

Corn Silage



The Minnesota Hybrid Corn Silage Evaluation Program evaluates the silage potential of corn hybrids in Minnesota. The goal of the program is to provide unbiased forage yield and quality information for educational and marketing programs.

The program is financed in part by entry fees from private seed companies that chose to enter hybrids for testing, which are listed below. Results presented are from corn silage performance trials in regions of extensive corn silage use: southeast, central, and west-central Minnesota. The locations are in important Minnesota dairy regions.

Test Sites

Silage hybrids were tested at two sites within each region.

Southeast Dairy Region

La Crescent (Houston County)
Rochester (Olmsted County)

Central Dairy Region

Hutchinson (McLeod County)
Melrose (Stearns County)

West-Central Dairy Region

Elbow Lake (Grant County)
Ottertail (Otter Tail County)

Test Procedures

Plots were established at each test site in a randomized complete block design with four replications. Planting and harvesting dates were La Crescent, June 3 and October 10; Rochester, June 3 and October 8; Hutchinson, May 17 and September 24; Melrose, May 14 and September 10; Ottertail, May 14 and September 18 and Elbow Lake, May 15 and September 18, respectively. Planting at all locations was delayed by the cool and wet spring weather.

Hybrid entries were planted at 35,000 seeds per acre with 30-inch row spacing. Plant nutrients as manure or inorganic fertilizer and herbicides to control weeds were applied according to University of Minnesota recommendations. Plots were harvested and whole-plant herbage sampled for determination of dry matter content and for forage quality. Test sites are normally harvested when the average whole-plant moisture across entries is estimated to be 65%; however, in 2013 the drought at Hutchinson caused lower than desirable whole-plant moistures for many hybrids at harvest.

Companies participating in 2013 hybrid corn silage performance trials.

AgriGold Hybrids	www.agrigold.com
Blue River Hybrids Channel	www.blueriverorgseed.com
Dahlman Seed	www.channel.com
Dairyland Seed	www.dahlmanseed.com
DuPont Pioneer	www.dairylandseed.com
Dyna-Gro Seed	www.pioneer.com
Gold Country Seeds, Inc.	www.dynagroseed.com
Hyland Seeds	www.goldcountryseed.com
Legacy Seeds, Inc.	www.hylandseeds.com
Masters Choice	www.legacyseeds.com
Monsanto (DeKalb)	www.seedcorn.com
Mycogen Seed	www.asgrowanddekalb.com
NuTech Seed LLC	www.mycogen.com
Producers Hybrids	www.nutechseed.com
Rea Hybrids	www.producershybrids.com
Syngenta Seeds	www.rea-hybrids.com
Viking Seed	www.syngenta.com
Wensman Seed Company	www.alseed.com
	www.wensmanseed.com



Results Provided

Tables 1- 6 summarize hybrid yield and forage quality results from La Crescent, Rochester, Hutchinson, Melrose, Ottertail and Elbow Lake. Moisture content, whole-plant dry matter (DM) yield, and silage yield at harvest moisture are listed. Hybrids are ranked in descending order of milk yield per acre (Milk Yield, lb/acre). Genetic trait information is supplied by companies entered in the hybrid corn silage performance trials.

Whole-plant forage quality traits tested include crude protein (CP), neutral detergent fiber (NDF), 48-hour *in vitro* digestibility (IVD), 48-hour neutral detergent fiber digestibility (NDFD) and starch concentration. With the exception of NDFD, all forage quality traits are expressed as a percent of dry matter. NDFD is expressed as a percent of NDF.

Milk production potential per ton (lb milk/ ton forage) and per acre (lb milk /acre) of forage was calculated using the MILK2006 spreadsheet developed by the University of Wisconsin. MILK2006 approximates animal performance based on a standard cow weight and milk production level (1,350 lb body weight and 90 lb/day at 3.8% fat).

Field values for moisture and DM yield at harvest; laboratory values for CP, NDF, IVD, NDFD, starch, oil and ash concentration; and book values for NDFCP (1.3%) were used for spreadsheet calculations. For MILK2006 predictions, we assumed that kernel processing occurred. Milk production (lb milk/ton and lb milk/acre) values can be used as a quick reference for relative comparison of hybrids within test locations.

How to Use Results

NDF is a negative indicator of forage intake potential; higher NDF concentration generally implies lower animal performance potential. IVD provides an estimate of forage dry matter digestibility and NDFD estimates digestibility of the fiber fraction. Starch concentration is positively associated with digestibility because of its high digestibility. Relatively higher IVD, NDFD and/or starch concentrations generally imply greater animal performance potential. Milk yield per acre represents the combined effects of silage yield and quality.

Corn hybrids differed in yield, forage quality and milk production potential at all sites. Means and least significant difference (LSD) values

at the 10% probability level are shown for each parameter at each site. Where the difference between two hybrids for a particular yield or quality trait is greater than the LSD value, there is a 90% probability that there is a significant difference between the two hybrids for that parameter (i.e., moisture, yield, quality concentration or milk production). A difference less than the LSD value probably is due to environmental factors.

Figures 1-6 summarize the relationship between silage dry matter yield and milk per ton for test sites at La Crescent, Rochester, Hutchinson, Melrose, Ottertail and Elbow Lake. The figures also highlight those entries at each site that have a combination of high silage dry matter yields and milk production per ton.

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Table 1. Relative maturity (RM), whole-plant moisture, dry matter and silage yield, and quality traits for corn hybrids planted at La Crescent (Houston County). Planting date: June 3, 2013; harvest date: October 10, 2013.

