

December 2004  
Field Crops 28.33-37

## UW Organic Corn Hybrid/Variety Trial Results – 2004

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In 2004, the UW Corn Agronomy program conducted its first organic hybrid/variety trial for corn to give producers information on performance and characteristics of corn in a certified organic production system. The trials were conducted using approved organic production practices at two sites certified for organic production. Seed used for the trials was either produced organically or was untreated.

Organic production is defined as “a production system that is managed, in accordance with the Organic Food Production Act and Regulations (October 2002), to respond to site-specific conditions by integrating cultural, biological and mechanical practices that foster cycling of resources, promote ecological balance and conserve biodiversity.”

The organic system is defined as “a plan of management of an organic production operation that has been agreed to by the producer and the certifying agent and includes written plans concerning all aspects of agricultural production or handling described in the act and the regulations.”

### Materials and Methods

Trials were conducted at the UW Arlington ARS and the Michael Fields Institute (MFS). Trials at MFS were abandoned due to excessively wet and cool growing conditions.

Site: Arlington Research Station  
Cooperator: Dwight Mueller  
Experimental design: RCB, 4 reps

Soil: Plano silt loam, pH:6.9, OM:4.1, P:95 ppm, K:143 ppm  
Previous Crop: Alfalfa  
Tillage: Fall Moldboard, Disk (5/17/04), Field Cultivator (5/27/04), Soil Finisher (6/3/04)  
Planting Date: 6/3/04  
Row spacing: 30 inches  
Seeding depth: 1.5 inches  
Rotary Hoe (2x): 6/16/04  
Cultivation Dates (3x): 6/29/04, 7/9/04, 7/13/04  
Harvest date: 11/15/04  
Harvested plot size: 5' x 22'

**Table 1. Seed Companies with hybrids in the 2004 UW Organic Corn Hybrid/Variety Trials.**

Company	Address	City	State	Zip	Phone
Brown Seed, Inc.	N1279 530th Street, P.O. Box 7	Bay City	WI	54723	888-712-7696
Brunner Seed Farm	W3850 U.S. Hwy 10	Durand	WI	54736	800-298-5373
Gold Country Seeds	P.O. Box 64 16565 Highway 15 North	Hutchinson	MN	55350	800-795-8544
Merit Seeds	P.O. Box 205	Berlin	OH	44610	800-553-4713
NC+ Organics	207 18th Street North	Grand Junction	IA	50107	800-370-7979
Prairie Hybrids	27445 Hurd Road	Deer Grove	IL	61243	800-368-0124

**Table 2. Performance of corn hybrids/varieties grown in organically certified production fields during 2004 at Arlington, WI.**

Brand Hybrid	RM	Population plants/A	Lodging %	Yield bu/A	Moisture %	Test Weight lbs/bu	**Grower Return	
							2.09/bu \$/A	4.00/bu \$/A
NC+ 34C17	93	28413	0	150	19.7	49	267	553
Brown 3020	94	29997	1	150	20.3	50	264	550
Prairie Hybrid 0383	92	27720	1	141	20.3	49	249	518
Brunner OR8702	87	28413	1	144	20.5	50	253	527
Gold Country 9401	94	27522	0	154	20.8	49	271	565
Brunner OR9802	98	28413	1	139	21.3	49	243	509
NC+ 42A32	98	28611	0	166*	21.4	48	289	606
NC+ 41F00	97	27522	1	122	22.5	47	210	443
Prairie Hybrid 1673	102	29304	0	154	27.4	47	250	545
Brown 5335	101	28215	0	135	29.3	46	215	473
NC+ 48F37	102	29205	1	144	29.3	46	228	503
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
LSD		NS	NS	11	1.2	1.1	19	40

\* Hybrids that performed statistically similar to the highest hybrid in the trial.

Shaded results provide the best estimate of relative hybrid performance

\*\* **Grower return = (Yield x Price) –**

**Costs**

Costs

- Handling (\$0.02 per bushel)
- Hauling (\$0.04 per bushel)
- Trucking (\$0.11 per bushel for 100 miles)
- Drying (\$0.02 per bushel+point > 15.5%)
- Storage (\$0.02 per 30 day)

Marketing plan: 50% sold at harvest, 25% at 4 months, and 25% at 8 months.

Price = \$4.00 = Minimum-Maximum prices reported by elevators was \$3.75-\$6.50 per bushel (personal communication, John Hall, Michael Fields Institute)

Price = \$2.09 = Weighted Price per bushel =

- 50% November Average Cash price
- + 25% March CBOT Futures (\$0.15 basis)
- + 25% July CBOT Futures (\$0.10 basis)

November Average Cash price derived from WI Ag Statistics; CBOT Futures prices derived from closing price on first business day in December.

For more information on organic corn production see:

UW Corn Agronomy Program: <http://corn.agronomy.wisc.edu>

National Organic Program, USDA: <http://www.ams.usda.gov/nop>