

Virginia Corn Hybrid Trials in 2024

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Companies Participating in the 2024 Corn Hybrid Trials

Augusta Seed	Augusta Seed	PO Box 899, Verona, VA 24482
Bayer	DEKALB, Hubner	800 N Lindbergh Blvd., St Louis, MO 63167
Corteva Agrisciences	Pioneer	PO Box 1000, Johnston, IA 50131
GROWMARK	FS	1529 Hwy 193, Wynne, AR 72396
Mid-Atlantic Seeds	Mid-Atlantic	204 St. Charles Way #163E, York, PA 17402
Nutrien Ag Solutions	Dyna-Gro	396 Washington Street, Boydtown, VA 23917
Seed Consultants, Inc.	Seed Consultants	648 Miami Trace Rd, Washington Court House, OH 43160
SeedKoz	MorCorn	1725 Windward Concourse Suite 410, Alpharetta, GA 30005
Syngenta Seeds	NK Brand	4013 Fairmount Pike, Signal Mountain, TN 37377

Acknowledgement

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Introduction

Locations and Data Collection

The 2024 Virginia performance trials of commercial corn (*Zea mays L.*) hybrids were conducted at six dryland locations; Blacksburg, Montgomery Co., Holland, Nansemond Co. Blackstone, Nottoway Co., Orange, Orange Co., Mt. Holly, Westmoreland Co., Shenandoah, Page Co., and one irrigated location - Mt. Holly, Westmoreland Co. At all locations, corn was planted with a Wintersteiger PlotKing 2600 planter (Wintersteiger Inc., Salt Lake City, UT). At all locations, corn was harvested at maturity with a Massey-Ferguson 8XP plot combine harvester (Massey Ferguson, Duluth, GA). Plot grain weights (lb/ac), grain test weight (lb/bu), grain moisture (%) were measured with a GrainGage® by HarvestMaster (Juniper Systems, Logan, UT, USA). Plot grain weights have been adjusted to a standardized moisture content of 15.5%.

Data Analysis

Statistical analysis was done to determine what differences were real (associated with the hybrids) and truly significant, and not simply due to random variation. The Least Significant Difference LSD (.05) allows us to make valid comparisons among hybrids at the 95% confidence level. If the difference between yields of any two hybrids is greater than the LSD value, the difference in yield is considered real/significant and not due random variation or error. Coefficient of Variation (CV, %) is a measurement of the precision of each field trial. Lower CV values indicate less variation and greater precision.

Comparing Yields

Corn yields potential and response to applied treatments change year to year (temporal variability) and field to field (spatial variability). Experimental plots vary in yield and other measurements due to location in the field and other factors which cannot be controlled. Companies participating in the Corn Hybrid Trials may choose to enter their hybrids to be tested at any or all locations. When not all hybrids are planted at all locations, combining, and comparing absolute yields and other results from multiple sites is not meaningful.

A hybrid evaluated only at sites with ideal growing conditions might have an unfair advantage compared to a hybrid evaluated at sites with less-than-ideal conditions that would expectedly have lower yields. Relative yields help determine whether yield differences were because of differences in genetic yield potential or simply because of differences in the environmental conditions. The relative yield values are used to make comparisons between hybrids evaluated at the same site or at different sites. To calculate relative yield, the yield of each hybrid at each site is divided by the average yield of all hybrids at that site and multiplied by 100. For hybrids evaluated at multiple sites, multi-site relative yield average values can also be calculated.

Relative yield values of 100 indicate hybrids that were average performers. Relative yield values greater than 100 indicate above average yielding hybrid. Relative yield values less than 100 indicate below-average performance. The magnitude of the relative yield values reflects how far above or below average a hybrid performed. For example, a hybrid with a relative yield value of 110 yielded 10% above the average yield for all hybrids at that site.

To help provide information at a glance the yield data in each table is color coded, with green shading indicating a higher value and red shading indicating a lower value. At the top of each location section there are three charts which compare the yields of each hybrid tested at the location, separated by relative maturity dates. Below the charts are tables with more detailed information.

Choice of Hybrids

When making hybrid selections it is important to realize that hybrids differ in their performance in different environments. Some hybrids are adapted to a wider range of environments. Hybrid performance may vary with year and location, variations in temperature, precipitation, pests, diseases, and other environmental factors. Great care should be taken in interpreting the results of a single year's tests, especially at only one location. The highest-yielding variety from a single location will rarely be the highest-yielding variety the following year at that location. The highest yielding variety selected from multiple location averages will usually be a variety that will yield among the best the following year at any location.

It is wise to compare hybrids' relative performance across locations. The relative summary tables are helpful when comparing the yield of a hybrid to the average yield of all hybrids evaluated in the test. Multi-year average yield values may provide an estimate of potential yield with greater confidence. With rapid advances in plant breeding research and development, hybrid turnover rate is increasing. While potential yield is often the deciding factor, other characteristics including disease and pest resistance are important when choosing a corn hybrid.

2024 Virginia Corn Hybrid Plot Information

Blacksburg, VA Kentland Farm, Virginia Tech

Soil Type	Hayter loam
Previous crop	Corn
Pre-plant fertilizers	60-60-60; 17 gal 20-10-0-2S at planting
Planted	April 25 2024, Reduced Tillage system
Plot Size	2 rows 27.5' x 30"; 4 replications
Plant Population	27,800 plants/a
Pesticides	2 qt glyphosate; 1 pt atrazine 4L + 3 qt Acuron at planting
Side-dress fertilizer	150 lb. N UAN (Urea Ammonium Nitrate) side-dressed June 19, 2024
Harvested	October 11, 2024
Cooperator	Brooks Saville

Blackstone, VA Southern Piedmont AREC, Virginia Tech

Soil Type	Appling sandy loam
Pre-plant fertilizers	1,000 lb. as 10-10-10 April 2024; 17 gal 20-10-0-2S at planting
Planted	April 17, 2024, conventional tillage
Plot Size	2 rows 27.5' x 30"; 4 replications
Plant Population	25,200 plants/a
Pesticides	2.5 qt Bicep April 2024
Side-dress fertilizer	60 lb. UAN top-dressed May 2024
Harvested	September 23, 2024
Cooperator	Ned Jones