No.	Company / Entry	Traits ¹	RM	Moisture		Yield, Ton/Acre ²		Quality (Concentration), % ³					Milk Yield ⁴	
				%	DM	Silage	CP	NDF	IVD	NDFD	Starch	Lb/Ton	Lb/Acre	
1	Dairyland Seed/ HiD.F.-3510SSX	Bt,CRW,GLY,LL	110	66.1	11.7	34.4	7.1	45	75	55	40	3,310	38,700	
2	DuPont Pioneer/ P0636AMX	Bt,CRW,GLY,LL	106	62.0	12.2	32.0	7.9	42	76	53	44	3,110	37,800	
3	Channel/ 211-24STXRIB Brand Blend	Bt,CRW,GLY,LL	111	63.4	11.4	31.0	7.1	46	74	55	39	3,120	35,400	
4	NuTech G2 Genetics/ 5Z-612™	Bt,GLY,LL	112	64.9	10.9	31.0	7.3	46	74	55	40	3,220	35,100	
5	NuTech G2 Genetics/ 5H-610™	Bt,GLY,LL	110	65.5	11.1	32.1	7.3	47	74	53	39	3,150	34,900	
6	Dekalb/ DKC 61-88	Bt,CRW,GLY,LL	111	62.9	11.3	30.4	6.8	47	74	54	40	3,060	34,500	
7	Dekalb/ DKC 62-97	Bt,CRW,GLY	112	62.1	11.1	29.3	7.1	43	75	52	44	3,080	34,200	
8	DuPont Pioneer/ P1339AM1	Bt,CRW,GLY,LL	113	62.6	11.0	29.3	7.5	44	75	53	43	3,120	34,200	
9	Golden Harvest/ G09E98-3000GT	Bt,CRW,GLY,LL	109	65.0	10.6	30.2	7.2	44	75	52	41	3,180	33,600	
10	Dekalb/ DKC 60-67	Bt,CRW,GLY,LL	110	63.5	10.5	28.8	7.4	44	74	54	42	3,160	33,300	
11	Legacy Seeds Inc/ L-5810 3000GT	Bt,CRW,GLY,LL	106	65.3	10.2	29.3	7.3	45	74	55	41	3,250	33,000	
12	NuTech G2 Genetics/ 3D-909™	Bt,CRW,GLY,LL	109	64.1	10.4	28.9	7.8	44	75	53	42	3,160	32,800	
13	AgriGold/ A6267STXRIB	Bt,CRW,GLY,LL	102	60.6	10.9	27.6	7.2	44	75	54	43	3,000	32,600	
14	Wensman/ W 91073STXRIB	Bt,CRW,GLY,LL	107	63.6	10.1	27.6	7.5	44	76	55	43	3,190	32,100	
15	Mycogen Seeds/ X29601	Bt,CRW,GLY,LL	107	61.7	10.4	27.1	6.7	43	75	53	44	3,070	31,800	
16	DuPont Pioneer/ P0987AMX	Bt,CRW,GLY,LL	109	65.2	9.9	28.3	7.6	45	74	53	42	3,210	31,700	
17	AgriGold/ A6422VT3Pro	Bt,CRW,GLY	108	60.4	10.6	26.7	6.6	44	74	53	43	2,960	31,200	
18	NuTech/ 5N-406™	Bt,CRW,GLY,LL	106	65.0	9.9	28.4	7.2	46	74	53	41	3,140	31,200	
19	DuPont Pioneer/ P1221AMX	Bt,CRW,GLY,LL	112	63.9	9.9	27.5	7.3	46	73	53	41	3,110	30,800	
20	Legacy Seeds Inc/ L-7253 3000GT	Bt,CRW,GLY,LL	112	66.1	9.4	27.8	7.2	47	74	55	39	3,240	30,600	
21	Masters Choice/ MC 534		107	67.0	9.4	28.4	7.7	46	73	53	40	3,260	30,500	
22	Dairyland Seed/ HiD.F.-3702-9	Bt,CRW,GLY,LL	102	61.7	10.0	26.2	6.8	44	75	53	43	3,030	30,400	
23	NuTech G2 Genetics/ 5F-811™	Bt,GLY,LL	111	65.6	9.7	28.1	7.0	46	73	52	40	3,150	30,400	
24	Masters Choice/ MCT 5663	Bt,CRW,GLY,LL	106	65.6	9.4	27.4	6.9	46	74	54	40	3,210	30,300	
25	NuTech 3A-306™	GLY	106	67.1	9.3	28.4	6.7	49	74	56	35	3,230	30,100	
26	Channel/ 210-95STXRIB Brand Blend	Bt,CRW,GLY,LL	110	62.9	9.7	26.1	6.9	45	75	55	41	3,100	30,000	
27	Mycogen Seeds/ X12712S2	Bt,CRW,GLY,LL	111	64.9	9.7	27.6	7.0	47	73	53	38	3,090	30,000	
28	Producers Hybrids/ 6884VT3PRIB	Bt,CRW,GLY	108	64.6	9.4	26.5	7.3	46	74	55	40	3,190	30,000	
29	Blue River Hybrids/ 53L96	Lf	103	65.9	9.6	28.1	7.4	49	73	53	36	3,100	29,700	
30	Channel/ 209-53STXRIB Brand Blend	Bt,CRW,GLY,LL	109	65.3	9.0	26.0	7.2	44	75	54	41	3,260	29,500	
31	Mycogen Seeds/ X13551S2	Bt,CRW,GLY,LL	104	63.6	9.5	26.2	7.1	49	73	56	37	3,080	29,300	
32	Wensman/ W 7473VT3PRIB	Bt,CRW,GLY	109	67.3	9.0	27.6	7.5	48	73	54	38	3,230	29,200	
33	Mycogen Seeds/ TMF2L538	Bt,CRW,GLY,LL,Lf	101	65.2	9.4	27.0	6.4	50	72	56	35	3,090	29,100	
34	Dahlman/ R52-03VT3PRIB	Bt,CRW,GLY	103	61.0	9.7	24.7	7.8	45	75	54	43	3,000	29,000	
35	Dekalb/ DKC 52-30	Bt,CRW,GLY,LL	102	60.6	9.7	24.5	7.4	45	75	55	41	3,000	29,000	
36	Mycogen Seeds/ TMF2H699	Bt,CRW,GLY,LL,Lf	110	64.3	9.5	26.5	6.7	50	72	55	36	3,060	28,900	
37	NK Brand/ N74R-3000GT	Bt,CRW,GLY,LL	114	65.7	8.9	26.0	7.2	45	74	54	40	3,250	28,900	
38	Producers Hybrids/ 6624VT3PRIB	Bt,CRW,GLY	106	65.4	9.2	26.5	6.9	47	74	53	39	3,140	28,800	
39	Mycogen Seeds/ TMF2R720	Bt,CRW,GLY,LL	110	66.1	9.1	26.9	7.1	50	72	55	34	3,120	28,400	
40	AgriGold/ A6408VT3PRIB	Bt,CRW,GLY	107	63.3	9.2	25.1	7.3	46	74	53	40	3,050	28,100	
41	NuTech G2 Genetics/ 5H-806™	Bt,GLY,LL	106	65.9	8.6	25.1	8.3	45	74	53	41	3,240	27,700	
42	Dekalb/ DKC 53-56	Bt,CRW,GLY,LL	103	58.3	9.5	22.9	6.8	44	74	54	43	2,850	27,200	
43	Wensman/ W 7459VT3PRIB	Bt,CRW,GLY	107	64.2	8.6	24.0	7.2	46	74	54	41	3,140	27,100	
44	Dairyland Seed/ HiD.F.-3108RA	Bt,CRW,GLY,LL	108	66.7	8.6	25.9	7.3	50	73	56	34	3,120	27,000	
45	AgriGold/ A6458VT3PRIB	Bt,CRW,GLY	110	68.1	8.6	27.1	8.1	49	72	53	36	3,120	26,900	
46	Masters Choice/ MC 5370		103	65.0	8.2	23.3	7.5	46	75	55	39	3,180	26,000	
47	Dekalb/ DKC 58-87	Bt,CRW,GLY,LL	108	66.5	8.1	24.3	7.7	50	73	55	35	3,060	24,900	
48	Wensman/ W 7566VT3PRIB	Bt,CRW,GLY	111	69.2	7.9	25.6	7.8	50	72	53	36	3,130	24,800	
49	NuTech G2 Genetics/ 5Z-709™	Bt,GLY,LL	109	66.7	7.4	22.3	8.4	46	74	53	39	3,200	23,700	
	Mean			64.4	9.7	27.4	7.3	46	74	54	40	3,130	30,500	
	LSD(0.10)			1.9	1.5	3.9	0.6	3	2	2	3	110	5,000	
	CV			2.6	13.8	12.2	7.1	6.0	2.2	2.4	8.0	3.1	14.1	

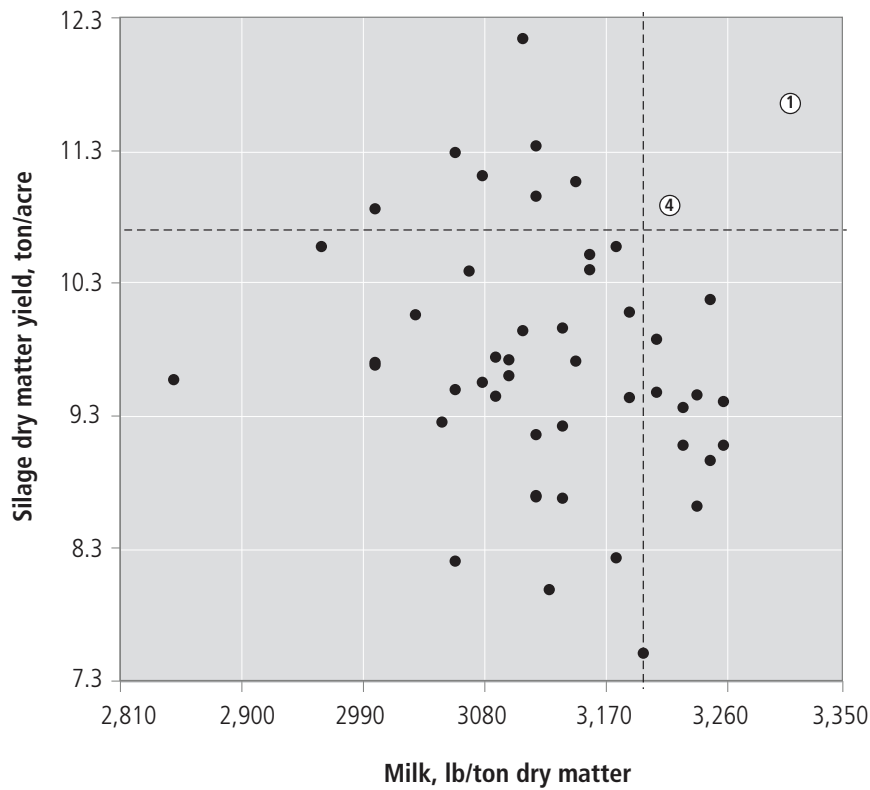
¹ Bt, CRW, GLY, LL, and Lf traits contain genes for European corn borer tolerance, corn rootworm tolerance, glyphosate herbicide tolerance, Liberty (glufosinate-ammonium) herbicide tolerance and leafy trait, respectively.

² DM yield is whole-plant corn yield at 100% dry matter; Silage yield is whole-plant corn yield at harvest moisture.

³ Quality concentration expressed as a % of DM, except NDFD which is expressed as a % of NDF. Refer to Results Provided text for additional information.

⁴ Milk production was estimated using spreadsheet MILK2006 developed at the University of Wisconsin. Refer to Results Provided text for additional information.

Figure 1. Relationship between silage dry matter yield and milk per ton.



Relationship between silage dry matter yield and milk per ton at La Crescent (Houston County) in 2013. Silage dry matter yield values above the dashed line were among the highest in this trial at the 10% probability level.

Milk per ton values to the right of the dashed line were among the highest in this trial at the 10% probability level.

Entry numbers are shown for hybrids with silage dry matter yield and milk per ton values that were among the highest for both categories.

