

To: Participants in the 2022-2023 Maryland Wheat and Barley Variety Performance Trials

The five locations of wheat and two locations of barley are established for the yield trials each year. Tillage methods will reflect what is commonly performed on production farms near the plot locations. For the 2022-2023 season, a misted nursery will be grown and inoculated with fusarium head blight (scab), with assistance from Dr. Nidhi Rawat, plant pathologist at the University of Maryland. Results will include measurements of Fusarium damaged kernels (FDK), seed weight, and DON (at a USWBSI accredited testing facility). To replicate producer practices, seed weight and DON will be measured from samples taken from combine-harvested material. Analysis of DON takes significantly longer than the other measurements, so DON results will be posted after the initial results.

Above is the application form needed for submitting entries. To partially offset the expense of the wheat performance trials, a fee of \$600 per entry is charged to private companies. **A reduced fee for barley of \$300 per entry will be charged.** Data for all entries are published annually in Agronomy Facts Sheets posted on our web site: <https://psla.umd.edu/extension/md-crops/small-grains-maryland> as a pdf file.

All tests will be planted in a randomized complete block design with three replications. Entries will be evaluated in 7 row plots that are 18 feet in length and trimmed to 13 feet & 4 inches prior to harvest. A row spacing of 6 inches will be used. A seeding rate of 33 seeds per row foot will be used. All planting dates will be as close to the Hessian fly-free date as possible. Recommended fertility and pest control measures will be followed in the establishment and management of all tests. The following data will be collected on each entry: grain yield, test weight, heading date, moisture content at harvest, mature plant height, lodging, and occurrence and severity of disease. Currently, NOAA is forecasting a warmer planting season than the historic average, with average precipitation. That said, since we had good results with last year's planting rate of 1.8-million live seed per acre, we will repeat this for the 2022-2023 season. For interpretability, we anticipate keeping this seeding rate constant in future, unless conditions dictate another rate would provide better results. Further, we will attempt to begin planting by October 1, which is approximately six days earlier than what has been previously done. Hessian fly is a yield-impacting issue in less than 10% of years in Maryland, and should the 2022-2023 season be such a year, the increased seeding rate will compensate. It is understood that publication of data for entries tested does not imply approval or endorsement by the University of Maryland. Any reproduction of data from the above publication must cite the name, number, and date of the publication from which the data originated. Every possible effort will be made to plant, harvest, and summarize the results of each entry submitted. However, if unforeseen circumstances or weather conditions occur causing loss of the crop and data, no financial liability, including return of test fees, is either expressed or implied. For each wheat entry, 10 pounds of seed will be needed, for barley lines we would need 8 pounds of seeds per entry. There is room on the entry form that asks for type of seed treatment - please be sure to fill this out completely. If untreated seed is submitted, we will use our standard seed treatment. All seed should be shipped prepaid to the address on the entry form along with entry fee in form of a check. The application form and check for the required fees should be completed and returned no later than August 30th to the mailing address listed on the entry form. Likewise, all seed samples must be received no later than **Sept. 15th**. Earlier seed arrivals are appreciated. Thank you for participating in our small grain variety testing program. If you have any questions concerning the variety trials, or suggestions on how we may improve our trials, please feel free to contact Vijay Tiwari at 301-405-1730 or Louis Thorne, Small Grains Technician at (443) 605-5115.

Univ. of MD Variety Testing Webpage: <https://psla.umd.edu/extension/md-crops/small-grains-maryland>

Thank you for your support and interest in this program!