



Agronomy Facts No. 54 October 25, 2019

# 2019 Maryland Corn Hybrid Performance Tests

http://www.psla.umd.edu/extension/md-crops

Agronomy Facts No. 54 is prepared by Dr. Nicole Fiorellino and Mr. Louis Thorne

#### **Test Procedures**

The University of Maryland offers a fee-based, corn hybrid performance testing program to local and national seed companies. The results from these replicated trials provide agronomic performance information about corn hybrids tested at five locations in Maryland considered representative of the state's geography and weather conditions. Table 1 summarizes the agronomic and production information for each test site.

Hybrids tested in 2019 were entered by participating seed companies, listed in Table 2, that were solicited for submission of hybrids. These hybrids represented those currently available for purchase to experimental lines still under evaluation. Select Pioneer and Dekalb brand hybrids were identified for use as checks in the test. The inclusion of the performance data for check hybrids that are proven performers in the Mid-Atlantic region allows comparisons of newer hybrids to proven hybrids.

During 2019, 56 hybrids were tested using three maturity groups: early season (17 hybrids, Table 5), mid-season (14 hybrids, Table 6), and full season (25, Table 7). Each company designated maturity group assignments for hybrids they submitted. Check hybrids were included in each of the five tests. All hybrid genetic traits and seed treatments are listed in Tables 5-7.

Each hybrid was replicated three times per location. Planting was done with a modified, four-row John Deere 1750 planter equipped with coulters and trash wheels for no-till planting. The modified planter units were manufactured by Clewell Precision Machine, Inc. Milton, PA. Each plot was four rows spaced 30 inches apart. Target population was 30,000 seeds per acre at dryland locations and 34,500 seeds per acre at the irrigated location (Salisbury Facility). Plot harvest length was 32 feet. Harvest stand and number of lodged plants were counted within two weeks of harvest. The center two rows of each plot were harvested with a Massey Ferguson 8-XP research combine (Kincaid Equipment Manufacturing, Haven, KS). Grain yield, harvest moisture, and test weight were measured for each plot. These data were collected with a HarvestMaster HM 800 Classic GrainGage system (Juniper Systems, Inc., Logan, UT). Data were recorded using Mirus software (Juniper Systems, Inc.) on a Panasonic Toughpad computer.

## Test Results

The overall performance across the locations for the hybrids in each maturity group is reported in Tables 8-10. Hybrid performance at individual locations can be found in Tables 11-25. The agronomic characteristics reported are yield, in bushels/acre at 15% moisture content, harvest moisture content, percent lodging, test weight (lb/bu) at 15% moisture, and harvest population.

This year's weather was welcomed compared to last year's extreme precipitation. As reported in Table 3, there was much less rainfall in 2019, with precipitation at all locations very similar to the long term average for each location. We experienced some drought at the end of summer (August through September in some locations), but yields did not seem to be impacted by this. Averaged over the five locations, yield for early (17), mid (14), and full (25) season hybrids was 196 bu/ac, 199 bu/ac, and 206 bu/ac, respectively. Compared to 2018, these yields were +11%, -1%, and +5%, respectively, to those observed for early, mid, and full season hybrids this season. Average yield for all hybrids tested at all five locations was 201 bu/ac or 10 bushels shy of the record yield of 211 bu/ac in 2011. Two locations had average yield greater than 210 bu/ac (Keedysville – 220 bu/ac and Clarksville – 236 bu/ac) with

Clarksville average yield surpassing the record best location yield of 232 bu/ac at attained at Wye in 2016.

A least significant difference (LSD) value is reported for each test where statistical significant differences ( $P \le 0.1$ ) for a variable were observed among hybrids. The mean separation value has been calculated at the 10% probability level (LSD<sub>0.1</sub>). The LSD can be used to compare two hybrids within the same test. For example, when the yield difference between two hybrids is greater than the LSD value, there is a 90% certainty that the difference in yield is real rather than due to random variability. The coefficient of variation (CV) is a measure of the variability that existed at a test site. It is used as an indicator of the degree of precision for a test. In general, CV values below 10% for yield indicate that the precision for distinguishing yield differences was very good. Salisbury and Poplar Hill locations tended to have higher CV values for yield, meaning there was variability in the yield measured for the same hybrids, therefore we were not able to identify differences in yields among the hybrids.

## Relative Yield

The selection of a hybrid or hybrids based solely on performance at one location is not recommended. It is better to select hybrids based upon performance over a number of locations and years, if possible. In order to compare the performance of each hybrid across the five locations, relative yield tables (Tables 26-28) are included. Relative yield is the ratio of the yield of a hybrid at a location to the mean yield of all the hybrids at that location expressed in percentage. A hybrid that has a relative yield consistently greater than 100 across all testing locations is considered to have excellent stability. In 2019, 8 hybrids met this standard: Dekalb DKC55-53RIB, Seed Consultants SCS 1069YHR, SCS 1087YHR (early), Dekalb DKC66-18RIB, DKC67-44RIB, Hubner H4890RC2P, Local Seed Co. LC1577 VT2PRIB, and Dyna-Gro D55VC80 (full). Seven hybrids (2 early season, 2 mid-season, 3 full season) had relative yield greater than 100 at four locations, a mark of good stability.

#### Acknowledgments

The University of Maryland Corn Testing Program would not be possible without the assistance and oversight of equipment maintenance, seed packaging, planting, data collection, and plot harvest by lead research technician, Louis Thorne. This work could not be accomplished without the assistance of research technician Joseph Crank during the season. Also, we acknowledge the undergraduate students who work with Dr. Jason Wight for their assistance with seed packaging, Emma Mullineaux and Michelle Zheng. Huge thanks go to Dr. Bob Kratochvil for his many years of work developing the protocols for the corn testing program and the undoubtable number of hours that he dedicated to the preparation of these reports. Thank you to the crews at Wye Research and Education Center and Lower Eastern Shore Research and Education Center for sharing your experience, tools, and space in your shops with Louis Thorne as he continues to keep our equipment running. Table 1 outlines the crews at each test location who assisted with land preparation, flagging, plot management, and harvest. I personally would like to acknowledge each farm manager, David Armentrout, John Draper, David Justice, and Ryan McDonald for their continued support of the corn testing program and their patience with me as a new faculty member and I work to learn the intricacies of each research center.

## **Additional Information**

The inclusion of hybrids in these tests is not an endorsement by the University of Maryland. Advertising statements about a company's hybrids can be made as long as they are accurate statements about the data as published. Statements similar to "See the Maryland Corn Hybrid Tests Agronomy Facts No. 54" or "Endorsement or recommendation by the University of Maryland is not implied" must accompany any reproduced information.

Index to Tables		<u>Page</u>
Table 1.	Production management information	4
Table 2.	Participating companies	5
Table 3.	Precipitation received at each location	5
Table 4.	Glossary of genetic trait abbreviations	6
Table 5.	Maturity, genetics, and seed treatments for early season hybrids	7
Table 6.	Maturity, genetics, and seed treatments for mid-season hybrids	8
Table 7.	Maturity, genetics, and seed treatments for full season hybrids	9
Table 8.	Average performance for early season hybrids at five locations	10
Table 9.	Average performance for mid-season hybrids at five locations	11
Table 10.	Average performance for full season hybrids at five locations	12
Table 11.	Early season hybrids at Wye Research and Education Center	13
Table 12.	Mid-season hybrids at Wye Research and Education Center	14
Table 13.	Full season hybrids at Wye Research and Education Center	15
Table 14.	Early season hybrids at LESREC-Poplar Hill	16
Table 15.	Mid-season hybrids at LESREC-Poplar Hill	17
Table 16.	Full season hybrids at LESREC-Poplar Hill	18
Table 17.	Early season hybrids at LESREC-Salisbury	19
Table 18.	Mid-season hybrids at LESREC-Salisbury	20
Table 19.	Full season hybrids at LESREC-Salisbury	21
Table 20.	Early season hybrids at Western Maryland Research and Education Center	22
Table 21.	Mid-season hybrids at Western Maryland Research and Education Center	23
Table 22.	Full season hybrids at Western Maryland Research and Education Center	24
Table 23.	Early season hybrids at CMREC-Clarksville	25
Table 24.	Mid-season hybrids at CMREC-Clarksville	26
Table 25.	Full season hybrids at CMREC-Clarksville	27
Table 26.	Relative yield summary for early season hybrids	28
Table 27.	Relative yield summary for mid-season hybrids	29
Table 28.	Relative yield summary for full season hybrids	30

Table 1. Production management practices used and other information for the locations of the 2019 Maryland Corn Hybrid Test

Location	Soil Type and Previous Crop	Fertilizer	Herbicides & Insecticides	Tillage	Plant and Harvest Dates	Farm Staff
Wye R&E Center Queenstown, MD	Mattapex – Butlerstown silt loam  Soybean then rye cover crop	24 April: 165 lb/a as 19-13-0 06 June: 170 lb/a N as 30-0-0 Total	18 Apr – PreP-lant: Helosate @ 1 qt/a 10 May – Pre-Emerge: Acuron @ 2.5 qt/a Atrazine 4L @ 1 qt/a	Turbo Till and ripper with aid of trash wheels on planter	Plant 24 April  Harvest 3 Sept (early, mid)	John Draper  Joseph Streett  Thomas Eason
Lower Eastern Shore R&E Center Poplar Hill Facility Quantico, MD	Nassawango silt loam Soybean then wheat cover crop	201-21-0  17 April: 410 lb/a 4.7-4.66-39.44-6.8S- 1.3Mg  25 April: 181.9 lb/a as 19-19-00-0.1B- 0.01Zn  28 May: 150 lb N/a as 30% UAN  Total 203-53-162-27.9S-5.3Mg-1.8B- 0.25Zn	Scanner @ 2 pt/100 gal  11 April Pre-Plant Gramoxone @ 1 qt/a 2-4D Ester @ 1 pt/a 820 Surfactant @ 6 fl oz/a 25 April Pre-Emerge Harness Xtra @ 2.5 qt/a 24 May Post-Emerge Lumax EZ 2.5 qt/a Aatrex90 1 lb/a 820 Surfactant 10 floz/a	No tillage with use of trash wheels on planter	5 Sept (full)  Plant 25 April  Harvest 11 Sept	David Armentrout Jordan Miller Fred Senkbeil
Lower Eastern Shore R&E Center Salisbury Facility Salisbury, MD	Fort Mott loamy sand Soybean then wheat cover crop	17 April: 470 lb/a 4.7-4.66-39.44-6.8S- 1.3Mg 25 April: 181.9 lb/a as 19-19-00-0.1B- 0.01Zn 22 May: 100 lb N/a as 30% UAN 29 May: 100 lb N/a as 30% UAN Total 256-56-185-32.3S-6.1Mg-1.8B- 0.25Zn	18 April Pre-Plant Gramoxone @ 1 qt/a 2-4D Ester @ 1 pt/a 820 Surfactant @ 6 fl oz/a 25 April Pre-Emerge Harness Xtra @ 2.5 qt/a 24 May Post-Emerge Lumax EZ 2.5 qt/a Aatrex90 1 lb/a 820 Surfactant 10 fl oz/a	No tillage with use of trash wheels on planter	Plant 25 April <u>Harvest</u> 10 Sept 11 Sept	David Armentrout Vivian Calder David Long James Lynch Jordan Miller Fred Senkbeil
Central Maryland R&E Center Clarksville Facility Clarksville, MD	Glenelg loam Soybeans	8 Apr 250 lb/a 4-12-36-11S 17 May 130 lb N/a as 30% UAN 165 lb/a as 19-13-0 Total 190-51-90-28S	18 Apr Pre-Plant Roundup Pwr Max @ 24 oz/a Sharpen @ 2 oz/a 17 May Pre-Emerge Lexar EZ @ 3 qt/a Gramoxone SL 2 pt/a	No tillage with use of trash wheels on planter	Plant 17 May <u>Harvest</u> 1 Oct	Michael Dwyer  David Justice  Michael Gray
Western Maryland R&E Center Keedysville, MD	Swanpond – Funkstown silt loam Wheat then double crop soybeans	29 Apr 240 lb/ac as 8.3-8.3-33.3-6.3-0.2B 16 May 165 lb/a as 19-13-0 17 May 150 lb N/a of 30% UAN Total 200-41-80-15-0.5B	17 May Pre-Emerge Acuron @ 2.5 qt/a Atrazine @ 1 pt/a Gramoxone @ 1.5 qt/a 2,4 D @ 1 pt/a	No tillage with use of trash wheels on planter	Plant 16 May <u>Harvest</u> 3 Oct	Ryan McDonald  Kenny Frey  Douglas Price  David Wyand