Table 2. Relative maturity (RM), whole-plant moisture, dry matter and silage yield, and quality traits for corn hybrids planted at Rochester (Olmsted County) in 2013. Planting date: June 3, 2013; harvest date: October 8, 2013.

No.	Company/ Entry	Traits ¹	Moisture		Yield, Lb/Ton ²		Quality (Concentration) % ³					Milk Yield ⁴	
			RM	%	DM	Silage	CP	NDF	IVD	NDFD	Starch	Lb/Ton	Lb/Acre
1	Masters Choice/ MCT 5663	Bt,CRW,GLY,LL	106	64.6	11.8	33.4	6.9	46	71	52	40	3,160	37,400
2	NuTech G2 Genetics/ 5H-610™	Bt,GLY,LL	110	63.9	12.2	33.7	7.3	49	71	53	38	3,050	37,100
3	NuTech G2 Genetics/ 5Z-612™	Bt,GLY,LL	112	65.2	11.3	32.5	7.3	46	73	54	41	3,280	37,000
4	Dairyland Seed/ HiD.F.-3108RA	Bt,CRW,GLY,LL	108	64.9	11.8	33.5	7.6	47	73	54	38	3,140	36,900
5	Dekalb/ DKC 61-88	Bt,CRW,GLY,LL	111	64.9	11.8	33.6	7.3	48	72	53	39	3,140	36,900
6	Channel/ 211-24STXRIB Brand Blend	Bt,CRW,GLY,LL	111	64.7	11.6	32.9	7.6	47	72	54	39	3,160	36,700
7	Producers Hybrids/ 6624VT3PRIB	Bt,CRW,GLY	106	65.9	11.3	33.0	7.1	46	73	52	40	3,210	36,200
8	DuPont Pioneer/ P1339AM1	Bt,CRW,GLY,LL	113	65.5	11.3	32.8	8.0	48	72	54	39	3,180	36,000
9	Dekalb/ DKC 62-97	Bt,CRW,GLY	112	63.0	11.6	31.3	7.0	46	73	53	41	3,080	35,700
10	NuTech 3A-306™	GLY	106	64.2	11.6	32.3	7.5	49	71	55	36	3,070	35,500
11	Mycogen Seeds/ TMF2R720	Bt,CRW,GLY,LL	110	66.6	11.3	33.9	7.4	50	71	54	34	3,110	35,300
12	AgriGold/ A6408VT3PRIB	Bt,CRW,GLY	107	62.5	11.6	30.9	6.6	46	72	53	41	3,030	35,200
13	NuTech/ 5N-406™	Bt,CRW,GLY,LL	106	64.2	11.3	31.5	7.3	46	71	52	41	3,110	35,100
14	NK Brand/ N74R-3000GT	Bt,CRW,GLY,LL	114	64.7	11.1	31.4	6.8	47	72	53	39	3,150	34,900
15	Legacy Seeds Inc/ L-5810 3000GT	Bt,CRW,GLY,LL	106	63.5	10.9	30.0	6.9	44	73	53	43	3,180	34,800
16	Legacy Seeds Inc/ L-7253 3000GT	Bt,CRW,GLY,LL	112	64.8	11.1	31.5	6.8	47	71	53	39	3,140	34,800
17	NuTech G2 Genetics/ 3D-909™	Bt,CRW,GLY,LL	109	63.3	11.1	30.1	7.4	46	73	54	40	3,100	34,200
18	Dairyland Seed/ HiD.F.-3510SSX	Bt,CRW,GLY,LL	110	67.8	11.0	34.0	7.3	50	70	53	36	3,110	34,100
19	DuPont Pioneer/ P1221AMX	Bt,CRW,GLY,LL	112	64.6	11.0	31.1	7.9	48	71	53	38	3,090	34,000
20	Golden Harvest/ G09E98-3000GT	Bt,CRW,GLY,LL	109	64.7	10.7	30.2	6.9	45	73	52	42	3,190	34,000
21	Wensman/ W 91073STXRIB	Bt,CRW,GLY,LL	107	65.1	10.5	30.2	7.7	46	73	53	41	3,210	33,700
22	Masters Choice/ MC 534		107	66.0	10.3	30.4	8.0	45	72	53	42	3,240	33,400
23	Dekalb/ DKC 52-30	Bt,CRW,GLY,LL	102	59.5	11.2	27.7	7.4	44	74	54	44	2,960	33,200
24	Mycogen Seeds/ TMF2H699	Bt,CRW,GLY,LL,Lf	110	66.6	10.7	32.0	7.3	51	70	54	34	3,100	33,200
25	Mycogen Seeds/ X12712S2	Bt,CRW,GLY,LL	111	66.9	10.5	31.6	7.9	49	71	52	37	3,170	33,200
26	Dekalb/ DKC 60-67	Bt,CRW,GLY,LL	110	64.2	10.4	29.1	7.5	45	73	52	42	3,170	33,000
27	NuTech G2 Genetics/ 5F-811™	Bt,GLY,LL	111	65.7	10.2	29.7	7.3	46	72	52	41	3,230	33,000
28	Channel/ 210-95STXRIB Brand Blend	Bt,CRW,GLY,LL	110	64.3	10.2	28.7	7.2	46	73	54	40	3,180	32,600
29	NuTech G2 Genetics/ 5Z-709™	Bt,GLY,LL	109	63.3	10.2	27.9	7.8	43	74	52	43	3,180	32,500
30	Dekalb/ DKC 53-56	Bt,CRW,GLY,LL	103	60.6	10.6	26.8	7.4	44	74	54	43	3,040	32,100
31	Producers Hybrids/ 6884VT3PRIB	Bt,CRW,GLY	108	63.1	10.4	28.2	7.5	46	72	54	41	3,090	32,100
32	Mycogen Seeds/ X29601	Bt,CRW,GLY,LL	107	64.6	10.3	29.1	7.3	50	71	54	37	3,100	31,900
33	AgriGold/ A6458VT3PRIB	Bt,CRW,GLY	110	67.0	9.7	29.4	7.8	48	72	53	38	3,230	31,400
34	Dairyland Seed/ HiD.F.-3702-9	Bt,CRW,GLY,LL	102	61.9	10.3	26.9	6.8	46	72	54	42	3,050	31,300
35	Dekalb/ DKC 58-87	Bt,CRW,GLY,LL	108	66.7	10.2	30.5	7.9	51	71	54	35	3,080	31,200
36	Wensman/ W 7459VT3PRIB	Bt,CRW,GLY	107	64.3	10.3	28.8	7.3	48	71	52	38	3,030	31,200
37	DuPont Pioneer/ P0636AMX	Bt,CRW,GLY,LL	106	62.5	10.1	27.0	7.4	46	73	52	42	3,050	30,900
38	DuPont Pioneer/ P0987AMX	Bt,CRW,GLY,LL	109	65.1	10.0	28.7	7.6	49	72	52	38	3,090	30,900
39	Wensman/ W 7566VT3PRIB	Bt,CRW,GLY	111	67.2	9.7	29.5	7.4	48	71	52	38	3,190	30,800
40	AgriGold/ A6267STXRIB	Bt,CRW,GLY,LL	102	60.3	10.2	25.7	7.1	45	73	54	42	3,000	30,700
41	Mycogen Seeds/ X13551S2	Bt,CRW,GLY,LL	104	58.8	10.8	26.1	7.1	48	72	55	39	2,840	30,500
42	NuTech G2 Genetics/ 5H-806™	Bt,GLY,LL	106	64.2	9.4	26.3	8.2	45	73	52	43	3,200	30,100
43	Blue River Hybrids/ 53L96	Lf	103	66.8	10.2	30.7	7.5	53	70	52	31	2,940	30,000
44	Channel/ 209-53STXRIB Brand Blend	Bt,CRW,GLY,LL	109	65.3	9.3	26.9	6.8	47	72	54	39	3,220	30,000
45	Wensman/ W 7473VT3PRIB	Bt,CRW,GLY	109	68.1	9.3	29.2	7.7	49	72	52	36	3,160	29,500
46	Mycogen Seeds/ TMF2L538	Bt,CRW,GLY,LL,Lf	101	65.1	9.6	27.4	7.0	52	70	54	34	3,000	28,700
47	AgriGold/ A6422VT3Pro	Bt,CRW,GLY	108	55.6	10.7	24.2	6.6	48	71	52	40	2,630	28,200
48	Dahlman/ R52-03VT3PRIB	Bt,CRW,GLY	103	58.0	10.3	24.4	6.8	49	71	54	39	2,740	28,000
49	Masters Choice/ MC 5370		103	60.9	9.0	23.0	7.1	45	73	52	42	2,980	26,700
	Mean			64.1	10.6	29.8	7.3	47	72	53	39	3,100	33,000
	LSD(0.10)			2.2	1.2	3.1	0.6	3	2	1	3	110	4,100
	CV			3.1	9.6	8.9	6.9	5.9	2.2	1.8	7.8	3.2	10.5

