EXP 1 LARIMORE (THIS IS ONLY ONE LOCATION, CHECK FOR COMBINED DATA OF THE SAME HYBRIDS IN NORTHEAST ND) SENT FOR WEB POSTING ON OCTOBER 17, 2012

The NDSU corn breeding program planted 36 experiments across >20 state locations in 2012. Of those experiments 25 were for breeding purposes and 9, specifically, to aid North Dakota farmers select their hybrids for planting in 2013. These are the Eastern ND Hybrid Corn Performance Trials and evaluate commercial hybrids available in the market. Colfax, Milnor, and Barney were used for the South Eastern ND trials, Casselton, Prosper and Fargo for the Central East ND trials, and Larimore, Thompson, and Lakota for the northern ND trials.

Both the MN and ND Corn Growers and Council Associations support the need to move corn north to cooler seasons developing short-season cold tolerant and fast drier products. The strength of our program depends on the level of this support. Northern MN and ND farmers do not have the same opportunities as southern farmers to enhance their quality of life. Billions of dollars are being lost annually to drying corn and to processing low quality grain in central and northern MN and ND.

Hybrids offered by industry for northern ND locations were 79RM or over

COMPANY	HYBRID NAME	Grain	Grain	Test	Stalk	Root	Dropped
		Yield	Moisture	Weight	Lodging	Lodging	Ears
		(bu/A)	(%)	(lb/bu)	(%)	(%)	(%)
Monsanto	DKC30-20	116.2	13.1	56.2	2.6	0.0	1.3
Dairyland	DS7085	105.6	12.9	56.0	2.4	0.0	0.0
Peterson Farms	PFS 76J86	103.2	15.3	54.1	9.0	0.0	0.0
Syngenta	N17P-3000GT Brand	101.9	13.6	54.3	2.9	0.0	0.0
NuTech	5B-782™	98.6	14.9	54.3	1.4	0.0	0.0
NuTech	5N-183™	98.4	13.0	55.4	3.2	0.0	0.0
G2 Genetics	5H-587™	97.6	14.6	55.3	9.2	0.0	1.2
Proseed	1083 GTCBLL	97.0	13.5	57.1	4.4	0.0	0.0
Monsanto	DKC33-77	93.0	13.5	55.6	7.4	0.0	0.0
G2 Genetics	5H-279™	92.1	13.9	56.4	3.9	2.6	1.3
Pioneer Hi-Bred	39V07	90.4	14.1	55.7	5.7	0.0	0.0
Peterson Farms	PFS 92G84	89.9	13.0	57.1	6.8	0.0	0.0
Dyna-Gro	D26VP56	89.8	13.3	57.3	5.9	0.0	0.0
Seeds2000	2823 GTCBLL	89.8	13.3	55.7	0.0	0.0	0.0
Syngenta	N20Y-3000GT Brand	89.4	12.7	55.0	10.5	0.0	0.0
Proseed	1182 GTCBLL	88.9	13.9	56.4	17.5	0.0	0.0
Gold Country	81-19R	88.7	14.1	56.6	21.2	0.0	1.9
Dyna-Gro	CX23VP35	88.0	12.9	54.3	4.0	0.0	0.0

