



# 2013

## Ontario Hybrid Corn Performance Trials

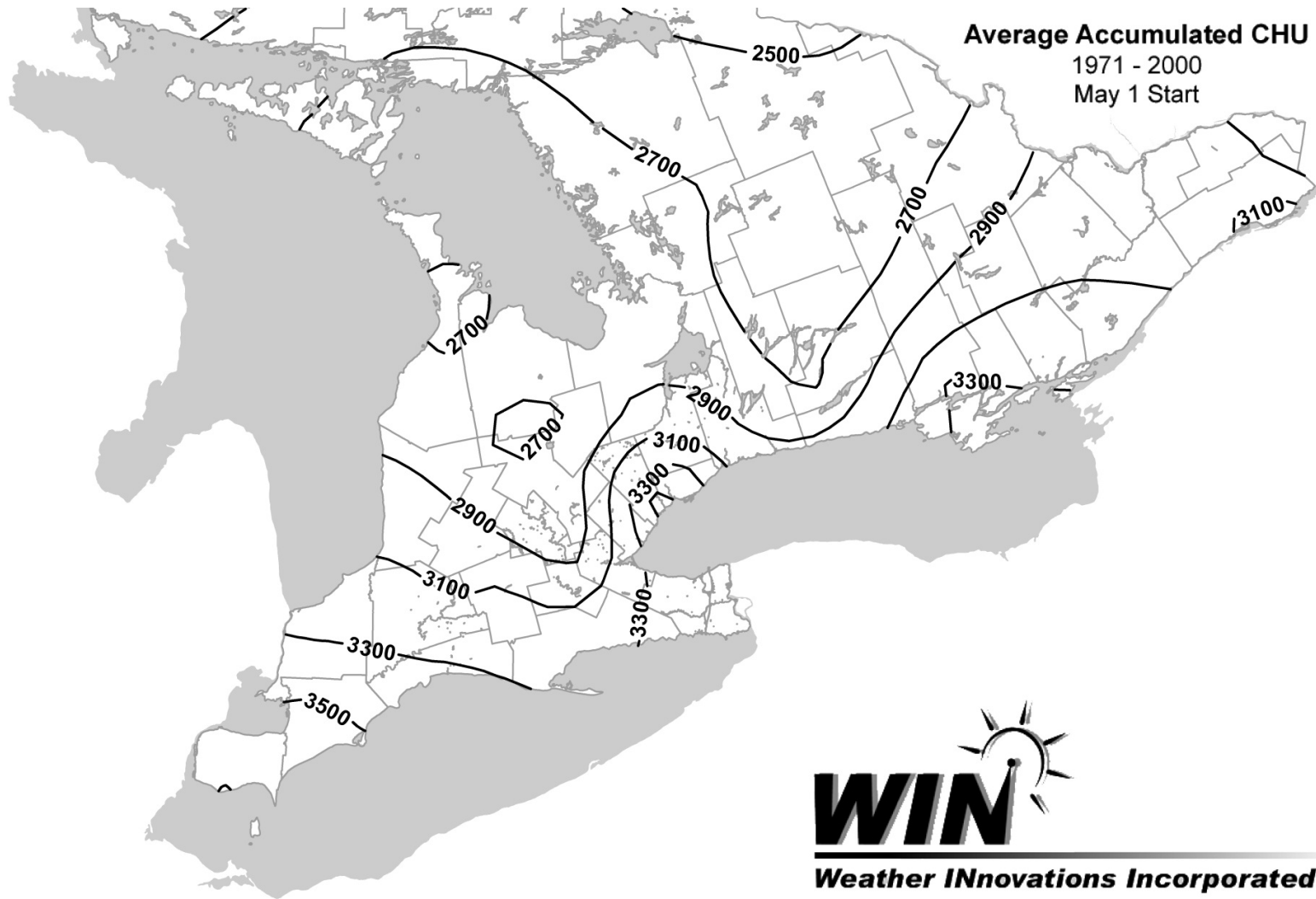
Data collected 2012-2013

Conducted by the Ontario Corn Committee • [www.gocorn.net](http://www.gocorn.net)