Holland, VA Tidewater AREC, Virginia Tech

Soil Type	Emporia, Nansemond
Pre-plant fertilizers	400 lb. 15-10-15 April 2024; 17 gal 20-10-0-2S at planting
Planted	April 8, 2024, no-till
Plot Size	2 rows 27.5' x 30" 4 replications
Plant Population	25,200 plants/a
Pesticides	1 qt glyphosate + 1 pt 2,4-D + 1 qt Liberty March 2024; 1 qt Bicep® + 2 pt Simazine April 2024
Side-dress fertilizer	55 gal/Ac 24-0-0-3 side-dressed May 14, 2024
Harvested	September 4, 2024
Cooperator	Karl Jones

Orange, VA Northern Piedmont Center (NPC), Virginia Tech

Soil Type	Davidson clay
Previous crop	Soybeans
Pre-plant fertilizers	183 lb. 30-60-20 April 2024; 17 gal 20-10-0-2S at planting
Planted	April 15, 2024, no-till into soybean stubble
Plot Size	2 rows 27.5' x 30"; 4 replications
Plant Population	27,800 plants/a
Pesticides	1.5 qt Lumax® + 2 qt glyphosate + 1 pt atrazine April 2024; 0.67 oz Accent April 2024
Side-dress fertilizer	100 lb. N June 2024
Harvested	October 8, 2024
Cooperator	Greg Lillard

Shenandoah Valley, VA Thanks to Jason Stuth of Jaylin Farms

Previous Crop	Fallow after soybeans in 2023
Pre-plant fertilizers	100 lb. N, 80 lb. P, 120 lb. K pre-plant ; 17 gal 20-10-0-2S at planting

Planted	April 22, 2024, no-till
Plot Size	2 rows 27.5' x 30"; 4 replications
Plant Population	27,800 plants/a
Pesticides	16 oz dicamba, 1 qt glyphosate, 1.5-pint Empyros, 1 pt/100 gal adjuvant pre-plant; 44.5 oz Miravis Neo, 1 gal Coron, 1.92 oz Warrior at tasseling
Side-dress fertilizer	125 lb. 32% UAN side-dressed
Harvested	October 9, 2024
Cooperator	Doug Horn and Jason Stuth

Corn Yields at Kentland Farm at Blacksburg, Virginia in 2024 - Virginia Tech Trials.

Table 5.1. 108-111 Days Relative Maturity, Blacksburg 2024

Brand/Company	Hybrid	Test wt., lb/bu	Moist, %	Yield, bu/a
Channel	209-39DGVT2PRIB	52.5	15.8	171
Channel	211-11VT2PRIB	55.6	15.1	197
FS InVISION	FS 6137PC	54.8	16.8	207
MAS	MA6094PCE	54.5	16	206
MAS	MA8110TRECRIB	54.2	15.9	216
Revere	Revere 0918 VT2P	53.5	15.2	180
SC	SC1093AM	54	15.4	190
SC	SC1094PCE	54.2	16.2	198
SC	SC1105PCE	54	15.2	219
SC	SC1112AM	54.5	16.5	210
Maturity Average		54.2	15.8	199.4
L.S.D. (0.05)		2.8	7.6	16.7
C.V.	-	0.7	0.5	15.1

Table 5.2. 112-115 Days Relative Maturity, Blacksburg 2024

Brand/Company	Hybrid	Test wt., lb/bu	Moist, %	Yield, bu/a
Channel	214-70TRERIB	54.1	16.1	222
Augusta	A2365	54.9	16.7	179
Dekalb	DKC64-22RIB	56.1	16	188
FS	FS 6245V RIB	55.6	17.3	199
FS	FS 6545V RIB	55.3	17.1	230
MAS	MA6120PWE	52	16.5	214
MAS	MA6148PCE	54.5	17.4	183
MAS	MA6153PCE	52.7	17	235
MAS	MA8126VT2PRIB	55.2	16.6	209
MAS	MA8142VT2PRIB	52.9	15.9	189
MAS	MA8154VT2PRIB	53.9	18.9	213
Pioneer	P1289	55.3	16.1	173
Revere	Revere 113-T42	53	15.8	226
SC	SC1135PCE	53.2	15.8	225
Maturity Average		54.1	16.6	203.9
L.S.D. (0.05)		3.3	7.0	17.7
C.V.	-	0.7	0.4	13.1

Table 5.3. >115 Days Relative Maturity, Blacksburg 2024

Brand/Company	Hybrid	Test wt., lb/bu	Moist, %	Yield, bu/a
Dekalb	DKC117-78RIB	56.3	15.8	191
Dekalb	DKC66-06RIB	53.8	16.9	222
Dekalb	DKC68-35RIB	54.6	18	196
FS	FS 6634V RIB	54.6	15.8	206
FS	FS 6747T RIB	54.1	17.4	242
FS	FS 6947T RIB	54.5	16.4	202
MAS	MA8199TREC	52.7	16.2	236
Pioneer	P17677	53.1	16.8	182
Revere	Revere 1627 TC	53.6	17	204
Revere	Revere 1839 TC	54.9	17.9	250
SC	SC1183AM	54.5	16.4	188
SC	SC1185V	54.3	19	226
Maturity Average		54.3	16.9	212.0
L.S.D. (0.05)		2.8	7.3	20.5
C.V.	-	0.6	0.5	17.8

¹Days to maturity provided by company; differences in maturity rating methods may exist between companies.
Planted April 25th, 2024. Population was 27800 plants/a. Harvested October 11th, 2024.

Corn Yields at the Tidewater AREC at Holland, Virginia in 2024 - Virginia Tech Trials.

