

Nematode Assay Service 2007 Report
Cooperative Extension Service
Department of Plant and Soil Science
University of Delaware

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The Nematode Assay Service (NAS) at the University is housed in the Department of Plant and Soil Sciences, and is located in Room 151 Townsend Hall. The NAS provides nematode identification and enumeration for soil and plant samples submitted by consultants, growers, researchers, and the gardening public. The NAS provides this service to residents of Delaware and the surrounding states. The clinic operates with two staff, the Extension Plant Pathologist and the Plant Diagnostician, Nancy Gregory, who prepares samples for reading and does soybean cyst egg counts. Currently our fee structure is \$10.00 for either a full larvae screen or soybean cyst nematode (SCN) egg count for both in-state and out-of-state clients.

In addition to our regular soil and root extractions of nematodes, we provide race testing of the soybean cyst nematode, as well as foliar nematode, and pinewood nematode extractions from suspect plant parts.

In 2007, the NAS processed 342 samples, of which 170 were fee samples submitted for analysis. The remainder included 45 research samples, 12 USDA/APHIS CAPS survey samples for False Colombia root knot nematode in potatoes, and 115 USDA/APHIS CAPS survey samples for potato cyst nematode. Ten soil or plant samples came in through the Diagnostic Clinic routine sample queue and 5 (50 %) had damaging levels of plant parasitic nematodes, including pinewood nematode and soybean cyst nematode.

Of these 170 for fee samples submitted for analysis, the crop sources for these were:

Field crops	33	19 %
Fruit	102	60 %
Ornamentals	12	7 %
Vegetables	13	8 %
Turf or Marsh Grass	10	6 %

Twenty-seven (27) or 16% of the samples submitted had nematode levels that were determined to require some control measure.

Nematode species detected in numbers that required control were the soybean cyst nematode, *Heterodera glycines*; southern root knot nematode, *Meloidogyne incognita*; lesion nematode, *Pratylenchus penetrans*; and stubby root nematode, *Trichodorus* sp. Foliar nematode was confirmed for the first time on interrupted fern, *Scutellaria*, *Tiarella*, *Trillium* and *Actaea*. *Meloidogyne arenaria* was found in the soil of Traveler palms shipped to Longwood Gardens. Final reports were saved in a new fill-in pdf form that could be saved on the computer, and printed or e-mailed to the submitter. Control recommendations and fact sheets when appropriate, were included with the report to the submitter.