

Trade Show Presentation: Breakthrough in Managing the Pacific Shoot Gall Disease in Annual Bluegrass

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Introduction:

The Pacific shoot-gall nematode, *Anguina pacifica*, parasitizes annual bluegrass (*Poa annua*) on golf putting greens along the northern California coast. They induce cavity-containing galls at the bottom of *Poa* shoots. Mature galls harbor eggs, juveniles, and adults of the nematode. The disease stunts the shoots, resulting in severe stand thinning and poor putting quality. Currently, no effective remedy is available in California.

Research Accomplishments:

During 2014-2017 we tested a couple of new development products with nematicidal activity at several severely *A. pacifica*-infested golf courses. The experimental design was a complete randomized block of 4 x 6 ft plots with 4 replications. The various treatment regimes were compared to the local standard of Neemix 4.5 (a.i. azadirachtin, 9 oz/1000 ft², twice a month) and a non-treated control. Fluopyram (0.195 or 0.39 oz/1000 ft², once or twice/yr) improved turf appearance within 6-8 weeks as new *Poa* shoot growth was almost gall-free contrary to Neemix-treated plots and the non-treated control. We hypothesize that fluopyram forms a long-lasting protective barrier on *Poa* stem bases as it had little effect on soil dwelling nematodes. Fluopyram is registered with the federal EPA as Indemnify® for use in turf. More recently we have discovered that abamectin (Divanem™ from Syngenta) also provides improved turf quality under *Anguina* nematode pressure. Research is ongoing and registration of both nematicides in California is pending.

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