Table 8.1 108-111 Days Relative Maturity, Holland 2024

Brand/Company	Hybrid	Test wt., lb/bu	Moist, %	Yield, bu/a
Channel	209-39DGVT2PRIB	55.6	15.7	95
Channel	211-11VT2PRIB	58	15	114
Dyna-Gro	D49PN05RA	55.4	15.1	77
Dyna-Gro	D51VC95RIB	55	15.4	112
FS	FS 6017V RIB	53.7	14.2	123
FS	FS 6137PC	59	16.2	87
MAS	MA6094PCE	57.6	15.7	101
MAS	MA8110TRECRIB	55.4	16	146
Revere	Revere 0918 VT2P	53.1	14.7	96
SC	SC1105PCE	55.8	15.1	107
SC	SC1112AM	56.7	16.5	108
Maturity Average		55.9	15.4	105.8
L.S.D. (0.05)		4.9	8.1	31.1
C.V.	-	1.2	0.5	14.2

Table 8.2. 112-115 Days Relative Maturity, Holland 2024

Brand/Company	Hybrid	Test wt., lb/bu	Moist, %	Yield, bu/a
Channel	214-70TRERIB	54.8	16.8	136
Innvincis	A1312VT2PRIB	54.3	17.3	128
Innvincis	A1551VT2P	64.1	16.9	122
Augusta	A2365	57.8	17.7	99
Dekalb	DKC64-22RIB	57.1	16.3	108
FS	FS 6245V RIB	56.2	16.6	110
FS	FS 6306T RIB	54.5	16.5	102
FS	FS 6545V RIB	57	16.8	121
MAS	MA6120PWE	51.7	16.7	98
MAS	MA6148PCE	59.6	16.4	78
MAS	MA6153PCE	56.6	17.5	82
MAS	MA8126VT2PRIB	55	18	110
MAS	MA8142VT2PRIB	55.5	15.5	84
MAS	MA8154VT2PRIB	55.7	18.2	117
Pioneer	P1289	55.9	13.9	63
Revere	Revere 113-T42	55.1	15.7	78
SC	SC1135PCE	53.8	15.5	93
Maturity Average		56.1	16.6	101.2
L.S.D. (0.05)		7.8	9.4	30.1
C.V.		1.5	0.5	10.1

Table 8.3. >115 Days Relative Maturity, Holland 2024

Brand/Company	Hybrid	Test wt., lb/bu	Moist, %	Yield, bu/a
Channel	218-66VT2PRIB	54.6	17.9	110
Dyna-Gro	D60TC45RIB	54	20.1	105
Dekalb	DKC117-78RIB	56.5	17.3	104
Dekalb	DKC66-06RIB	55.2	17.1	96
Dekalb	DKC68-35RIB	55.8	17.5	118
FS	FS 6627T RIB	60	16.9	112
FS	FS 6634V RIB	55.3	15.8	97
FS	FS 6747T RIB	56.6	18.5	99
FS	FS 6947T RIB	61.8	18.1	106
MAS	MA8199TREC	54.9	18	111
Pioneer	P17677	57.8	16.3	80
Revere	Revere 1627 TC	55.9	17.3	118
Revere	Revere 1839 TC	55.4	17.9	93
SC	SC1183AM	52.5	15.7	97
SC	SC1185V	54.9	16.1	68
Maturity Average		56.1	17.3	100.7
L.S.D. (0.05)		8.4	10.4	30.2
C.V.		1.7	0.7	11.1

Corn Yields Under Dryland Conditions at the Virginia Crop Improvement Foundation Seed Farm at Mt. Holly, Virginia in 2024 - Virginia Tech Trials.

Table 11.1. 108-111 Days Relative Maturity, Mt. Holly Dryland 2024

Brand/Company	Hybrid	Test wt., lb/bu	Moist, %	Yield, bu/a
Channel	209-39DGVT2PRIB	48.3	22.7	47
Channel	211-11VT2PRIB	51	21.3	45
Augusta	A2060	50.5	18.8	74
Dyna-Gro	D49PN05RA	50.1	19.3	51
Dyna-Gro	D51VC95RIB	47.5	21.1	54
FS	FS 6017V RIB	48.6	19.7	53
FS	FS 6137PC	44.3	17.8	34
MAS	MA6094PCE	47.1	22.1	43
MAS	MA8110TRECRIB	49.2	19.6	61
Revere	Revere 0918 VT2P	47.3	19.4	57
SC	SC1093AM	48.7	18.9	48
SC	SC1094PCE	51.9	18.6	44
SC	SC1105PCE	50.6	19	46
SC	SC1112AM	48.7	20.8	41
Maturity Average		48.8	19.9	49.7
L.S.D. (0.05)		8.8	11.9	39.1
C.V.		1.6	0.9	7.4

Table 11.2. 112-115 Days Relative Maturity, Mt. Holly Dryland 2024

Brand/Company	Hybrid	Test wt., lb/bu	Moist, %	Yield, bu/a
Channel	214-70TRERIB	49	21.8	64
Innictis	A1312VT2PRIB	45.9	21.6	54
Augusta	A1465	44.7	21.3	39
Innictis	A1551VT2P	45.5	21.3	53
Augusta	A2365	47.6	21.5	56
Dekalb	DKC64-22RIB	48.5	21.8	53
FS	FS 6245V RIB	49.6	21.1	70
FS	FS 6306T RIB	48.5	19.9	65
FS	FS 6545V RIB	48.7	22.1	64
MAS	MA6120PWE	46.7	17.9	51
MAS	MA6148PCE	52.3	18.5	36
MAS	MA6153PCE	47.1	19.4	43
MAS	MA8126VT2PRIB	49.3	20.8	63
MAS	MA8142VT2PRIB	47.9	19	30
MAS	MA8154VT2PRIB	48.4	21.6	53
Pioneer	P1289	49.4	19	49
Revere	Revere 113-T42	42.7	23.1	35
SC	SC1135PCE	45.6	17.2	38
Maturity Average		47.7	20.5	50.6
L.S.D. (0.05)		6.0	12.0	42.6
C.V.		0.9	0.8	7.0

Table 11.3. > 115 days relative maturity, Mt. Holly Dryland 2024

Brand/Company	Hybrid	Test wt., lb/bu	Moist, %	Yield, bu/a
Channel	218-66VT2PRIB	45.6	22	52
Dyna-Gro	D60TC45RIB	43.7	23.1	52
Dekalb	DKC117-78RIB	49.6	19	58
Dekalb	DKC66-06RIB	47.2	20.9	52
Dekalb	DKC68-35RIB	48.9	23.4	59
FS	FS 6627T RIB	49.9	20.3	59
FS	FS 6634V RIB	46.4	19.7	53
FS	FS 6747T RIB	45.4	19.5	28
FS	FS 6947T RIB	46.6	23.1	48
MAS	MA8199TREC	48.8	21.5	41
Pioneer	P17677	45.1	17.5	59
Revere	Revere 1627 TC	49.3	21.3	69
Revere	Revere 1839 TC	45	22.6	56
SC	SC1183AM	45.4	18.1	43
SC	SC1185V	50.6	18	34
Maturity Average		47.2	20.7	50.7
L.S.D. (0.05)		9.5	13.2	37.2
C.V.		1.6	1.0	6.9

Corn Yields Under Irrigation at the Virginia Crop Improvement Foundation Seed Farm at Mt. Holly, Virginia in 2024 - Virginia Tech Trials.

