CONTROL OF CREEPING BENTGRASS IN TURFGRASS

Creeping speedwell (**Veronica filiformis**) has recently become an important lawn pest because it is competitive in well-maintained, irrigated lawns and golf courses. While its spread is more rapid in shade, it can survive and spread in sunny areas as well. Creeping speedwell spreads by both seed and vegetative parts. During cool weather of spring and fall, cuttings are dragged by the mower to new sites where they easily root when in contact with the soil.

Creeping speedwell was introduced into the United States as early as 1930 as a rock garden plant because it had an attractive blue and white flower. Subsequently, it escaped into adjacent lawns. Although a somewhat localized problem, it is considered serious because of (1) its disease susceptibility, (2) lack of tolerance to extreme environments, and (3) general disruption of lawn uniformity. Most major metropolitan areas have at least one older subdivison densely infested with creeping speedwell. Often the origin of the weed in a locale can be traced back to a single homeowner who imported the weed.

Creeping speedwell is tolerant of 2,4-D, and has varying degrees of tolerance to silvex, MCPP and dicamba. In the 1950's, 1 pound per acre of endothall was found to control creeping speedwell. Higher rates were too toxic to desirable grasses while lower rates were not effective in controlling the weed. However, endothall treated areas were often reinfested within two years.

Since creeping speedwell may cover 80 to 90 percent of the area, chemical control measures must include methods to reestablish desirable turfgrass species. Recently, Dacthal (DCPA), Roundup (glyphosate) and Atrinal (HLR Sciences) have been found to effectively control creeping speedwell.

If site examination indicates insufficient desirable turfgrasses present for reestablishment, Roundup can kill both creeping speedwell and turfgrasses, but will allow reseeding of the treated area soon after application.

Atrinal has been used as an experimental chemical growth retardant of turfgrasses as well as for selective control of creeping speedwell. In areas where creeping speedwell covers 80 percent or more of the surface, Atrinal inhibits rather than encourages remaining turfgrasses to fill in areas left vacant by the pest. Thus the role of Atrinal in controlling creeping speedwell would be in areas where pest density is 50% or less.

Dacthal is normally used as a pre-emergence herbicide for annual grasses. Surprisingly, it also is an effective herbicide in turfgrass for the selective post-emergence control of creeping speedwell. Dacthal is advantageous because it can kill creeping speedwell, prevent the establishment of annual grassy weeds, but allow perennial turfgrasses on the site to grow and spread throughout the treated area. Chemical treatment of creeping speedwell is most effective when the plant is actively growing, usually in the spring or fall.

In research trials, granular formulations of Dacthal did not control creeping speedwell, indicating that Dacthal must be applied to and absorbed by the foliage. Both the wettable powder and the flowable formulations were effective.

Following application of Dacthal, the visual appearance of the lawn is improved. Creeping speedwell, normally yellow-green in color, will darken and blend better with the turfgrasses. This symptom remains for 4 to 5 weeks. At the end of that period the creeping speedwell begins to curl, wilt and disintegrate. At no time does the pest turn the yellow or brown color that is commonly associated with herbicide injury.

Dacthal applied on creeping speedwell at the recommended rate and time for pre-emergence crabgrass control in the spring has been found to control both pests very effectively. Fall treatments of Dacthal may not kill creeping speedwell until the following spring. The pest may still appear dark green and healthy at snowfall but will simply be non-existent after the snow melts. The fall treatment has been used very successfully on golf courses since at no time does the golfer notice adverse symptoms.

John E. Kaufmann
Michigan State University

Dear Ray:
I have just had the pleasure of reading your February 1983 issue of **The Bull Sheet.**
You put out a terrific publication! It is truly attractive and packed with information pertaining to golf course maintenance and golf course development.
It occurred to me you might be interested in my comments concerning golf course development in 1983 - see page 9 in the enclosed January issue of NGF's Golf Market Report. You are free to use any part or all of it if you so desire in **The Bull Sheet.**
Hardly a day passes that I don't receive calls or letters requesting assistance in golf course development.
Enclosed are copies of NGF Information Sheets GC-1, GC-2 and GC-34 which I send gratis to everyone asking for assistance in building a golf course. Thought this might be of interest to you.
Keep up the good work Ray. It's been much too long since we have had a visit.

Harry C. Eckhoff, Director
Golf Facility Development
National Golf Foundation