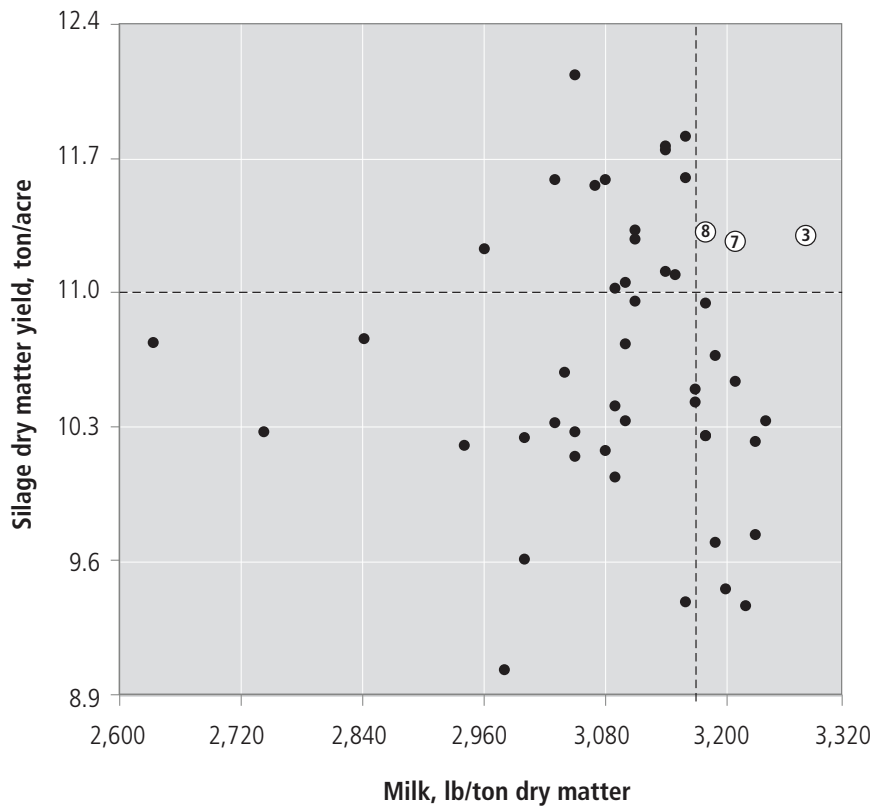
¹ Bt, CRW, GLY, LL, and Lf traits contain genes for European corn borer tolerance, corn rootworm tolerance, glyphosate herbicide tolerance, Liberty (glufosinate-ammonium) herbicide tolerance and leafy trait, respectively.

² DM yield is whole-plant corn yield at 100% dry matter; Silage yield is whole-plant corn yield at harvest moisture.

³ Quality concentration expressed as a % of DM, except NDFD which is expressed as a % of NDF. Refer to Results Provided text for additional information.

⁴ Milk production was estimated using spreadsheet MILK2006 developed at the University of Wisconsin. Refer to Results Provided text for additional information.

Figure 2. Relationship between silage dry matter yield and milk per ton.



Relationship between silage dry matter yield and milk per ton at Rochester (Olmsted County) in 2013. Silage dry matter yield values above the dashed line were among the highest in this trial at the 10% probability level.

Milk per ton values to the right of the dashed line were among the highest in this trial at the 10% probability level.

Entry numbers are shown for hybrids with silage dry matter yield and milk per ton values that were among the highest for both categories.

Table 3. Relative maturity (RM), whole-plant moisture (Moist), dry matter and silage yield, and quality traits for corn hybrids planted at Hutchinson (McLeod County) in 2013. Planting date: May 17, 2013; harvest date: September 24, 2013.

No.	Company/ Entry	Traits ¹	Moisture		Yield, Ton/Acre ²		Quality (Concentration), % ³					Milk Yield ⁴	
			RM	%	DM	Silage	CP	NDF	IVD	NDFD	Starch	Lb/Ton	Lb/Acre
1	Dairyland Seed/ HiD.F.-3108RA	Bt,CRW,GLY,LL	108	65.9	12.7	37.3	7.4	47	72	53	35	3,100	39,400
2	Legacy Seeds Inc/ L-5810 3000GT	Bt,CRW,GLY,LL	106	61.1	13.3	34.0	7.0	42	74	51	43	2,910	38,500
3	Masters Choice/ MCT 5663	Bt,CRW,GLY,LL	106	61.9	12.4	32.6	6.9	45	73	52	39	2,960	36,700
4	Wensman/ W 7459VT3PRIB	Bt,CRW,GLY	107	60.1	12.6	31.7	7.4	43	74	53	42	2,900	36,600
5	DuPont Pioneer/ P0987AMX	Bt,CRW,GLY,LL	109	59.2	12.0	29.5	7.6	42	75	53	43	2,930	35,200
6	Legacy Seeds Inc/ L-5350 3000GT	Bt,CRW,GLY,LL	104	58.4	12.2	29.4	7.0	42	75	53	42	2,870	35,100
7	Mycogen Seeds/ X13551S2	Bt,CRW,GLY,LL	104	59.7	12.1	29.9	6.9	45	74	53	40	2,910	35,000
8	DuPont Pioneer/ P0636AMX	Bt,CRW,GLY,LL	106	59.0	12.0	29.2	7.1	43	74	52	42	2,880	34,500
9	Dairyland Seed/ HiD.F.-3702-9	Bt,CRW,GLY,LL	102	58.1	11.7	27.9	6.6	45	73	52	39	2,880	33,600
10	Wensman/ W 91011STXRIB	Bt,CRW,GLY,LL	101	58.6	11.4	27.4	7.3	42	75	53	43	2,950	33,500
11	Channel/ 203-44STXRIB Brand Blend	Bt,CRW,GLY,LL	103	60.0	11.6	28.9	7.0	45	73	53	40	2,890	33,400
12	NuTech G2 Genetics/ 5H-903™	Bt,GLY,LL	103	55.7	12.6	28.5	6.9	45	72	51	40	2,640	33,300
13	Producers Hybrids/ 6424VT3PRIB	Bt,CRW,GLY	104	58.1	12.0	28.6	7.0	44	73	52	41	2,780	33,300
14	Viking/ GT5781	GLY	104	54.0	12.1	26.2	6.9	42	75	52	44	2,750	33,100
15	Golden Harvest/ 86T82-3122	Bt,CRW,GLY	105	58.3	11.9	28.5	6.7	45	73	51	40	2,760	32,800
16	Wensman/ W 9288STXRIB	Bt,CRW,GLY,LL	98	53.3	12.0	25.6	6.8	44	74	53	42	2,700	32,300
17	NK Brand/ N45P-3011A	Bt,CRW,GLY,LL	101	54.3	11.9	26.0	7.2	43	73	52	42	2,660	31,700
18	Dekalb/ DKC 48-12	Bt,CRW,GLY,LL	98	52.9	11.3	23.9	7.1	40	75	53	45	2,810	31,600
19	Mycogen Seeds/ TMF2L538	Bt,CRW,GLY,LL,Lf	101	63.3	10.5	28.5	7.4	46	71	54	36	3,020	31,600
20	NuTech/ 5N-001™	Bt,CRW,GLY,LL	101	54.2	11.8	25.9	7.0	45	73	53	40	2,660	31,500
21	Producers Hybrids/ 6108STXRIB	Bt,CRW,GLY,LL	101	56.4	11.6	26.6	7.1	43	74	52	43	2,720	31,500
22	NuTech/ 5N-197™	Bt,CRW,GLY,LL	97	49.9	11.7	23.3	7.5	43	74	52	43	2,680	31,300
23	Mycogen Seeds/ TMF2Q413	Bt,CRW,GLY,LL	96	50.2	12.3	24.7	7.2	47	72	52	39	2,530	31,200
24	Dairyland Seed/ HiD.F.-3197-7	Bt,GLY,LL	97	51.8	11.3	23.3	7.2	43	74	52	42	2,750	30,900
25	Mycogen Seeds/ X29601	Bt,CRW,GLY,LL	107	59.8	10.9	27.0	7.0	45	72	52	39	2,840	30,800
26	Wensman/ W 7330VT3PRIB	Bt,CRW,GLY	103	53.3	11.9	25.4	7.4	45	72	52	39	2,600	30,800
27	Blue River Hybrids/ 39A16		96	48.4	11.8	22.8	6.5	45	72	52	41	2,610	30,700
28	DuPont Pioneer/ P9834AM	Bt,GLY,LL	98	57.6	10.6	24.9	7.4	43	74	51	42	2,880	30,500
29	Dekalb/ DKC 52-30	Bt,CRW,GLY,LL	102	58.3	10.6	25.4	7.7	44	74	53	41	2,840	30,100
30	Masters Choice/ MC 5250		102	55.4	11.1	24.9	7.1	44	73	53	41	2,700	30,100
31	Dahlman/ R46-27VT2PRIB	Bt,GLY	92	53.6	10.9	23.5	7.0	42	75	53	43	2,740	29,800
32	Viking/ T61-98R	GLY	98	48.1	11.2	21.6	6.9	44	73	53	42	2,640	29,700
33	Masters Choice/ MC 5370		103	59.1	10.2	25.0	7.0	43	74	53	41	2,890	29,500
34	NuTech/ 5N-803™	Bt,CRW,GLY,LL	101	54.7	11.1	24.4	6.6	44	73	53	42	2,640	29,300
35	Dekalb/ DKC 53-56	Bt,CRW,GLY,LL	103	52.8	10.7	22.7	7.1	43	73	53	42	2,730	29,200
36	Dekalb/ DKC 53-78	Bt,CRW,GLY,LL	103	56.3	10.3	23.5	7.3	42	75	53	43	2,820	29,000
37	Dekalb/ DKC 49-29	Bt,CRW,GLY,LL	99	53.7	10.3	22.2	7.1	44	73	54	41	2,790	28,700
38	NuTech G2 Genetics/ 5H-202™	Bt,GLY,LL	102	46.4	11.2	20.9	7.4	47	71	53	39	2,560	28,600
39	NuTech/ 3A-496™	Bt,CRW,GLY,LL	96	58.7	10.3	24.9	7.6	50	71	54	34	2,710	27,900
40	NuTech G2 Genetics/ 5H-502™	Bt,GLY,LL	102	58.8	9.6	23.2	7.8	41	74	52	44	2,930	27,900
41	NuTech G2 Genetics/ 3D-802™	Bt,CRW,GLY,LL	102	56.4	9.9	22.6	7.2	44	73	52	41	2,780	27,500
42	Blue River Hybrids/ 43L96	Lf	98	49.9	11.0	21.9	8.1	50	70	53	35	2,480	27,200
43	Blue River Hybrids/ 48B30		102	51.7	9.9	20.4	7.4	42	75	52	44	2,740	27,100
44	Dekalb/ DKC 46-20	Bt,CRW,GLY	96	51.4	10.2	20.9	7.0	47	71	53	39	2,630	26,700
45	NuTech G2 Genetics/ 5H-399™	Bt,GLY,LL	99	50.7	10.5	21.2	7.0	47	71	52	39	2,540	26,600
46	NuTech G2 Genetics/ 3F-198™	Bt,GLY,LL	98	50.0	9.8	19.5	7.1	46	72	52	39	2,560	25,000
	Mean			55.6	11.3	25.8	7.1	44	73	53	41	2,770	31,300
	LSD(0.10)			4.0	1.1	2.8	0.3	3	2	1.2	3	170	3,500
	CV			6.2	8.9	9.2	4.3	6.3	2.3	1.9	7.3	5.4	9.6

