2012 GUIDE TO CORN HYBRID SELECTION

Prince Edward Island CANADA Agriculture and Forestry

Table 1. Grain Hybrids: Combined data from current year and all prior years from all maritime testing locations

Zone	Hybrid	Traits	Yield at 15.5% moisture (t/ha)	Moisture at Harvest (%)	Performance Index#	Site Years	Harrington 2011 Stalk Breakage %
1+2+3	P7443R (PIONEER)	RR	9.24	25.3	105.0	9	14
1+2+3	20T06 Bt (CO-OP ELITE)	Bt	7.96	27.0	96.9	27	0
1+2+3	A4240RR* (PRIDE)	RR	8.92	27.5	101.4	9	24
1+2+3	HL R208 (HYLAND)	RR	8.09	27.5	98.5	18	17
1+2+3	A4176 BtRR (PRIDE)	Bt/RR	9.16	27.7	101.5	18	1
1+2+3	HL 3085* (HYLAND)	RR	8.54	27.8	100.4	9	4
1+2+3	MZ 1261BR (MAIZEX)	Bt/RR	8.22	27.8	99.8	27	3
1+2	39F60 (PIONEER)	Bt/RR	9.62	28.2	101.3	22	1
1+2	DKC 26-79 (MONSANTO)	Bt/RR	8.47	28.3	99.6	34	2
1+2	DKC 30-20 (MONSANTO)	Bt/RR	9.54	28.4	101.1	13	0
1+2	HL B18R (HYLAND)	Bt/RR	8.88	28.4	100.1	27	6
1+2	31Z15* (COOP ELITE)	-	9.35	28.5	100.8	8	11
1+2	91B18RR* (COOP ELITE)	Bt/RR	8.61	28.7	99.2	13	10
1+2	39B94 (PIONEER)	Bt/RR	9.65	28.9	100.4	22	2
1+2	SilEx BtRR (PICKSEED)	Bt/RR	9.50	28.9	100.3	38	2
1+2	20T16 Bt (CO-OP ELITE)	Bt	9.57	29.1	100.1	27	2
1+2	20T18 BtRR (CO-OP ELITE)	Bt/RR	9.40	29.4	99.6	22	5
1+2	HL B16R (HYLAND)	Bt/RR	9.35	29.4	99.4	31	4
1	39D97 (PIONEER)	Bt/RR	9.44	29.7	99.1	22	0
1	P8107HR* (PIONEER)	Bt/RR	10.22	30.0	98.7	9	1
1	N14D-CB/LL* (SYNGENTA)	Bt/LL	9.69	30.6	97.9	18	7

Traits: Bt = Corn borer protection; RR = Roundup Ready; LL = Liberty Link * = New hybrid;

Data are averages for all Maritime trials as reported by the Maritime Corn Testing Committee.

A combined yield/maturity index called a Performance Index (PI) is calculated from the performance of each hybrid compared to the performance of six standard hybrids. The PI minimizes yearly fluctuations due to weather or other factors. A PI below 100 indicates inferior performance compared to the standard (check) hybrids and those above 100 are superior. Standard hybrids for grain corn were: 20T06 Bt, MZ 1261BR, and DKC 26-79 for early, and HL B16R, SilEx,BtRR and 20T16 Bt for late hybrids.

Note to *Bt* hybrid users:
When growing *Bt* corn hybrids, include appropriate "refuge area" in the field or in adjacent fields within ¼ mile of *Bt* hybrids. For more information contact your seed representative, agronomist or the publication, "A Growers Handbook; Controlling European Corn Borer with *Bt* Corn Technology" (1.89 MB).

Table 2. Silage Hybrids: Combined data from current year and all prior years from all maritime testing locations

Zone	Hybrid	Traits	Dry Matter Yield (t/ha)	Dry Matter at Harvest (%)	Performance Index#	Site Years	Harrington 2011 Stalk Breakage %
1+2+3	2304RR* (PICKSEED)	RR	16.61	36.9	106.2	4	0
1+2+3	A4240RR* (PRIDE)	RR	16.06	36.3	103.3	8	0
1+2+3	MZ 1261BR (MAIZEX)	Bt/RR	14.66	35.7	94.3	13	1
1+2+3	LF 690R* (MAIZEX)	RR	15.47	35.5	99.4	9	26
1+2+3	DKC 26-79 (MONSANTO)	Bt/RR	14.83	35.4	95.3	34	3
1+2+3	HL B16R (HYLAND)	Bt/RR	15.57	35.4	100.1	23	5
1+2+3	HL R219 (HYLAND)	RR	16.52	35.3	101.6	13	4
1+2+3	A4176 BtRR (PRIDE)	Bt/RR	16.01	35.2	100.6	13	5
1+2+3	20T06 Bt (COOP ELITE)	Bt	16.26	35.0	100.4	28	9
1+2	39B94 (PIONEER)	Bt/RR	17.45	34.9	101.9	23	7
1+2	DKC 30-20 (MONSANTO)	Bt/RR	15.56	34.8	98.5	13	4
1+2	N14D-CB/LL* (SYNGENTA)	Bt/LL	16.06	34.7	99.2	13	10
1+2	39F60 (PIONEER)	Bt/RR	16.83	34.6	100.3	23	0
1+2	39D97 (PIONEER)	Bt/RR	15.76	34.6	98.4	23	1
1+2	20T18 Bt/RR (COOP ELITE)	Bt/RR	17.41	34.4	100.5	23	2
1+2	20T16 Bt (COOP ELITE)	Bt	17.53	34.3	100.4	28	1
1+2	SILEX BtRR (PICKSEED)	Bt/RR	17.05	34.3	99.6	34	0
1+2	P8107HR* (PIONEER)	Bt/RR	18.45	34.2	100.1	9	0
1+2	Fusion RR (COOP ELITE)	RR	16.64	34.2	98.7	18	3
1	ExTend Bt (PICKSEED)	Bt/XL	19.44	34.0	99.4	18	7
1	LF 755 BtRR (MAIZEX)	Bt/RR	17.85	33.9	99.3	38	1

