



Virginia On-Farm Corn Test Plots 2022

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A summary of replicated research and demonstration plots conducted by Virginia Cooperative Extension in cooperation with local producers and agribusinesses

The research and demonstration plots discussed in this publication are a cooperative effort by Virginia Cooperative Extension employees, Virginia Tech and Virginia State University, the Natural Resources Conservation Service, numerous producers, and many members of the Virginia agribusiness community. The fieldwork and printing of this publication are mainly supported by the Virginia Corn Check-Off Fund through the Virginia Corn Board. This is the thirty-ninth year of this multi-county cooperative project. Further work is planned for 2023. Anyone who would like a copy of this publication should contact their local extension office, who can request a copy from the VCE Northumberland County Extension Office.



Producers interested in becoming involved with on-farm plot work, and those with research topic ideas that they would like to have investigated in future on-farm publications should contact their local extension office for further information.

The authors wish to thank the many producers and agribusinesses that participated in these research and demonstration plots. This publication is made possible through their continued support and cooperation.

If you a person with a disability and desire assistance or accommodation, or would like to request a fully accessible copy of this publication, please contact Trent Jones at the Northumberland County VCE Office at 804-580-5694 or jonesrt@vt.edu.

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General Summary

These demonstrations and replicated studies provide information that can be used by Virginia corn growers to make better management decisions on their farm. These results should be used along with data from other replicated studies when making decisions. Refer to individual location results for additional detail.

Hybrid Comparisons

Corn hybrid selection remains a challenge for Virginia producers. With more seed companies, and more GMO options and seed treatment packages than ever before, hybrid selection can be a difficult decision. We evaluated early maturity hybrids (107 day RM or less) at five locations, mid maturity hybrids (108-112 day RM) at seven locations, and full season hybrids (113 day RM or more) at ten locations. Hybrids from all three maturity groups were planted at both the 2022 Virginia Ag Expo site located in Caroline County and Virginia State University. Farmers should use the results compiled from these studies to assist with future hybrid selection; however, they should continue to plant hybrids of multiple maturities to help spread production risk.

Pivot Bio Symbiotic Microbial Product Efficacy

Farmers rely primarily on the application of synthetic nitrogen to meet fertility needs of the corn crop. The symbiotic microbial product Pivot Bio advertises the ability to convert atmospheric nitrogen into a plant available form through a mutualistic relationship with the corn plant. If effective, the use of this product could result in the application of fewer pounds of synthetic nitrogen necessary to support a corn crop. In 2021 a protocol was developed and Pivot Bio was tested on-farm at one location. This protocol was once again replicated in 2022. The results of this study will be released in 2023 when three replicates have been conducted.

Utilizing Hairy Vetch Cover Crop in Corn Grain Production

With input prices on the rise, farmers are interested in alternative fertility sources that will allow for reduction in overall inputs. The utilization of legume cover crops like hairy vetch can provide a subsequent corn crop plant available nitrogen converted from previously atmospheric nitrogen. The objective of this project was to gain a better understanding on determining nitrogen fertilizer rates and timing of the application to corn grain following a hairy vetch cover crop.

Early Maturity Hybrid Comparisons

Early Maturity Hybrid Entries

107 Day RM or Less

Table 1. Corn hybrids entered in the early maturity group as well as the relative maturity, seed treatments, and genetic traits of each hybrid entered

Brand	Hybrid	Relative Maturity	Seed Treatments	Genetic Traits
Pioneer	P0343AML	103	1250	AML
Hubner Seed	H05G716	105	Poncho 500	RR, YGCB, Drought Guard
Augusta	A1957	107	PV500	VT2Pro
Dyna-Gro	45TC55	105	PonchoVotivo 500	Trecepta
Revere Seed	Revere 0707 DGVT2PRIB	107	Radius 500	DG, VT2P
Dekalb	DKC56-15	106	Poncho Votivo 1250	VT2P
AgriGold	A636-16VT2RIB	106	Poncho 250	VT2P
Chemgro Seeds	6725RDP	107	Acceleron 250	VT2P, RIB Complete
Seed Consultants	SC 1071AM	107	Poncho Votivo 1250	HX1, YGCB, RR, LL
Innictis Seed Solutions	A0851VT2PRIB	107	Poncho 250	VT2P, RIB
Channel	207-87VT2PRIB	107	Acceleron BAS500B	VT2P

Summary of Early Maturity Hybrid Comparisons

107 Day RM or Less

Table 2. A summary of yield results at 15.5% moisture from corn hybrids entered in the early maturity group by plot location

Brand	Hybrid	Virginia Ag Expo	Virginia State University	Chesapeake / Virginia Beach	Lancaster	New Kent	Hybrid Average
Pioneer	P0343AML	221.8	55.8	175.3	210.2	178.7	168.36
Hubner Seed	H05G716	231.4	96.8	168.5	219.4	191.8	181.58
Augusta	A1957	246.0	110.0	172.8	251.0	212.0	198.36
Dyna-Gro	45TC55	245.5	82.7	174.0	238.2	193.7	186.82
Revere Seed	Revere 0707 DGVT2PRIB	213.3	135.6	187.3	219.2	198.6	190.8
Dekalb	DKC56-15	223.0	107.7	165.4	210.0	174.4	176.1
AgriGold	A636-16VT2RIB	213.4	113.6	150.1	204.3	196.9	175.66
Chemgro Seeds	6725RDP	248.2	127.0	181.8	230.4	196.9	196.86
Seed Consultants	SC 1071AM	240.7					
Innictis Seed Solutions	A0851VT2PRIB	226.8					
Channel	207-87VT2PRIB	251.1					
	Location Average	232.8	103.7	171.9	222.8	192.9	

Virginia Ag Expo Early Maturity Corn Hybrid Comparison

Cooperators

Producer: Millcreek Farms; Johnathan Davis, Tommy Hicks, Jerry Dickinson

Extension: Mike Broaddus – VCE Caroline County, Robbie Longest - VCE Essex County, Stephanie Romelczyk – VCE Westmoreland County, Trent Jones – VCE Northumberland and Lancaster Counties

Industry: Jonathan Chilton, Hubner Seeds

Crop Management

Previous Crop:	Soybean		
Soil Type:	Wickham Fine Sandy Loam, 0-2% slopes		
Tillage:	No-till		
Planting Date:	April 29, 2022		
Planting Equipment:	John Deere 1790		
Seeding Rate:	36,500 seed/acre		
Preplant Fertilizer:	Broadcast	200 lbs/ac	11-52-0, 100 lbs/ac 0-0-60
	Popup	3.5 gal/ac	5-15-5
	Starter	15 gal/ac	28-0-0-5
Sidedress Fertilizer:	pivot and sidedress	224 lbs	28-0-0-5
Preplant Crop Protection:	2 qt/ac	Bicep II	
	1 qt/ac	Gramoxone 3.0	
	1 qt/100 gal	LI-700 surfactant	
Post Em. Crop Protection:	3.6 pt/ac	Halex GT	
	1 pt/ac	Atrazine	
	1 qt/100 gal	LI-700 surfactant	
Harvest Date:	September 19, 2022		
Harvest Equipment:	Fendt 8T		

Virginia Ag Expo Early Maturity Corn Hybrid Comparison

Table 3. The relative maturity, moisture percentage, test weight, and yield at 15.5% moisture of hybrids entered in the early maturity group planted at the Virginia Ag Expo location

Brand	Hybrid	Relative Maturity	% Moisture	Test Weight	Yield (bu./A at 15.5%)
CHECK Hubner	H4563RC2P (CK)	-----	20.1	57.2	250.9
Pioneer	PO343AML	103	17.3	59.9	221.8
Dyna Gro	45TC55	105	16.7	59.0	245.5
Hubner Seed	HO5G716	105	15.6	59.3	231.4
Agri Gold	A636-16VT2RIB	106	17.8	56.1	213.4
Dekalb	DKC56-15	106	17.4	57.6	223.0
Augusta	A1957	107	17.3	58.6	246.0
Channel	207-87VT2PRIB	107	17	57.9	251.1
ChemGro Seeds	6725RDP	107	17.6	58.3	248.2
Invictus Seed Solutions	AO851VT2PRIB	107	17.2	56.7	226.8
Revere Seed	Revere 0707 DGVT2PRIB	107	16.6	59.1	213.3
Seed Consult	SCS1071AM	107	17.5	58.3	240.7
CHECK Hubner	H4563RC2P (CK)	-----	21.1	56	239.5

Discussion: Very good corn yields as a result of ample rainfall and fertilization, and virtually no weed, disease, or insect pressure.

Virginia State University Early Maturity Corn Hybrid Comparison

Cooperators

Virginia State University: Rudy Grammer, L. Mack West, VSU-Randolph Farm, Glenn F. Chappell, II, Virginia State University (Retired)

Crop Management

Previous Crop: Corn

Soil Type: Tetotum

Planting Date: April 26, 2022

Seeding Rate: 27,704

Preplant Fertilizer: Broadcast: 42-52-90-36S Granular; April 12, 2022

Sidedress Fertilizer: 144-0-0-30S Granular; June 6, 2022

Burndown: 1 qt. Gramoxone SL; April 13, 2022

Crop Protection at Planting: 2 qt. Bicep II Mag. + 1 qt. Simazine 4L; April 29, 2022

Harvest Date: October 7, 2022

Harvest Equipment: John Deere 9560 STS

Virginia State University Early Maturity Corn Hybrid Comparison

Table 4. The relative maturity, moisture percentage, yield at 15.5% moisture, and percent of check of hybrids entered in the early maturity group planted at the Virginia State University location

Brand	Hybrid	Relative Maturity	% Moisture	Yield (bu./A at 15.5%)	% of Check
Check – Hubner Seed	H4763RC2P	114	16.2	130.2	-----
Pioneer	P0343AML	103	15.3	55.8	40.7
Hubner Seed	H05G716	105	15.6	96.8	70.5
Augusta	A1957	107	15.2	110.0	80.1
DynaGro	45TC55	105	16.2	82.7	60.3
Revere Seed	Revere 0707 DGVT2PRIB	107	14.6	135.6	98.8
Dekalb	DKC56-15	106	15.2	107.7	78.5
AgriGold	A636- 16VT2RIB	106	15.0	113.6	82.8
Chemgro Seeds	6725RDP	107	15.4	127.0	92.6
Check – Hubner Seed	H4763RC2P	114	16.2	144.2	-----

Discussion: The “% of Check” is calculated by dividing an individual hybrid's yield by the average of the two closest check hybrids and multiplying by 100. Early Hybrids (103-108 RM) averaged – 103.7 Bu./A, Mid Hybrids (108 – 112 RM) averaged – 140.8 Bu./A, and Late Hybrids (113-118 RM) averaged – 148.5 Bu./A.

