

Choosing Your Next Corn Hybrid



Grain Corn Trial Report

Location	MacGregor	Previous Crop	Barley
Grower	Delta Colony	Fertility	Manure Injected Spring 2023
Town	Austin	Planting Date	29-May-23
County	Canada	Soil Temp at Planting	18 Degrees Celcius
Province	Manitoba	Seeding Depth	1.5"
Legal Land Description	S 3-11-27W	Harvest Date	November 14th, 2023
GPS Coordinates	90.047191, -99.040874	Soil Type	Sandy Loam
Harvested Length	1000ft	Tillage Type	Conventional
Harvest Width	16ft	Row width	30"
Number of Rows	4	Planted Population	33,000

Entry	Brand	Hybrid	Trait	RM	CHU	Acres	Harvest Weight (lbs)	Dry Weight (lbs)	Test Weight (lbs/bu)	Moisture %	Bu/Acre (Test Weight)	
											15.5% Moisture	15.5% Moisture
1	Maize	MZ1200	VT2P/RIB	72	2050	0.23	1700	1626	52.57	19.2	134.44	125.21
2	Maize	MZ1340	VT2P/RIB	73	2150	0.23	1920	1743	51.27	23.3	147.79	135.31
3	Maize	MZ1544	VT2P/RIB	75	2250	0.23	1720	1533	49.16	24.7	135.56	119.00
4	Maize	MZ1688	VT2P/RIB	76	2300	0.23	1980	1800	49.77	23.2	157.21	139.72
5	Maize	E49K32	VT2P/RIB	79	2300	0.23	2020	1857	52.51	22.3	153.80	144.21
6	Croplan	CP EXP 72	VT2P/RIB	72	-	0.23	2060	1980	55.88	18.8	154.02	153.69
7	Croplan	CP 1440	VT2P/RIB	76	2100	0.23	1980	1877	50.83	19.9	160.54	145.72
8	Croplan	CP 2123	VT2P/RIB	79	2300	0.23	2200	2090	50.71	20.1	178.36	161.51
9	Croplan	CP EXP 80	VT2P/RIB	80	-	0.23	2290	2168	52.57	20.0	179.31	168.33
10	Croplan	CP EXP 81	VT2P/RIB	81	-	0.23	1970	1818	51.95	22.0	152.19	141.18
11	Dekalb	DKC 72-23	VT2P/RIB	72	-	0.23	1850	1714	51.95	21.7	143.47	133.09
12	Dekalb	DKC 21-36	VT2P/RIB	72	2075	0.23	1990	1903	52.64	19.2	157.17	147.74
13	Dekalb	DKC 24-06	VT2P/RIB	74	2100	0.23	2130	2004	52.26	20.5	166.72	155.59
14	Dekalb	DKC 25-15	VT2P/RIB	75	2125	0.23	1750	1613	53.01	22.1	132.32	125.26
15	Dekalb	DKC 28-25	VT2P/RIB	78	2250	0.23	1940	1788	50.09	22.1	155.24	138.86
16	Dekalb	DKC 30-63	VT2P/RIB	80	2315	0.23	2330	2173	51.64	21.2	182.74	168.70
17	Dekalb	DKC 31-85	VT2P/RIB	81	2425	0.23	2550	2340	49.46	21.8	207.45	183.22
Average							2022.4	1884.3	51.7	21.3	161.7	164.3

CORN HEAT UNITS

Early fall frost on immature corn can lead to yield losses (figure 2) and poor-quality grain. To give yourself the best chance of avoiding this issue pick a variety with the proper CHU rating to suit your region. Once you've determined your regions CHU rating on the map (figure 1) you are ready narrow down the appropriate hybrids. By using your determined CHU rating, you should be able to pick the hybrids that if planted mid-May will reach full maturity 9 out of every 10 years. Pick a hybrid with 100 less CHU per week if planting happens beyond mid-May.

YIELD POTENTIAL

Analyze trial data! As a producer you should continuously monitor trial data of new hybrids that are being introduced to the market. To properly determine if a new hybrid will work for you evaluate results over multiple years and regions. This will give you a representation on how a certain hybrid performs in multiple environmental and growing conditions. The more years a hybrid has been tested the more reliable the results will be. There are tons of different ways to source trial results whether it's through the seed company, Manitoba Corn Committee or your local Shur-Gro agronomist!

HYBRID TRAITS

There are many hybrid traits that you can look at when considering a new hybrid such as standability, disease resistance, test weight, dry down rate, and herbicide tolerance. Depending on your end use test weight may be an important factor in what hybrid you choose, trial data should give you an idea of the average test weight of a specific hybrid. Dry down rate is arguably the most important trait. Grain corn is mature at 31 - 35% moisture but is not usually harvested until 20 - 27%. Plant characteristics that can affect dry down are based around the husk such as leaf number, leaf thickness, leaf tightness, coverage, and leaf tightness. Typically, most seed companies will now have a rating for specific hybrids dry down rate.



