



2014

Ontario Hybrid Corn Performance Trials

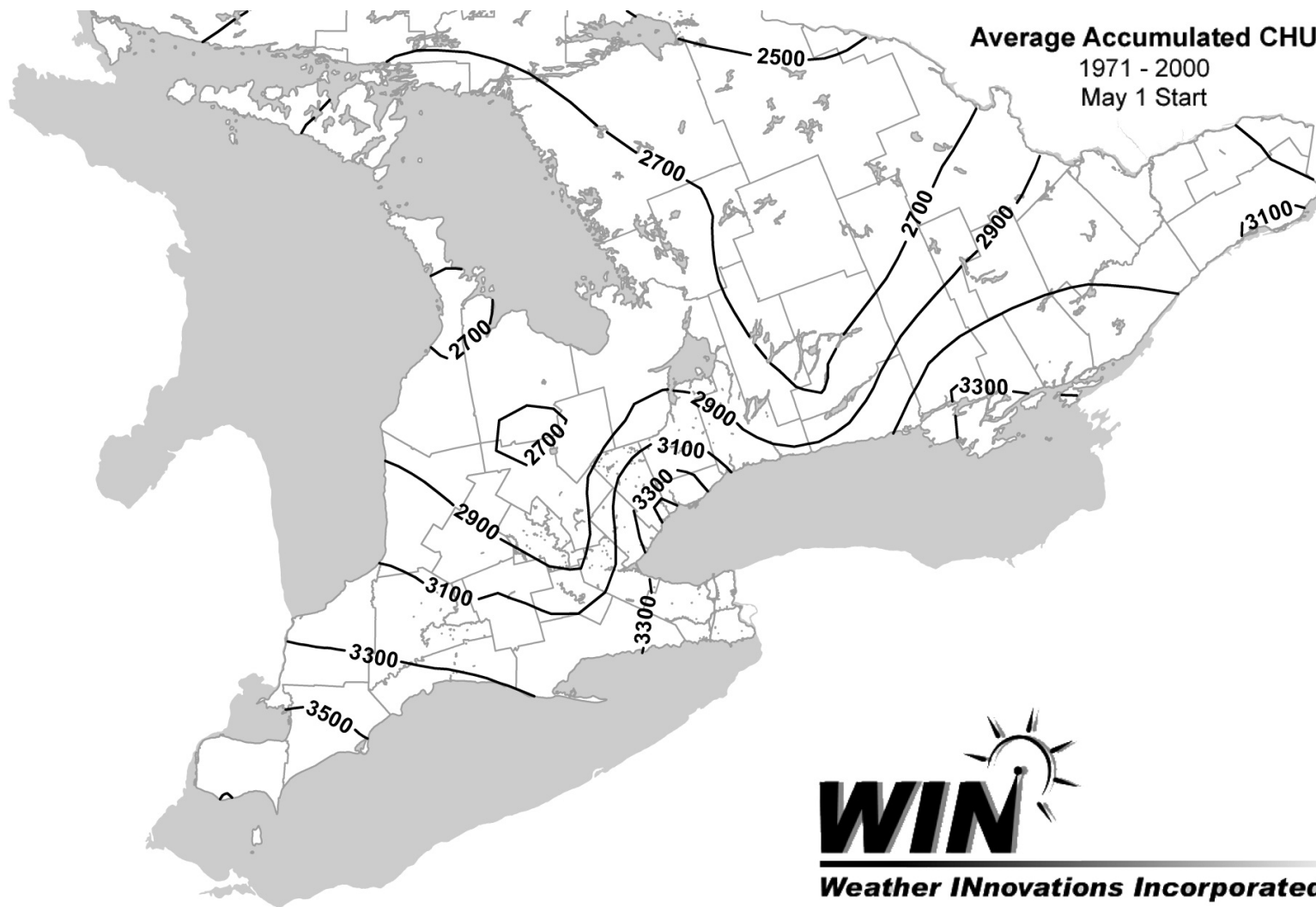
Data collected 2013-2014

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

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PDF files of this report
Sortable on-line tables
Yield x Moisture Content

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.

ONTARIO CORN COMMITTEE

The ONTARIO CORN COMMITTEE is made up of representatives of Agriculture and Agri Food Canada, the Ontario Ministry of Agriculture and Food, 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: Ridgetown Campus, University of Guelph, Ridgetown; Plant Agriculture Department, University of Guelph; Kemptville Campus, University of Guelph, Kemptville; Kent Ag Research Inc., 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. Plots consist of four rows of which the middle two rows are harvested for yield. Fertilizer rates may be higher than those recommended by OMAF 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 with 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 plant, 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 measured 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 Canada Grain Commission.

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For further information, contact
The Secretary, Ontario Corn Committee,
109 Maple Ridge Road, R. R. # 2,
Owen Sound, Ontario N4K 5N4.

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 (i.e. less than the LSD shown at the bottom of the table) 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.

