

2026

Professional Dairy Managers of Pennsylvania (PDMP) Corn Silage Hybrid Performance Trial Results



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Production Details: Penn State/PDMP Corn Silage Hybrid Evaluation Trials

Site:	Williamsburg, PA
Cooperator	Jim Biddle
Planting Date	5/20/2026
Soil Type	
Herbicides	pre- post- Lexar 3qt/a
Previous Crop	Corn silage follwed by tritical cover crop
Tillage	No till
Starter Fertilizer	15 gal UAN
Insecticide	None
Manure	5000 gal/a liquid dairy manure
Fertilizer	NA
Harvest Date	9/11/2026

Field Summary:

Fertility at this location was excellent with no lack of nitrogen. Weed control was good and there was no signs of insect pressure. There was some tar spot and gray leaf spot present at harvest, but was very minimal and not yield limiting.

Weather Summary:

Month	Precip. In.	GDD
May 20/June	3.0	705
July	2.7	695
August	7.5	630
September	6.7	232
Season Total	19.9	2262

Precip. Data: <https://climate.com>

GDD data: <http://climatesmartfarming.org>

PDMP Corn Silage Hybrid Testing Program 2026



Mid maturity (99-111) day RM silage hybrids in Williamsburg, PA

Notes: SEE BACKGROUND TAB

Cooperator: Mill Hill Farm

Brand	Hybrid	Traits ¹	Relative Maturity	Pop. Plants/ac	Dry Matter % ²	Crude Protein %DM	Lignin %DM	Ash %DM	Starch %DM	TFA %DM	NDFom %DM	uNDF 240 hr %DM	NDFD 30 %NDF	IVSD %Starch ³	Fresh Yield tons/ac ⁴	OM Yield tons/ac ⁵	DOM Yield tons/ac ⁶	OMD % ⁷
99-105 day hybrids																		
Kings Agriseeds	RT 53T49	19	103	33,000	41.5	7.8	2.1	2.8	43.3	2.9	31.5	8.9	58.0	65.5	19.9	6.8	4.4	65.0
Advanta Seeds	ADV XC26081	17	103	34,000	41.3	8.0	2.2	3.1	43.2	2.7	32.2	9.4	56.0	65.7	19.0	6.5	4.2	64.4
Advanta Seeds	ADV C1041	19	104	34,000	39.0	7.5	1.9	2.7	43.1	2.9	32.0	8.1	61.5	67.5	18.8	6.4	4.3	67.1
Hoegemeyer	7108V	51	101	34,000	37.0	7.4	1.9	2.7	43.8	2.7	31.2	7.9	61.5	68.0	23.0	7.8	5.3	67.5
Advanta Seeds	ADV XC25791	17	105	32,333	36.9	7.7	2.4	3.1	39.2	2.5	34.7	10.4	55.4	67.3	16.4	5.6	3.6	64.5
Hoegemeyer	7368PCE	34	103	32,833	36.5	7.8	2.1	3.2	37.5	2.3	34.8	9.1	60.3	68.1	18.4	6.2	4.2	67.3
Dekalb	DKC53-94RIB	42	103	34,000	36.4	7.4	2.0	2.8	41.2	2.8	32.7	9.1	59.8	68.7	22.3	7.6	5.1	67.2
Channel	201-07SSPRIB	43	101	34,000	35.9	7.5	2.0	2.9	39.7	2.5	33.6	8.7	60.2	68.2	20.9	7.1	4.8	67.0
Channel	205-98VT4PRIB	57	105	34,000	34.4	7.2	2.0	2.8	39.6	2.7	33.6	8.6	61.7	68.5	21.8	7.4	5.0	67.6
