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UNIVERSITY OF FLORIDA

Florida Cooperative Extension Service

Circular 1113
July 1993

Weed Control Overview[1]

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Choosing a complete and effective weed control program involves many considerations before initiation. Proper turf management in terms of mowing height and frequency, watering, fertilization, aerification, etc., must be adjusted and incorporated to encourage proper and competitive turfgrass growth and development. This will naturally suppress weeds. If proper cultural practices are not followed, the turf will weaken and allow weeds to become established.

The second step is to identify the weeds and their approximate distribution on a golf course. Maps outlining specific locations and identification of specific weeds might allow the superintendent to spot treat versus treating "wall-to-wall." This not only saves time and money, it reduces the amount of herbicide applied.

Next, the superintendent must decide what specific herbicide(s) they can afford and which herbicides will provide adequate control. This publication, local or state Cooperative Extension Service personnel, as well as experience from colleagues, will help provide valuable information on herbicides and their expected performance under local conditions. Herbicide salespersons can also be an excellent source of information of their respective company's products. It is suggested that all of these information sources be explored during the planning session.

Superintendents must decide if a pre- or post-emergence herbicide, or a combination of both will be necessary. Some superintendents prefer using preemergence herbicides exclusively to avoid having weeds visible to their members, or to avoid potential turf phytotoxicity that can be associated with postemergence herbicide use. However, others prefer using only postemergence herbicides to minimize any potential rooting inhibition associated with some preemergence herbicides. Success, especially in the initial weed management program, will probably require a combination of both types of herbicides.

Pre-plant fumigation is highly recommended in the initial construction of a golf course. The use of methyl bromide is preferred followed by metham (or metam-sodium). Non-selective pre-plant weed control can be achieved by multiple (2 to 3) applications of glyphosate. This, however, does not control nongerminated seed or other pests located in the soil and it requires a extended period of time to become fully effective.

PREEMERGENCE HERBICIDES

Preemergence control of newly sprigged or sodded areas with minimum turf damage is best achieved with products containing oxadiazon (Ronstar). Oxadiazon provides good annual grass weed control. Simazine also may be used at low rates (0.5 to 1.0 lb ai/A) for broadleaf weed control in this situation. If used, apply these materials immediately following sprigging or sodding and irrigate with 1/4 to 1/2 inch of water. Members of the dinitroaniline herbicide family (e.g., oryzalin, benefin, prodiamine, or pendimethalin) should not be used until the turfgrass is fully established.

1. This document is Circular 1113, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Publication date: July 1993.

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