Table 14.1. 108-111 Days Relative Maturity, Mt. Holly Irrigated 2024

Company	Variety	Test wt., lb/bu	Moist, %	Yield, bu/a
Channel	209-39DGVT2PRIB	52.4	13.9	231
Channel	211-11VT2PRIB	55.2	14.6	217
Augusta	A2060	53.2	14.4	211
Dyna-Gro	D49PN05RA	53.2	14.8	183
Dyna-Gro	D51VC95RIB	54.1	14.7	218
FS	FS 6017V RIB	52.5	14.4	219
FS	FS 6137PC	54.8	15.4	194
MAS	MA6094PCE	54	15.3	231
MAS	MA8110TRECRIB	54.4	15.6	198
Revere	Revere 0918 VT2P	53.7	14.4	220
SC	SC1093AM	54.5	14.9	235
SC	SC1094PCE	54.2	16.2	214
SC	SC1105PCE	54.9	16.1	216
SC	SC1112AM	55.2	15.6	231
Maturity Average		54.0	15.0	215.4
L.S.D. (0.05)		2.5	6.0	14.2
C.V.		0.5	0.3	11.6

Table 14.2. 112-115 Days Relative Maturity, Mt. Holly Irrigated 2024

Company	Variety	Test wt., lb/bu	Moist, %	Yield bu/a
Channel	214-70TRERIB	54.7	16.1	231
Innvictis	A1312VT2PRIB	52.5	16.2	254
Augusta	A1465	55.1	15.4	196
Innvictis	A1551VT2P	54.3	16.1	249
Augusta	A2365	55.8	17.1	222
Dekalb	DKC64-22RIB	54.6	15.9	217
FS	FS 6245V RIB	55.4	16	221
FS	FS 6306T RIB	54.3	15.2	202
FS	FS 6545V RIB	55.3	16.8	212
MAS	MA6120PWE	53.3	16.8	251
MAS	MA6148PCE	54.4	15.5	226
MAS	MA6153PCE	56.3	17	231
MAS	MA8126VT2PRIB	53.9	16.4	210
MAS	MA8142VT2PRIB	56.4	16	215
MAS	MA8154VT2PRIB	54	17.4	218
Pioneer	P1289	55.4	15.6	204
Revere	Revere 113-T42	53.4	15.2	230
SC	SC1135PCE	53.9	15.3	228
Maturity Average		54.6	16.1	222.2
L.S.D. (0.05)		2.5	5.9	13.2
C.V.		0.4	0.3	9.5

Table 14.3. >115 Days Relative Maturity, Mt. Holly Irrigated 2024

Company	Variety	Test wt., lb/bu	Moist, %	Yield bu/a
Channel	218-66VT2PRIB	53.8	17.3	253
Dyna-Gro	D60TC45RIB	53.3	17.8	241
Dekalb	DKC117-78RIB	55.6	16	195
Dekalb	DKC66-06RIB	54.8	16	244
Dekalb	DKC68-35RIB	56.1	17.7	245
FS	FS 6627T RIB	55.4	16.1	233
FS	FS 6634V RIB	55	15.1	224
FS	FS 6747T RIB	55.4	17.2	244
FS	FS 6947T RIB	53.6	17.5	273
MAS	MA8199TREC	53.7	17.6	253
Pioneer	P17677	54.7	16.2	210
Revere	Revere 1627 TC	55.2	17.1	248
Revere	Revere 1839 TC	54.3	17.3	269
SC	SC1183AM	54.1	16.4	225
SC	SC1185V	55.5	17.5	242
Maturity Average		54.7	16.8	239.9
L.S.D. (0.05)		2.1	6.1	14.7
C.V.		0.4	0.4	12.9

Corn Yields at the Southern Piedmont AREC, at Blackstone, Virginia in 2024 - Virginia Tech Trials.

Table 17.1. 108-111 Days Relative Maturity, Blackstone 2024

Company	Variety	Test wt., lb/bu	Moist, %	Yield, bu/a
Channel	209-39DGVT2PRIB	48.6	17.2	155
Channel	211-11VT2PRIB	53.1	16.8	149
Dyna-Gro	D49PN05RA	50.6	17.1	134
Dyna-Gro	D51VC95RIB	51.1	18.5	108
FS	FS 6017V RIB	50.7	16.9	113
FS	FS 6137PC	50.1	17.2	171
MAS	MA6094PCE	50.9	16.5	180
MAS	MA8110TRECRIB	51.4	17	189
Revere	Revere 0918 VT2P	50.6	16.8	179
SC	SC1093AM	50.1	16	174
SC	SC1094PCE	50.8	17.1	170
SC	SC1105PCE	52.7	18.1	168
SC	SC1112AM	52.7	17.5	177
Maturity Average		51.0	17.1	158.9
L.S.D. (0.05)		2.9	5.7	22.8
C.V.		0.6	0.4	14.3