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

## 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; 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 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 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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## 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](http://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 November 28, 2013. 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.	397 rue Claude, Ile Bizard, QC H9C 2S7	514-823-9611
NK Brand	Syngenta Seeds Inc.	15910 Medway Rd., R.R.#1, Arva, ON N0M 1C0	1-800-756-SEED
PICKSEED	PICKSEED	1 Greenfield Road, Lindsay, ON K9V 4S3	1-800-661-GROW
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

## 2013 Trial Locations and General Information - Ontario Hybrid Corn Performance Trials

Location	See Table Number	Heat Unit Rating	5 Year Heat Unit Average <sup>1</sup>	2013 CHU Total <sup>2</sup>	ECB Rating <sup>3</sup>	Soil Type	Co-operator	Final plants per acre <sup>4</sup>	Date planted <sup>5</sup>	Date Harvested
Alma	1	2700	2793	2737	L	Listowel Loam	Eastep Farms Ltd	32000	May 09	Oct 30
Orangeville	1	2700	2733	2714	L	Sandy Loam	Woodrill Farms Ltd.	32000	May 04	Nov 19
Elora	2	2800	2831	2751	L	Silt Loam	University of Guelph	32000	May 08	Oct 28
Lindsay	2	2800		N/A	L	Clay Loam	Ed Bagshaw	32150	May 08	Nov 05
Winchester T2	2	3000	2946	2878	L	Clay Loam	Univ of Guelph - Kemptville Campus	32000	May 10	Nov 08
Wingham	2	2800	2841	2802	L	Harriston Loam	Rob Warwick	32000	May 08	Nov 07
Lancaster	3E	3000	2916	2952	L	Silt Loam	Peter Van Sleeuwen	32000	May 08	Nov 05
Ottawa	3E	3000	3100	2962	L	Granby Sandy Loam	Agriculture and Agri-Food Canada	discarded due to variability		
Winchester	3E	3000	2946	2878	L	Clay Loam	Univ of Guelph - Kemptville Campus	discarded due to flooding		
Blyth	3W	3000	2924	2931	L	Clay Loam	Heinrich Farms	32000	May 07	Nov 05
Dublin	3W	3000	2943	2991	L	Silt Loam	Al Murray	32000	May 08	Nov 05
Waterloo	3W	2900	2913	2970	L	Sandy Loam	Rosendale Farms Ltd.	32000	May 06	Oct 15
Exeter	4	3050	2957	3037	L	Clay Loam	Cliff Hicks	32000	May 06	Nov 09
Ilderton	4	3100	3090	2978	L	Silt Loam	John Walls	discarded due to erosion		
Thorndale	4	3150	3017	3044	L	Silt Loam	Pat Elliot	32000	May 06	Nov 16
Woodstock	4	3150	3059	3007	L	Loam	University of Guelph	32000	May 14	Nov 04
Belmont	5	3250	2991	3141	L	Loam	Peter Gredig	32000	May 15	Nov 16
Kerwood	5	3200	3041	3151	L	Clay Loam	Dave Bolton	32000	May 08	Nov 14
West Lorne	5	3335	3051	3287	L	Clay	Sanden Acres Ltd.	32000	May 13	Nov 20
Ridgetown	6	3450	3449	3442	L	Loam	U. of G. - Ridgetown	32000	May 06	Nov 08
Tilbury	6	3650	3473	3464	L	Sandy Loam	Dan Sullivan	32000	May 09	Nov 15
Dresden	6	3500		3367	L	Clay Loam	Brent McFadden	32000	May 07	Nov 14

### Notes:

1 Average total heat unit accumulation 2008 - 2012, 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 European Corn Borer rating: N = None L = Low M = Moderate H = High.

