

1999 Preemergence Herbicide Screening for Reducing Ground Ivy Spread

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Objective

The objective was to evaluate the performance of preemergence herbicides in reducing ground ivy spread.

Rationale

Postemergence herbicidal control of ground ivy can be a difficult job for both the homeowner and professional lawn care operator. There are not many herbicides labeled for the task, nor do they all give satisfactory results. Meanwhile, the plant's growth habit continually works against those who are trying to control it; any node on the plant that survives postemergence application is able to produce new roots and new runners. With incomplete herbicidal control, combined with ground ivy's rapid growth habit, the plant can quickly reestablish.

Most preemergence herbicides work by killing the roots of germinating seeds. Susceptible roots that grow into soil treated with a preemergence herbicide will be killed. If a herbicide could be found that inhibits the rooting-at-the-node behavior common to ground ivy, perhaps the plant would not spread as well and its overall health would be lower. This might reduce the chances of quick reestablishment while aiding in making ground ivy more susceptible to mowing, hand weeding, and postemergence herbicidal control.

How It Was Done

Using a cup-cutter, three plugs of ground ivy were taken from the Agronomy Research Center near West Lafayette, IN on 14 May and were transplanted into each 5 x 5 ft. plot at the Turf Center. Plots were irrigated daily and mowed three times per week at 2.5 inches. Plots had not been fertilized for the past 2 years and were located in full sun. On 21 May, preemergence herbicides were sprayed at the highest recommended label rate and at one-half the highest recommended label rate for Kentucky bluegrass. Carrier volume was 4 gallons/1000 sq. ft. Visual ratings were taken of ground ivy percent cover 6, 9, 18 and 30 weeks after treatment (WAT).

Results

- Varying the rate of herbicide application did not have a significant influence on ground ivy spread. The results shown (Table 1) are averaged over both rates for a given herbicide.
- Gallery was the only product to significantly reduce ground ivy cover.

Table 1. The effect of preemergence herbicides on ground ivy cover.

Treatment	Application Rate ^b lbs ai/A	Ground ivy cover ^a			
		2 July 6 WAT	25 July 9 WAT	24 Sept 18 WAT	17 Dec 30 WAT
Control	---	6	10	32	33
Barricade 65WG	0.98	6	8	31	35
Dimension 1EC	0.50	5	8	29	32
Gallery 75DF	1.00	2	3	12	15
Pendulum 3.3EC	2.97	6	8	30	35
LSD (0.05)		3	3	11	9

^aPercent of the plot covered by ground ivy.

^bApplication rate is the high label recommended rate for the herbicide for Kentucky bluegrass turf.