Table 2. Brands and companies in the 2019 Maryland corn hybrid trials

Brand	Address
Dekalb	800 N. Lindbergh Blvd., St. Louis, MO 63167
	www.dekalbasgrowdeltapine.com
Dyna-Gro	Nutrien Ag Solution, 396 Washington St., Boydton, VA 23917
	www.dynagroseed.com
Hubner	Hubner Seed Company, 306 North Main St., Monticello, IN 47960
	www.hubnerseed.com
LG Seed	LG Seeds, 9915 W M21, Ovid, MI 48866
	www.lgseeds.com
Local Seed Company	802 Rozelle St., Memphis, TN 38104
	www.localseed.com
Pioneer	DuPont-Pioneer, PO Box 1000, Johnston, IA 50131
	www.pioneer.com
Seed Consultants	648 Miami Trace Rd SW, Washington Court House, OH 43160
	www.seedconsultants.com
NK	Syngenta Seeds, 4013 Fairmount Pike, Signal Mountain, TN 37377
	www.syngenta-us.com

Table 3. Precipitation received in 2019 at Maryland locations of corn hybrid trials

Month	Wye	Poplar Hill	Salisbury <sup>1</sup>	Keedysville	Clarksville
			inches		
April	3.72	5.17	4.72 (0.0)	3.05	1.92
May	6.3	4.65	4.75 (0.2)	6.25	4.9
June	5.13	3.95	3.34 (1.1)	3.19	1.62
July	4.32	3.3	5.33 (2.2)	5	4.33
August	3.87	3.15	3.05 (0.5)	3.28	2.69
September	1.12	0.72	1.19 (0.0)	0.78	0.09
<b>2019 Total (6 mos.)</b>	24.46	20.94	22.38 (4.0)	21.55	15.5
Long Term Average <sup>2</sup>	26.95	22.62	25.26	21.24	21.35

<sup>&</sup>lt;sup>1</sup>The number in parenthesis following precipitation for each month indicates the amount of supplemental irrigation applied.

<sup>&</sup>lt;sup>2</sup>Long term average precipitation is for the follow number of years at each location: Wye=20; Poplar Hill = 19; Salisbury = 30; Keedysville = 39; Clarksville = 10

Table 4. Glossary of abbreviations for hybrid genetic traits and description of seed treatments

Abbreviation	Description
Acceleron	Seed treatment for nematode and insect protection and soil/seed-borne fungal
	pathogens
Acceleron Basic	Acceleron plus Poncho and Votivo
Acceleron Elite	Acceleron plus Poncho and Votivo plus EDC
Avicta Complete 500	Nematacide/insecticide/fungicide seed treatment combination
BT	Contains a Bacillus thuringiensis (Bt) event for protection against European
D.M.C.D.	corn borer
BTCB	Resistance to corn borer
BTRW	Resistance to corn rootworm
Conventional	No GMO traits
EDC	Enhanced disease control offerings
GENSSRIB	Refers to hybrids that have eight traits combined or "stacked" together, 6 for insect resistance (Bt) and 2 for herbicide (Roundup and Liberty) tolerance. Includes non-Bt seed blended in the bag creating refuge in the bag.
GENVT2PRIB	Provides protection against aboveground Lepidopteran insects, has tolerance to
	glyphosate, is considered a drought guard hybrid, and has non-Bt seed blended
	in the bag creating refuge in the bag.
HX	Contains a <i>Bacillus thuringiensis</i> (Bt) event for protection against European
	corn borer
LL	Refers to glufosinate (Liberty) herbicide tolderance
Nemastrike	Nematicide seed treatment
P/V 1250	Combination of Poncho and Votivo
Poncho 500	An insecticide seed treatment with the number referring to the concentration of
	the insecticide used.
Radius 500	Seed treatment for nematode and insect protection
RR, RR2	Has glyphosate herbicide tolerance
Trecepta	Resistance to Protection against European corn borer, broad Lepidopteran plus
1	glyphosate and glufosinate herbicide tolerance
Vibrance	Seed treatment effective against certain smut diseases and provide protection
	against seed/soil-borne pathogens
	ibrance is effective against certain smut diseases in cereal grains and seed and
	seedling blight or damping-off caused by seed- and soilborne pathogens
	including Rhizoctonia
VIP	Protection against European corn borer, broad Lepidopteran plus glyphosate
	and glufosinate herbicide tolerance
Votivo	Nematicide seed treatment
VT2P, VT2PRO	Contains RR2 gene and YieldGard corn stalk borer gene
VT2PDGRIB	Contains RR2 gene, YieldGard corn stalk borer gene, Drought Gard gene, and
	non-Bt seed blended in the bag creating refuge in the bag
VT2PRIB	Contains RR2 gene and YieldGard corn stalk borer gene and non-Bt seed
	blended in the bag creating refuge in the bag
YGCB	YieldGard corn stalk borer gene
	· · · · · · · · · · · · · · · · · · ·

Table 5. Relative maturity, genetic traits, and seed treatments for early-season hybrids tested in 2019

Brand/Company	Hybrid Name	Relative Maturity	Genetic Traits	Seed Treatment
Local Seed Co.	LC0057 SSXRIB	100	BTCB/BTRW/RR/LL	Radius 500
Local Seed Co.	LCX02-98 SSX	102	BTCB/BTRW/RR/LL	Radius 500
Dekalb	DKC55-53RIB	105	GENSSRIB	Acceleron Elite Nemastrike
Dekalb	DKC55-85RIB	105	GENVT2PRIB	Acceleron Elite
Dekalb	DKC58-35RIB	108	GENVT2PRIB	Acceleron Elite Nemastrike
Dekalb	DKC57-23RIB	107	BTCB/VIP/RR	
Hubner	H04G287	104	VT2PDGRIB	Acceleron 250+EDC
Hubner	H08G394	108	VT2PDGRIB	Acceleron 250+EDC
Hubner	H4257RC2P	104	VT2PRIB	Acceleron 250+EDC
Hubner	H4390RC2P	108	VT2PRIB	Acceleron 250+EDC+Nemastrike
Local Seed Co.	LC0657 SSXRIB	106	BTCB/BTRW/RR/LL	Radius 500
Local Seed Co.	LC0877 VT2PRIB	108	VT2Pro	Radius 500
Local Seed Co.	LCX07-90	107	Conventional	Radius 500
LG Seeds	LG5525VT2RIB	105	VT2RIB	Poncho 500/VOTiVO
Seed Consultants	SCS 1069YHR	106	RR2/HX/LL/YGCB	P/V 1250
Seed Consultants	SCS 1087YHR	108	RR2/HX/LL/YGCB	P/V 1250
Pioneer	P0574 AM	105	AM/LL/RR2	

Table 6. Relative maturity, genetic traits, and seed treatments for mid-season hybrids tested in 2019.

Brand/Company	Hybrid Name	Relative Maturity	Genetic Traits	Seed Treatment
Dekalb	DKC59-82RIB	109	GENVT2PRIB	Acceleron Elite Nemastrike
Dekalb	DKC60-88RIB	110	GENVT2PRIB	Acceleron Basic Nemastrike
Dekalb	DKC61-41RIB	111	GENVT2PRIB	Acceleron Elite Nemastrike
Dekalb	DKC62-53RIB	112	GENVT2PRIB	Acceleron Basic Nemastrike
Hubner	H4692RC2P	112	VT2PRIB	Acceleron 250+EDC+Nemastrike
Local Seed Co.	LC0978 VT2PRIB	109	VT2Pro	Radius 500
Local Seed Co.	LC1289 VT2PRIB	112	VT2Pro	Radius 500
Local Seed Co.	LCX10-98 VIP3110	110	BTCB/VIP/RR	Radius 500
Dyna-Gro	D52VC63	112	VT2 PRO	Acceleron500/Votivo
Syngenta/NK Brand	NK1205-3120	112	BT,RR	Avicta Complete 500 +Vibrance
LG Seeds	LG5590VT2RIB	110	VT2RIB	Poncho 500/VOTiVO
LG Seeds	LG62C02VT2RIB	112	VT2RIB	Poncho 500/VOTiVO
Seed Consultants	SCS 1105AM	110	RR2/HX/LL/YGCB	P/V 1250
Pioneer	P1197 AM	111	AM/LL/RR2	

Table 7. Relative maturity, genetic traits, and seed treatments for full-season hybrids tested in 2019.

