

2011 Ontario Hybrid Corn Performance Trials

Data collected 2010-2011

Conducted by the Ontario Corn Committee • www.gocorn.net

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THE ONTARIO CORN COMMITTEE

The ONTARIO CORN COMMITTEE is made up of representatives of Agriculture and Agri- Food Canada; the Ontario Ministry of Agriculture, Food and Rural Affairs; the University of Guelph; the Ontario Soil and Crop Improvement Association; the Grain Farmers of Ontario; the Seed Corn Growers of Ontario and the Canadian Seed Trade Association.

Tests are conducted each year by the following cooperating agencies: University of Guelph, Ridgetown Campus; University of Guelph, Plant Agriculture Department; University of Guelph, Kemptville Campus, and Agriculture and Agri-Food Canada at Ottawa.

TESTING METHODS

Hybrids entered in the Hybrid Corn Performance Trials are selected by the seed companies. A testing fee is charged per hybrid per replication. A hybrid must be entered in all trials within a table. In each trial, hybrids are replicated in a suitable experimental design. Trials are machine planted with an excess of seed and thinned at an early growth stage to obtain a uniform population. A row width of 30 inches is used in all trials. Fertilizer rates may be higher than those recommended by OMAFRA to compensate for any variability in soil nutrient supply.

Most of the hybrids entered in the trials were treated with a seed treatment to control soil insects. Hybrids that were not treated are not identified in the report. There was no significant damage from soil insects at any of the locations.

To determine the percentage of lodged plants, a count is made immediately before harvest of all plants broken below the ear and all plants which are leaning such that the ear is in the adjacent row or is otherwise unharvestable.

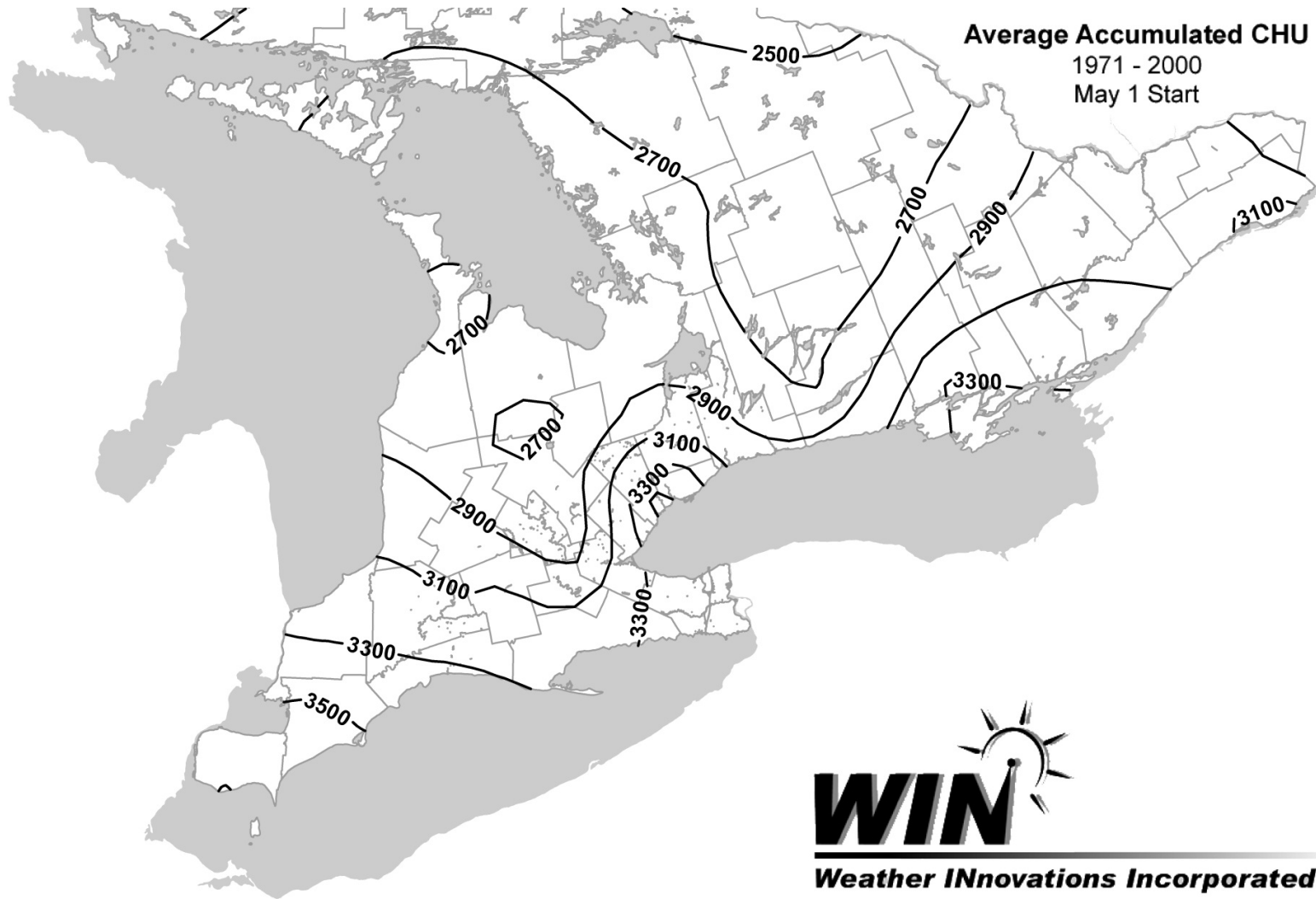
The moisture percentage of the grain is determined at harvest time. The weight of grain harvested from each plot is determined and the yield of shelled corn is calculated at 15% moisture. Test weights are recorded either during harvest using combine-mounted monitoring equipment or, in the laboratory, using procedures recommended by the Canadian Grain Commission.

