

NEMATODES

SCIENTIFIC JOURNAL FOR TURFGRASS DISEASES

CHARACTERISTICS

Nematodes are microscopic roundworms living in the soil and feeding on the roots of grasses and other plants. Most species of nematodes are harmless to grass since they feed upon decaying organic matter and other soil organisms. A few of the nematodes are beneficial to grass since they are parasitic to grass feeding organisms. Nematodes that cause problems for grasses do so by penetrating into grass roots or sucking sap from the root surface with a spear like stylet. In addition to the damage caused by their feeding, the wounds they leave in root tissue provide an entry for parasitic fungi. Nematodes overwinter in soil debris or within living roots as eggs, cysts or larva. When the soil warms in the spring they become active and begin feeding on plant roots. Most species have a life cycle of 30 to 60 days. Nematodes can move on their own up to 2 to 3 feet a year, but are more rapidly spread by the movement of soil.



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NEMATODE PHOTOS



Ring Nematode



Root Knot Nematode



SYMPTOMS OF INFECTION

Nematode-infested turf appears off-color and stunted and generally lacks vigor. Such symptoms occur in spotty, irregular patterns in the turf. During stress periods such as drought, infested areas are the first to show injury - wilting, discoloration, and thinning. The severity of injury varies within the species and population of nematodes. Such symptoms are frequently mistaken for drought, nutrient deficiency, soil compaction or pest problems. However, nematode-infested turf does not respond as readily to water and fertilizer as turf stressed by drought. Also, turf damaged by nematodes usually has short, stubby roots that appear dark brown instead of white. Positive identification of parasitic nematodes requires microscopic examination by a competent laboratory. Soil samples for nematode analysis should be taken from the top 3 to 4 inches of soil when moisture conditions are good. Dry soils should be irrigated several days prior to sampling.

RECOMMENDATION

Apply 160 pounds of NemaGuard 4-0-0 per acre of turf. (4 lbs per 1000 sq ft) Reapply 160 pounds of NemaGuard in 60 days.