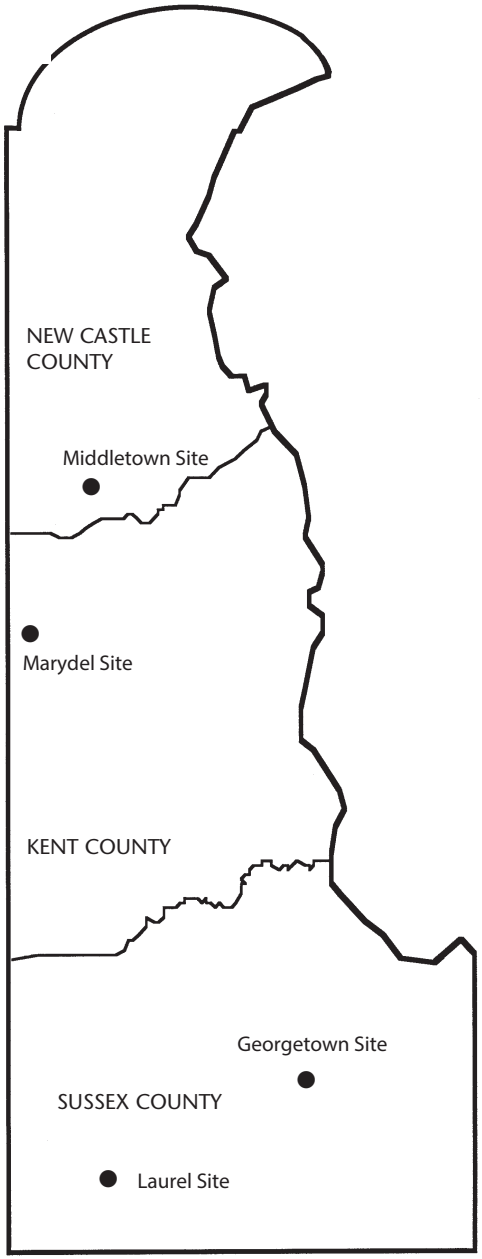
COOPERATIVE BULLETIN

DELAWARE HYBRID FIELD CORN PERFORMANCE TRIALS

2015

University of Delaware
College of Agriculture and Natural Resources
Agricultural Experiment Station
Cooperative Extension
Newark, DE 19716-2170

Test plot locations



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DELAWARE HYBRID FIELD CORN PERFORMANCE TRIALS - 2015

The 2015 Delaware hybrid field corn trials were conducted jointly by the University of Delaware's Agricultural Experiment Station and the Delaware Cooperative Extension Service, College of Agriculture and Natural Resources. Thirty four hybrids were evaluated at four locations: Baker Farms at Middletown, DE (dryland); Thomas Family Farms at Marydel, DE (center pivot irrigation); Plum Creek Farms, LLC at Laurel, DE (center pivot irrigation) and Thurman Adams Agricultural Research Farm at Georgetown**,** DE (lateral move irrigation). Hybrids were divided into three maturity groups; early (11 entries), early-medium (16 entries), and medium (7 entries). Plans and rules for entering these trials are available upon request.

Methodology

A randomized, complete block design with four replications was used in all tests. Four row plots were planted with a Monosem air planter. The center two rows of each plot were harvested with a small plot combine. Tillage and cultural practices are noted in Table 1. Temperature and rainfall information is summarized in Tables 2 and 3, respectively. Data were analyzed by analysis of variance and hybrids were ranked by yield in each test.

Traits Measured

- Yield was recorded in bushels per acre on the basis of 56 lb/bu and adjusted to 15.5% moisture.
- % moisture is the actual percentage of grain moisture at harvest determined by a grain analysis computer.
- Yield/Moisture (Y/M) is the yield in bu/A (adjusted to 15.5% moisture) divided by the grain harvest moisture.
- Final population is the plant population per acre taken at flowering time.
- % stalk lodging is the percentage of plants that were broken below the ear.
- % root lodging is the percentage of plants that had lodged more than 30^{o}.
- % green snap is the percentage of plants that had sudden breakage of stalks due to strong, horizontal winds.

C.V. and L.S.D.

The coefficient of variation, or C.V., is a measurement of the amount of uncontrollable variability due to differences in the soil, weather, fertility, etc. Coefficient of variation's below 15% are considered good. Please note that C.V.'s are expected to be higher at dryland locations particularly in drought years due to lower yields.

The least significant difference, or L.S.D., (computed at a 5% level of probability) is a tool to determine if two average values are significantly different. The difference between two hybrids must exceed the L.S.D. value to be considered significantly different. Example for yield: L.S.D. = 25 bu/A, hybrid X = 120 bu/A, hybrid Y = 150 bu/A. The difference between X and Y (30 bu/A) exceeds the L.S.D. (25 bu/A). Therefore, hybrid Y has a significantly higher yield performance than hybrid X.

Note

When reviewing the enclosed data it is important to note moisture percentages when comparing hybrids within the same maturity. Comparisons should not be made between hybrids of different maturity groups since these are separate tests. These results are based on one year's data only and should be considered as preliminary results. Hybrid performance may vary from location to location and from year to year because of differences in rainfall, temperature, soil type, soil fertility, diseases, insects, and a variety of other factors. Growers will obtain the best estimate of individual hybrid performance by looking at performance data over several years and across locations. We have provided a column for each maturity group that calculates the average performance of hybrids over all locations.

HOW TO BEST USE CORN HYBRID PERFORMANCE TRIAL INFORMATION:

Information presented in this summary may be useful in selecting corn hybrids for production in Delaware. To maximize the usefulness of this information, follow these suggestions:

1. Select the test location that best represents your production location(s). Generally, corn hybrids are widely adapted across Delaware but certain soil or climatic conditions, cultural practices, or insect/disease problems may limit the choice of an entry.

2. Multiple-year average (means) across the greatest number of years are the best predictors of performance. Refer to previous test reports for information to evaluate corn hybrids which are of interest to you. Comparison between your selected hybrid and the grand mean for that maturity group will be helpful in identifying superior hybrids.

When evaluating test results across years or locations, we recommend that you give preference to trials with coefficients of variation less than 15%. Growers should also consider the cultural practices used for each trial.

3. Check the grand mean for the long-term averages and compare with your own production experience. If your yields have been consistently below these grand mean levels, you should evaluate each part of your management system for potential areas of improvement.

4. Using long-term averages, select the hybrid or hybrids with which you are best acquainted or are currently using on your farm. Use these hybrids as "bench marks" when comparing new hybrids. Identify those hybrids which have over years produced yields higher than your selected bench mark hybrid. Hybrids with excessive ear drop and high lodging percentages should be avoided.

5. Beginning with the 2014 growing season, we are including one or more corn hybrids to act as **'Check'** hybrids for producers. We have tried to select check hybrids which will represent the newest and best genetics coming out of commercial programs.

Summary of Results

Unlike 2014 when summer temperatures could be described as often less than those desired for accumulating corn heat units, the 2015 growing season was excellent with respect to accumulating heat units. May had 16 or more days with daily high temperatures greater than 80°F. at all locations. At the three reporting stations, June averaged 20 days with the high temperature greater than 80°F. and had 12, 11 and 7 days greater than 86°F. at Georgetown, Dover, and Townsend, respectively. July and August were quite warm with 27 to 29 days with a high temperature greater than 80°F. July had 14 to 16 days greater than 86°F. but August had just 8 to 11 days greater than 86°F. across the test sites. The high temperature only exceeded 90°F. twice in August at the Georgetown location and once at the other two sites. Overall, temperatures were quite favorable for corn production in 2015.

Rainfall was below the long-term monthly average in May, July, and August for all locations. Only in June did rainfall exceed the normal average for the location and month. In particular, Dover (8.2 inches for June) and Townsend (12.2 inches for June) were much above average in June. The location in Dover (Marydel) was a well-drained sandy loam soil and was unlikely affected by June's rainfall since almost 2.6 inches of the total was received in the first few days

of June following twenty six days in May with only 1.21 inches of rainfall. The Townsend (Middletown) location that received 12.2 inches in June may have been marginally impacted since the soil there is a silt loam soil with a much higher water holding capacity than the soils at the other locations. Rainfall at the Townsend location was fairly distributed over the month with about 3 inches per week. The one concern with June's rainfall were the number of days with precipitation. For the Georgetown, Dover, and Townsend locations, rainfall occurred on 19, 20, and 21 days, respectively, in June with 14, 12, and 15 days, respectively, when the amount was greater than or equal to 0.1 inches. Many cloudy days can lower the amount of sunlight energy the corn crop received; but, since both July and August were relatively rain-free (only 5 days/month for both July and August at all locations) when corn advanced from the rapid growth period into the reproductive and grain fill period, yields should not have been significantly affected by available solar radiation.