Table 17.2. 112-115 Days Relative Maturity, Blackstone 2024

Company	Variety	Test wt., lb/bu	Moist, %	Yield, bu/a
Channel	214-70TRERIB	51.4	18.6	175
Integra	6493 VT2P	50.9	19	145
Dekalb	DKC64-22RIB	52.5	18.7	159
FS	FS 6245V RIB	51.1	20.3	156
FS	FS 6306T RIB	51	17.5	203
FS	FS 6545V RIB	53.5	20.1	184
MAS	MA6120PWE	49.9	18.5	197
MAS	MA6148PCE	52.9	18	168
MAS	MA6153PCE	57.1	18.6	151
MAS	MA8126VT2PRIB	51.5	18.6	152
MAS	MA8142VT2PRIB	53.4	17.9	184
MAS	MA8154VT2PRIB	51.1	19.2	177
Pioneer	P1289	52.6	17.7	194
Revere	Revere 113-T42	50.6	16.8	167
SC	SC1135PCE	52.3	17.7	169
Maturity Average		52.1	18.4	171.1
L.S.D. (0.05)		5.1	6.6	18.8
C.V.		0.9	0.4	11.4

Table 17.3. >115 Days Relative Maturity, Blackstone 2024

Company	Variety	Test wt., lb/bu	Moist, %	Yield, bu/a
Channel	218-66VT2PRIB	51.8	19	194
Integra	6624 TRE	52.4	17.3	178
Integra	6915 TRE	49	20.8	197
Dyna-Gro	D60TC45RIB	51.5	21.6	196
Dekalb	DKC117-78RIB	54.3	18.1	149
Dekalb	DKC66-06RIB	53.8	18.4	180
Dekalb	DKC68-35RIB	53	19.5	184
FS	FS 6627T RIB	52.6	18	189
FS	FS 6634V RIB	50.9	17.7	162
FS	FS 6747T RIB	51	20.8	143
FS	FS 6947T RIB	56.1	21.5	164
MAS	MA8199TREC	51.8	21.2	219
Pioneer	P17677	53.3	18	142
Revere	Revere 1627 TC	51.7	18.7	207
Revere	Revere 1839 TC	51.3	19.9	214
SC	SC1183AM	50.7	18.2	184
SC	SC1185V	52.6	18.6	126
Maturity Average		52.2	19.2	178.1
L.S.D. (0.05)		7.8	8.6	22.9
C.V.		1.4	0.6	14.0

Corn Yields at the Shenandoah Valley at Shenandoah, Virginia in 2024

- Virginia Tech Trials.

Table 20.1. 108-111 Days Relative Maturity, Shenandoah 2024

Company	Variety	Test wt., lb/bu	Moist, %	Yield, bu/a
Channel	209-39DGVT2PRIB	52.9	18.2	160
Channel	211-11VT2PRIB	62	16.8	161
Augusta	A2060	52.5	18.7	177
FS	FS 6137PC	52.8	18.7	170
MAS	MA6094PCE	53.6	18.2	162
MAS	MA8110TRECRIB	53.4	17.5	196
Revere	Revere 0918 VT2P	52.9	18.1	170
SC	SC1112AM	53.8	18.6	146
Maturity Average		54.2	18.1	167.7
L.S.D. (0.05)		9.8	5.8	21.3
C.V.		2.7	0.5	18.2

Table 20.2. 112-115 Days Relative Maturity, Shenandoah 2024

Company	Variety	Test wt., lb/bu	Moist, %	Yield, bu/a
Channel	214-70TRERIB	54	20.3	163
Integra	6493 VT2P	59.9	22	175
Augusta	A2365	52	21.7	187
Dekalb	DKC64-22RIB	53.7	19.4	165
FS	FS 6245V RIB	53.7	20.9	164
FS	FS 6545V RIB	53.9	21.1	184
MAS	MA6120PWE	50.4	19.2	170
MAS	MA6148PCE	51.9	18.5	136
MAS	MA6153PCE	52.7	20.7	172
MAS	MA8126VT2PRIB	54.6	19.2	186
MAS	MA8142VT2PRIB	54.7	17.9	186
MAS	MA8154VT2PRIB	53.3	21.2	186
Pioneer	P1289	54.1	18.8	172
Revere	Revere 113-T42	53.7	18.7	154
SC	SC1135PCE	53.8	20.1	163
Maturity Average		53.8	19.9	170.0
L.S.D. (0.05)		6.8	8.7	16.6
C.V.		1.3	0.6	10.0

Table 20.3. >115 Days Relative Maturity, Shenandoah 2024

Company	Variety	Test wt., lb/bu	Moist, %	Yield, bu/a
Integra	6624 TRE	53	19.5	179
Integra	6915 TRE	50.2	21.4	183
Dekalb	DKC117-78RIB	54.3	19.4	160
Dekalb	DKC66-06RIB	53	20	181
Dekalb	DKC68-35RIB	52.8	21.4	191
FS	FS 6634V RIB	53.7	18.6	167
FS	FS 6747T RIB	52.8	21.9	171
FS	FS 6947T RIB	49.9	24	169
MAS	MA8199TREC	52.5	22.8	182
Pioneer	P17677	54.1	20.6	191
Revere	Revere 1627 TC	53.2	19.1	171
Revere	Revere 1839 TC	50.8	21.3	173
SC	SC1183AM	52.5	19.2	173
SC	SC1185V	54.2	20.8	163
Maturity Average		52.6	20.7	175.3
L.S.D. (0.05)		3.3	9.2	17.2
C.V.		0.7	0.7	11.4

Planted April 22nd, 2024. The population was 27,800 plants/a. Harvested October 9th, 2024.

Corn Yields at the Northern Piedmont Center at Orange, Virginia in 2024 - Virginia Tech Trials.

