

Michigan State University

Diagnostic Services

578 Wilson Road
East Lansing, MI 48824-6469
Office: 517.355.4536
FAX: 517.432.0899
www.pestid.msu.edu



Lab Use Only

Case # _____
Date received _____
Amount paid _____
Check/receipt# _____
MSU account # _____
Diagnostic fee _____

Submitter

Name _____
Business _____
Address _____
City/State/Zip _____
Phone _____ FAX _____
Email address _____

Grower/MSUE/Other (if different than submitter)

Name _____
Business _____
Address _____
City/State/Zip _____
Phone _____ FAX _____
Email address _____

Send results to Submitter Grower/MSUE/Other

Send invoice to MI Wheat Program

County where sample was collected _____ **Sample reference** _____

Plant or sample type:

Describe symptoms or injury _____
When did symptoms first appear? _____

Plant parts affected

- Entire plant
- Leaves/needles
- Twigs/limbs
- Bud
- Trunk/stem
- Roots
- Fruit
- Flower

Type of planting

- Field
- Greenhouse
- Other _____
- Garden
- Nursery

Prevalence

- Entire planting
- Single area
- Few scattered plants
- Other _____

Soil type

- Sandy
- Muck
- Soilless media
- Clay
- Silt loam

Other background information

Age of plant _____ How many plants affected? _____
Planting date _____ How often watered? _____
Height of plant _____ Sunny or Shaded? _____

Chemical history – list fertilizer, herbicide, insecticide, fungicide, and PGR applications including date and rate used

Insect/Arthropod Samples

Where was the insect found? _____ What was the insect doing there? _____
How many insects are there? _____ Do you have young children living with you? _____

Plant/Weed ID Samples

Plant type

- Tree
- Shrub
- Vine
- Groundcover
- Herbaceous
- Grass

Plant size

Height _____
Width _____

Fruit

Color _____
Size _____
Month _____

Flowers

Color _____
Size _____

Plant Age

- Annual
- Perennial

For **diagnostic fee details** contact the lab or www.pestid.msu.edu

USE REVERSE SIDE TO PROVIDE ADDITIONAL INFORMATION

MSU-DS-Form-012-001 version 2.1

Collecting and Submitting Wheat Samples

The Michigan Wheat Program is providing funds for the diagnostic evaluation of wheat samples. Funds provided will cover general health analysis, where appropriate additional testing may include culturing for fungal and bacterial pathogens, virus testing, nematode analysis, nutrient testing, and detection and identification of insect pests. Below are instructions for sampling and submitting wheat samples in order to best take advantage of this opportunity.



Sample Collection

- Select plants that are symptomatic but not dead. Try to pick from the edge of the symptomatic areas in the field. Submitting plants that show a range or progression of symptoms is helpful.
- Send entire plants, including roots. Plants should be carefully dug, do not pull them out of the ground.
- Excess soil can be gently shaken off the root zone of the plants and put in a separate bag. This is a good way to collect soil for nematode analysis when a nematode problem is suspected.
- Send a minimum of 5-10 plants to ensure there is enough tissue for analysis.
- Wrap the plants in dry newspaper before putting them in a plastic bag; do not add moisture to the samples.
- Include samples of soil from both the “good” and “bad” areas of the field. Soil samples should contain approximately 4-5 cups of soil. Soil should be put in sealable plastic bags; please do not use paper bags.
- Keep the collected materials cool prior to shipping.

Insect Samples

- Kill and ship specimens in a small, leak proof container filled with white vinegar.
- Whenever possible, soft-bodied larvae should be lightly boiled for a few minutes before placing them in vinegar. This prevents the specimens from shriveling and becoming discolored, however this only works if the larvae are alive when placed in the boiling water.

Images

- If possible take pictures of the distribution of the symptoms in the field. These are very helpful to show stunting, poor stand issues, differences in color, etc.
- Images can be emailed to pestid@msu.edu or printed and included with the physical sample.

Paperwork

- Complete a copy of the MSU Diagnostic Submittal form. Copies are available online at: <http://tinyurl.com/czcgvy3> or www.pestid.msu.edu.
- Please be sure to include your email address or fax number - this will be used to communicate diagnostic results and related information.

Shipping

- Package the sample in a box; do not send samples in an envelope.
- Overnight or priority delivery is recommended. Do not ship samples on a Friday. Samples can also be delivered in person to the diagnostic lab. Ship samples to: Diagnostic Services, Michigan State University, 578 Wilson Road, East Lansing, MI 48824-6469.

Questions

- Contact the lab at 517-355-4536 or pestid@msu.edu.
- Martin Nagelkirk, Senior Wheat Extension Educator, 810-404-3400 or nagelkir@msu.edu
- Dennis Pennington, Wheat Systems Specialist, 269-838-8265 or pennin34@msu.edu