

2010 ND Experiments Conducted by NDSU Corn Breeding Program (CENTRAL NORTH DAKOTA REGION)

| Company | Hybrid | RM | Grain Yield bu/A | Grain Moisture % | Test Weight lb/bu | Root Lodging % | Stalk Lodging % |
|---------------------|------------------------|----|---------------------|---------------------|----------------------|-------------------|--------------------|
| NuTech | 5B-290 GT/CB/LL | 90 | 189.3 | 23.7 | 51.0 | 0.0 | 0.7 |
| Pioneer Hi-Bred | Pioneer 38M58 | 94 | 187.9 | 25.3 | 52.4 | 0.0 | 0.0 |
| Proseed | 1091 3000GT | 91 | 187.1 | 24.6 | 52.5 | 1.3 | 0.0 |
| Proseed | 990 GTCBLL | 90 | 178.1 | 22.6 | 51.1 | 0.0 | 0.0 |
| NuTech | 5B-887 GT/CB/LL | 87 | 174.8 | 28.5 | 51.2 | 0.0 | 0.0 |
| G2 Genetics | 5H-992 RR/HX | 93 | 170.4 | 25.6 | 51.0 | 1.3 | 1.6 |
| Hyland Seeds | HL B32R | 87 | 169.0 | 21.9 | 53.0 | 0.0 | 0.6 |
| Wensman | W 8107VT2PRO | 90 | 168.9 | 23.8 | 51.0 | 0.0 | 0.0 |
| NuTech | 0A-693 | 93 | 167.9 | 24.0 | 51.0 | 1.2 | 1.5 |
| NuTech | 3T-294 VT3 | 94 | 164.0 | 25.1 | 52.0 | 0.0 | 0.0 |
| Peterson Farm Seeds | PFS 56J86 | 86 | 161.7 | 22.7 | 50.6 | 0.0 | 0.0 |
| Seeds 2000 | 2883 GTCBLL | 88 | 161.6 | 24.8 | 53.9 | 0.0 | 0.6 |
| G2 Genetics | 5H-589 RR/HX | 89 | 161.6 | 25.3 | 51.8 | 0.0 | 0.9 |
| NuTech | 1B-291 CB/LL | 91 | 158.7 | 28.6 | 52.2 | 1.7 | 1.7 |
| Hyland Seeds | 8234 | 86 | 158.4 | 22.5 | 58.2 | 0.0 | 2.2 |
| NuTech | 5N-186 GT/CB/LL/RW | 86 | 158.2 | 21.9 | 53.7 | 0.0 | 0.0 |
| Proseed | 1086 3000GT | 86 | 157.5 | 23.1 | 51.0 | 1.4 | 1.5 |
| NuTech | 1B-485 CB/LL | 85 | 157.3 | 22.4 | 52.2 | 2.5 | 2.1 |
| Gold Country | 86-16 VT3 | | 156.6 | 22.6 | 54.2 | 0.0 | 0.8 |
| Pioneer Hi-Bred | Pioneer P8917XR | 89 | 153.6 | 23.0 | 54.1 | 0.0 | 0.0 |
| Wensman Seeds | W 6094GTCBLL | 88 | 152.6 | 24.2 | 52.2 | 0.0 | 0.0 |
| NDSU | LATE NDSU HYBRID CHECK | | 152.5 | 24.7 | 51.2 | 0.0 | 0.0 |
| Seeds 2000 | 2903 GTCBLL | 90 | 151.9 | 23.0 | 54.6 | 0.0 | 0.0 |
| Peterson Farm Seeds | PFS 98L90 | 90 | 151.6 | 23.1 | 52.3 | 0.0 | 0.0 |
| Seeds 2000 | 8801 VT3 | 88 | 151.4 | 24.1 | 49.7 | 0.0 | 0.0 |
| NuTech | 1B-186 GT/CB/LL | 86 | 151.3 | 23.1 | 53.4 | 0.0 | 0.6 |
| Gold Country | 93-39 RR | 93 | 151.3 | 23.2 | 55.8 | 0.0 | 0.7 |
| Proseed | 787 VT3 | 87 | 150.2 | 23.6 | 50.4 | 0.0 | 0.0 |
| Stine | 9200 VT3 | 85 | 149.5 | 25.6 | 51.1 | 1.6 | 0.0 |