CROPLAN 1440VT2P

Since released in 2020 Croplan 1440 has been a very successful hybrid across Manitoba. At 2100 CHU this hybrid is a perfect fit for most corn growing regions. Its quickness out of the ground and fast dry down rate along with great yields have been the key contributing factors to its success. For more info URL below and talk to your local Shur-Gro representative!

<https://www.winfieldunited.ca/en/seed/corn>

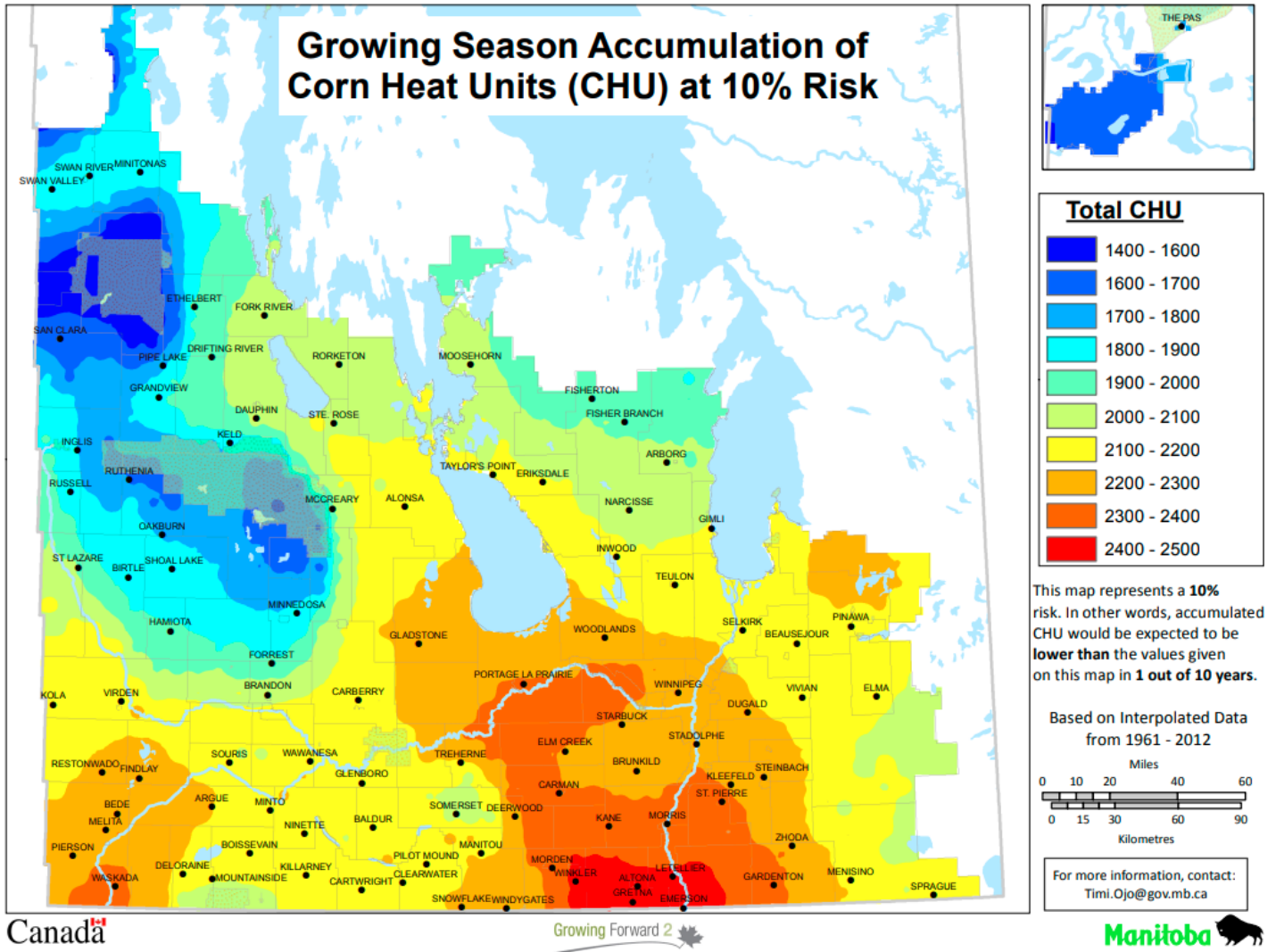


Figure 1

Corn kernel stage	Leaves and stalk damaged by a freeze ¹ : Silage yield loss	Leaves and stalk damaged by a freeze ¹ : Grain yield loss	Only leaves damaged by a freeze ² : Grain yield loss	Test weight ³	Grain moisture ⁴	Whole plant moisture ⁵
R4 (dough)	30%	66%	41%	---	70%	76%
R5 (dent)	21%	55%	23%	47 lbs. per bushel	60%	73%
R5.25 (75% milk)	15%	35%	18%	50 lbs. per bushel	52%	68%
R5.5 (50% milk)	5%	10%	5%	53 lbs. per bushel	40%	66%
R5.75 (25% milk)	1%	3%	2%	54-55 lbs. per bushel	37%	63%

Figure 2