Yields at Middletown (Baker Farms) dryland location were excellent due to sufficient rainfall throughout the growing season with an average yield of 194, 216, and 207 bu/A for the early, early-medium, and medium maturity groups, respectively, compared to the check means of 195, 224, and 201 bu/A, respectively. There were significant differences among hybrids in yield, grain moisture, yield/moisture, test weight, and stalk lodging across all maturity groups. There were significant differences among hybrids in green snap for the early-medium and medium maturity groups.

The Kent County irrigated site at Marydel (Thomas Family Farms) was excellent with an average yield of 239, 257, and 260 bu/A for the early, early-medium, and medium maturity groups, respectively, compared to the check means of 224, 258, and 268 bu/A, respectively. There were significant yield, grain moisture, yield/moisture, and test weight differences among hybrids across all maturity groups. There was no stalk lodging, root lodging, or green snap at this testing location.

Yields at Laurel (Plum Creek Farms, LLC) irrigated no-till location averaged 193, 214, and 199 bu/A for the early, early-medium, and medium maturity groups, respectively, compared to the check means of 181, 217, and 197 bu/A, respectively. There were significant differences among hybrids in yield, grain moisture, yield/moisture, test weight, and plant population across all maturity groups. There was no root lodging and only minor stalk lodging and green snap at this testing location.

Yields averaged 229, 239, and 232 bu/A for the early, early-medium, and medium maturity groups, respectively, at Georgetown (Thurman Adams Agricultural Research Farm) irrigated location compared to the check means of 204, 247, and 227 bu/A, respectively. There were significant differences among hybrids in yield, grain moisture, yield/moisture, and test weight, across all maturity groups. There was no stalk/root lodging or green snap at this testing location, other than minor stalk lodging in the early-medium group.

The grain yield rankings of hybrids across locations are provided in each table. A pooled yield average and yield ranks are also provided for each hybrid. There are a few hybrids that had high yield rankings across locations. We encourage growers to give strong consideration to hybrids with high average performance across locations and years and to use such hybrids as benchmarks for future hybrid decisions. However, growers should recognize that the relative performance of some hybrids might differ across environments. Careful hybrid selection should help stabilize yield performance in Delaware.

TABLE 1. EXPERIMENTAL DETAILS AND CULTURAL PRACTICES.

	Baker Farms - Middletown (Dryland)	Thomas Family Farms - Marydel (Irrigated)	Plum Creek Farms, LLC – Laurel (Irrigated)	Thurman Adams Agricultural Research Farm, Georgetown (Irrigated)
Number of entries	34	34	34	34
Number of maturities	3	3	3	3
Target Population plants/A	30,000	30,000	30,000	30,000
Row length	17.4'	17.4'	17.4'	17.4'
Number of rows harvested	Center two rows	Center two rows	Center two rows	Center two rows
Number of replications	4	4	4	4
Planting date	May 6	May 4	May 5	April 29
Harvest date	September 21	September 23	September 14	September 15
Soil type	Matapeake silt loam	Sandy loam	Sandy loam	Rosedale loamy sand
Previous crop	Soybean	Soybean	Peas followed by double crop sweet corn	Lima beans
Cover crop	None	None	Radish	Rye
Tillage practices	Disked, ripped, field cultivator	Disked, ripped, field cultivator	No-till	Burn down rye, disk, chisel plow & final disking
Cultivation	None	None	None	None
Fertilization	12.5 gallons/A of 10-20-0-1 (N-P_2O_5-K_2O-S) at planting. At mid-whorl stage, 55 gallons/A of 30% UAN solution was side-dressed.	3 tons/A of chicken manure and 50 lbs/A of potash (K_2O) prior to planting plus 12 gallons/A of 20-10-0-1 (N-P_2O_5-K_2O-S) at planting. At mid-whorl stage, 50 gallons/A of 30% UAN solution was side-dressed.	3 tons/A of chicken manure prior to planting. At planting, the site received 12.5 gallons/A of 10-20-0-1 (N-P_2O_5-K_2O-S). At mid-whorl stage, 65 gallons/A of 30% UAN solution was side-dressed.	300 lbs/A 7-0-40 prior to planting plus 12.5 gallons/A 10-20-0-1 (N-P_2O_5-K_2O-S) at planting. At mid-whorl stage, 65 gallons/A of 30% UAN solution was side-dressed.
Herbicide	3 quarts/A of Lexar + 1 quart/A Princep applied pre-emergence.	3.5 quarts/A of Lexar + 1 quart/A Princep applied pre-emergence.	1qt/A Roundup + 1 qt/A Atrazine applied pre-emergence. Impact 1oz/A + Atrazine 1qt/A + Crop oil 1% v/v applied post- emergence.	3 quarts/A of Lexar + 1 quart/A Princep applied pre-emergence.
Insecticide	5.5 lbs/A Force 3G in seed furrow	5.5 lbs/A Force 3G in seed furrow	5.5 lbs/A Force 3G in seed furrow	5.5 lbs/A Force 3G in seed furrow
Irrigation	None	Center pivot	Center pivot	Lateral move

TABLE 2. DAILY TEMPERATURE AT OR NEAREST TEST LOCATIONS FOR THE 2015 DELAWARE CORN HYBRID VARIETY PERFORMANCE TRIALS DURING MAY AND JUNE.

Date of Month	May						June					
	Georgetown		Dover		Townsend		Georgetown		Dover		Townsend	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	52.9	41.7	59.3	46.3	60.4	44.8	88.7	69.3	87.6	64.4	84.2	60.8
2	70.7	39.9	71.2	39.0	73.6	39.5	69.5	56.2	65.0	54.2	60.9	53.3
3	79.4	44.5	80.9	47.4	79.2	46.3	58.4	55.2	63.8	53.4	63.8	53.8
4	82.7	50.5	81.4	50.3	83.1	48.8	60.4	57.0	63.2	54.6	65.9	54.6
5	84.5	63.3	82.3	60.9	82.0	59.4	65.9	57.6	70.7	54.9	71.7	54.6
6	78.0	54.9	75.7	58.2	77.5	58.9	76.2	58.2	77.0	58.7	77.9	61.2
7	75.5	52.4	76.9	52.5	78.3	56.1	74.4	53.9	74.7	54.1	74.7	55.8
8	79.8	55.1	79.0	54.2	80.8	51.8	83.0	57.4	82.5	59.8	82.1	60.0
9	80.5	63.7	80.3	58.0	80.6	55.6	85.3	69.1	84.9	65.1	82.8	66.7
10	84.8	64.7	82.3	63.7	80.9	61.4	83.0	61.2	83.6	58.5	81.4	58.4
11	77.5	66.4	79.2	65.0	81.0	66.4	91.3	64.6	91.2	64.6	88.8	64.7
12	88.8	64.5	84.4	61.9	84.6	62.5	92.4	72.8	93.1	72.4	90.6	72.7
13	75.6	54.8	72.7	57.3	70.7	55.8	88.7	74.8	86.9	72.8	85.5	71.3
14	69.1	48.7	70.0	46.4	70.0	45.8	87.9	72.0	89.0	69.8	89.0	70.7
15	74.4	48.2	74.6	47.5	75.4	50.0	88.1	72.9	86.5	71.7	85.4	71.3
16	84.1	59.3	84.4	58.6	85.4	59.0	92.8	73.1	90.9	72.7	89.1	72.8
17	83.5	67.8	81.6	66.8	81.5	66.7	80.4	66.1	80.5	64.1	82.0	65.6
18	87.2	67.1	86.6	64.0	86.4	63.5	85.8	68.5	79.2	66.0	76.1	65.8
19	83.0	66.4	82.9	63.3	82.8	61.7	86.3	69.5	85.3	68.3	83.2	68.0
20	72.4	53.9	69.5	48.6	72.0	51.3	87.4	71.7	86.0	71.5	83.1	71.6
21	55.9	49.1	56.6	46.0	54.6	48.3	88.4	71.0	89.1	70.2	86.7	70.8
22	72.2	48.1	72.1	46.2	72.6	47.4	88.5	72.3	88.9	69.1	87.1	69.5
23	70.0	48.2	68.2	44.0	68.3	47.4	93.1	70.4	93.7	69.8	91.1	69.9
24	78.3	48.3	78.3	48.2	78.5	48.0	81.5	65.7	81.5	64.1	80.6	63.4
25	81.0	59.2	82.0	60.9	82.8	62.1	84.5	61.4	82.8	60.5	82.1	60.9
26	84.6	62.7	84.9	62.4	85.1	63.3	75.9	64.7	79.0	65.1	79.4	65.4
27	86.3	68.4	86.6	66.8	87.0	69.1	75.8	63.4	73.0	63.1	69.6	62.8
28	85.1	68.2	87.3	68.7	88.2	69.2	79.8	67.6	77.8	66.4	77.0	65.3
29	83.6	65.7	79.7	67.2	83.1	68.0	80.9	60.9	80.8	58.9	79.7	59.1
30	84.9	65.9	86.2	65.3	85.9	64.4	85.5	65.0	86.8	63.2	85.9	64.5
31	87.5	67.1	88.9	67.7	88.4	68.8						
AVG.	78.5	57.4	78.3	56.5	78.7	56.8	82.0	65.5	81.8	64.1	80.6	64.2

TABLE 2. DAILY TEMPERATURE AT OR NEAREST TEST LOCATIONS FOR THE 2015 DELAWARE CORN HYBRID VARIETY PERFORMANCE TRIALS DURING JULY AND AUGUST (continued).

