

## **Tolerance of Bermudagrass Greens Overseeded with Poa trivialis to Preemergence Herbicides**

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An experiment was conducted for 2 years to evaluate preemergence herbicides on the tolerance of bermudagrass greens overseeded with Poa trivialis (Laser). The Poa trivialis was seeded early October 1994 and 1995 and the herbicides were applied the following spring each year.

Several preemergence herbicides that are used for summer weed control in turfgrasses were applied to the overseeded Poa trivialis at recommended and one-half recommended rates mid-March 1995 and 1996. The plots treated with one-half rates were retreated at one-half rates 8 weeks later in May.

Turfgrass injury and transition ratings were made on a 1- to 2-week interval from time of treatment until about the middle of July. Transition ratings were made at biweekly intervals from early May until mid-July.

Poa trivialis injury. Team (trifluralin plus benefin 1+1G), pendimethalin (60 WDG), Dimension (dithiopyr, 1 EC), Barricade (proflumicafene 65 WD), Regalkade (proflumicafene 0.5% on a fertilizer carrier), Goosegrass/Crabgrass control (bensulide plus oxadiazon 5.25 + 1.13% G), and bensulide (4 EC) were safe to apply to overseeded Poa trivialis in March. A single application of Regalstar (oxadiazon plus benefin 1.0+0.5G applied on a 38% N carrier) at the recommended rate in March severely injured Poa trivialis in 1 of 2 years, but the treatment was non injurious when applied at one-half recommended rate in March and May. In 1 of 2 years, Goosegrass/Crabgrass control applied at one-half rate in May caused moderate injury to the overseeded grass in June. Ronstar (oxadiazon 2G) applied at recommended rate in March injured Poa trivialis greater than 20% in 1995, but not in 1996. However, the injury was greater than 30% in June 1996 when Ronstar was applied at one-half recommended rate in March and again in May. Poa trivialis was severely injured both years when treated with Surflan (oryzalin 4 AS) and Rout (oryzalin plus benefin 2+1G).

Transition. In order to maintain an acceptable putting surface, it is important that an overseeded Poa trivialis and bermudagrass green maintain a complete cover during the spring transition period. When a herbicide reduces the cool-season of overseeded grass faster than bermudagrass can initiate new growth in the spring and early summer, a poor, unacceptable quality turf will occur. The transition from mixed Poa trivialis-bermudagrass turf to bermudagrass was not adversely affected with Team, Dimension, Barricade, bensulide, Regalstar, pendimethalin, and Goosegrass/Crabgrass control whether applied at recommended rates in March or one-half recommended rates in March and repeated in May. However, the transition was poor and unacceptable when treated with Surflan, XL (oryzalin plus benefin 1+1G), or Rout. These results show that selected preemergence herbicides were safe to use on