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MINNESOTA EXTENSION SERVICE

UNIVERSITY OF MINNESOTA  
COLLEGE OF AGRICULTURE

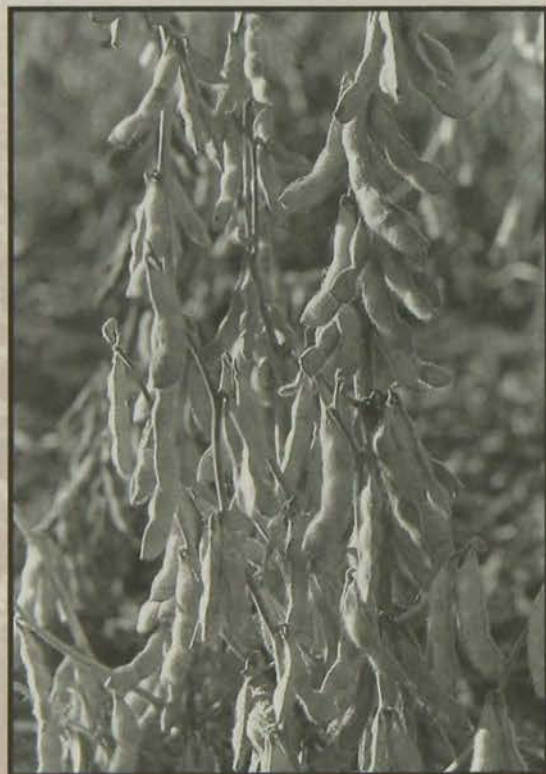
# PLANT DISEASE CLINIC



MI-3170-S  
Revised 1994

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Current information available from University of Minnesota Extension: <http://www.extension.umn.edu>

# The University of Minnesota's Plant Disease Clinic



provides prompt  
accurate information  
on plant diseases  
for commercial  
growers in  
Minnesota.

## SERVICES

## OFFERED

### ► Routine Diagnosis \$20

We provide routine diagnosis of samples that require traditional methods of symptom analysis, culturing, or microscopic examination. These include leaf spot and root rot diseases of field crops, trees, or greenhouse crops and diagnosis of oak wilt and Dutch elm disease.

### ► Nematode Analysis \$15

- Soybean cyst nematode (SCN) egg count
- Identification and count of plant parasitic nematodes for all commercial crops

### ► Virus Analysis

#### *ELISA testing* \$25

ELISA (enzyme-linked, immunosorbent assay) testing is done for these and other viruses:

- Tomato spotted wilt
- Barley yellow dwarf
- Impatiens necrotic spot
- Wheat streak mosaic
- Cucumber mosaic

#### *Other Viruses*

Other viruses may be identified using biological or serological techniques. Fees vary depending on the virus to be identified.

### ► Seed Quality Testing \$25

- **Wheat:** Identification of seed-borne pathogens causing scab and damping-off diseases
- **Soybean:** Phomopsis pod test
- **Corn and Grain:** Identification of storage molds

### ► *Verticillium* sp. Testing

- Pinch-squeeze test of potato stem tissue \$20
- Soil assay on potato and nursery crop soils \$25
- Culture of plant tissue \$25

### ► *Aphanomyces* sp. Testing \$125

This is a biological assay on sugarbeet soil for the presence of *Aphanomyces* sp. Soil samples should be collected after harvest and will be processed in the greenhouse during the winter months. Contact the Plant Disease Clinic for specific information.

For information on other tests, projects, or specific sampling requirements contact:

Plant Disease Clinic  
Department of Plant Pathology  
(612)625-1275

# HOW TO SUBMIT SAMPLES FOR DISEASE DIAGNOSIS

1

Collect living plants that exhibit varying stages of decline. Do **NOT** submit dead plants only.

2

For herbaceous plants, collect the entire plant, including as much of the root system as possible. Dig out (don't pull) several symptomatic plants and shake excess soil from roots. Bundle plants together and wrap roots *only* in a plastic bag. *Do not wrap stems in plastic.* Wrap the entire bundle of plants in newspaper and place it in a cardboard box.

3

For tree wilts, collect branches 1/2-inch to 1-inch in diameter from branches which are actively wilting, but not totally dead. Wrap in plastic to retain moisture.

4

For virus testing, collect symptomatic leaves, stems, or entire plants. Wrap in plastic. It is very important that these samples do not dry out during shipment.

5

For nematode analysis, ship in plastic bags and keep refrigerated until shipped. Specific guidelines for sample collection are available on request.

6

Submit a completed Information Request Form with each sample.

7

Ship samples immediately after collection.

8

Ship samples early in the week to insure fast delivery. Plant samples often decompose if left in the post office over the weekend.

9

Please submit payment with each sample. Make checks payable to the University of Minnesota.

10

Ship to:

**Plant Disease Clinic  
495 Borlaug Hall  
1991 Upper Buford Circle  
University of Minnesota  
St. Paul, MN 55108  
(612) 625-1275**

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