Revere Seeds	102-S54 RIB	43	102	34,000	34.3	7.6	2.1	2.9	37.4	2.4	34.3	9.6	59.9	69.5	19.6	6.6	4.5	67.3
Dyna-Gro	D44PN56RA	34	104	33,667	34.2	7.4	1.9	2.8	40.6	2.5	32.7	7.9	62.1	69.3	20.0	6.8	4.7	68.2
Kings Agriseeds	RT 51T86	31	101	34,000	33.7	7.7	2.2	3.2	42.9	2.6	33.9	9.7	55.5	67.1	19.9	6.7	4.4	64.7
Dekalb	DKC105-25RIB	43	105	34,000	32.4	7.6	2.1	2.8	37.7	2.5	34.4	9.4	59.8	68.6	20.3	6.9	4.6	66.8
Seedway	SW 0432PE	32	104	34,009	31.6	8.0	2.5	3.5	33.5	2.1	37.4	10.9	57.8	68.3	20.0	6.7	4.4	65.3
99-105 day means					36.1	7.6	2.1	3.0	40.2	2.6	33.5	9.1	59.3	67.9	20.0	6.8	4.5	66.4
106-111 day hybrids																		
Chemgro	6854PCE	34	108	33,333	34.9	7.6	2.0	3.0	38.9	2.4	32.9	9.2	59.2	68.7	20.8	7.1	4.7	66.7
Seedway	SW 0760V4	57	107	33,887	34.1	7.6	2.2	3.1	36.9	2.4	33.1	9.1	60.2	68.4	22.1	7.5	5.0	67.4
Dekalb	DKC111-02RIB	43	111	32,500	32.8	7.6	2.1	3.0	38.5	2.4	32.3	8.6	59.6	69.5	21.4	7.3	4.9	67.3
Dekalb	DKC61-80RIB	42	111	34,000	32.6	7.8	2.5	3.1	32.5	2.3	37.7	11.1	58.0	67.6	22.0	7.5	4.9	65.5
Seedway	SW 1188SS	42	111	34,000	32.6	7.6	2.3	3.1	32.4	2.2	38.3	10.3	59.5	68.5	20.9	7.1	4.7	66.1
Growmark	FS 6166P RIB	45	111	34,000	32.3	7.8	2.3	3.2	36.0	2.5	34.5	9.8	59.1	68.8	20.7	7.0	4.7	66.6
Hoegemeyer	7700PCE	34	106	34,000	31.9	7.9	2.1	3.3	37.3	2.4	35.3	8.9	62.0	68.8	20.3	6.9	4.7	67.8
Advanta Seeds	ADV C1107	47	110	34,000	31.5	8.1	2.2	3.5	33.8	2.3	36.4	10.7	57.4	68.0	19.1	6.4	4.2	65.4
Dyna-Gro	D50PN07RA	34	110	33,500	31.5	8.0	2.0	3.2	35.7	2.4	33.8	9.0	61.1	68.5	19.4	6.6	4.4	67.4
Hoegemeyer	1184V	51	107	34,000	30.9	8.0	2.2	3.3	36.2	2.3	34.8	9.2	60.7	68.8	19.5	6.6	4.4	67.4
Dyna-Gro	D46PN97RA	34	106	34,000	30.4	7.9	2.3	3.3	36.0	2.3	35.7	9.3	61.0	69.4	18.8	6.4	4.3	67.6
Hoegemeyer	7896PCE	34	108	34,000	30.4	8.4	2.3	3.6	32.4	2.2	35.6	9.8	59.9	68.0	20.5	6.9	4.6	66.6
Hoegemeyer	8220PCE	34	111	32,667	30.3	8.5	2.5	3.6	32.0	2.1	36.0	10.3	58.0	68.9	20.7	7.0	4.6	66.0
Revere Seeds	110-T50	46	110	34,104	28.9	7.9	2.4	3.5	27.7	2.1	39.2	10.9	57.4	69.9	19.6	6.6	4.3	65.1
106-111 day means					31.8	7.9	2.2	3.3	34.7	2.3	35.4	9.7	59.5	68.7	20.4	6.9	4.6	66.6
Overall Mean					33.9	7.8	2.2	3.1	37.5	2.4	34.5	9.4	59.4	68.3	20.2	6.9	4.6	66.5
LSD(0.1)					3.2	0.4	NS	NS	6.7	0.3	NS	NS	2.6	0.8	NS	NS	NS	1.6
CV%					6.9	3.7	12.4	12.0	12.8	10.2	10.2	14.4	3.1	0.8	10.3	10.6	11.5	1.7

¹ Traits: See tab " Trait Key" for individual trait designation.