DUPLICATION OF THIS REPORT

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Heat Units Available for Corn Production in Ontario



Notes: Corn Heat Unit ratings for all areas of the province are based on the average heat unit accumulation for the period from May 1 to the date in the fall when the long-term average daily temperature falls below 12°C or an occurrence of -2°C, whichever comes first.

INTERPRETATION OF RESULTS

Index - The index in the tables indicates a percent of the average of all hybrids included in the trial(s). Index figures above 100 reflect the percentage by which a hybrid is above the average, whereas index figures below 100 show the percent below average. Small differences in index are not significant. When a hybrid consistently has a higher index over two years, this difference is probably real and should be considered when choosing a hybrid. The average yield for each table is given in bushels per acre. You can calculate the actual yield for a hybrid by multiplying the average yield times its yield index and dividing by 100.

The average test weight is given in kilograms per hectoliter (kg/hL). You can calculate the actual test weight of a hybrid by multiplying the average test weight times its test weight index and dividing by 100.

Within each table, hybrids are identified by brand and/or hybrid number or name. Hybrids are listed in approximate order of maturity based on heat unit ratings provided by the companies. Hybrid selection should be based on the most data available. Greater emphasis should be put on averages from several locations and years because these provide a more accurate prediction of future performance than do single location results.

Corn Heat Units - Ratings for all areas of the province are now based on the average heat unit accumulation for the period from May 1 to the date in the fall when the long-term average daily temperature falls below 12° C or an occurrence of -2° C, whichever come first.

Plant Height - was recorded as the distance from the ground to the point where the last leaf attached to the stalk.

% Lodging - "Lodged Plants" includes plants with stalks that are broken below the ear and plants leaning such that the ear is in the adjacent row or otherwise unharvestable. Because all hybrids in a trial are harvested on the same date, the early hybrids within each table tend to show a greater amount of stalk breakage than do later hybrids. Stalk strength should be compared only with hybrids of the same maturity.

% Moisture - The accuracy of moisture measurement decreases as moisture content increases. Results for hybrids with very high moisture contents should be interpreted with caution.

LSD (0.10) - The LSD is a measure of variability within the trial. There is a ninety percent probability that yield indices that differ by an amount greater than the LSD are different. Yield indices that differ by an amount less than or equal to the LSD should be considered to be equal.

European Corn Borer Pressure - Corn borer ratings were based on a visual assessment of infestation and damage during the week of September 26th.

Managing Bt Corn - When using Bt corn, it is imperative that a refuge area of non-Bt corn be planted near the Bt corn to reduce the risk of developing insect resistance to Bt. A list of potential refuge hybrids and information related to the practices that must be followed to comply with current regulations can be obtained from the Canadian Corn Refuge Hybrid Selector at www.refugesselector.ca.

