

applications needed but is restricted to higher mowed golf course areas such as fairways.

Diclofop-methyl (Hoelon or Illoxan) is also available for postemergence goosegrass control with minimum applications required. This provides goosegrass control without the phytotoxicity often associated with other grass herbicides.

Postemergence sedge control is confined to 2,4-D, MSMA and most recently with bentazon and imazaquin. Repeat applications will be needed as the nutsedge plants mature.

In Florida, postemergence annual bluegrass and ryegrass clumps are controlled best by pronamide or simazine. Care must be taken not to treat desirable ryegrass turf or areas up-slope to the ryegrass because pronamide and simazine can move with water flow onto these areas. Use these products early in winter before seedhead formation begins, after which time, control efficacy is reduced. Metsulfuron may also control these clumps if treated early (before mid-February).

Selective control of perennial weeds such as torpedograss is currently available only with spot-treatment with glyphosate. Repeat applications of glyphosate will usually be required for complete weed eradication. Even if repeat applications are made, subsequent weed seed germination or weed introduction by man, animal, or the environment may result in reinfestation.

### PRECAUTIONARY STATEMENTS

When using any postemergence herbicide, certain precautions should be followed to minimize any problems. Treat the weeds when they are young (e.g., 2 to 4 leaf stage). Larger weeds require repeat applications. This will result in increased chance of

phytotoxicity and increased labor costs with added wear and tear on equipment. Treat when the weeds and preferably when the turf is actively growing and good soil moisture is present. Treating when the weed is actively growing results in better herbicide uptake and translocation, thus better efficacy. If weeds are treated after they begin to flower or produce seedheads, herbicide activity will be reduced and repeat applications will be necessary. If seedheads or flowers are present, mow the weeds as low as possible, wait several days until new regrowth is evident, and then make the herbicide application. Allowing weeds to produce seedheads may add to the soil's weed seed reserve, therefore, mowing or herbicide treatments should be in advance to seedhead development.

An adjuvant in terms of a surfactant, wetting agent, or crop oil concentrate is generally needed by most postemergence herbicides. The label should be consulted, however, as many postemergence herbicides already contain them. A compatibility test should be made of the proper ratio of the two products to be tank mixed prior to their application. This will ensure the products will stay in proper suspension and not precipitate out.

All chemicals mentioned are for reference only. Not all are available for turf use and may be restricted by some state, provinces, or federal agencies; thus, be sure to check the status of the pesticide being considered for use. Always read and follow the manufacturer's label as registered under the Federal Insecticide, Fungicide, and Rodenticide Act. Mention of a proprietary product does not constitute a guarantee or warranty of the product by the authors or the publishers and does not imply approval to the exclusion of other products that also may be suitable.

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