Brand/Company	Hybrid Name	Relative Maturity	Genetic Traits	Seed Treatment
Dekalb	DKC65-95RIB	115	GENVT2PRIB	Acceleron Basic Nemastrike
Dekalb	DKC66-18RIB	116	GENVT2PRIB	Acceleron Elite Nemastrike
Dekalb	DKC66-75RIB	116	GENVT2PRIB	Acceleron Elite Nemastrike
Dekalb	DKC67-44RIB	117	GENVT2PRIB	Acceleron Basic Nemastrike
Dekalb	DKC70-27RIB	120	GENVT2PRIB	Acceleron Elite Nemastrike
Hubner	H4663RC2P	113	VT2PRIB	Acceleron 250+EDC
Hubner	H4744RC2P	113	VT2PRIB	Acceleron 250+EDC
Hubner	H4846RC2P	118	VT2PRIB	Acceleron 250+EDC+Nemastrike
Hubner	H4890RC2P	117	VT2PRIB	Acceleron 250+EDC
Local Seed Co.	LC1488 VT2PRIB	114	VT2Pro	Radius 500
Local Seed Co.	LC1577 VT2PRIB	115	VT2Pro	Radius 500
Local Seed Co.	LC1586 TC	115	Trecepta	Radius 500
Local Seed Co.	ZS1487	114	Conventional	Radius 500
Dyna-Gro	D55VC80	115	VT2 PRO	Acceleron500/Votivo
Syngenta/NK Brand	NK1354-3220	113	BT,RR	Avicta Complete 500 +Vibrance
Syngenta/NK Brand	NK1573-3330	115	BT,RR	Avicta Complete 500 +Vibrance
Syngenta/NK Brand	NK1808-3111	118	BT,RR	Avicta Complete 500 +Vibrance
LG Seeds	LG5643VT2RIB	114	VT2RIB	Poncho 500/VOTiVO
LG Seeds	LG64C30TRCRIB	114	Trecepta RIB	Poncho 500/VOTiVO
LG Seeds	LG5650VT2RIB	115	VT2RIB	Poncho 500/VOTiVO
LG Seeds	LG66C32VT2PRO	116	VT2PRO	Poncho 500/VOTiVO
Seed Consultants	SCS 1139AM	113	RR2/HX/LL/YGCB	P/V 1250
Seed Consultants	SCS 1158YHR	115	RR2/HX/LL/YGCB	P/V 1250
Seed Consultants	SCS 1168YHR	116	RR2/HX/LL/YGCB	P/V 1250
Seed Consultants	SCS 1188AM	118	RR2/HX/LL/YGCB	P/V 1250

Table 8. Average performance of early maturity hybrids evaluated at five locations in 2019.

Brand/Company	Hybrid Name <sup>1</sup>	Yield (bu/ac) <sup>2</sup>	Relative Yield	Moisture %	Lodging <sup>3</sup> %	Test weight (lb/bu) <sup>2</sup>
Local Seed Co.	LC0057 SSXRIB	171.1	87.5	14.4	1.6	57.7
Local Seed Co.	LCX02-98 SSX	194.8	99.6	15.6	1.2	57.5
Dekalb	DKC55-53RIB	200.9	102.7	15.3	0.7	57.1
Dekalb <sup>4</sup>	DKC55-85RIB	200.9	102.7	15.6	1.1	55.2
Dekalb	DKC58-35RIB	201.7	103.1	16.2	0.6	57.3
Dekalb	DKC57-23RIB	197.2	100.8	16.1	1.3	55.2
Hubner	H04G287	196.3	100.4	14.9	3.8	58.1
Hubner	H08G394	191.7	98.0	17.4	3.2	55.7
Hubner	H4257RC2P	185.4	94.8	16.9	1.4	55.1
Hubner	H4390RC2P	203.3	103.9	18.1	1.7	53.9
Local Seed Co.	LC0657 SSXRIB	194.3	99.3	15.3	0.8	57.6
Local Seed Co.	LC0877 VT2PRIB	189.7	97.0	15.9	0.9	55.9
Local Seed Co.	LCX07-90	189.1	96.7	17.0	1.5	54.1
LG Seeds	LG5525VT2RIB	189.6	96.9	15.6	0.7	57.8
Seed Consultants	SCS 1069YHR	207.3	106.0	16.7	0.9	56.2
Seed Consultants	SCS 1087YHR	218.9	111.9	17.1	0.1	55.2
Pioneer <sup>4</sup>	P0574 AM	193.8	99.1	15.9	0.6	57.0
Trial Mean (	195.6	100	16.1	1.3	56.3	
Probabi	0.2618					
LSI	$\overline{D_{0.1}}$	NS <sup>5</sup>				

<sup>&</sup>lt;sup>1</sup>See Table 5 for trait designations for early season hybrids.

<sup>&</sup>lt;sup>2</sup>Yields and test weights are reported at 15% moisture content.

<sup>&</sup>lt;sup>3</sup>Lodging is recorded as percentage of plants that are broken below the ear and/or leaning 45° or greater.

<sup>&</sup>lt;sup>4</sup>Hybrids in **bold** are checks.

<sup>&</sup>lt;sup>5</sup>NS indicates that no statistically significant difference was observed for this characteristic.

Table 9. Average performance of mid-season maturity hybrids evaluated at five locations in 2019.

Brand/Company	Hybrid Name <sup>1</sup>	Yield (bu/ac) <sup>2</sup>	Relative Yield	Moisture %	Lodging <sup>3</sup> %	Test Weight (lb/bu) <sup>2</sup>
Dekalb	DKC59-82RIB	206.9	103.8	17.1	4.9	54.4
Dekalb	DKC60-88RIB	199.2	99.9	16.7	3.1	56.5
Dekalb	DKC61-41RIB	205.6	103.1	17.5	0.1	53.6
Dekalb <sup>4</sup>	DKC62-53RIB	197.3	99.0	18.7	0.2	53.9
Hubner	H4692RC2P	199.6	100.1	17.8	1.4	54.2
Local Seed Co.	LC0978 VT2PRIB	188.7	94.7	16.8	0.9	56.7
Local Seed Co.	LC1289 VT2PRIB	199.0	99.8	17.4	0.7	55.4
Local Seed Co.	LCX10-98 VIP3110	186.2	96.4	18.0	1.6	52.0
Dyna-Gro	D52VC63	206.2	103.4	18.0	0.4	54.8
Syngenta/NK	NK1205-3120	198.1	99.4	17.9	0.9	54.7
LG Seeds	LG5590VT2RIB	200.7	100.6	17.4	0.6	54.4
LG Seeds	LG62C02VT2RIB	200.8	100.7	17.8	0.1	55.3
Seed Consultants	SCS 1105AM	196.5	98.5	16.8	0.1	55.8
Pioneer <sup>4</sup>	P1197 AM	205.5	103.1	17.5	0.3	55.5
Trial Mean (5 Locations)		199.4	100.0	17.5	1.2	54.8
Proba	bility > F	0.9849				
L	$SD_{0.1}$	NS <sup>5</sup>				

<sup>&</sup>lt;sup>1</sup>See Table 6 for trait designations for mid-season hybrids.

<sup>&</sup>lt;sup>2</sup>Yields and test weights are reported at 15% moisture content.

<sup>&</sup>lt;sup>3</sup>Lodging is recorded as percentage of plants that are broken below the ear and/or leaning 45° or greater.

<sup>&</sup>lt;sup>4</sup>Hybrids in **bold** are checks.

<sup>&</sup>lt;sup>5</sup>NS indicates that no statistically significant difference was observed for this characteristic.

Table 10. Average performance of full-season maturity hybrids evaluated at five locations in 2019.

Brand/Company	Hybrid Name <sup>1</sup>	Yield (bu/ac) <sup>2</sup>	Relative Yield	Moisture %	Lodging <sup>3</sup> %	Test Weight (lb/bu) <sup>2</sup>
Dekalb	DKC65-95RIB	212.4	103.1	18.5	0.4	56.2
Dekalb	DKC66-18RIB	217.3	105.5	18.9	0.7	54.7
Dekalb	DKC66-75RIB	205.7	100.0	18.1	0.4	55.0
Dekalb <sup>4</sup>	DKC67-44RIB	218.9	106.3	18.7	0.4	55.3
Dekalb	DKC70-27RIB	198.7	96.5	20.6	0.5	53.0
Hubner	H4663RC2P	223.1	98.1	17.4	1.0	55.8
Hubner	H4744RC2P	202.2	98.2	18.0	2.1	55.5
Hubner	H4846RC2P	207.2	100.6	18.7	0.1	56.9
Hubner	H4890RC2P	216.2	105.0	19.7	0.1	54.9
Local Seed Co.	LC1488 VT2PRIB	207.0	100.5	17.1	1.8	55.3
Local Seed Co.	LC1577 VT2PRIB	221.6	107.6	18.1	0.4	56.1
Local Seed Co.	LC1586 TC	200.7	97.5	18.9	0.8	55.6
Local Seed Co.	ZS1487	205.0	99.6	19.0	0.3	51.4
Dyna-Gro	D55VC80	219.9	105.8	18.9	1.0	53.9
Syngenta/NK	NK1354-3220	194.2	94.3	18.6	0.5	52.7
Syngenta/NK	NK1573-3330	194.2	94.3	18.1	0.4	54.0
Syngenta/NK	NK1808-3111	199.0	96.6	20.4	0.6	51.8
LG Seeds	LG5643VT2RIB	207.4	100.7	17.9	0.7	54.8
LG Seeds	LG64C30TRCRIB	205.1	99.6	18.1	0.9	55.6
LG Seeds	LG5650VT2RIB	209.9	101.9	17.6	0.3	57.1
LG Seeds	LG66C32VT2PRO	203.5	98.9	18.8	0.5	55.3
Seed Consultants	SCS 1139AM	196.2	95.3	17.7	1.2	56.6
Seed Consultants	SCS 1158YHR	207.1	100.6	19.0	1.0	53.5
Seed Consultants	SCS 1168YHR	200.9	97.6	18.1	2.1	55.1
Seed Consultants	SCS 1188AM	194.0	94.2	19.0	1.0	55.7
Trial Mean (5 locations)		205.9	100.0	18.6	0.8	54.9
	bility > F	0.5727				
	SD <sub>0.1</sub>	NS <sup>5</sup>				

<sup>&</sup>lt;sup>1</sup>See Table 7 for trait designations for full season hybrids.

<sup>&</sup>lt;sup>2</sup>Yields and test weights are reported at 15% moisture content.

<sup>&</sup>lt;sup>3</sup>Lodging is recorded as percentage of plants that are broken below the ear and/or leaning 45° or greater.

<sup>&</sup>lt;sup>4</sup>Hybrids in **bold** are checks.

<sup>&</sup>lt;sup>5</sup>NS indicates that no statistically significant difference was observed for this characteristic.

Table 11. Performance of early season maturity hybrids evaluated at Wye Research and Education Center, Queenstown, MD in 2019.

Brand/Company	Hybrid Name <sup>1</sup>	Yield (bu/ac) <sup>2</sup>	Relative Yield	Moisture %	Lodging <sup>3</sup> %	Test weight (lb/bu) <sup>2</sup>	Population (plants/ac)
Local Seed Co.	LC0057 SSXRIB	153.2	82.2	16.0	0.7	55.7	22687
Local Seed Co.	LCX02-98 SSX	167.8	90.1	16.8	0	55.1	24865
Dekalb	DKC55-53RIB	192.5*	103.3	17.0	0	54.4	21417
Dekalb <sup>4</sup>	DKC55-85RIB	195.5*	105.0	18.3	0	51.6	22869
Dekalb	DKC58-35RIB	196.3*	105.4	18.7	0	53.4	22324
Dekalb	DKC57-23RIB	109.6	102.3	18.5	0	51.8	23050
Hubner	H04G287	193.2*	103.7	16.9	0	55.2	24139
Hubner	H08G394	190.2*	102.1	21.7	0	49.9	23050
Hubner	H4257RC2P	170.4	91.4	19.9	0.8	50.7	23776
Hubner	H4390RC2P	194.8*	104.6	22.3	0	58.1	23050
Local Seed Co.	LC0657 SSXRIB	177.1	95.1	18.0	0	53.7	22319
Local Seed Co.	LC0877 VT2PRIB	199.7*	107.2	18.2	0	53.2	22143
Local Seed Co.	LCX07-90	186.0*	99.8	20.1	0.9	50.0	21235
LG Seeds	LG5525VT2RIB	182.5*	98.0	17.0	0	55.4	24502
Seed Consultants	SCS 1069YHR	199.7*	107.2	19.1	0	52.3	23050
Seed Consultants	SCS 1087YHR	198.7*	106.7	19.9	0	50.7	24139
Pioneer <sup>4</sup>	P0574 AM	178.9	96.0	17.5	0	54.3	21780
Trial Mean		186.3	100	18.6	0.1	52.7	22965
Probability > F		0.0032		<0.0001	0.5986	<0.0001	0.1170
LS	$LSD_{0.1}$			1.6	NS <sup>5</sup>	1.8	NS <sup>5</sup>
C	V%	9.1		10.9	405	4.8	6.9

<sup>&</sup>lt;sup>1</sup>See Table 5 for trait designations for early season hybrids.

