

# Oakes Irrigation Research Site

Carrington Research Extension Center \* North Dakota State University  
P.O. Box 531, Oakes, ND 58474-0531, Phone: (701) 742-2744, FAX: (701) 742-2700,  
E-mail: [Blaine.Schatz@ndsu.edu](mailto:Blaine.Schatz@ndsu.edu)  
[Leonard.Besemann@ndsu.edu](mailto:Leonard.Besemann@ndsu.edu)

## Corn Hybrid Performance Trial

L. Besemann and H. Eslinger

Corn for grain commands the most irrigated acres of all crops in North Dakota. The fact that significant differences in the accumulation of growing degree units for corn and other weather-related issues exist across the state, it is vital that corn hybrids be tested in specific locations and regions. It is the goal of this trial to provide yield and other agronomic parameters for corn growers in southeastern North Dakota. This trial tested 64 hybrids.

### MATERIALS AND METHODS

- Soil: Maddock sandy loam, Egeland loam; pH = 7.3; 1.6% organic matter; soil N 20 lbs/acre; soil P and soil K was very high; soil S was medium.
- Previous crop: 2013 - soybean.
- Seedbed preparation: Spring conventional tillage.
- Planting: Planted May 14 in 30-inch rows. Thinned to 36,900 plants/acre.
- Fertilizer: Broadcast 25 lbs N/acre, 44 lbs P<sub>2</sub>O<sub>5</sub>/acre, 47 lbs K<sub>2</sub>O/acre and 19 lbs S/acre as 10-18-19-8 April 21. Stream bar 50 lbs N/acre May 28 as 28-0-0. Sidedress 125 lbs N/acre June 17 as 28-0-0.
- Irrigation: Overhead sprinkler irrigation as needed.
- Pest Control: Harness (2 pt/acre) May 22, Laudis (3 oz/acre) + AAtrex 9-O (0.5 lb ai/acre) + Destiny (0.05% v/v) + AMS (1½ lbs/acre) June 3.
- Harvest: November 14 with a plot combine. Harvest area was two rows 17 feet long.

**Table 1. Corn hybrid performance trial at the Oakes Irrigation Research Site in 2014.**

Brand	Hybrid	RM	Hybrid Traits <sup>1</sup>	Days to Silk	Height		Grain Protein	Content			Test Weight	Grain Yield	
					Ear	Plant		Starch	Oil	Moist.		2014 bu/ac	2 yr. Avg. bu/ac
					---inches---		%	%	%	%	lb/bu		
Agventure	RL4616HBW	94	RR/HB/HRW	68.0	40.4	81.7	8.8	72.9	2.9	16.6	54.9	214.4	219.4
Agventure	RL5015YHB	95	RR/LL/YHB	69.0	46.2	90.8	8.8	73.3	2.8	17.2	53.5	228.1	--
Agventure	RL5671HBW	99	RR/HB/RW	70.0	44.3	90.3	8.5	73.2	3.0	17.1	54.3	239.6	248.4
Channel	196-05VT2PRIB	96	VT2P	68.3	36.2	83.2	9.2	73.2	3.1	16.9	55.0	211.6	--
Dairyland Seed	DS-9791RA	91	SSX/RA	70.3	35.5	84.3	9.0	73.6	2.7	16.1	54.5	199.3	204.1
Dairyland Seed	DS-9093	93	A3122	64.8	39.2	78.6	9.1	73.1	2.9	17.9	54.0	198.9	--
Dairyland Seed	DS-1088	88	Con	67.3	35.7	78.0	9.5	74.2	2.0	16.1	52.2	175.8	--
Dairyland Seed	DS-9694RA	94	SSX/RA	70.5	40.2	81.3	9.2	74.0	2.3	15.9	54.0	194.1	--
Dairyland Seed	DS-9796	96	3000GT	69.8	39.9	84.1	10.2	72.3	3.1	16.4	55.4	204.3	216.2
Dairyland Seed	DS-9900SSX	100	SSX	73.0	39.2	86.0	8.5	74.5	2.2	17.3	53.1	218.7	--
Dyna-Gro	D35VC95	95	VT2P	68.3	44.4	86.9	9.5	73.1	2.8	16.0	55.6	224.5	--
Dyna-Gro	D39VP14	99	VT3P	67.3	42.6	85.3	8.8	73.2	3.3	17.0	57.2	231.1	--
Dyna-Gro	CX14100	100	SS	70.8	43.8	90.7	9.2	72.8	3.1	17.7	54.0	231.8	--
Integra	9455		VT3Pro	67.3	42.7	83.8	8.8	73.9	2.6	15.6	54.9	221.1	222.0
Legacy Seeds	L3043	93	VT2Pro	69.3	39.9	84.7	8.8	73.1	3.2	17.7	56.4	206.7	--
Legacy Seeds	L3423	94	GENSS	68.0	40.3	87.7	9.0	73.2	3.0	17.0	55.5	229.2	--
Legacy Seeds	L3612	95	VT3Pro	68.8	42.8	85.7	9.7	73.0	2.8	16.1	54.7	221.2	--
Legacy Seeds	L3712	96	VT3Pro	69.0	38.0	83.1	9.2	73.0	2.9	17.0	56.4	224.5	--
Legacy Seeds	L3844	98	GENSS	69.5	45.2	90.5	9.2	73.4	2.8	16.6	56.1	212.0	--
MEAN				68.5	40.7	84.7	9.0	73.3	2.8	16.5	55.4	220.1	--
C.V. (%)				0.7	6.2	3.8	1.9	0.5	6.2	4.4	1.0	4.9	--
LSD 0.10				0.6	3.0	3.7	0.20	0.4	0.20	0.8	0.6	12.7	--
LSD 0.05				0.7	3.5	4.4	0.24	0.5	0.24	1.0	0.8	15.2	--

