**University of Maryland Soybean Variety Trials – Check Varieties**
Progress Report to Maryland Soybean Board
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## Project Objectives

The goal of this project is to provide Maryland producers with an unbiased comparison of soybean variety performance across the geographic and climatic regions of Maryland. These data can aid producers in soybean variety selection with the global goal of increasing producer profitability through increased yields.

## Progress of Work

The University of Maryland Soybean Variety trials have been completed for the 2022 growing season. Results of the trials can be found at the MD Crops page on the Department of Plant Science and Landscape Architecture website at https://psla.umd.edu/extension/md-crops. The Trials Center team, who performs the work, wrapped up harvest by late November this year and the report was compiled and published online by the beginning of December. This was the second year planting our trials with our refurbished no-till planter, which was modified and outfitted with a seed delivery system in 2021.

## Results

In the soybean variety trials results document, we present data separately by location of the trials and maturity group. The selection of a variety based solely on performance at one location is not recommended. It is better to select variety based upon performance over a number of locations and years, if possible. To compare the performance of each variety across the test locations, relative yield was included in the report. Relative yield is the ratio of the yield of a variety at a location to the mean yield of all the varieties at that location expressed in percentage. A variety that has a relative yield consistently greater than 100 across all testing locations is considered to have excellent stability. Of the MG 3 soybeans, four varieties in the full season test and six varieties in the double crop test had relative yield >100 at all locations in 2022. Two early MG 4 varieties in the full season test and three varieties in the double crop test had relative yield >100 at all locations, while of the late MG 4 varieties, four varieties in the full season test and 11 varieties in the double crop test met this standard. Finally, of the MG 5 varieties, three varieties in the full season and two varieties in the double crop tests met this standard.

## Benefits to Soybean Farmers

Soybean farmers need an unbiased source of performance data comparing commercially-available varieties to make decisions that maximize profitability on their operations. Moreover, it is important to evaluate seed varieties across the geographic and climatic regions of the state so farmers across the state can select varieties appropriate for their specific conditions as well as varieties with performance stability. As weather conditions continue to be unpredictable and variable, there is value in selecting soy varieties that perform well across variable conditions to minimize risk of profit loss.