



Mississippi Corn Promotion Board 2020 Progress Report

Project Title: Standardization of Mississippi Corn Hybrid Trials

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Department: Research Support

Project Summary (Issue/Response)

The 2020 Mississippi Corn for Grain Hybrid trials consisted of a total of 86 entries. These hybrids were supplied by thirteen 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 2020 season, the irrigated tests consisted of 84 of the 86 total hybrids. While the non-irrigated locations were made up of 72 hybrids from the total 86 entered in the Mississippi State Corn for Grain Hybrid OVT.

The 2020 growing season started off wet and planting was delayed at some locations due to these wet conditions. One location, Rolling Fork, was lost due to a prolonged rainy period, which resulted in flooded conditions in the south delta for much of the spring. Conditions at the time of planting were ideal, but following planting some locations experienced tough environmental conditions, primarily heavy rainfall, in the weeks following planting. Overall, the 2020 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 2020.



Project Results/Outcomes

The 2020 Corn for Grain Hybrid Trials were divided into irrigated and a non-irrigated tests. The irrigated corn locations consisted of 84 corn hybrid entries that were evaluated for their yield potential within four different environments throughout the state. The mean yields for these four locations ranged between 208.7 to 241.8 bushels per acre. The mean yield across all four locations for the irrigated trials was 224.9 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 72 corn hybrid entries that were evaluated for their yield potential within six different environments throughout the Hill section of the state; however, yields were only reported from five of the six locations due to poor plant stands, which caused variability due to wildlife feeding. The mean yields for the five non-irrigated locations ranged between 183.7 to 218.7 bushels per acre. The mean yield across all four of these non-irrigated locations was 199.5 bushels per acre.