<sup>&</sup>lt;sup>2</sup>Yields and test weights are reported at 15% moisture content.

<sup>&</sup>lt;sup>3</sup>Lodging is recorded as percentage of plants that are broken below the ear and/or leaning 45° or greater.

<sup>&</sup>lt;sup>4</sup>Hybrids in **bold** are checks.

<sup>&</sup>lt;sup>5</sup>NS indicates that no statistically significant difference was observed for this characteristic.

<sup>\*</sup>Hybrids with an asterisk next to yield are not statistically different (Probability  $> F \le 0.1$ ) compared to the top yielding hybrid (highlighted in blue) at this location.

Table 12. Performance of mid-season maturity hybrids evaluated at Wye Research and Education Center, Queenstown, MD in 2019.

Brand/Company	Hybrid Name <sup>1</sup>	Yield (bu/ac) <sup>2</sup>	Relative Yield	Moisture %	Lodging <sup>3</sup> %	Test Weight (lb/bu) <sup>2</sup>	Population (plants/ac)
Dekalb	DKC59-82RIB	197.2*	100.9	20.8	0	49.3	22687
Dekalb	DKC60-88RIB	196.5*	100.5	20.7	0	51.1	22506
Dekalb	DKC61-41RIB	207.6*	106.3	22.0	0	47.9	23232
Dekalb <sup>4</sup>	DKC62-53RIB	212.7*	108.9	24.6	0	46.3	23776
Hubner	H4692RC2P	199.0*	101.8	21.3	0	48.9	22869
Local Seed Co.	LC0978 VT2PRIB	198.6*	101.6	20.0	0	51.8	23595
Local Seed Co.	LC1289 VT2PRIB	188.7	94.3	20.7	0	51.0	21417
Local Seed Co.	LCX10-98 VIP3110	184.2	96.6	21.1	0	47.9	23232
Dyna-Gro	D52VC63	205.6*	105.2	23.3	0	48.4	24684
Syngenta/NK	NK1205-3120	177.1	90.6	20.9	2.4	49.9	23685
LG Seeds	LG5590VT2RIB	201.1*	102.9	19.8	0	50.7	24139
LG Seeds	LG62C02VT2RIB	203.9*	104.4	22.5	0	48.6	22869
Seed Consultants	SCS 1105AM	173.5	88.8	19.8	0	51.2	23822
Pioneer <sup>4</sup>	P1197 AM	190.5	97.5	20.5	0.8	51.0	23958
Tria	al Mean	195.4	100	21.3	0.2	49.6	23322
Proba	ability > F	0.1171		0.0068	0.1023	0.0036	0.3909
$\mathrm{LSD}_{0.1}$		21.5		1.9	1.0	2.2	NS <sup>5</sup>
19 57 11 57 9	CV%	8.7		8.8	478	4.4	5.9

<sup>&</sup>lt;sup>1</sup>See Table 7 for trait designations for mid-season hybrids.

<sup>&</sup>lt;sup>2</sup>Yields and test weights are reported at 15% moisture content.

<sup>&</sup>lt;sup>3</sup>Lodging is recorded as percentage of plants that are broken below the ear and/or leaning 45° or greater.

<sup>&</sup>lt;sup>4</sup>Hybrids in **bold** are checks.

<sup>&</sup>lt;sup>5</sup>NS indicates that no statistically significant difference was observed for this characteristic.

<sup>\*</sup>Hybrids with an asterisk next to yield are not statistically different (Probability  $> F \le 0.1$ ) compared to the top yielding hybrid (highlighted in blue) at this location.

Table 13. Performance of full season maturity hybrids evaluated at Wye Research and Education Center, Queenstown, MD in 2019.

Brand/Company	Hybrid Name <sup>1</sup>	Yield (bu/ac) <sup>2</sup>	Relative Yield	Moisture %	Lodging <sup>3</sup> %	Test Weight (lb/bu) <sup>2</sup>	Population (plants/ac)
Dekalb	DKC65-95RIB	197.3	98.1	22.3	0	50.8	21961
Dekalb	DKC66-18RIB	208.3*	103.1	22.9	0	49.1	23050
Dekalb	DKC66-75RIB	215.2*	107.0	22.8	0	48.9	23778
Dekalb <sup>4</sup>	DKC67-44RIB	208.2*	103.5	22.3	0	50.3	23050
Dekalb	DKC70-27RIB	204.4*	101.6	23.5	0	48.6	24321
Hubner	H4663RC2P	184.9	92.0	21.6	0	46.4	24775
Hubner	H4744RC2P	209.9*	104.4	21.3	0	50.4	23958
Hubner	H4846RC2P	214.5*	106.7	24.0	0	49.9	23958
Hubner	H4890RC2P	204.9*	101.9	22.2	0	50.7	23958
Local Seed Co.	LC1488 VT2PRIB	181.0	90.0	20.0	0.8	49.0	23776
Local Seed Co.	LC1577 VT2PRIB	207.7*	103.3	21.2	0	51.0	24321
Local Seed Co.	LC1586 TC	193.1	96.0	21.5	0	50.9	24139
Local Seed Co.	ZS1487	199.5*	99.2	24.8	0	44.2	23050
Dyna-Gro	D55VC80	215.4*	107.1	23.4	1.5	48.2	24502
Syngenta/NK	NK1354-3220	188.7	93.8	22.2	0	47.6	22687
Syngenta/NK	NK1573-3330	194.2	96.6	21.1	0	49.4	24321
Syngenta/NK	NK1808-3111	185.0	92.0	22.6	0.8	48.1	23958
LG Seeds	LG5643VT2RIB	207.0*	103.0	21.1	0	50.0	23232
LG Seeds	LG64C30TRCRIB	211.9*	105.4	21.0	0.8	51.1	23595
LG Seeds	LG5650VT2RIB	199.8*	99.3	21.4	0	51.4	23050
LG Seeds	LG66C32VT2PRO	196.7	97.8	22.3	0	49.9	23595
Seed Consultants	SCS 1139AM	194.6	96.8	21.3	0	50.9	21780
Seed Consultants	SCS 1158YHR	197.3	98.1	22.4	0	49.6	23050
Seed Consultants	SCS 1168YHR	205.9*	102.4	21.0	0	50.7	23776
Seed Consultants	SCS 1188AM	198.8*	98.9	22.2	0.8	50.7	23413
Trial Mean		201.1	100	22.1	0.2	49.8	23530
Probal	bility > F	0.0545		0.0115	0.6775	0.0003	0.1315
$\mathrm{LSD}_{0.1}$		17.3		1.8	NS <sup>5</sup>	2.2	NS <sup>5</sup>
	V%	7.4	haida	7.5	392	4.5	4.8

<sup>&</sup>lt;sup>1</sup>See Table 7 for trait designations for full season hybrids.

<sup>&</sup>lt;sup>2</sup>Yields and test weights are reported at 15% moisture content.

<sup>&</sup>lt;sup>3</sup>Lodging is recorded as percentage of plants that are broken below the ear and/or leaning 45° or greater.

<sup>&</sup>lt;sup>4</sup>Hybrids in **bold** are checks.

<sup>&</sup>lt;sup>5</sup>NS indicates that no statistically significant difference was observed for this characteristic.

<sup>\*</sup>Hybrids with an asterisk next to yield are not statistically different (Probability  $> F \le 0.1$ ) compared to the top yielding hybrid (highlighted in blue) at this location.

Table 14. Performance of early season maturity hybrids evaluated at Lower Eastern Shore Research and Education Center – Poplar Hill Facility in 2019.

Brand/Company	Hybrid Name <sup>1</sup>	Yield (bu/ac) <sup>2</sup>	Relative Yield	Moisture %	Lodging <sup>3</sup> %	Test weight (lb/bu) <sup>2</sup>	Population (plants/ac)
Local Seed Co.	LC0057 SSXRIB	147.6	100.4	14.3	2.6	57.3	27225
Local Seed Co.	LCX02-98 SSX	156.6	106.5	15.2	1.4	27.4	27951
Dekalb	DKC55-53RIB	150.2	102.1	14.5	1.9	57.4	28132
Dekalb <sup>4</sup>	DKC55-85RIB	142.3	96.7	14.7	2.6	56.3	28314
Dekalb	DKC58-35RIB	154.6	105.1	14.7	1.9	57.6	27951
Dekalb	DKC57-23RIB	129.7	88.2	14.5	4.2	55.9	26862
Hubner	H04G287	149.1	101.4	14.3	12.9	58.1	25619
Hubner	H08G394	137.0	93.1	15.2	3.3	57.8	25495
Hubner	H4257RC2P	155.3	105.6	15.4	0.6	56.3	29221
Hubner	H4390RC2P	152.8	103.9	15.7	3.4	56.5	28314
Local Seed Co.	LC0657 SSXRIB	148.9	101.2	14.3	3.6	58.1	26136
Local Seed Co.	LC0877 VT2PRIB	124.9	84.9	14.9	2.7	56.3	27043
Local Seed Co.	LCX07-90	137.2	93.3	16.5	3.5	54.6	25954
LG Seeds	LG5525VT2RIB	137.9	93.7	15.0	1.3	57.9	28132
Seed Consultants	SCS 1069YHR	156.7	106.5	15.6	4.4	56.5	29221
Seed Consultants	SCS 1087YHR	173.1	117.7	15.0	0	56.3	27406
Pioneer <sup>4</sup>	P0574 AM	147.1	100.0	15.2	0.7	57.1	25228
Trial	Mean	147.1	100	15.0	3.0	56.9	27482
Probability > F		0.2406		<0.0001	0.8263	<0.0001	0.3019
LS	$SD_{0.1}$	NS <sup>5</sup>		0.4	NS <sup>5</sup>	0.6	NS <sup>5</sup>
	V%	18.4	1 ' 1	4.2	194	1.8	7.3

<sup>&</sup>lt;sup>1</sup>See Table 5 for trait designations for early season hybrids.

<sup>&</sup>lt;sup>2</sup>Yields and test weights are reported at 15% moisture content.

<sup>&</sup>lt;sup>3</sup>Lodging is recorded as percentage of plants that are broken below the ear and/or leaning 45° or greater.

<sup>&</sup>lt;sup>4</sup>Hybrids in **bold** are checks.

