Smooth Crabgrass Control With Low-Rate Fenoxaprop

Fenoxaprop applied at the usually recommended rate for smooth crabgrass control (2.8-5.7 oz ai/A) is toxic to sensitive turfgrass species such as creeping bentgrass and bermudagrass. These species can, however, tolerate low rates (0.6 oz ai/A) of the herbicide. Researchers at the University of Maryland conducted a 2-year field experiment using perennial ryegrass plots to determine if the low rate of fenoxaprop would provide adequate smooth crabgrass control. The workers found that rates of 0.5-0.65 oz ai/A were indeed effective when applied every 2-3 weeks. However, to be successful, treatment must begin early, when smooth crabgrass is in the 1 to 2 leaf stage and continue without interruption until emergence has ceased in mid to late summer. Further research is necessary, nevertheless, to discover whether or not bentgrass and other sensitive species will tolerate such frequently repeated applications of fenoxaprop, even at the low rate.

(From: P.H. Dernoeden, M.J. Mahoney, and M.J. Carroll. 1992. Smooth Crabgrass Control in Perennial Ryegrass with Repeated Low Fenoxaprop Application Rates. HortScience 27(9):1001-3.)

A New Turfgrass Disease in Southeastern PA

A severe foliar disease of perennial ryegrass was observed on fairways in southeastern Pennsylvania during late summer 1991, coincident with overseeding work on many golf courses in the local area. Symptoms are similar to gray leaf spot of St. Augustine grass and blast of annual ryegrass. Initial symptoms include small, oval, brown lesions or spots (1-3mm) with a darker brown border. On mature plants, the spots are enveloped by chlorotic tissue, which subsequently spreads to the rest of the leaf. Leaves may become tan and appear blighted, but crowns are not usually damaged. Diseased seedlings appear blue gray, with a flaccid, water soaked look. Many seedlings collapsed 4-5 days after disease onset and survivors showed extreme leaf necrosis. Within a single week of symptom expression, chlorotic and blighted fairway turf could be seen in large irregular areas several meters in diameter.

Researchers at Penn State University determined the causal agent to be the fungus *Pyricularia grisea.* This organism is known to cause blast of annual ryegrass and gray leaf spot of St. Augustine grass in the south, but has not previously been reported on perennial ryegrass. Both diseases are exacerbated by warm and humid weather and high rates of N fertilization, and are more dangerous to seedlings than to established plants. It is not known whether resident populations of *P. grisea* caused the outbreak or if the pathogen was seedborne or even airborne, carried from the south by a passing tropical storm.

(From: P.J. Landschoot and B.F. Hoyland. 1992. Gray Leaf Spot of Perennial Ryegrass Turf in Pennsylvania. Plant Disease 76(12):1280-2.)

Control of *Poa annua* in Kentucky Bluegrass

Researchers at the University of Guelph, Ontario, investigated the use of linuron for post-emergent control of *Poa annua* in Kentucky bluegrass (KBG). In 3 years of trials using 16 KBG cultivars established for 1 year or longer in field plots, the Canadian workers found that linuron applied at 1.3 to 1.8 lb/A controlled *Poa annua* with little or no damage to KBG. Newly seeded KBG cultivars, however, were severely damaged at similar rates, but nevertheless made a complete recovery 6-7 weeks following treatment.

Linuron was most effective when applied in mid May to early June. Summer applications are not recommended due to the greater potential for damage to KBG when heat or drought stressed, as well as the reduced efficacy of the herbicide on established *Poa annua*.

Before you rush out to buy this product, however, take note that linuron is currently not labeled for turf in either Canada or the U.S.

(From: J.C. Hall and C.K. Carey. 1992. Control of Annual Bluegrass (Poa annua) in Kentucky Bluegrass (Poa pratensis) Turf with Linuron. Weed Technology 6(4):852-7.)

Scanning the Journals

A review of current journal articles

Researchers at the University of Maryland asked if a low rate of fenoxaprop would provide adequate smooth crabgrass control. They found that rates of 0.5-0.65 oz ai/A were effective when applied every 2-3 weeks.

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