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.

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 kg/hl (kilograms per hectoliter). 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.

Corn Heat Units - 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. Hybrid heat unit ratings have been assigned by the sponsoring company.

% 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.

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.refugeselector.ca

Hybrids identified with an "O" in the Notes column are available with a refuge hybrid included.

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
W	Resistant to Western Bean Cutworm
O	Available with Refuge Included

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 December 9, 2014. 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	Country Farm Seeds Ltd.	Box 790, Blenheim, ON N0P 1A0	1-800-449-3990
DEKALB	Monsanto Canada Inc.	120 Research Lane, Suite 101, Guelph, ON N1G 0B4	1-800-667-4944
Elite	La Coop federee	9001, Blvd. de L'Acadie, Montreal, 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	P.O. Box 1090, 5 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
Mycogen Seeds	Dow AgroSciences Canada Inc.	73 Cecile Avenue, Chatham, ON N7M 5S2	519-350-3216
NK Brand	Syngenta Seeds Inc.	15910 Medway Rd., R.R.#1, Arva, ON N0M 1C0	1-800-756-SEED
PICKSEED	DLF Pickseed Canada Inc.	1 Greenfield Road, Lindsay, ON K9V 4S3	1-705-878-9240
Pioneer	Pioneer Hi-Bred Limited	Box 730, 7398 Queens Line, Chatham, ON N7M 5L1	1-800-265-9435
PRIDE Seeds	AgReliant Genetics Inc.	P. O. Box 1088, 6836 Pain Court Line, Chatham, ON N7M 5L6	1-519-354-3210

2014 Trial Locations and General Information - Ontario Hybrid Corn Performance Trials

Location	See Table Number	Heat Unit Rating	5 Year Heat Unit Average ¹	2014 CHU Total ²	Soil Type	Co-operator	Final plants per acre ⁴	Date planted ⁵	Date Harvested
Orangeville	1	2700	2746	2599	Sandy Loam	Woodrill Farms Ltd	30000	May 10	Nov 26
Dundalk	1	2600		2303	Harriston Loam	Leo Blydorp	32000	May 21	Dec 06
Elora	2	2800	2852	2806	Silt Loam	University of Guelph	32000	May 08	Oct 29
Lindsay	2	2800		N/A	Clay loam	Ed Bagshaw	31500	May 21	Nov 16
Winchester Table 2	2	3000	N/A	N/A	Clay Loam	Univ of Guelph- Kemptville Campus	Discarded - uneven emergence		
Wingham	2	2800	2848	N/A		Rob Warwick	Discarded due to bird damage		
Lancaster	3E	3000	2913	N/A	Sandy Loam	Univ of Guelph- Kemptville Campus	31596	May 21	Nov 20
Ottawa	3E	3000	3095	3045	Clay loam	Agriculture and Agri-Food Canada	32000	May 18	Nov 10
Winchester Table 3	3E	3000	2930	N/A	Clay Loam	Univ of Guelph- Kemptville Campus	31596	May 20	Nov 11
Blyth	3W	3000	2948	2857	Silt Loam	Heinrich Farms	32000	May 10	Nov 10
Dublin	3W	3000	2980	2667	Silt Loam	Al Murray	32000	May 28	Nov 11
Waterloo	3W	2900	2927	2797	Sandy Loam	Rosendale Farms Ltd.	32000	May 19	Nov 03
Exeter	4	3050	2972	2670	Silt Loam	Cliff Hicks	32000	Jun 01	Dec 03
Ilderton	4	3100	3075	2766	Silt Loam	John Walls	32000	May 26	Dec 02
Thorndale	4	3150	3036	2982	Silt Loam	Pat Elliot	32000	May 13	Nov 13
Woodstock	4	3150	3075	2762	Loam	University of Guelph	30000	May 20	Nov 05
Belmont	5	3250	3037	2741	Loam	Claire Hooker	32000	May 28	Nov 14
Kerwood	5	3200	3067	2719	Loam	Dave Bolton	32000	May 30	Dec 01
West Lorne	5	3335	3059	2853	clay loam	Sanden Acres Ltd	32000	Jun 02	Nov 15
Ridgetown	6	3450	3461	N/A		Univ of Guelph- Ridgetown Campus	Discarded - uneven emergence		
Tilbury	6	3650	3481	3034	Loam	Cam Sullivan	32000	May 29	Nov 21
Dresden	6	3600	N/A	2947	Loam	Brent McFadden	32000	May 26	Nov 21

Notes:

1 Average total heat unit accumulation 2009 - 2013, 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.

4 These populations may not be suitable for your farm.

5 All trials planted in 30 inch row widths.

N/A = Not Available

2014 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	P2O5	K2O	Product	Rate	Date	Method	May	Jun	Jul	Aug	Sep	Total
Orangeville	1	Potatoes		Cultivator x2	MR	MR	6.5	120	30	110	Primextra II MAC Callisto	4.0 L/ha 0.3 L/ha	May 06 Jun 16	ppi post	47	64	134	52	140	437
Dundalk	1	Wheat		Cultivator x2	MR	HR	7.3	141	30	30	Primextra Callisto	4.0 L/ha 0.3 L/ha	May 28 May 28	pre pre	59	96	146	78	130	509
Elora	2	Wheat	Disc Ripper	Cultivator x2	MR	MR	7.6	153	46	75	Primextra Callisto	4.0 L/ha 0.3 L/ha	May 26 May 26	post post	71	87	154	63	171	546
Lindsay	2	Soybeans	None	RTS 2x's	LR	MR	7.6	175	65	100	Callisto Primextra	144ml/ac 1.5L/ac	Jun 03 Jun 03	post post	Not Available					
Winchester T2	2	Soybeans	Mouldboard Plough	Disc, cultivated	MR	LR	6	145	60	90	Roundup Integrity	1L/ac 0.45L/ac	May 06 Jun 17	pre post	81	89	93			N/A
Wingham	2	Wheat w/ RC	None	Cultivator																N/A
Lancaster	3E		Mouldboard Plough	Disced, Cultivated	N/A	N/A	N/A	N/A	N/A	N/A	Integrity	0.45 L/ac	May 27	post						N/A
Ottawa	3E	Wheat	Soil Saver	Disc and Mulch finisher	MR	MR	7.3	200	0	40	Primextra II Magnum + Calisto Ultim 75DF Distinct	3L/ha+0.3L/ha 33.7g/ha 285g/ha	May 16 Jun 09 Jun 09	ppi post post	57	124	78	86	74	419
Winchester	3E	Soybeans	Mouldboard Plough	Disc and Cultivated	MR	MR	7	145	60	90	Roundup Integrity	1 L/ac 0.45L/ac	May 06 Jun 17	pre post						N/A
Blyth	3W	Dry Beans		Cultivate	HR	MR	7.3	N/A	N/A	N/A	Peak Banvel Option	5.3 g/ac 0.12 L/ac 0.63 L/ac	Jun 13 Jun 13 Jun 13	post post post	125	65	185	95	120	590
Dublin	3W	Soys	None	Cultivator x2	RR	MR	7.4	N/A	N/A	N/A	Peak Banvel Option Accent	5.3 g/ac .12 L/ac 0.63 L/ac 13 g/ac	Jun 13 Jun 13 Jun 13 Jun 30	post post post post	115	60	252	90		N/A
Waterloo	3W	Wheat	Chisel Plough	Cultivator x2	NR	LR	6.9	175	68	120	Primextra Callisto Ultim	3.5 L/ha 0.3 L/ha 100 g/ha	May 12 May 29 May 29	ppi post post	70	52	192	80	183	577
Exeter	4	Wheat w/ RC	Moldboard Plow	Cultivation	MR	LR	7.5	N/A	N/A	N/A	Frontier Max Summit	350 mL/ac 350 g/ha	Jun 01 Jun 27	ppi post	130	63	142	43	151	529
Ilderton	4	N/A		Cultivator	RR	LR	7.3	N/A	N/A	N/A	Primextra Summit	3.5 L/ha 350 g/ha		ppi post	95	65	130	50		N/A
Thorndale	4	N/A	Chisel Plow	Cultivator	HR	MR	7	N/A	N/A	N/A	Integrity	0.44 L/ac		ppi	90	55	140	100	170	555
Woodstock	4	Soybeans	Soil Saver	Cultivator x2	LR	MR	7	168	70	70	Primextra Callisto	3.5 L/ha 0.3 L/ha	May 24 May 24	pre pre	82	80	129	40	140	471
Belmont	5	Wheat/ Red Clover	Plow	Cultivator	N/A	N/A	N/A	140	54	24	Pardner	1L/ha	Jun 20	post	73	60	122	71	174	500
Kerwood	5	Soybeans	none	Cultivator	N/A	N/A	N/A	160	54	24	Converge Flexx Converge 480	134ml/ac 670ml/ac	Jun 04 Jun 04	post post	39	46	32	51	59	227
West Lorne	5	Soybeans	none	Cultivator	N/A	N/A	N/A	175	54	24	Converge Flexx Converge 480	134ml/ac 670ml/ac	Jun 04 Jun 04	post post	93	72	106	110	138	519
Ridgetown	6				N/A	N/A	N/A													N/A
Tilbury	6	Soybeans	None	Cultivate	N/A	N/A	N/A	175	54	24	Converge Flexx Converge 480	134ml/ac 670ml/ac	Jun 04 Jun 04	post post	23	33	55	37	51	199
Dresden	6	Wheat	Plow	Cultivator	N/A	N/A	N/A	175	54	24	Converge Flexx Converge 480	134ml/ac 670ml/ac	Jun 04 Jun 04	post post	25	32	81	30	42	210

N/A = Not Available Table will be updated as information becomes available