



Mississippi Corn Promotion Board 2016 Progress Report

Project Title: Standardization of Mississippi Corn Hybrid Trials

PI: Brad Burgess

Department: Research Support

Project Summary (Issue/Response)



The 2016 Mississippi Corn for Grain Hybrid trials consisted of a total of 78 entries. These hybrids were supplied by fifteen participating companies or groups. These hybrids were grown in both irrigated and non-irrigated environments at multiple locations throughout the state. Each participating company was given the opportunity to submit their hybrid in either the irrigated test, non-irrigated test or both. During the 2016 season, the irrigated tests consisted of 77 of the 78 total hybrids. While the non-irrigated locations were made up of 62 hybrids from the total 78 entered in the Mississippi State Corn Hybrid OVT.

The 2016 growing season started off wet and planting was delayed at some locations due to these wet conditions. Conditions at the time of planting were ideal, but following planting some locations experienced heavy rainfall and cooler temperatures in the weeks following planting. The heavy rainfall resulted in temporary flooding soil saturation to the point that the Raymond location had to be destroyed, due to poor plant stands, causing substantial variability within the tests. The decision was made to attempt a replant at this location, as a result of the poor stands from the initial planting. The 2016 growing season was favorable for corn production, at most locations. Harvest was completed without any delays due to weather or equipment and on average, good yields were observed in 2016.



Project Results/Outcomes

The 2016 Corn for Grain Hybrid Trials were divided into irrigated and a non-irrigated tests. The irrigated corn locations consisted of 77 corn hybrid entries that were evaluated for their yield potential within five different environments throughout the state. The mean yields for these five locations ranged between 179.2 to 235.4 bushels per acre. The mean yield across all five locations for the irrigated trials was 214.6 bushels per acre. The irrigated corn hybrid trials have traditionally all been located in the delta region of the state; however, one of the irrigated locations was positioned in the Black Belt region of the state, near Macon, MS.

The non-irrigated locations consisted of 62 corn hybrid entries that were evaluated for their yield potential within four different environments throughout the Hill section of the state; however, yields were only reported from two of the four locations due to poor plant stands as a result of flooded conditions, following planting and stand variability due to wildlife feeding. The mean yields for the four non-irrigated locations ranged between 102.0 to 184.0 bushels per acre. The mean yield across all four of these non-irrigated locations was 128.9 bushels per acre.

Project Impacts/Benefits

The overall goal of this project was to evaluate multiple corn hybrids across multiple environments, both irrigated and non-irrigated to determine which ones have the greatest yield potential within the state of Mississippi. The benefit of these hybrid trials is to allow the producer to be able to view unbiased yield data of these various corn hybrids, supplied by multiple seed company participants. The results of these yield trials can have a tremendous impact on a producer's decision of which hybrids are best suited for his area of the state or particular soil type. By having tests grown under both irrigated and non-irrigated conditions, this data can help one to make management decisions about which hybrids might have the best potential to perform well when soil moisture is limited.

Project Deliverables

The Corn Hybrid for Grain publication is available annually in a printed copy or it may be downloaded from the MSU Variety testing website at mafes.msstate.edu/variety-trials.



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