Table 23.1. 108-111 Days Relative Maturity, Orange 2024

Company	Variety	Test wt., lb/bu	Moist, %	Yield, bu/a
Channel	209-39DGVT2PRIB	49.6	16.2	159
Channel	211-11VT2PRIB	53.6	15.9	144
Augusta	A2060	51.2	15.5	171
Dyna-Gro	D49PN05RA	55.9	15.9	173
Dyna-Gro	D51VC95RIB	50.2	16.9	158
FS	FS 6017V RIB	51.5	16.1	174
FS	FS 6137PC	52.4	16.7	171
MAS	MA6094PCE	54.6	16.2	182
MAS	MA8110TRECRIB	53.3	16	158
Revere	Revere 0918 VT2P	47.8	15.9	159
SC	SC1112AM	52.4	15.7	150
Maturity Average		52.0	16.1	163.5
L.S.D. (0.05)		8.0	5.7	16.6
C.V.		1.8	0.4	11.7

Table 23.2. 112-115 Days Relative Maturity, Orange 2024

Company	Variety	Test wt., lb/bu	Moist, %	Yield, bu/a
Channel	214-70TRERIB	52.7	18.2	156
Integra	6493 VT2P	49.1	17.2	171
Innictis	A1312VT2PRIB	52.1	18.6	157
Innictis	A1551VT2P	50.7	17.3	189
Augusta	A2365	53.8	15.7	179
Dekalb	DKC64-22RIB	52.4	16.4	179
FS	FS 6245V RIB	52.3	19.1	181
FS	FS 6306T RIB	47.7	16.8	187
FS	FS 6545V RIB	52.9	18.8	186
MAS	MA6120PWE	51.1	18.8	195
MAS	MA6148PCE	54.5	17.4	182
MAS	MA6153PCE	60.2	17	173
MAS	MA8126VT2PRIB	53.5	17.3	162
MAS	MA8142VT2PRIB	53.5	16.9	139
MAS	MA8154VT2PRIB	72.4	19.3	158
Pioneer	P1289	48	18.2	184
Revere	Revere 113-T42	52.6	16.5	166
SC	SC1135PCE	53.3	16.7	193
Maturity Average		53.5	17.5	174.3
L.S.D. (0.05)		19.4	9.3	17.9
C.V.		3.4	0.5	10.1

Table 23.3. >115 Days Relative Maturity, Orange 2024

Company	Variety	Test wt., lb/bu	Moist, %	Yield, bu/a
Channel	218-66VT2PRIB	52.2	18.2	194
Integra	6624 TRE	53.9	17.3	180
Integra	6915 TRE	51.2	19	200
Dyna-Gro	D60TC45RIB	50.3	19.2	189
Dekalb	DKC117-78RIB	53.6	17.9	148
Dekalb	DKC66-06RIB	53.3	17.6	182
Dekalb	DKC68-35RIB	52.8	19.2	196
FS	FS 6627T RIB	53.2	17	170
FS	FS 6634V RIB	53.9	17.7	180
FS	FS 6747T RIB	52.8	18	163
FS	FS 6947T RIB	50.5	19.2	185
MAS	MA8199TREC	50.2	19.3	183
Pioneer	P17677	54.2	17.1	178
Revere	Revere 1627 TC	53.5	17.8	168
Revere	Revere 1839 TC	48.4	19.5	171
SC	SC1183AM	47.3	17.2	188
SC	SC1185V	53.7	17.9	156
Maturity Average		52.0	18.2	178.3
L.S.D. (0.05)		5.6	7.2	16.0
C.V.		1.0	0.5	9.8

Planted April 15th, 2024. Population was 27,800 plants/a. Harvested October 8th, 2024.



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The Bt Trait Table for U.S. Corn Production

(updated March 2024). Thanks to Chris DiFonzo, Michigan State University, difonzo@msu.edu

Trait packages, listed A-Z = former name if applicable	Bag- tag Code	Toxins in package Font type denotes target caterpillar or rootworm	Marketed to control										Resistance cases for all Bts in package	Non-Bt refuge cornbelt	Herbicide tolerance
			B C W	C E W	E C B	F A W	S B	S C B	S W C B	T A W	W B C	C R W			
AcreMax	AM	Cry1Ab - Cry1F	x	x	x	x	x	x	x				CEW FAW WBC	5% in bag	GLY LL
AcreMax CRW	AMRW	Cry34Ab1 - Cry35Ab1										x	NCR WCR	10% in bag	GLY LL
AcreMax1	AM1	Cry1F - Cry34Ab1 - Cry35Ab1	x		x	x	x	x	x			x	ECB FAW NCR SWCB WBC WCR	10% in bag 20% ECB	GLY LL
AcreMax Leptra	AML	Cry1Ab - Cry1F - Vip3A	x	x	x	x	x	x	x	x	x			5% in bag	GLY LL
AcreMax TRIsect	AMT	Cry1Ab - Cry1F - mCry3A	x	x	x	x	x	x	x			x	CEW FAW WBC WCR	10% in bag	GLY LL
AcreMax Xtra	AMX	Cry1Ab - Cry1F - Cry34Ab1 - Cry35Ab1	x	x	x	x	x	x	x			x	CEW FAW NCR WBC WCR	10% in bag	GLY LL
AcreMax Xtreme	AMXT	Cry1Ab - Cry1F - Cry34Ab1 - Cry35Ab1 - mCry3A	x	x	x	x	x	x	x			x	CEW FAW WBC WCR	5% in bag	GLY LL
Agrisure 3010	3010	Cry1Ab		x	x			x	x				CEW	20%	GLY LL

Trait packages, listed A-Z = former name if applicable	Bag- tag Code	Toxins in package Font type denotes target caterpillar or rootworm	Marketed to control										Resistance cases for all Bts in package	Non-Bt refuge cornbelt	Herbicide tolerance
			B C W	C E W	E C B	F A W	S B	S C B	S W C B	T A W	W B C	C R W			
Agrisure 3000 GT & 3011A	3000GT 3011A	Cry1Ab - <i>mCry3A</i>		x	x			x	x			x	CEW WCR	20%	GLY LL
Agrisure Aove = Agrisure 3120EZ	AA	Cry1Ab - Cry1F	x	x	x	x	x	x	x				CEW FAW WBC	5% in bag	GLY LL - check bag
Agrisure Total = Agrisure 3122EZ	AT	Cry1Ab - Cry1F - Cry34Ab1 - Cry35Ab1 - <i>mCry3A</i>	x	x	x	x	x	x	x			x	CEW FAW WBC WCR	5% in bag	GLY LL - check bag
Agrisure Viptera 3110	3110	Cry1Ab - Vip3A	x	x	x	x	x	x	x	x	x			20%	GLY LL
Agrisure Viptera 3111	3111	Cry1Ab - Vip3A - <i>mCry3A</i>	x	x	x	x	x	x	x	x	x	x	WCR	20%	GLY LL
Duracade = AgrisureDuracade 5122EZ	D	Cry1Ab - Cry1F - eCry3.1Ab - <i>mCry3A</i>	x	x	x	x	x	x	x			x	CEW FAW WBC WCR	5% in bag	GLY LL - check bag
Duracade Viptera = AgrisureDuracade 5222EZ	DV	Cry1Ab - Cry1F - Vip3A - eCry3.1Ab - <i>mCry3A</i>	x	x	x	x	x	x	x	x	x	x	WCR	5% in bag	GLY LL - check bag
Duracade Viptera Z3 = AgrisureDuracade 5332EZ	DVZ	Cry1Ab - Cry1A.105 - Cry2Ab2 - Vip3A - eCry3.1Ab - <i>mCry3A</i>	x	x	x	x	x	x	x	x	x	x	WCR	5% in bag	GLY LL - check bag
Herculex I	HXI	Cry1F	x		x	x	x	x	x				ECB FAW SWCB WBC	20%	GLY LL
Herculex RW	HXRW	Cry34Ab1 - Cry35Ab1										x	NCR WCR	20%	GLY LL