<sup>&</sup>lt;sup>5</sup>NS indicates that no statistically significant difference was observed for this characteristic.

<sup>\*</sup>Hybrids with an asterisk next to yield are not statistically different (Probability  $> F \le 0.1$ ) compared to the top yielding hybrid (highlighted in blue) at this location.

Table 15. Performance of mid-season maturity hybrids evaluated at Lower Eastern Shore Research and Education Center – Poplar Hill Facility in 2019.

Brand/Company	Hybrid Name <sup>1</sup>	Yield (bu/ac) <sup>2</sup>	Relative Yield	Moisture %	Lodging <sup>3</sup> %	Test Weight (lb/bu) <sup>2</sup>	Population (plants/ac)
Dekalb	DKC59-82RIB	137.5	95.3	14.6	22.2	56.3	24321
Dekalb	DKC60-88RIB	142.3	98.6	15.0	9.8	57.8	26317
Dekalb	DKC61-41RIB	143.1	99.2	15.0	0	56.3	27406
Dekalb <sup>4</sup>	DKC62-53RIB	143.2	99.2	15.7	0	56.9	27951
Hubner	H4692RC2P	135.1	93.7	16.0	0.7	56.1	27225
Local Seed Co.	LC0978 VT2PRIB	117.3	82.7	15.1	2.1	58.4	27406
Local Seed Co.	LC1289 VT2PRIB	144.4	100.0	15.8	0.7	57.0	28132
Local Seed Co.	LCX10-98 VIP3110	137.9	95.6	16.3	0.6	54.9	28495
Dyna-Gro	D52VC63	171.0	118.5	15.8	0.6	56.8	28677
Syngenta/NK	NK1205-3120	165.2	114.5	16.1	0.6	56.5	28132
LG Seeds	LG5590VT2RIB	137.6	95.3	16.1	0	55.8	28858
LG Seeds	LG62C02VT2RIB	139.0	96.0	15.4	0	58.2	28132
Seed Consultants	SCS 1105AM	149.8	103.8	15.4	0	57.2	27406
Pioneer <sup>4</sup>	P1197 AM	155.1	107.4	15.9	0	57.2	27043
Tria	al Mean	144.3	100	15.6	2.7	56.8	27536
Proba	ability > F	0.7650		0.0066	0.4438	<0.0001	0.8043
L	$SD_{0.1}$	NS <sup>5</sup>		0.7	NS <sup>5</sup>	0.6	NS <sup>5</sup>
	CV%	25.9		4.3	404	1.7	8.8

<sup>&</sup>lt;sup>1</sup>See Table 7 for trait designations for mid-season hybrids.

<sup>&</sup>lt;sup>2</sup>Yields and test weights are reported at 15% moisture content.

<sup>&</sup>lt;sup>3</sup>Lodging is recorded as percentage of plants that are broken below the ear and/or leaning 45° or greater.

<sup>&</sup>lt;sup>4</sup>Hybrids in **bold** are checks.

<sup>&</sup>lt;sup>5</sup>NS indicates that no statistically significant difference was observed for this characteristic.

<sup>\*</sup>Hybrids with an asterisk next to yield are not statistically different (Probability  $> F \le 0.1$ ) compared to the top yielding hybrid (highlighted in blue) at this location.

Table 16. Performance of full season maturity hybrids evaluated at Lower Eastern Shore Research and Education Center – Poplar Hill Facility in 2019.

Brand/Company	Hybrid Name <sup>1</sup>	Yield (bu/ac) <sup>2</sup>	Relative Yield	Moisture %	Lodging 3 %	Test Weight (lb/bu) <sup>2</sup>	Population (plants/ac)
Dekalb	DKC65-95RIB	183.0	108.4	16.2	0.5	58.3	29221
Dekalb	DKC66-18RIB	174.8	106.5	16.4	0.6	57.1	28314
Dekalb	DKC66-75RIB	159.1*	94.3	15.8	1.3	56.7	27225
Dekalb <sup>4</sup>	DKC67-44RIB	180.9	107.1	16.6	1.3	57.2	29766
Dekalb	DKC70-27RIB	143.4	57.9	18.4	0.7	55.1	26680
Hubner	H4663RC2P	166.4	95.6	15.4	4.0	56.3	27043
Hubner	H4744RC2P	165.5	98.0	15.4	0	58.2	25954
Hubner	H4846RC2P	168.0	99.5	16.5	0	57.8	26682
Hubner	H4890RC2P	176.7	104.6	18.4	036	56.4	28132
Local Seed Co.	LC1488 VT2PRIB	179.3	106.2	16.0	1.3	56.9	28132
Local Seed Co.	LC1577 VT2PRIB	181.8	107.7	16.3	0	57.7	26499
Local Seed Co.	LC1586 TC	176.1	104.3	17.0	2.0	57.8	26862
Local Seed Co.	ZS1487	173.2	102.6	16.9	0.6	53.3	27769
Dyna-Gro	D55VC80	176.0	104.3	16.8	067	55.7	27951
Syngenta/NK	NK1354-3220	161.1*	95.4	15.9	1.4	54.8	27406
Syngenta/NK	NK1573-3330	159.5*	93.3	16.5	1.3	55.6	29406
Syngenta/NK	NK1808-3111	161.3*	95.5	18.4	2.0	53.9	27043
LG Seeds	LG5643VT2RIB	171.8	101.8	16.8	1.4	56.2	26862
LG Seeds	LG64C30TRCRIB	175.0	103.7	15.9	0.7	57.8	26862
LG Seeds	LG5650VT2RIB	179.2	106.4	16.1	2.1	57.5	27769
LG Seeds	LG66C32VT2PRO	166.7	98.8	16.9	0.6	57.2	27588
Seed Consultants	SCS 1139AM	156.9*	93.0	15.5	1.4	58.4	25228
Seed Consultants	SCS 1158YHR	165.5	98.0	16.5	2.7	56.0	27043
Seed Consultants	SCS 1168YHR	158.3*	96.8	16.5	9.3	56.6	28314
Seed Consultants	SCS 1188AM	161.6*	95.8	18.8	2.0	27.1	27406
Trial	Mean	168.8	100	16.6	1.5	56.7	27486
Probal	bility > F	0.1188		<0.0001	0.1773	<0.0001	0.6373
	$\mathrm{LSD}_{0.1}$			0.9	NS <sup>5</sup>	0.8	NS <sup>5</sup>
	V%	9.0		6.4	189	2.7	6.9

<sup>&</sup>lt;sup>1</sup>See Table 7 for trait designations for full season hybrids.

<sup>&</sup>lt;sup>2</sup>Yields and test weights are reported at 15% moisture content.

<sup>&</sup>lt;sup>3</sup>Lodging is recorded as percentage of plants that are broken below the ear and/or leaning 45° or greater.

<sup>&</sup>lt;sup>4</sup>Hybrids in **bold** are checks.

<sup>&</sup>lt;sup>5</sup>NS indicates that no statistically significant difference was observed for this characteristic.

<sup>\*</sup>Hybrids with an asterisk next to yield are not statistically different (Probability  $> F \le 0.1$ ) compared to the top yielding hybrid (highlighted in blue) at this location.

Table 17. Performance of early season maturity hybrids evaluated at Lower Eastern Shore Research and Education Center – Salisbury Facility in 2019.

Brand/Company	Hybrid Name <sup>1</sup>	Yield (bu/ac) <sup>2</sup>	Relative Yield	Moisture %	Lodging <sup>3</sup> %	Test weight (lb/bu) <sup>2</sup>	Population (plants/ac)
Local Seed Co.	LC0057 SSXRIB	180.1	88.6	14.6	0	58.2	34122
Local Seed Co.	LCX02-98 SSX	190.7	93.8	16.0	0	58.0	33759
Dekalb	DKC55-53RIB	204.4	100.6	15.2	0	57.5	33577
Dekalb <sup>4</sup>	DKC55-85RIB	227.7	112.0	15.8	0	55.3	35029
Dekalb	DKC58-35RIB	193.4	95.1	15.4	0.5	58.5	33033
Dekalb	DKC57-23RIB	218.3*	107.4	15.8	0	56.4	32851
Hubner	H04G287	199.9	98.3	14.7	1.1	58.8	32307
Hubner	H08G394	219.9*	107.2	16.2	0	57.7	34122
Hubner	H4257RC2P	187.3	92.1	16.0	0	56.1	34666
Hubner	H4390RC2P	217.1*	106.8	16.5	0	55.6	31581
Local Seed Co.	LC0657 SSXRIB	213.0*	104.8	15.5	0	58.0	33058
Local Seed Co.	LC0877 VT2PRIB	202.7	99.7	15.8	0	56.1	32670
Local Seed Co.	LCX07-90	183.5	90.3	16.7	1.1	54.6	31762
LG Seeds	LG5525VT2RIB	197.9	97.3	15.6	0	58.2	33940
Seed Consultants	SCS 1069YHR	212.8*	104.7	17.0	0	55.9	34485
Seed Consultants	SCS 1087YHR	222.4*	109.4	16.2	0	55.6	31399
Pioneer <sup>4</sup>	P0574 AM	186.4	91.7	15.7	0	57.1	30855
Trial	Mean	203.3	100	15.8	0.2	56.9	33130
Probability > F		0.007		<0.0001	0.5616	<0.0001	0.0614
$\mathrm{LSD}_{0.1}$		21.4		0.4	NS <sup>5</sup>	0.7	2154
	V%	10.2	1 ' 1	4.3	421	2.3	5.4

<sup>&</sup>lt;sup>1</sup>See Table 5 for trait designations for early season hybrids.

<sup>&</sup>lt;sup>2</sup>Yields and test weights are reported at 15% moisture content.

<sup>&</sup>lt;sup>3</sup>Lodging is recorded as percentage of plants that are broken below the ear and/or leaning 45° or greater.

<sup>&</sup>lt;sup>4</sup>Hybrids in **bold** are checks.

<sup>&</sup>lt;sup>5</sup>NS indicates that no statistically significant difference was observed for this characteristic.

<sup>\*</sup>Hybrids with an asterisk next to yield are not statistically different (Probability  $> F \le 0.1$ ) compared to the top yielding hybrid (highlighted in blue) at this location.

Table 18. Performance of mid-season maturity hybrids evaluated at Lower Eastern Shore Research and Education Center – Salisbury Facility in 2019.

