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2011 Wisconsin Corn Hybrid Performance and Weather Summary

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Spring planting was challenging due to cool, wet planting conditions, especially in northeastern Wisconsin where planting progress was delayed. Over the entire growing season, growing degree-day accumulations were below the 30-year normal. Precipitation was below average in southern Wisconsin, while northern Wisconsin had above average precipitation. Due to a dry and cool September and October, good grain drying occurred. Little insect or disease pressure was observed in most trials. High winds caused above average plant lodging conditions at dry locations. The killing frost date occurred in October. Harvest grain moisture was lower than normal in all trials, while yields were above the 10-year average at most sites. Fall weather conditions were ideal for harvest and fall farm work.

Weather at Arlington significantly deviated from the 30-year normal average for both Growing Degree Unit accumulation and precipitation (Figure 1). Growing Degree Unit accumulation was below normal as well as precipitation. Meanwhile, Marshfield ended the growing season comparable to the 30-year normal average.

The University of Wisconsin corn hybrid trials tend to be planted early and harvested at optimal times, so they provide a good estimate of potential yields at various locations over an entire growing season.

Grain Trials

Grain yields were above the 10-year average at 9 of 12 locations (Table 1). Yield was below the 10-year average at Arlington, Hancock and Valders. For example, at Arlington during the 10-year period between 2001 to 2010, a total of 1988 hybrids were tested with an average yield of 216 bu/A. At Arlington during 2011, 150 hybrids averaged 194 bu/A. The 2011 yield was 10% below the previous 10-year average. The highest yielding locations were Janesville and Lancaster at 230 and 231 bu/A averaged over 150 hybrids. The lowest yielding location was Valders at 151 bu/A averaged over 144 hybrids tested. The location with the greatest increase was Spooner, which yielded 17% above the 10-year average.

Table 1. Grain summary of locations in the 2011 Wisconsin corn performance trials. Yield is in bushels per Acre at 15.5% moisture.

	2001-2010		2011		Percent
Location	N	Yield	N	Yield	change
Arlington	1988	216	150	194	-10
Janesville	1885	223	150	230	3
Lancaster	1753	214	150	231	8
Fond du Lac	1471	185	153	205	11
Galesville	1565	210	153	222	6
Hancock	1594	219	153	204	-7
Chippewa Falls	1180	165	144	188	14
Marshfield	1618	164	204	180	10
Seymour	1303	166	144	172	4
Valders	1536	167	144	151	-10
Coleman/Rhinelander	268	176	60	181	3
Spooner	1376	139	180	162	17

Silage Trials

Silage yields were above the 10-year average for 8 of 9 sites (Table 2). For example at Arlington during the period between 2001 and 2010, a total of 642 hybrids produced an average yield of 9.6 T/A. In 2011, 62 hybrids produced an average yield of 9.2 T/A. This was a 4% decrease over the previous 10-year average. The highest yielding location was Galesville at 9.9 T/A. The location with the greatest increase was Coleman with an 18% increase over the previous 10-year average.

Table 2. Silage summary of locations in the 2011 Wisconsin corn performance trials. Yield is in Tons dry matter per Acre.

	2001-2010		2011		Percent
Location	N	Yield	N	Yield	change
Arlington	642	9.6	62	9.2	-4
Lancaster	642	9.0	62	9.7	8
Fond du Lac	664	8.1	76	9.4	16
Galesville	668	9.4	76	9.9	5
Chippewa Falls	458	7.4	81	8.2	11
Marshfield	606	7.3	107	7.6	4
Valders	587	7.3	81	7.9	8
Coleman/Rhinelander	202	7.3	26	8.6	18
Spooner	440	6.8	52	7.0	3

Figure 1. Seasonal Growing Degree Unit and Precipitation Deviations from January 1 to current date (or October 31). Years were selected using + 1 standard deviation of the 30-year normal.