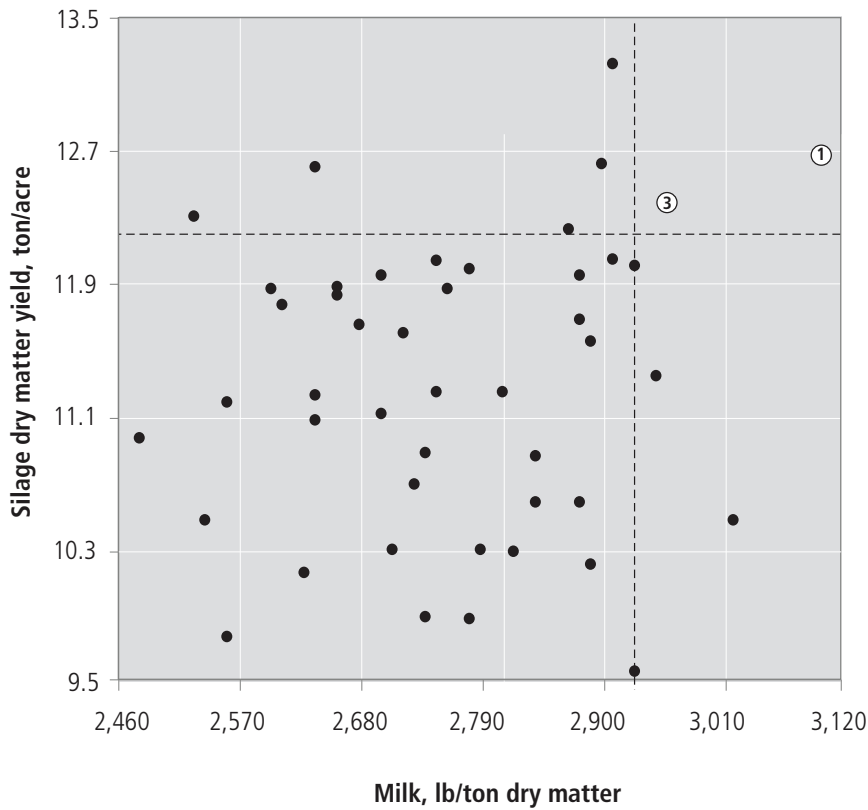
¹ Bt, CRW, GLY, LL, and Lf traits contain genes for European corn borer tolerance, corn rootworm tolerance, glyphosate herbicide tolerance, Liberty (glufosinate-ammonium) herbicide tolerance and leafy trait, respectively.

² DM yield is whole-plant corn yield at 100% dry matter; Silage yield is whole-plant corn yield at harvest moisture.

³ Quality concentration expressed as a % of DM, except NDFD which is expressed as a % of NDF. Refer to Results Provided text for additional information.

⁴ Milk production was estimated using spreadsheet MILK2006 developed at the University of Wisconsin. Refer to Results Provided text for additional information.

Figure 3. Relationship between silage dry matter yield and milk per ton.



Relationship between silage dry matter yield and milk per ton at Hutchinson (Mc Leod County) in 2013. Silage dry matter yield values above the dashed line were among the highest in this trial at the 10% probability level.

Milk per ton values to the right of the dashed line were among the highest in this trial at the 10% probability level.

Entry numbers are shown for hybrids with silage dry matter yield and milk per ton values that were among the highest for both categories.

Table 4. Relative maturity (RM), whole-plant moisture, dry matter and silage yield, and quality traits for corn hybrids planted at Melrose, (Stearns County) in 2013. Planting date: May 14, 2013; harvest date: September 10, 2013.

