Phoma macrostoma: update on the new turfgrass bioherbicide

For several years, the fungus Phoma macrostoma has undergone extensive evaluation by Agriculture & Agri-Food Canada and The Scotts Company to see if a bioherbicide could be developed to control broadleaved weeds in turfgrass. In 2009, the summer issue of Sports Turf Manager reported on its discovery as a potential bioherbicide, and some of the research demonstrating its efficacy and crop safety.

Last June (2011), the Pest Management Regulatory Agency approved a conditional registration for Phoma macrostoma to be used domestically and commercially for control and/or suppression of weeds such as dandelion, scentless chamomile, English daisy, white clover, black medic, Canada thistle, chickweed, broadleaf plantain, and ragweed. The bioherbicide may be applied at the same time as commercial granular fertilizers which may result in a 10-15% enhancement in weed control.

Continuing research has expanded our knowledge of how the bioherbicide will perform in the field. Studies have shown that extreme moisture events around application will reduce the level of weed control attained, especially on sandy soils. The bioherbicide may be applied at the same time as commercial granular fertilizers which may result in a 10-15% enhancement in weed control.

Currently, Phoma macrostoma is undergoing scale-up development to be able to efficiently produce commercial quantities, thus a commercial launch is still a few years away.

K.L. Bailey is with Agriculture & Agri-Food Canada, Saskatoon, SK. S. Falk is with The Scotts Company, Marysville, OH.

Additional Reading


Editor’s Note: The referenced article in the Summer 2009 issue of Sports Turf Manager may be accessed online at www.sportsturfmanager.com/Publications/SportsTurfManager/Archive.