Traits: Bt. = Corn borer protection: XL = Extra Leafy; RR = Roundup Ready; * = New Hybrid

Data are averages for all Maritime trials operated by the Maritime Corn Testing Committee.

A combined yield/maturity index called a Performance Index (PI) is calculated from the performance of each hybrid compared to the performance of six standard hybrids. The PI minimizes yearly fluctuations due to weather or other factors. A PI below 100 indicates inferior performance and those above 100 are superior compared to the standard (check) hybrids. Standards for silage corn were: MZ 1261BR, DK26-79, and HL B16R BtRR for early and 20T16 Bt, SilEx, BtRR, and LF755 BtRRfor late hybrids. Generally the more site years a hybrid has accumulated the more reliable the data should be.

ZONE DESIGNATIONS FOR CORN PRODUCTION

Based on the estimated available Crop Heat Units (CHU) (Figure 1) the Maritime Provinces have been divided into zones for corn production. The zone designations indicate the general potential of an area for corn production. Keep in mind that CHUs could vary from the average by 100 or more units from year to year. Also, within any Production Zone, areas with better or poorer corn potential may occur due to topography, soil type, drainage, or frost potential. The ultimate test is to evaluate corn production and new hybrids on a small scale at your location prior to attempting any major production.

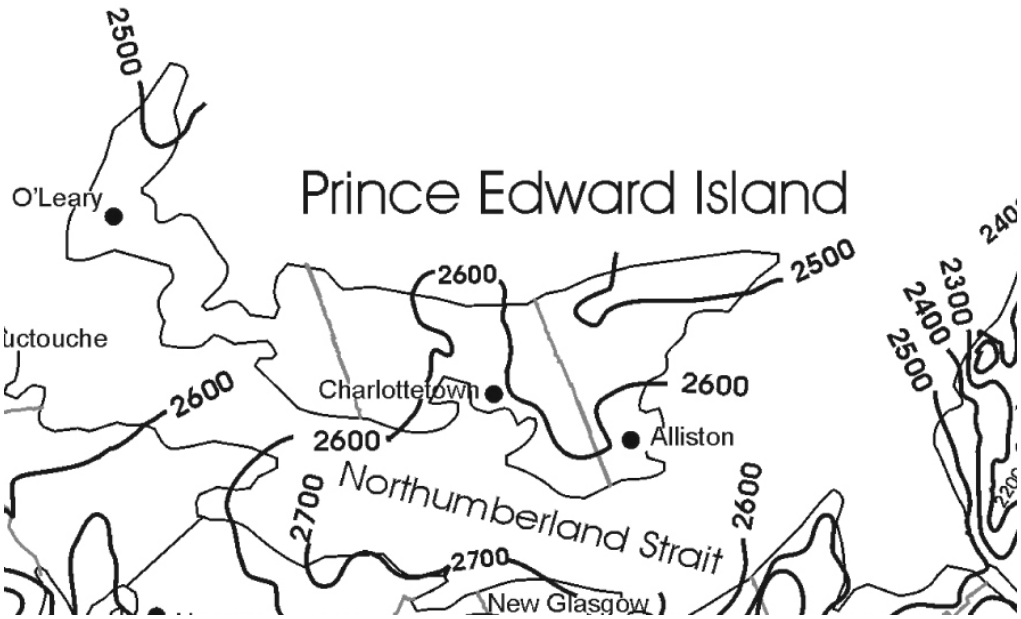

Figure 1. Average Corn Heat units on PEI

ZONE 1: (Over 2500 CHU's) Greatest potential for corn production as either silage or high moisture grain exists in this zone. Soil variations should be considered when selecting corn hybrids.

ZONE 2: (2300-2500 CHU's) Early hybrids are required for good silage maturity. The earliest grain hybrids will produce acceptable high moisture ear or grain corn.

ZONE 3: (2200-2300 CHU's) Only the earliest hybrids will produce acceptable silage on this zone. High moisture grain corn is quite risky.

ZONE 4: (Less than 2200 CHU's) Corn production is risky.

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Copies of this publication are available at http://www.gov.pe.ca/agriculture/Corn or from the Agriculture Information Desk 1-866-PEI Farm (734-3276).