Virginia Cooperative Extension
Virginia Tech • Virginia State University
www.ext.vt.edu

INSTRUCTIONS FOR SAMPLING AND SUBMITTING CROP NEMATODE SAMPLES

The quality of your nematode assay results depends on the quality of the samples submitted. Follow the instructions below for collecting and handling samples.

TYPES OF SAMPLES: Soil can be submitted for either a *diagnostic* or a *predictive* nematode assay. Diagnostic assays are performed with the purpose of identifying the cause of poor growth in the current crop. Predictive nematode assays are performed to determine the risk of next year's crop being impacted by nematodes. The processing of the two types of samples is identical, but procedures for sampling and interpretation of results differ. Instructions for collecting samples for the two types of assays are described below.

	DIAGNOSTIC	PREDICTIVE
WHEN TO SAMPLE	Collect samples when symptoms indicating a potential nematode problem are observed (e.g. patches of stunting or yellowing in the field).	For annual crops, sample in the late summer or early fall near harvest when nematode populations are at their highest.
HOW TO SAMPLE	Collect samples from areas with symptomatic plants, but DO NOT collect from areas where plants are dead or dying because these will not support high nematode populations (nematodes need a living host). For each sample, collect at least 20 soil cores at approximately a 6 inch depth. Submit a pint of soil. A second sample from a "good" part of the field should be collected and submitted for comparison. Submission of root/plant samples along with the soil is recommended since this will aid in an accurate diagnosis.	Collect samples when the soil is moist but not water logged. If the crop planted or agronomic practices vary throughout the field, collect a separate sample from each area. If a field has multiple soil types, take a separate sample from each soil type. Collect soil cores from throughout the field with a minimum of 20 composite soil cores per 10 acres. Collect samples in a zig-zag pattern from the root zone of the most recent crop. Thoroughly mix the composite sample in a plastic bucket, and put a pint of soil in a plastic bag for submission to the nematode lab.
HANDLING AND SUBMITTING SAMPLES	Place 1 pint of soil from each sample in a labelled plastic bag and seal the bag tightly. The not expose the samples to heat or freezing temperatures. Samples may be refrigerated up to a week prior to submission. Fill out the Nematode Assay Submission Form with all the required information and mail or hand deliver samples to the Virginia Tech Tidewater AREC Nematode Diagnostic Lab.	

QUESTIONS? Contact Dr. Hillary Mehl, Extension Field Crops Pathologist, hlmehl@vt.edu

NEMATODE ASSAY SUBMISSION FORM

Submit samples to the Virginia Tech Tidewater AREC Nematode Diagnostic Lab
6321 Holland Road, Suffolk, VA 23437
Phone: (757) 807-6557

SAMPLE INFORMATION	**SUBMITTER INFORMATION**	**GROWER INFORMATION**	**REPORT**
SAMPLED BY: ❑ Extension Agent ❑ Grower ❑ Other ❑ Consultant	NAME:	NAME:	SEND REULTS TO: ❑ Submitter ❑ Grower ❑ Other
SAMPLE DATE:	ADDRESS:	ADDRESS:	
TYPE OF ASSAY: ❑ Diagnostic ❑ Research ❑ Predictive	PHONE:	PHONE:	PREFERRED FORMAT: ❑ Email electronic report ❑ Mail hard copy
	EMAIL:	EMAIL:	

Sample #	Lab ID (leave blank)	Sample ID	Crop (variety if known)			Nematicide	Soil Type	Plant appearance (check all that apply										Symptom distribution		
								Above ground					Below ground (roots)							
			Current	Last year	To be grown next year	Indicate "none" or product used		Normal	Stunted	Yellow	Wilting	Dead	Normal	Galls	Rot	Branching	Stunted	Entire field	Localized	Scattered
1																				
2																				
3																				
4																				
5																				

Use additional sheets as needed.

Sample #	Lab ID (leave blank)	Sample ID	Crop (variety if known)			Nematicide	Soil Type	Plant appearance (check all that apply										Symptom distribution		
								Above ground					Below ground (roots)							
			Current	Last year	To be grown next year	Indicate "none" or product used		Normal	Stunted	Yellow	Wilting	Dead	Normal	Galls	Rot	Branching	Stunted	Entire field	Localized	Scattered