



Crop Connection



UNIVERSITY OF MINNESOTA
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In the News...

- 1 2010 Field Trial Results
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Weather



Season	GDD	Rainfall (in)
April 9 to October 1, 2010	2803	30.4
May 1 to October 1, 2010	2626	29.3
May 1 to October 1, 2009	2161	16.3
Long term Average, May 1—October 1	304 GDD above ave	

Comments, Questions, Additions...

Contact us at the University of Minnesota
Extension Regional Office — Rochester:

Lisa Behnken Extension Educator, Crops
(507-280-2867) lbehnken@umn.edu

Fritz Breitenbach IPM Specialist
(507-280-2870) breit004@umn.edu

Ryan Miller Extension Educator, Crops
(507-529-2759) mil10869@umn.edu

Mary Jane Stearns
Executive Office & Administrative Specialist
(507-536-6310) mstearns@umn.edu

Crop Yield Results—2010

2010 has been a completely different growing and harvest season compared to 2009. Our total accumulation of heat units (GDD) far exceeded last year and the unusually dry October helped beans and corn dry very quickly, in some cases too quickly. From May 1 to October 1, we accumulated 2626 GDD, which is 304 above the long term average and 465 GDD above last years accumulation. In addition, most corn was planted by mid April, so we gained another 150-177 GDD with our early planting season.

There have been discussions about our warm summer evenings and the impact on corn yields. Some areas of the country are reporting a reduction in corn yield because the nights were too warm. In visiting with several corn agronomists, they suggest an average nighttime temps above 66-68 degrees F during grain fill may cause problems and certainly when the temps are above 70 degrees F with high humidity, the corn is under stress. In one of my “old” college text books, the comment is “the nights when you feel the greatest need for an air conditioner (hot and humid) is a poor night for corn growth”. I have charted our temperatures through the summer (graph page 2) based on the temperatures we record at the Rochester airport. There were some warm evenings, but for most corn fields, the period of warm evenings was usually broken by cooler evenings.

Field Trials - We have finished most of our plot harvest and are analyzing results now. In this issue are the following results are on pages 3-8:

Early and Late Maturity RR/GT Soybeans—Waseca and Rochester locations

Liberty Link Soybeans—Rock Dell, Waseca and Lamberton locations

Conventional Corn Hybrid—Rock Dell and Waseca locations

Early Maturity (90-95 RM) Corn Hybrid—Rock Dell and Waseca locations

Mid Maturity (96—100 RM) Corn Hybrid—Rock Dell and Waseca locations

Late Maturity (101-107 RM) Corn Hybrid—Rock Dell and Waseca locations

Temperatures at Rochester, MN April 9 – August 22, 2010

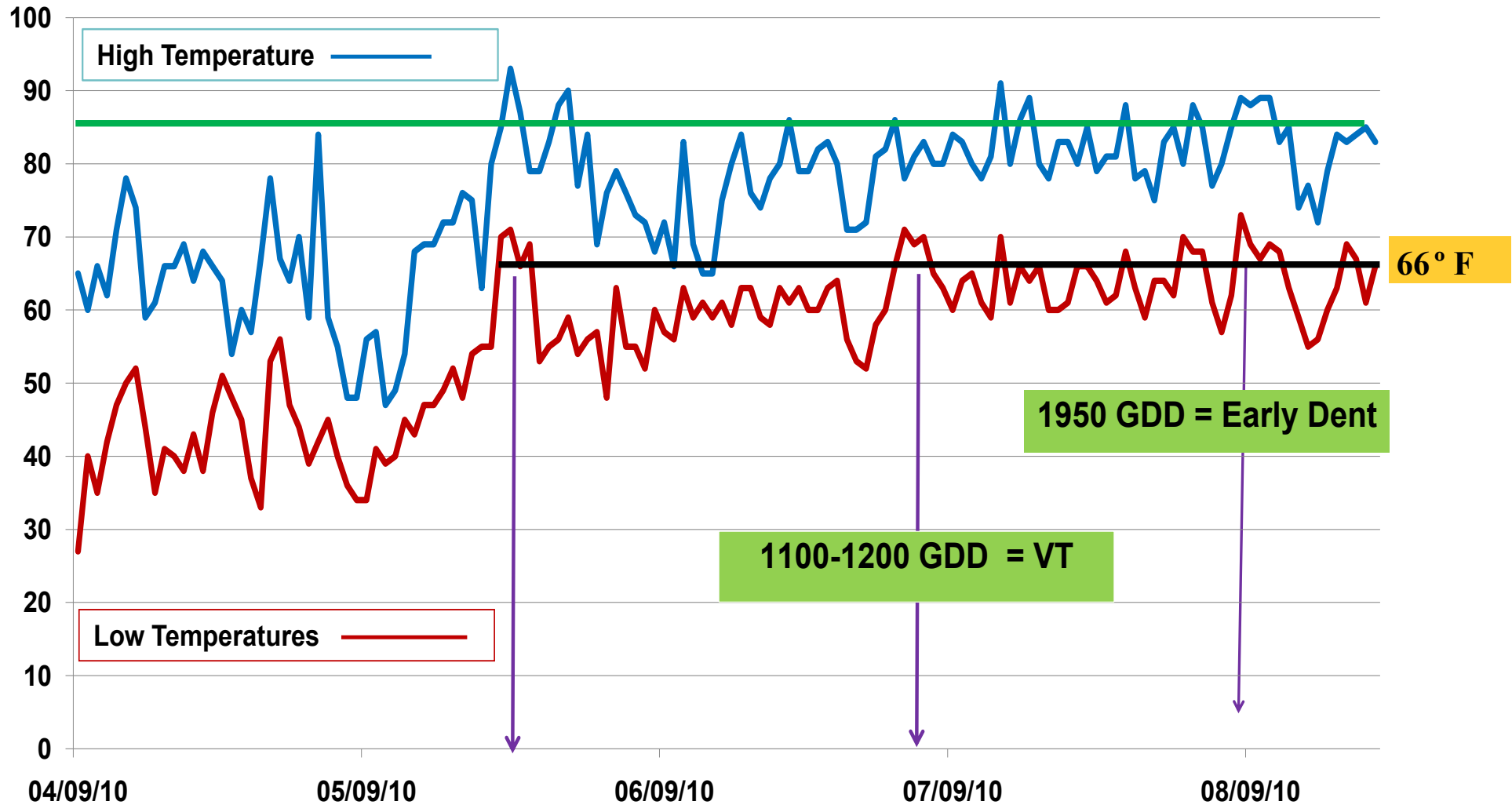


Table 1. Yield (at 13%) and moisture of early maturity soybeans (1.3 – 1.8) at Rochester and Waseca, MN in 2010.

Entry Name	Description	Rochester		Waseca	
		Moisture (%)	Yield (bu/A)	Moisture (%)	Yield (bu/A)
	1.3 to 1.8 maturity				
AgVenture 20A1	1.8	10.1	50.4	9.6	59.4
AgVenture 20A2	1.8	10.3	51.3	9.8	67.3
Asgrow AG 1506	1.5	10.1	55.8	9.5	65.6
Asgrow AG 1831 RR2Y	1.8	10.9	55.8	10.1	69.9
Croplan Genetics R2C1669	1.6	10.3	56.1	10.0	68.5
Croplan Genetics RC1820	1.8	10.2	54.9	9.7	66.9
LG Seeds C1375R2	1.3	10.0	49.4	9.8	67.3
LG Seeds C1665R2	1.6	10.4	55.8	10.1	70.4
NK Brand S17-B5 Brand	1.7	10.3	54.7	9.7	70.2
NK Brand S17-G8 Brand	1.7	10.0	54.4	9.8	67.7
Northstar Genetics NS1726NR2	1.7	10.1	56.3	9.9	71.9
Northstar Genetics NS1826NR2	1.8	10.5	59.1	9.8	66.4
NuTech 6153 G2	1.5	10.2	50.1	10.0	59.6
NuTech 7180 G2	1.8	10.3	47.8	10.0	62.9
Pioneer Brand 91Y40	1.4	10.1	49.6	9.5	61.5
Pioneer Brand 91Y80	1.8	10.3	46.6	9.8	64.5
Renk RS140NR2	1.4	10.1	54.6	10.0	62.2
Renk RS160NR2	1.6	10.3	55.8	10.0	63.3
Stine 16RA02	1.6	10.3	57.6	9.8	68.7
Stine 14RA02	1.8	10.2	56.1	10.2	62.8
Viking 1712R2N	1.7	10.2	55.2	10.0	65.4
Viking 1929NRR	1.8	10.1	48.4	9.8	64.3
Dairyland DSR 1601	1.6	10.2	51.0	10.0	64.8
NuTech 1808RN	1.8	10.2	50.3	9.8	58.5
	LSD (P=0.10)	0.2	2.8	0.4	6.8