Date of Month	July						August					
	Georgetown		Dover		Townsend		Georgetown		Dover		Townsend	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	85.4	68.3	83.7	65.4	82.8	65.3	90.3	66.0	85.9	68.2	85.8	66.4
2	73.3	65.3	73.0	63.8	71.6	62.9	88.3	65.9	87.0	62.7	85.7	61.1
3	80.7	60.6	80.4	59.3	81.6	58.5	89.1	64.9	87.5	62.8	87.9	63.7
4	80.0	68.7	78.2	68.6	76.3	67.3	90.8	71.0	89.5	70.9	88.5	69.0
5	83.6	66.1	82.9	63.5	83.6	63.9	87.6	67.4	85.0	65.6	85.4	65.4
6	87.8	70.8	87.2	70.4	86.9	69.2	82.2	66.8	82.5	63.9	81.8	61.3
7	87.9	73.6	87.8	71.1	86.6	71.1	74.8	69.0	80.4	66.1	80.5	63.8
8	88.3	74.6	88.7	74.6	86.3	73.1	76.6	62.5	80.5	61.1	80.3	59.4
9	89.1	73.1	87.4	72.3	86.0	72.8	83.3	59.7	84.4	60.2	84.0	59.2
10	83.8	70.4	82.5	68.7	82.0	67.9	75.8	63.1	75.5	62.7	73.2	62.5
11	80.8	66.4	86.2	68.0	86.2	67.1	84.5	68.7	83.0	67.8	85.0	67.2
12	84.6	62.2	86.1	63.4	85.3	61.7	82.5	65.3	81.1	64.3	80.6	63.4
13	84.3	65.6	84.0	67.1	84.7	66.0	82.1	61.2	80.7	59.3	80.1	58.9
14	83.8	71.7	83.8	70.6	85.3	70.1	84.7	58.1	85.6	56.3	85.0	54.6
15	78.9	71.1	80.5	66.9	80.5	67.5	85.7	60.0	87.9	60.1	86.4	60.3
16	77.8	63.2	81.1	62.6	81.0	62.1	87.6	61.6	89.2	60.2	88.6	60.7
17	82.3	58.6	81.6	59.9	80.9	59.5	89.4	61.6	92.2	65.7	91.5	65.5
18	87.8	67.9	88.2	70.0	87.5	70.7	86.7	66.2	88.4	64.3	87.6	64.4
19	93.2	71.5	92.5	72.4	91.2	72.4	86.1	71.1	85.3	72.7	88.3	72.0
20	94.3	76.4	92.0	77.8	90.7	77.2	84.6	72.9	84.6	73.3	85.1	71.9
21	89.6	74.7	87.8	74.5	87.5	71.6	85.3	70.2	83.9	68.3	83.1	67.1
22	84.1	67.5	82.7	65.9	82.5	64.8	82.9	61.6	81.7	60.6	80.9	59.5
23	82.5	63.3	80.5	59.7	80.1	59.8	83.6	56.2	84.3	55.6	82.5	54.8
24	84.2	57.9	82.9	57.8	82.9	57.9	87.3	60.3	87.6	59.4	87.1	59.5
25	86.3	58.7	87.7	58.4	86.8	58.7	84.7	65.7	83.4	61.0	83.4	60.6
26	87.6	66.0	86.9	68.0	87.0	68.2	82.2	58.0	79.4	56.9	79.0	55.7
27	84.2	69.4	84.6	66.5	82.0	69.2	80.9	57.2	79.8	54.3	78.4	55.0
28	91.1	69.3	90.0	67.5	89.4	67.4	82.7	55.6	81.9	53.7	81.2	53.1
29	87.6	69.6	87.5	68.1	87.5	69.2	84.9	55.9	85.2	56.6	85.0	56.0
30	89.2	74.0	88.2	73.5	88.2	71.9	86.1	60.4	84.7	61.1	85.9	61.0
31	88.2	68.5	86.5	64.7	86.1	63.3	85.5	71.0	86.5	71.4	86.7	71.8
AVG.	85.2	67.9	84.9	67.1	84.4	66.7	84.5	63.7	84.3	62.8	84.0	62.1

TABLE 3: DAILY RAINFALL (INCHES) AT OR NEAREST TEST LOCATIONS FOR THE 2015 DELAWARE CORN HYBRID VARIETY PERFORMANCE TRIALS

Date of Month	May			June			July			August		
	Georgetown	Dover	Townsend	Georgetown	Dover	Townsend	Georgetown	Dover	Townsend	Georgetown	Dover	Townsend
1	0.25	0.33	0.06	0.27	1.33	2.43	0.00	0.05	0.26	0.15	0.00	0.00
2	0.00	0.00	0.00	0.65	1.15	0.78	0.89	0.18	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	1.10	0.07	0.02	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.14	0.03	0.36	0.04	0.00	0.05	0.79	0.10	0.16
5	0.00	0.25	0.02	0.01	0.02	0.06	0.00	0.00	0.00	0.64	0.26	0.00
6	0.00	0.00	0.00	0.04	0.01	0.00	0.10	0.01	0.00	0.00	0.00	0.02
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.01	0.01
8	0.00	0.00	0.00	0.00	0.83	0.32	0.06	0.00	0.05	0.00	0.00	0.00
9	0.00	0.00	0.00	0.02	0.04	0.09	0.00	0.32	0.51	0.00	0.00	0.00
10	0.01	0.06	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.20
11	0.00	0.01	0.52	0.00	0.00	0.00	0.02	0.00	0.00	1.17	0.76	0.43
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.01	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.14	0.81	1.42	0.13	0.24	0.13	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.41	0.51	0.03	0.01	0.00	0.00	0.00	0.00
16	0.09	0.02	0.11	0.01	0.21	0.01	0.00	0.00	0.00	0.00	0.00	0.00
17	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.83	0.00	0.14	0.59	0.49	0.47	0.00	0.00	0.00	0.00	0.00	0.00
19	0.48	0.04	0.18	0.10	0.01	0.50	0.00	0.00	0.00	0.00	0.22	0.12
20	0.00	0.00	0.00	0.14	0.21	1.33	0.00	0.00	0.00	0.31	0.50	1.33
21	0.79	0.46	0.30	0.97	0.21	0.38	0.39	0.00	0.00	0.07	0.05	0.00
22	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.41	0.81	0.03	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.18	0.83	0.27	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.65	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.31	0.19	0.35	0.67	2.83	1.17	1.92	0.61	0.00	0.00	0.00
28	0.00	0.25	0.00	0.11	0.01	0.05	0.03	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.03	0.00	0.00	0.00
30	0.00	0.00	0.00	0.02	0.00	0.10	0.01	0.01	0.42	0.00	0.00	0.00
31	0.00	0.00	0.00				0.01	0.00	0.00	0.00	0.00	0.00
Total	2.5	1.8	1.6	5.9	8.2	12.2	3.0	2.9	2.1	3.3	1.9	2.3

DELAWARE FIELD CORN PERFORMANCE TRIALS HYBRID ENTRIES

Early season hybrids

Brand	Hybrid		Trait	Relative maturity days
TA Seeds	TA566-31		Vip3111	106
TA Seeds	TA583-22		VT2P	108
Phoenix	5352A4		Viptera 3111	109
Doebler's®	RPM® 563HXR™		HX1/LL/RR2	105
Doebler's®	RPM® 4816AM™		AcreMax Above	108
Doebler's®	RPM® 5015AM™		AcreMax Above	110
Augusta	A4959		3110GT	109
Augusta	A4758		VT2 PRO	108
NK	N59B		Agrisure Viptera 3111A	108
NK	N66V		Agrisure 3000GT	109
Clarks	Agra 508		GT	104
DeKalb	**DKC54-40**	**(Check)**	RIB GENVT2P	104
DeKalb	**DKC57-77**	**(Check)**	RIB GENDGVT2P	107