Explanation of Codes for Special Genetic Traits

Code	Trait
B	Resistant to Corn Borer
D	Resistant to Corn Rootworm
L	Tolerant to Liberty Herbicide
R	Tolerant to glyphosate herbicide
W	Resistant to Western Bean Cutworm

Notes:

The Ontario Corn Committee does not assess hybrids for Special Genetic Traits. Hybrid descriptions are based on information received from corn companies as of November 24, 2011. Although the Ontario Corn Committee believes the information contained in this report to be accurate, growers are strongly urged to consult dealers of the respective hybrids and products, before making purchasing or management decisions. All hybrids included in this report have been fully approved for food and feed use in Canada and the United States. However, a number have not been approved for use in the European Union. Corn harvested from these non-EU approved hybrids must be delivered to a market that will not ship the grain or its processed products to Europe. For more information, contact your seed supplier. Information regarding the genetic traits carried by all commercially available hybrids and their acceptability for export can also be obtained from the Canadian Seed Trade Association's "List of Corn Hybrids Commercially Available in Canada" at <http://cdnseed.org/list-of-corn-hybrids/>.

Seed Corn Dealers

Brand or Identification	Company	Address of Canadian Sponsor	Telephone
Country Farm DEKALB	Country Farm Seeds Ltd. Monsanto Canada Inc.	Box 790, Blenheim, ON N0P 1A0 120 Research Lane, Suite 101, Guelph, ON N1G 0B4	1-800-449-3990 1-800-667-4944
Elite	La Coop fédérée	9001, Blvd. de L'Acadie, Montréal, QC H4N 3H7	1-514-384-6450
Horizon	Horizon Seeds Canada Inc.	531 Bostwick Rd., Courtland, ON N0J 1E0	1-519-842-5538
Hyland	Hyland Seeds	Box 250, 2 Hyland Dr., Blenheim, ON N0P 1A0	1-800-265-7403
Maizex	Maizex Seeds Inc.	4488 Mint Line, R.R.#2, Tilbury, ON N0P 2L0	1-877-682-1720
Masters Choice	Choice Seeds	813275 Baseline Road, Norwich, ON N0J 1P0	1-519-863-5279
Mycogen Seeds	Dow AgroSciences Canada Inc.	7061 Cobble Hills Rd., St.Marys, ON N4X 1B7	1-519-349-2600
NK Brand PICKSEED	Syngenta Seeds Inc. PICKSEED	15910 Medway Rd., R.R.#1, Arva, ON N0M 1C0 1 Greenfield Road, Lindsay, ON K9V 4S3	1-800-756-SEED 1-800-661-GROW
Pioneer PRIDE Seeds	Pioneer Hi-Bred Limited AgReliant Genetics Inc.	Box 730, 7398 Queens Line, Chatham, ON N7M 5L1 Box 1088, 6836 Pain Court Line, Chatham, ON N7M 5L6	1-800-265-9435 1-519-354-3210

