COLLECTING AND PREPARING SPECIMENS FOR MAILING:

1. Fill out the appropriate form as completely as possible. On the back of each form are directions for collecting the kind of sample that is needed for diagnosis.

2. Send generous amounts of material; wrap plant material in dry paper and enclose plant material in plastic bags; never add water to any sample. Never mix several host species or different problems in a single bag; do not have any loose soil in the bag with plant material. Never put the specimen form in the same bag as the plant material or soil.

3. Send specimens immediately after collecting. If holdover periods are encountered, refrigerate the specimen. Mail packages to arrive on weekdays rather than during the weekend.

4. Protect specimens from being crushed in the mail. Place insects in a vial with alcohol or insect preservative and send in a mailing tube. Collect at least two or three insect specimens from the same location. Do not place moths, butterflies or any adult insect with wings in alcohol. Place them in a killing jar and then transfer them to a small crushproof container for mailing. Mites, thrips and scale insects should be sent on the host plant material, packaged as you would diseased plants. If possible, small caterpillars, grubs and maggots should be sent live in a plastic bag with some of the host material.

5. If a general decline or dying of plants is observed, send whole plants showing early symptoms, with roots and adjacent soil intact. Dig plants up carefully - do not pull up. If a field crop, send several plants. Tie a plastic bag around the roots and soil to keep soil from deteriorating the foliage. If it is not possible to send whole plants, send a generous sample of above-ground portions showing early symptoms. For die-back and general decline, the lower stem and roots with attached soil are the most useful part of the plant. If it is not possible to send the lower stem, send at least a pint of soil and a good handful of small feeder roots. Do not allow the roots to dry out.

6. When localized infections such as cankers, leaf spots and rots are involved, send specimens representing early and moderate stages of the disease. Include healthy portions of the tissue from above and below the diseased area. Fleshy specimens should have a DRY paper towel in the plastic bag with the specimen, especially in hot weather. This will absorb any excess moisture. In hot weather, punch several holes in the plastic bag for ventilation. Fleshy fruit and vegetables should be wrapped separately. Paper towels are better wrappings, but brown paper and newspaper are good. Keep all specimens cool.

7. Soil collected for nematode analysis should be placed in a plastic bag and tied to keep from drying out. Special bags are available. Do not allow this soil to get hot, as this will affect the results of the nematode analysis. About a pint of soil is needed for the basic nematode test and about a half gallon of soil is needed for the soybean cyst nematode race determination test. See the back of Form 736 for sampling methods.

8. Weed specimens for identification should be complete plants which have leaves, stem, roots and either flowers or fruit. Wrap the roots and stem of the plant in a moist (not soaking wet) paper towel, then wrap loosely in a plastic bag and put in a box or padded envelope adequate to prevent crushing. Blot excess moisture from aquatic plants and wrap as above.

HANDLING FEES FOR SAMPLES:

1. Nematode Samples:

A. Basic soil sample - $5 each ($15 out-of-state). Nematodes will be extracted from the soil and/or root tissues and the populations of plant parasitic types will be determined to genus. Requires 1-2 weeks.

B. Soybean Cyst Nematode Race Determination - $15 each ($25 out-of-state). A determination of the race(s) of soybean cyst nematodes present in a soil sample will be determined by growing differential soybean varieties in soil samples in the greenhouse. Requires 60-80 days.

2. Fescue Endophyte Samples:

A. Tissue staining test - $15 each ($25 out-of-state). Tissue from a specified number of tillers will be stained and observed for the presence of the fungus endophyte. A percent of tillers infected will be determined. Requires 2-3 weeks.

B. Seed staining test - $15 each ($25 out-of-state). Freshly harvested seed will be stained and observed for the presence of the fungus endophyte. A percent of infected seed will be determined. Requires 2-3 weeks.

C. Seed grow-out test - $20 each ($30 out-of-state). Seed that is one year old or older will be planted in the greenhouse. Tissue from developing seedlings will be stained and observed for the presence of the fungus endophyte. A percent infection will be determined. Requires 14-16 weeks.

3. Weeds, Diseases and Insect Samples:

A. Diagnosis or Identification - Samples submitted by Extension staff. No charge.

B. Diagnosis or Identification - Samples submitted by persons other than Extension staff. Simple visual identification (including microscopic identification). No charge.

C. Diagnosis or Identification - Plant and pest samples requiring incubation, rearing,
isolation, culturing, virus tests, serological tests, host inoculation,

extensive keying for identification and/or other recognized laboratory and greenhouse procedures. Requires 1-3 weeks. $10 each ($20 out-of-state). Notice of charge will be given in advance of testing.

D. Contractual Agreement - Special arrangements will be required for individuals, consultants or commercial organizations requesting disease diagnoses or pest identification on large numbers of samples. Charge to be determined in advance.

Make All Checks Payable To:

THE UNIVERSITY OF TENNESSEE

SHIPPING INFORMATION:

All specimens should be mailed to:

UT Plant & Pest Diagnostic Center
5201 Marchant Drive
Nashville, TN 37211-5112

NOTE: Samples shipped other than by the U.S. Postal Service (via UPS or Federal Express) should be sent to a different zip code address: 5201 Marchant Drive, Nashville, TN 37220.

The Plant and Pest Diagnostic Center may be reached for questions about sampling or test results at (615) 832-6802 or by e-mail at tstebbin@utk.edu

Requests are often received for services that are not available at the Plant and Pest Diagnostic Center. Aflatoxin & Nitrate testing is available through:

C. E. Kord Animal Diagnostic Laboratory
P.O. Box 40627, Melrose Station
Nashville, TN 37204
(615) 837-5125

This testing service is available to Tennessee grower's at no charge.

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