New Kent County Early Maturity Corn Hybrid Comparison

Cooperators

Producer: Paul Davis – Davis Farm

Extension: Forrest Hobbs – VCE New Kent County

Crop Management

Previous Crop: wheat/soybean rotation (Deep rye/hairy vetch cover crop)

Soil Type: Pamunkey Sandy Loam

Tillage: Long-term continuous no-till

Planting Date: April 26, 2022

Planting Equipment: JD Vacuum seeder – 6 row

Seeding Rate: 32,000

Preplant Fertilizer: 45# N in 2 x 2 starter (4/26)

Sidedress Fertilizer: 75# N 28-0-0 + N-Zone at 1 qt per 100 gal N solution

Post Emergence Crop Protection: fungicide – 6/8 10 oz Headline AMP

Harvest Date: September 26, 2022

Harvest Equipment: Gleaner 65

New Kent County Early Maturity Corn Hybrid Comparison

Table 5. The relative maturity, moisture percentage, test weight, and yield at 15.5% moisture of hybrids entered in the early maturity group planted at the New Kent County location

Brand	Hybrid	Relative Maturity	% Moisture	Yield (bu./A at 15.5%)
Pioneer	P0343AML	103	14.3	178.7
Hubner Seed	H05G716	105	12.8	191.8
Augusta	A1957	107	14.4	212
Dyna-Gro	45TC55	105	13.8	193.7
Revere Seed	Revere 0707 DGVT2PRIB	107	14.5	198.6
Dekalb	DKC-56-15	106	15.4	174.4
AgriGold	A636-16VT2	106	14.6	196.9
Chemgro Seeds	6725RDP	107	14.6	196.9

Discussion: long-term ongoing rye/hairy vetch cover crop in rotation

Lancaster County Early Maturity Corn Hybrid Comparison

Cooperators

Producer: Ridgefield Farms – Jock Chilton, Jonathan Chilton, and Mitchel Hale

Extension: Trent Jones - VCE Northumberland and Lancaster

Crop Management

Previous Crop: Soybeans

Soil Type: Suffolk Fine Sandy Loam

Tillage: No-Till

Planting Date: April 12, 2022

Planting Equipment: Kinze 3200 12 row planter, 30 inch spacing

Seeding Rate: 30,000 Seed / Acre

Preplant Fertilizer: Variable rate P and K, 30-30-0-6S with Zinc and Boron applied as 2X2 as starter, 45-0-0-8S applied at burndown

Sidedress Fertilizer: 75-0-0-10S with Boron applied at V5

75-0-0-10S with Boron applied at V8

Preplant Crop Protection: 24 oz/acre Empyros, 1 qt./acre Atrazine

Post Emergence Crop Protection: 3.6 pt./acre Halex GT, 1 pt./acre Atrazine, 1pt./acre Megafol

Harvest Date: September 8, 2022

Harvest Equipment: John Deere S760, John Deere 608C Header

Lancaster County Early Maturity Corn Hybrid Comparison

Table 6. The relative maturity, moisture percentage, test weight, and yield at 15.5% moisture of hybrids entered in the early maturity group planted at the Lancaster County location

Brand	Hybrid	Relative Maturity	% Moisture	Test Weight	Yield (bu./A at 15.5%)
Hubner Seed (Check)	H05G716	105	16.8	56.2	213.7
AgriGold	A636-16VT2RIB	106	17.8	54.6	204.3
Augusta	A1957	107	18	57	251.0
Pioneer	P0343AML	103	17.1	58.6	210.2
Dyna-Gro	45TC55	105	16.8	57	238.2
Chemgro Seeds	6725RDP	107	17	58	230.4
Revere Seed	Revere 0707 DGVT2RIB	107	16.3	58	219.2
Dekalb	DKC56-15	106	17.5	57.9	210.0
Hubner Seed (Check)	H05G716	105	16	57	225.0

Discussion: This plot received adequate rainfall throughout the entire season up until a four-week dry period at the end of grain-fill, just before harvest. Overall the drought did not impact yield severely with the plot averaging 222 Bu./A. This plot was placed in a field with little variability, though there is some variance in yield between the checks placed at either end of the plot.

Cities of Chesapeake / Virginia Beach Early Maturity Corn Hybrid Comparison

Cooperators

Producer: C. Frank Brickhouse Jr.

Extension: Roy D. Flanagan III, ANR Extension Agent- Virginia Beach
Nathan Sedghi, ANR Extension Agent- Chesapeake

Industry: Various

Crop Management

Previous Crop: Soybeans

Soil Type: Acredale Silt Loam

Tillage: Ridge Type Conventional Tillage

Planting Date: May 20, 2022

Planting Equipment: 7300 JD Maxi Merge Vacuum Planter 12 row

Seeding Rate: 35,000 seeds/ acre

Preplant Fertilizer: Broadcast 600 lbs./ac. 15-8-15+13.5lbs. S

Planting Fertilizer: 30 Gal. 32% (110 lbs. N) + Excelis Max. 4.8 oz./acre

Post Emergence Crop Protection: 1 pint of Dual Magnum

Harvest Date: September 26, 2022

Harvest Equipment: JD 9860

Cities of Chesapeake / Virginia Beach Early Maturity Corn Hybrid Comparison

Table 7. The relative maturity, moisture percentage, and yield at 15.5% moisture of hybrids entered in the early maturity group planted at the Chesapeake / Virginia Beach location

Brand	Hybrid	Relative Maturity	% Moisture	Test Weight	Yield (bu./A at 15.5%)
Pioneer	PO343AML	103	16.9	58.2	175.3
Hubner Seed	HO5G716	105	15.9	54.2	168.5
Dekalb	DKC 69-16 (check)	119	19.8	57.3	215.5
Dyna-Gro	45TC55	105	16.7	57	174.0
AgriGold	A636-16VT2RIB	106	18	54.7	150.1
Dekalb	DKC 69-16 (check)	119	19.5	58.4	194.6
Dekalb	DKC 56-15	106	17.8	56.9	165.4
Augusta	A1957	107	17.3	55.7	172.8
Dekalb	DKC 69-16 (check)	119	19.9	58.9	192.0
Chemgro Seeds	6725RDP	107	17.2	56.2	181.8
Revere Seed	Revere 0707 DGV2PRIB	107	16.3	56.9	187.3
Dekalb	DKC 69-16 (check)	119	19.5	57.8	204.6

Mid Maturity Hybrid Comparisons

Mid Maturity Hybrid Entries

108 – 112 Day RM

Table 8. Corn hybrids entered in the mid maturity group as well as the relative maturity, seed treatments, and genetic traits of each hybrid entered.

Brand	Hybrid	Relative Maturity	Seed Treatments	Genetic Traits
Pioneer	P1289AM	112	1250	AML
Hubner Seed	H09G056	109	Poncho 250	RR, YGCB, Drought Guard
MorCorn	MC 4161	111	1250	VT2P DG
Erwin-Keith, Inc. / Progeny	PGY 2010TRE	110	PV500+EDC+B360	TRE
Augusta	A1961	111	PV500	Trecepta
Dyna-Gro	52VC63	112	PonchoVotivo 500	VT2Pro
Revere Seed	Revere 0918 SSXRIB	109	Radius 500	SSX
Dekalb	DKC62-70	112	Poncho Votivo 1250	VT2P
Syngenta NK	NK1239-5122	112	Avicta Complete 500	RR, CB, RW
AgriGold	A642-59VT2RIB	112	Poncho 250	VT2P
Chemgro Seeds	6929RSX	109	Acceleron Poncho Votivo 500	SmartStax RIB Complete
Seed Consultants	SC 1112AM	111	Poncho Votivo 1250	HX1, YGCB, RR, LL
Innvictis Seed Solutions	A1257VT2P	112	Poncho 250	VT2P
Channel	210-46VT2PRIB	110	Acceleron BAS500B	VT2P

Summary of Mid Maturity Hybrid Comparisons

108 – 112 Day RM

Table 9. A summary of yield results at 15.5% moisture from corn hybrids entered in the mid maturity group by plot location

Brand	Hybrid	Virginia Ag Expo	Virginia State University	Southampton	Chesapeake / Virginia Beach	Middlesex	Westmoreland	City of Suffolk	Hybrid Average
Pioneer	P1289AM	261.5	152.7	240.5	175.0	187.9	251	179.1	206.8
Hubner Seed	H09G056	271.7	141.1	211.1	176.9	191.9	244	166.1	200.4
MorCorn	MC 4161	261.8	152.4	218.1	178.4	182.5	241	153.9	198.3
Erwin-Keith, Inc. / Progeny	PGY 2010TRE	262.5	131.1	219.7	185.2	161.4	232	153.8	192.2
Augusta	A1961	243.8	112.9	220.1	177.5	197.9	233	165.4	192.9
Dyna-Gro	52VC63	269.0	144.5	221.6	199.0	173.9	263	171.1	206.0
Revere Seed	Revere 0918 SSXRIB	236.9	152.7	205.3	155.1	168.9	223	160.5	186.1
Dekalb	DKC62-70	286.0	145.6	215.7	191.7	177.0	246	176.3	205.7
Syngenta NK	NK1239-5122	247.6	140.4	217.7	174.0	191.3	247	156.9	196.4
AgriGold	A642-59VT2RIB	271.3	152.5	191.5	205.1	185.3	236	161.5	200.5
Chemgro Seeds	6929RSX	252.8	122.9	206.9	210.8	171.2	227	150.8	191.8
Seed Consultants	SC 1112AM	264.3							
Innqvist Seed Solutions	A1257VT2P	258.1							
Channel	210-46VT2PRIB	284.0							
	Location Average	262.2	140.8	215.3	184.4	180.8	240.3	163.2	

