

## **Request for cereal rust observations and samples**

Cereal Disease Laboratory, USDA-ARS, St. Paul, MN

*(Please save this for future reference)*

### **Cooperators' assistance is critical to our work**

We depend on the assistance of our cooperators for cereal rust observations and samples (as well as other significant small grain disease observations). If you are able, please collect rust samples and send them to us. We sincerely thank all those who have assisted us in the past and hope the assistance continues this year and in the future.

### **Observations**

If you have information on the cereal rust situation in your area that you would be willing to share with the group, please email your observations to:

[CEREAL-RUST-SURVEY@LISTS.UMN.EDU](mailto:CEREAL-RUST-SURVEY@LISTS.UMN.EDU)

Or, to: Dr. Oluseyi Fajolu ([oluseyi.fajolu@usda.gov](mailto:oluseyi.fajolu@usda.gov))

*We would like to include your name and email address so others can contact you. **If, however, you prefer not having your name or email address appear with the information, please let us know when submitting your observations.***

### ***Information of most importance***

We welcome any information you can provide but are particularly interested in the following:

- Location (state, county, city)
- Rust (leaf rust, stem rust, stripe rust, crown rust)
- Host (wheat, barley, oat, grasses, etc.)
- Cultivar or line name if known
- Grain class if known
- Severity and prevalence
- Growth stage: when the rust likely arrived, when infection was first noted, and current growth stage
- Where rust is found on the plants, e.g., lower leaves, flag leaf, etc.

### **Guidelines for making cereal rust uredinial collections\*\***

Reports on the distribution of races of cereal rust fungi are an important part of our annual cereal rust surveys. We routinely collect and test isolates of stem rust (wheat, oat, and barley), wheat leaf rust, oat crown rust and barley leaf rust. We are most interested in small grain collections (wheat, barley, oat and rye), but are also interested in stem rust, leaf rust, and stripe rust collections from grasses, e.g.:

- Jointed goatgrass (*Aegilops cylindrica*)
- Ryegrasses (*Elymus* spp.)
- Wheatgrasses (*Elytrigia* spp.)
- Wild barleys (*Hordeum* spp.)
- Wild oat (*Avena fatua*)
- Common grasses, e.g., *Agropyron*, *Agrostis*, *Festuca*, *Leymus*, *Lolium*, *Phleum*, and *Psathyrostachys* spp.

*Images and descriptions of the above grass species can be found on the USDA Natural Resources Conservation Service's [PLANTS Database](#) website*

1. Rust pustules should be fresh and fully developed, except when this may not be possible, i.e., the first uredinial collections found early in the season.
2. When rusted small grain or grass plants are encountered, please cut 5 to 10 sections of plant stem (if possible, avoid including plant nodes as they do not readily air dry) or leaf, 4 inches long with large and small pustules and place in a regular paper mail envelope (**Please Do Not use plastic or waterproof envelopes**). Do not staple or tape the envelope; instead fold the flap shut.
3. Important information should be recorded for each collection, e.g., date, county, state, cultivar or line, crop stage, whether collection is from a nursery or commercial field, etc. Please use our data collection form ([standard pdf](#) or [fillable pdf](#)) if possible. If the grass genus or species is unknown to the collector, please send a head in a separate bag or envelope, indicating which collection it is associated with to aid in identification.
4. Please avoid exposing samples to direct sunlight or unusual heat of any kind, e.g. car dashboard, outside mailboxes, etc. Samples should be kept at room temperature for 2 – 3 days to allow the plant material to dry. Afterwards the samples should be placed in a cooler or refrigerator before they are mailed. Please do not keep samples in a freezer. The samples should be sent to us as soon as possible after the samples have dried.
5. Please promptly mail the envelope(s) with the appropriate collection form inside each envelope to this address:

Cereal Disease Laboratory, USDA-ARS  
1551 Lindig Street  
University of Minnesota  
St. Paul, Minnesota 55108

**\*\* Stripe rust collections should be sent by FedEx or UPS to:**

Dr. Xianming Chen USDA-ARS  
361 Johnson Hall Washington State University Pullman, WA 99164-6430  
By regular mail: Dr. Xianming Chen 361 Johnson Hall  
P.O. Box 646430 Washington State University Pullman, WA 99164-6430

*Note:* Stripe rust collections are vulnerable to heat and do not survive long at warm temperatures; therefore, if shipment of collections for race identification is delayed, their viability will be greatly reduced. An overnight courier service is preferred for sending stripe rust collections.

If you have any questions regarding stripe rust samples, contact Dr. Xianming Chen, Phone 509-335-8086; e-mail: [xianming@wsu.edu](mailto:xianming@wsu.edu) or [xianming.chen@ars.usda.gov](mailto:xianming.chen@ars.usda.gov)

**Thank you in advance for your assistance!**

**Current cereal rust situation**

For the latest cereal rust situation reports, please subscribe to the cereal rust survey listserv list\*.

Instructions can be found at:

<http://www.lsoft.com/scripts/wl.exe?SL1=CEREAL-RUST-SURVEY&H=LISTS.UMN.EDU>

Or, if you prefer, simply send a subscription request to Dr. Oluseyi Fajolu ([oluseyi.fajolu@usda.gov](mailto:oluseyi.fajolu@usda.gov)).

All messages sent to the list are archived on the CDL website:

<http://www.ars.usda.gov/Main/docs.htm?docid=9757>

\*The sole purpose of the Cereal Rust Survey listserv list is to provide a format for cereal researchers and extension personnel to share observations of cereal rusts and other cereal diseases. We make no warranty about any information shared on this listserv or its utility or applicability. Mention of any product, brand, or trademark does not imply endorsement or recommendation of that product, brand, or trademark by USDA-ARS, or any of the participants on this listserv. By enrolling on this listserv list, participants understand and agree to abide by these conditions.