IOWA STATE UNIVERSITY
Digital Repository

Iowa State Research Farm Progress Reports

2013

# Evaluation of Solitare for Postemergence Crabgrass Control

Nick E. Christians
*Iowa State University*, nchris@iastate.edu

Daniel J. Strey
*Iowa State University*, dstrey@iastate.edu

Follow this and additional works at: http://lib.dr.iastate.edu/farms_reports

 Part of the Agricultural Science Commons, Agriculture Commons, and the Horticulture Commons

Recommended Citation
Christians, Nick E. and Strey, Daniel J., "Evaluation of Solitare for Postemergence Crabgrass Control" (2013). *Iowa State Research Farm Progress Reports*. 1906.
http://lib.dr.iastate.edu/farms_reports/1906

This report is brought to you for free and open access by Iowa State University Digital Repository. It has been accepted for inclusion in Iowa State Research Farm Progress Reports by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.

# Evaluation of Solitare for Postemergence Crabgrass Control

**Abstract**
The objective of this study was to evaluate postemergence crabgrass controls in Kentucky bluegrass turf.

**Keywords**
RFR A1219, Horticulture, Turfgrass

**Disciplines**
Agricultural Science | Agriculture | Horticulture

This horticulture station is available at Iowa State University Digital Repository: http://lib.dr.iastate.edu/farms_reports/1906

# Evaluation of Solitare for Postemergence Crabgrass Control

**RFR-A1219**

Nick Christians, university professor
Dan Strey, research associate
Department of Horticulture

## Introduction

The objective of this study was to evaluate postemergence crabgrass controls in Kentucky bluegrass turf.

## Materials and Methods

The individual plots measure 5 ft by 5 ft and the study was replicated three times. The treatments are listed in Table 1. They were applied on May 25, 2012. The study was conducted at the Iowa State University Horticulture Research Station, Ames, Iowa. The soil was a Nicollet clay loam with a pH of 7.05, 19 ppm P, and 123 ppm K. The organic matter content of the soil was 3.7 percent.

All products were applied through TeeJet 8002VS nozzles in a spray volume equivalent to 2 gallons/1,000 $ft^2$ powered by carbon dioxide supplying 40 pounds per square inch. The study area was a 7-year-old stand of Moonlight Kentucky bluegrass, to which no preemergence or postemergence herbicides had been applied since establishment.

Data on percent crabgrass cover were taken on May 25, June 1, June 15, and August 16, corresponding to 7, 14, 28 60, and 90 days after treatment.

## Results and Discussion

It was a very hot summer at the research station (Figure 1). Although it was very dry as well, the area was irrigated.

No phytotoxicity was observed on the Kentucky bluegrass at any time during the trial. Although crabgrass had germinated by May 25 and was present under the canopy, no numbers on control data could be taken before June 15 when crabgrass had emerged through the canopy (Table 2). On June 15, Solitare at 0.75 and 1 lb ai/acre and Drive at 0.75 lb ai/acre were effective at reducing crabgrass cover whereas Acclaim Extra and Tenacity were no different than the control. This was also true on July 17 and August 16. At no time during the study were there differences in crabgrass control between the two rates of Solitare, or between Solitare and Drive.

**Table 1. Product, rate, and application interval of several herbicides used to evaluate the control of crabgrass.**

| Treatment | Product | lb ai/acre | Product/25 ft$^2$ | Stage* |
|---|---|---|---|---|
| 1 | Solitare 75WG | 0.75 | 0.26 grams | 1-4 leaf |
| 2 | Solitare 75 WG | 1 | 0.35 grams | 1-4 leaf |
| 3 | Drive 75 DF | 0.75 | 0.26 grams | 1-4 leaf |
| 4 | Acclaim Extra EW | 3.5 fl oz/acre | 0.0594 ml | 1-4 leaf |
| 5 | Tenacity EC | 5-8 oz/acre | 0.1103 ml | 1-4 leaf |
| 6 | Untreated | - | - | - |

**Table 2. Mean percentage of crabgrass cover.**

| Trt | Product | Jun 15 | Jul 17 | Aug 16 |
|---|---|---|---|---|
| 1 | Solitare 75WG | 4 | 35 | 58 |
| 2 | Solitare 75 WG | 1 | 32 | 53 |
| 3 | Drive 75 DF | 1 | 26 | 52 |
| 4 | Acclaim Extra EW | 9 | 59 | 73 |
| 5 | Tenacity EC | 6 | 64 | 79 |
| 6 | Untreated | 13 | 74 | 85 |
| LSD 0.05 | | 7 | 22 | 21 |

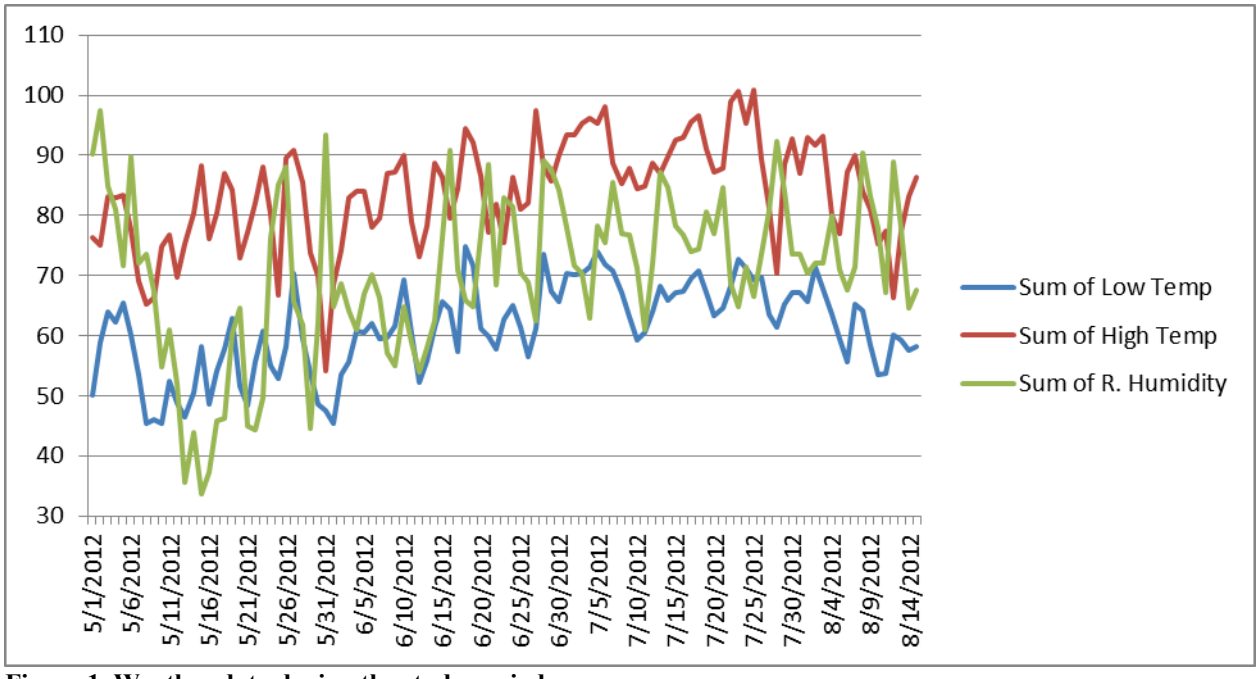


**Figure 1. Weather data during the study period.**