

## 2006 Preemergence Crabgrass Control Study

Christopher J. Blume, research associate  
Nick E. Christians, professor  
Department of Horticulture

### Introduction

The objectives of this study were to evaluate the level of crabgrass control with different Pendulum (pendimethalin) formulations (BASF) compared with other preemergence products and to determine if a new Dimension (dithiopyr) formulation, Dimension EW, performs as well as current dithiopyr formulations (Dow). Data were taken to determine if any of the treatments caused phytotoxicity to the 'common' Kentucky bluegrass.

### Materials and Methods

This study took place at the Iowa State University Turfgrass Research Facility. Plot areas were seeded to crabgrass April 18, 2006. There were three replications of nine treatments (Table 1). Initial preemergence applications were applied April 21, 2006. Repeat applications to specified plots were made eight weeks later on June 16. All applications were liquid products applied using a backpack CO<sub>2</sub> sprayer equipped with 8002 evs nozzles and applied at 30 psi. The soil on the site is a disturbed Nicollet clay loam with a pH of 7.5, 8 ppm P, and 58 ppm K.

### Results Discussion

There were no signs of phytotoxicity on any of the treated plots during the study. First percentages of crabgrass control data were not collected until June 3, when the first visible crabgrass was present in the plots. Crabgrass populations present in plots are displayed in Table 2. Control plots had 55 to 95% cover of crabgrass through the season. The Pendulum products' crabgrass control was 99% or above throughout the growing season, regardless of the formulation, rates, or timing. There were no significant differences in crabgrass control among the Pendulum products.

Crabgrass control in the Dimension EW plots was also 99% or above throughout the growing season, paralleling itself with the Dimension 1EC and 40WSP formulations. There were no differences in crabgrass control among treatments until the last data collection date, August 14. On August 14, control of crabgrass by Barricade 4FL (prodiamine) was reduced to 96%.