² Dry Matter: Tables are sorted by dry matter. Avoid making comparisons with hybrids that differ significantly in dry matter.

³ IVSD: Starch digestibility (% of starch) is analyzed by an NIRS method on samples ground through a 4-mm screen and incubated for 7 hours (IVSD).

⁴ Fresh Yield: Silage yields are expressed on a 35 percent DM basis; all other parameters are expressed on a dry matter basis.

⁵ OM Yield: Silage yield (tons/ac) expressed on an organic matter (OM) basis.

⁶ DOM Yield: Yield of digestible organic matter.

⁷ OMD: Organic Matter Digestibility - Please see "OMD Story" tab for information on how to use this column

NS = Not Significant

Trait ID	Principal trait packages available in the U.S. (alternate names in parentheses)	Letter Code	Traits in the package ***** Font type denotes target: caterpillar or rootworm	Expected control by traits in the package												Refuge in northern states (higher in the south)	Weed control Trait * check bag tag
				*one or more remain effective (x) *resistance to all, widespread (R) / localized(RL)													
				B C W	C E W	E C B	F A W	S B	S C B	S C W B	T A W	W B C	N C R	W C R			
1	Conventional																
2	Roundup Ready 2														GLY		
3	AcreMax	AM	Cry1Ab Cry1F	x	R	RL	RL	x	x	RL		R		5% blend	GLY LL		
5	AcreMax Leptra	AML	Cry1Ab Cry1F Vip3A	x	x	RL	x	x	x	x	x	x		5% blend	GLY LL		
6	AcreMax Xtra	AMX	Cry1Ab Cry1F Cry34/35Ab1	x	R	RL	RL	x	x	RL		R	RL	R	10% blend GLY LL		
7	AcreMax Xtreme	AMXT	Cry1Ab Cry1F Cry34/35Ab1 mCry3A	x		RL	RL	x	x	RL		R	x	R	5% blend GLY LL		
10	Agrisure Above (Agrisure3120EZ)	AA	Cry1Ab Cry1F	x	R	RL	RL	x	x	RL		R		5% blend	GLY LL*		
11	AA Refuge Renew (Agrisure3120)													Renew: 5%			
13	Agrisure Total (Agrisure3122EZ)	AT	Cry1Ab Cry1F	x	R	RL	RL	x	x	RL		R	x	R	5% blend GLY LL*		
14	AT Refuge Renew (Agrisure3122)		Cry34/35Ab1 mCry3A											Renew: 5%			
15	Agrisure Viptera 3110	3110	Cry1Ab Vip3A	x	x	RL	x	x	x	x	x	x		20%	GLY LL		
16	Agrisure Viptera 3111	3111	Cry1Ab Vip3A mCry3A	x	x	RL	x	x	x	x	x	x	x	R	20% GLY LL		
17	Duracade (Agrisure5122EZ)	D	Cry1Ab Cry1F	x	R	RL	RL	x	x	RL		R	x	R	5% blend GLY LL*		
18	D Refuge Renew (Agrisure5122)		eCry3.1Ab mCry3A											Renew: 5%			
19	Duracade Viptera (Agrisure5222EZ)	DV	Cry1Ab Cry1F Vip3A	x	x	RL	x	x	x	x	x	x	x	R	5% blend GLY LL*		
20	DV Refuge Renew (Agrisure 5222)		eCry3.1Ab mCry3A											Renew: 5%			
21	Duracade Viptera Z3 (Agrisure5332EZ)	DVZ	Cry1Ab Cry1A.105 Cry2Ab2 Vip3A	x	x	RL	x	x	x	x	x	x	x	R	5% blend GLY LL*		
