

Plant Nematode Sample Submission Form

Submit samples, form, and payment to:

Plant & Insect Diagnostic Clinic
 327 Bessey Hall
 Iowa State University
 Ames, IA 50011
 (515) 294-0581
 pidc@iastate.edu

For Office Use Only

Sample No. _____

Date Rec. _____

Please contact us about out-of-state samples

Fees:

| | |
|---------------------------------------|----------------|
| Soybean cyst nematode (SCN) egg count | \$20.00/sample |
| Nematodes on corn | \$35.00/sample |
| Other (i.e. vegetables, turfgrass) | \$35.00/sample |

| | Person Sending Sample – “Submitter” <i>Required</i> | Source or Origin of Sample – “Client” <i>Leave blank if same as submitter</i> |
|-----------------------|--|--|
| Date | Collected: | Sent: |
| Name | | |
| Affiliation | | |
| Address | | |
| City, State, Zip Code | | |
| County | | |
| Phone | | |
| Email* | | |

*Note: When both email addresses are provided, both the client and the submitter will receive the Clinic report.

| Field / Sample number | | | | |
|--|--|--|--|--|
| Current crop or plant | | | | |
| Test desired | <input type="checkbox"/> SCN <input type="checkbox"/> Nematodes on corn <input type="checkbox"/> Other | <input type="checkbox"/> SCN <input type="checkbox"/> Nematodes on corn <input type="checkbox"/> Other | <input type="checkbox"/> SCN <input type="checkbox"/> Nematodes on corn <input type="checkbox"/> Other | <input type="checkbox"/> SCN <input type="checkbox"/> Nematodes on corn <input type="checkbox"/> Other |
| THE FOLLOWING QUESTIONS ARE ONLY FOR SAMPLES OF NEMATODES ON CORN †The questions pertain to the area sampled † | | | | |
| Years corn grown (circle all that apply) | This year, last year, 2 years ago | This year, last year, 2 years ago | This year, last year, 2 years ago | This year, last year, 2 years ago |
| Soil texture > than 70% sand? | Yes <input type="checkbox"/> No <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| Is field irrigated? | Yes <input type="checkbox"/> No <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| Is field minimum or no till? | Yes <input type="checkbox"/> No <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| Are there stand establishment problems? | Yes <input type="checkbox"/> No <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| Is there compaction restricting root growth? | Yes <input type="checkbox"/> No <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> |

Nematode Soil Samples – Procedures

Soil samples should not be collected when the soil is wet or frozen.

Soybean cyst nematode (SCN) egg count

WHEN: In fall: after harvest and before the soil freezes. In spring: before planting, after the ground has thawed and drained. During growing season: from near stunted and/or yellow soybeans.

HOW: Collect a soil core or 1/4 cup of soil (a subsample) from ten to twenty different locations within an area no larger than 10 to 20 acres using a soil sampling probe, hand trowel, or shovel. Define the sampling areas within a field by agronomic, cropping history, or other logical features (see figure) or divide the field to be sampled into evenly sized areas if conditions are similar throughout the field. Take care not to sample only from “hot spots” or areas of severely damaged plants. Collect soil from the top 8 inches, directly in the root zone (if in season and soybeans are being grown). Combine all of the subsamples in a bucket and mix the soil thoroughly. From the mixed soil sample, place approximately 1 to 2 cups of soil into a plastic bag or paper soil test bag.

Nematodes on corn

WHEN: For fields with sandy soils (>70% sand content), soil samples should be collected in the spring, before planting, to check for the needle and sting nematodes. For all soils, if stunting, leaf yellowing, and/or mid-day wilting are observed during the growing season, samples should be collected, but only through the R3 corn growth stage (milk stage).

HOW: Collect 10 or more twelve-inch-deep soil cores from the root zone of unthrifty plants. Do not mix, break up, or otherwise disturb the soil cores. If before the V6 corn growth stage, also collect 5 to 10 root masses from plants; the tops of the plants can be cut off and discarded.

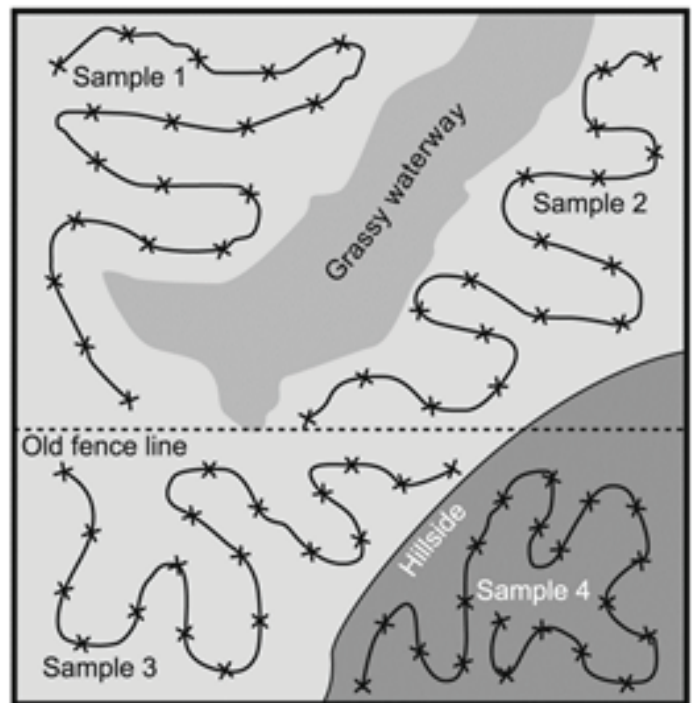
Nematodes on other plants (i.e. vegetables, turfgrass)

WHEN: Soil samples can be taken any time of the growing season, but the greatest numbers of nematodes are typically found around the roots of annual plants from mid-summer through fall.

HOW: Collect 10 to 20 twelve-inch-deep soil cores from the root zone of unthrifty plants. Do not mix, break up, or otherwise disturb the soil cores. Also collect some fibrous or feeder roots from the plants showing damage symptoms.

SHIPPING THE SAMPLES:

- Place each soil sample in a separate, sealed plastic or paper soil sample bag. If roots are being collected, place in a separate plastic bag. Use a permanent marker to label each bag with grower’s name and field name or sample number that corresponds to the information on the front of this form.
- Protect the samples from temperatures above 80 degrees.
- Do not be physically rough with the samples (by dropping or throwing them into a box or cooler, for example).
- Deliver or send the samples and payment for processing as quickly as possible; avoid shipping samples on Thursdays and Fridays so that samples do not sit in delivery trucks over the weekend.



Nematode soil sampling patterns for crop fields with unique features.

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