W 8085VT2RIB	87.9	13.0	54.4	10.3	0.0	0.0
2823 GT	86.5	13.5	55.8	10.0	0.0	0.0
	86.1	14.3	54.8	7.8	7.1	0.0
981 GTCBLL	84.9	14.5	57.0	5.6	0.0	7.5
P8581R	84.0	13.8	54.3	6.9	0.0	0.0
1185 VT2P	83.8	13.1	50.9	22.0	0.0	0.0
5H-080™	83.4	13.7	54.6	6.3	0.0	0.0
P8210HR	82.8	13.8	50.4	16.5	0.0	0.0
W 8089VT2RIB	82.4	13.4	54.9	16.9	0.0	0.0
DKC31-09	81.6	13.5	56.7	1.3	0.0	2.7
8180	81.3	13.9	54.7	1.4	0.0	0.0
PFS 76F82	79.6	14.4	58.1	15.9	0.0	0.0
N12R-3000GT Brand	76.1	14.4	53.2	0.0	5.6	0.0
09WNNDNZ0680	76.1	13.6	55.4	7.8	0.0	0.0
8295	75.9	13.9	53.0	7.6	0.0	0.0
DS9383SSX	74.8	13.0	55.2	6.9	0.0	0.0
3A-080™	71.8	13.7	52.6	12.2	0.0	0.0
80-280	70.1	13.3	54.5	7.5	0.0	0.0
9140GTCBLL	69.5	14.3	54.6	2.6	0.0	0.0
81-481	69.4	14.0	58.7	21.2	0.0	8.1
D19RR91	66.2	15.0	53.2	26.8	0.0	0.0
CX20VC73	63.7	13.8	43.8	11.2	0.0	0.0
82-102	58.8	14.8	47.6	8.1	0.0	1.2
	57.1	16.3	47.2	0.0	0.0	1.3
EXPERIMENT MEAN	84.6	13.8	54.5	8.4	0.4	0.6
LSD (0.05)	31.5	1.7	6.6	15.4	4.1	3.5
CV	18.2	5.8	5.7	87.4	551.4	279.1
	981 GTCBLL P8581R 1185 VT2P 5H-080™ P8210HR W 8089VT2RIB DKC31-09 8180 PFS 76F82 N12R-3000GT Brand 09WNNDNZ0680 8295 DS9383SSX 3A-080™ 80-280 9140GTCBLL 81-481 D19RR91 CX20VC73 82-102 EXPERIMENT MEAN LSD (0.05)	981 GTCBLL 84.9 P8581R 84.0 1185 VT2P 83.8 5H-080™ 83.4 P8210HR 82.8 W 8089VT2RIB 82.4 DKC31-09 81.6 8180 81.3 PFS 76F82 79.6 N12R-3000GT Brand 76.1 09WNNDNZ0680 76.1 8295 75.9 DS9383SSX 74.8 3A-080™ 71.8 80-280 70.1 9140GTCBLL 69.5 81-481 69.4 D19RR91 66.2 CX20VC73 63.7 82-102 58.8 57.1 EXPERIMENT MEAN 84.6 LSD (0.05) 31.5	86.1 14.3 981 GTCBLL 84.9 14.5 P8581R 84.0 13.8 1185 VT2P 83.8 13.1 5H-080™ 83.4 13.7 P8210HR 82.8 13.8 W 8089VT2RIB 82.4 13.4 DKC31-09 81.6 13.5 8180 81.3 13.9 PFS 76F82 79.6 14.4 N12R-3000GT Brand 76.1 14.4 09WNNDNZ0680 76.1 13.6 8295 75.9 13.9 DS9383SSX 74.8 13.0 3A-080™ 71.8 13.7 80-280 70.1 13.3 9140GTCBLL 69.5 14.3 81-481 69.4 14.0 D19RR91 66.2 15.0 CX20VC73 63.7 13.8 82-102 58.8 14.8 EXPERIMENT MEAN 84.6 13.8 LSD (0.05) 31.5 1.7	86.1 14.3 54.8 981 GTCBLL 84.9 14.5 57.0 P8581R 84.0 13.8 54.3 1185 VT2P 83.8 13.1 50.9 5H-080™ 83.4 13.7 54.6 P8210HR 82.8 13.8 50.4 W 8089VT2RIB 82.4 13.4 54.9 DKC31-09 81.6 13.5 56.7 8180 81.3 13.9 54.7 PFS 76F82 79.6 14.4 58.1 N12R-3000GT Brand 76.1 14.4 53.2 09WNNDNZ0680 76.1 13.6 55.4 8295 75.9 13.9 53.0 DS9383SSX 74.8 13.0 55.2 3A-080™ 71.8 13.7 52.6 80-280 70.1 13.3 54.5 9140GTCBLL 69.5 14.3 54.6 81-481 69.4 14.0 58.7 D19RR91 66.2 15.0 53.2 CX20VC73 