No.	Company/ Entry	Traits ¹	Moisture Yield, Ton/Acre ²				Quality (Concentration), % ³					Milk Yield ⁴	
			RM	%	DM	Silage	CP	NDF	IVD	NDFD	Starch	Lb/Ton	Lb/Acre
1	Mycogen Seeds/ X13551S2	Bt,CRW,GLY,LL	104	66.2	6.6	19.5	8.0	51	73	59	28	3,120	20,600
2	NuTech G2 Genetics/ 5H-903™	Bt,GLY,LL	103	64.3	6.5	18.2	9.0	45	74	54	37	3,100	20,200
3	NuTech G2 Genetics/ 3D-802™	Bt,CRW,GLY,LL	102	65.5	6.4	18.6	9.4	48	73	57	33	3,110	19,900
4	NuTech/ 5N-803™	Bt,CRW,GLY,LL	101	68.3	6.1	19.1	8.5	47	74	57	33	3,260	19,700
5	Dekalb/ DKC 46-20	Bt,CRW,GLY	96	60.3	6.9	17.5	8.4	50	71	57	31	2,830	19,600
6	Producers Hybrids/ 6108STXRIB	Bt,CRW,GLY,LL	101	65.6	6.4	18.6	8.5	51	71	58	29	3,060	19,500
7	DuPont Pioneer/ P0636AMX	Bt,CRW,GLY,LL	106	67.0	6.3	19.1	8.5	50	72	56	30	3,070	19,400
8	NuTech G2 Genetics/ 3F-198™	Bt,GLY,LL	98	62.1	6.7	17.7	8.7	48	72	54	33	2,880	19,300
9	Wensman/ W 9288STXRIB	Bt,CRW,GLY,LL	98	63.4	6.6	17.9	8.5	53	70	58	27	2,920	19,200
10	Masters Choice/ MC 5370		103	65.5	6.0	17.4	8.0	47	73	57	33	3,180	19,100
11	Dairyland Seed/ HiD.F.-3702-9	Bt,CRW,GLY,LL	102	68.3	5.8	18.1	8.3	47	75	58	32	3,300	19,000
12	Dahlman/ R46-27VT2PRIB	Bt,GLY	92	63.0	6.1	16.5	9.0	48	73	57	33	3,030	18,500
13	Dairyland Seed/ HiD.F.-3108RA	Bt,CRW,GLY,LL	108	71.4	6.0	21.1	8.8	54	71	60	22	3,070	18,500
14	Wensman/ W 7459VT3PRIB	Bt,CRW,GLY	107	67.5	6.3	19.2	9.1	51	71	55	29	2,950	18,400
15	Legacy Seeds Inc/ L-5810 3000GT	Bt,CRW,GLY,LL	106	72.4	6.0	21.6	8.8	52	73	58	25	3,070	18,300
16	Wensman/ W 91011STXRIB	Bt,CRW,GLY,LL	101	64.0	5.9	16.4	8.8	48	74	58	33	3,090	18,300
17	DuPont Pioneer/ P0987AMX	Bt,CRW,GLY,LL	109	65.7	6.1	17.8	9.1	52	71	57	28	2,980	18,200
18	Mycogen Seeds/ X29601	Bt,CRW,GLY,LL	107	68.1	5.8	18.3	8.0	52	72	59	28	3,110	18,200
19	NuTech/ 5N-001™	Bt,CRW,GLY,LL	101	58.9	6.6	16.1	9.1	50	71	57	21	2,750	18,200
20	NK Brand/ N45P-3011A	Bt,CRW,GLY,LL	101	66.1	5.9	17.5	8.4	50	72	56	30	3,050	18,000
21	DuPont Pioneer/ P9834AM	Bt,GLY,LL	98	64.8	6.0	17.0	9.0	50	72	56	30	2,990	17,900
22	Legacy Seeds Inc/ L-5350 3000GT	Bt,CRW,GLY,LL	104	67.7	5.6	17.3	8.2	49	74	58	30	3,210	17,900
23	Masters Choice/ MCT 5663	Bt,CRW,GLY,LL	106	70.1	5.8	19.5	8.3	52	72	58	26	3,070	17,900
24	Dairyland Seed/ HiD.F.-3197-7	Bt,GLY,LL	97	63.6	5.8	16.0	9.8	49	72	58	30	3,020	17,600
25	NuTech/ 5N-197™	Bt,CRW,GLY,LL	97	60.6	6.3	15.9	8.8	51	72	57	29	2,820	17,600
26	Channel/ 203-44STXRIB Brand Blend	Bt,CRW,GLY,LL	103	65.2	5.7	16.3	8.7	50	72	57	30	3,080	17,400
27	Dekalb/ DKC 49-29	Bt,CRW,GLY,LL	99	61.1	5.9	15.1	9.1	46	74	55	35	2,970	17,400
28	NuTech G2 Genetics/ 5H-399™	Bt,GLY,LL	99	61.5	6.0	15.6	8.8	47	72	55	32	2,870	17,300
29	NuTech G2 Genetics/ 5H-202™	Bt,GLY,LL	102	60.7	6.2	15.7	9.2	50	72	55	30	2,800	17,300
30	Mycogen Seeds/ TMF2L538	Bt,CRW,GLY,LL,Lf	101	69.0	5.7	18.2	8.8	56	72	61	21	3,040	17,200
31	Viking/ T61-98R	GLY	98	55.5	6.6	14.7	8.3	50	71	55	32	2,610	17,100
32	Wensman/ W 7330VT3PRIB	Bt,CRW,GLY	103	67.8	5.8	18.0	9.0	52	71	55	27	2,960	17,100
33	Dekalb/ DKC 48-12	Bt,CRW,GLY,LL	98	58.4	5.9	14.3	8.5	46	73	56	36	2,840	16,800
34	Golden Harvest/ 86T82-3122	Bt,CRW,GLY	105	69.4	5.3	17.5	8.7	50	74	57	28	3,150	16,800
35	Blue River Hybrids/ 43L96	Lf	98	63.6	5.8	16.0	9.8	52	71	56	28	2,870	16,700
36	Dekalb/ DKC 53-56	Bt,CRW,GLY,LL	103	65.1	5.4	15.3	8.9	50	72	57	31	3,090	16,500
37	Producers Hybrids/ 6424VT3PRIB	Bt,CRW,GLY	104	68.4	5.4	17.1	9.5	50	72	55	29	3,050	16,500
38	Dekalb/ DKC 52-30	Bt,CRW,GLY,LL	102	62.8	5.6	15.0	8.3	52	71	58	29	2,930	16,400
39	Viking/ GT5781	GLY	104	67.4	5.1	15.6	8.7	49	74	59	30	3,180	16,200
40	Mycogen Seeds/ TMF2Q413	Bt,CRW,GLY,LL	96	64.0	5.3	14.7	9.5	49	73	57	32	3,050	16,100
41	NuTech G2 Genetics/ 5H-502™	Bt,GLY,LL	102	62.8	5.7	15.2	8.2	51	70	53	31	2,810	15,900
42	NuTech/ 3A-496™	Bt,CRW,GLY,LL	96	68.6	5.4	17.2	9.6	55	70	57	23	2,900	15,700
43	Blue River Hybrids/ 48B30		102	65.7	5.0	14.5	9.7	49	73	56	31	3,080	15,400
44	Masters Choice/ MC 5250		102	71.5	5.0	17.5	9.8	52	71	57	26	3,060	15,300
45	Blue River Hybrids/ 39A16		96	60.8	5.2	13.3	7.8	48	73	55	34	2,890	15,100
46	Dekalb/ DKC 53-78	Bt,CRW,GLY,LL	103	60.7	5.2	13.2	8.7	47	73	55	34	2,870	14,800
	Mean			65.0	5.9	17.0	8.8	50	72	57	30	3,000	17,700
	LSD(0.10)			2.3	0.8	2.5	0.8	3	2	2	4	150	2,700
	CV			3.1	12.1	12.9	8.3	5.9	2.4	3.1	12.2	4.4	13.2

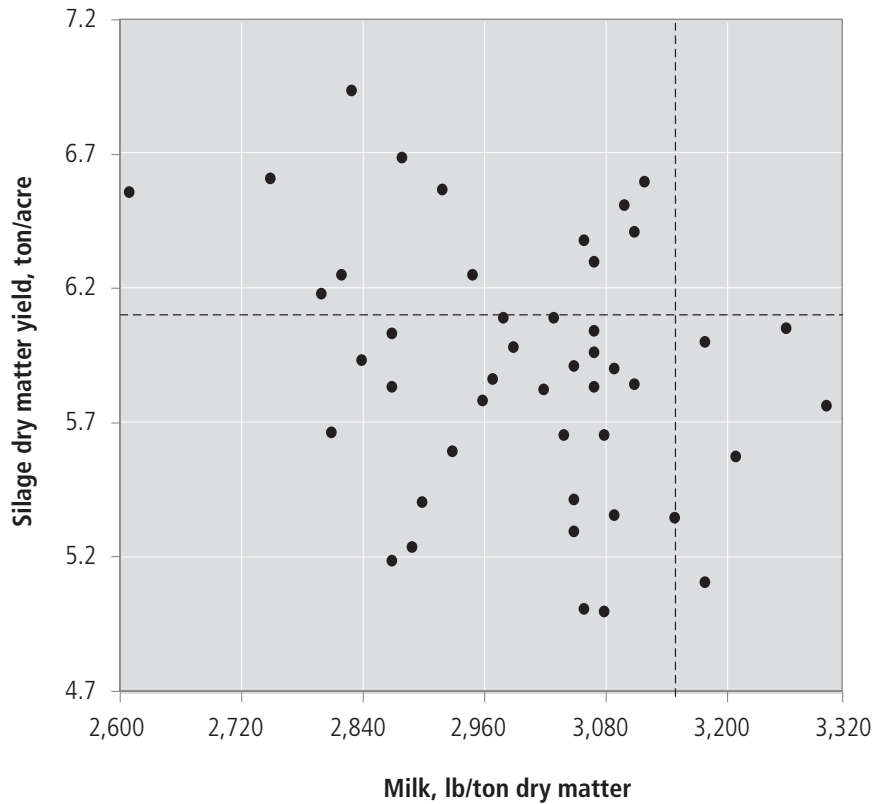
¹ Bt, CRW, GLY, LL, and Lf traits contain genes for European corn borer tolerance, corn rootworm tolerance, glyphosate herbicide tolerance, Liberty (glufosinate-ammonium) herbicide tolerance and leafy trait, respectively.

² DM yield is whole-plant corn yield at 100% dry matter; Silage yield is whole-plant corn yield at harvest moisture.

³ Quality concentration expressed as a % of DM, except NDFD which is expressed as a % of NDF. Refer to Results Provided text for additional information.

⁴ Milk production was estimated using spreadsheet MILK2006 developed at the University of Wisconsin. Refer to Results Provided text for additional information.

Figure 4. Relationship between silage dry matter yield and milk per ton.



Relationship between silage dry matter yield and milk per ton at Melrose (Stearns County) in 2013. Silage dry matter yield values above the dashed line were among the highest in this trial at the 10% probability level.

Milk per ton values to the right of the dashed line were among the highest in this trial at the 10% probability level.

There were no entires that were highest in both DM yield and milk yield per ton.