Table 2. Yield and moisture of late maturity soybeans (1.9 – 2.5) at Rochester and Waseca, MN, in 2010.

Entry Name	Description	Rochester		Waseca	
		Moisture (%)	Yield (bu/A)	Moisture (%)	Yield (bu/A)
1.9 to 2.5 maturities	Maturity				
AgVenture 20A3	1.9	10.0	51.7	11.1	64.0
AgVenture 22C4	2.0	9.8	49.9	11.1	65.9
Asgrow DKB22-52 Brand	2.2	10.6	52.3	11.2	68.1
Asgrow AG2430	2.4	10.5	54.6	11.1	72.8
Croplan Genetics RT2092	2.0	10.4	51.3	11.2	68.6
Croplan Genetics RC2257	2.2	10.5	55.4	11.3	70.3
Dahlman 3920NRR	2.0	10.1	55.0	11.3	68.9
LG Seeds C2175R2	2.1	10.2	56.6	11.1	77.0
NK Brand S19-A6 Brand	1.9	10.3	52.8	11.1	73.8
NK Brand S21-B1 Brand	2.1	10.3	51.1	11.2	68.5
Northstar Genetics NS2026NR2	2.0	9.9	53.2	11.2	72.3
Northstar Genetics NS2226NR2	2.2	15.4	54.5	11.3	72.2
NuTech 7208	2.0	9.8	50.8	11.2	58.8
NuTech 7230	2.3	10.3	52.0	11.3	70.4
Pioneer Brand 91Y92	1.9	9.8	48.4	11.1	66.3
Pioneer Brand 92Y51	2.5	10.4	54.8	11.2	76.0
Renk RS210NR2	2.0	10.4	57.8	11.2	72.2
Renk RS223RR	2.2	10.4	53.1	11.2	67.6
Stine 2062-4	2.0	10.3	54.8	11.3	67.1
Stine 19RA02	2.1	10.1	52.4	11.0	67.8
Viking 2000R2N	2.0	9.6	52.5	11.1	70.0
Viking 2201R2N	2.2	11.5	52.8	11.4	67.5
Dairyland DSR 2132	2.1	10.3	52.4	11.2	65.8
Stine 1932-4	1.9	10.0	47.5	11.1	63.1
LSD (P=0.10)		0.5	2.2	0.2	7.1

Table 3. Grain yield and moisture of Liberty Link soybean varieties at Rock Dell, Waseca, and Lamberton, MN in 2010.

