

Procedures and Guidelines University of Maryland 2023 Corn Hybrid Performance Tests

Objective:

To evaluate the agronomic performance of corn hybrids which are either currently available to growers or are being considered for sale to growers in Maryland and the Mid-Atlantic region.

1. Entries:

A company may enter as many hybrids as desired. Each hybrid entered will be tested in one of four maturity group tests based upon Corn Relative Maturity (CRM) information provided by the submitting company. In recent years, there has been an early-harvest price incentive generally for corn harvested prior to Labor Day. This prompted the addition of a very early test (hybrids ≤ 104 day CRM) during 2017 that will continue during 2023. In the event we do not receive enough very early hybrids, they will be grouped with the early hybrids.

Very early season	<104 day CRM
Early season	104 – 108 day CRM
Mid-season	109 – 112 day CRM
Full-season	>112 day CRM

2. Check Hybrids:

Producers desire the inclusion of popular, commonly grown hybrids that serve as check hybrids for the tests. A minimum of two hybrids meeting these criteria will be included in each maturity group test.

3. Location of Tests:

- Lower Eastern Shore Research and Education (R&E) Center-Poplar Hill, Quantico, MD
- Lower Eastern Shore R&E Center-Salisbury, Salisbury, MD (irrigated site)
- Wye Research and Education Center, Queenstown, MD
- Central Maryland R&E Center-Clarksville, Clarksville, MD
- Western Maryland R&E Center, Keedysville, MD

4. Field Plot Design and Management:

Each maturity group test at each location will have hybrids arranged in a randomized complete block experimental design with three replications. Each plot will consist of four, 30-inch rows that will be ~32 feet in length (~0.0073acre). The plots will be planted using a John Deere 1750 planter equipped with coulters and trash-wheels for no-till planting and modified planter units manufactured by Clewell Precision Machine, Inc., Milton, PA. Starter fertilizer units will supply liquid starter fertilizer (per product available at each research farm) in a 2X2 placement. The seeding rate will be ~32,000 seeds/acre (~36,000 seeds/acre for irrigated location). Standard recommendations for fertility and pest management practices will be used at each location. Planting date will be dependent upon weather but generally begins ~April 25 at the three Eastern Shore locations and is completed by May 15 at the two locations west of the Chesapeake Bay. The two center rows of each plot will be harvested with an Almaco R1 research plot combine equipped with a Seed Spector LRX system (Almaco Co., Nevada, IA) that records yield, grain moisture content and test weight on a Microsoft xTablet T1600.

5. Data Collection:

- Percent lodged plants at harvest
- Harvest population
- Grain moisture at harvest
- Yield in bushels per acre corrected to 15.5% moisture

6. Publication of Results:

All data will be published in Agronomy Facts No. 54 that is posted to the University of Maryland Cropping Systems web site:

www.psla.umd.edu/extension/md-crops

The publication of data for the entries does not imply approval or endorsement by the University of Maryland. Any reproduction of the data must give the name, number, and date of the Agronomy Facts from which the data originated. The University of Maryland strives to publish the results for the test no later than November 15.

7. Entry Fee:

A fee of **\$600 per entry** is charged for each hybrid submitted. This fee has increased slightly (20%) since 2022, to account for additional costs in fuel and personnel. This fee covers testing an entry at five location. Discounts based upon the total number of hybrids submitted to the test are available. The discounts are 5% for 6 – 10 entries and 10% if the entry total is 11 or more. Every possible effort will be made to plant, harvest, and summarize the results for each entry. However, if unforeseen circumstances or weather conditions cause loss of the crop and data, the University of Maryland will incur no financial liability including the reimbursement of test fees.

Send entry forms to one of the following:

E-mail (preferred) to both addresses

nfiorell@umd.edu

lthorne@umd.edu

Mail

Dr. Nicole Fiorellino

University of Maryland

Plant Science & Landscape Architecture

2124 Plant Science Building

4291 Fieldhouse Road

College Park, MD 20742

Upon receipt of your entry form, a digital invoice will emailed back to you with instructions for payment through UMD Financial Services, including credit card payment options. Initial vendor setup will require a copy of your company's W-9. This is now the preferred method of payment for UMD.

8. Quantity and Type of Seed Required:

Please submit a **minimum of 7000 seeds** per entry. Receiving less than this amount of seed per entry risks the possibility that there will not be enough seed to plant in all trials. ****New for 2023: In an attempt to standardize population, please provide us with large round seeds if possible.**

9. Method of Shipping Seed:

All seed should be shipped prepaid to:

Corn Hybrid Testing Program

ATTN: Louis Thorne

University of Maryland

1122 Research Greenhouse

4252 Terrapin Trail

College Park, MD 20742

Package tracking information can be forwarded to nfiorell@umd.edu or lthorne@umd.edu to ensure we can retrieve your package if it is not delivered correctly.

10. Closing Dates:

- **March 3, 2023 for submission of entry form**
- **March 10, 2023 for delivery of seed – any seed not received by this date may not be entered into the trials.**