

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**. The NDSU corn breeding program conducts most state hybrid corn performance trials annually to provide unbiased information and assist farmers in the selection of stable high-yielding lodging resistant and fast-drying corn hybrids. **Below are the northeastern ND trials combined across locations**. It is important to include all traits across locations providing combined data for not only yield.

ALL TRAITS WERE COMBINED ACROSS LOCATIONS FOR FARMERS TO DECIDE ON TOP HYBRIDS NOT ONLY ON YIELD BUT ALSO ON IMPORTANT AGRONOMIC CHARACTERISTICS, INCLUDING MOISTURE AT HARVEST, LODGING RESISTANCE, AND TEST WEIGHT.

NORTH EAST ND (DATA COMBINED ACROSS THREE LOCATIONS).

Company	Hybrid	Grain Yield (bu/A)	Grain Moisture (%)	Test Weight (lb/bu)	Stalk Lodging (%)	Root Lodging (%)	Ear Drop (%)
Syngenta	N20Y-3000GT Brand	126.6	16.1	53.9	4.0	2.5	0.2
Proseed	1083 GTCBLL	123.2	16.6	55.9	1.5	1.6	0.6
NuTech	5N-183™	120.8	16.5	54.5	1.1	2.5	0.0
Peterson Farms	PFS 76J86	118.6	17.8	54.4	6.4	1.9	0.8
Syngenta	N17P-3000GT Brand	118.5	15.5	53.2	1.0	1.2	1.2
G2 Genetics	5H-587™	116.6	17.7	52.3	5.6	4.7	11.4
Stine Seeds	9140GTCBLL	116.3	17.0	54.8	1.4	2.2	2.3
Peterson Farms	PFS 92G84	114.7	16.4	54.4	2.3	0.0	0.0
Pioneer Hi-Bred	P8581R	114.4	17.2	53.6	2.8	1.4	0.7
Dairyland	DS7085	113.8	16.5	55.3	1.3	6.3	0.0
Seeds2000	2823 GTCBLL	110.5	16.4	53.8	1.3	9.1	1.1
Monsanto	DKC33-77	110.1	16.8	55.8	3.6	0.0	0.3
Proseed	1182 GTCBLL	109.0	16.4	55.4	5.8	4.1	0.6
Dyna-Gro	D26VP56	108.3	17.0	55.2	7.5	0.9	0.5
Hyland	8180	107.6	17.0	51.4	0.5	0.0	0.3
NuTech	5B-782™	106.0	17.8	52.7	1.5	2.6	3.0
Seeds2000	2823 GT	105.6	17.2	53.8	6.0	6.7	0.8
Gold Country	81-19R	103.6	16.3	57.3	7.1	1.0	1.6
Pioneer Hi-Bred	39V07	100.4	16.1	55.2	3.4	3.3	0.1
Wensman	W 8089VT2RIB	100.3	16.8	53.0	6.2	6.8	0.7
Wensman	W 8085VT2RIB	99.1	17.0	53.5	7.3	2.5	0.4

Dyna-Gro	CX23VP35	98.6	17.0	53.5	3.1	0.0	0.3
Monsanto	DKC30-20	98.0	15.3	56.4	2.1	0.5	2.5
Proseed	1185 VT2P	97.4	16.4	53.1	9.2	2.5	1.3
CHECK 3		97.0	18.8	51.9	6.7	16.7	0.1
Proseed	981 GTCBLL	96.0	17.5	56.2	3.2	11.1	3.2
Northstar Genetics	80-280	95.2	16.4	53.6	4.3	1.8	0.7
Monsanto	DKC31-09	94.5	16.1	53.2	1.0	0.0	1.2
G2 Genetics	5H-279™	92.9	16.9	53.6	2.5	7.8	0.6
CHECK 2		91.9	17.4	52.3	8.0	1.5	0.3
CHECK 1		91.4	19.0	51.3	2.4	4.6	0.6
G2 Genetics	3A-080™	91.4	15.8	52.5	5.1	0.0	0.3
Syngenta	N12R-3000GT Brand	90.1	16.8	55.4	0.0	10.1	-0.1
Pioneer Hi-Bred	P8210HR	89.9	16.5	52.7	7.6	1.5	0.3
Northstar Genetics	81-481	89.8	17.1	55.2	8.0	0.0	3.4
G2 Genetics	5H-080™	88.5	16.0	53.1	3.0	6.9	0.0
Peterson Farms	PFS 76F82	88.4	16.6	56.2	5.3	1.9	0.0
Dairyland	DS9383SSX	86.7	16.4	53.1	2.7	0.0	0.0
Northstar Genetics	82-102	86.3	17.3	53.3	2.7	5.8	2.8
Hyland	8295	85.4	16.5	51.5	2.5	4.2	0.3
Dyna-Gro	CX20VC73	79.4	16.5	51.8	4.9	0.0	1.8
Dyna-Gro	D19RR91	68.1	16.8	52.6	10.0	0.0	1.2
	Mean	101.0	16.8	53.9	4.1	3.3	1.1
	LSD(0.05)	17.0	5.8	5.3	122.6	185.4	339.4
	CV	27.8	1.6	4.6	8.1	9.8	5.8

Largest Efficiencies ranged from 115 % to 137 % making LATTICES up to 37 % more accurate than RCBD for yield alone! This clearly show that for North Dakota, RCBDs should not be used. Information on the genetic variability of hybrids for their accurate selection is worth millions of dollars!

NDSU develops corn inbred lines which are the ‘secret formula’ for the very confidential corn market and parents of the hybrids industry sell to farmers every year. We conduct several breeding programs to develop unique females and male hybrid parents in addition to testing them in hybrid combinations. Unlike wheat, barley, and most NDSU crops, conducting only one breeding program for line development without hybrid testing, the ND corn program (with only one full-time corn scientist and one full-time corn technician in the whole NDSU) conducts 2 programs for development of male and female lines as well as a 3rd program for germplasm development, adaptation, and improvement and a 4th for extensive testing of short-season hybrids. In April of 2013, we expect to have at least six new releases available for industry and growers adding to the 38 corn products