Virginia Ag Expo Mid Maturity Corn Hybrid Comparison

Cooperators

Producer: Millcreek Farms; Johnathan Davis, Tommy Hicks, Jerry Dickinson

Extension: Mike Broaddus – VCE Caroline County, Robbie Longest – VCE Essex County, Stephanie Romelczyk – VCE Westmoreland County, Trent Jones – VCE Northumberland and Lancaster Counties

Industry: Jonathan Chilton, Hubner Seeds

Crop Management

Previous Crop:	Soybean		
Soil Type:	Wickham Fine Sandy Loam, 0-2% slopes		
Tillage:	No-till		
Planting Date:	April 29, 2022		
Planting Equipment:	John Deere 1790		
Seeding Rate:	36,500 seed/acre		
Preplant Fertilizer:	Broadcast	200 lbs/ac	11-52-0, 100 lbs/ac 0-0-60
	Popup	3.5 gal/ac	5-15-5
	Starter	15 gal/ac	28-0-0-5
Sidedress Fertilizer:	pivot and sidedress	224 lbs	28-0-0-5
Preplant Crop Protection:	2 qt/ac	Bicep II	
	1 qt/ac	Gramoxone 3.0	
	1 qt/100 gal	LI-700 surfactant	
Post Em. Crop Protection:	3.6 pt/ac	Halex GT	
	1 pt/ac	Atrazine	
	1 qt/100 gal	LI-700 surfactant	
Harvest Date:	September 19, 2022		
Harvest Equipment:	Fendt 8T		

Virginia Ag Expo Mid Maturity Corn Hybrid Comparison

Table 10. The relative maturity, moisture percentage, test weight, and yield at 15.5% moisture of hybrids entered in the mid maturity group planted at the Virginia Ag Expo location

Brand	Hybrid	Relative Maturity	% Moisture	Test Weight	Yield (bu./A at 15.5%)
CHECK Hubner Seed	H4563RC2P (CK)	-----	21.1	56	239.5
ChemGro Seeds	6929RSX	109	18.3	57.9	252.8
Hubner Seed	HO9G056	109	18.2	55.8	271.7
Revere Seed	Revere 0918 SSXRIB	109	17.3	57.7	236.9
Channel	210-46VT2PRIB	110	18.2	58.8	284.0
Erwin-Keith, Inc. / Progeny	PGY2010TRE	110	18.3	57.3	262.5
Augusta	1961 TRE	111	18.6	57.6	243.8
MorCorn	4161 DGVT2P	111	19.1	58.3	261.8
Seed Consultants	SC1112AM	111	19.1	58.5	264.3
AgriGold	A642-59VT2RIB	112	19.1	57.5	271.3
Dekalb	DKC62-70	112	19.0	60.7	286.0
Dyna-Gro	52VC63	112	18.6	60.0	269.0
Invictus Seed Solutions	A1257VT2P	112	18.3	59.0	258.1
Pioneer	P1289AM	112	18.8	59.2	261.5
Syngenta NK	1239-5122	112	19.7	56.4	247.6
CHECK Hubner Seed	H4563RC2P (CK)	-----	20.4	56.0	253.3

Discussion: Very good corn yields as a result of ample rainfall and fertilization, and virtually no weed, disease, or insect pressure

Virginia State University Mid Maturity Corn Hybrid Comparison

Cooperators

Virginia State University: Rudy Grammer, L. Mack West, VSU-Randolph Farm, Glenn F. Chappell, II, Virginia State University (Retired)

Crop Management

Previous Crop: Corn

Soil Type: Tetotum

Planting Date: April 26, 2022

Seeding Rate: 27,704

Preplant Fertilizer: Broadcast: 42-52-90-36S Granular; April 12, 2022

Sidedress Fertilizer: 144-0-0-30S Granular; June 6, 2022

Burndown: 1 qt. Gramoxone SL; April 13, 2022

Crop Protection at Planting: 2 qt. Bicep II Mag. + 1 qt. Simazine 4L; April 29, 2022

Harvest Date: October 7, 2022

Harvest Equipment: John Deere 9560 STS

Virginia State University Mid Maturity Corn Hybrid Comparison

Table 11. The relative maturity, moisture percentage, test weight, and yield at 15.5% moisture of hybrids entered in the mid maturity group planted at the Virginia Ag Expo location

Brand	Hybrid	Relative Maturity	% Moisture	Yield (bu./A at 15.5%)	% of Check
Check – Hubner Seed	H4763RC2P	114	16.3	144.2	-----
Pioneer	P1289AM	112	15.4	152.7	99.3
Hubner Seed	H09G056	109	14.3	141.1	91.7
MorCorn	MC 4161	111	14.5	152.4	99.1
Erwin-Keith, Inc. / Progeny	PGY2010TRE	110	14.9	131.1	85.2
Augusta Seed	A1961	111	14.4	112.9	73.4
Dyna-Gro	52VC63	112	15.0	144.5	93.9
Revere Seed	Revere 0918 SSXRIB	109	14.6	152.7	99.3
Dekalb	DKC62-70	112	14.3	145.6	94.6
Syngenta NK	NK 1239-5122	112	15.4	140.4	91.2
AgriGold	A642-59VT2RIB	112	14.8	152.5	99.1
Chemgro Seeds	6929RSX	109	15.3	122.9	79.9
Check – Hubner Seed	H4763RC2P	114	14.4	163.5	-----

Discussion: The “% of Check” is calculated by dividing an individual hybrid's yield by the average of the two closest check hybrids and multiplying by 100. Early Hybrids (103-108 RM) averaged – 103.7 Bu./A, Mid Hybrids (108 – 112 RM) averaged – 140.8 Bu./A, and Late Hybrids (113-118 RM) averaged – 148.5 Bu./A.

Westmoreland County Mid Maturity Corn Hybrid Comparison

Cooperators

Producer: Louis Chandler, F.F. Chandler, Jr., and Ryan Balderson

Extension: Stephanie Romelczyk, ANR – Westmoreland County, Trent Jones, ANR – Northumberland and Lancaster counties

Crop Management

Previous Crop: Soybeans

Soil Type: Kempsville loam

Tillage: No-till

Planting Date: April 25, 2022

Planting Equipment: Case IH 950 Cyclo Planter

Seeding Rate: 130,000

Preplant Fertilizer: 40-30-80-5S

40-20-0 with micros (starter)

Sidedress Fertilizer: 100-0-0-12.5S

Preplant Crop Protection: Acuron 1.5 qts/A + Princep 1.5 pts/A + Tombstone 1.5 oz/A

Post Emergence Crop Protection: 1. Halex 3.6 pts/A + Atrazine 1.5 pts/A

2. Miravis Neo 13.7 oz/A + Brigade 6 oz/A (aerial application)

Harvest Date: September 21, 2022

Harvest Equipment: CAT Challenger 670 with 6 row corn header

Westmoreland County Mid Maturity Corn Hybrid Comparison

Table 12. The relative maturity, moisture percentage, test weight, and yield at 15.5% moisture of hybrids entered in the mid maturity group planted at the Westmoreland County location

Brand	Hybrid	Relative Maturity	% Moisture	Test Weight	Yield (bu./A at 15.5%)
Dyna-Gro	52VC63	112	17.4	58.3	263
Syngenta NK	1239-5122	112	16.6	58.0	247
AgriGold	A642-59VT2RIB	112	16.5	59.8	236
Pioneer	P1289AM	112	16.5	61.0	251
Revere Seed	0918 SSXRIB	109	14.9	59.4	223
Augusta	A1961	111	15.1	59.1	233
Hubner Seed	H09G056	109	14.6	58.6	244
Erwin-Keith, Inc. / Progeny	PGY 2010TRE	110	15.7	58.7	232
Dekalb	DKC62-70	112	16.5	61.0	246
MorCorn	MC4161	111	16.3	58.6	241
Chemgro Seeds	6929RSX	109	15.8	58.8	227

Discussion: Excellent yields on this corn variety trial.

Middlesex County Mid Maturity Corn Hybrid Comparison

Cooperators

Producer: Crazy Clover Farm – Wayne Burch

Extension: Frank Long, - VCE Middlesex County; Robbie Longest, - VCE Essex County

Crop Management

Previous Crop: Soybeans

Soil Type: Emporia loam, Slagle silt loam

Tillage: No-till

Planting Date: April 22, 2022

Planting Equipment: John Deere 7200 (12 row)

Seeding Rate: 30,000 / Acre

Broadcast: 15-65-75 (April 4, 2022)

Sidedress Fertilizer: 105 # N + 10 # S + Excelis Maxx (June 14, 2022)

Post Emergence Crop Protection: Brawl II (2 qt/ac), Atrazine (1 qt/ac), Roundup (1.5 qt/ac) (Apr. 29, 2022)

Harvest Date: October 7, 2022

Harvest Equipment: Case IH 2588 with 6 Row Header

Middlesex County Mid Maturity Corn Hybrid Comparison

Table 13. The relative maturity, moisture percentage, test weight, and yield at 15.5% moisture of hybrids entered in the mid maturity group planted at the Middlesex County location

Brand	Hybrid	Relative Maturity	% Moisture	Test Weight	Yield (bu./A at 15.5%)
CHECK - Pioneer	0843AM	108	17.2	59.0	169.6
Pioneer	P1289AM	112	16.9	59.3	187.5
Hubner Seed	H09G056	109	17.1	57.1	191.9
Chemgro Seeds	6929RSX	109	18.1	56.5	171.2
MorCorn	MC4161	111	17.5	58.1	182.5
Erwin-Keith, Inc. / Progeny	2010TRE	110	17.4	56.5	161.4
Augusta	A1961	111	17.5	56.8	179.9
Dyna-Gro	52VC63	112	17.3	57.8	173.9
Revere Seed	Revere 0918 SSXRIB	109	16.7	57.6	168.9
Dekalb	DKC62-70	112	16.8	59.9	177.0
Syngenta NK	1239-5122	112	17.3	57.2	191.3
AgriGold	A642-59VT2R	112	17.1	58.7	185.3
CHECK - Pioneer	0843AM	108	16.7	59.2	187.0
AVERAGE			17.2	58.0	179.0
AVERAGE CHECK			17.0	59.1	178.3

Discussion: Overall good yields at this location with a plot average yield of 179.0 bu/ac. Dry weather was experienced in late August at this site and regionally. The average test weight for the plot was 58.0 lbs/bu.