Early-medium season hybrids

Brand	Hybrid	Trait	Relative maturity days
TA Seeds	TA625-30	Vip 3110	110
TA Seeds	TA636-22	DP VT2P	111
TA Seeds	TA683-13	VP VT3P	111
TA Seeds	TA736-22	DP VT2P	113
Phoenix	5552A4	Viptera	111
Phoenix	7914A4	Viptera	115
Doebler's®	RPM® 5125AM™	AcreMax Above	111
Doebler's®	RPM® 5315AMXT™	AcreMax Xtreme	113
Augusta	A7664	VT2Pro	114
Augusta	A5062	Conventional	112
Augusta	A5063	VT2Pro	113
Augusta	A5664	3000GT	114
Augusta	A6664	VT2Pro	114
NK	N70J	Agrisure 3111A	111

NK	N75H		Agrisure 3010A	114
Clarks	CL911		VT2Pro	111
DeKalb	**DKC61-89**	**(Check)**	RIB GENVT2P	111
DeKalb	**DKC63-87**	**(Check)**	RIB GENVT2P	113

Medium season hybrids

Brand	**Hybrid**		**Trait**	**Relative maturity days**
TA Seeds	TA746-28		Smartstax	114
TA Seeds	TA753-22		DP VT2P	114
TA Seeds	TA774-13		VP VT3P	116
Doebler's®	5615GRQ		Agrisure 3000GT	116
Doebler's®	5815GRQ		Agrisure 3000GT	118
NK	N76A		Agrisure 3010	115
NK	N78C		Agrisure 3111	118
DeKalb	**DKC64-69**	**(Check)**	RIB GENVT3P	114
DeKalb	**DKC65-19**	**(Check)**	RIB GENVT3P	115

Traits:

AcreMax = Refuge in the bag hybrid
BVR = Roundup Ready + Corn borer + Root worm
CB = Corn Borer
CL = Clearfield
GTCB = Glyphosate-resistant + corn borer
HX = Herculex
HXT = Herculex XTRA
LL = Liberty Link
PL = YieldGuard Plus
PLRR = YieldGuard Plus + Roundup Ready
RHXT = Roundup Ready + Liberty Link + Herculex XTRA
RB = Roundup Ready + Corn borer
RR = Roundup Ready
RR2/YGCB = Roundup Ready 2 + YieldGuard + Corn borer
RRRW = Roundup Ready + Root worm
VT3 = YieldGard VT Triple (corn borer + root worm + glyphosate herbicide tolerance)
13V = YieldGuard + Corn borer + Root worm + Roundup Ready
XRR = Roundup Ready
SmartStax & GENSS = 8 traits stacked - 6 for insect resistance (Bt) & 2 for herbicide (Roundup & Liberty)
Viptera 3111 = Multi-pest control

Table 4. Dryland Corn Hybrid Performance Summary

Baker Farms (New Castle County) Middletown, Delaware

Planted 5/6/2015 & Harvested September 21 - Early Hybrids										Performance Ranking for				Pooled sites		
Brand	**Hybrid**	**Yield Bu/A[1]**	**% Moisture**	**Yield/ Moisture**	**Test Weight**	**Final Pop**	**% Stalk Lodging**	**% Green snap**	**% Relative Yield to Check Avg.**	**Middletown Dry land**	**Laurel Irrigated**	**Georgetown Irrigated**	**Marydel Irrigated**	**Yield Avg. Bu/A**	**Rank**	**Two Year Yield Ave. Bu/A**
PHOENIX	**5352A4 Viptera 3111**	**210.1**	17.6	12.0	55.9	28125	3.9	0.9	107.5	1	6	2	3	225.2	1	
NK	**N66V Agrisure 3000GT**	**208.2**	18.0	11.6	58.7	29375	1.3	0.9	106.6	2	5	6	5	220.7	3	
CLARK'S	**Agra 508GT**	**202.7**	15.5	13.1	53.0	27750	0.9	0.0	103.7	3	3	11	12	209.6	9	
TA SEEDS	**TA583-22 VT2P**	**200.2**	17.5	11.6	56.6	28750	3.6	0.9	102.5	4	11	9	10	210.7	8	215.4
AUGUSTA	**A4758 VT2 PRO**	**200.1**	16.4	12.2	56.4	28375	0.4	1.8	102.4	5	8	5	7	216.0	6	
DEKALB	**DKC54-40RIB GENVT2P (CHECK)**	**199.1**	16.3	12.2	58.3	29250	0.4	0.9	101.9	6	13	12	13	199.9	13	
DOEBLER'S	**RPM® 4816AM™ AcreMax Above**	**198.8**	17.5	11.4	57.5	28000	1.0	0.0	101.7	7	9	1	2	222.6	2	
DOEBLER'S	**RPM® 5015AM™ AcreMax Above**	**194.5**	17.4	11.2	56.7	28500	0.5	0.0	99.5	8	10	3	6	215.2	7	227.7
DOEBLER'S	**RPM® 563HXR™ HX1/LL/RR2**	**193.4**	17.3	11.2	57.4	26500	1.4	0.0	99.0	9	7	10	9	209.1	10	
DEKALB	DKC57-77RIB GENDGVT2P **(CHECK)**	191.7	16.0	12.0	56.9	28625	0.9	1.3	98.1	10	12	13	11	202.6	12	
NK	N59B Agrisure Viptera 3111A	183.1	17.1	10.8	55.3	28875	7.4	3.1	93.7	11	1	4	4	219.2	4	
AUGUSTA	A4959 3110GT	175.7	17.0	10.4	58.3	27750	2.3	0.0	89.9	12	2	7	1	218.6	5	
TA SEEDS	TA566-31 Vip3111	166.4	17.0	9.8	57.4	27750	1.8	0.0	85.2	13	4	8	8	208.1	11	
	Check Avg.	195.4	16.2	12.1	57.6	28937.5	0.7	1.1								
	Test Avg.	194.1	17	11.5	56.8	28278.8	2.0	0.7								
	LSD (0.05)	17.8	1.2	1.3	0.9		2.8									
	% C.V.	6.4	4.9	7.7	1.2	4.9	100.8	205.9								
	Check Avg. + LSD (0.05)	213.2														

[1]The bold text and darker shading indicate that the yield of the hybrids is not statistically different from the top yielding hybrid