**Planting Date = May 14; Harvest Date = November 14; Previous Crop = Soybean**

**Table 1. Corn hybrid performance trial at the Oakes Irrigation Research Site in 2014.**

(Page 2 of 4)

Brand	Hybrid	RM	Hybrid Traits <sup>1</sup>	Days to Silk	Height		Grain Protein	Content			Test Moist. Weight	Grain Yield	
					Ear	Plant		Starch	Oil	%		2014	2 yr. Avg.
					---inches---		%	%	%	%	lb/bu	bu/ac	bu/ac
Nuseed	9001 VP3220	90	Viptera 3220	69.5	48.8	91.3	9.6	73.2	2.4	15.7	54.4	223.4	--
Nuseed	9304 VT2P	93	VT Double Pro	68.8	39.0	83.7	8.7	73.2	3.1	16.9	56.3	215.6	223.1
Nuseed	9505 VT2P	95	VT Double Pro	68.3	35.9	78.7	9.0	73.3	2.8	16.1	56.5	227.0	--
Nuseed	9504 VT3P	95	VT Triple Pro	67.3	36.2	81.4	9.0	73.7	2.8	16.4	55.6	209.7	206.2
Nuseed	9904 VT2P	99	VT Double Pro	69.0	45.8	87.2	9.3	72.5	3.0	16.7	56.2	244.2	--
NuTech	5B-195	95	GT/CB/LL/RW/BL	69.0	44.5	85.3	9.1	74.0	2.3	16.2	54.0	212.1	--
NuTech/G2 Genetics	5X-894	94	HXT/RR2/LL	68.3	38.9	80.5	9.0	73.0	2.8	16.5	54.8	204.6	208.8
NuTech/G2 Genetics	5Y-196	96	YGCB/HX1/RR2/LL	69.0	45.6	88.0	9.0	72.9	2.9	16.8	53.1	215.8	--
NuTech/G2 Genetics	5F-295	95	YGCB/HX1/RR2/LL	66.3	39.7	80.8	9.5	73.0	2.8	16.6	55.5	206.3	--
NuTech/G2 Genetics	5X-698	98	HXT/RR2/LL	69.3	42.8	85.5	9.0	73.2	2.8	16.7	56.1	225.8	232.0
NuTech/G2 Genetics	5F-198	98	YGCB/HX1/RR2/LL	69.5	43.0	89.0	9.0	72.5	3.1	17.0	52.1	228.7	--
NuTech/G2 Genetics	5F-399	99	YGCB/HX1/RR2/LL	70.3	44.3	90.0	8.5	73.2	3.0	17.5	53.2	231.8	--
PFS	76S92	92	VT2P	69.0	39.1	83.8	8.7	73.1	3.2	17.1	55.9	211.6	224.6
PFS	81W95	95	SS	67.5	41.3	87.5	8.8	73.3	3.0	17.0	55.2	234.3	--
PFS	55S96	96	VT3P	68.5	39.0	83.2	9.1	73.4	2.7	16.2	56.8	221.1	222.3
PFS	82H99	99	SS	69.5	44.3	85.7	9.2	72.9	2.9	17.1	55.3	232.2	--
Proseed	1385 VT2P	85	VT2P	66.3	36.3	82.5	8.7	73.5	2.8	15.8	56.3	197.2	--
Proseed	990 GT3000	90	3000GT	68.0	40.3	83.4	9.5	73.3	2.5	15.8	52.7	204.3	210.1
Proseed	1292 VT2P	92	VT2P	67.5	41.1	84.8	8.7	73.2	3.2	16.1	55.7	222.4	--
MEAN				68.5	40.7	84.7	9.0	73.3	2.8	16.5	55.4	220.1	--
C.V. (%)				0.7	6.2	3.8	1.9	0.5	6.2	4.4	1.0	4.9	--
LSD 0.10				0.6	3.0	3.7	0.20	0.4	0.20	0.8	0.6	12.7	--
LSD 0.05				0.7	3.5	4.4	0.24	0.5	0.24	1.0	0.8	15.2	--