Cities of Chesapeake and Virginia Beach Mid Maturity Corn Hybrid Comparison

Cooperators

Producer: C. Frank Brickhouse Jr.

Extension: Roy D. Flanagan III, ANR Extension Agent- Virginia Beach
Nathan Sedghi, ANR Extension Agent- Chesapeake

Industry: Various

Crop Management

Previous Crop: Soybeans

Soil Type: Acredale Silt Loam

Tillage: Ridge Type Conventional Tillage

Planting Date: May 20, 2022

Planting Equipment: 7300 JD Maxi Merge Vacuum Planter 12 row

Seeding Rate: 35,000 seeds/ acre

Preplant Fertilizer: Broadcast 600 lbs./ac. 15-8-15+13.5lbs. S

Planting Fertilizer: 30 Gal. 32% (110 lbs. N) + Excelis Max. 4.8 oz./acre

Post Emergence Crop Protection: 1 pint of Dual Magnum

Harvest Date: September 26, 2022

Harvest Equipment: JD 9860

Cities of Chesapeake and Virginia Beach Mid Maturity Corn Hybrid Comparison

Table 14. The relative maturity, moisture percentage, test weight, and yield at 15.5% moisture of hybrids entered in the mid maturity group planted at the Brickhouse Farms, Chesapeake location

Brand	Hybrid	Relative Maturity	% Moisture	Test Weight	Yield (bu./A at 15.5%)
Chemgro Seeds	6929RSX	109	17.7	55.3	210.8
Revere Seed	Revere 0918 SSXRIB	109	17.3	57.5	155.1
Dekalb	DKC 69-16 (check)	119	20.1	56.2	185.4
Hubner Seed	HO9G056	109	17.9	55.4	176.9
Erwin-Keith, Inc. / Progeny	PGY 2010TRE	110	18.3	55.7	185.2
Dekalb	DKC 69-16 (check)	119	19.7	57.6	194.5
Augusta	A1961	111	18	55.9	177.5
MorCorn	MC 4161	111	17.7	57.6	178.4
Dekalb	DKC 69-16 (check)	119	19.9	57.2	163.9
Pioneer	P1289 AM	112	17.4	58.8	175.0
Dyna-Gro	52VC63	112	18.2	56.0	199.0
Dekalb	DKC 69-16 (check)	119	20.1	58.4	188.1
Dekalb	DKC 62-70	112	18.4	56.1	191.7
Syngenta NK	NK1239-5122	112	18.7	54.6	174.0
AgriGold	A642-59VT2	112	18.3	56.5	205.1

Southampton County Mid Maturity Corn Hybrid Comparison

Cooperators

Producer: D&J Farms, Dennis & Denton Spruill

Extension: Joshua Holland, VCE Southampton

Elizabeth Pittman, VCE Suffolk

Crop Management

Previous Crop: Soybeans

Soil Type: Slagle, Fine Sandy Loam

Tillage: Strip-Till

Planting Date: April 12, 2022

Planting Equipment: KMC 8-Row Strip-Till Rig, John Deere 7730 Max Emerge Planter

Seeding Rate: 28,000

Preplant Fertilizer: 2.5 tons Poultry Litter

Sidedress Fertilizer: 17-17-0 2x2 band @ 11 gal./acre

Preplant Crop Protection: 32 oz. Roundup, 1 qt. 2,4-D, 2 oz. Valor

Post Emergence Crop Protection: 3.6 qt. Halex GT, 2 qt. Atrazine

Harvest Date: September 2, 2022

Harvest Equipment: John Deere 9760 Grain Combine

Southampton County Mid Maturity Corn Hybrid Comparison

Table 15. The relative maturity, moisture percentage, test weight, and yield at 15.5% moisture of hybrids entered in the mid maturity group planted at the Southampton County location

Brand	Hybrid	Relative Maturity	% Moisture	Test Weight	Yield (bu./A at 15.5%)
Pioneer	P1289AM	112	16.3	62.7	240.5
Hubner Seed	H09G056	109	13.9	60.3	211.1
MorCorn	MC 4161	111	14.6	58.1	218.1
Erwin-Keith, Inc. / Progeny	PGY 2010TRE	110	14.2	60.6	219.7
Augusta	A1961	111	14.3	57.7	220.1
Dyna-Gro	52VC63	112	14.9	61.1	221.6
Revere Seed	Revere 0918 SSXRIB	109	16.4	56.1	205.3
Dekalb	DKC62-70	112	14.8	64.5	215.7
Syngenta NK	NK1239-5122	112	15	56.5	217.7
AgriGold	A642-59VT2RIB	112	15.5	58.1	191.5
Chemgro Seeds	6929RSX	109	14.6	57.6	206.9

Discussion: Conditions in the field were favorable at planting and shortly thereafter. June and July brought extremely hot/dry weather that had a significant effect on plant health and grain-fill. Given these conditions, yields remained favorable across all varieties.

City of Suffolk Mid Maturity Corn Hybrid Comparison

Cooperators

Producer: Matt Wilkins, MBM Farms

Extension: Elizabeth Pittman, VCE Suffolk

Crop Management

Previous Crop: Soybeans

Soil Type: Lynchburg, Fine Sandy Loam

Tillage: No-till

Planting Date: April 15, 2022

Planting Equipment: John Deere 4 Row 7100

Seeding Rate: 29,000 seed / acre

Preplant Fertilizer: 1.5 tons chicken litter

Sidedress Fertilizer: 33-0-0-1 @ 100 units

Preplant Crop Protection: 1qt Roundup Powermax 3, 12oz Vertias, 3oz Fierce

Post Emergence Crop Protection: 1qt Roundup Powermax 3, 3oz Laudis, 1qt Atrazine

Harvest Date: September 10, 2022

Harvest Equipment: John Deere 9500 Grain Combine

City of Suffolk Mid Maturity Corn Hybrid Comparison

Table 16. The relative maturity, moisture percentage, test weight, and yield at 15.5% moisture of hybrids entered in the mid maturity group planted at the City of Suffolk location

Brand	Hybrid	Relative Maturity	% Moisture	Test Weight	Yield (bu./A at 15.5%)
Pioneer	P1289AM	112	15.4	58.8	179.1
Hubner Seed	H09G056	109	15.0	56.9	166.1
MorCorn	MC 4161	111	15.6	59.2	153.9
Erwin-Keith, Inc./Progeny	PGY 2010TRE	110	15.3	54.3	153.8
Augusta	A1961	111	15.1	54.3	165.4
Dyna-Gro	52VC63	112	15.3	59.2	171.1
Revere Seed	Revere 0918 SSXRIB	109	14.7	56.4	160.5
Dekalb	DKC62-70	112	15.7	59.6	176.3
Syngenta NK	NK1239-5122	112	15.0	54.0	156.9
AgriGold	A642-59VT2RIB	112	15.8	56.4	161.5
Chemgro Seeds	6929RSX	109	15.4	55.1	150.8

Discussion: Conditions in the field were favorable at planting and shortly thereafter. June and July brought extremely hot/dry weather that had a significant effect on plant health and grain-fill. Given these conditions, yields remained favorable across all varieties.

Full Maturity Hybrid Comparisons

Full Maturity Hybrid Entries

113 Day RM or More

Table 17. Corn hybrids entered in the full maturity group as well as the relative maturity, seed treatments, and genetic traits of each hybrid entered.

Brand	Hybrid	Relative Maturity	Seed Treatments	Genetic Traits
Pioneer	P1464AML	114	1250	AML
Hubner Seed	H1880D	118	Poncho 500	RR, YGCB
MorCorn	MC 4527	115	1250	VT2P
Erwin-Keith, Inc. / Progeny	PGY 9114VT2P	114	PV500+EDC+B360	VT2P
Augusta	A7168	118	Cruiser250	VT2Pro
Dyna-Gro	54VC34	114	PonchoVotivo 500	VT2Pro
Revere Seed	Revere 1307 TCRIB	113	Radius 500	Trecepta
Dekalb	DKC67-44	117	Poncho Votivo 1250	VT2P
Syngenta NK	NK1677-3110	116	Avicta Complete 500	RR, CB, Viptera
AgriGold	A645-16VT2RIB	115	Poncho 250	STX
Chemgro Seeds	7525RDP	115	Acceleron 250	VT2P RIB Complete
Seed Consultants	SC 1183AM	118	Poncho Votivo 1250	HX1, YGCB, RR, LL
Innictis Seed Solutions	A1457VT2P	114	Poncho 250	VT2PRIB
Channel	217-01VT2PRIB	117	Acceleron BAS500B	VT2P

Summary of Full Maturity Hybrid Comparisons

113 Day RM or More

Table 18. A summary of yield results from corn hybrids entered in the full maturity group by plot location.

