

2008

Yellow Nutsedge Trial, 2007

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Recommended Citation

Christians, Nick E., "Yellow Nutsedge Trial, 2007" (2008). *Iowa State Research Farm Progress Reports*. 706.
http://lib.dr.iastate.edu/farms_reports/706

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Abstract

The objective of this study was to observe the effectiveness of several yellow nutsedge (*Cyperus esculentus*) controls. It was conducted at the Iowa State University turf grass research area in a non-irrigated turf with a high population of yellow nutsedge plants. The treatments are listed in Table 1.

Keywords

Horticulture

Disciplines

Agricultural Science | Agriculture | Horticulture

Yellow Nutsedge Trial, 2007

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Introduction

The objective of this study was to observe the effectiveness of several yellow nutsedge (*Cyperus esculentus*) controls. It was conducted at the Iowa State University turfgrass research area in a non-irrigated turf with a high population of yellow nutsedge plants. The treatments are listed in Table 1.

Materials and Methods

Plots measured 5 × 5 ft for a total of 25 ft² and the study was replicated three times. The common name of Sedgehammer is halosulfuron, Dismiss is sulfentrazone, Basagran is bentazon, and Certainty is sulfosulfuron. The non-ionic surfactant applied with the Sedgehammer was X-77. Treatments were applied in the equivalent of three gallons water/1,000 ft². Treatments were applied on June 8 when the sedge plants were well developed and actively growing.

Results and Discussion

Some initial grass phytotoxicity was observed on June 12 (Table 2) in the plots treated with Dismiss. It was still present on June 14, although the ratings taken on that date were no longer significantly different. The phytotoxicity was no longer observed after June 14. The grass on the site was a mixture of species. To determine the effect of these treatments on an irrigated Kentucky bluegrass with no sedge, the

treatments were duplicated on a stand of 'Vantage' Kentucky bluegrass at the research site. No phytotoxicity was observed on the Kentucky bluegrass stand at any time following treatment, although some temporary stunting of the bluegrass was observed on plots treated with Certainty.

Ratings on weed damage were taken on June 14 (Table 2). All nutsedge plants were showing damage from the treatments, with the exception of those treated with Certainty. Counts of nutsedge were conducted on July 13, 16, and 25, and on August 3 and 9 (Table 3). Sedgehammer provided reduction of nutsedge throughout the trial, with the greatest reduction at the 0.065 ai/A rate. There was some recovery of nutsedge in the August ratings on plots treated with the highest rates of Sedgehammer. Basagran was quite effective at reducing nutsedge and still showed an 87% reduction of nutsedge at the August 9 count. Dismiss provided better control of sedge as the rate increased, with the highest rate of 0.25 lb ai/A providing 90% reduction at the August 9 count. Nutsedge showed recovery from damage as time progressed in plots treated with 0.125 and 0.188 lb ai/A rate of Dismiss, whereas the 0.25 lb ai/A rate held the weeds back through the summer. The effects of Certainty started slow and increased through the season to the point of 85% control at the August 9 count.