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|---------------------|--------------------|----|--------------|-------------|-------------|--------------|--------------|
| Wensman Seeds | W 6114GTCBLL | 92 | 149.2 | 23.3 | 54.6 | 0.0 | 0.0 |
| NuTech | 3A-889 RR | 89 | 148.5 | 28.1 | 51.6 | 0.0 | 0.6 |
| NuTech | 1B-592 CB/LL | 92 | 147.9 | 24.3 | 51.9 | 0.0 | 0.0 |
| NuTech | 5N-593 GT/CB/LL/RW | 93 | 146.1 | 26.6 | 50.9 | 2.4 | 0.7 |
| Peterson Farm Seeds | PFS 27V89 | 89 | 145.8 | 24.7 | 51.9 | 0.0 | 1.4 |
| Pioneer Hi-Bred | Pioneer 39B23 | 89 | 144.1 | 23.1 | 52.2 | 0.0 | 0.0 |
| Proseed | 1085 RRBt | 85 | 143.0 | 25.4 | 51.7 | 3.6 | 3.2 |
| Integra Seeds | 9361VT3 | 86 | 142.7 | 23.3 | 51.4 | 0.0 | 0.0 |
| Wensman Seeds | W 7089VT3 | 86 | 142.2 | 21.5 | 50.9 | 0.0 | 0.0 |
| NuTech | 3C-889 RR/YGCB | 89 | 140.2 | 24.3 | 51.9 | 0.0 | 0.8 |
| G2 Genetics | 5H-992A RR/HX | 92 | 137.0 | 23.9 | 51.7 | 1.4 | 1.3 |
| G2 Genetics | 5H-885 RR/HX | 85 | 136.9 | 21.8 | 51.8 | 0.0 | 0.0 |
| G2 Genetics | 5H-891 RR/HX | 91 | 132.1 | 22.5 | 51.8 | 0.0 | 0.7 |
| Pioneer Hi-Bred | Pioneer P8581R | 85 | 130.2 | 21.8 | 52.8 | 1.6 | 0.0 |
| Gold Country | 89-09 VT3P | 89 | 129.8 | 20.9 | 57.1 | 0.0 | 0.0 |
| Proseed | 786 GTCBLL | 86 | 129.2 | 24.2 | 50.9 | 0.0 | 2.5 |
| Hyland Seeds | HL CVR48 | 88 | 128.3 | 23.1 | 53.2 | 0.0 | 0.0 |
| NuTech | 3T-393 VT3 | 93 | 123.9 | 24.8 | 53.0 | 0.0 | 0.0 |
| | MEAN | | 153.2 | 23.9 | 52.3 | 0.4 | 0.6 |
| | CV | | 16.8 | 7.5 | 3.3 | 204.5 | 227.2 |
| | LSD (0.05) | | 22.5 | 3.5 | 2.5 | 3.2 | 2.5 |

The same hybrids were planted across three dryland locations within centraleastern ND region (Casselton, Fargo, and Prosper)

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

Experiments conducted by the NDSU Corn Breeding Program

Statistical Analysis Date: 11/29/10 (due to sudden unexpected death of my father, sorry for the delay...)

RM = Relative maturity given by Industry. It may not correspond to moisture at harvest

The Lattice experimental design was 48 to 94% more efficient than a Randomized Complete Block Design (RCBD) for most traits

Harvested Stand = 32,400 plants/A

No significant differences across hybrids for stand (CV ranged from 3 to 7% across locations)