22	DVZ Refuge Renew (Agrisure5332)													Renew: 5%			
26	Intrasect	YHR	Cry1Ab Cry1F	x	R	RL	RL	x	x	RL		R		5%	GLY LL		
30	Leptra	VYHR	Cry1Ab Cry1F Vip3A	x	x	RL	x	x	x	x	x	x		5%	GLY LL		
32	PowerCore Refuge Adv.	PWRA	Cry1A.105 Cry2Ab2 Cry1F	x	R	RL	x	x	x	RL		R		5% blend GLY LL			
33	PowerCore Enlist	PWE	Cry1A.105 Cry2Ab2	x	R	RL	x	x	x	RL		R		5%	GLY LL		
34	or Enlist Refuge Advanced	PCE	Cry1F											Adv 5% blend	Enlist		
35	PowerCore Ultra Enlist	PWUE	Cry1A.105 Cry2Ab2	x	x	RL	x	x	x	x	x	x		5%	GLY LL		
36	or Ultra Enlist Refuge Advanced	PCUE	Cry1F Vip3A											Adv 5% blend	Enlist		
37	QROME	Q	Cry1Ab Cry1F Cry34/35Ab1 mCry3A	x	R	RL	RL	x	x	RL		R	x	R	5% blend GLY LL		
38	SmartStax or Genuity SS	SS SX	Cry1A.105 Cry2Ab2 Cry1F Cry3Bb1 Cry34/35Ab1	x	R	RL	x	x	x	RL		R	RL	R	5% GLY LL		
39	SmartStax Enlist SS Enlist Refuge Advanced	SSE	Same as SmartStax	x	R	RL	x	x	x	RL		R	RL	R	5% Adv 5% blend GLY LL Enlist		
40	SmartStax Refuge Advanced	SXRA	Same as SmartStax	x	R	RL	x	x	x	RL		R	RL	R	5% blend GLY LL		
41	SmartStax RIB Complete																
43	SmartStax PRO	SSPro	Cry1A.105 Cry2Ab2 Cry1F Cry3Bb1 Cry34/35Ab1 dvSnf7	x	R	RL	x	x	x	RL		R	x	x	5% GLY LL		
44	SmartStax PRO Enlist	SSPro	Same as SmartStax Pro	x	R	RL	x	x	x	RL		R	x	x	5% Adv 5% blend GLY LL Enlist		
45	SSPro Enlist Refuge Advanced SmartStax PRO Refuge Advanced RIB Complete or w/RNAi Tech	SSPro	Same as SmartStax Pro	x	R	RL	x	x	x	RL		R	x	x	5% blend GLY LL		
46	Trecepta RIB Complete	TRERIB	Cry1A.105 Cry2Ab2 Vip3A	x	x	RL	x	x	x	x	x	x		5% blend GLY			
47	Viptera (Agrisure3220EZ)	V	Cry1Ab Cry1F Vip3A	x	x	RL	x	x	x	x	x	x		5% blend Renew: 5% GLY LL*			
48	Vip Refuge Renew (Agrisure3220)																
49	Viptera Z3 (Agrisure3330EZ)	VZ	Cry1Ab Cry1A.105 Cry2Ab2 Vip3A	x	x	RL	x	x	x	x	x	x		5% blend Renew: 5% GLY LL*			
50	VZ Refuge Renew (Agrisure3330)																
51	Vorceed Enlist	V	Cry1A.105 Cry2Ab2 Cry1F Cry3Bb1 Cry34/35Ab1 dvSnf7	x	R	RL	x	x	x	RL		R	x	x	5% blend GLY LL Enlist		
52	Vorceed Enlist Structured	VS	Cry1A.105 Cry2Ab2 Cry1F Cry3Bb1 Cry34/35Ab1 dvSnf7	x	R	RL	x	x	x	RL		R	x	x	5% GLY LL Enlist		
53	VT Double PRO	VT2P	Cry1A.105 Cry2Ab2		R	RL	x	x	x	RL				5%	GLY		
54	VT2 PRO RIB Complete	VT2PRIB	Cry1A.105 Cry2Ab2		R	RL	x	x	x	RL				5% blend GLY			
56	VT3 PRO RIB Complete	VT3PRIB	Cry1A.105 Cry2Ab2 Cry3Bb1		R	RL	x	x	x	RL			RL	R	10% blend GLY		
57	VT4 PRO w/RNAi Technology	VT4PRO	Cry1A.105 Cry2Ab2 Vip3A Crv3Bb1 dvSnf7	x	x	RL	x	x	x	x	x	x	x	x	5% blend GLY		

