cooperative Extension- and industry-sponsored educational programs and conferences.

One Short Course participant spoke for all by saying, "The Cornell Short Course experience has made a positive impact on my job performance and in my career as turfgrass manager."

For more details contact Joann Gruttadaurio, Short Course Coordinator, at (607) 255-1792. **Mark your calendar today: the Eighth Annual Turfgrass Management Short Course will be held January 4-8 and 11-15, 1993.**

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