2011 Trial Locations and General Information - Ontario Hybrid Corn Performance Trials

Location	See Table Number	Heat Unit Rating	5 Year Heat Unit Average ¹	2011 CHU Total Plntg ²	2011 CHU Total May 1 ³	ECB Rating ⁴	Soil Type	Co-operator	Final plants per acre ⁵	Date Planted ⁶	Date Harvested
Alma	1	2700	2775	2884	2979	L	Loam	Eastep Farms Ltd	32000	May 12	Oct 25
Orangeville	1	2700	2730	2820	2870	L	Sandy Loam	Woodrill Farms Ltd	32000	May 09	Oct 22
Elora	2	2800	2820	2956	3044	L	Silt Loam	University of Guelph	32000	May 11	Oct 18
Pakenham	2	2900	2903	2698	3208	L	Loam	W. Gillan & Sons	32000	Jun 02	Nov 14
Wingham	2	2800	2832	2901	2976	L	Harriston Loam	Rob Warwick	32000	May 10	Nov 06
Lancaster	3E	3000	2996	2965	3307	L	silt loam	U of Guelph - Kemptville Campus	32000	May 25	Nov 07
Ottawa	3E	3000	3070	3335	3397	L	Granby Sandy Loam	Agriculture and Agri-Food Canada	32000	May 09	Oct 22
Winchester	3E	3000	3013	2790	3281	L	Clay loam	U of Guelph - Kemptville Campus	32000	Jun 01	Nov 02
Blyth	3W	3000	2937	2990	3094	L	Clay Loam	Heinrich Farms	32000	May 11	Nov 05
Dublin	3W	3000	2975	3045	3213	L	Silt Loam	Al Murray	32000	May 13	Nov 05
Waterloo	3W	2900	2873	2692	3171	L	Sandy Loam	Rosendale Farms Ltd	32000	Jun 02	Oct 29
Exeter	4	3050	3052	2739	3334	L	Clay Loam	Cliff Hicks	32000	Jun 06	Nov 03
Ilderton	4	3100	3070	3246	3384	L	Silt Loam	John Walls	32000	May 12	Nov 02
Thorndale	4	3150	3044	3126	3260	L	Silt Loam	Pat Elliot	32000	May 12	Nov 02
Woodstock	4	3150	3070	2901	3142	L	Loam	University of Guelph	32000	May 21	Nov 01
Belmont	5	3250	3039	2830	3362	L	Loam	Claire Hooker Farms Ltd.	32000	Jun 03	Nov 12
Kerwood	5	3200	3043	3167	3326	L	Clay Loam	Dave Bolton	32000	May 13	Nov 08
West Lorne	5	3335	3176	2790	3554	L	Clay	Sanden Acres Ltd.	32000	Jun 13	Nov 12
Ridgetown	6	3450	3451	3531	3630	L	Loam	Ridgetown Campus	32000	May 10	Nov 08
Tilbury	6	3650	3458	3573	3711	L	Sandy Loam	Dan and Cam Sullivan	32000	May 11	Nov 10
Wabash	6	3600	n/a	3352	3525	L	Loam	Allan and Steve Ross	32000	May 13	Nov 08

Notes:

- 1 Average total heat unit accumulation 2006 - 2010, inclusive.
- 2 Total heat unit accumulation at location from day of planting to either occurrence of killing frost (-2 C) or 30-year average end-of-season date.
- 3 Total heat unit accumulation at location from May 1 to either occurrence of killing frost (-2 C) or 30-year average end-of-season date.
- 4 European Corn Borer rating: N = None L = Low M = Moderate H = High.
- 5 These populations may not be suitable for your farm.
- 6 All trials planted in 30 inch row widths.