Brand	Hybrid	Virginia Ag Expo	Virginia State University	Southampton	Lunenburg	Brunswick	Prince George	Appomattox	Charlotte	King William	City of Suffolk	Hybrid Average
Pioneer	P1464AML	265.1	114.4	216.0	130.5	61.2	177.2	240.2	196.5	156.8	152.0	171.0
Hubner Seed	H1880D	281.1	146.8	217.2	124.3	86.1	192.3	260.2	223.6	187.7	170.9	189.0
MorCorn	MC 4527	244.9	130.1	204.5	113.1	104.5	183.3	227.8	196.6	167.4	157.3	173.0
Erwin-Keith, Inc. / Progeny	PGY 9114VT2P	255.1	113.4	189.2	126.6	91.1	165.9	238.7	191.9	179.3	169.2	172.0
Augusta	A7168	250.4	187.5	205.8	129.6	102.0	178.1	231.6	219.0	163.6	178.2	184.6
Dyna-Gro	54VC34	258.7	181.1	195.1	127.9	99.5	164.8	228.4	190.8	179.9	186.1	181.2
Revere Seed	Revere 1307 TCRIB	257.6	163.8	206.0	136.3	101.2	169.9	241.9	194.6	163.0	167.4	180.2
Dekalb	DKC67-44	274.2	182.2	212.1	126.4	86.6	172.2	*	209.2	179.6	175.3	179.8
Syngenta NK	NK1677-3110	235.3	127.9	201.4	116.7	42.0	184.5	212.1	194.9	149.5	153.5	161.8
AgriGold	A645-16VT2RIB	248.8	150.0	223.8	123.2	91.7	169.0	212.7	197.3	164.6	156.2	173.8
Chemgro Seeds	7525RDP	266.2	136.5	203.4	117.5	70.9	167.1	230.5	201.0	171.5	161.3	172.6
Seed Consultants	SC 1183AM	236.4										
Innqvist Seed Solutions	A1457VT2P	255.7										
Channel	217-01VT2PRIB	257.2										
	Location Average	256.2	148.5	206.8	124.7	85.2	174.9	232.4	201.4	169.4	166.1	

Virginia Ag Expo Full Maturity Corn Hybrid Comparison

Cooperators

Producer: Millcreek Farms; Johnathan Davis, Tommy Hicks, Jerry Dickinson

Extension: Mike Broaddus - VCE Caroline County, Robbie Longest - VCE Essex County, Stephanie Romeleczyk – VCE Westmoreland County, Trent Jones – VCE Northumberland and Lancaster Counties

Industry: Jonathan Chilton, Hubner Seeds

Crop Management

Previous Crop:	Soybean		
Soil Type:	Wickham Fine Sandy Loam, 0-2% slopes		
Tillage:	No-till		
Planting Date:	April 29, 2022		
Planting Equipment:	John Deere 1790		
Seeding Rate:	36,500 seed/acre		
Preplant Fertilizer:	Broadcast	200 lbs/ac	11-52-0, 100 lbs/ac 0-0-60
	Popup	3.5 gal/ac	5-15-5
	Starter	15 gal/ac	28-0-0-5
Sidedress Fertilizer:	pivot and sidedress	224 lbs	28-0-0-5
Preplant Crop Protection:	2 qt/ac	Bicep II	
	1 qt/ac	Gramoxone 3.0	
	1 qt/100 gal	LI-700 surfactant	
Post Em. Crop Protection:	3.6 pt/ac	Halex GT	
	1 pt/ac	Atrazine	
	1 qt/100 gal	LI-700 surfactant	
Harvest Date:	September 19, 2022		
Harvest Equipment:	Fendt 8T		

Virginia Ag Expo Full Maturity Corn Hybrid Comparison

Table 19. The relative maturity, moisture percentage, test weight, and yield at 15.5% moisture of hybrids entered in the full maturity group planted at the Caroline/Ag Expo location

Brand	Hybrid	Relative Maturity	% Moisture	Test Weight	Yield (bu./A at 15.5%)
CHECK Hubner Seed	H4563RC2P (CK)	-----	20.4	56.0	253.3
Revere Seed	Revere 1307 TCRIB	113	18.7	57.5	257.6
Dyna-Gro	54VC34	114	19.6	58.6	258.7
Invictus Seed Solutions	AI457VT2RIB	114	19.1	60.3	255.7
Pioneer	P1464AML	114	19.4	58.3	265.1
Erwin-Keith, Inc. / Progeny	PGY9114VT2RIB	114	19.2	58.5	255.1
AgriGold	A645-16VT2RIB	115	19.3	59.5	248.8
ChemGro Seeds	7525 RDP	115	20.8	59.7	266.2
MorCorn	MC4527	115	19.3	59.6	244.9
Syngenta NK	1677-3110	116	19.6	58.2	235.3
Channel	217-01VT2PRIB	117	19.7	56.4	257.2
Dekalb	DKC67-44	117	19.4	59.4	274.2
Augusta	A7168	118	21.2	58.4	250.4
Hubner Seed	H1880D	118	21.4	56.9	281.1
Seed Consultants	SC1183AM	118	20.4	56.4	236.4
CHECK Hubner	H4563RC2P (CK)	-----	20.9	55.9	239.7

Discussion: Very good corn yields as a result of ample rainfall and fertilization, and virtually no weed, disease, or insect pressure

Virginia State University Full Maturity Corn Hybrid Comparison

Cooperators

Virginia State University: Rudy Grammer, L. Mack West, VSU-Randolph Farm; Glenn F. Chappell, II, Virginia State University (Retired)

Management

Previous Crop: Corn

Soil Type: Tetotum

Planting Date: April 26, 2022

Seeding Rate: 27,704 seed / acre

Preplant Fertilizer: Broadcast: 42-52-90-36S Granular; April 12, 2022

Sidedress Fertilizer: 144-0-0-30S Granular; June 6, 2022

Burndown: 1 qt. Gramoxone SL; April 13, 2022

Crop Protection at Planting: 2 qt. Bicep II Mag. + 1 qt. Simazine 4L; April 29, 2022

Harvest Date: October 7, 2022

Harvest Equipment: John Deere 9560 STS

Virginia State University Full Maturity Corn Hybrid Comparison

Table 20. The relative maturity, moisture percentage, yield at 15.5% moisture, and percent of check of hybrids entered in the full maturity group planted at the Virginia State University location.

Brand	Hybrid	Relative Maturity	% Moisture	Yield (bu./A at 15.5%)	% of Check
Check – Hubner Seed	H4763RC2P	114	14.4	163.5	-----
Pioneer Seed	P1464AML	114	14.6	114.4	72.0
Hubner Seed	H1880D	118	15.0	146.8	92.4
MorCorn	MC 4527	115	14.5	130.1	81.9
Erwin-Keith, Inc. / Progeny	PGY 9114VT2P	114	15.0	113.4	71.4
Augusta Seed	A7168	118	15.2	187.5	118.0
Dyna-Gro	54VC34	114	14.6	181.1	114.0
Revere Seed	Revere 1307 TCRIB	113	14.1	163.8	103.1
Dekalb	DKC67-44	117	15.0	182.2	114.7
Syngenta NK	NK1677-3110	116	15.0	127.9	80.5
AgriGold	A645-16VT2RIB	115	14.6	150.0	94.4
Chemgro Seeds	7525RDP	115	15.4	136.5	85.6
Check – Hubner Seed	H4763RC2P	114	14.6	154.2	-----

Discussion: The “% of Check” is calculated by dividing an individual hybrid's yield by the average of the two closest check hybrids and multiplying by 100. Early Hybrids (103-108 RM) averaged – 103.7 Bu./A, Mid Hybrids (108 – 112 RM) averaged – 140.8 Bu./A, and Late Hybrids (113-118 RM) averaged – 148.5 Bu./A.

King William County Full Maturity Corn Hybrid Comparison

Cooperators

Producer: Old Place Farm – Owen Johnson

Extension: Robbie Longest, VCE Essex; Frank Long, VCE Middlesex; Turner Minx, VCE King William and King and Queen

Crop Management

Previous Crop: Soybeans

Soil Type: Altavista loamy sand, State loamy fine sand

Tillage: No-till

Planting Date: April 21, 2022

Planting Equipment: John Deere 7200 (6 row)

Seeding Rate: 28,500 / Acre

Broadcast: 115#/AC 11-52-0 MAP and 100#/AC 0-0-60 Potash to provide 12-60-60 #/AC

2 x 2 Banded: 40-20-0-4 Starter Fertilizer

Sidedress Fertilizer: 24-0-0-3 Applied at 51 GPA to provide 130# N and 16# S

Preplant Crop Protection: 1 Quart Round-Up Powermax 3, 4 Pints Simazat, 1 Pint Brawl II, ½ Pint 2-4D LV6, 3.6 ounces Lambda-Cy., 5 ounces Bifenthrin applied in furrow at planting.

Harvest Date: September 16, 2022

Harvest Equipment: John Deere 8820 Titan II

King William County Full Maturity Corn Hybrid Comparison

Table 21. The relative maturity, moisture percentage, test weight, and yield at 15.5% moisture of hybrids entered in the full maturity group planted at the King William location

Brand	Hybrid	Relative Maturity	% Moisture	Test Weight	Yield (bu./A at 15.5%)
CHECK – Hubner Seed	H14G153	114	17.1	58.2	163.2
Hubner Seed	H1880	118	18.0	58.6	182.2
Dyna-Gro	54VC34	114	16.0	60.8	179.9
Syngenta NK	NK1677-3110	116	17.1	59.0	149.5
Erwin-Keith, Inc. / Progeny	9114	114	16.1	60.6	179.3
AgriGold	A645-16	115	16.4	60.7	164.6
Chemgro Seeds	7525	115	17.3	62.2	171.5
CHECK – Hubner Seeds	H14G153	114	16.9	56.8	161.6
Augusta	A7168	118	17.4	60.3	163.6
Revere Seed	Revere 1307 TCRIB	113	15.6	59.6	163.0
MorCorn	MC4527	115	15.9	61.9	167.4
Dekalb	DKC67-44	117	16.2	61.3	179.6
Pioneer	P1464	114	15.2	59.5	156.8
CHECK – Hubner Seed	H14G153	114	16.5	59.2	163.0
AVERAGE			16.6	59.9	167.5
AVERAGE CHECK			16.8	58.1	162.6

Discussion: The crop had adequate moisture and rainfall at planting and early post emergence, but experienced some stress due to dry weather at time of sidedress and later throughout the season.

