WHAT'S NEW IN TURF WEED CONTROL

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Soils are generally full of dormant weed seeds waiting for the proper conditions for germination or sprouting in the case of buds, tubers, and underground parts of perennial weeds. A dense healthy stand of turfgrass is the most satisfactory method of controlling many weeds.

Most turf weeds can be selectively controlled with the exception of some of the perennial grasses or sedges. These perennial problems require either spot treatment with nonselective herbicides or complete reestablishment of the turfgrass. The purpose of this paper is to illustrate the current trends and ideas in turf weed control.

Broadleaf Weeds

Broadleaf weeds are still readily controlled with the proper application of the phenoxyhherbicides (Silvex, 2, 4-D, or MCPP). The effectiveness of these related herbicides varies on any certain weed species. For example, silvex is more effective than 2, 4-D for the control of creeping charlie, chickweed, or yellow woodsorrel. In addition, these herbicides vary in toxicity to various turfgrass species during the ye ar. Awareness of these differences are of importance for broadleaf weed control with phenoxys.

Dicamba can be used for hard-to-kill broadleaf weeds, however, it should be used only when phenoxy herbicides are not effective. Red sorrel, dog fennel, knotweed, and thistles may be examples of phenoxy resistant weeds. Dicamba should not be used near ornamentals, shrubs, and trees, as it can leach into the root zone and injury may result.

Annual Grasses

Annual grass control measures follow the previous familiar recommendations. A number of herbicides are available for crabgrass, foxtail, and goosegrass control. Proper selection of a herbicide for a particular turf species and timeliness of application are of major importance. For example, siduron offers early crabgrass control when applied at seeding. Bensulide and tricalcium arsenate may be used for annual bluegrass control.

Sedge Control

Multiple applications of DSMA as a postemergence spray is the current recommendation for yellow nutsedge control, but turf injury or browning may accompany these treatments.

Recent experimental herbicides may provide a means for selective yellow nutsedge control in turf. Greenhouse and field tests indicate that one to two postemergence treatments of Bentazon, an experimental herbicide, will

effectively control yellow nutsedge without injury to Kentucky bluegrass turf. Another potential for nutsedge control is the newly released herticide S-21634 which has a slow initial kill, but gives excellent control later in the season. As a result of our trials, we are optimistic about the future of selective yellow nutsedge control.

Perennial Grasses

These pests require nonselective herbicide treatment to actively growing plants and reestablishment of the desired turf species. Recommendations for the control of bentgrass, quackgrass, and tall fescue include the use of amitrol or dalapon. These herbicides have often required multiple treatments to obtain satisfactory control. In addition, reseeding should be delayed 4-8 weeks to insure that no herbicide residue remains and maximum herbicide translocation has occurred within plant. An experimental nonselective herbicide, glyphosate, offers excellent potential for quackgrass control without residual effects and delay in reseeding. Its rapid movement into rhizomes provides effective control. Turf reestablishment may be initiated quickly because of the lack of soil residue.

Creeping bentgrass also requires nonselective control and reestablishment. Initial studies have indicated that creeping bentgrass may also be controlled effectively with glyphosate.

Recent Innovations

Drift, as a result of herticide usage, is often a problem. Foams or foaming agents are being evaluated and used to reduce the amount of total spray solution required, minimize drift, and act as a humectant, increasing the drying time of a herbicide spray.

Reduction in labor involvement would be an asset in weed control, therefore, labor-reducing techniques for reestablishment and renovation are being investigated.

In summary, most turf weed problems can be controlled. Selective control is still not in sight for the perennial grasses, and sedges. Although advancements are being made in this area with the development of new herbicides, which will offer additional control measures.