Project Results

2020 Corn hybrid yield summary for dryland locations.							
Brand	Hybrid	Aberdeen	Brooksville	Olive Branch	Stoneville	Verona	Overall avg.
		(buz/A)	(buz/A)	(buz/A)	(buz/A)	(buz/A)	(buz/A)
AgriGold	A645-16VT2PRO	208.3	190.0	234.1	207.9	182.0	204.5
AgriGold	A647-35-3330	197.2	183.9	203.4	215.3	161.8	192.3
AgriGold	A6544VT2RIB	219.1	216.3	220.2	210.7	177.4	208.7
AgriGold	A6659VT2RIB	223.9	216.6	228.7	225.7	178.0	214.6
AgriGold	A657VT2RIB	218.5	197.5	225.2	202.5	185.3	205.4
Joplin	CP5355 VT2P	205.0	198.0	221.2	187.4	177.9	197.9
Joplin	CP5340 VT2P	211.7	196.6	210.1	186.9	186.2	198.3
Joplin	CP5370 VT2P	196.6	200.4	221.7	198.4	189.4	201.3
Joplin	CP550 VT2P	196.8	188.1	219.6	200.1	177.9	196.5
Joplin	X19115B VT2P *	221.5	197.1	229.4	199.1	183.0	204.8
DeKalb	DKC65-95	205.2	213.4	242.1	195.0	200.5	211.3
DeKalb	DKC65-99	217.2	196.2	224.6	188.3	205.1	206.3
DeKalb	DKC65-18	191.7	223.4	223.4	178.3	194.1	198.2
DeKalb	DKC65-75	221.9	185.3	227.3	188.9	196.1	203.9
DeKalb	DKC65-37	215.1	194.2	230.3	209.6	195.3	208.9
DeKalb	DKC67-44	219.2	203.5	226.0	215.5	198.4	212.6
DeKalb	DKC68-69	222.3	206.8	235.4	203.3	195.6	212.7
DeKalb	DKC69-99	238.5	207.4	247.9	205.4	195.6	219.0
DeKalb	DKC70-27	222.5	213.6	236.3	210.8	204.9	217.6
Dyna-Gro	DS7VC51	213.0	210.1	233.5	205.2	192.1	210.8
Dyna-Gro	DX20114 *	199.4	185.3	217.2	199.4	183.5	197.0
Dyna-Gro	DS7VC17	195.7	198.4	207.8	193.7	191.2	197.4
Dyna-Gro	DS8VC55	198.3	191.0	215.9	189.8	171.3	193.3
Great Heart Seed	HT-7302VT2P	203.7	191.6	205.4	201.2	178.4	196.1
Great Heart Seed	HT-7337VT2P	212.1	179.4	237.2	208.7	190.5	205.6
Great Heart Seed	HT-7452VT2P	192.7	191.3	194.3	194.8	178.1	188.2
Great Heart Seed	HT-7476VT2P	198.5	190.6	225.6	206.8	207.7	205.8
Great Heart Seed	HT7890VT2P	179.0	192.5	211.4	155.0	190.7	185.7
LG Seeds	LG5643VT2RIB	210.3	200.5	258.0	215.4	177.0	212.3
LG Seeds	LG66C22VT2RIB	206.0	189.9	193.9	170.6	172.6	186.6
LG Seeds	LG66C44	225.1	202.0	230.8	204.0	188.9	210.2
LG Seeds	LG68C22VT2RIB	225.8	198.5	212.4	179.3	187.5	200.7
LG Seeds	LG68C59	194.8	166.1	207.8	198.9	164.3	188.4
Local Seed	LC1577 VT2P	217.0	198.0	240.6	210.4	195.8	212.0
Local Seed	LC1987VT2P	225.9	207.7	223.6	193.3	186.9	207.9
Local Seed	LC1398 VT2P	215.9	192.7	244.0	192.8	193.5	207.8
Local Seed	LC1497 DGV2P	232.6	203.5	239.4	205.2	197.8	215.7
Local Seed	LC1699 VT2P	171.2	195.9	230.0	188.4	181.2	193.3
Local Seed	LC1898 TC	220.4	203.3	196.6	217.9	181.9	204.0
Local Seed	LC1307 TC	211.8	191.3	246.3	213.8	197.0	217.7
Local Seed	LC1407 VT2P	194.3	174.7	208.7	190.7	179.8	187.6
Local Seed	LC1506 VT2P	218.5	204.9	235.4	205.1	183.1	209.4
Local Seed	LC1707 VT2P	189.2	210.8	234.8	202.9	201.2	207.8
Local Seed	LC11806 VT2P	210.3	191.5	203.2	184.6	168.4	191.6
Local Seed	LC1289 VT2P	205.3	186.0	219.2	202.3	195.4	201.6
Mission Seed Solutions	A1257VT2P	200.6	196.4	212.7	192.8	178.9	196.3
Mission Seed Solutions	A1477DGV2P	210.3	181.1	200.1	201.5	186.2	195.9
Mission Seed Solutions	A1548DGV2P	196.4	176.6	175.8	189.5	184.1	194.5
Mission Seed Solutions	A1657VT2P	192.2	190.2	233.8	183.1	184.9	196.8
Mission Seed Solutions	A1798VT2P	202.3	204.8	212.7	197.1	171.1	197.6
Mission Seed Solutions	AV7516Q	218.0	217.6	229.0	176.0	180.8	204.3
Mission Seed Solutions	AW8216YHB	211.9	187.5	196.6	224.0	173.8	198.8
MarCorn	MC 4255	198.1	186.7	206.3	189.4	178.1	191.9
MarCorn	MC 4670	207.6	195.1	217.1	202.1	188.8	202.2
MarCorn	MC4319	202.5	179.6	210.2	181.7	179.3	190.7
MarCorn	MC4725	185.4	206.8	223.5	189.4	196.6	200.3
Pioneer	P1077YHR	208.0	192.6	227.0	202.5	165.8	199.2
Pioneer	P1464VYHR	213.0	195.8	211.5	226.9	180.9	205.6
Progeny Ag	EXP1917 *	161.3	148.0	155.0	138.0	153.6	156.6
Progeny Ag	EXP2015 *	211.6	175.7	212.9	198.4	196.5	199.0
Progeny Ag	EXP2018 *	209.1	182.3	210.4	170.3	193.3	193.1
Progeny Ag	PGY 8116SS	234.5	218.6	206.6	190.4	200.4	210.1
Progeny Ag	PGY 9114VT2P	211.6	179.2	222.8	209.5	179.9	200.6
Progeny Ag	PGY 9117VT2P	211.0	183.0	215.1	185.9	182.7	195.5
Progeny Ag	PGY 2012VT2P	188.9	170.1	202.3	173.0	180.3	182.9
Progeny Ag	PGY 2015VT2P	195.4	181.9	229.5	169.2	159.8	187.2
Progeny Ag	PGY 2025DG	199.2	191.3	205.7	190.4	185.8	194.5
Progeny Ag	EXP1912 *	200.9	170.3	200.9	186.5	182.9	188.3
Progeny Ag	EXP1913 *	213.3	168.4	205.3	163.9	174.2	185.0
Progeny Ag	EXP1915 *	198.2	182.1	217.3	169.4	168.8	187.2
Progeny Ag	PGY 6116VT2P	191.5	195.4	209.4	175.2	170.2	188.7
Progeny Ag	PGY 5115VT2P	207.3	181.6	209.8	182.3	155.9	187.4
Mean		207.2	193.2	218.7	193.7	183.7	199.5
CV		9.3	7.8	10.7	10.9	14.0	
SD (0.05)		26.8	21.1	32.6	29.7	35.9	
R*		42.0	51.0	38.0	41.0	23.0	
Error DF		215	216	216	216	216	

Hybrid followed by an asterisk indicates an experimental entry.