2011 Ontario Hybrid Corn Performance Trial Management Information

Location	Table	Previous Crop	Tillage		Soil Test Ratings			Fertilizer Applications			Herbicide Applications				Rainfall (mm)					
			Fall	Spring	P	K	pH	N	P ₂ O ₅	K ₂ O	Product	Rate	Date	Method	May	Jun	Jul	Aug	Sep	Total
Alma	1	Soybeans	None	Cultivator	RR	MR	7.7	160	90	76	Primextra	3.5 L/ha	Jun 04	post	98	78	29	145	82	432
Orangeville	1	Pasture	Plough	Disc	HR	HR	7	142	130	145	Callisto	0.3 L/ha	Jun 04	post	112	62	40	92	81	387
											Primextra II Magnum	4.0 L/ha	May 23	post						
Elora	2	Wheat	Chisel Plow	Cultivator x 2	MR	MR	7.6	153	51	86	Callisto	0.3 L/ha	May 23	post	136	98	38	155	95	522
											Primextra II Magnum	4.0 L/ha	May 12	pre						
Pakenham	2	Soybeans	Mulcher	Disc (x2)				110	15		Integrity	1.1 L/ha	May 25	ppi		89	32	44	21	N/A
Wingham	2	Wheat	None	Cultivate	MR	RR	7.6	171	48	24	Roundup	3.0 L/ha	May 07	pre	128	69	32	124	130	483
											Atrazine 500	2.5L/ha	May 07	pre						
											Option 2.25 OD	1.56L/ha	Jun 02	post						
											Callisto	0.21L/ha	Jun 02	post						
Lancaster	3E	Soybeans	Deep Tillage	Cultivator (x2)				140			Primextra II Magnum	4 L/ha	Jun 07	post	122	43	23	58	117	363
											Callisto	.3 L/ha	Jun 07	post						
Ottawa	3E	Wheat	Soil Saver	Disc and Mulch Finisher	MR	MR	7.2	190	0	80	Primextra II Magnum	3.5L/ha	May 21	post	67	60	31	61	33	252
											Ultim 75DF	33.7g/ha	Jun 06	post						
											Distinct	285g/ha	Jun 06	post						
Winchester	3E	Soybeans	Plow	Cultivator (x3)				180	30	16	Primextra II Magnum	4 L/ha	Jun 07	post	76	32	64	140	56	368
											Callisto	.3 L/ha	Jun 07	post						
Blyth	3W	Wheat	Disk	Cultivate	MR	RR	7.7	171	48	24	Option 2.25 OD	1.56L/ha	Jun 06	post	45	50	6	69	81	251
											Callisto	0.21L/ha	Jun 06	post						
											UAN	2.5L/ha	Jun 06	post						
											Aatrex Liquid	0.58L/ha	Jun 06	post						
Dublin	3W	Soybeans	None	Cultivate	MR	MR	7.6	171	48	24	Option 2.25 OD	1.56 L/ha	Jun 06	post	96	78	5	50	75	304
											Callisto	0.21L/ha	Jun 06	post						
											Aatrex Liquid	0.58L/ha	Jun 06	post						
											UAN	2.5L/ha	Jun 06	post						
Waterloo	3W	Wheat	Soil Saver	Cultivator	NR	MR	7.2	154	39	130	Primextra II Magnum	4.0 L/ha	Jun 09	pre	160	66	20	72	103	421
											Callisto	0.3 L/ha	Jun 09	pre						
Exeter	4	Wheat	Plow	Cultivate	LR	RR	7.8	171	48	24	Primextra	4L/ha	Jun 04	ppi	136	95	75	58	75	439
											Callisto	0.21L/ha	Jul 01	post						
											Agral 90	0.2% v.v	Jul 01	post						
Ilderton	4	Wheat	Disk	Cultivate	RR	RR	7.2	171	48	24	Primextra	4.0L/ha	May 09	ppi	125	55	18	35	45	278
Thorndale	4	Wheat	Plow	Cultivate	MR	MR	7.4	177	48	24	Primextra	4L/ha	May 10	ppi	154	65	18	38	38	313
Woodstock	4	Soybeans	Chisel Plow	Cultivator	MR	MR	7	171	85	62	Primextra II Magnum	3.5 L/ha	May 31	pre	126	105	80	102	113	526
											Callisto	0.3 L/ha	May 31	pre						
Belmont	5	Soybeans	Cultivate	Cultivate	MR	MR	7.1	181	54	27	Primextra II Magnum	3.0 L/ha	Jun 01	ppi	166	66	77	131	152	592
											Distinct	0.285 kg/ha	Jun 24	post						
Kerwood	5	Soybeans	None	Cultivate	MR	LR	7	181	54	27	Option	1.56 L/ha	Jun 02	post	66	59	11	89	90	315
											Callisto	0.21 L/ha	Jun 02	post						
											Aatrex	0.58 L/ha	Jun 02	post						
West Lorne	5	Soybeans	Soil Saver	Cultivate	LR	RR	5.8	181	54	27	Primextra II Magnum	3 L/ha	Jun 15	post	196	79	83	108	104	570
											Callisto	0.3 L/ha	Jun 15	post						
Ridgetown	6	Winter wheat	Plow	Cultivator	RR	MR	5.5	198	54	27	Primextra II Magnum	3 L/ha	May 25	post	154	75	70	71	119	489
Tilbury	6	Soybeans	Vertical Tillage	Cultivate	MR	MR	7.6	181	54	27	Callisto	0.3 L/ha	May 25	post	120	45	10	66	95	336
											Primextra II Magnum	3 L/ha	May 25	post						
Wabash	6	Soybeans	Soil Saver	Cultivate	LR	LR	6.8	181	54	27	Option	1.56 L/ha	Jun 02	post	110	64	10	59	90	333
											Callisto	0.21 L/ha	Jun 02	post						
											Aatrex	0.58 L/ha	Jun 02	post						