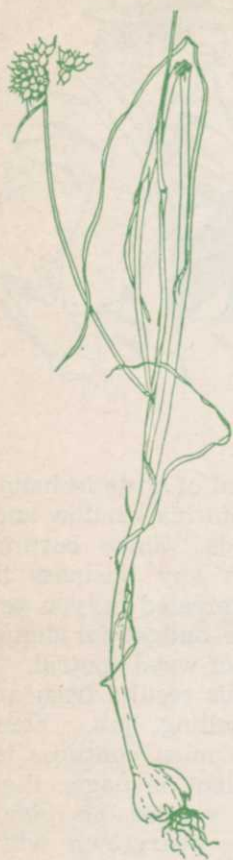


Wild Garlic Control

in Bermudagrass Turf

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WILD GARLIC

LAWN weed problems are a common occurrence in most of our nation. In many instances these problems are associated with climatic and soil conditions, and with turf maintenance practices. Improper maintenance practices are the largest contributors to lawn weed troubles.

Solving weed problems is one of the most important phases of turf management. Early diagnosis or identification is essential if the problem is to be corrected before it becomes too serious. The more difficult weed problems are usually associated with perennial plants that have underground means of reproduction.

Wild garlic and wild onion are serious perennial weeds found in many lawn and highway turf areas over the eastern half of the United States. Both weeds reproduce by aerial bulblets and underground offset bulbs. Wild garlic presents a special problem by producing both hard- and soft-coated bulbs. Some of the hard-coated bulbs remain dormant as much as three years in the soil.

Wild garlic shoots emerge in the fall but usually remain small for several months as winter arrives. Each bulb produces one stem which may have a leaf arising from the lower part of the stem. Leaves are round, hollow and grooved. Wild onion, on the other hand, often has two leaves arising from the bulb. They are flat and have a pithy center.

In established turf, wild garlic shoots develop from bulbs as deep as four inches in the soil. For controlling onion or garlic in such areas, postemergence treatments with herbicides are usually necessary. Since some of the wild garlic bulbs remain dormant for extended periods and will sprout over a period of years, repeated treatments are required for good control.

In most areas the overwintering small shoots begin rapid development in March and eventually mature losing their vigorous growth rate by mid-June. The best time to apply herbicides for onion and garlic is in late fall and early spring. Treatments should be repeated twice each year, once on the small shoots in November and again as growth begins in March.

In experiments conducted in Virginia, a new herbicide, dicamba, and a new formulation of two older phenoxy herbicides have been compared to recognized standard treatments such as the low volatile ester of 2,4-D and maleic hydrazide. The oil soluble or water emulsifiable amine formulation (oleyl-1, 3-propylenediamine salt, or OPDS) of 2,4-D has the added safety features. Both of these phenoxy formulations are low in volatility but the OPDS form is the least volatile of the phenoxy compounds at 145°F. Soil surfaces facing the sun do reach this temperature in summer in Virginia and other areas further south.

An established bermudagrass turf area in Richmond, Virginia was selected for this experiment. Wild garlic shoots numbered about 40 per square foot and were in clumps ranging from 7 to 26 each. The treatments were applied in November and repeated in March each year.

All of the treatments used resulted in some degree of control of wild garlic and also other weeds present in the area. At least three applications of either 2,4-D (ester), 2,4-D (OPDS), dicamba, or maleic hydrazide were required to reduce bulb populations in the soil by 99%. Silvex (OPDS) gave only 84% control and appeared to be less effective than other treatments.

The response of bermudagrass turf to repeated treatments of these herbicides was very favorable. By effectively removing wild garlic and other weed competition, bermudagrass just about doubled its weight per unit area. The quality as well as quantity of turf plants was thus improved.



WILD ONION