2020 Corn hybrid yield summary for irrigated locations.							
Brand	Hybrid	Macon hills	Minter City	Stoneville	Stoneville	Overall avg.	
		(buz/A)	(buz/A)	(buz/A)	(buz/A)		
AgriGold	A645-16VT2PRO	214.7	230.3	241.4	213.1	224.8	
AgriGold	A645-80-3110	242.4	248.8	257.2	239.1	245.4	
AgriGold	A647-35-3330	232.1	234.2	260.4	223.1	237.4	
AgriGold	A6544VT2RIB	239.3	234.5	237.1	225.3	234.0	
AgriGold	A6659VT2RIB	233.7	245.7	240.2	208.2	232.0	
AgriGold	A657VT2RIB	245.3	239.7	244.3	207.6	231.7	
Augusta Seed	A7168	212.7	213.4	225.6	207.6	214.8	
Augusta Seed	A4565	222.2	206.4	245.7	228.8	225.8	
Augusta Seed	A4567	221.3	207.9	240.8	238.8	227.2	
Augusta Seed	A1367	239.3	219.5	267.1	227.5	238.3	
BH Genetics	BH 5232DGP	214.4	205.2	242.2	194.8	214.2	
BH Genetics	X180S3VT2P *	207.7	208.8	240.4	211.3	217.0	
BH Genetics	BH 8721VT2P	240.0	227.8	239.2	229.5	234.1	
Cropplan	CP5335 VT2P	214.8	210.0	246.8	221.7	224.1	
Cropplan	CP5340 VT2P	218.6	205.1	240.0	211.1	218.7	
Cropplan	CP5370 VT2P	214.8	209.5	231.9	230.2	221.6	
Cropplan	CP550 VT2P	214.9	239.6	249.9	215.9	228.6	
Cropplan	X19115B VT2P *	222.2	228.2	217.5	202.8	217.7	
DeKalb	DKC65-95	228.0	217.4	242.3	192.0	219.9	
DeKalb	DKC65-99	227.4	237.7	243.3	217.4	231.4	
DeKalb	DKC66-18	205.7	211.8	231.9	192.4	210.4	
DeKalb	DKC66-75	227.2	223.2	244.4	194.0	222.2	
DeKalb	DKC65-37	228.1	223.0	240.2	218.9	225.8	
DeKalb	DKC67-44	242.0	224.7	243.1	234.2	236.0	
DeKalb	DKC68-69	242.4	231.2	236.7	223.2	233.4	
DeKalb	DKC69-99	248.4	228.7	261.3	232.4	242.7	
DeKalb	DKC70-27	239.2	240.3	267.7	230.2	244.4	
Dyna-Gro	DS7VC51	237.6	230.6	258.0	226.8	238.2	
Dyna-Gro	DX20114 *	218.1	235.9	227.7	207.8	222.4	
Dyna-Gro	DS7VC17	228.9	233.5	234.7	196.8	223.5	
Dyna-Gro	DS8VC55	221.7	231.8	233.6	200.0	221.8	
Great Heart Seed	HT7256 DGV2P	212.4	243.9	243.6	212.2	228.0	
Great Heart Seed	HT-7302VT2P	228.1	230.2	255.1	211.6	231.3	
Great Heart Seed	HT-7337VT2P	238.4	232.5	241.1	216.7	232.2	
Great Heart Seed	HT-7425DGV2P	235.6	236.5	248.0	228.2	237.1	
Great Heart Seed	HT-7462VT2P	214.2	213.0	235.5	178.7	210.3	
Great Heart Seed	HT7890VT2P	202.1	224.5	241.8	178.0	211.6	
LG Seeds	LG5643VT2RIB	248.4	227.6	255.9	218.9	237.6	
LG Seeds	LG66C22VT2RIB	236.1	210.0	240.7	205.7	214.4	
LG Seeds	LG66C44	238.7	230.1	240.9	215.6	232.8	
LG Seeds	LG68C22VT2RIB	229.0	212.4	223.0	197.0	215.3	
LG Seeds	LG68C59	227.7	214.5	250.1	233.3	232.1	
Local Seed	LC1577 VT2P	253.7	221.4	250.8	220.8	236.6	
Local Seed	LC1987 VT2P	227.9	230.7	230.8	211.5	225.2	
Local Seed	LC1407 VT2P	228.1	228.3	237.7	222.7	227.8	
Local Seed	LC1457 DGV2P	224.4	229.6	244.5	216.1	228.6	
Local Seed	LC1697 VT2P	230.9	221.4	243.7	192.1	222.0	
Local Seed	LC1898 TC	221.9	219.7	233.5	210.4	221.4	
Local Seed	LC1307 TC	247.9	215.5	254.7	216.2	233.6	
Local Seed	LC1506 VT2P	215.0	215.4	244.4	202.5	220.4	
Local Seed	LC1707 VT2P	212.2	214.2	250.9	196.9	221.5	
Local Seed	LC1806 VT2P	220.1	216.7	235.1	169.2	210.3	
Local Seed	LC1289 VT2P	213.8	198.9	239.0	195.4	211.8	
Mission Seed Solutions	A1257VT2P	214.4	211.5	234.8	200.4	215.2	
Mission Seed Solutions	A1477DGV2P	236.5	215.5	240.7	193.0	220.4	
Mission Seed Solutions	A1548DGV2P	19					