Evaluation of PROMAX® and ZAP® on Stunt Nematodes in Turf

Research Report

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Full research report available upon request

Objectives

This study aims to assess the efficacy of Huma Gro® Turf PROMAX® followed by ZAP® to control stunt nematodes (*Tylenchorhynchus*) on turf.

Materials and Methods

The golf green for this study was approximately 59 years old, with a mixture of annual bluegrass and creeping bentgrass. It was located in Westfield Massachusetts and had a history of moderately high populations of stunt nematodes. The analysis of the top 4 inches of soil resulted in 86.4% sand, 10.3% silt, and 0.002% clay, which classifies this soil as a loamy sand.

PROMAX® was applied five times at two-week intervals, on May 21, June 2, June 17, June 29, and July 7. ZAP® was also applied on June 29. The treatments were applied to six randomized plots (6' x 6') with six non-treated controls (Figure 1). For each plot, PROMAX® (and later, ZAP®) was applied in two gallons of water using a watering can. Each plot received the equivalent of two gallon/acre PROMAX® (and later, ZAP®). Following the application, approximately 0.22 inches of water were applied to the plots.

For nematode evaluations, 10 cores were taken from each plot and bulked as one sample per plot. Nematodes were recovered by wet sieving/sugar flotation and identified to genus. Nematode assays were carried out on April 29, Jun 3, July 1, and August 4. The data were subjected to analysis of variance and a test of least significant difference (LSD).

Conclusion

Huma Gro® Turf PROMAX® followed by ZAP® significantly controlled stunt nematodes (*Tylenchorhynchus*) on turf.

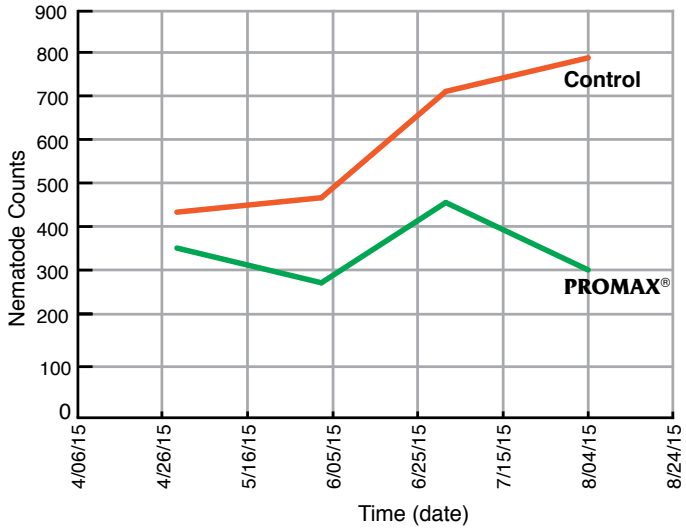

Figure 1. The effect of PROMAX® on stunt nematodes.

Figure 2. Study plots treated with PROMAX®, followed by ZAP®.

Huma Gro® Turf PROMAX® is an organic-listed, EPA-exempt biopesticide that controls harmful soil-borne diseases and plant parasitic nematodes through contact. Additionally, PROMAX® enhances root growth and, as a result, reduces susceptibility to secondary root infection.

ZAP® is an organic-acid-based formulation for the treatment of unhealthy soil conditions through improved beneficial soil biological balance. ZAP® promotes a strong, healthy soil biology resulting in the natural management of soil pathogens and parasitic nematodes.

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