

Compost and Dollar Spot Control

Increased pressure on local and state governments is resulting in continued regulation of pesticide application. A recent ordinance was passed in the Canadian Province of Quebec banning the use of 30 pesticides on public and private land. It follows then that some important research on alternative to chemical controls is being conducted in Canada.

Work conducted by Professor Greg Boland at Guelph University in Ontario investigated the effect of compost on dollar spot. A creeping bentgrass area was managed to putting green conditions. A variety of compost products were produced and applied at various frequencies. Composts contained horse, chicken and paunch (remains of animal gut) manure, bone meal ash, bark mix, soybean meal and in some cases milorganite.

The results indicated that the high rate of compost (10 lbs/1000 ft²) applied every 3 weeks obtained equal to the control of the low rate of chlorothalonil (Daconil). There is speculation that control is derived from increases in microbial activity and/or nutritional contribution from the compost. The authors conclude that while compost applications are a viable means of suppressing dollar spot on putting greens, they are not likely to replace commercial fungicides. Clearly there is a good opportunity to reduce pesticide use from compost, yet not all composts are effective at suppressing the disease. Finding the right source of material and making timely applications are still critical for success.

From: Boulter, J.I., G.J. Boland, and J.T. Trevors. 2002. Evaluation of composts for suppression of dollar spot of turfgrass. Plant Disease 86:405-410.

Biological Control of Dandelion

The most difficult area of pest management for the use of biological control has been for weed management. Historically, the use of an organism (insect or microbe) while effective under laboratory conditions fails in the field. Again, Canadian leadership is being supplied in this area in Professor Greg Boland's program.

Boland and co-workers have been working on a *Sclerotinia* for dandelion control. The study investigated the effect of inoculated barley grit and dandelion (20,40 or 60g / m²), treated or not with 2,4-D. Twenty eight days after inoculation the high rate of *Sclerotinia* provided as much control as any of the inoculations plus a sequential 2,4-D application. There was also a synergistic effect of the two applied together that would allow for significant reduction in 2,4-D use.

While these are exciting results and offer great promise, again it is unlikely that it will completely replace commercial herbicides in the short term. However, the possibility of significant pesticide reduction is very real and will be an excellent step towards large scale reductions through a more integrated approach.

From: Schnick, P.J., S.M. Stewart-Wade, G.J. Boland. 2002. 2,4-D and Sclerotinia minor to control common dandelion. Weed Science 50:173-178.

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Scanning the Journals

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