Table 5. Dryland Corn Hybrid Performance Summary

Baker Farms (New Castle County) Middletown, Delaware

Planted 5/6/2015 & Harvested September 21 - Early-Medium Hybrids										Performance Ranking for				Pooled sites		
Brand	**Hybrid**	**Yield Bu/A[1]**	**% Moisture**	**Yield/ Moisture**	**Test Weight**	**Final Pop**	**% Stalk Lodging**	**% Green snap**	**% Relative Yield to Check Avg.**	**Middletown Dry land**	**Laurel Irrigated**	**Georgetown Irrigated**	**Marydel Irrigated**	**Yield Avg. Bu/A**	**Rank**	**Two Year Yield Ave. Bu/A**
AUGUSTA	**A5063 VT2Pro**	**236.5**	20.5	11.5	56.9	28375	0.9	6.9	105.5	1	4	1	4	250.5	1	
DEKALB	**DKC61-89RIB GENVT2P (CHECK)**	**234.3**	19.4	12.1	56.5	28875	0.0	2.2	104.6	2	5	8	13	237.0	3	
PHOENIX	**5552A4 Viptera**	**226.9**	17.2	13.9	54.5	28750	1.8	0.0	101.2	3	16	18	17	218.2	17	
TA SEEDS	**TA736-22DP VT2P**	**225.9**	19.5	11.6	57.7	28375	1.4	2.2	100.8	4	12	9	8	232.6	9	
TA SEEDS	**TA636-22DP VT2P**	**224.0**	18.6	12.1	56.2	29000	1.3	1.3	100.0	5	15	17	18	218.9	16	
AUGUSTA	**A7664 VT2Pro**	**222.3**	20.3	11.0	53.6	29125	0.4	5.7	99.2	6	13	2	15	231.4	10	
TA SEEDS	**TA683-13VP VT3P**	**220.3**	19.9	11.1	56.1	27625	1.3	6.1	98.3	7	6	16	14	228.7	12	249.0
PHOENIX	**7914A4 Viptera**	**217.5**	20.7	10.5	55.2	28125	0.9	0.0	97.1	8	9	11	5	232.8	8	259.8
NK	N70J Agrisure 3111A	215.2	19.4	11.1	56.6	28750	0.9	3.9	96.0	9	18	5	10	225.7	14	231.9
DEKALB	DKC63-87RIB GENVT2P (CHECK)	213.9	18.9	11.4	56.1	29250	3.4	2.5	95.4	10	10	3	6	236.2	5	
AUGUSTA	A5664 3000GT	212.7	20.0	10.7	55.5	28625	0.0	0.0	94.9	11	11	6	12	230.1	11	249.7
DOEBLER'S	RPM® 5315AMXT™ AcreMax Xtreme	212.4	18.5	11.5	56.0	28625	0.0	0.0	94.8	12	1	4	2	247.7	2	264.6
DOEBLER'S	RPM® 5125AM™ AcreMax Above	210.1	18.5	11.4	57.5	29500	0.9	0.9	93.8	13	8	7	1	236.6	4	
AUGUSTA	A5062 Conventional	209.6	19.6	10.7	59.7	26250	2.4	1.0	93.5	14	14	10	9	226.1	13	
CLARK'S	CL911 VT2Pro	209.2	17.9	11.7	56.0	28500	1.4	4.2	93.4	15	3	12	7	235.7	6	
NK	N75H Agrisure 3010A	202.2	18.7	10.8	54.2	28250	6.7	0.9	90.2	16	17	15	16	216.3	18	
TA SEEDS	TA625-30 Vip 3110	201.6	18.9	10.7	55.1	27625	4.3	0.0	90.0	17	7	14	11	225.6	15	
AUGUSTA	A6664 VT2Pro	199.5	18.6	10.7	57.1	29500	2.5	6.9	89.0	18	2	13	3	235.2	7	246.5
	Check Avg.	224.1	19.1	11.7	56.3	29062.5	1.7	2.4								
	Test Avg.	216.3	19.2	11.3	56.1	28506.9	1.7	2.5								
	LSD (0.05)	21.8	1.6	1.6	1.2		3.1	4.6								
	% C.V.	7.1	6.0	10.2	1.4	4.3	130.9	130.5								
	Check Avg. + LSD (0.05)	245.9														

[1]The bold text and darker shading indicate that the yield of the hybrids is not statistically different from the top yielding hybrid

Table 6. Dryland Corn Hybrid Performance Summary

Baker Farms (New Castle County) Middletown, Delaware

Planted 5/6/2015 & Harvested September 21 - Medium Hybrids										Performance ranking for				Pooled sites		
Brand	Hybrid	Yield Bu/A[1]	% Moisture	Yield/ Moisture	Test Weight	Final Pop	% Stalk Lodging	% Green snap	% Relative Yield to Check Avg.	Middletown Dry land	Laurel Irrigated	Georgetown Irrigated	Marydel Irrigated	Yield Avg. Bu/A	Rank	Two Year Yield Ave. Bu/A
DOEBLER'S	**5815GRQ Agrisure 3000GT**	**230.2**	21.2	10.9	54.9	28375	2.7	0.0	114.6	1	5	1	1	240.5	1	245.9
DOEBLER'S	**5615GRQ Agrisure 3000GT**	**215.8**	20.3	10.7	54.6	27875	0.0	0.0	107.4	2	6	4	8	221.5	6	233.6
TA SEEDS	TA746-28 Smartstax	209.0	18.9	11.1	56.6	28375	1.8	2.2	104.0	3	8	9	7	210.8	8	
NK	N78C Agrisure 3111	208.3	19.5	10.7	52.2	28625	6.1	0.4	103.7	4	4	6	9	221.8	5	
NK	N76A Agrisure 3010	208.0	19.0	11.0	53.7	27500	0.0	2.2	103.5	5	3	2	4	235.1	3	
TA SEEDS	TA774-13VP VT3P	207.5	20.7	10.0	55.0	27375	1.9	1.3	103.3	6	2	3	2	236.1	2	248.4
DEKALB	DKC65-19RIB GENVT3P **(CHECK)**	204.8	19.8	10.4	57.4	27250	0.9	13.7	101.9	7	9	8	3	214.9	7	
DEKALB	DKC64-69RIB GENVT3P **(CHECK)**	196.9	19.7	10.0	57.6	29125	1.7	7.7	98.0	8	1	5	5	231.0	4	
TA SEEDS	TA753-22DP VT2P	184.3	19.8	9.3	58.2	28000	2.3	22.4	91.7	9	7	7	6	208.9	9	224.2
	Check Avg.	200.9	19.8	10.2	57.5	28188	1.3	10.7								
	Test Avg.	207.2	19.9	10.4	55.6	28055.6	1.9	5.5								
	LSD (0.05)	20.1	0.5	0.9	0.8		3.2	6.0								
	% C.V.	6.7	1.9	6.2	1.0	6.5	112.7	74.1								
	Check Avg. + LSD (0.05)	221.0														

[1]The bold text and darker shading indicate that the yield of the hybrids is not statistically different from the top yielding hybrid

Table 7. Irrigated Corn Hybrid Performance Summary

Thomas Family Farms (Kent County) Marydel, Delaware

Planted 5/4/2015 & Harvested September 23 - Early Hybrids								Performance Ranking for				Pooled sites		
Brand	**Hybrid**	**Yield Bu/A[1]**	**% Moisture**	**Yield/ Moisture**	**Test Weight**	**Final Pop**	**% Relative Yield to Check Avg.**	**Marydel Irrigated**	**Georgetown Irrigated**	**Laurel Irrigated**	**Middletown Dry land**	**Yield Avg. Bu/A**	**Rank**	**Two Year Yield Ave. Bu/A**
AUGUSTA	**A4959 3110GT**	**262.4**	20.7	12.7	57.9	28125	117.1	1	7	2	12	218.6	5	
DOEBLER'S	**RPM® 4816AM™ AcreMax Above**	**257.4**	19.8	13.0	57.0	27375	114.9	2	1	9	7	222.6	2	
PHOENIX	**5352A4 Viptera 3111**	**249.8**	20.3	12.3	55.0	28625	111.5	3	2	6	1	225.2	1	
NK	N59B Agrisure Viptera 3111A	243.9	20.3	12.0	54.9	28625	108.9	4	4	1	11	219.2	4	
NK	N66V Agrisure 3000GT	240.5	19.8	12.2	57.8	27750	107.4	5	6	5	2	220.7	3	
DOEBLER'S	RPM® 5015AM™ AcreMax Above	238.8	20.0	12.0	56.6	28000	106.6	6	3	10	8	215.2	7	227.7
AUGUSTA	A4758 VT2 PRO	238.1	19.1	12.5	56.8	27625	106.3	7	5	8	5	216.0	6	
TA SEEDS	TA566-31 Vip3111	237.6	19.5	12.2	57.4	28500	106.1	8	8	4	13	208.1	11	
DOEBLER'S	RPM® 563HXR™ HX1/LL/RR2	235.2	19.4	12.1	57.9	28500	105.0	9	10	7	9	209.1	10	
TA SEEDS	TA583-22 VT2P	233.9	19.4	12.1	56.6	27125	104.4	10	9	11	4	210.7	8	215.4
DEKALB	DKC57-77RIB GENDGVT2P **(CHECK)**	231.2	19.4	11.9	57.0	27625	103.2	11	13	12	10	202.6	12	
CLARK'S	Agra 508GT	226.7	16.9	13.4	54.6	28000	101.2	12	11	3	3	209.6	9	
DEKALB	DKC54-40RIB GENVT2P **(CHECK)**	216.9	18.6	11.7	59.1	28375	96.8	13	12	13	6	199.9	13	
	Check Avg.	224.0	19.0	11.8	58.0	28000.0								
	Test Avg.	239.4	19.5	12.3	56.8	28019.2								
	LSD (0.05)	17.5	0.3	1.0	0.4									
	% C.V.	5.1	1.1	5.4	0.5	5.3								
	Check Avg. + LSD (0.05)	241.5												

[1]The bold text and darker shading indicate that the yield of the hybrids is not statistically different from the top yielding hybrid