**Planting Date = May 14; Harvest Date = November 14; Previous Crop = Soybean**

**Table 1. Corn hybrid performance trial at the Oakes Irrigation Research Site in 2014.**

(Page 3 of 4)

Brand	Hybrid	RM	Hybrid Traits <sup>1</sup>	Days to Silk	Height		Grain Protein	Content			Test Weight	Grain Yield	
					Ear	Plant		Starch	Oil	Moist.		2014	2 yr. Avg.
					---inches---		%	%	%	%	lb/bu	bu/ac	bu/ac
Proseed	1191 VT2P	91	VT2P	67.3	38.7	84.0	8.7	73.6	2.7	15.5	55.8	208.2	--
Proseed	1393 VT2P	93	VT2P	66.5	35.8	78.1	8.5	74.1	2.5	16.1	56.2	211.7	--
Proseed	1397 SS	97	SS	69.8	42.5	87.9	9.3	73.7	2.4	16.8	56.0	221.7	--
Proseed	1396 SS	96	SS	67.8	37.3	82.0	8.8	73.3	3.0	16.0	55.8	204.2	--
REA Hybrids	3B922-RIB	92	RR2 Bt	67.3	39.7	84.8	8.6	73.4	3.0	15.9	56.7	220.7	--
REA Hybrids	3A929-RIB	92	RR2 Bt CRW	68.8	40.9	86.4	9.5	73.1	2.9	16.4	56.4	239.3	235.5
REA Hybrids	4B941-RIB	94	RR2 Bt	68.8	40.0	86.0	9.2	73.3	2.9	16.5	56.8	224.5	223.9
REA Hybrids	4A942-RIB	94	RR2 Bt CRW	68.5	41.9	87.5	9.1	73.2	2.9	17.1	55.9	224.9	--
REA Hybrids	4V953-RIB	95	RR2 Bt CRW	69.0	43.6	91.7	8.7	73.6	2.8	16.1	56.4	249.5	--
REA Hybrids	4A971-RIB	97	RR2 Bt CRW	68.5	43.4	88.2	9.3	73.5	2.7	16.4	57.2	225.4	228.7
REA Hybrids	4A972-RIB	97	RR2 Bt CRW	68.3	43.8	85.7	9.1	73.4	2.8	16.6	55.9	233.2	--
REA Hybrids	4A974-RIB	97	RR2 Bt CRW	68.5	42.7	85.5	9.0	73.2	3.1	17.4	55.7	231.7	--
REA Hybrids	5A992-RIB	99	RR2 Bt CRW	69.3	39.5	81.3	9.0	72.7	3.2	16.8	54.7	229.7	--
Renk	RK522SSTX	94	SSTX	67.8	38.3	83.1	8.8	73.7	2.8	16.5	55.5	218.9	229.9
Renk	RK568VT3P	95	VT3P	68.3	37.8	81.7	9.2	73.3	2.8	16.2	56.5	228.9	231.7
MEAN				68.5	40.7	84.7	9.0	73.3	2.8	16.5	55.4	220.1	--
C.V. (%)				0.7	6.2	3.8	1.9	0.5	6.2	4.4	1.0	4.9	--
LSD 0.10				0.6	3.0	3.7	0.20	0.4	0.20	0.8	0.6	12.7	--
LSD 0.05				0.7	3.5	4.4	0.24	0.5	0.24	1.0	0.8	15.2	--

