Promax® Controls Nematodes for English Boxwood Ornamental Plants

Field Trial

Virginia Tech Kentland Experimental Research Farm, McCoy, Va.

The original report is available on request.

Objective

This two-year trial aimed to assess the suppression effects of PROMAX® and 2 types of beneficial nematode treatments (*S. feltiae* and *S. riobrave)* versus a control on plant-parasitic nematodes (Stunt, Lance, Ring, and Spiral) for English Boxwood (*Buxus sempervirens* L. var. *suffruticosa*) ornamental plants.

Materials and Methods

Each experimental unit consisted of 2 English Boxwood plants with a Wheeling silt loam soil type (20% sand, 64% silt, 16% clay). Each experimental unit (16 total boxes) was separated from the next by at least 1 untreated boxwood plant. Soil samples (15–20 cores) from the boxwood plants were recorded before the treatment and at 7 and 30 days after one treatment was given. Treatments with *S. feltiae* and *S. riobrave* were accomplished by applying infective juveniles at a rate of 1.0 billion per acre (2.5 billion per hectare). PROMAX® was applied at a rate of 1 gallon per acre (10 liters per hectare).

Nematode species were identified and counted after each soil sample was taken. Species identified for this study were as follows: Stunt (*Tylenchorhynshus* sp.), Lance (*Hoplolaimus* sp.), Ring (*Mesocriconema* sp.), and Spiral (*Rotylenchus buxophilus*). The following year, the experiment was repeated with a second round of treatments and calculations of the nematode population percentages.

Results

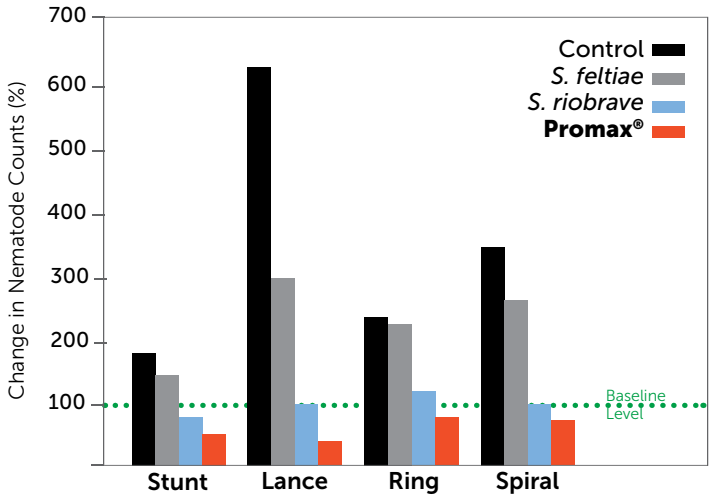

Figure 1. Year 1 Percentage Change in Nematode Counts for English Boxwood Plants, 30 Days After Treatment, Control and 3 Treatment Types for 4 Nematode Types

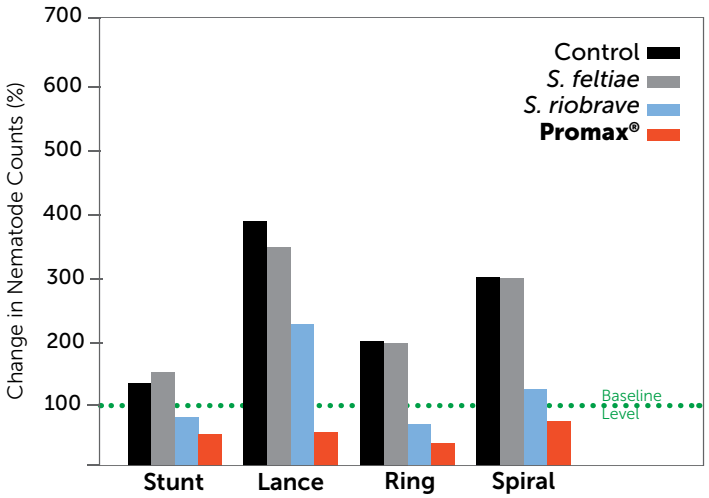

Figure 2. Year 2 Percentage Change in Nematode Counts for English Boxwood Plants, 30 Days After Treatment, Control and 3 Treatment Types for 4 Nematode Types

Conclusion

The results reported in this trial demonstrate that application of 1 treatment of the nematicide PROMAX® reduced population percentages of the 4 plant-parasitic nematodes studied ***at both 7 days and 30 days post-treatment in years 1 and 2, with PROMAX® being more effective*** than the other 2 treatments studied for both time periods. This is an indication that PROMAX® suppresses nematodes by killing them on contact.

Repeated applications may be required to achieve suppression for periods longer than 30 days.

Product Description

PROMAX® is an organic, OMRI-listed, EPA-exempt broad-spectrum soil fungicide and nematicide. It is a protective and curative pesticide recommended for control of plant parasitic nematodes and soil-borne diseases. The mode of action is as a contact killer. There is no restricted use. Additionally, PROMAX® enhances root growth and, as a result, reduces susceptibility to secondary root infection.

For best results, 7–10 days after the final PROMAX® treatment is completed, Huma Gro® recommends applying ZAP® at 1 gal/acre (10 liters/hectare) for the stimulation of beneficial soil biology.

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