Table 8. Irrigated Corn Hybrid Performance Summary

Thomas Family Farms (Kent County) Marydel, Delaware

Planted 5/4/2015 & Harvested September 23 - Early-Medium Hybrids								Performance Ranking for				Pooled sites		
Brand	**Hybrid**	**Yield Bu/A[1]**	**% Moisture**	**Yield/ Moisture**	**Test Weight**	**Final Pop**	**% Relative Yield to Check Avg.**	**Marydel Irrigated**	**Georgetown Irrigated**	**Laurel Irrigated**	**Middletown Dry land**	**Yield Avg. Bu/A**	**Rank**	**Two Year Yield Ave. Bu/A**
DOEBLER'S	**RPM® 5125AM™ AcreMax Above**	**275.2**	19.9	13.8	56.7	28625	106.5	1	7	8	13	236.6	4	
DOEBLER'S	**RPM® 5315AMXT™ AcreMax Xtreme**	**272.7**	20.3	13.5	54.2	28500	105.6	2	4	1	12	247.7	2	264.6
AUGUSTA	**A6664 VT2Pro**	**269.1**	20.6	13.1	55.0	29125	104.2	3	13	2	18	235.2	7	246.5
AUGUSTA	**A5063 VT2Pro**	**267.9**	20.7	13.0	56.0	28375	103.7	4	1	3	1	250.5	1	
PHOENIX	**7914A4 Viptera**	**265.9**	21.6	12.4	54.3	27500	102.9	5	11	9	8	232.8	8	259.8
DEKALB	**DKC63-87RIB GENVT2P (CHECK)**	**265.9**	20.1	13.3	54.4	28000	102.9	6	3	10	10	236.2	5	
CLARK'S	**CL911 VT2Pro**	**262.5**	19.9	13.2	55.5	28500	101.6	7	12	4	15	235.7	6	
TA SEEDS	**TA736-22DP VT2P**	**261.6**	19.8	13.2	57.2	28750	101.3	8	9	12	4	232.6	9	
AUGUSTA	A5062 Conventional	255.7	20.7	12.4	57.6	27000	99.0	9	10	14	14	226.1	13	
NK	N70J Agrisure 3111A	255.0	20.4	12.5	54.9	28500	98.7	10	5	18	9	225.7	14	231.9
TA SEEDS	TA625-30 Vip 3110	254.8	20.6	12.4	55.5	28375	98.6	11	14	7	17	225.6	15	
AUGUSTA	A5664 3000GT	253.6	20.5	12.4	55.4	27875	98.2	12	6	11	11	230.1	11	249.7
DEKALB	DKC61-89RIB GENVT2P (CHECK)	250.8	19.6	12.9	56.7	28625	97.1	13	8	5	2	237.0	3	
TA SEEDS	TA683-13VP VT3P	250.4	20.1	12.5	56.7	26750	96.9	14	16	6	7	228.7	12	249.0
AUGUSTA	A7664 VT2Pro	248.3	20.9	11.9	53.2	27875	96.1	15	2	13	6	231.4	10	
NK	N75H Agrisure 3010A	245.9	19.8	12.4	54.5	28500	95.2	16	15	17	16	216.3	18	
PHOENIX	5552A4 Viptera	234.9	20.0	11.8	54.1	28375	90.9	17	18	16	3	218.2	17	
TA SEEDS	TA636-22DP VT2P	226.6	19.6	11.6	56.6	28875	87.7	18	17	15	5	218.9	16	
	Check Avg.	258.3	19.8	13.1	55.6	28312.5								
	Test Avg.	256.5	20.3	12.7	55.5	28229.2								
	LSD (0.05)	14.3	0.3	0.7	0.5									
	% C.V.	3.9	0.9	3.9	0.7	4.9								
	Check Avg. + LSD (0.05)	272.6												

[1]The bold text and darker shading indicate that the yield of the hybrids is not statistically different from the top yielding hybrid

Table 9. Irrigated Corn Hybrid Performance Summary

Thomas Family Farms (Kent County) Marydel, Delaware

Planted 5/4/2015 & Harvested September 23 - Medium Hybrids								Performance Ranking for				Pooled sites		
Brand	**Hybrid**	**Yield Bu/A[1]**	**% Moisture**	**Yield/ Moisture**	**Test Weight**	**Final Pop**	**% Relative Yield to Check Avg.**	**Marydel Irrigated**	**Georgetown Irrigated**	**Laurel Irrigated**	**Middletown Dry land**	**Yield Avg. Bu/A**	**Rank**	**Two Year Yield Ave. Bu/A**
DOEBLER'S	**5815GRQ Agrisure 3000GT**	**278.3**	21.5	13.0	53.7	27625	104.0	1	1	5	1	240.5	1	245.9
TA SEEDS	**TA774-13VP VT3P**	**273.7**	20.8	13.2	54.3	28625	102.3	2	3	2	6	236.1	2	248.4
DEKALB	**DKC65-19RIB GENVT3P (CHECK)**	**269.6**	20.8	12.9	57.1	27250	100.8	3	8	9	7	214.9	7	
NK	**N76A Agrisure 3010**	**268.0**	19.8	13.6	53.3	29125	100.2	4	2	3	5	235.1	3	
DEKALB	**DKC64-69RIB GENVT3P (CHECK)**	**265.5**	20.3	13.1	57.7	28750	99.3	5	5	1	8	231.0	4	
TA SEEDS	TA753-22DP VT2P	251.3	20.6	12.2	57.4	26500	93.9	6	7	7	9	208.9	9	224.2
TA SEEDS	TA746-28 Smartstax	250.8	20.2	12.5	55.6	29125	93.8	7	9	8	3	210.8	8	
DOEBLER'S	5615GRQ Agrisure 3000GT	242.2	20.8	11.7	54.7	28250	90.5	8	4	6	2	221.5	6	233.6
NK	N78C Agrisure 3111	238.0	20.0	11.9	53.0	28625	89.0	9	6	4	4	221.8	5	
	Check Avg.	267.5	20.5	13.0	57.4	28000.0								
	Test Avg.	259.7	20.5	12.7	55.2	28208.3								
	LSD (0.05)	13.5	0.2	0.7	0.8									
	% C.V.	3.5	0.8	3.6	0.9	4.9								
	Check Avg. + LSD (0.05)	281.0												

[1]The bold text and darker shading indicate that the yield of the hybrids is not statistically different from the top yielding hybrid

Table 10. Irrigated Corn Hybrid Performance Summary

Plum Creek Farms, LLC (Sussex County) Laurel, Delaware

Planted 5/5/2015 & Harvested September 14 - Early Hybrids										Performance Ranking for				Pooled sites		
Brand	Hybrid	Yield Bu/A[1]	% Moisture	Yield/ Moisture	Test Weight	Final Pop	% Stalk Lodging	% Green snap	% Relative Yield to Check Avg.	Laurel Irrigated	Georgetown Irrigated	Marydel Irrigated	Middletown Dry land	Yield Avg. Bu/A	Rank	Two Year Yield Ave. Bu/A
NK	**N59B Agrisure Viptera 3111A**	**208.3**	18.6	11.2	54.3	28500	0.0	0.0	114.9	1	4	4	11	219.2	4	
AUGUSTA	**A4959 3110GT**	**205.0**	19.5	10.5	57.0	29875	0.0	0.4	113.1	2	7	1	12	218.6	5	
CLARK'S	**Agra 508GT**	**200.6**	15.7	12.8	52.3	30000	0.0	0.0	110.6	3	11	12	3	209.6	9	
TA SEEDS	**TA566-31 Vip3111**	**199.3**	17.6	11.3	56.5	29625	0.0	0.0	109.9	4	8	8	13	208.1	11	
NK	**N66V Agrisure 3000GT**	**198.7**	17.9	11.1	55.7	30000	0.0	0.4	109.6	5	6	5	2	220.7	3	
PHOENIX	**5352A4 Viptera 3111**	**195.4**	18.6	10.5	54.1	29375	0.0	0.0	107.8	6	2	3	1	225.2	1	
DOEBLER'S	RPM® 563HXR™ HX1/LL/RR2	189.0	18.6	10.2	56.4	28125	0.0	0.0	104.2	7	10	9	9	209.1	10	
AUGUSTA	A4758 VT2 PRO	188.1	17.1	11.0	55.1	30000	0.4	0.0	103.8	8	5	7	5	216.0	6	
DOEBLER'S	RPM® 4816AM™ AcreMax Above	186.0	18.9	9.8	56.0	24625	0.0	0.0	102.6	9	1	2	7	222.6	2	
DOEBLER'S	RPM® 5015AM™ AcreMax Above	185.7	18.3	10.2	55.1	30000	0.0	0.0	102.4	10	3	6	8	215.2	7	227.7
TA SEEDS	TA583-22 VT2P	184.8	17.6	10.5	56.0	29500	0.0	0.0	101.9	11	9	10	4	210.7	8	215.4
DEKALB	DKC57-77RIB GENDGVT2P **(CHECK)**	184.3	18.3	10.1	57.2	29625	0.0	0.0	101.7	12	13	11	10	202.6	12	
DEKALB	DKC54-40RIB GENVT2P **(CHECK)**	178.3	17.5	10.2	57.1	29875	0.0	0.4	98.3	13	12	13	6	199.9	13	
	Check Avg.	181.3	17.9	10.2	57.2	29750	0.0	0.2								
	Test Avg.	192.6	18.0	10.7	55.6	29163.5	0.0	0.1								
	LSD (0.05)	18.1	0.9	0.9	0.9	2221.3										
	% C.V.	6.6	3.4	5.9	1.1	5.3	721.1	412.5								
	Check Avg. + LSD (0.05)	199.4														

