Choosing Your Next Corn Hybrid

SHUR-GRO Farm Services

Grain Corn Trial Report

Location	MacGregor	**Previous Crop**	Barley
Grower	Delta Colony	**Fertility**	Manure Injected Fall 2021
Town	Austin	**Planting Date**	27-May-22
County	Canada	**Soil Temp at Planting**	14 Degrees Celcius
Province	Manitoba	**Seeding Depth**	1.5"
Legal Land Description	NE 32-12-12w	**Harvest Date**	October 27th, 2022
GPS Coordinates	50.0631285, -99.0740325	**Soil Type**	Sandy Loam
Harvested Length	871.2ft	**Tillage type**	Conventional
Harvest Width	10ft	**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	Bu/Acre (56lbs/bu) 15.5% Moisture
1	Syngenta	NK 7837-3220	Agrisure Viptera 3110	78	2350	0.20	2140	1794	51.50	29.17	174.17	160.17
2	CROPLAN	CP EXP 80	VT2P/RIB	80	-	0.20	2380	1992	49.80	29.26	200.04	177.90
3	CROPLAN	CP 2123	VT2P/RIB	79	2300	0.20	2290	1902	50.90	29.83	186.80	169.79
4	CROPLAN	CP 1440	VT2P/RIB	76	2100	0.20	2280	1978	52.00	26.70	190.19	176.60
5	CROPLAN	CP Exp 73	VT2P/RIB	73	-	0.20	2240	1978	51.40	25.37	192.46	176.65
6	Dekalb	DKC 31-85	VT2P/RIB	81	2425	0.20	2520	2064	49.80	30.78	207.26	184.31
7	Dekalb	DKC 30-63	VT2P/RIB	80	2325	0.20	2480	2085	53.30	28.98	195.55	186.12
8	Dekalb	DKC 29-89	VT2P/RIB	79	2275	0.20	2360	2008	50.40	28.12	199.16	179.24
9	Dekalb	DKC 24-06	VT2P/RIB	74	2150	0.20	2330	1927	52.20	30.12	184.58	172.05
10	Dekalb	DKC 21-36	VT2P/RIB	71	2075	0.20	2440	2078	52.00	28.03	199.84	185.57
11	Dekalb	DKC 20-23	VT2P/RIB	70	2050	0.20	2120	1880	55.20	25.08	170.26	167.83
12	Horizon	HZ 1685	Agrisure Viptera 3110	76	2250	0.20	2200	1812	52.20	30.40	173.57	161.79
13	Horizon	HX 74	Agrisure	74	-	0.20	1960	1667	51.80	28.12	160.93	148.86
14	Horizon	HZ 1398	Agrisure 3010	73	2200	0.20	2290	1953	53.00	27.93	184.26	174.39
15	Horizon	HZ 1267	Agrisure GT	72	2150	0.20	2100	1805	54.10	27.36	166.84	161.18
Average							1707	1446	38.98	21.26	139.30	129.12

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 (Corn Heat Units) rating to suit your region. Once you've determined your regions CHU rating on the map (figure 1) you are ready to 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.

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 and coverage. Typically, most seed companies will now have a rating for specific hybrids dry down rate.

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 Farm Services Sales Agronomist!

CROPLAN CP1440V2P/RIB

Since being released in 2020 CROPLAN CP1440V2P/RIB 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, fast dry down rate and great yields have been the key contributing factors to its success. For more information click the link below or talk to your local Shur-Gro Farm Services Branch!

LEARN MORE

Figure 1

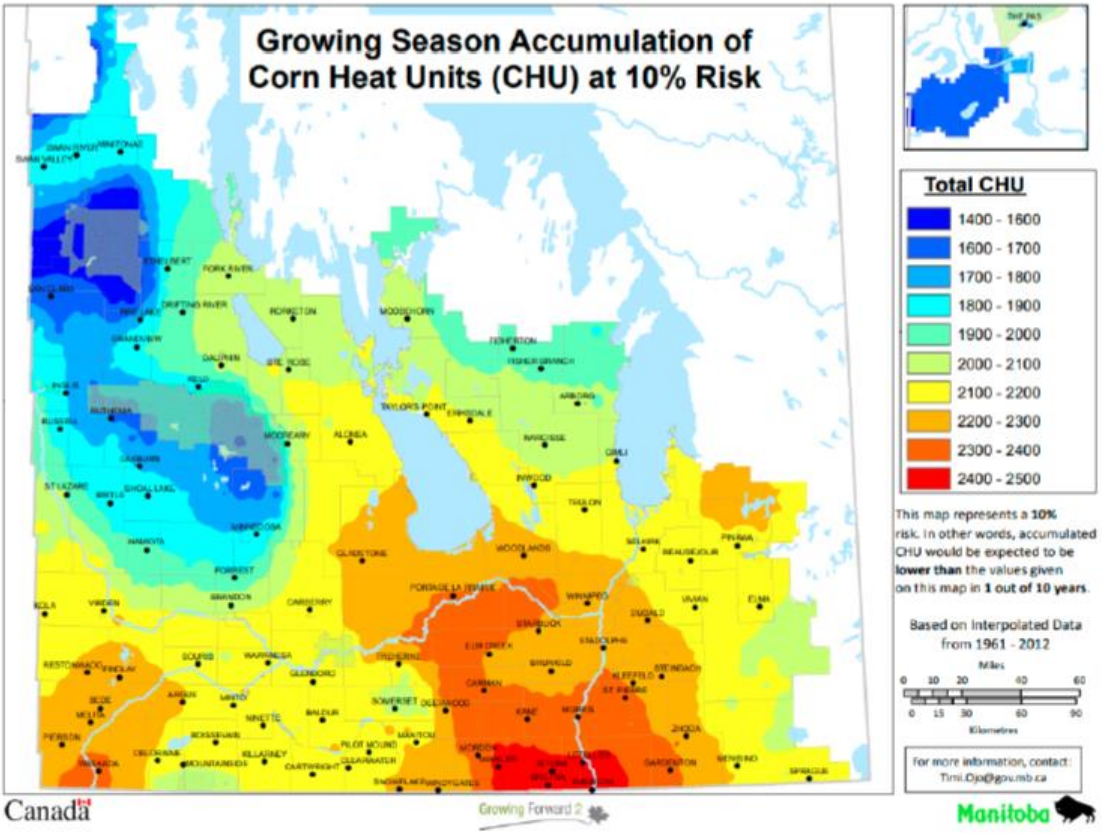

Figure 2

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%