

Table 1. Field experiment locations, planting dates, fertilizer rates and soil types for evaluations of red and blue corns, 2000-2002.

Year	Location	Planting Date	Fertilizer Rate			Soil Type (taxonomic name)
			N	P	K	
			-----lbs/A-----			
2000	Hoytville	8 May	220	80	120	Hoytville Silty Clay (fine, illitic, mesic Mollic Epiaqualfs)
	Van Wert	9 May	300	60	60	Hoytville Silty Clay (fine, illitic, mesic Mollic Epiaqualfs)
	Mt Gilead	8 May	220	40	90	Condit Silt Loam (fine, illitic, mesic Typic Epiaqualfs)
	Wooster	12 May	220	40	40	Canfield Silt Loam (fine-loamy, mixed, active, mesic Aquic Fragiudalfs)
2001	Wooster	6 May	220	40	40	Canfield Silt Loam (fine-loamy, mixed, active, mesic Aquic Fragiudalfs)
	Hoytville	4 May	340	40	40	Hoytville Silty Clay (fine, illitic, mesic Mollic Epiaqualfs)
2002	S. Charleston	16 May	220	40	40	Kokomo Silt Loam (fine, mixed, superactive, mesic Typic Argiaquolls)
	Hoytville	29 May	220	40	40	Hoytville Silty Clay (fine, illitic, mesic Mollic Epiaqualfs)

Table 2. Precipitation at field experiment locations during 2000-2002 growing seasons.

Month	2000				2001		2002	
	Hoytville	Van Wert	Mt Gilead	Wooster	Hoytville	Wooster	Hoytville	S. Charleston
	-----inches-----							
April	1.8 (-1.5) [†]	1.6 (-0.8) [‡]	5.2 (1.4)	3.9 (0.6)	4.1 (0.8)	3.4 (-0.1)	3.8 (0.5)	4.5 (0.5)
May	4.0 (0.6)	3.9 (-0.2)	4.9 (1.1)	4.5 (0.6)	5.1 (1.7)	4.0 (-0.1)	4.7 (1.3)	6.3 (1.7)
June	4.4 (0.8)	7.8 (2.0)	4.0 (-0.2)	3.4 (-0.5)	2.4 (-1.2)	1.5 (-2.4)	2.1 (-1.5)	5.1 (0.9)
July	2.2 (-1.6)	1.9 (-2.6)	1.8 (2.3)	1.8 (-2.3)	3.0 (-0.8)	1.1 (-3.0)	3.3 (-0.5)	7.5 (3.4)
Aug	3.2 (0.2)	4.9 (2.0)	4.8 (1.5)	3.4 (-0.2)	2.7 (-0.3)	5.1 (1.5)	2.9 (-0.1)	1.7 (-1.8)
Sept	1.8 (-0.9)	2.3 (0.0)	3.7 (0.9)	2.7 (-0.4)	3.4 (0.7)	1.4 (-1.7)	3.7 (1.0)	6.8 (3.8)
Total	17.4 (-2.4)	22.4 (0.4)	24.4 (2.4)	19.7 (-2.2)	20.7 (0.9)	16.5 (-5.4)	20.5 (0.7)	31.9 (8.5)

[†] Departure from long-term average in parentheses

[‡] Van Wert data for April is for the period April 15-30

Table . Air temperatures at field experiment locations during 2000-2002 growing seasons.

Month	2000				2001		2002	
	Hoytville	Van Wert	Mt Gilead	Wooster	Hoytville	Wooster	Hoytville	S. Charleston
	-----degrees F-----							
April	47.9 (-1.0) [†]	55.5 (3.5) [‡]	51.7 (1.7)	48.8 (0.7)	52.3 (3.4)	53.1 (5.0)	50.9 (2.0)	59.2 (8.5)
May	62.9 (3.1)	65.5 (3.0)	63.8 (3.5)	62.3 (3.8)	61.5 (1.7)	59.9 (1.4)	55.6 (-4.2)	58.1 (-3.2)
June	69.2 (-0.3)	71.7 (-0.3)	69.9 (0.4)	69.1 (1.5)	68.8 (-0.7)	68.3 (0.7)	71.8 (2.3)	72.6 (2.3)
July	69.8 (-3.0)	73.6 (-1.5)	70.4 (-2.7)	68.8 (-2.7)	72.2 (-0.6)	71.5 (0.0)	76.0 (3.2)	75.7 (1.9)
Aug	69.3 (-1.3)	72.9 (0.2)	69.7 (-1.7)	68.6 (-1.3)	71.8 (1.2)	72.0 (2.1)	70.4 (-0.2)	73.3 (1.3)
Sept	62.6 (-1.4)	65.5 (-1.5)	63.2 (-1.1)	61.9 (-1.5)	61.4 (-2.6)	60.9 (-2.5)	67.7 (3.7)	68.3 (3.1)
Total	63.6 (-0.7)	67.5 (0.6)	64.8 (0.0)	63.3 (0.1)	64.7 (0.4)	64.3 (1.1)	65.4 (1.1)	67.9 (2.3)

[†] Departure from long term averages in parentheses

[‡] Van Wert data for April is for the period April 15-30

Table 3. Agronomic performance of blue and red corns compared with conventional hybrids in the Ohio Corn Performance Test (OCPT), 2000.