63.7 13.8 43.8 82-102 58.8 14.8 47.6 EXPERIMENT MEAN 84.6 13.8 54.5 LSD (0.05) 31.5 1.7 6.6	86.1 14.3 54.8 7.8 981 GTCBLL 84.9 14.5 57.0 5.6 P8581R 84.0 13.8 54.3 6.9 1185 VT2P 83.8 13.1 50.9 22.0 5H-080™ 83.4 13.7 54.6 6.3 P8210HR 82.8 13.8 50.4 16.5 W 8089VT2RIB 82.4 13.4 54.9 16.9 DKC31-09 81.6 13.5 56.7 1.3 8180 81.3 13.9 54.7 1.4 PFS 76F82 79.6 14.4 58.1 15.9 N12R-3000GT Brand 76.1 14.4 53.2 0.0 09WNNDNZ0680 76.1 13.6 55.4 7.8 8295 75.9 13.9 53.0 7.6 DS9383SSX 74.8 13.0 55.2 6.9 3A-080™ 71.8 13.7 52.6 12.2 80-280 70.1 13.3 54.5 7.5 9140GTCBLL 69.5 14.3 54.6 <td> 86.1 14.3 54.8 7.8 7.1 981 GTCBLL 84.9 14.5 57.0 5.6 0.0 P8581R 84.0 13.8 54.3 6.9 0.0 1185 VT2P 83.8 13.1 50.9 22.0 0.0 5H-080™ 83.4 13.7 54.6 6.3 0.0 P8210HR 82.8 13.8 50.4 16.5 0.0 W 8089VT2RIB 82.4 13.4 54.9 16.9 0.0 DKC31-09 81.6 13.5 56.7 1.3 0.0 8180 81.3 13.9 54.7 1.4 0.0 PFS 76F82 79.6 14.4 58.1 15.9 0.0 N12R-3000GT Brand 76.1 14.4 53.2 0.0 5.6 09WNNDNZ0680 76.1 13.6 55.4 7.8 0.0 8295 75.9 13.9 53.0 7.6 0.0 DS9383SSX 74.8 13.0 55.2 6.9 0.0 3A-080™ 71.8 13.7 52.6 12.2 0.0 80-280 70.1 13.3 54.5 7.5 0.0 9140GTCBLL 69.5 14.3 54.6 2.6 0.0 81-481 69.4 14.0 58.7 21.2 0.0 D19RR91 66.2 15.0 53.2 26.8 0.0 CX20VC73 63.7 13.8 43.8 11.2 0.0 B2-102 58.8 14.8 47.6 8.1 0.0 EXPERIMENT MEAN 84.6 13.8 54.5 8.4 0.4 LSD (0.05) 31.5 1.7 6.6 15.4 4.1 </td>	86.1 14.3 54.8 7.8 7.1 981 GTCBLL 84.9 14.5 57.0 5.6 0.0 P8581R 84.0 13.8 54.3 6.9 0.0 1185 VT2P 83.8 13.1 50.9 22.0 0.0 5H-080™ 83.4 13.7 54.6 6.3 0.0 P8210HR 82.8 13.8 50.4 16.5 0.0 W 8089VT2RIB 82.4 13.4 54.9 16.9 0.0 DKC31-09 81.6 13.5 56.7 1.3 0.0 8180 81.3 13.9 54.7 1.4 0.0 PFS 76F82 79.6 14.4 58.1 15.9 0.0 N12R-3000GT Brand 76.1 14.4 53.2 0.0 5.6 09WNNDNZ0680 76.1 13.6 55.4 7.8 0.0 8295 75.9 13.9 53.0 7.6 0.0 DS9383SSX 74.8 13.0 55.2 6.9 0.0 3A-080™ 71.8 13.7 52.6 12.2 0.0 80-280 70.1 13.3 54.5 7.5 0.0 9140GTCBLL 69.5 14.3 54.6 2.6 0.0 81-481 69.4 14.0 58.7 21.2 0.0 D19RR91 66.2 15.0 53.2 26.8 0.0 CX20VC73 63.7 13.8 43.8 11.2 0.0 B2-102 58.8 14.8 47.6 8.1 0.0 EXPERIMENT MEAN 84.6 13.8 54.5 8.4 0.4 LSD (0.05) 31.5 1.7 6.6 15.4 4.1

EXP 1 OF THE NDSU CORN BREEDING PROGRAM (LARIMORE)

A LATTICE EXPERIMENTAL DESIGN SHOWED MORE EFFICIENCY THAN USING A RCBD FOR MOST TRAITS

THE EFFICIENCY DUE TO CONDUCTING LATTICE EXPERMIENT DESIGNS WAS 137 % MORE THAN IF WE WERE TO CONDUCT RCBD

Reduced yields were a consequence of severe drought conditions present in this particular location