

Date: _____

Lab. Ref. No. _____

NEMATODE SAMPLE FORM

Submit samples and this form to:

**Nematology Laboratory, Department of Entomology, Purdue University,
901 W. State Street, Smith Hall, West Lafayette, IN 47907-1158**

See below for instructions on collecting and shipping samples for nematode Analyses. Consult extension publications E-79-W, E-210-W and E-215-W for additional information.

Submitter's Name and Address:

Grower's Name and Address:

county _____

county _____

Send results to: Submitter Grower

Send bill to: Submitter Grower

E-mail: _____
phone _____

E-mail: _____
phone _____

Sample information:

Sample #	Sample ID	Current crop	Target nematode	Comments
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

How to collect samples for diagnosis of plant parasitic nematodes

Soybean (Soybean cyst nematode):

To determine soil nematode field population levels, one quart of soil should be collected for every 10 acres. Place small quantities of soil, collected in a zig-zag pattern, in a bucket. Soil can be collected by using a sampling tube, trowel or small shovel. Soil should be obtained from the root zone, 4-6 inches, in a manner similar to that followed for soil fertility samples. If the accumulated volume of soil is greater than a quart, mix thoroughly and take a quart subsample for submission. It is sometimes possible to detect soybean cyst nematode (SCN) on roots early in the growing season. Later cysts fall off the roots and can be detected only by soil analysis. Observation of SCN on roots gives no information regarding population levels in soil.

Corn (Needle nematode):

In cool, wet springs, stunting of corn planted in light textured sandy soils may be caused by needle nematode. Nematode determinations for early season stunted corn should be collected before the weather turns hot. To determine whether needle nematodes are present, collect both **soil** and **roots** of stunted plants. Above ground portions of plants may be discarded. This procedure can be followed for other corn and non-cyst soybean nematodes.

Turf :

Soil and root samples must be collected randomly from the edge of area showing symptoms of nematode damage (random pattern of stunted, thined, yellowed and stressed turf) at about 4 inches deep.

Pine (Pinewood nematode):

Pinewood nematode causes a very rapid decline of pine. Needles, which are retained by dead trees, often have a tinge of green with a reddish brown cast to them. A sample of wood is needed to determine whether a pine tree has been killed by this nematode. A 6-8 inch long section of branch, at least 1-inch in diameter, taken from a location near the main trunk or several plugs of wood, taken with an increment borer from the trunk at breast height, are suitable for recovery of these nematodes.

House plants (Foliar nematodes):

If damage by foliar nematodes is suspected, collect both healthy and abnormal leaves and place them between dry paper towels for mailing. Keep samples separate and label with identification.

General comments:

For fields with plants showing symptoms of unthrifty or poor growth (in patches with stunting, yellowing, missing plants, etc.), it may be advisable to collect two soil samples, one sample from an area in which plants are not growing well and the other from an area of the field in which plants appear normal and healthy.

Place each soil sample, and roots if present, in a plastic bag and close the bag tightly. Put a label on the **outside** of each bag with the field name or sample description. If necessary,

enclose another sheet of paper with additional information about the nature of the problem. Keep samples cool; do not allow to dry out, and do not add water.

Shipping:

Put soil samples in airtight bags and label with permanent marker on **outside** of bag. Do not allow samples to sit in the sun or closed automobile on hot and sunny days. Mail in a sturdy box as soon as possible. Include the submission form with samples.

Results:

You should get results in 5-15 days depending on workload in the lab. If you have questions contact: Dr. Jamal Faghihi, Department of Entomology, Purdue University, West Lafayette, IN 47907-1158, telephone (765)494-5901

Charges:

A \$10 fee will be assessed for each sample. An extra \$10/sample will be charged if additional nematode procedure is requested (separate soil and root analysis).