

# **Manitoba Corn Growers Silage corn variety evaluation trial**

Nirmal Hari, James Lindal, Roger Burak

## **Collaborators**

Manitoba Corn Growers Association

## **Background and Objectives**

In Western Canada, barley is still the major silage crop. However, corn acres are also going up in the recent years. Statistical Canada predicted a 38% rise in corn acres in 2017 in Manitoba as compared to 2016. The difference in producing corn silage in the environment of the prairie of Western Canada than in southern Ontario and the U.S. Corn Belt is we have a shorter growing season. Now with the short-season corn varieties available, producers have more options to grow silage corn.

Manitoba Corn Growers Association coordinates varietal evaluation of potential new silage corn varieties in the province. These varietal trials are done at different sites in the province and Arborg is one of the site. This trial was conducted to see production potential of different silage corn varieties in Interlake region.

## **Materials and Methods**

Design – Replicated Block design

Replications – Three

Number of Varieties – 23

Seeding date – May 20

Seeding rate – 28,000 plants/acre

Fertilizer – 90 lbs/acre of P at seeding

Harvesting date – Oct 13

Weed Control – Glyphosate @ 0.5L/acre at June 10 and July 15

During harvesting, 500 grams of silage sample were taken from each plot and were sent to laboratory for quality analysis. These samples were assessed for % TDN, ADF and NDF. Yield data were analyzed using ANOVA and the means were separated using least significant difference (LSD test at  $p = 0.05$ ).

## **Results**

Silage corn varieties tested in the trial did not differ in term of yield (Table 1). The yield ranged from 16.64 – 23.09 Mt/acre and numerically variety DKC 30-19RIB produced higher yield. The trial CV was 11.7% showing that the results are presentable. Different corn varieties varied in the moisture level at harvest and it ranged from 46.6 -55.7%. Please see table 1 for more details.

## Project Findings

These results are based on one year of testing. Please use caution while using these results. For more information, contact Manitoba Corn Growers Association.

Table 1. Silage varieties performance at Arborg site during 2016.

<i>CHUI</i>	<i>Hybrid</i>	<i>Distributor</i>	<i>65% Yield (Mt/ac)</i>	<i>Moisture at harvest (%)</i>	<i>TDN (%)</i>	<i>ADF (%)</i>	<i>NDF (%)</i>
2125	A4177G3 RIB	PRIDE Seeds	16.66	48.31	67.74	28.92	49.46
2125	LR 9474VT2PRIB	Legend Seeds	18.32	52.36	66.46	30.12	52.01
2150	YUKON R	ELITE	20.6	49.47	66.42	30.16	53.74
2150	PV 60075 RIB	CPS-Proven Seed	20.14	49.01	67.78	28.88	49.68
2175	PS 2210VT2P RIB	DLF Pickseed	20.29	50.66	71.94	24.99	44.60
2200	A4415G2 RIB	PRIDE Seeds	18.33	49.16	65.46	31.06	53.68
2200	LR 9676VT2PRIB	Legend Seeds	19.64	49.03	67.96	28.72	49.76
2200	TH4578	Thunder Seeds	22.22	48.44	68.87	27.86	48.60
2200	TH7677	Thunder Seeds	17.9	51.33	69.75	27.04	47.39
2200	FUSION RR	ELITE	18.66	48.18	67.13	29.49	53.33
2200	E47A17 R	ELITE	20.16	50.09	74.45	22.64	39.45
2200	PS 2320RR	DLF Pickseed	20.39	48.18	68.43	28.28	50.14
2225	TH7578	Thunder Seeds	20.21	49.46	64.97	31.51	52.45
2250	LR 9579RR	Legend Seeds	22.8	54.2	70.01	26.80	46.06
2250	TH4126	Thunder Seeds	20.64	51.66	67.86	28.81	48.86
2250	X14123VH	DOW Seeds	19.45	54.95	68.42	28.29	48.54
2250	4085	DOW Seeds	20.41	48.35	68.39	28.31	48.86
2300	DKC 30-19RIB	DEKALB	23.09	46.6	70.88	25.98	45.41
2300	A4705HMRR	PRIDE Seeds	16.64	51.17	67.24	29.39	50.50
2300	DS80A27	DOW Seeds	17.63	49.5	73.18	23.83	44.09
2350	TH 7681	Thunder Seeds	18.15	55.77	71.00	25.87	46.15
2400	E50P52 R	ELITE	19.86	53.61	67.65	29.01	51.11
2600	X14225SX	DOW Seeds	19.97	55.76	69.59	27.19	49.70
	LSD			5.3			
	CV (%)		11.7	6.3			