Charlotte County Full Maturity Corn Hybrid Comparison

Cooperators

Producer: Grind-N-Stone Farm-The Poindexter Family

Extension: Joanne Jones, VCE, Charlotte, Bruce Jones, VCE Appomattox

Industry: Meherrin Agricultural and Chemical, Rick Brown

Crop Management

Previous Crop: Small grain cover crop

Soil Type: Cecil Fine Sandy Loam

Tillage: No-till

Planting Date: April 21, 2022

Planting Equipment: John Deere 7000, 4 row, 36 inch spacing

Seeding Rate: 25,000 seed / acre

Preplant Fertilizer: 2 tons poultry litter per acre

Sidedress Fertilizer: 160 lbs. 30-60-60 (2x2)

Preplant Crop Protection: 1.5 pint Gramoxone, 2 oz Sharpen, 3 oz Anthem Flex, 11 oz Brawl, 5 oz MSO

Post Emergence Crop Protection: 1.3 qt. glyphosate

Harvest Date: October 25, 2022

Harvest Equipment: Gleaner R 52

Charlotte County Full Maturity Corn Hybrid Comparison

Table 22. The relative maturity, moisture percentage, test weight, and yield at 15.5% moisture of hybrids entered in the full maturity group planted at the Charlotte location

Brand	Hybrid	Relative Maturity	% Moisture	Test Weight	Yield (bu./A at 15.5%)
Pioneer	P14646AML	114	22.6	55.6	196.5
Hubner Seed	H1880D	118	22.9	54.9	223.6
MorCorn	MC4527	115	22.1	54.1	196.6
Erwin-Keith, Inc. / Progeny	PGY9114VT2P	114	22	56	191.9
Augusta	A7168	118	18.8	56	219
Dyna-Gro	54VC34	114	25.3	53.4	190.8
Revere Seed	Revere 1307 TCRIB	113	23.6	55	194.6
Dekalb	DKC67-44	117	23.1	55.7	209.2
Syngenta NK	NK1677-3110	116	23	54.5	194.9
AgriGold	A645-16VT2RIB	115	22.4	55.6	197.3
Chemgro Seeds	7525RDP	115	21.9	57.1	201

Appomattox County Full Maturity Corn Hybrid Comparison

Cooperators

Producer: Ben Cole

Extension: Bruce Jones, VCE Appomattox; Joanne Jones, VCE Charlotte

Industry: Dekalb, Robert Hammock

Crop Management

Previous Crop: Full Season Soybeans

Soil Type: Cecil Sandy Loam

Tillage: No-till

Planting Date: May 19, 2022

Planting Equipment: John Deere 7200

Seeding Rate: 27,500 seed / acre

Preplant Fertilizer: Zone samples and variable rate P and K applied dry

10 gallons 28-0-0-5 plus stabilizer behind closing wheels

5 gallons 11-37-0 plus zinc plus coastal advance LCO in furrow

Sidedress Fertilizer: 150 units Amids with sulfur and Boron

Preplant Crop Protection: 32 oz glyphosate, 1 oz sharpen, 32 oz Atrazine, 3 oz Balance Flexx

Post Emergence Crop Protection: 32 oz glyphosate, 3 oz Capreno, 32 oz Atrazine,

10 oz Veltyma with airplane at brown silk

Harvest Date: October 25, 2022

Harvest Equipment: John Deere 9770 STS

Appomattox County Full Maturity Corn Hybrid Comparison

Table 23. The relative maturity, moisture percentage, test weight, and yield at 15.5% moisture of hybrids entered in the full maturity group planted at the Appomattox location.

Brand	Hybrid	Relative Maturity	% Moisture	Test Weight	Yield (bu./A at 15.5%)
Pioneer	P14646AML	114	17.5	62	240.2
Hubner Seed	H1880D	118	18.4	60.9	260.2
MorCorn	MC4527	115	15.8	61.9	227.8
Erwin-Keith, Inc. / Progeny	PGY9114VT2P	114	16	63.5	238.7
Augusta	A7168	118	18.5	60.6	231.6
Dyna-Gro	54VC34	114	16.6	61.7	228.4
Revere Seed	Revere 1307 TCRIB	113	15.1	62.9	241.9
Syngenta NK	NK1677-3110	116	17.3	59.8	212.10
AgriGold	A645-16VT2RIB	115	17.2	61.4	212.7
Chemgro Seeds	7525RDP	115	18.1	63.1	230.5

Discussion: This plot was also in the same field with a Dekalb plot. Dekalb variety was not included in this trail due to this reason.

Prince George County Full Maturity Corn Hybrid Comparison

Cooperators

Producer: Calvin Clements

Extension: Scott Reiter, VCE Prince George County

Crop Management

Previous Crop: Soybean

Soil Type: Eulonia, Slagle, Emporia sandy loam

Tillage: Strip till subsoil under row

Planting Date: April 21, 2022

Planting Equipment: John Deere MaxEmerge XP

Seeding Rate: 24,500 seed/acre; stand counts 25,500-26,500 seed/acre

Preplant Fertilizer: Broadcast - 335 lbs 5-12-36 + 15 gal 30% + 15 gal 16-16-0-2S-0.3Zn-0.3B

Sidedress Fertilizer: 30 gal 24-0-0-3S

172 N – 68 P – 120 K – 24 S – 0.5 B – 0.7 Zn – 1.1 Mn

Preplant Crop Protection: 1.75 pints Helmquat + 2 quarts TrizMet

Harvest Date: September 23, 2022

Harvest Equipment: John Deere S760 + weigh wagon

Prince George County Full Maturity Corn Hybrid Comparison

Table 24. The relative maturity, moisture percentage, test weight, and yield at 15.5% moisture of hybrids entered in the full maturity group planted at the Prince George location

Brand	Hybrid	Relative Maturity	% Moisture	Test Weight	Yield (bu./A at 15.5%)
Check	MorCorn 4725 VT2P	-----	14.6	62.1	181.9
MorCorn	MC4527	115	14.5	61.5	183.3
Pioneer	P1464AML	114	14.4	59.9	177.2
Dekalb	DKC 67-44	117	14.5	60.3	172.2
Dekalb	DKC 67-44 High population	117	14.4	60.5	203.5
Revere	Revere 1307 TCRIB High population	113	14.2	60.0	194.4
Revere	Revere 1307 TCRIB	113	14.0	59.4	169.9
Dyna-Gro	54VC34	114	13.9	61.0	164.8
Syngenta NK	NK1677-3110	116	14.7	58.8	184.5
Augusta	A7168	118	15.2	61.3	178.1
Hubner Seed	H1880D	118	14.8	58.6	192.3
Erwin-Keith, Inc. / Progeny	PGY 9114VT2P	114	14.1	61.0	165.9
AgriGold	A645-16VT2RIB	115	14.2	61.0	169.0
Chemgro Seeds	7525DP	115	14.8	62.6	167.1
Check	MorCorn 4725 VT2P	-----	14.3	61.3	163.5

Discussion: Another good corn year in the Prince George area. This location yielded well considering the dry conditions in the last half of June. However, rain was timely in July. We added two additional strips to this location to look at higher seeding rates. The grower standard on this “peanut” type land is 24,500 seed per acre. Stand counts revealed the actual seeding rate was 25,500 – 26,500 seed per acre compared to the operator manual. We paired a high population DKC 67-44 and Revere 1307 to the standard seeding rate used in the plot. The goal was 29,500 seed per acre based on the operator manual charts. Actual stand counts were 32,500 for DKC 67-44 and 31,500 for Revere 1307. The higher populations resulted in a 30 and 24 bushel per acre yield increase, respectively. Growers with sandy soils may need to reevaluate corn populations as newer hybrids respond to populations differently than hybrids 20-30 years ago.

Lunenburg County Full Maturity Corn Hybrid Comparison

Cooperators

Producer: Ryan Parrish

Extension: Taylor Clarke, VCE Mecklenburg County

Industry: Tyler Ashworth and Cliff Preddy, Nutrien AG Solutions

Crop Management

Previous Crop: Flue-cured tobacco

Soil Type: Caroline Sandy Loam

Tillage: No-till into wheat cover

Planting Date: April 26, 2022

Planting Equipment: 8 row Kinze planter 30"

Seeding Rate: 27,000 seed / acre

Preplant Fertilizer: 70-70-100 broadcast plus Rizen with Prolog + Radiant 3gal/ac in furrow

Sidedress Fertilizer: 110lb N from ESN + 21-0-0

Preplant Crop Protection: Burdown-26oz Roundup PowerMax+1oz Sharpen+1qt Atrazine+3.5oz Anthem Flex

Post Emergence Crop Protection: Roundup PowerMax+Accuron GT + Atrazine

Harvest Date: September 28, 2022

Harvest Equipment: JD S670 with 8 row 30" head

Lunenburg County Full Maturity Corn Hybrid Comparison

Table 25. The relative maturity, moisture percentage, test weight, and yield at 15.5% moisture of hybrids entered in the full maturity group planted at the Lunenburg location

Brand	Hybrid	Relative Maturity	% Moisture	Test Weight	Yield (bu./A at 15.5%)
Axis (Check)	63P75RIB	112	15	58.5	120.9
Pioneer	P1464AML	114	14.8	60.3	130.5
MorCorn	MC 4527	115	13.7	61	113.1
Erwin-Keith, Inc. / Progeny	PGY 9114VT2P	114	13.7	63.1	126.6
Augusta	A7168	118	15.4	61.8	129.6
Dyna-Gro	54VC34	114	14.3	61.2	127.9
Axis (Check)	63P75RIB	112	14.1	59.6	120.2
Revere Seed	Revere 1307 TCRIB	113	14.3	61.6	136.3
Dekalb	DKC67-44	117	14.8	61.1	126.4
Syngenta NK	NK1677-3110	116	16	60.5	116.7
AgriGold	A645-16VT2RIB	115	14.4	61.6	123.2
Chemgro Seeds	7525RDP	115	14.9	62.6	117.5
Hubner Seed	H1880D	118	13.7	61.8	124.3
Axis (Check)	63P75RIB	112	13.9	58.7	81.7

Discussion: The Augusta A7168 and Dekalb DKC67-44 plots had their plot lengths shorten by 30 and 10 ft, respectively, due to total skips in stand. Plot location rainfall data from Climate Fieldview showed a deficient compared to the 5-year average the entire growing season with the greatest deficient occurring between June 15th and July 12th, averaging 5 in.