Brand/Company	Hybrid Name <sup>1</sup>	Yield (bu/ac) <sup>2</sup>	Relative Yield	Moisture %	Lodging <sup>3</sup> %	Test Weight (lb/bu) <sup>2</sup>	Population (plants/ac)
Dekalb	DKC59-82RIB	217.2	109.9	15.9	0	56.3	32307
Dekalb	DKC60-88RIB	201.7	102.1	15.5	0.5	57.8	33214
Dekalb	DKC61-41RIB	208.7	105.6	16.8	0	54.2	31944
Dekalb <sup>4</sup>	DKC62-53RIB	197.5	100.0	17.2	0	55.4	34303
Hubner	H4692RC2P	213.3	108.0	17.9	0	54.2	33033
Local Seed Co.	LC0978 VT2PRIB	192.8	97.5	16.0	0	57.7	32670
Local Seed Co.	LC1289 VT2PRIB	211.8	107.2	16.9	0	56.2	32670
Local Seed Co.	LCX10-98 VIP3110	170.0	86.0	16.8	0.6	50.3	32125
Dyna-Gro	D52VC63	203.5	103.0	16.9	0.6	55.7	33396
Syngenta/NK	NK1205-3120	189.1	95.7	16.8	0.6	56.1	33940
LG Seeds	LG5590VT2RIB	188.2	95.2	16.6	1.1	54.5	33214
LG Seeds	LG62C02VT2RIB	193.2	97.8	16.2	0	57.1	32488
Seed Consultants	SCS 1105AM	181.4	91.8	15.2	0	56.2	33033
Pioneer <sup>4</sup>	P1197 AM	198.1	100.2	16.4	0	56.2	30310
Tria	al Mean	197.6	100	16.5	0.2	55.6	32760
Proba	ability > F	0.5848		<0.0001	0.3580	0.0005	0.0693
L	$SD_{0.1}$	NS <sup>5</sup>		0.7	NS <sup>5</sup>	2.1	1661
	CV%	13.1		5.0	248	4.1	4.8

<sup>&</sup>lt;sup>1</sup>See Table 7 for trait designations for mid-season hybrids.

<sup>&</sup>lt;sup>2</sup>Yields and test weights are reported at 15% moisture content.

<sup>&</sup>lt;sup>3</sup>Lodging is recorded as percentage of plants that are broken below the ear and/or leaning 45° or greater.

<sup>&</sup>lt;sup>4</sup>Hybrids in **bold** are checks.

<sup>&</sup>lt;sup>5</sup>NS indicates that no statistically significant difference was observed for this characteristic.

<sup>\*</sup>Hybrids with an asterisk next to yield are not statistically different (Probability  $> F \le 0.1$ ) compared to the top yielding hybrid (highlighted in blue) at this location.

Table 19. Performance of full season maturity hybrids evaluated at Lower Eastern Shore Research and Education Center – Salisbury Facility in 2019.

Brand/Company	Hybrid Name <sup>1</sup>	Yield (bu/ac) <sup>2</sup>	Relative Yield	Moisture %	Lodging <sup>3</sup> %	Test Weight (lb/bu) <sup>2</sup>	Population (plants/ac)
Dekalb	DKC65-95RIB	214.4	107.8	17.5	0	27.5	33577
Dekalb	DKC66-18RIB	219.3	110.2	17.2	0	56.4	34848
Dekalb	DKC66-75RIB	207.4	104.3	16.7	0	57.1	33940
Dekalb <sup>4</sup>	DKC67-44RIB	205.2	103.2	17.9	0	56.3	33940
Dekalb	DKC70-27RIB	190.0	95.5	20.8	0	53.1	33033
Hubner	H4663RC2P	189.4	95.2	16.1	0	55.1	31944
Hubner	H4744RC2P	205.9	103.5	18.4	0	55.7	32851
Hubner	H4846RC2P	198.4	99.8	17.2	0	58.4	31444
Hubner	H4890RC2P	209.0	105.1	19.9	0	54.8	31036
Local Seed Co.	LC1488 VT2PRIB	202.3	101.7	15.7	1.8	57.3	32307
Local Seed Co.	LC1577 VT2PRIB	203.9	102.5	17.9	0	56.4	30492
Local Seed Co.	LC1586 TC	187.0	94.0	17.7	0	57.5	30492
Local Seed Co.	ZS1487	202.7	101.9	17.8	0	52.8	32851
Dyna-Gro	D55VC80	218.2	109.7	17.6	0	55.6	34303
Syngenta/NK	NK1354-3220	196.9	99.0	18.4	0	53.6	32397
Syngenta/NK	NK1573-3330	173.9	87.4	18.6	0	53.9	31944
Syngenta/NK	NK1808-3111	181.5	91.3	20.2	0	51.8	32488
LG Seeds	LG5643VT2RIB	194.0	97.5	17.2	0	55.7	33759
LG Seeds	LG64C30TRCRIB	202.2	101.6	17.7	0	56.7	31762
LG Seeds	LG5650VT2RIB	213.8	107.5	17.1	0.5	57.9	33396
LG Seeds	LG66C32VT2PRO	203.3	102.2	18.2	0	56.1	32942
Seed Consultants	SCS 1139AM	174.9	87.9	16.5	1.7	56.2	31309
Seed Consultants	SCS 1158YHR	187.3	94.1	17.3	0	55.0	30492
Seed Consultants	SCS 1168YHR	197.9	99.5	19.0	0	54.4	32488
Seed Consultants	SCS 1188AM	184.2	92.6	18.6	0.6	56.2	32851
Trial	Mean	198.9	100	17.9	0.2	55.7	32524
Probal	Probability > F			<0.0001	0.3420	<0.0001	0.2660
$\mathrm{LSD}_{0.1}$		NS <sup>5</sup>		1.1	NS <sup>5</sup>	1.3	NS <sup>5</sup>
	V%	12.8		7.8	477	3.3	6.3

<sup>&</sup>lt;sup>1</sup>See Table 7 for trait designations for full season hybrids.

<sup>&</sup>lt;sup>2</sup>Yields and test weights are reported at 15% moisture content.

<sup>&</sup>lt;sup>3</sup>Lodging is recorded as percentage of plants that are broken below the ear and/or leaning 45° or greater.

<sup>&</sup>lt;sup>4</sup>Hybrids in **bold** are checks.

<sup>&</sup>lt;sup>5</sup>NS indicates that no statistically significant difference was observed for this characteristic.

<sup>\*</sup>Hybrids with an asterisk next to yield are not statistically different (Probability  $> F \le 0.1$ ) compared to the top yielding hybrid (highlighted in blue) at this location.

Table 20. Performance of early season maturity hybrids evaluated at Western Maryland Research and Education Center in 2019.

Brand/Company	Hybrid Name <sup>1</sup>	Yield (bu/ac) <sup>2</sup>	Relative Yield	Moisture %	Lodging <sup>3</sup> %	Test weight (lb/bu) <sup>2</sup>	Population (plants/ac)
Local Seed Co.	LC0057 SSXRIB	174.4	84.3	13.9	0.7	58.3	26796
Local Seed Co.	LCX02-98 SSX	230.8*	111.6	16.0	0	58.1	27639
Dekalb	DKC55-53RIB	215.1	104.1	15.1	0	58.1	25954
Dekalb <sup>4</sup>	DKC55-85RIB	200.2	96.9	15.1	2.4	56.2	25332
Dekalb	DKC58-35RIB	218.8	105.9	16.8	0.7	57.9	26317
Dekalb	DKC57-23RIB	205.7	99.5	16.7	2.2	55.3	25410
Hubner	H04G287	203.9	98.6	14.5	0.7	59.0	26136
Hubner	H08G394	209.1	101.2	17.7	0	56.2	25228
Hubner	H4257RC2P	196.5	95.0	16.7	0	56.2	25954
Hubner	H4390RC2P	218.9	105.9	18.7	2.9	54.1	25591
Local Seed Co.	LC0657 SSXRIB	204.3	98.8	15.1	0	58.9	25954
Local Seed Co.	LC0877 VT2PRIB	195.1	94.4	15.4	0.7	56.5	24671
Local Seed Co.	LCX07-90	198.3	91.6	15.2	2.2	55.9	25047
LG Seeds	LG5525VT2RIB	194.2	96.9	15.9	0	58.3	25410
Seed Consultants	SCS 1069YHR	217.0	105.0	16.1	0	57.8	25954
Seed Consultants	SCS 1087YHR	237.9*	115.1	17.9	0	55.3	05954
Pioneer <sup>4</sup>	P0574 AM	202.6	98.0	16.0	1.4	57.4	25410
Trial	Mean	206.7	100	16.0	0.8	57.0	25810
Probab	oility > F	<0.0001		<0.0001	0.1626	<0.0001	0.6403
LS	$\mathrm{SD}_{0.1}$	15.4		0.8	NS <sup>5</sup>	0.8	NS <sup>5</sup>
C	V%	8.6		8.8	189	2.7	5.1

<sup>&</sup>lt;sup>1</sup>See Table 5 for trait designations for early season hybrids.

<sup>&</sup>lt;sup>2</sup>Yields and test weights are reported at 15% moisture content.

<sup>&</sup>lt;sup>3</sup>Lodging is recorded as percentage of plants that are broken below the ear and/or leaning 45° or greater.

<sup>&</sup>lt;sup>4</sup>Hybrids in **bold** are checks.

<sup>&</sup>lt;sup>5</sup>NS indicates that no statistically significant difference was observed for this characteristic.

<sup>\*</sup>Hybrids with an asterisk next to yield are not statistically different (Probability  $> F \le 0.1$ ) compared to the top yielding hybrid (highlighted in blue) at this location.

Table 21. Performance of mid-season maturity hybrids evaluated at Western Maryland Research and Education Center in 2019.

Brand/Company	Hybrid Name <sup>1</sup>	Yield (bu/ac) <sup>2</sup>	Relative Yield	Moisture %	Lodging <sup>3</sup> %	Test Weight (lb/bu) <sup>2</sup>	Population (plants/ac)
Dekalb	DKC59-82RIB	242.1*	108.2	17.5	1.4	54.9	26680
Dekalb	DKC60-88RIB	219.3	98.0	16.4	1.3	57.9	26680
Dekalb	DKC61-41RIB	223.8	100.0	17.1	0	54.4	25410
Dekalb <sup>4</sup>	DKC62-53RIB	229.1	102.4	18.6	0	55.0	26342
Hubner	H4692RC2P	223.0	99.6	18.1	0	54.9	25591
Local Seed Co.	LC0978 VT2PRIB	216.9	96.9	16.8	2.3	57.6	27328
Local Seed Co.	LC1289 VT2PRIB	219.1	97.9	17.2	0.7	56.1	25591
Local Seed Co.	LCX10-98 VIP3110	216.5	96.7	19.5	0.6	51.8	29403
Dyna-Gro	D52VC63	222.4	99.4	17.4	0.7	56.0	26780
Syngenta/NK	NK1205-3120	217.4	97.1	19.4	0	53.8	26680
LG Seeds	LG5590VT2RIB	224.4	100.3	18.2	1.3	54.5	27951
LG Seeds	LG62C02VT2RIB	223.2	99.7	18.0	0.7	55.9	26136
Seed Consultants	SCS 1105AM	233.7*	104.4	17.0	0	57.1	26499
Pioneer <sup>4</sup>	P1197 AM	224.3	100.2	18.4	0	55.4	26136
Tria	al Mean	223.8	100	17.8	0.6	55.4	26640
Proba	ability > F	0.0805		0.0002	0.3777	<0.0001	0.1504
L	$SD_{0.1}$	12.4		1.0	NS <sup>5</sup>	1.0	NS <sup>5</sup>
10 711 70	CV%	4.5		6.2	187	3.1	6.1

<sup>&</sup>lt;sup>1</sup>See Table 7 for trait designations for mid-season hybrids.

