

## Evaluation of GameOn and Crew Herbicides

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#### Introduction

The objective of this trial was to evaluate the control of weeds with GameOn and Crew herbicides.

#### Materials and Methods

Research was conducted at the Iowa State University Horticulture Research Station, Ames, Iowa, on a native soil tall fescue lawn type turf stand. Experimental units were 5 ft by 10 ft with a 1 ft border. Granular treatments were applied with a drop spreader. Liquid treatments were applied using a CO<sub>2</sub>-pressurized backpack sprayer with TeeJet 8004XR nozzles calibrated to apply one gallon water carrier/1,000 ft<sup>2</sup>. Treatments were arranged as a randomized complete block design with four replications. Turfgrass quality ratings were taken at 4 and 8 weeks after treatment (WAT), visual weed injury ratings were collected at 7, 14, and 21 days after treatment (DAT), visual percent weed cover were rated at 0, 4, 6, 8, and 12 WAT, and visual weed control was rated at 0, 4, 6, 8, and 12 WAT. Granular treatments (Crew) were applied April 20. Plots were irrigated April 27 with 0.25 in. of water. Split granular treatments (Crew) also were applied June 1 and irrigated June 4 with 0.25 in. of water. Liquid treatments (GameOn) were applied July 13 and plots received 1.08 in of rainfall July 14.

#### Results and Discussion

The area used for the study was a heavily broadleaf infested (dandelion and white clover) lawn setting. The weeds were so thick that when the broadleaf weeds were killed, crabgrass plants filled back in faster than tall fescue. This greatly limited the turfgrass quality ratings as well as the control by the granular products of the broadleaf weeds. While the granular treatments did an excellent job of keeping out the crabgrass, they showed very low activity (as expected) on visual weed injury. Visual weed injury differed by rating date (Table 1). Due to the disclaimer mentioned above, the study showed very low visual weed injury for any Crew treatments. GameOn treatments performed better than Crew treatments. There were no differences between GameOn at either rate. These products did provide above 60 percent weed injury at 7 DAT and increased to above 65 percent visual injury by 14 DAT. At 21 DAT, both had above a 70 percent visual weed injury rating, with GameOn at four pt/acre having over 92.5 percent visual weed injury. The average for the study also was over 65 percent for both rates of GameOn. These products all showed quick visual injury, which is important for the lawn care operator. There was a good amount of visual weed control throughout the study. Even as populations of weeds seemed to appear/re-appear, the crabgrass showed signs of injury on all plots throughout the study. Some of this could have been due to the limited rainfall received in Ames this past fall, creating a dry soil condition for the crabgrass. Irrigation was only added to prevent the turfgrass from entering dormancy. The high rate of crabgrass injury at the 84 DAT was due to a frost. Broadleaf weeds showed a difference in weed

control between treatments with similar results to those in Table 2. GameOn at both rates offered a much higher weed control for broadleaf weeds than Crew at any treatment rate or timings.

Although the results of this study are complicated, if the study is looked at as two separate parts, we can see some very clear conclusions promising for the turfgrass manager. Crew offers an excellent season-long crabgrass control from applications in April and control through the first frost with rates as low as 150 lb/acre. There were no signs of turfgrass injury from use of this product. Mid-summer applications of GameOn at 3.5 p./acre and 4 pt/acre also offer

excellent broadleaf control. This control extended throughout the fall growing season, ensuring there would be no call-backs to retreat yards for lawn care operators. These products also worked quickly, which is appealing to the end user who wants to see control in a timely manner.

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**Table 1. Visual weed injury (0-100%) ratings for applications of GameOn and Crew herbicides.**

Treatment	Rate	7 DAT	14 DAT	21 DAT	Mean
GameOn	3.5 pt/acre	60	67.5	72.5	66.7
GameOn	4.0 pt/acre	65	77.5	92.5	78.3
Crew	150 lb/acre	7.5	10.0	7.5	8.3
Crew	200 lb/acre	10	5.0	2.5	5.8
Crew	150 lb/acre + 150 lb/acre	12.5	7.5	7.5	9.2
<b>LSD (0.05)</b>		10.9	20.2	27.8	14.9

**Table 2. Visual weed control (0-100%) ratings for applications of GameOn and Crew herbicides.**

Treatment	Rate	Crabgrass					Broadleaf				
		28 DAT	42 DAT	56 DAT	84 DAT	Mean	28 DAT	42 DAT	56 DAT	84 DAT	Mean
GameOn	3.5 pt/acre	62.5	45.0	45.0	87.5	48.0	90.0	95.0	87.5	82.5	19.8
GameOn	4.0 pt/acre	70.0	47.5	50.0	85.0	50.5	95.0	95.0	87.5	80.0	21.3
Crew	150 lb/acre	52.5	52.5	55.0	90.0	50.0	10.0	10.0	12.5	12.5	78.5
Crew	200 lb/acre	55.0	55.0	56.2	92.5	51.8	12.5	12.5	15.0	15.0	70.0
Crew	150 lb/acre + 150 lb/acre	62.5	62.5	65.0	95.0	57.0	15.0	15.0	12.5	12.5	64.5
<b>LSD (0.05)</b>		64.6	58.0	56.9	10.6	36.5	20.5	21.1	21.0	22.4	17.5