

In December 1973, Trimec "Fairway" applications were made to this series of 100 square foot test plots in 9 replications for "heavy" rate and 5 replications at normal dilution. The plot in the foreground and the one immediately behind the figure were treated. A check plot is in front of the figure.

Cool Weather Weed Control

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We have had great success with late autumn or early winter broadleaf weed control, using a synergistic combination of herbicides of the Trimec or Trex-San type. These effective broadleaf weed controls widely used on golf courses seem destined for homeowner availability as well.

The basic components are the well-proven 2,4-D, MCP, and dicamba herbicides. They are carefully combined in proportions that research has proven especially effective, resulting in a formulation that "packs more power" than the sum of its components. This is synergism, of course, in which two or more compounds working in tandem enhance the effectiveness of one another. As a result Trimec usually controls more weeds, at lighter rates, than would an equivalent concentration of any single component, — and with consequent greater safety. For added assurance on "touchy" species such as bent-

grasses, a special "Bentgrass" formulation steps up the MCP proportioning over that in the "Fairway" formulation so much used for bluegrass-based sods. Still a third formulation is offered for southern grasses such as St. Augustine. In all cases the herbicides come as a stabilized concentrate requiring only addition of the requisite amount of water. This avoids "workshed chemistry" difficult for inexperienced help unfamiliar with mixing accurately compounds of varying strength and formulation.

At the Lawn Institute we have been well impressed through the years with "season-end" control of broadleaf weeds. Spraying made earlier — in late summer or autumn — kill existing weeds, of course, but seem not to catch the late-starting dandelions, plantains, chickweeds, veronicas, and suchlike. Measured by the frequency of weeds in the next spring's lawn, treatments made after mid October have usually shown up better than earlier ones.

Not only will the later treatment conquer almost all of the weeds destined to sprout for the year, but it takes advantage of a relatively slack season (when mowing is through, and labor demands have materially eased). Phenoxy herbicides alone are not too potent in cooler weather, so that certainly late treatment should include some dicamba. Although Trimec-type formulations are essentially non-volatile, even in warm weather in my experience, an added safety factor with late-season use is that the deciduous ornamentals have finished their growing season and will not sustain drift damage such as might occur when buds are bursting and tender new foliage is exposed.

Although herbicidal control of winter weeds such as annual veronica, rosette crucifers, and volunteer dandelions in shrub beds as well as in lawns had proven most successful, we decided to conduct more elaborate late-season testing in 1973. Thus in early December Trimec

WEEDS CHECKED	REPLICATES									TOTAL
	1	2	3	4	5	6	7	8	9	
<i>Plantago</i> spp., treated	1	22	33	30	6	8	12	7	7	127
<i>Plantago</i> spp., control	11	13	20	40	43	39	10	35	7	218
Dandelion, <i>Taraxacum</i> , treated	1	1	1	3	2	1	1	17	8	35
Dandelion, <i>Taraxacum</i> , control	6	10	14	12	12	3	16	40	40	153
<i>Prunella</i> , treated	0	4	12	20	0	0	0	8	0	44
<i>Prunella</i> , control	18	5	100+	0	0	17	30	4	0	174+
Wild Carrot, <i>Daucus</i> , treated	0	0	0	0	0	0	0	0	0	0
Wild Carrot, <i>Daucus</i> , control	10	0	0	2	2	0	0	0	0	14
Other <i>Compositae</i> , treated	0	1	1	0	0	0	0	4	3	9
Other <i>Compositae</i> , control	3	0	3	2	0	1	5	4	5	23
Rushes, <i>Juncus</i> , control	} No talley									Almost none Abundant
Rushes, <i>Juncus</i> , control										