Brunswick County Full Maturity Corn Hybrid Comparison

Cooperators

Producer: Howard Wright

Extension: Taylor Clarke, VCE Mecklenburg County

Industry: Tyler Asthworth

Crop Management

Previous Crop: Flue-cured Tobacco

Soil Type: Appling Mattaponi complex

Tillage: No-till into rye cover crop

Planting Date: April 11, 2022

Planting Equipment: 4 row 36" strip-till with JD Maxemerge planters

Seeding Rate: 28,500 seed / acre

Preplant Fertilizer: 50-60-90 with 5 gal 7-17-5 in furrow

Sidedress Fertilizer: 50 lb N 24-0-0-3S

Post Emergence Crop Protection: 58 oz Halex GT+10oz Roundup PowerMax 3 + 1 qt/100 gal Factor 90

Harvest Date: September 14, 2022

Harvest Equipment: Gleaner R50 with 4 row 36" head

Brunswick County Full Maturity Corn Hybrid Comparison

Table 26. The relative maturity, moisture percentage, test weight, and yield at 15.5% moisture of hybrids entered in the full maturity group planted at the Brunswick location

Brand	Hybrid	Relative Maturity	% Moisture	Test Weight	Yield (bu./A at 15.5%)
Axis (check)	63M73	113	18.9	57.6	104.4
Dyna-Gro	52VC63	112	18.8	56.7	98.1
Pioneer	P1464AML	114	17.6	56.2	61.2
MorCorn	MC 4527	115	17.6	57.7	104.5
Erwin-Keith, Inc. / Progeny	PGY 9114VT2P	114	17.5	59	91.1
Augusta	A7168	118	20.6	57.5	102.0
Dyna-Gro	54VC34	114	19.4	56.3	99.5
Revere Seed	Revere 1307 TCRIB	113	17.6	58.4	101.2
Dekalb	DKC67-44	117	19.9	58.2	86.6
Axis (check)	63M73	113	17.8	59.2	106.1
Axis	66R25RIB	116	17.4	60.1	90.1
Syngenta NK	NK1677-3110	116	17.1	56.6	42.0
Chemgro Seeds	7525RDP	115	19.8	57.3	70.9
AgriGold	A645-16VT2RIB	115	19	57	91.7
Hubner Seed	H1880D	118	20.7	54.5	86.1
Dyna-Gro	54VC14	114	19.5	58.2	85.2
Dyna-Gro	55VC80	115	19.4	58.2	106.9
Dyna-Gro	57TC29	117	20.7	55.1	115.2
Dyna-Gro	58VC65	118	18.7	57.7	128.0
Axis (check)	63M73	113	17.2	60.5	134.4

Discussion: Plot location rainfall data from Climate Fieldview showed a 2.5” deficient from June 15th to July 15th to the 5-year average.

Southampton County Full Maturity Corn Hybrid Comparison

Cooperators

Producer: D&J Farms, Dennis & Denton Spruill

Extension: Joshua Holland, VCE Southampton

Elizabeth Pittman, VCE Suffolk

Crop Management

Previous Crop: Soybeans

Soil Type: Slagle, Fine Sandy Loam

Tillage: Strip-Till

Planting Date: April 14, 2022

Planting Equipment: KMC 8-Row Strip-Till Rig, John Deere 7730 Max Emerge Planter

Seeding Rate: 28,000 seed / acre

Preplant Fertilizer: 2.5 tons Poultry Litter, 17-17-0 2x2 band @ 11 gal./acre at planting

Sidedress Fertilizer: 30-0-0 @ 120 units

Preplant Crop Protection: 32 oz. Roundup, 1 qt. 2,4-D, 2 oz. Valor

Post Emergence Crop Protection: 3.6 qt. Halex GT, 2 qt. Atrazine

Harvest Date: September 2, 2022

Harvest Equipment: John Deere 9760 Grain Combine

Southampton County Full Maturity Corn Hybrid Comparison

Table 27. The relative maturity, moisture percentage, test weight, and yield at 15.5% moisture of hybrids entered in the full maturity group planted at the Southampton County location

Brand	Hybrid	Relative Maturity	% Moisture	Test Weight	Yield (bu./A at 15.5%)
Pioneer	P1464AML	114	16.7	57.9	216.0
Hubner Seed	H1880D	118	16.6	58.2	217.2
MorCorn	MC 4527	115	14.8	58.9	204.5
Erwin-Keith, Inc./Progeny	PGY 9114VT2P	114	15.4	58.0	189.2
Augusta	A7168	118	16.8	57.5	205.8
Dyna-Gro	54VC34	114	15	58.0	195.1
Revere See	Revere 1307 TCRIB	113	15.2	56.7	206.0
Dekalb	DKC67-44	117	16.8	57.5	212.1
Syngenta NK	NK1677-3110	116	17.6	57.1	201.4
AgriGold	A645-16VT2RIB	115	16.3	61.2	223.8
Chemgro Seeds	7525RDP	115	16.8	60.6	203.4

Discussion: Conditions in the field were favorable at planting and shortly thereafter. June and July brought extremely hot/dry weather that had a significant effect on plant health and grain-fill. Given these conditions, yields remained favorable across all varieties.

City of Suffolk Full Maturity Corn Hybrid Comparison

Cooperators

Producer: Matt Wilkins, MBM Farms

Extension: Elizabeth Pittman, VCE Suffolk

Crop Management

Previous Crop: Soybeans

Soil Type: Lynchburg, Fine Sandy Loam

Tillage: No-till

Planting Date: April 15, 2022

Planting Equipment: John Deere 4 Row 7100

Seeding Rate: 29,000 seed / acre

Preplant Fertilizer: 1.5 tons chicken litter

Sidedress Fertilizer: 100 units 33-0-0-1

Preplant Crop Protection: 1 qt Roundup Powermax 3, 12 oz Vertias, 3oz Fierce

Post Emergence Crop Protection: 1 qt Roundup Powermax 3, 3 oz Laudis, 1 qt Atrazine

Harvest Date: September 10, 2022

Harvest Equipment: John Deere 9500 Grain Combine

City of Suffolk Full Maturity Corn Hybrid Comparison

Table 28. The relative maturity, moisture percentage, test weight, and yield at 15.5% moisture of hybrids entered in the full maturity group planted at the City of Suffolk location

Brand	Hybrid	Relative Maturity	% Moisture	Test Weight	Yield (bu./A at 15.5%)
Pioneer	P1464AML	114	16.3	53.6	152.0
Hubner Seed	H1880D	118	17.5	56.6	170.9
MorCorn	MC 4527	115	15.5	56.9	157.3
Erwin-Keith, Inc. / Progeny	PGY 9114VT2P	114	15.3	59.0	169.2
Augusta	A7168	118	18.1	56.6	178.2
Dyna-Gro	54VC34	114	14.9	59.6	186.1
Revere Seed	Revere 1307 TCRIB	113	15.1	57.1	167.4
Dekalb	DKC67-44	117	16.2	57.8	175.3
Syngenta NK	NK1677-3110	116	17.3	55.6	153.5
AgriGold	A645-16VT2RIB	115	16.3	58.4	156.2
Chemgro Seeds	7525RDP	115	16.8	60.1	161.3

Discussion: Conditions in the field were favorable at planting and shortly thereafter. June and July brought extremely hot/dry weather that had a significant effect on plant health and grain-fill. Given these conditions, yields remained favorable across all varieties.

Utilizing Hairy Vetch Cover Crop in Corn Grain Production

During 2022 Bob Waring, Virginia DCR Precision Nutrient Management Specialist and Keith Balderson, ACES enrollee assisting NRCS in the Tappahannock Field Office conducted demonstrations evaluating corn grain production following a hairy vetch cover crop on farms in Westmoreland and Essex Counties. Research has shown that hairy vetch can provide a significant amount of nitrogen for the succeeding crop but estimating the amount of nitrogen can be challenging. The objective of the project was to get a better handle on determining nitrogen fertilizer rates and timing of the application to corn grain following a hairy vetch cover crop.

Hairy vetch cover crops were established on both farms following full-season soybeans using a no-till drill and seeded at approximately 20 pounds per acre in mid-October. The Westmoreland County site was fertilized with 14-65-60 per acre using monoammonium phosphate and muriate of potash in early March to stimulate hairy vetch growth and provide phosphorous and potassium for the corn crop. The cover crop was terminated on April 13th, about two weeks prior to the optimal termination date. Based on the amount of growth of the hairy vetch, it was estimated that 80 pounds of plant available nitrogen per acre would be available to the corn crop. Corn was planted on April 22nd (see picture below) at approximately 26,000 seeds per acre in 36-inch rows. Ninety pounds per acre of nitrogen and 11.25 pounds per acre of sulfur were broadcast in the burndown herbicide carrier. The corn crop received no additional fertilizer.



