

2011 Experiments Conducted by the NDSU Corn Breeding Program across Northern North Dakota Locations

Company	Hybrid	Grain Yield (bu/A)	Grain Moisture (%)	Test Weight (lb/bu)	Root Lodging (%)	Stalk Lodging (%)	Ear Drop (%)
Gold Country	85-39VT3P	141.67	20.2	52.02	5.67	3.49	1.72
Peterson	PFX 92L82	135.31	18.47	51.91	7.91	2.16	6.03
Seeds2000	2852 GTCBLL	133.89	20.12	50.51	12.79	3.27	1.35
Peterson	PFS 56J86	128.17	20.42	50.98	2.38	5.38	3.57
Hyland	Hyland8234	128.13	22.33	49.4	12.08	0.98	1.22
Wensman	W8089VT2PRO	126.67	18.62	52.21	13.33	6.46	8.29
Nu Tech	3A-183	126.35	19.13	52.12	15.64	7.41	0.98
Proseed	1185 VT2	125.29	19.17	50.92	17.73	4.43	2.97
Proseed	884 VT3	121.1	19.8	53.18	1.01	12.54	2.74
Nu Tech	5N-186	120.99	19.5	50.26	8.83	6.42	3.26
Gold Country	83-08VT2P	118.24	16.9	53.29	2.33	15.3	6.25
Monsanto	DKC33-53	117.83	20.65	52.23	3.11	6.02	3.49
Gold Country	84-03VT3	117.37	20.12	54.58	8.02	2.64	10.63
Monsanto	DKC35-43	115.3	18.75	53.66	5.7	5.69	7.97
Check 1	NDSU Tropical	114.34	21.92	54.33	8.4	13.73	1.8
Stine	9150	114.3	18.53	52.17	4.37	5.32	5.09
Pioneer	P8581R	113.77	19.67	52.07	5.46	10.42	12.34
Pioneer	39D97	112.6	18.4	53.76	33.54	2.52	1.19
G2 Genetics	3A-080TM	112.46	18.68	50.62	8.57	3.84	5.67
Nu Tech	5N-183	111.96	18.83	53.03	9.17	7.53	9.01
Proseed	1083 GTCBLL	111.04	18.63	51.98	12.79	4.78	1.06
Proseed	781 RRBt	110.5	23.95	48.71	7.76	8.95	1.33
Nu Tech	3A-186	110.37	19.37	50.78	14.1	10	7.25
Peterson	PFS 76F82	107.93	20.35	55.47	5.78	3.58	5.19
Seeds2000	2823GTCBLL	107.43	18.23	52.7	10.59	5.35	11.96
Dyna-Gro Seed	CX11179	107.02	19.32	53.4	0.57	9.36	10.61
Integra	9350	106.1	18.95	50.56	7.22	12.6	4.17
Legend	9083VT2P	105.93	19.87	53.41	10.34	2.22	11.95
Pioneer	39V07	105.85	17.68	55.23	17.51	11.02	5.85

Hyland	Hyland 8105	103.68	17.55	54.29	1.61	5.49	6.96
Dyna-Gro Seed	51V57	103.24	18.7	52.62	0	6.5	2.35
Hyland	Hyland 8295	102.36	21.05	48.82	14.53	3.56	3.52
Check 2		100.75	26.42	50.13	8.04	3.11	3.4
Dyna-Gro Seed	51V45	99.46	17.9	54.78	3.87	17.28	8.18
Monsanto	DKC30-20	99.16	18.05	55.63	1.63	4.9	11.57
Wensman	W8085VT2PRO	96.34	18.33	51.67	2.02	8.33	18.3
G2 Genetics	5H279TM	95.5	18.9	53.01	31.37	14.96	12.01
Proseed	981 GTCBLL	95.05	19.32	54.23	18.65	2.76	9.21
G2 Genetics	5H-080TM	94.76	18.87	49.95	3.67	17.37	3.39
Integra	9312	93.34	17.73	54.6	4.2	3.45	12.03
Gold Country	84-24VT2P	91.01	17.65	53.82	5.6	4.1	14.58
Check 3		85.56	19.57	53.85	17.69	16.61	7.68
	Means Across Northeastern ND Locations	111.15	19.44	52.45	9.18	7.19	6.38
	LSD (0.05)	27.01	2.85	2.33	12.63	8.53	9.81
	CV (%)	21.36	12.9	3.9	120.98	104.37	135.06

The same hybrids were planted across three dryland locations within Northeastern ND region (Larimore, Thompson, and Lakota)

Growing the same hybrids across locations expose the real advantages and weaknesses of hybrids for traits

Experiments conducted by the NDSU Corn Breeding Program

Relative maturity given by Industry may not correspond to moisture at harvest. Check both!

The Lattice experimental design was up to 130% more efficient than a Randomized Complete Block Design (RCBD) for most traits

Lattice Experimental Design was Highly Effective for Test Weight

No significant differences across hybrids for stand

CV Values for Yield were larger than normal due to low experiment means for this trait