[1]The bold text and darker shading indicate that the yield of the hybrids is not statistically different from the top yielding hybrid

Table 11. Irrigated Corn Hybrid Performance Summary

Plum Creek Farms, LLC (Sussex County) Laurel, Delaware

Planted 5/5/2015 & Harvested September 14 - Early-Medium Hybrids										Performance Ranking for				Pooled sites		
Brand	Hybrid	Yield Bu/A[1]	% Moisture	Yield/ Moisture	Test Weight	Final Pop	% Stalk Lodging	% Green snap	% Relative Yield to Check Avg.	Laurel Irrigated	Georgetown Irrigated	Marydel Irrigated	Middletown Dry land	Yield Avg. Bu/A	Rank	Two Year Yield Ave. Bu/A
DOEBLER'S	**RPM® 5315AMXT™ AcreMax Xtreme**	**256.3**	20.1	12.8	52.3	30000	0.0	0.4	118.2	1	4	2	12	247.7	2	264.6
AUGUSTA	**A6664 VT2Pro**	**241.3**	20.1	12.0	54.8	30000	0.0	0.0	111.2	2	13	3	18	235.2	7	246.5
CLARK'S	**CL911 VT2Pro**	**236.9**	19.0	12.5	55.4	29500	0.0	0.9	109.2	3	12	7	15	235.7	6	
AUGUSTA	**A5063 VT2Pro**	**233.6**	19.3	12.1	55.7	30000	0.0	0.8	107.7	4	1	4	1	250.5	1	
DEKALB	**DKC61-89RIB GENVT2P (CHECK)**	**220.2**	18.7	11.8	54.8	30000	0.0	0.0	101.5	5	8	13	2	237.0	3	
TA SEEDS	TA683-13VP VT3P	217.8	19.8	11.0	55.2	29625	0.0	0.0	100.4	6	16	14	7	228.7	12	249.0
TA SEEDS	TA625-30 Vip 3110	216.1	19.1	11.3	54.3	29625	0.0	0.4	99.6	7	14	11	17	225.6	15	
DOEBLER'S	RPM® 5125AM™ AcreMax Above	215.0	18.2	11.8	55.3	29875	0.4	0.4	99.1	8	7	1	13	236.6	4	
PHOENIX	7914A4 Viptera	213.6	20.5	10.4	53.2	29500	0.0	0.0	98.5	9	11	5	8	232.8	8	259.8
DEKALB	DKC63-87RIB GENVT2P **(CHECK)**	213.6	18.8	11.4	53.4	28875	0.0	0.0	98.5	10	3	6	10	236.2	5	
AUGUSTA	A5664 3000GT	206.4	19.3	10.7	53.6	30000	0.0	0.0	95.2	11	6	12	11	230.1	11	249.7
TA SEEDS	TA736-22DP VT2P	204.6	18.8	10.9	56.5	30000	0.0	0.9	94.3	12	9	8	4	232.6	9	
AUGUSTA	A7664 VT2Pro	203.1	20.1	10.1	50.9	29875	0.0	3.8	93.6	13	2	15	6	231.4	10	
AUGUSTA	A5062 Conventional	202.7	19.4	10.5	57.8	23750	0.0	0.0	93.5	14	10	9	14	226.1	13	
TA SEEDS	TA636-22DP VT2P	199.7	18.5	10.8	55.3	29500	0.0	0.0	92.1	15	17	18	5	218.9	16	
PHOENIX	5552A4 Viptera	190.6	18.7	10.2	52.7	29750	0.0	0.0	87.9	16	18	17	3	218.2	17	
NK	N75H Agrisure 3010A	189.7	18.1	10.5	53.3	30000	0.0	0.0	87.5	17	15	16	16	216.3	18	
NK	N70J Agrisure 3111A	184.6	18.2	10.2	55.1	30000	0.0	1.3	85.1	18	5	10	9	225.7	14	231.9
	Check Avg.	216.9	18.7	11.6	54.1	29437.5	0.0	0.0								
	Test Avg.	213.6	19.1	11.1	54.4	29437.5	0.0	0.5								
	LSD (0.05)	37.3	1.0	1.6	1.2	2092.5										
	% C.V.	12.3	3.7	9.8	1.5	5.0	848.5	316.9								
	Check Avg. + LSD (0.05)	254.2														

[1]The bold text and darker shading indicate that the yield of the hybrids is not statistically different from the top yielding hybrid

Table 12. Irrigated Corn Hybrid Performance Summary

Plum Creek Farms, LLC (Sussex County) Laurel, Delaware

Planted 5/5/2015 & Harvested September 14 - Medium Hybrids										Performance Ranking for				Pooled sites		
Brand	Hybrid	Yield Bu/A[1]	% Moisture	Yield/ Moisture	Test Weight	Final Pop	% Stalk Lodging	% Green snap	% Relative Yield to Check Avg.	Laurel Irrigated	Georgetown Irrigated	Marydel Irrigated	Middletown Dry land	Yield Avg. Bu/A	Rank	Two Year Yield Ave. Bu/A
DEKALB	**DKC64-69RIB GENVT3P (CHECK)**	**229.5**	19.4	11.8	55.6	30000	0.0	0.8	116.8	1	5	5	8	231.0	4	
TA SEEDS	**TA774-13VP VT3P**	**225.0**	19.9	11.3	52.4	29625	0.0	0.9	114.5	2	3	2	6	236.1	2	248.4
NK	**N76A Agrisure 3010**	**222.1**	18.8	11.8	51.1	30000	0.4	0.0	113.0	3	2	4	5	235.1	3	
NK	**N78C Agrisure 3111**	**212.6**	19.9	10.7	49.5	29875	0.0	0.0	108.2	4	6	9	4	221.8	5	
DOEBLER'S	**5815GRQ Agrisure 3000GT**	**202.8**	20.1	10.1	52.9	28750	0.0	0.0	103.2	5	1	1	1	240.5	1	245.9
DOEBLER'S	**5615GRQ Agrisure 3000GT**	**191.5**	19.3	9.9	53.2	29875	0.0	0.0	97.5	6	4	8	2	221.5	6	233.6
TA SEEDS	TA753-22DP VT2P	176.5	19.7	8.9	54.8	26000	0.5	3.2	89.8	7	7	6	9	208.9	9	224.2
TA SEEDS	TA746-28 Smartstax	167.7	19.1	8.8	55.9	30000	0.0	0.0	85.3	8	9	7	3	210.8	8	
DEKALB	DKC65-19RIB GENVT3P (CHECK)	163.5	18.9	8.6	56.4	28875	0.0	0.5	83.2	9	8	3	7	214.9	7	
	Check Avg.	196.5	19.1	10.2	56.0	29437.5	0.0	0.6								
	Test Avg.	199.0	19.5	10.2	53.5	29222.2	0.1	0.6								
	LSD (0.05)	42.4	0.8	1.9	1.1	1806.6										
	% C.V.	14.6	3.0	12.4	1.4	4.2	433.6	325.1								
	Check Avg. + LSD (0.05)	238.9														

[1]The bold text and darker shading indicate that the yield of the hybrids is not statistically different from the top yielding hybrid