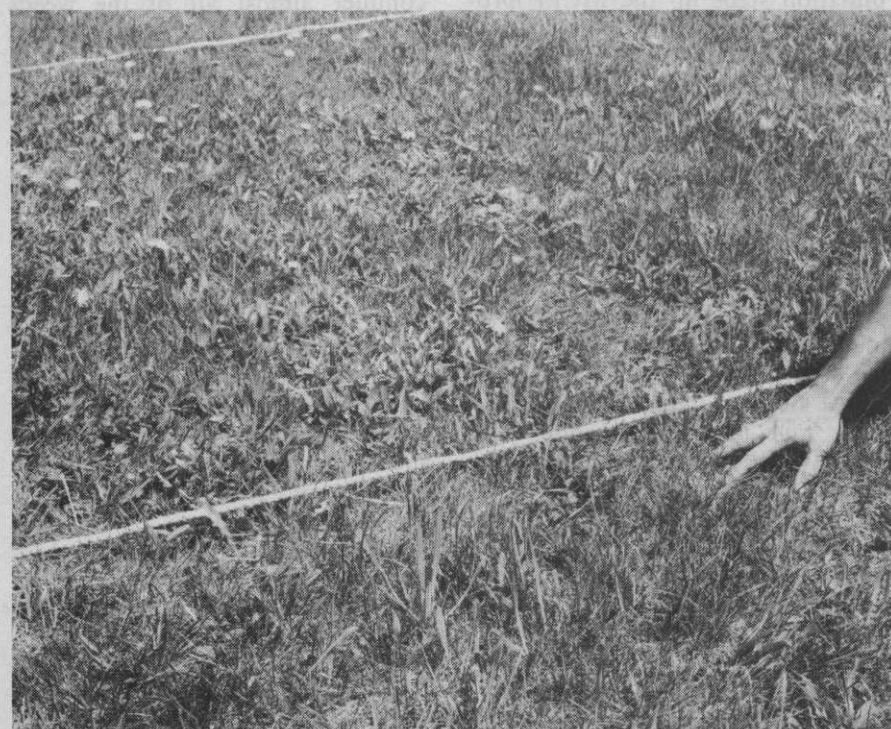
Weeds in all treated plots, 215 — in all controls, 582

Table 1. Exemplary weed counts on April 29, for treatments made previous December 1, using 6 ounces of Fairway Trimec in 3 gallons of water sprayed over 1,000 square feet. Talley's are from "quick counts" in a 5-foot band across center of plot.

WEEDS CHECKED	REPLICATES				TOTAL
	1	2	3	4	
<i>Plantago</i> spp. treated	32	20	22	16	90
<i>Plantago</i> spp. control	11	5	6	34	56
Dandelion, <i>Taraxacum</i> , treated	15	6	0	1	22
Dandelion, <i>Taraxacum</i> , control	13	31	19	3	66
<i>Prunella</i> , treated	0	0	0	0	0
<i>Prunella</i> , control	13	75	0	21	109
Other <i>Compositae</i> & misc., treated	0	2	3	0	5
Other <i>Compositae</i> & misc., control	8	13	2	0	23
Rushes, <i>Juncus</i> , treated	} No talley				Almost none abundant
Rushes, <i>Juncus</i> , control					

Weeds in all treated plots 117 — in all controls 254

Table 2. Exemplary weed counts on April 29, for treatments made previous December 2, using 2 ounces of Fairway Trimec in 3 gallons of water sprayed over 1,000 square feet. Talley's are from "quick counts" in a 5-foot band across center of plot.



A Trimec treated plot in foreground, check plot in rear.

"Fairway" applications were made to a series of 100 square foot plots in 9 replications for "heavy" rate and five replications at "normal" dilution. This particular Trimec formulation, on an active ingredient basis, is 27.6% 2,4-D, 13.8% MCPP, and 2.8% dicamba. Plots alternated with controls of equal size, and were hand sprayed at the rate of 6 ounces of Trimec in 3 gallons of water per 1,000 square feet for the heavier rate (2 ounces for the lighter rate). The test turf had been mowed but not weeded nor fertilized through the exceptionally rainy Ohio summer of 1973. Several severe nightly frosts had occurred, but the season as a whole was moderate and amply moist. Such grass as was present remained quite green, but warm-weather weeds were giving ground. The most evident broadleaf weeds in the test area at this time were narrowleaf plantain (*Plantago lanceolata*) and selfheal (*Prunella vulgaris*).

Results from these treatments, as measured April 29, 1974, are summarized in the tables. The photographs show that weed control from the December sprayings stood out quite well into spring, even though any treatment is bound to be "temporary" where little grass exists to fill space vacated by the weeds. Even so, weed count showed about a two-thirds reduction at the heavier herbicide rate, and about half at the lighter rate. Plantains (both *P. major* and *P. lanceolata*) were the weeds least controlled, perhaps indicating the importance of dicamba in the formulation (dicamba is not particularly effective against plantain). But what was most surprising was thorough elimination of rushes (*Juncus* spp.) in the treated plots. Rushes are bunchy monocots looking a lot like fine fescue when young, but stiff and hard to mow. Rushes had become quite numerous in the test area during the wet cycle of 1972-73, but (mixing among a scattering of grasses) were paid scant heed, overshadowed as they were by the broadleaf weeds. If the rushes had been included in our tally, weed control statistics would have been even more impressive, since there were literally hundreds of rush plants in each of the check sections, almost none in the treated sections. Of course there is no damage to monocots in the grass family from the Trimec assemblage of herbicides.