<sup>&</sup>lt;sup>2</sup>Yields and test weights are reported at 15% moisture content.

<sup>&</sup>lt;sup>3</sup>Lodging is recorded as percentage of plants that are broken below the ear and/or leaning 45° or greater.

<sup>&</sup>lt;sup>4</sup>Hybrids in **bold** are checks.

<sup>&</sup>lt;sup>5</sup>NS indicates that no statistically significant difference was observed for this characteristic.

<sup>\*</sup>Hybrids with an asterisk next to yield are not statistically different (Probability  $> F \le 0.1$ ) compared to the top yielding hybrid (highlighted in blue) at this location.

Table 22. Performance of full season maturity hybrids evaluated at Western Maryland Research and Education Center in 2019.

Brand/Company	Hybrid Name <sup>1</sup>	Yield (bu/ac) <sup>2</sup>	Relative Yield	Moisture %	Lodging <sup>3</sup> %	Test Weight (lb/bu) <sup>2</sup>	Population (plants/ac)
Dekalb	DKC65-95RIB	227.0	100.3	19.0	1.5	54.8	25022
Dekalb	DKC66-18RIB	230.5	101.9	20.5	0.7	53.9	25954
Dekalb	DKC66-75RIB	231.4	102.3	19.4	0.8	54.1	24139
Dekalb <sup>4</sup>	DKC67-44RIB	230.0	101.6	18.2	0	56.8	24321
Dekalb	DKC70-27RIB	201.5	89.1	20.8	0	53.4	25410
Hubner	H4663RC2P	216.8	95.9	17.1	0	55.9	26408
Hubner	H4744RC2P	234.1*	103.5	18.9	0	55.4	26409
Hubner	H4846RC2P	234.9*	103.8	19.0	0.7	58.1	26317
Hubner	H4890RC2P	234.8*	103.8	18.9	0	56.5	25410
Local Seed Co.	LC1488 VT2PRIB	231.9*	102.5	17.6	0.7	55.4	26353
Local Seed Co.	LC1577 VT2PRIB	253.2*	111.9	18.5	0	56.6	27588
Local Seed Co.	LC1586 TC	224.9	99.4	19.7	1.6	55.1	24684
Local Seed Co.	ZS1487	222.2	98.2	18.2	0.8	53.3	25228
Dyna-Gro	D55VC80	226.4	100.1	18.8	1.0	54.2	26408
Syngenta/NK	NK1354-3220	210.4	93.0	18.5	0	54.5	26136
Syngenta/NK	NK1573-3330	223.2	98.7	19.4	0	54.1	26317
Syngenta/NK	NK1808-3111	224.0	99.0	21.2	0	51.2	25228
LG Seeds	LG5643VT2RIB	237.4*	105.0	18.7	0	54.2	25047
LG Seeds	LG64C30TRCRIB	239.5*	105.9	19.1	0	55.2	25319
LG Seeds	LG5650VT2RIB	232.1*	102.6	17.7	0.7	58.5	27043
LG Seeds	LG66C32VT2PRO	218.9	96.8	18.9	0	55.8	25047
Seed Consultants	SCS 1139AM	223.4	98.8	17.6	0	58.4	26862
Seed Consultants	SCS 1158YHR	217.1	96.0	19.9	0	53.8	24684
Seed Consultants	SCS 1168YHR	218.3	96.5	18.2	0	55.6	25047
Seed Consultants	SCS 1188AM	204.2	90.3	18.4	0.7	57.1	26136
Trial Mean		226.2	100	18.9	0.4	55.4	25690
Probal	Probability > F			<0.0001	0.7050	<0.0001	0.4271
$\mathrm{LSD}_{0.1}$		21.7		1.0	NS <sup>5</sup>	1.3	NS <sup>5</sup>
	V%	7.4		6.0	252	3.4	5.8

<sup>&</sup>lt;sup>1</sup>See Table 7 for trait designations for full season hybrids.

<sup>&</sup>lt;sup>2</sup>Yields and test weights are reported at 15% moisture content.

<sup>&</sup>lt;sup>3</sup>Lodging is recorded as percentage of plants that are broken below the ear and/or leaning 45° or greater.

<sup>&</sup>lt;sup>4</sup>Hybrids in **bold** are checks.

<sup>&</sup>lt;sup>5</sup>NS indicates that no statistically significant difference was observed for this characteristic.

<sup>\*</sup>Hybrids with an asterisk next to yield are not statistically different (Probability  $> F \le 0.1$ ) compared to the top yielding hybrid (highlighted in blue) at this location.

Table 23. Performance of early season maturity hybrids evaluated at Central Maryland Research and Education Center – Clarksville Facility in 2019.

Brand/Company	Hybrid Name <sup>1</sup>	Yield (bu/ac) <sup>2</sup>	Relative Yield	Moisture %	Lodging <sup>3</sup> %	Test weight (lb/bu) <sup>2</sup>	Population (plants/ac)
Local Seed Co.	LC0057 SSXRIB	200.2	85.3	13.4	4.2	59.2	27638
Local Seed Co.	LCX02-98 SSX	228.0	97.1	14.2	4.9	58.7	27838
Dekalb	DKC55-53RIB	242.4	103.2	14.7	1.6	58.0	28832
Dekalb <sup>4</sup>	DKC55-85RIB	238.5	101.6	14.2	0.6	56.7	30241
Dekalb	DKC58-35RIB	245.2	104.4	15.1	0	59.1	27437
Dekalb	DKC57-23RIB	241.8	103.0	15.1	0	56.4	28639
Hubner	H04G287	235.5	100.3	14.0	4.3	59.3	27838
Hubner	H08G394	204.1	86.9	16.5	12.9	56.9	27838
Hubner	H4257RC2P	217.6	92.7	16.6	5.6	56.3	27838
Hubner	H4390RC2P	232.7	99.1	17.5	2.3	55.0	27037
Local Seed Co.	LC0657 SSXRIB	228.2	97.2	14.0	0.7	59.3	29841
Local Seed Co.	LC0877 VT2PRIB	226.1	96.3	15.0	0.8	57.6	25547
Local Seed Co.	LCX07-90	247.4*	106.2	16.4	0	55.6	26688
LG Seeds	LG5525VT2RIB	235.4	100.2	14.8	2.3	59.3	27638
Seed Consultants	SCS 1069YHR	250.3*	106.6	15.6	0	58.3	28439
Seed Consultants	SCS 1087YHR	262.5*	111.8	16.3	0.8	57.8	28038
Pioneer <sup>4</sup>	P0574 AM	253.7*	108.1	15.1	0.8	59.0	26236
Trial	Mean	206.7	100	16.0	0.8	57.0	25810
Probak	oility > F	<0.0001		<0.0001	0.1626	<0.0001	0.6403
LS	$\mathrm{SD}_{0.1}$	15.4		0.8	NS <sup>5</sup>	0.8	NS <sup>5</sup>
C	V%	8.6		8.5	189	2.7	5.1

<sup>&</sup>lt;sup>1</sup>See Table 5 for trait designations for early season hybrids.

<sup>&</sup>lt;sup>2</sup>Yields and test weights are reported at 15% moisture content.

<sup>&</sup>lt;sup>3</sup>Lodging is recorded as percentage of plants that are broken below the ear and/or leaning 45° or greater.

<sup>&</sup>lt;sup>4</sup>Hybrids in **bold** are checks.

<sup>&</sup>lt;sup>5</sup>NS indicates that no statistically significant difference was observed for this characteristic.

<sup>\*</sup>Hybrids with an asterisk next to yield are not statistically different (Probability  $> F \le 0.1$ ) compared to the top yielding hybrid (highlighted in blue) at this location.

Table 24. Performance of mid-season maturity hybrids evaluated at Central Maryland Research and Education Center – Clarksville Facility in 2019.

Brand/Company	Hybrid Name <sup>1</sup>	Yield (bu/ac) <sup>2</sup>	Relative Yield	Moisture %	Lodging <sup>3</sup> %	Test Weight (lb/bu) <sup>2</sup>	Population (plants/ac)
Dekalb	DKC59-82RIB	240.5	100.8	16.9	0.9	55.4	26035
Dekalb	DKC60-88RIB	236.0	98.9	15.9	3.7	57.9	28237
Dekalb	DKC61-41RIB	244.7	102.5	16.7	0.7	55.3	27437
Dekalb <sup>4</sup>	DKC62-53RIB	223.4	93.6	16.5	1.0	57.4	26737
Hubner	H4692RC2P	219.6	92.0	15.7	7.0	56.8	25635
Local Seed Co.	LC0978 VT2PRIB	229.9	96.4	15.7	0	58.7	26737
Local Seed Co.	LC1289 VT2PRIB	231.2	96.9	16.5	2.4	57.0	26236
Local Seed Co.	LCX10-98 VIP3110	222.5	96.3	16.4	6.2	55.2	30041
Dyna-Gro	D52VC63	228.4	95.7	16.6	0	57.0	25957
Syngenta/NK	NK1205-3120	234.9	98.5	17.3	1.4	55.6	27638
LG Seeds	LG5590VT2RIB	252.2	105.7	16.3	0.7	56.6	30041
LG Seeds	LG62C02VT2RIB	267.0*	111.9	16.5	0	57.5	30342
Seed Consultants	SCS 1105AM	251.8	105.5	15.7	0.8	59.0	27237
Pioneer <sup>4</sup>	P1197 AM	259.6*	108.8	16.3	0.7	57.6	28039
Trial Mean		223.8	100	17.8	0.6	55.4	26640
Probability > F		0.0805		0.0002	0.377	<0.0001	0.1504
LSD <sub>0.1</sub>		12.4		1.0	NS <sup>5</sup>	1.0	NS <sup>5</sup>
CV%		4.5		6.2	187	3.1	6.1

<sup>&</sup>lt;sup>1</sup>See Table 7 for trait designations for mid-season hybrids.

<sup>&</sup>lt;sup>2</sup>Yields and test weights are reported at 15% moisture content.

<sup>&</sup>lt;sup>3</sup>Lodging is recorded as percentage of plants that are broken below the ear and/or leaning 45° or greater.

<sup>&</sup>lt;sup>4</sup>Hybrids in **bold** are checks.

<sup>&</sup>lt;sup>5</sup>NS indicates that no statistically significant difference was observed for this characteristic.

<sup>\*</sup>Hybrids with an asterisk next to yield are not statistically different (Probability  $> F \le 0.1$ ) compared to the top yielding hybrid (highlighted in blue) at this location.

Table 25. Performance of full season maturity hybrids evaluated at Central Maryland Research and Education Center – Clarksville Facility in 2019.