Entry Name	Description	Rock Dell		Waseca		Lamberton	
		Moisture (%)	Yield (bu/A)	Moisture (%)	Yield (bu/A)	Moisture (%)	Yield (bu/A)
Croplan Genetics LT1519	1.5	8.8	49.4	11.0	69.6	7.8	55.4
Croplan Genetics LT1829	1.8	8.4	43.4	11.2	62.6	8.4	50.7
Dahlman 4916LL	1.5	8.7	51.1	11.0	68.2	8.0	52.5
LG Seeds C1829LL	1.8	8.3	47.5	11.1	64.0	8.3	45.8
Renk RS170LL	1.9	8.3	46.9	11.1	65.4	8.6	51.7
Renk RS230NLL	2.3	8.5	49.7	11.1	71.2	9.3	53.5
Stine 23LA08	2.3	8.5	49.8	10.9	65.5	8.5	56.2
Stine 23LA03	2.3	8.5	49.8	11.1	67.7	8.5	52.8
Stine 25LA02	2.5	9.2	49.1	12.3	75.9	9.5	55.6
Stine 19LA06	1.9	8.5	47.4	11.0	70.1	8.6	52.3
Viking L199	1.9	8.4	45.7	11.9	59.6	8.4	51.6
Viking L200N	2.0	8.5	49.8	11.2	62.5	8.1	50.4
Asgrow 2108 RR	2.1 Standard	8.4	50.7	11.2	73.2	8.5	55.1
NK Brand S21-N6 RR	2.1 Standard	8.3	49.7	10.9	71.1	8.3	65.4
Pioneer Brand 92Y30-RR	2.3 Standard	8.3	49.7	11.0	68.7	8.4	54.7
Stine 2062-4-RR	2.0 Standard	8.4	50.5	11.1	65.3	8.5	53.6
LSD (P=0.10)		0.2	3.3	0.5	6.5	0.6	5.4

Table 4. Conventional corn hybrid moisture content and grain yield (15.5%) at Rock Dell and Waseca, MN, in 2010.

Entry Name	Seed Treatment	Maturity Day	Rock Dell		Waseca	
			Moisture (%)	Yield (bu/A)	Moisture (%)	Yield (bu/A)
AgriGold A6149	Poncho 250	92	13.7	216	14.5	179
Agventure 5039	Cruiser 250	95	14.6	224	15.7	195
Dairyland Stealth-1896	Cruiser Extreme 250	96	13.6	205	14.5	186
Legacy Seeds L-4018	Cruiser Extreme Pak 250	101	15.9	223	15.7	183
LG Seeds LG2492	Poncho 250	98	14.7	219	14.7	176
Pioneer 35F38	Cruiser 250	105	16.9	231	18.2	192
Renk RK570		95	13.6	203	13.5	189
Viking 60-01N	Cruiser 250	101	15.4	230	16.8	201
LSD (P=0.10)			0.7	13	0.7	NS
Average Yield				219		188

Table 5. Early maturity (90-95 day relative maturity) corn hybrid moisture content and grain yield (15.5%) at Rock Dell and Waseca, MN, in 2010.

Entry Name	Traits	Description Relative Maturity (Days)	Rock Dell		Waseca	
			Moisture (%)	Yield (bu/A)	Moisture (%)	Yield (bu/A)
AgriGold A6192STX	SmartStax Acceleron	95	15.3	212	24.4	174
Agventure R5039	Roundup Poncho 250	95	14.9	208	22.3	191
Croplan Genetics 3424VT3	VT3 Cruiser Xtreme 250 + Dynasty + Zn	94	16.6	225	22.3	190
Dahlman R48-49 Gen SS	SmartStax Acceleron 250	95	15.1	222	21.9	196
Dairyland Stealth-9789	VT3 Cruiser Extreme 250	89	14.8	215	21.7	180
DeKalb DKC42-72	VT3	92	14.5	222	21.9	184
Legacy L-3009	RR Cruiser Extreme Pak 250	92	13.8	214	20.8	182
LG Seeds 2411VT3	VT3 Poncho 250	90	14.4	224	21.8	194
Mycogen 2J337	VT3 Cruiser 250	92	14.5	218	21.3	195
Pioneer 38H08	HX1/LL/RR2 Cruiser 250	92	13.8	207	20.9	180
Producers 5314VT3	VT3 Maxim XL/Poncho 250	93	14.6	200	20.7	186
Renk RK434RR	RR Poncho 250	92	14.0	223	21.2	192
Viking B73-96R	VT3 Cruiser 250	95	14.0	214	21.9	197
LSD (P=0.10)			0.6	14	0.6	12
Average Yield				216		188

Table 6. Mid-season (96-100 day relative maturity) corn hybrid moisture content and grain yield (15.5%) at Rock Dell and Waseca, MN in 2010.