4 These populations may not be suitable for your farm.

5 All trials planted in 30 inch row widths.

## 2013 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
Alma	1	Barley	Soil Saver	Cultivator	LR	MR	7.4	123	45	22	Primextra Callisto	3.5l/ha 0.3l/ha	May 27 May 27	post post	107	128	116	43	97	491
Orangeville	1	Potatoes		Cultivator	MR	MR	6.9	132	45	22	Primextra II MAC Callisto	4.0l/ha 0.3l/ha	May 03 May 27	pre post	167	85	148	113	105	618
Elora	2	Wheat	Disc Ripper	Cultivator	RR	RR	7.5	158	45	22	Primextra Callisto	4.0l/ha 0.3l/ha	May 16 May 16		106	126	161	101	201	695
Lindsay	2	Soybeans	RTS	RTS, Cultivator	LR	MR	7.7	160	65	82	Callisto Primextra	122 ml/ac 1.0 L/ac		pre pre						N/A
Winchester T2	2	Soybeans	Plow	Cultivator x2				180	38	15	Primextra II Magnum Callisto	4 L/ha .3 L/ha	May 28 May 28	post post	61	165	104	58	178	566
Wingham	2	Soybeans	None	Cultivate	LR	MR	7.6	170	48	24	Converge 480 Converge Flexx	1.67L/ha 330ml/ha	May 17 May 17	pre pre	94	71	116	69	91	441
Lancaster	3E	Soybeans	Deep Tillage	Cultivator x2				240			Ultim Callisto Aatrex NIS	33 g/ha .21 L/ha .58 L/ha 2L/1000L	Jun 04 Jun 04 Jun 04 Jun 04	post post post post	71	203	119	94	206	693
Blyth	3W	Soybeans	Disk	Cultivate	MR	LR	7.6	170	48	24	Primextra Callisto	3L/ha .21L/ha	May 04 Jun 04	ppi post	25	115	75	143	89	447
Dublin	3W	Soybeans	None	Cultivate	LR	MR	7.5	170	48	24	Converge 480 Converge Flexx Accent	1.67L/ha 330ml/ha 33.4g/ha	May 16 May 16 Jun 26	pre pre post	20	120	75	130	170	515
Waterloo	3W	Wheat	Chisel	Cultivator	RR	LR	7.6	179	123	103	Primextra Callisto	3.5l/ha 0.3l/ha	May 06 May 21	pre post	72	138	110	65	97	482
Exeter	4	Winter Wheat	Plow	Cultivate	LR	MR	6.4	170	48	24	Converge 480 Converge Flexx	1.67L/ha 330ml/ha	May 17 May 17	pre pre	68	63	115	48	116	410
Thorndale	4	Winter Wheat	Plow	Cultivate	RR	RR	6.8	175	48	24	Distinct Primextra Callisto	285g/ha 4L/ha .21L/ha	Jun 08 May 03 Jun 05	post ppi post	81	85	80	81	94	421
Woodstock	4	Wheat	Soil Saver	Cultivator	LR	MR	7.2	171	85	62	Primextra Callisto	3.5l/ha 0.3l/ha	May 15 May 15	pre pre	104	110	77	60	147	498
Belmont	5	Soybeans	N/A	Cultivated	HR	MR	6.5	175	52	30	Option Callisto Aatrex 28%	0.63 L/ac 0.085 L/ac 0.235 L/ac 1L/ac	Jun 01 Jun 01 Jun 01 Jun 01	post post post post	73	122	114	78	123	510
Kerwood	5	Soybeans	n/a	Cultivate	RR	LR	7.6	175	52	30	Option Calisto Aatrex 28%	0.63L/ac 0.085L/ac 0.235L/ac 1L/ac	May 16 May 16 May 16 May 16	post post post post	58	65	100	44	122	389
West Lorne	5	Soybeans	Chisel Plow	Cultivate	MR	RR	6.9	175	52	30	Option Calisto Aatrex 28%	0.63L/ac 0.085L/ac 0.235L/ac 1L/ac	May 16 May 16 May 16 May 16	post post post post	96	101	53	102	104	456
Ridgetown	6	Soybeans	Chisel Plow	Cultivate	MR	MR	6	175	52	30	Option Calisto Aatrex 28%	0.63L/ac 0.085L/ac 0.235L/ac 1L/ac	May 16 May 16 May 16 May 16	post post post post	64	102	79	53	90	388
Tilbury	6	Soybeans	Verticle Till	Cultivate	MR	RR	7.3	175	52	30	Option Calisto Aatrex 28%	0.63L/ac 0.085L/ac 0.235L/ac 1L/ac	May 17 May 17 May 17 May 17	post post post post	60	65	88	25	83	321
Dresden	6	Soybeans	n/a	Cultivate	MR	RR	6.1	175	52	30	Option Calisto Aatrex 28%	0.63L/ac 0.085L/ac 0.235L/ac 1L/ac	May 17 May 17 May 17 May 17	post post post post	75	105	46	23	98	347