**Planting Date = May 14; Harvest Date = November 14; Previous Crop = Soybean**

**Table 1. Corn hybrid performance trial at the Oakes Irrigation Research Site in 2014.**

Brand	Hybrid	RM	Hybrid Traits <sup>1</sup>	Days to Silk	Height		Grain Protein %	Content			Moist. %	Test Weight lb/bu	Grain Yield	
					Ear ---inches---	Plant		Starch %	Oil %	2014 bu/ac			2 yr. Avg. bu/ac	
Thunder	7993		VT2P	68.3	37.2	80.4	8.7	73.3	3.1	17.3	56.1	216.5	221.0	
Thunder	7396		VT2P	68.3	43.1	86.8	9.5	73.2	2.7	16.0	56.0	230.4	236.7	
Thunder	4391		VT2P	67.5	41.8	85.2	8.6	73.2	3.0	15.6	55.6	210.9	--	
Thunder	9595		VT3P	68.8	37.4	82.0	9.0	73.4	2.7	16.5	56.4	223.8	--	
Thunder	7188		VT2P	67.3	40.4	83.0	9.4	72.7	3.0	16.3	57.0	223.5	--	
Thunder	6987		VT2P	66.3	37.2	83.0	8.9	73.7	2.5	15.2	55.9	204.6	--	
Wensman Seed	W 90941STX	94	Smart Stax, RR2	67.5	39.7	84.1	8.8	73.3	2.9	16.7	54.6	235.6	--	
Wensman Seed	W 90967STXRIB	96	Smart Stax, RR2	67.8	41.1	85.7	9.5	73.1	2.7	16.6	56.0	223.6	218.2	
Wensman Seed	W 70975VT3PRIB	97	VT3PRO, RR2	68.5	39.0	83.5	9.1	73.1	2.9	16.6	56.5	230.4	--	
Wensman Seed	W 90979STX	97	Smart Stax, RR2	69.0	40.3	81.6	8.9	74.0	2.5	16.9	55.8	233.6	--	
Wensman Seed	W 9288STXRIB	98	Smart Stax, RR2	70.0	39.4	84.3	8.9	73.2	2.9	16.5	54.8	227.4	238.1	
MEAN				68.5	40.7	84.7	9.0	73.3	2.8	16.5	55.4	220.1	--	
C.V. (%)				0.7	6.2	3.8	1.9	0.5	6.2	4.4	1.0	4.9	--	
LSD 0.10				0.6	3.0	3.7	0.20	0.4	0.20	0.8	0.6	12.7	--	
LSD 0.05				0.7	3.5	4.4	0.24	0.5	0.24	1.0	0.8	15.2	--	

**Planting Date = May 14; Harvest Date = November 14; Previous Crop = Soybean**

<sup>1</sup> Hybrid traits as reported by seed company when hybrids submitted for evaluation.

\*\*Four (4) replications were utilized to record each of the traits reported.

Oakes Irrigation Research Site

[Variety trials](#) [Crop index](#) [Home page](#) [Report 2014](#)

Other corn Studies 2014

[Corn hybrid performance trial – dryland](#)  
[Mosaic fertilizer-field corn](#)  
[Stover removal corn/corn and corn/soybean rotation](#)  
[Strip-tilled corn N rate corn corn rotation](#)  
[Strip-tilled corn N rate corn soybean rotation](#)