FIELD EXPERIMENT HISTORY

Title: **Performance of Corn Hybrids in Organically Certified Fields**

Experiment: 01 Organic Hybrid **Trial ID:** 2572 **Year:** 2004

Personnel: J.G. Lauer, J. Posner, P.J. Flannery, K.D. Kohn and J. Hedtcke

Location: Arlington, WI **County:** Columbia

Supported By: HATCH and Josh Posner

Site Information

Field: ARS403H **Previous Crop:** Alfalfa **Soil Type:** Plano Silt Loam

Soil Test: **Date:** 10/15/01 **pH** 6.9 **OM (%)** 4.1 **P (ppm)** 95 **K (ppm)** 143

Plot Management

Tillage Operations: Moldboard Plow; Disk - 5/17; Field Cultivator - 5/27; Soil Finisher - 6/3; Cultivated (3x) 6/29, 7/9, 7/13; Rotary Hoe (2x) 6/16

Fertilizer:

Preplant Analysis:	N/A	**Rate lbs/A:** N/A	**Date:** N/A
Starter Analysis:	N/A	**Rate lbs/A:** N/A	**Date:** N/A
Post plant Analysis:	N/A	**Rate lbs/A:** N/A	**Date:** N/A
Manure:	N/A		

Herbicide: None **Insecticide:** None

Irrigation: None **Hybrid:** See Factors

Planting Date: 6/3/04 **Planting Depth:** 1.5" **Row Width** 30"

Target Plant Density: 30000 **plants per acre** **Planting Method:** Kinze Plot Planter

Harvest Date: 11/15/04 **Harvest Method:** Kincaid Plot Combine

Experimental Design

Design: RCB **Replications:** 4

Plot Size Seeded: 10' x 25' **Experiment Size:** 1.7 Acres

Harvest Plot Size: 5' x 22' **Harvest Plant Density:** 28500 **plants per acre**

Factors/Treatments:

Hybrids:

Brown 3020	NC+ 34C17
Brown 5335	NC+ 41F00
Brunner OR1053	NC+ 42A32
Brunner OR8702	NC+ 48F37
Brunner OR9802	NC+ 53F37
Gold Country 9401	Prairie Hybrid 0383
Merit Seeds 0535	Prairie Hybrid 1673

Results: Table C-9.

Table C-9. Performance of corn hybrids grown in organically certified production fields during 2004 at Arlington, WI.

Hybrid	RM	Population	Lodging	Yield	Moisture	Test Weight	**Grower Return 2.09/bu	**Grower Return 4.00/bu
		plants/A	%	bu/A	%	lbs/bu	$/A	$/A
Brunner OR8702	87	28413	1	144	20.5	50	253	527
Prairie Hybrid 0383	92	27720	1	141	20.3	49	249	518
NC+ 34C17	93	28413	0	150	19.7	49	267	553
Brown 3020	94	29997	1	150	20.3	50	264	550
Gold Country 9401	94	27522	0	154	20.8	49	271	565
NC+ 41F00	97	27522	1	122	22.5	47	210	443
Brunner OR9802	98	28413	1	139	21.3	49	243	509
NC+ 42A32	98	28611	0	166	21.4	48	289	606
Brown 5335	101	28215	0	135	29.3	46	215	473
NC+ 48F37	102	29205	1	144	29.3	46	228	503
Prairie Hybrid 1673	102	29304	0	154	27.4	47	250	545
Merit Seeds 0535	103	28116	0	139	30.7	46	216	482
NC+ 53F37	104	28116	0	139	31.7	46	213	478
Brunner OR1053	105	28710	0	121	33.4	46	181	412
Mean		28448	0	143	25.0	48	238	511
Probability(%)								
Hybrid (H)		80.8	30.7	0.0	0.0	0.0	0.0	0.0
LSD (0.10)								
Hybrid (H)		NS	NS	11	1.2	1.1	19	40
CV(%)		6	172	6	4	2	7	7

**Grower return= (price*yield)-(yield*(handling+hauling+trucking))-(storage*0.02)- (yield*(mst-15.5)*0.02);
handling = 0.02, $/bu; hauling = 0.04, $/bu; trucking = 0.11, $/bu.100miles; storage = (yield*0.25*4)+(yield*0.25*8); * On-farm $0.02/bu.30days; drying = 0.02; On-farm $/bu.point; Corn prices = 2.09 and 4.00.