Entry Name	Traits	Maturity	Rock Dell		Waseca	
			Moisture (%)	Yield (bu/A)	Moisture (%)	Yield (bu/A)
96-100 Day Relative Maturity		Day				
Agrigold A6220VT3Pro	SmartStax Acceleron	98	15.4	241	15.5	178
Agventure 5480V3R	Roundup Cornbore + Poncho 250	98	15.3	239	14.9	187
Croplan Genetics 4338VT3	VT3 Cruiser Xtreme 250 + Dynasty + Zn	100	16.8	244	16.7	192
Dahlman R50-41	RR Acceleron 250	100	16.8	238	16.9	188
Dairyland Stealth-9597Q	HX/LL/RR2 Cruiser Extreme 250	97	15.3	232	15.2	187
DeKalb DKC49-93	RR2	99	15.1	242	15.3	186
DeKalb DKC50-35	VT3	100	15.8	261	15.2	205
Legacy Seeds L-3538VT3	VT3 Poncho	96	14.4	227	14.9	188
LG Seeds 2498VT3	VT3 Poncho 250	98	14.0	224	13.8	187
Mycogen 2P484	VT3	97	14.2	234	14.1	201
Pioneer 37K11	HX1/LL/RR2 Cruiser 250	99	15.3	235	14.8	185
Producers 5784VT3	VT3 MaximXL / Poncho 250	97	15.4	246	15.6	209
Renk RK501VT3	VT3 Poncho 250	95	15.2	233	15.0	193
Viking Y84-00RL	3000 GT Cruiser 250	100	17.6	238	15.3	194
LSD (P=0.10)			0.7	13	0.6	15
Average Yield				238		191

Table 7. Late season (101-107 day relative maturity) corn hybrid moisture content and grain yield (15.5%) at Rock Dell and Waseca, MN, in 2010.

Entry Name	Traits + Seed Treatment	Maturity Days	Rock Dell		Waseca	
			Moisture (%)	Yield (bu/A)	Moisture (%)	Yield (bu/A)
Agrigold A6309STX	SmartStax Acceleron	103	18.9	213	18.1	181
Agventure RL6061HBW	Quad Stack + Cruiser 250	102	17.9	232	17.8	186
Croplan Genetics 5338VT3	VT3 Cruiser Xtreme 250 + Dynasty + Zn	103	17.5	225	17.2	203
Dairyland Stealth 9703Q	HX/LL/RR2 Cruiser Extreme 250	103	19.1	207	17.7	172
DeKalb DKC53-17	RR2	103	16.3	231	15.4	177
DeKalb DKC53-78	GENSS	103	17.9	238	16.6	179
Legacy Seeds L-5350	3000GT Avicta Complete Corn 50	104	17.4	229	16.4	191
LG Seeds 2510 STX	STX Acceleron Standard	103	18.1	213	17.8	182
Mycogen 2A551	Hxxtra RR Cruiser 250	103	18.6	212	17.0	165
Nutech 3T-401	VT3	101	17.2	248	17.6	199
Nutech 5H-502	G2	102	18.2	233	17.4	197
Pioneer 36V53	HX1/LL/RR2 Cruiser 250	102	17.7	230	17.3	205
Producers 6238STX	SmartStax Acceleron 250	102	19.1	211	18.5	199
Renk RK698VT3	VT3 Poncho 250	105	16.7	241	17.0	198
Viking B53-03R	VT3 Cruiser 250	103	17.5	233	17.1	203
LSD (P=0.10)			0.6	13	0.9	18
Average Yield				226		189