Trait packages, listed A-Z = former name if applicable	Bag- tag Code	Toxins in package Font type denotes target caterpillar or rootworm	Marketed to control										Resistance cases for all Bts in package	Non-Bt refuge cornbelt	Herbicide tolerance
			B C W	C E W	E C B	F A W	S B	S C B	S W C B	T A W	W B C	C R W			
Herculex XTRA	HXX	Cry1F - Cry34Ab1 - Cry35Ab1	x		x	x	x	x	x			x	ECB FAW NCR SWCB WBC WCR	20%	GLY LL
Intrasect	YHR	Cry1Ab - Cry1F	x	x	x	x	x	x	x				CEW FAW WBC	5%	GLY LL
Intrasect TRIsect	CYHR	Cry1Ab - Cry1F - mCry3A	x	x	x	x	x	x	x			x	CEW FAW WBC WCR	20%	GLY LL
Intrasect Xtra	YXR	Cry1Ab - Cry1F - Cry34Ab1 - Cry35Ab1	x	x	x	x	x	x	x			x	CEW FAW NCR WBC WCR	20%	GLY LL
Intrasect Xtreme	CYXR	Cry1Ab - Cry1F - Cry34Ab1 - Cry35Ab1 - mCry3A	x	x	x	x	x	x	x			x	CEW FAW WBC WCR	5%	GLY LL
Leptra	VYHR	Cry1Ab - Cry1F - Vip3A	x	x	x	x	x	x	x	x	x			5%	GLY LL
Powercore	PW	Cry1A.105 - Cry2Ab2 - Cry1F	x	x	x	x	x	x	x				CEW WBC	5%	GLY LL
Powercore Refuge Advanced	PWRA	Cry1A.105 - Cry2Ab2 - Cry1F	x	x	x	x	x	x	x				CEW WBC	5% in bag	GLY LL
Powercore Enlist Refuge Advanced	PWE	Cry1A.105 - Cry2Ab2 - Cry1F	x	x	x	x	x	x	x				CEW WBC	5% in bag	GLY LL 2,4-D fops
QROME	Q	Cry1Ab - Cry1F - Cry34Ab1 -	x	x	x	x	x	x	x	x		x	CEW FAW WBC WCR	5% in bag	GLY LL

Trait packages, listed A-Z = former name if applicable	Bag- tag Code	Toxins in package Font type denotes target caterpillar or rootworm	Marketed to control										Resistance cases for all Bts in package	Non-Bt refuge cornbelt	Herbicide tolerance
			B C W	C E W	E C B	F A W	S B	S C B	S W C B	T A W	W B C	C R W			
		Cry35Ab1 - mCry3A													
SmartStax	SS, SX	Cry1A.105 - Cry2Ab2 - Cry1F - Cry3Bb1 - Cry34Ab1 - Cry35Ab1	x	x	x	x	x	x	x			x	CEW NCR WBC WCR	5%	GLY LL
SmartStax Refuge Advanced	SXRA	Cry1A.105 - Cry2Ab2 - Cry1F - Cry3Bb1 - Cry34Ab1 - Cry35Ab1	x	x	x	x	x	x	x			x	CEW NCR WBC WCR	5% in bag	GLY LL
SmartStax Enlist	SSE	Cry1A.105 - Cry2Ab2 - Cry1F - Cry3Bb1 - Cry34Ab1 - Cry35Ab1	x	x	x	x	x	x	x			x	CEW NCR WBC WCR	5% in bag	GLY LL 2,4-D fops
SmartStax RIB Complete	SS SSRIB	Cry1A.105 - Cry2Ab2 - Cry1F - Cry3Bb1 - Cry34Ab1 - Cry35Ab1	x	x	x	x	x	x	x			x	CEW NCR WBC WCR	5% in bag	GLY LL
SmartStax PRO Refuge Advanced	SSPro	Cry1A.105 - Cry2Ab2 - Cry1F- Cry3Bb1 - Cry34Ab1 - Cry35Ab1 - dvSnf7	x	x	x	x	x	x	x			x	CEW WBC	5% in bag	GLY LL