Figure 1. Planting corn into hairy vetch cover crop 4/22/2022 in Westmoreland County, VA (Photo courtesy of Keith Balderson)

Utilizing Hairy Vetch Cover Crop in Corn Grain Production

The weather at the Westmoreland County site was good for corn production. Average temperatures were above normal, while rainfall was near normal and for the most part timely. See the table below for monthly details.

Table 29. Westmoreland County Site Weather Data. Provided by Stephanie Romelczyk, Virginia Cooperative Extension Agent, ANR

Month	Rainfall (inches)	Ave. High Temp. (degrees F)	Ave. Low Temp. (degrees F)
May	4.25	79	57
June	3.40	89	63
July	5.03	93	70
August	2.87	92	68

Soil nitrate samples were taken to a one-foot depth and analyzed by Bob Waring from mid-May through mid-July from the Westmoreland County site. Recent research suggests that the nitrogen from the hairy vetch converts to nitrate relatively quickly after termination, and the purpose of running these tests was to help to determine if minimal amounts of nitrogen fertilizer should be applied at planting when planting corn into a good hairy vetch cover crop. See the results below.

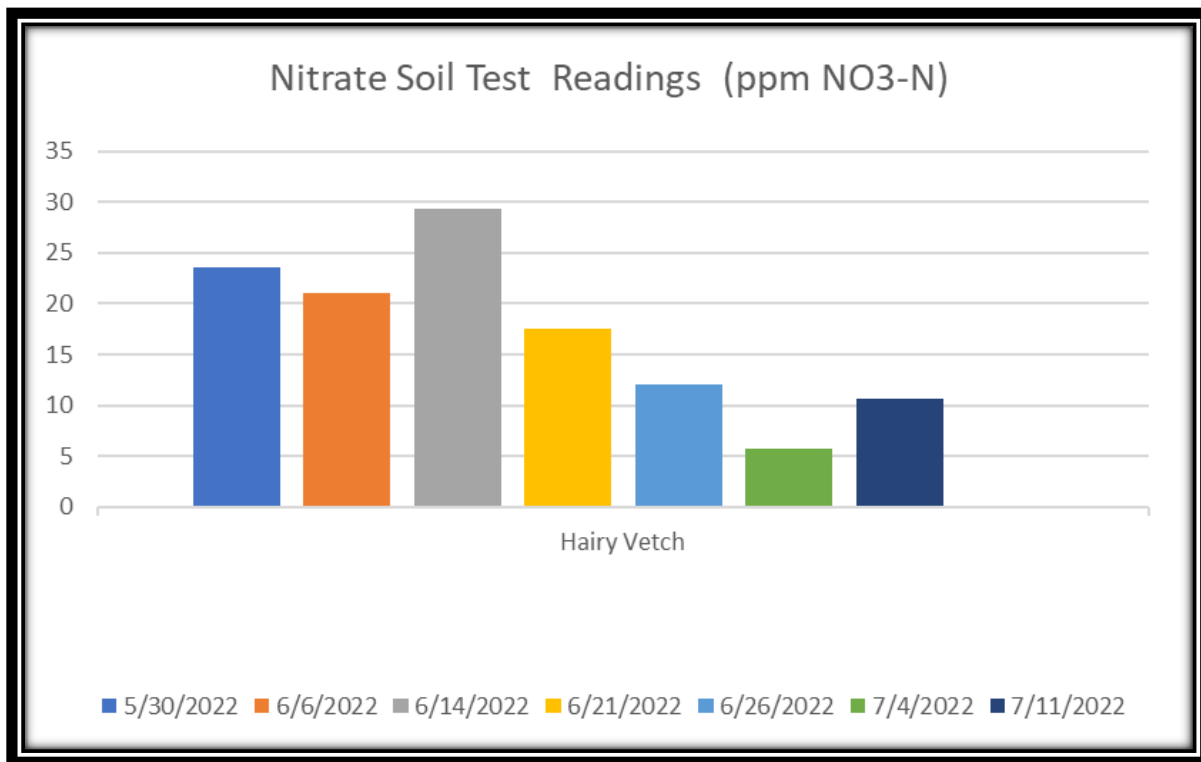


Figure 2. Soil Nitrate Tests from hairy vetch cover crop in Westmoreland County, VA

Given the higher nitrate levels earlier in the season, these results do suggest that a good approach to managing nitrogen when utilizing a hairy vetch cover crop in corn grain production would be to minimize the nitrogen rate at planting with the bulk of nitrogen being supplied in a side-dress application, if needed.

Utilizing Hairy Vetch Cover Crop in Corn Grain Production

Ear leaf tissue samples were taken at the Westmoreland site on July 4th for tissue sample analysis. Corn looked very good at that time. See figure 3 below. All nutrient levels were in the sufficient range, except boron which was 4 ppm, considered low by some laboratories. Nitrogen was 2.91%, considered to be on the low end of the sufficient range. No visual nitrogen deficiency symptoms were observed during the growing season.



Figure 3. Corn following hairy vetch cover crop-July 4th, Westmoreland County, VA (Photo courtesy of Keith Balderson)

Eight ears of corn were pulled randomly from the field at black layer (see picture below.) Ears were filled completely, indicating that nitrogen was not deficient.



Figure 4. Corn ears pulled at black layer--Westmoreland County, VA (Photo courtesy of Keith Balderson)

The field was harvested on September 15th. The field average corn grain yield was 180 bushels per acre based on Farm Service Agency field acreage and grain elevator scale tickets.

Utilizing Hairy Vetch Cover Crop in Corn Grain Production

The Essex County sites were fertilized with 11-52-60 per acre using monoammonium phosphate and muriate of potash on March 23rd. Four different nitrogen fertilization programs were established using 28-0-0-5 as the nitrogen source. See the table below.

Table 30. Four fertilizer application programs utilized in the experiment

Field	Broadcast (lbs. N/acre)	Sidedress (lbs. N/acre)
BJ14	45	90
R39X	45	0
R39SD	45	45
P3	0	90

Good stands of hairy vetch were achieved at the Essex County sites and were rolled using a rolling harrow which had not been used for over 20 years (see picture below.) The tool did a great job and was utilized to facilitate easier corn planting into a living cover crop, often referred to as planting green. All sites were planted green prior to cover crop termination in late April at approximately 29,500 seeds per acre. Termination of the cover crop was completed with a burndown herbicide mix that included glyphosate and 2, 4-D.



Figure 5. Rolling hairy vetch cover crop in Essex County, VA (Photo courtesy of Robbie Longest, Associate Extension Agent, ANR)

Field R39X, which only received 45 pounds of nitrogen per acre broadcast at planting showed some nitrogen deficiency symptoms on July 31st. See Figure 6 and note tip back.

Utilizing Hairy Vetch Cover Crop in Corn Grain Production



Figure 6. Corn with 45 lbs. of nitrogen per acre at planting only following hairy vetch cover crop (Photo courtesy of Bob Waring)

Yields from the four sites in Essex County were excellent and were determined using a calibrated combine yield monitor. See the table 31.

Nitrogen Use Efficiency was calculated as pounds of nitrogen fertilizer applied per bushel of yield plus 80 lbs. of nitrogen per acre estimated to be supplied by the hairy vetch cover crop. Results are reported in the table below. The nitrogen use efficiencies were excellent in all treatments. Additional commercial nitrogen fertilizer provided an economic yield response in all cases. However, it is important to remember that these treatments were not replicated and only R39X and R39SD were in the same field.

Table 31. Corn grain yields and nitrogen use efficiencies in Essex County

Field	Yield (bu./acre)	Commercial Nitrogen Applied (lbs./acre)	Nitrogen Use Efficiency
BJ14	230	135; 45 at planting and 90 side-dress	.935
R39X	185	45 at planting only	.676
R39SD	203	90; 45 at planting and 45 side-dress	.837
P3	207	90 side-dress only	.821

This project suggests that only a small amount of nitrogen fertilizer (for example 30 lbs./acre in a starter band), is needed at planting for corn planted into a good stand of hairy vetch cover crop. The amount of nitrogen supplied by the hairy vetch should be estimated by measuring the growth of it in the field prior to termination and supplemented with additional side-dress nitrogen based on the 1 pound of nitrogen per 1 bushel of corn recommendation. Table 32 gives rough estimates for plant available nitrogen for hairy vetch cover crops at different levels of growth and biomass accumulation. Calculations assume 100 percent groundcover from the cover crop and a nitrogen tissue content of the hairy vetch at 4% with half of the nitrogen available to the corn crop.

Utilizing Hairy Vetch Cover Crop in Corn Grain Production

Table 32. Estimated plant available nitrogen levels of hairy vetch at different levels of growth

Vetch Height (inches)	Vetch Dry Matter Biomass (lbs./A)	Plant Available Nitrogen (lbs./A)
6	2,000	40
9	2,450	49
12	2,900	58
15	3,350	67
18	3,800	76
21	4,250	85
24	4,750	94
27	5,200	103
30	5,650	112

Using the one pound of nitrogen per 1 bushel of corn yield, if a producer has a yield goal of 175 bushels per acre, applies 30 pounds of nitrogen per acre in a starter band and determines the average growth of the hairy vetch cover crop is 2 feet, the nitrogen side-dress recommendation would be 51 pounds per acre to provide 175 pounds of nitrogen per acre. In this case, the producer could potentially reduce the amount of nitrogen fertilizer needed by the corn crop by over 50%.

These demonstrations reinforce that hairy vetch cover crops can contribute a significant amount of nitrogen to the succeeding corn crop. Given the high cost of commercial nitrogen fertilizers, producers need to look for ways of reducing their reliance on them. One of the 4 R's of nutrient management is the "right source", and hairy vetch and other legume cover crops have the potential to be significant sources of nitrogen for corn producers in eastern Virginia. Continued research is needed to help producers determine how to incorporate these cover crops into their cropping systems and fine-tune their nitrogen fertilizer programs when using them. Work elsewhere in the state is looking at different nitrogen side-dress rates on corn when utilizing hairy vetch cover crops and our plan is to also do that next year.

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