

Agronomy Advice

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Corn Transgenic and Trait Technologies in UW Trials during 2012

Joe Lauer, *Corn Agronomist*

The weather during 2012 is proving to be similar to other drought years like 1976, 1988, 1989 and 2005. Yields decreased during these years, except for the 2005 season when record grain yields were recorded. A big difference between 2005 and previous drought years was the presence of transgenic traits in corn hybrids, especially Bt-ECB traits.

European corn borer and increased stalk tunneling damage is often associated with drought stressed environments. Water transpiration cools important plant parts when it is able to get to those structures. If ECB tunnels are present, water flow to leaves and the ear is interrupted and surface temperature can increase along with stress. Modern hybrids have a greater capacity to maintain the integrity of the stalk for efficient water use. I often hear comments from farmers that "these hybrids can withstand greater stress." However, when the water in the soil profile runs out, it runs out regardless of whether or not it is transgenic.

The objective of the University of Wisconsin Corn Hybrid Performance Trials is to provide unbiased performance comparisons of hybrid seed corn available in Wisconsin. In 2012, a total of 510 corn hybrids are being evaluated in 53 experiments at 14 locations (Figure 1).

Below is a list of technologies included in the program with the corresponding number of hybrids being evaluated in various zones and trials (Table 1). These include both transgenic and trait technologies. In the table below, an "_S" indicates a silage trial for the region, while an "_ORG" indicates and organic trial. Leafy and bmr traits are not listed.

New transgenic technologies include Optimum® AcreMax® Xtra. New native trait technologies include Agrisure Artesian™.

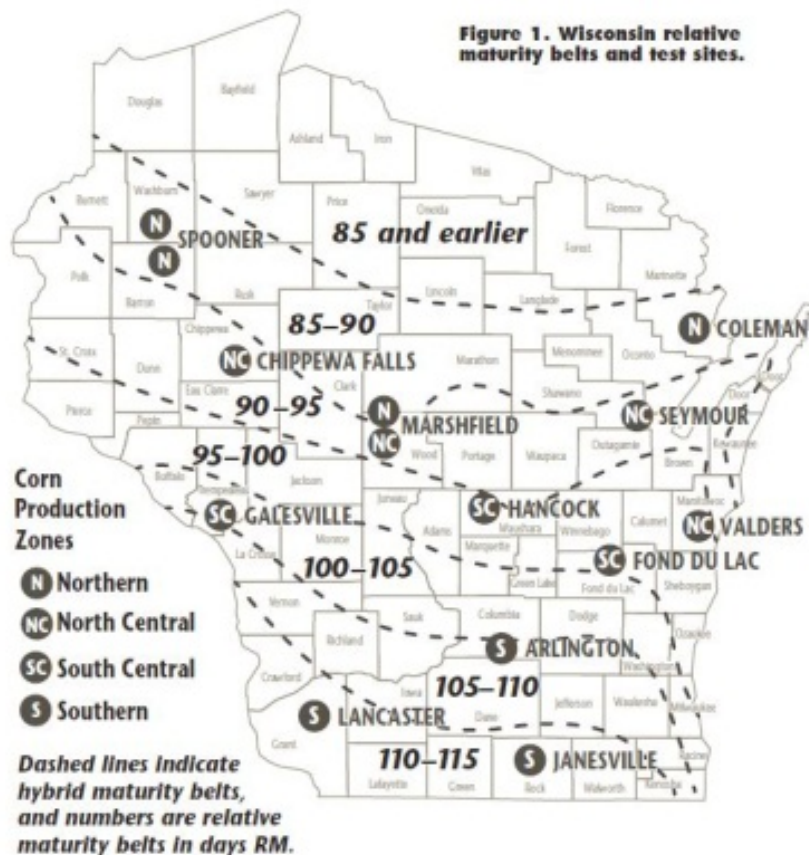


Table 1. List of transgenic and native trait technologies in the 2012 UW Corn Hybrid Performance Trials.

Transgenic Technology	Trait Technology	N	N_S	NC	NC_ORG	NC_S	SC	SC_S	S	S_ORG	S_S	Total
Agrisure Viptera® 3111		3	2	7	0	7	9	3	7	0	2	40
Agrisure® 3000GT		12	10	26	0	14	12	13	23	0	8	118
Agrisure® 3000GT	Agrisure Artesian™	0	0	0	0	0	1	2	1	0	1	5
Agrisure® CB/LL/RW		0	0	0	0	0	0	1	0	0	1	2
Agrisure® GT		5	1	1	0	3	1	1	5	0	1	18
Agrisure® GT/CB/LL		5	2	4	0	2	3	0	1	0	1	18
Conventional		4	3	6	13	13	9	14	12	17	11	102
DAS SmartStax™		8	1	12	0	3	8	4	7	0	3	46
Genuity™ SmartStax™		0	0	5	0	3	14	4	12	0	2	40
Genuity™ VT Double Pro™		4	0	5	0	1	2	0	1	0	1	14
Genuity™ VT Triple Pro™		13	2	51	0	18	40	14	36	0	18	192
Herculex® I plus Roundup Ready® Corn 2		6	2	8	0	3	13	3	11	0	1	47
Herculex® XTRA		0	0	0	0	0	0	0	0	0	1	1
Herculex® XTRA plus Roundup Ready® Corn 2		3	1	5	0	4	4	7	3	0	11	38
Optimum® AcreMax® 1		0	2	0	0	2	3	2	1	0	2	12
Optimum® AcreMax® Xtra		0	1	1	0	0	1	1	2	0	1	7
Roundup Ready® Corn 2		3	0	5	0	1	1	0	2	0	0	12
YieldGard® VT Triple		4	1	13	0	4	13	6	10	0	6	57
Total		70	28	149	13	78	134	75	134	17	71	769

* _S = Silage Trials

_ORG = Organic Trials