Trait packages, listed A-Z = former name if applicable	Bag- tag Code	Toxins in package Font type denotes target caterpillar or rootworm	Marketed to control										Resistance cases for all Bts in package	Non-Bt refuge cornbelt	Herbicide tolerance
			B C W	C E W	E C B	F A W	S B	S C B	S W C B	T A W	W B C	C R W			
SmartStax PRO Enlist Refuge Advanced		Cry1A.105 - Cry2Ab2 - Cry1F- Cry3Bb1 - Cry34Ab1 - Cry35Ab1 - dvSnf7	x	x	x	x	x	x	x			x	CEW WBC	5% in bag	GLY LL 2,4-D fops
SmartStax PRO with RNAi Technology	SSPRORIB	Cry1A.105 - Cry2Ab2 - Cry1F- Cry3Bb1 - Cry34Ab1 - Cry35Ab1 - dvSnf7	x	x	x	x	x	x	x			x	CEW WBC	5% in bag	GLY LL
Trecepta	TRE, TRC	Cry1A.105 - Cry2Ab2 - Vip3A	x	x	x	x	x	x	x	x	x			5%	GLY
Trecepta RIB Complete	TRERIB TRCRIB	Cry1A.105 - Cry2Ab2 - Vip3A	x	x	x	x	x	x	x	x	x			5% in bag	GLY
TRIsect	CHR	Cry1F - mCry3A	x		x	x	x	x	x			x	ECB FAW SWCB WBC WCR	20%	GLY LL
Viptera = Agrisure Viptera 3220EZ	V	Cry1Ab - Cry1F - Vip3A	x	x	x	x	x	x	x	x	x			5% in bag	GLY LL - check bag
Viptera Z3= AgrisureViptera 3330EZ	VZ	Cry1Ab - Cry1A.105 - Cry2Ab2 - Vip3A	x	x	x	x	x	x	x	x	x			5% in bag	GLY LL - check bag
Vorceed Enlist	V	Cry1A.105 - Cry2Ab2 - Cry1F- Cry3Bb1	x	x	x	x	x	x	x			x	CEW NCR WBC	5% in bag	GLY LL 2,4-D fops

Trait packages, listed A-Z = former name if applicable	Bag- tag Code	Toxins in package Font type denotes target caterpillar or rootworm	Marketed to control										Resistance cases for all Bts in package	Non-Bt refuge cornbelt	Herbicide tolerance
			B C W	C E W	E C B	F A W	S B	S C B	S W C B	T A W	W B C	C R W			
		- <i>Cry34Ab1</i> - - <i>Cry35Ab1</i> - <i>dvSnf7</i>													
VT Double PRO	VT2P VT2PRO	<i>Cry1A.105</i> - <i>Cry2Ab2</i>		x	x	x	x	x	x				CEW	5%	GLY
VT2P RIB Complete	VT2PRIB	<i>Cry1A.105</i> - <i>Cry2Ab2</i>		x	x	x	x	x	x				CEW	5% in bag	GLY
VT TriplePRO	VT3P	<i>Cry1A.105</i> - <i>Cry2Ab2</i> - <i>Cry3Bb1</i>		x	x	x	x	x	x			x	CEW NCR WCR	20%	GLY
VT3P RIB Complete	VT3PRIB	<i>Cry1A.105</i> - <i>Cry2Ab2</i> - <i>Cry3Bb1</i>		x	x	x	x	x	x			x	CEW NCR WCR	10% in bag	GLY
VT4Pro w/RNAi Tech. *Expected 2024	VT4PRO	<i>Cry1A.105</i> - <i>Cry2Ab2</i> - <i>Vip3A</i> - <i>Cry3Bb1</i> - <i>dvSnf7</i>	x	x	x	x	x	x	x	x	x	x		5% in bag	GLY
Yieldgard Corn Borer	YGCB	<i>Cry1Ab</i>		x	x			x	x				CEW	20%	GLY
Yieldgard Rootworm	YGRW	<i>Cry3Bb1</i>										x	NCR WCR	20%	GLY
Yieldgard VT Triple	VT3	<i>Cry1Ab</i> - <i>Cry3Bb1</i>		x	x			x	x			x	CEW NCR WCR	20%	GLY

ABBREVIATIONS in the TRAIT TABLE

Insect Pest Targets

BCW black cutworm
CEW corn earworm
CRW corn rootworm
ECB European corn borer
FAW fall armyworm
NCR northern corn rootworm
SB stalk borer
SCB sugarcane borer
SWCB southwestern corn borer
TAW true armyworm
WBC western bean cutworm
WCR western corn rootworm

Herbicide Tolerance

GLY glyphosate / Roundup-Ready
LL glufosinate / Liberty Link
LL? check the bag tag for LL status
Enlist 2,4-D & fops / Enlist trait

Refuge

Unless specified as RIB (Refuge In Bag), all other percentages assume separate, structured refuge areas planted in strips, blocks, borders, or whole fields.

HISTORICAL REFERENCE Trait packages phased out as standalone hybrids *some may be components of current trait package	Bag tag code	Proteins in package ***** Font type denotes target: caterpillar or rootworm	Marketed to control:										Species w/ resistance to all Bts in package	Refuge, northern states (higher in south)	Herbicide tolerance		
			B	C	E	F	S	S	S	T	WC	R					
			C	E	C	A	B	C	WA	B	W						
			W	W	WB	W											
AcreMax RW	AMRW	Cry34/35Ab1								x	NCR WCR	10% RIB	GLY LL				
AcreMax TRIsect	AMT	Cry1Ab Cry1F mCry3A	x	x	x	x	x	x	x	x	CEW FAW WBC WCR	10% RIB	GLY LL				
Herculex I	HXI	Cry1F	x		x	x	x	x	x	x	ECB FAW SWCB WBC	20%	GLY LL				
Herculex RW	HXRW	Cry34/35Ab1								x	NCR WCR	20%	GLY LL				
Intrasect TRIsect	CYHR	Cry1Ab Cry1F mCry3A	x	x	x	x	x	x	x	x	CEW FAW WBC WCR	20%	GLY LL				
Intrasect Xtra	YXR	Cry1Ab Cry1F Cry34/35Ab1	x	x	x	x	x	x	x	x	CEW FAW NCR WBC WCR	20%	GLY LL				
Intrasect Xtreme	CYXR	Cry1Ab Cry1F Cry34/35Ab1 mCry3A	x	x	x	x	x	x	x	x	CEW FAW WBC WCR	5%	GLY LL				
TRIsect	CHR	Cry1F mCry3A	x		x	x	x	x	x	x	ECB FAW SWCB WBC WCR	20%	GLY LL				
VT Triple PRO	VT3P	Cry1A.105 Cry2Ab2 Cry3Bb1		x	x	x	x	x	x	x	CEW NCR WCR	20%	GLY				
YieldGard Corn Borer	YGCB	Cry1Ab		x	x		x	x			CEW	20%	GLY				
YieldGard Rootworm	YGRW	Cry3Bb1								x	NCR WCR	20%	GLY				
YieldGard VT Triple	VT3	Cry1Ab Cry3Bb1		x	x		x	x		x	CEW NCR WCR	20%	GLY				



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