Table 5. Relative maturity (RM), whole-plant moisture, dry matter and silage yield, and quality traits for corn hybrids planted at Ottertail, (Otter Tail County) in 2013. Planting date: May 14, 2013; harvest date: September 18, 2013.

No.	Company/ Entry	Traits ¹	Moisture Yield, Ton/Acre ²				Quality (Concentration), % ³					Milk Yield ⁴	
			RM	%	DM	Silage	CP	NDF	IVD	NDFD	Starch	Lb/Ton	Lb/Acre
1	Channel/ 208-49STXRIB Brand Blend	Bt,CRW,GLY,LL	108	68.4	10.7	33.7	8.7	44	75	57	37	3,520	37,500
2	NK Brand/ N53W-3122	Bt,CRW,GLY	105	69.9	10.4	34.6	8.6	46	74	55	36	3,370	35,100
3	Rea Hybrids/ 4V301-HDS	Bt,CRW,GLY,Lf	94	66.7	10.4	31.2	8.5	47	74	57	36	3,340	34,800
4	Dyna-Gro/ D41SS71RIB	Bt,CRW,GLY,LL	101	66.8	10.2	30.6	8.5	45	74	56	37	3,370	34,200
5	Channel/ 197-68 STXRIB	Bt,CRW,GLY	97	66.1	9.7	28.5	8.5	44	75	57	38	3,430	33,200
6	Channel/ 196-77 STXRIB	Bt,CRW,GLY	96	64.2	10.0	27.8	8.5	42	76	56	40	3,330	33,100
7	Dyna-Gro/ D43VN22	Bt,CRW,GLY	103	71.3	9.7	33.9	9.5	47	74	57	34	3,370	32,700
8	Channel/ 210-95STXRIB Brand Blend	Bt,CRW,GLY,LL	110	67.7	9.3	28.8	8.5	43	75	56	39	3,480	32,400
9	Rea Hybrids/ 4V970-HDS	Bt,CRW,GLY,Lf	97	70.3	9.9	33.4	8.7	50	72	57	30	3,230	32,100
10	Masters Choice/ MC 4880		98	61.8	10.3	26.9	8.9	49	73	60	34	3,100	31,900
11	Dyna-Gro/ D35VC95RIB	Bt,GLY	95	63.3	10.0	27.1	9.1	45	75	56	38	3,190	31,800
12	Gold Country/ 95-33 VT3P RIB	Bt,CRW,GLY	95	64.4	9.7	27.3	8.2	46	74	59	36	3,260	31,700
13	Hyland Seeds/ HL SR59	GLY	101	71.6	10.0	35.1	8.8	53	71	57	26	3,100	31,000
14	Rea Hybrids/ 5R780-HDS	GLY	100	69.6	9.7	32.0	8.3	52	72	58	29	3,170	30,900
15	Channel/ 197-33 STXRIB	Bt,CRW,GLY	97	66.9	9.0	27.2	8.5	45	74	57	37	3,350	30,100
16	Rea Hybrids/ 6V633-HDS	Bt,CRW,GLY,Lf	105	69.8	9.4	31.1	8.8	52	71	58	28	3,200	30,000
17	Channel/ 195-58 STXRIB	Bt,CRW,GLY	95	65.0	8.9	25.5	8.5	46	74	57	37	3,290	29,300
18	Channel/ 203-44STXRIB Brand Blend	Bt,CRW,GLY,LL	103	68.5	8.4	26.5	8.9	45	76	58	37	3,460	28,900
19	Golden Harvest/ 87P52-4011	Bt,CRW,GLY,LL	101	68.3	8.6	27.2	8.4	47	73	56	35	3,340	28,800
20	DuPont Pioneer/ P0193AM	Bt,GLY,LL	101	62.8	9.0	24.2	9.5	45	75	57	37	3,180	28,600
21	DuPont Pioneer/ P9834AM	Bt,GLY,LL	98	65.5	9.2	26.5	9.4	50	72	58	32	3,130	28,600
22	Blue River Hybrids/ 23L99	Lf	86	62.8	9.4	25.3	10.0	52	72	59	30	3,020	28,400
23	Blue River Hybrids/ 36B35		94	66.7	8.5	25.4	9.3	46	74	56	35	3,330	28,100
24	Hyland Seeds/ HLS 8477	Bt,BMR,CRW,GLY,LL	98	65.5	8.5	24.6	9.7	48	74	59	33	3,300	28,000
25	Hyland Seeds/ HL SR48	GLY	97	64.2	9.1	25.5	9.0	50	72	57	32	3,050	27,900
26	Blue River Hybrids/ 33L90	Lf	92	65.8	8.6	25.0	9.3	49	71	59	31	3,240	27,700
27	Masters Choice/ MCT 4564	Bt,CRW,GLY,LL	95	60.9	8.8	22.5	9.1	48	73	60	34	3,090	27,200
28	Masters Choice/ MC 4050		90	63.8	8.1	22.4	9.5	47	74	58	35	3,180	25,700
29	Blue River Hybrids/ 21XL90		85	59.2	8.8	21.6	9.8	48	73	57	33	2,890	25,500
30	Masters Choice/ MCT 4211	GLY	92	49.8	8.8	17.6	9.3	52	71	62	30	2,790	24,600
31	Gold Country/ EXP 39	Bt,CRW,GLY	89	60.1	8.1	20.3	8.8	49	73	60	33	3,010	24,400
	Mean			65.4	9.3	27.4	8.9	47	73	58	34	3,230	30,100
	LSD(0.10)			2.4	ns	4.1	3.5	3	2	2	4	150	5,000
	CV			3.1	13.5	12.7	7.2	6.3	2.4	2.5	10.2	3.9	14.1

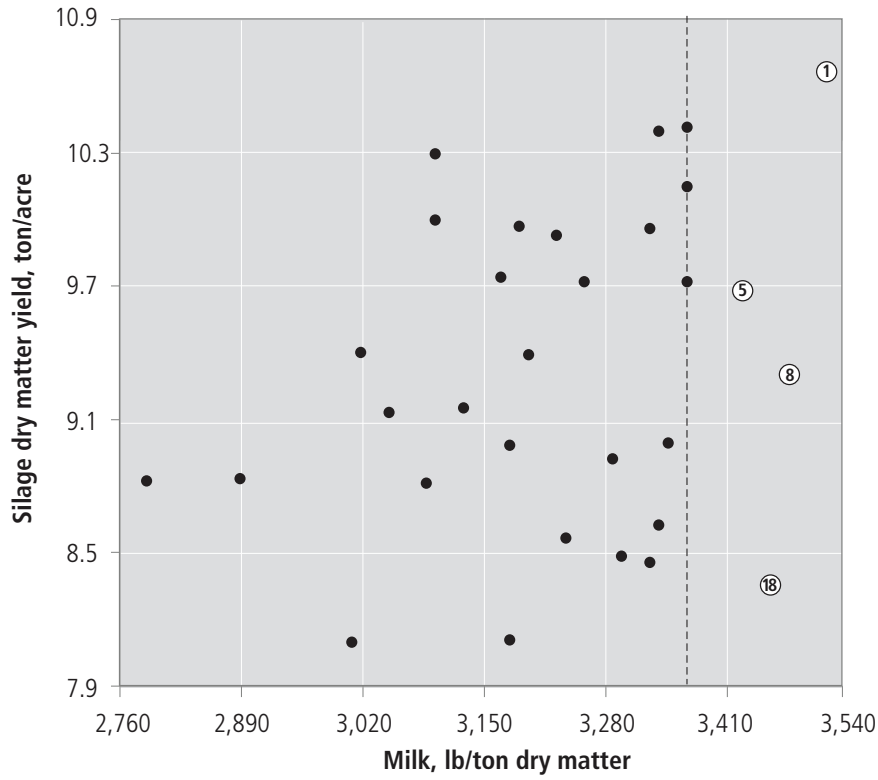
¹ Bt, CRW, GLY, LL, and Lf traits contain genes for European corn borer tolerance, corn rootworm tolerance, glyphosate herbicide tolerance, Liberty (glufosinate-ammonium) herbicide tolerance and leafy trait, respectively.

² DM yield is whole-plant corn yield at 100% dry matter; Silage yield is whole-plant corn yield at harvest moisture.

³ Quality concentration expressed as a % of DM, except NDFD which is expressed as a % of NDF. Refer to Results Provided text for additional information.

⁴ Milk production was estimated using spreadsheet MILK2006 developed at the University of Wisconsin. Refer to Results Provided text for additional information.

Figure 5. Relationship between silage dry matter yield and milk per ton.



Relationship between silage dry matter yield and milk per ton at Ottertail (Otter Tail County) in 2013. Milk per ton values to the right of the dashed line were among the highest in this trial at the 10% probability level.

There were no statistically significant difference among entries for corn silage yield. age DM yield.

Entry numbers are shown for hybrids with milk per ton values that were among the highest.