Brand/Company	Hybrid Name <sup>1</sup>	Yield (bu/ac) <sup>2</sup>	Relative Yield	Moisture %	Lodging <sup>3</sup> %	Test Weight (lb/bu) <sup>2</sup>	Population (plants/ac)
Dekalb	DKC65-95RIB	240.2	101.7	17.7	0	57.9	27638
Dekalb	DKC66-18RIB	254.6*	107.8	17.3	2.1	57.1	28439
Dekalb	DKC66-75RIB	215.4	91.2	15.8	0	58.1	26436
Dekalb <sup>4</sup>	DKC67-44RIB	270.1*	114.3	18.7	0.7	55.8	28839
Dekalb	DKC70-27RIB	254.3*	107.6	19.4	1.6	55.0	28039
Hubner	H4663RC2P	252.0*	106.7	16.2	0.6	55.9	28639
Hubner	H4744RC2P	184.9	72.4	15.7	11.2	58.2	24834
Hubner	H4846RC2P	222.9	94.4	17.0	0	59.1	26837
Hubner	H4890RC2P	255.7*	108.2	19.3	0	55.9	27037
Local Seed Co.	LC1488 VT2PRIB	240.3	101.8	16.2	4.2	57.7	28639
Local Seed Co.	LC1577 VT2PRIB	261.2*	110.6	16.5	1.9	59.1	30041
Local Seed Co.	LC1586 TC	233.4	98.8	18.2	0	57.3	25234
Local Seed Co.	ZS1487	227.6	96.4	17.1	0	53.6	26837
Dyna-Gro	D55VC80	256.3*	108.5	17.8	1.9	56.1	30241
Syngenta/NK	NK1354-3220	220.1	96.2	17.9	0.8	54.1	26236
Syngenta/NK	NK1573-3330	222.4	94.1	15.1	0.8	57.1	28239
Syngenta/NK	NK1808-3111	243.1	102.9	19.3	0	53.9	29240
LG Seeds	LG5643VT2RIB	226.7	96.0	15.6	2.2	57.7	28076
LG Seeds	LG64C30TRCRIB	215.3	91.1	15.4	6.7	59.5	27037
LG Seeds	LG5650VT2RIB	224.5	95.0	15.8	0	59.4	28639
LG Seeds	LG66C32VT2PRO	232.2	98.3	18.0	2.3	57.5	26644
Seed Consultants	SCS 1139AM	223.8	94.7	16.9	3.2	58.8	30242
Seed Consultants	SCS 1158YHR	268.4*	113.6	19.2	2.2	55.2	28439
Seed Consultants	SCS 1168YHR	224.1	94.9	15.7	1.4	58.2	29040
Seed Consultants	SCS 1188AM	221.1	93.6	18.9	0.8	57.2	27438
Trial Mean		226.2	100	18.9	0.4	55.4	25690
Probability > F		0.1071		<0.0001	0.705	<0.0001	0.4271
$\mathrm{LSD}_{0.1}$		21.7		1.0	NS <sup>5</sup>	1.3	NS <sup>5</sup>
C	V%	7.4		6.0	252	3.4	5.8

<sup>&</sup>lt;sup>1</sup>See Table 7 for trait designations for full season hybrids.

<sup>&</sup>lt;sup>2</sup>Yields and test weights are reported at 15% moisture content.

<sup>&</sup>lt;sup>3</sup>Lodging is recorded as percentage of plants that are broken below the ear and/or leaning 45° or greater.

<sup>&</sup>lt;sup>4</sup>Hybrids in **bold** are checks.

<sup>&</sup>lt;sup>5</sup>NS indicates that no statistically significant difference was observed for this characteristic.

<sup>\*</sup>Hybrids with an asterisk next to yield are not statistically different (Probability  $> F \le 0.1$ ) compared to the top yielding hybrid (highlighted in blue) at this location.

Table 26. Relative yield scores for early season hybrids evaluated in 2019. Hybrids with scores 100 or greater at four or more locations are considered to have good stability.

		Relative Yield						
Brand/Company	Hybrid Name	Avg. 5 sites	Wye	Poplar Hill	Salisbury	Clarksville	Keedysville	
Local Seed Co.	LC0057 SSXRIB	88.2	82.2	100.4	88.6	85.3	84.3	
Local Seed Co.	LCX02-98 SSX	99.8	90.1	106.5	93.8	97.1	111.6	
Dekalb	DKC55-53RIB	102.7	103.3	102.1	100.6	103.2	104.1	
Dekalb <sup>1</sup>	DKC55-85RIB	102.4	105.0	96.7	112.0	101.6	96.9	
Dekalb	DKC58-35RIB	103.2	105.4	105.1	95.1	104.4	105.9	
Dekalb	DKC57-23RIB	100.0	102.3	88.2	107.4	103.0	99.5	
Hubner	H04G287	100.5	103.7	101.4	98.3	100.3	98.6	
Hubner	H08G394	98.1	102.1	93.1	107.2	86.9	101.2	
Hubner	H4257RC2P	95.4	91.4	105.6	92.1	92.7	95.0	
Hubner	H4390RC2P	104.0	104.6	103.9	106.8	99.1	105.9	
Local Seed Co.	LC0657 SSXRIB	99.4	95.1	101.2	104.8	97.2	98.8	
Local Seed Co.	LC0877 VT2PRIB	96.5	107.2	84.9	99.7	96.3	94.4	
Local Seed Co.	LCX07-90	96.2	99.8	93.3	90.3	106.2	91.6	
LG Seeds	LG5525VT2RIB	96.6	98.0	93.7	97.3	100.2	96.9	
Seed Consultants	SCS 1069YHR	106.0	107.2	106.5	104.7	106.6	105.0	
Seed Consultants	SCS 1087YHR	112.1	106.7	117.7	109.4	111.8	115.1	
Pioneer	P0574 AM	98.8	96.0	100.0	91.7	108.1	98.0	
Trial Mean (bu/acre)		195.6	186.3	147.1	203.3	206.7	206.7	

<sup>&</sup>lt;sup>1</sup>Hybrids in **bold** are checks included with funding from Maryland Grain Producers Utilization Board Hybrids highlighted in green have relative yield ratings of 100 or greater at all sites Hybrid highlighted in yellow have relative yield ratings of 100 or greater at four testing sites

Table 27. Relative yield scores for mid-season hybrids evaluated in 2019. Hybrids with scores 100 or greater at four or more locations are considered to have good stability.

		Relative Yield						
Brand/Company	Hybrid Name	Avg. 5 Sites	Wye	Poplar Hill	Salisbury	Clarksville	Keedysville	
Dekalb	DKC59-82RIB	103.0	100.9	95.3	109.9	100.8	108.2	
Dekalb	DKC60-88RIB	99.6	100.5	98.6	102.1	98.9	98.0	
Dekalb	DKC61-41RIB	102.7	106.3	99.2	105.6	102.5	100.0	
Dekalb <sup>1</sup>	DKC62-53RIB	101.2	108.9	99.2	100.0	93.6	102.4	
Hubner	H4692RC2P	99.1	101.8	93.7	108.0	92.0	99.6	
Local Seed Co.	LC0978 VT2PRIB	94.9	101.6	82.7	97.5	96.4	96.9	
Local Seed Co.	LC1289 VT2PRIB	99.7	94.3	100.0	107.2	96.9	97.9	
Local Seed Co.	LCX10-98 VIP3110	93.2	96.6	95.6	86.0	96.3	96.7	
Dyna-Gro	D52VC63	104.4	105.2	118.5	103.0	95.7	99.4	
Syngenta/NK	NK1205-3120	99.9	90.6	114.5	95.7	98.5	97.1	
LG Seeds	LG5590VT2RIB	99.9	102.9	95.3	95.2	105.7	100.3	
LG Seeds	LG62C02VT2RIB	101.3	104.4	96.0	97.8	111.9	99.7	
Seed Consultants	SCS 1105AM	98.2	88.8	103.8	91.8	105.5	104.4	
Pioneer	P1197 AM	102.8	97.5	107.4	100.2	108.8	100.2	
Trial Me	Trial Mean (bu/acre)		195.4	144.3	197.6	223.8	223.8	

<sup>&</sup>lt;sup>1</sup>Hybrids in **bold** are checks included with funding from Maryland Grain Producers Utilization Board Hybrids highlighted in green have relative yield ratings of 100 or greater at all sites Hybrid highlighted in yellow have relative yield ratings of 100 or greater at four testing sites

Table 28. Relative yield scores for full season hybrids evaluated in 2019. Hybrids with scores 100 or greater at four or more locations are considered to have good stability.

		Relative Yield						
Brand/Company	Hybrid Name	Avg. 5 Sites	Wye	Poplar Hill	Salisbury	Clarksville	Keedysville	
Dekalb	DKC65-95RIB	103.3	98.1	108.4	107.8	101.7	100.3	
Dekalb	DKC66-18RIB	105.3	103.1	106.5	110.2	107.8	101.9	
Dekalb	DKC66-75RIB	99.8	107.0	94.3	104.3	91.2	102.3	
Dekalb <sup>1</sup>	DKC67-44RIB	106.0	103.5	107.1	103.2	114.3	101.6	
Dekalb	DKC70-27RIB	95.8	101.6	57.9	95.5	107.6	89.1	
Hubner	H4663RC2P	98.2	92.0	95.6	95.2	106.7	95.9	
Hubner	H4744RC2P	97.9	104.4	98.0	103.5	72.4	103.5	
Hubner	H4846RC2P	100.8	106.7	99.5	99.8	94.4	103.8	
Hubner	H4890RC2P	104.7	101.9	104.6	105.1	108.2	103.8	
Local Seed Co.	LC1488 VT2PRIB	100.4	90.0	106.2	101.7	101.8	102.5	
Local Seed Co.	LC1577 VT2PRIB	107.2	103.3	107.7	102.5	110.6	111.9	
Local Seed Co.	LC1586 TC	98.5	96.0	104.3	94.0	98.8	99.4	
Local Seed Co.	ZS1487	99.7	99.2	102.6	101.9	96.4	98.2	
Dyna-Gro	D55VC80	106.4	107.1	104.3	109.7	108.5	100.1	
Syngenta/NK	NK1354-3220	94.7	93.8	95.4	99.0	96.2	93.0	
Syngenta/NK	NK1573-3330	94.0	96.6	93.3	87.4	94.1	98.7	
Syngenta/NK	NK1808-3111	96.1	92.0	95.5	91.3	102.9	99.0	
LG Seeds	LG5643VT2RIB	100.6	103.0	101.8	97.5	96.0	105.0	
LG Seeds	LG64C30TRCRIB	102.9	105.4	103.7	101.6	91.1	105.9	
LG Seeds	LG5650VT2RIB	102.2	99.3	106.4	107.5	95.0	102.6	
LG Seeds	LG66C32VT2PRO	99.0	97.8	98.8	102.2	98.3	96.8	
Seed Consultants	SCS 1139AM	94.7	96.8	93.0	87.9	94.7	98.8	
Seed Consultants	SCS 1158YHR	100.0	98.1	98.0	94.1	113.6	96.0	
Seed Consultants	SCS 1168YHR	97.4	102.4	96.8	99.5	94.9	96.5	
Seed Consultants	SCS 1188AM	94.2	98.9	95.8	92.6	93.6	90.3	
	an (bu/acre)	205.9	201.1	168.8	198.9	226.2	226.2	

<sup>1</sup>Hybrids in **bold** are checks included with funding from Maryland Grain Producers Utilization Board Hybrids highlighted in green have relative yield ratings of 100 or greater at all sites Hybrid highlighted in yellow have relative yield ratings of 100 or greater at four testing sites