The OMD Index

The digestibility of nutrients in corn silage is paramount when determining nutritional value. Starch and NDF are responsible for much of the digestible energy in corn silage. In order to give dairy producers and nutritionist a tool to evaluate corn silage hybrids, we developed a new digestibility index, called the Organic Matter Digestibility Index (OMDI or just OMD), and is based on digestibility of protein, fat, NDF, and starch. The sum of which makes up approximately 86-88% of the organic matter in corn silage.

The OMD index represents the digestible portion of silage organic matter and is based on chemical analyses only. It does not predict dry matter intake or milk production, although numerous studies clearly show that digestibility of forage organic matter is directly related to lactation performance of dairy cows. The OMD index does not represent the absolute digestibility of silage organic matter, as this can be reliably determined only in experiments with live animals. But, OMD is representative of the potentially digestible organic matter of the whole plant and can be used to compare silage hybrids. Furthermore, simulation analyses using the Cornell Net Carbohydrate and Protein System (CNCPS v. 6.55; Cornell University, Ithaca, NY) show that OMD correlates reasonably well with model-predicted milk production of dairy cows fed a standard diet containing approx. 40% corn silage (dry matter basis).

How is the OMD Index Used?

Feeding value of corn silage is mostly associated with digestibility of NDF or starch. A long-standing goal of PDMP is to create a single measure of silage nutritive value using several variables associated with digestibility. Traditional variables, crude protein (accounted for fiber-bound nitrogen), NDF, starch, lignin, and fat, are combined with digestibility determinations for NDF (NDFD30*) and starch (IVSD; 7-hour, 1-mm grind). Once combined, these digestibility coefficients sum to predict OMD.

The OMD Index is calculated using the following equation: $OMDI (\%) = \{[(\text{crude protein} - \text{NDICP}) \times 0.89] + (\text{total fatty acids} \times 0.75) + (\text{starch} \times \text{IVSD} \div 100) + [(\text{aNDFom} - \text{lignin}) \times \text{NDFD30} \div 100]\} \div [(\text{crude protein} - \text{NDICP}) + \text{total fatty acids} + \text{starch} + (\text{aNDFom} - \text{lignin})] \times 100$.

Where: OMDI (%) is Organic Matter Digestibility Index; crude protein, total fatty acids, starch, NDICP (NDF-bound crude protein), aNDFom (ash-free basis, amylase-treated NDF), and lignin (ash-free) are expressed as % of corn silage dry matter; 0.89 is assumed (based on literature data) coefficient of digestibility of silage crude protein; 0.75 is assumed (based on literature data) coefficient of digestibility of silage total fatty acids; IVSD is starch digestibility (by NIRS at 7-hour and sample ground through a 4-mm sieve) expressed as % of starch; and NDFD30.

Use of OMDI: The OMD index is intended to represent the digestible portion of silage dry matter and is based on chemical analyses. OMD does not represent the absolute digestibility of silage organic matter, but it is representative of the potentially digestible organic matter and can be used when comparing silage hybrids. ***Simply put, the higher the OMD value, the higher the overall expected digestibility of the silage.*** OMD reflects the digestibility of key nutrients within the entire plant. Producers without carryover of silage should consider the interaction of OMD and DOM (digestible organic matter yield per acre) as yield of digestible organic matter will be equally as relevant as OMD.

Conclusion

Organic matter digestibility is not a new measure. For years, researchers and nutritionists have used digestibility estimates to formulate rations for dairy cattle. Today, integrating these data is a useful practice to gauge silage value and match hybrid to farm needs. Put simply, OMD measures whole plant digestibility. Emphasis is on digestibility of all main nutrients. In the end, we hope OMD serves to facilitate discussion among producer, seed consultant, and dairy nutritionist as to which hybrids offer the best nutrient value for dairy cows.