Table 6. Relative maturity (RM), whole-plant moisture, dry matter and silage yield, and quality traits for corn hybrids planted at Elbow Lake (Grant County) in 2013. Planting date: May 15, 2013; harvest date: September 18, 2013.

No.	Company/ Entry	Traits ¹	Moisture		Yield, Ton/Acre ²		Quality (Concentration), % ³					Milk Yield ⁴	
			RM	%	DM	Silage	CP	NDF	IVD	NDFD	Starch	Lb/Ton	Lb/Acre
1	Dyna-Gro/ D43VN22	Bt,CRW,GLY	103	68.5	10.5	33.2	6.4	48	72	55	35	3,220	33,800
2	Channel/ 210-95STXRIB Brand Blend	Bt,CRW,GLY,LL	110	69.2	10.1	32.6	7.2	47	72	54	37	3,240	32,500
3	Hyland Seeds/ HL SR48	GLY	97	63.1	11.1	30.2	6.8	50	70	53	35	2,870	32,000
4	Hyland Seeds/ HL SR59	GLY	101	70.1	10.4	34.7	6.2	52	68	55	31	3,070	31,800
5	Channel/ 203-44STXRIB Brand Blend	Bt,CRW,GLY,LL	103	66.4	9.7	28.9	6.9	46	73	55	38	3,220	31,300
6	Channel/ 197-68 STXRIB	Bt,CRW,GLY	97	66.2	10.0	29.7	6.6	48	72	54	36	3,100	31,000
7	Rea Hybrids/ 4V301-HDS	Bt,CRW,GLY,Lf	94	67.8	10.3	32.1	6.2	53	70	55	30	2,990	30,900
8	Rea Hybrids/ 4V970-HDS	Bt,CRW,GLY,Lf	97	68.3	10.0	31.5	5.5	50	72	56	33	3,090	30,900
9	Dyna-Gro/ D415S71RIB	Bt,CRW,GLY,LL	101	66.5	9.0	26.8	6.4	45	74	55	40	3,290	29,500
10	Channel/ 208-49STXRIB Brand Blend	Bt,CRW,GLY,LL	108	68.5	8.9	28.3	6.5	47	74	56	36	3,290	29,400
11	Masters Choice/ MCT 4211	GLY	92	53.5	11.1	23.8	5.9	46	71	54	41	2,660	29,400
12	NK Brand/ N53W-3122	Bt,CRW,GLY	105	70.0	9.4	31.3	6.9	49	72	54	34	3,140	29,400
13	Channel/ 197-33 STXRIB	Bt,CRW,GLY	97	65.5	9.3	27.0	5.8	48	72	55	37	3,140	29,200
14	Hyland Seeds/ HLS 8477	Bt,BMR,CRW,GLY,LL	98	64.4	9.9	27.9	6.8	51	70	54	33	2,940	29,200
15	DuPont Pioneer/ P0193AM	Bt,GLY,LL	101	62.5	9.6	25.5	7.4	45	71	52	41	3,000	28,700
16	Rea Hybrids/ 5R780-HDS	GLY	100	68.3	9.7	30.7	5.6	54	68	54	29	2,950	28,700
17	Rea Hybrids/ 6V633-HDS	Bt,CRW,GLY,Lf	105	69.5	9.4	30.9	5.5	55	69	59	27	3,040	28,700
18	Channel/ 195-58 STXRIB	Bt,CRW,GLY	95	61.1	10.0	25.8	7.0	48	71	55	37	2,840	28,500
19	Channel/ 196-77 STXRIB	Bt,CRW,GLY	96	64.9	9.4	26.7	6.5	48	70	53	37	3,050	28,500
20	DuPont Pioneer/ P9834AM	Bt,GLY,LL	98	64.2	8.9	25.0	6.7	45	73	53	41	3,090	27,600
21	Golden Harvest/ 87P52-4011	Bt,CRW,GLY,LL	101	67.1	8.9	27.1	6.2	51	70	53	34	2,980	26,600
22	Masters Choice/ MCT 4564	Bt,CRW,GLY,LL	95	62.8	8.8	23.5	5.2	49	71	55	37	2,990	26,200
23	Dyna-Gro/ D35VC95RIB	Bt,GLY	95	62.1	9.0	23.6	7.1	46	71	52	39	2,860	25,600
24	Blue River Hybrids/ 33L90	Lf	92	62.5	8.1	21.6	6.5	49	71	54	36	2,930	23,700
25	Masters Choice/ MC 4880		98	64.5	7.3	20.6	6.3	47	73	55	36	3,060	22,400
26	Gold Country/ 95-33 VT3P RIB	Bt,CRW,GLY	95	65.9	9.2	27.0	7.2	55	70	54	26	2,400	22,100
27	Gold Country/ EXP 39	Bt,CRW,GLY	89	58.2	8.2	19.6	6.9	48	71	54	37	2,670	21,900
28	Blue River Hybrids/ 36B35		94	64.3	7.1	20.0	5.9	49	71	55	35	3,040	21,700
29	Blue River Hybrids/ 21XL90		85	59.0	7.9	19.3	6.5	53	69	55	33	2,650	21,000
30	Blue River Hybrids/ 23L99	Lf	86	60.1	6.6	16.6	6.7	51	70	57	33	2,830	18,700
31	Masters Choice/ MC 4050		90	61.8	5.8	15.1	7.0	48	71	55	35	2,910	16,800
	Mean			64.7	9.1	26.3	6.5	49	71	55	35	2,980	27,300
	LSD(0.10)			2.1	1.1	3.0	1.0	5	ns	2	6	280	4,600
	CV			2.9	10.7	9.9	13.5	9.5	3.6	3.2	15.9	8.1	14.3

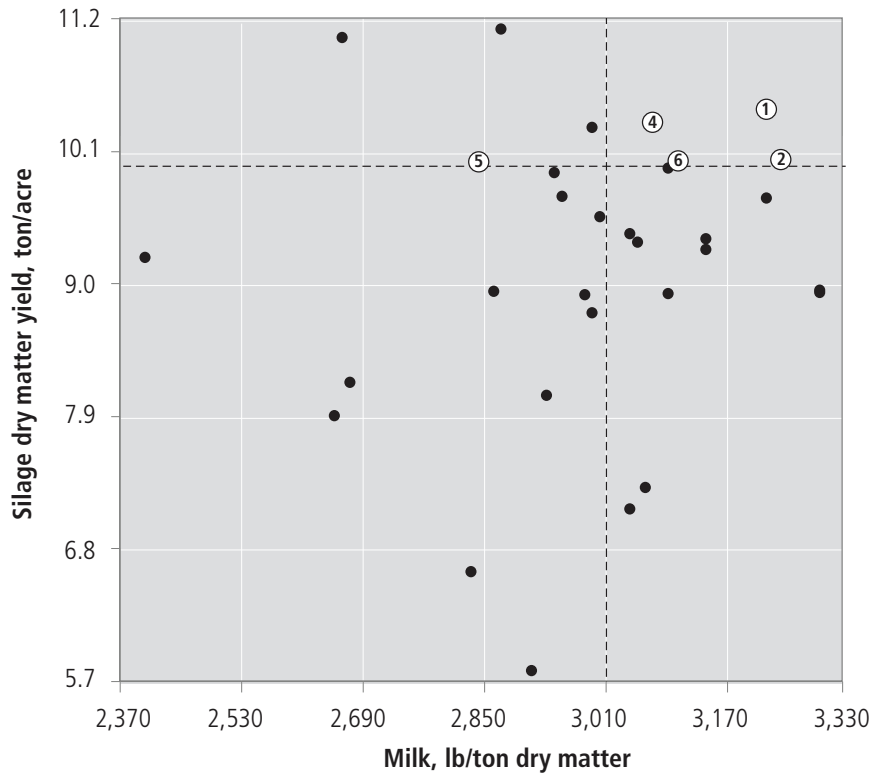
¹ Bt, CRW, GLY, LL, and Lf traits contain genes for European corn borer tolerance, corn rootworm tolerance, glyphosate herbicide tolerance, Liberty (glufosinate-ammonium) herbicide tolerance and leafy trait, respectively.

² DM yield is whole-plant corn yield at 100% dry matter; Silage yield is whole-plant corn yield at harvest moisture.

³ Quality concentration expressed as a % of DM, except NDFD which is expressed as a % of NDF. Refer to Results Provided text for additional information.

⁴ Milk production was estimated using spreadsheet MILK2006 developed at the University of Wisconsin. Refer to Results Provided text for additional information.

Figure 6. Relationship between silage dry matter yield and milk per ton.



Relationship between silage dry matter yield and milk per ton at Elbow Lake (Grant County) in 2013. Silage dry matter yield values above the dashed line were among the highest in this trial at the 10% probability level.

Milk per ton values to the right of the dashed line were among the highest in this trial at the 10% probability level.

Entry numbers are shown for hybrids with silage dry matter yield and milk per ton values that were among the highest.