Location	Kernel Color	Type	Source	Yield	Grain Moist	Final Stand	Lodging
				----Bu A ⁻¹ ----	-----%-----	-----Plants A ⁻¹ -----	-----%-----
Hoytville	Yellow	Hybrid	OCPT, Avg	153	20.1	27500	5
	Yellow	Hybrid	OCPT, Range	114 – 185	16.4 – 22.9	20800 – 33200	0 – 21
	Blue	Hybrid	Lfy2361B, Avg	85.	21.0	25578	64
	Blue	OP [†]	Fedco Hopi, Avg	19	– [‡]	20775	85
	Blue	OP	Undisclosed, Avg	19	– [‡]	20663	95
	Red	OP	Undisclosed, Avg	18	– [‡]	21557	85
			LSD (0.05)	11	1.1	17	7
Van Wert	Yellow	Hybrid	OCPT, Avg	173	18.9	28000	1
	Yellow	Hybrid	OCPT, Range	130 – 206	16.5 – 22.9	32800 – 20200	0 – 13
	Blue	Hybrid	Lfy2361B, Avg	111	21.1	27414	27
	Blue	OP	Fedco Hopi, Avg	26	15.2	19166	57
	Blue	OP	Undisclosed, Avg	22	14.7	21490	54
	Red	OP	Undisclosed, Avg	33	23.3	21257	34
			LSD (0.05)	16	1.3	24	4
Mt. Gilead	Yellow	Hybrid	OCPT, Avg	168	25.3	26800	0
	Yellow	Hybrid	OCPT, Range	141 – 190	20.1 – 29.2	21800 – 30600	0 – 2
	Blue	Hybrid	Lfy2361B, Avg	98	24.3	27762	2
	Blue	OP	Fedco Hopi, Avg	27	23.1	18818	34
	Blue	OP	Undisclosed, Avg	46	21.2	19631	35
	Red	OP	Undisclosed, Avg	50	29.0	20676	25
			LSD (0.05)	11	1.2	19	1
Wooster	Yellow	Hybrid	OCPT, Avg	159	25.0	28600	1
	Yellow	Hybrid	OCPT, Range	134 – 185	19.2 – 30.4	22700 – 33300	0 – 9
	Blue	Hybrid	Lfy2361B, Avg	61	27.5	26020	17
	Blue	OP	Fedco Hopi, Avg	110	24.9	20793	40
	Blue	OP	Undisclosed, Avg	70	24.1	24045	41
	Red	OP	Undisclosed, Avg	55	28.3	20909	34
			LSD (0.05)	14	1.3	20	2

[†] Open pollinated

[‡] Data not available due to sample size and quality

Table 4. Agronomic performance of blue and red corns compared to a conventional hybrid check, averaged across locations in 2001 and 2002.

Year	Kernel Color	Type	Source	Yield	Grain Moist	Final Stand	Lodge	Emerg
				Bu A ⁻¹	--%--	Plants A ⁻¹	---%---	---%---
2001	Red	OP [†]	Undisclosed	22	22.4	17783	68.7	78.0
	Blue	OP	Undisclosed	31	20.2	16967	87.8	67.7
	Blue	OP	Hopi Fedco	20	14.9	16367	79.8	68.8
	Blue	Hybrid	Lfy2304B	65	23.1	23833	23.0	96.0
	Blue	Hybrid	Lfy2361B	68	25.3	23367	36.5	86.2
	Yellow	Hybrid	Pioneer Brand 34B23	127	24.8	24950	0.0	88.5
			LSD (0.05) [‡]	6	1.8	2006	13.3	6.5
2002	Red	OP	Undisclosed	20	18.0	15383	74.5	55.0
	Blue	OP	Hopi Fedco	36	14.6	24033	78.7	82.2
	Blue	Hybrid	Lfy2304B	69	20.1	26250	25.7	
	Blue	Hybrid	Lfy2361B	76	18.9	28483	29.5	96.2
	Blue	Hybrid	Undisclosed	66	20.6	26333	20.3	88.3
	Yellow	Hybrid	Pioneer Brand 34B23	140	19.5	30050	9.4	90.2
			LSD (0.05) [‡]	12	2.0	1243	21.8	4.7

[†] Open pollinated

[‡] LSD value is valid for comparing red and blue corns only. Yellow check is included as a comparison.