Table 13. Irrigated Corn Hybrid Performance Summary

Thurman Adams Agricultural Research Farm (Sussex County) Georgetown, Delaware

Planted 4/29/2015 & Harvested September 15 - Early Hybrids								Performance Ranking for				Pooled sites		
Brand	Hybrid	Yield Bu/A[1]	% Moisture	Yield/ Moisture	Test Weight	Final Pop	% Relative Yield to Check Avg.	Georgetown Irrigated	Laurel Irrigated	Marydel Irrigated	Middletown Dry land	Yield Avg. Bu/A	Rank	Two Year Yield Ave. Bu/A
DOEBLER'S	**RPM® 4816AM™ AcreMax Above**	**248.4**	19.9	12.5	55.3	25375	121.6	1	9	2	7	222.6	2	
PHOENIX	**5352A4 Viptera 3111**	**245.4**	20.3	12.1	53.1	28750	120.1	2	6	3	1	225.2	1	
DOEBLER'S	**RPM® 5015AM™ AcreMax Above**	**242.0**	20.1	12.0	55.3	28375	118.5	3	10	6	8	215.2	7	227.7
NK	**N59B Agrisure Viptera 3111A**	**241.3**	20.3	11.9	52.9	27125	118.1	4	1	4	11	219.2	4	
AUGUSTA	**A4758 VT2 PRO**	**237.9**	19.3	12.3	55.2	28000	116.4	5	8	7	5	216.0	6	
NK	**N66V Agrisure 3000GT**	**235.5**	19.7	12.0	56.2	27750	115.3	6	5	5	2	220.7	3	
AUGUSTA	**A4959 3110GT**	**231.2**	20.8	11.1	56.0	27750	113.2	7	2	1	12	218.6	5	
TA SEEDS	TA566-31 Vip3111	229.3	19.6	11.8	55.9	27375	112.2	8	4	8	13	208.1	11	
TA SEEDS	TA583-22 VT2P	223.9	19.5	11.5	54.8	27000	109.6	9	11	10	4	210.7	8	215.4
DOEBLER'S	RPM® 563HXR™ HX1/LL/RR2	219.0	19.5	11.3	55.9	27500	107.2	10	7	9	9	209.1	10	
CLARK'S	Agra 508GT	208.4	17.4	12.0	53.4	27250	102.0	11	3	12	3	209.6	9	
DEKALB	DKC54-40RIB GENVT2P **(CHECK)**	205.3	18.8	10.9	58.1	28625	100.5	12	13	13	6	199.9	13	
DEKALB	DKC57-77RIB GENDGVT2P **(CHECK)**	203.4	19.3	10.5	56.0	26500	99.6	13	12	11	10	202.6	12	
	Check Avg.	204.3	19.1	10.7	57.0	27562.5								
	Test Avg.	228.5	19.6	11.7	55.2	27490.4								
	LSD (0.05)	17.6	0.3	0.9	0.9									
	% C.V.	5.4	1.0	5.5	1.1	5.0								
	Check Avg. + LSD (0.05)	221.9												

[1]The bold text and darker shading indicate that the yield of the hybrids is not statistically different from the top yielding hybrid

Table 14. Irrigated Corn Hybrid Performance Summary

Thurman Adams Agricultural Research Farm (Sussex County) Georgetown, Delaware

Planted 4/29/2015 & Harvested September 15 - Early-Medium Hybrids									Performance Ranking for				Pooled sites		
Brand	**Hybrid**	**Yield Bu/A[1]**	**% Moisture**	**Yield/ Moisture**	**Test Weight**	**Final Pop**	**% Stalk Lodging**	**% Relative Yield to Check Avg.**	**Georgetown Irrigated**	**Laurel Irrigated**	**Marydel Irrigated**	**Middletown Dry land**	**Yield Avg. Bu/A**	**Rank**	**Two Year Yield Ave. Bu/A**
AUGUSTA	**A5063 VT2Pro**	**264.0**	20.8	12.8	53.8	27500	0.0	106.8	1	3	4	1	250.5	1	
AUGUSTA	**A7664 VT2Pro**	**251.8**	20.0	12.6	52.2	28750	1.4	101.9	2	13	15	6	231.4	10	
DEKALB	**DKC63-87RIB GENVT2P (CHECK)**	**251.6**	19.7	12.8	53.6	27000	0.0	101.8	3	10	6	10	236.2	5	
DOEBLER'S	**RPM® 5315AMXT™ AcreMax Xtreme**	**249.5**	20.6	12.2	51.7	29250	0.0	100.9	4	1	2	12	247.7	2	264.6
NK	**N70J Agrisure 3111A**	**248.1**	20.1	12.4	53.9	27625	0.0	100.4	5	18	10	9	225.7	14	231.9
AUGUSTA	**A5664 3000GT**	**247.9**	20.4	12.1	53.1	28625	0.0	100.3	6	11	12	11	230.1	11	249.7
DOEBLER'S	RPM® 5125AM™ AcreMax Above	246.0	19.7	12.5	55.8	29000	0.0	99.5	7	8	1	13	236.6	4	
DEKALB	DKC61-89RIB GENVT2P **(CHECK)**	242.7	19.3	12.6	55.7	27250	0.5	98.2	8	5	13	2	237.0	3	
TA SEEDS	TA736-22DP VT2P	238.4	19.7	12.1	56.6	28125	0.0	96.4	9	12	8	4	232.6	9	
AUGUSTA	A5062 Conventional	236.5	20.7	11.4	55.9	27000	0.0	95.7	10	14	9	14	226.1	13	
PHOENIX	7914A4 Viptera	234.3	21.2	11.0	52.9	25250	0.0	94.8	11	9	5	8	232.8	8	259.8
CLARK'S	CL911 VT2Pro	234.0	19.6	11.9	54.7	27625	0.0	94.7	12	4	7	15	235.7	6	
AUGUSTA	A6664 VT2Pro	231.1	19.8	11.7	54.3	28875	0.0	93.5	13	2	3	18	235.2	7	246.5
TA SEEDS	TA625-30 Vip 3110	229.9	20.5	11.2	54.0	27750	3.6	93.0	14	7	11	17	225.6	15	
NK	N75H Agrisure 3010A	227.5	19.9	11.4	52.7	28250	0.0	92.0	15	17	16	16	216.3	18	
TA SEEDS	TA683-13VP VT3P	226.3	20.0	11.3	54.8	28125	0.0	91.5	16	6	14	7	228.7	12	249.0
TA SEEDS	TA636-22DP VT2P	225.1	19.8	11.4	55.4	27500	0.0	91.1	17	15	18	5	218.9	16	
PHOENIX	5552A4 Viptera	220.4	19.5	11.3	52.5	27500	0.5	89.2	18	16	17	3	218.2	17	
	Check Avg.	247.2	19.5	12.7	54.7	27125.0	0.3								
	Test Avg.	239.2	20.1	11.9	54.1	27833.3	0.3								
	LSD (0.05)	17.3	0.3	0.8	0.7										
	% C.V.	5.1	1.2	4.7	0.9	5.6	556.9								
	Check Avg. + LSD (0.05)	264.5													

[1]The bold text and darker shading indicate that the yield of the hybrids is not statistically different from the top yielding hybrid

Table 15. Irrigated Corn Hybrid Performance Summary

Thurman Adams Agricultural Research Farm (Sussex County) Georgetown, Delaware

Planted 4/29/2015 & Harvested September 15 - Medium Hybrids								Performance Ranking for				Pooled sites		
Brand	Hybrid	Yield Bu/A[1]	% Moisture	Yield/ Moisture	Test Weight	Final Pop	% Relative Yield to Check Avg.	Georgetown Irrigated	Laurel Irrigated	Marydel Irrigated	Middletown Dry land	Yield Avg. Bu/A	Rank	Two Year Yield Ave. Bu/A
DOEBLER'S	**5815GRQ Agrisure 3000GT**	**250.9**	22.1	11.4	51.2	26875	110.6	1	5	1	1	240.5	1	245.9
NK	**N76A Agrisure 3010**	**242.2**	20.1	12.1	51.1	28625	106.8	2	3	4	5	235.1	3	
TA SEEDS	**TA774-13VP VT3P**	**238.1**	20.5	11.6	52.5	27375	105.0	3	2	2	6	236.1	2	248.4
DOEBLER'S	5615GRQ Agrisure 3000GT	236.6	20.5	11.5	51.7	28000	104.3	4	6	8	2	221.5	6	233.6
DEKALB	DKC64-69RIB GENVT3P **(CHECK)**	232.0	20.0	11.6	54.6	26500	102.3	5	1	5	8	231.0	4	
NK	N78C Agrisure 3111	228.4	19.7	11.6	50.5	29250	100.7	6	4	9	4	221.8	5	
TA SEEDS	TA753-22DP VT2P	223.6	20.2	11.1	54.1	25375	98.6	7	7	6	9	208.9	9	224.2
DEKALB	DKC65-19RIB GENVT3P **(CHECK)**	221.7	20.4	10.9	56.8	25500	97.8	8	9	3	7	214.9	7	
TA SEEDS	TA746-28 Smartstax	215.9	20.1	10.7	55.0	27875	95.2	9	8	7	3	210.8	8	
	Check Avg.	226.8	20.2	11.3	55.7	26000								
	Test Avg.	232.1	20.4	11.4	53.0	27264								
	LSD (0.05)	13.3	0.3	0.7	1.3									
	% C.V.	3.9	0.9	4.2	1.6	7								
	Check Avg. + LSD (0.05)	240.1												

[1]The bold text and darker shading indicate that the yield of the hybrids is not statistically different from the top yielding hybrid