Department of Entomology
MICHIGAN STATE UNIVERSITY

PhD Position in Applied Nematology

Best Management Practices for Root Knot Nematode (*Meloidogyne hapla*), and other economically important plant-parasites, in Daylily (*Hemerocallis* spp.) Production

Location:
Applied Nematology Laboratory
Department of Entomology, Michigan State University, E. Lansing, Michigan

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Background: Bare-root production of *Hemerocallis*, daylilies, is of major economic importance among Michigan's ornamental industry. Production of clean nursery plant material can be a challenge for bare-root ornamental crops grown under field conditions due to the occurrence of plant-parasitic nematodes. Root knot nematodes (*Meloidogyne* spp.) in particular are an important challenge to *Hemerocallis* production, while populations of Pin (*Paratylenchus* spp.) and Stunt (*Tylenchorhynchus* spp.) nematodes can become damaging when in high abundance. Field trials have been established by the Applied Nematology team at Michigan State University with the objective to establish effective management strategies during field production of *Hemerocallis* in each year of development (three years total), by examining alternatives to fumigation in an effort to reduce nematode populations. Through a combination of greenhouse and field investigations, chemical and biologically-based nematicides, as well as other alternative strategies, will be evaluated for their effects on beneficial and plant-parasitic nematode populations, soil health, and crop yield. The successful applicant will be required to submit an application the Graduate School and be accepted into our graduate program.