

Instructions for Sample Collection and Submission of Suspect Soybean Rust

For cooperative extension agents, field scouts, crop consultants, or anyone conducting surveys of soybean rust on legume hosts, for sample submission to state or university diagnostic laboratories.

Place leaf, stem, or pod samples in a self locking plastic bag and store under cool conditions. Alternatively, samples that must be kept under ambient conditions should be sealed in a paper bag to prevent mold growth. Once they can be refrigerated the paper bag can be placed in a self-locking plastic bag. It would be helpful if leaves can be placed between paper towels or pieces of paper to keep them flat. Care should be taken to ensure the outside of the bags are not contaminated by the sample.

Record the collection information (date, exact location of the field and sample location within the field, county in which collected, host plant and collector's name and phone number) on a piece of paper included with the sample. If the collector has a copy of the PPQ form 391, the pertinent sections of that form should be completed and submitted with the specimen to the state or university diagnostic laboratory.

Submit the sample through the appropriate State Department of Agriculture's diagnostic service or the land grant university's diagnostic laboratory in the state in which the sample was collected. Do not send suspect samples directly to the USDA Beltsville laboratory. It is essential that samples be screened by the appropriate university or state department of agriculture diagnostic laboratory to determine whether the disease is soybean rust or a disease that is similar to but not soybean rust.

A list of university diagnostic laboratories is available at the American Phytopathological Societies directory website:

http://www.apsnet.org/directories/univ_diagnosticians.asp

State Department's of Agriculture contacts are available at the National Plant Board website:

<http://www.aphis.usda.gov/npb/npbmemb.html>

Diagnostic Laboratory Instructions

If university or state department's of agriculture laboratories determine the samples submitted to be *Phakopsora* spp. on soybean or another leguminous hosts, further identification to the species (*P. meibomia* or *P. pachyrhizi*) level will be necessary. There are no *Phakopsora* species on legume hosts recorded in the continental United States. A new *Phakopsora* record, because of its potential economic importance, will require verification by a USDA, APHIS National Mycologist in Beltsville, Maryland. Additionally, species determination based on urediniospores is only possible through polymerase chain reaction (PCR) procedures, the primers of which currently reside with USDA.

Diagnostic laboratories should contact Drs. Mary Palm (301) 504-5327 or John McKemy at (301) 504-5280 if a *Phakopsora* spp. on a legume host is found. At the same time, the State department of agriculture in the state detected should be contacted before samples are forwarded. After consultation with Drs. Palm or McKemy, samples should be properly secured, documented on the accompanying PPQ form 391 and sent overnight freight to:

Dr. Mary Palm
USDA, APHIS, PPQ
Bldg. 011A, Room 329, BARC-West
10300 Baltimore Blvd.
Beltsville, MD 20705-2350

Specimen Submission Form that must accompany specimens submitted to the USDA/APHIS National Mycologist.

This report is authorized by law (7 U.S.C. 147a). While you are not required to respond your cooperation is needed to make an accurate record of plant pest conditions.

FORM APPROVED
OMB NO. 0579-0010

U.S. DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTOR SERVICE SPECIMENS FOR DETERMINATION		Instructions: Type or print information requested. Press hard and print legibly when handwritten. Item 1 assign number for each collection beginning with year, followed by collector's initials and collector's number. Example (collector, John J. Dingle); 83-JJD-001. Pest Data Section - Complete Items 14, 15 and 16 or 19 or 20 and 21 as applicable. Complete items 17 and 18 if a trap was used.		FOR IIB/II USE LGT NO. PRIORITY	
1. COLLECTION NUMBER		2. DATE MO DA YR		3. SUBMITTING AGENCY <input type="checkbox"/> State <input type="checkbox"/> PPQ <input type="checkbox"/> Other	
4. NAME OF SENDER		INTERCEPTION SITE	5. TYPE OF PROPERTY (Farm, Feedmill, Nursery, etc.)		
6. ADDRESS OF SENDER			7. NAME AND ADDRESS OF PROPERTY OR OWNER		
ZIP			COUNTRY/ COUNTRY		
8. REASON FOR IDENTIFICATION ("X" ALL Applicable Items)					
A. <input type="checkbox"/> Biological Control (Target Pest Name)		E. <input type="checkbox"/> Livestock, Domestic Animal Pest			
B. <input type="checkbox"/> Damaging Crops/Plants		H. <input type="checkbox"/> Possible Immigrant (Explain in remarks)			
C. <input type="checkbox"/> Suspected Pest of Regulatory Concern (Explain in remarks)		J. <input type="checkbox"/> Survey (Explain in remarks)			
D. <input type="checkbox"/> Stored Product Pest		L. <input type="checkbox"/> Other (Explain in remarks)			
9. IF PROMPT OR URGENT IDENTIFICATION IS REQUESTED, PLEASE PROVIDE A BRIEF EXPLANATION UNDER "REMARKS".					
10. HOST INFORMATION			11. QUANTITY OF HOST		
NAME OF HOST (Scientific name when possible)			NUMBER OF ACRES/PLANTS	PLANTS AFFECTED (Insert figure & indicate number or percent) <input type="checkbox"/> Number <input type="checkbox"/> Percent	
12. PLANT DISTRIBUTION		13. PLANT PARTS AFFECTED			
<input type="checkbox"/> LIMITED		<input type="checkbox"/> Leaves, Upper Surface	<input type="checkbox"/> Trunk/Bark	<input type="checkbox"/> Bulbs, Tubers, Corms	<input type="checkbox"/> Seeds
<input type="checkbox"/> SCATTERED		<input type="checkbox"/> Leaves, Lower Surface	<input type="checkbox"/> Branches	<input type="checkbox"/> Buds	
<input type="checkbox"/> WIDESPREAD		<input type="checkbox"/> Petiole	<input type="checkbox"/> Growing Tips	<input type="checkbox"/> Flowers	
		<input type="checkbox"/> Stem	<input type="checkbox"/> Roots	<input type="checkbox"/> Fruits or Nuts	
14. PEST DISTRIBUTION		15. <input type="checkbox"/> INSECTS <input type="checkbox"/> NEMATODES <input type="checkbox"/> MOLLUSKS			
<input type="checkbox"/> FEW		NUMBER SUBMITTED	LARVAE	PUPAE	ADULTS
<input type="checkbox"/> COMMON		ALIVE		CAST SKINS	EGGS
<input type="checkbox"/> ABUNDANT		DEAD			NYPHPS
<input type="checkbox"/> EXTREME					JUVS.
					CYSTS
16. SAMPLING METHOD		17. TYPE OF TRAP AND LURE		18. TRAP NUMBER	
19. PLANT PATHOLOGY - PLANT SYMPTOMS ("X" one and describe symptoms) <input type="checkbox"/> ISOLATED <input type="checkbox"/> GENERAL					
20. WEED DENSITY		21. WEED GROWTH STAGE			
<input type="checkbox"/> FEW <input type="checkbox"/> SPOTTY <input type="checkbox"/> GENERAL		<input type="checkbox"/> SEEDLING <input type="checkbox"/> VEGETATIVE <input type="checkbox"/> FLOWERING/FRUITING <input type="checkbox"/> MATURE			
22. REMARKS					
23. TENTATIVE DETERMINATION					
24. DETERMINATION AND NOTES (Not for Field Use)					
					FOR IIB/II USE
					DATE RECEIVED
					NO. LABEL SORTED PREPARED
					DATE ACCEPTED
					RR