

# **2018 Penn State/PDMP Corn Silage Hybrid Performance Trial Results**

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Produced in cooperation with the Professional Dairy Managers of Pennsylvania (PDMP).

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Production Details: Penn State/PDMP Corn Silage Hybrid Evaluation Trials			
<b>Site:</b>	Bainbridge, PA		
<b>Cooperator</b>	Meadow Vista Dairy		
<b>Planting Date</b>	May 8, 2018		
<b>Soil Type</b>	Lansdale loam, 3 to 8 percent slopes, UaB Ungers loam		
<b>Herbicides</b>	<b>pre-</b> 2 qt Credit Extra, 3 qt Acuron		
	<b>post-</b> none		
<b>Previous Crop</b>	Corn Silage and Ryelage		
<b>Tillage</b>	None		
<b>Starter Fertilizer</b>	10.5 gal of 10-34-0		
<b>Insecticide</b>	Force 3G		
<b>Manure</b>	9000 gallons dairy		
<b>Fertilizer</b>	None at preplant, 80 units of N sidedressed		
<b>Harvest Date</b>	September 6, 2018		
<b>Field Summary:</b>	Bainbridge – Field conditions were good, however, 2 weeks of cool and wet weather 3 days after planting caused a few plots to be dropped due to low stand counts. Most plots had very good stand counts and performance was very good at this site.		
<b>Weather Summary:</b>	May 8th-September 6th		
<b>Month</b>	<b>Precip.</b>	<b>GDD</b>	
May	5.49	381	
June	4.97	597	
July	13.55	764	
August	6.59	787	
September	2.08	138	
<b>Seasonal Total</b>	<b>32.68</b>	<b>2667</b>	
<b>Precip. Data:</b>	<a href="http://www.theweathercollector.com/?gclid=Cj0KCQjw6fvdBRCbARIsABGZ-">http://www.theweathercollector.com/?gclid=Cj0KCQjw6fvdBRCbARIsABGZ-</a>		
<b>GDD data:</b>	<a href="http://climatesmartfarming.org/tools/csf-growing-degree-day-calculator/">http://climatesmartfarming.org/tools/csf-growing-degree-day-calculator/</a>		

**Penn State/PDMP Corn Silage Hybrid Testing Program 2018**

**BMR (114-115 day RM) silage hybrids in south central PA**

**Lancaster County location**

Notes: SEE BACKGROUND TAB

Cooperator: Meadow Vista Dairy



Brand	Hybrid	Traits*	Dry	Yield		CP	NDF	Lignin	Starch	Ash	Fat <sup>2</sup>	NEL	NDFD			uNDF	Pop.	Relative
			Matter	Tons/	Acre***								%NDF	%NDF	%NDF	%NDF		
Mycogen	BMR14B96	34	44.1	11.0	8.3	37.4	2.0	37.1	3.2	2.5	0.78	67.2	76.5	79.7	20.3	33,000	114	
Mycogen	BMR15B15	34	36.9	19.3	8.1	41.9	2.4	30.5	3.1	2.6	0.76	65.2	75.4	78.6	21.4	32,167	115	
<b>Overall Mean</b>			<b>40.5</b>	<b>15.2</b>	<b>8.2</b>	<b>39.7</b>	<b>2.2</b>	<b>33.8</b>	<b>3.1</b>	<b>2.5</b>	<b>0.77</b>	<b>66.2</b>	<b>75.9</b>	<b>79.2</b>	<b>20.8</b>	<b>32,583</b>		
<b>LSD(0.1)</b>			<b>4.3</b>	<b>5.2</b>	<b>0.5</b>	<b>12.6</b>	<b>0.5</b>	<b>13.8</b>	<b>0.3</b>	<b>0.6</b>	<b>0.06</b>	<b>1.1</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>2,710</b>		
<b>CV%</b>			<b>4.4</b>	<b>14.3</b>	<b>2.5</b>	<b>13.3</b>	<b>10.2</b>	<b>17.1</b>	<b>4.1</b>	<b>10.3</b>	<b>3.33</b>	<b>0.7</b>	<b>0.6</b>	<b>0.6</b>	<b>2.1</b>	<b>3</b>		

\* See tab " Trait Key" for individual trait designation.

\*\*Tables are sorted by dry matter. Avoid making comparisons with hybrids that differ significantly in dry matter.

\*\*\* Silage yields are expressed on a 35 percent DM basis; all other parameters are expressed on a dry matter basis. CP=crude protein, NDF= neutral detergent fiber,

NEL=net energy for lactation, and NDFD=neutral detergent fiber digestibility.

<sup>1</sup> - NS = Not Significant , <sup>2</sup> - Fat = Total Fatty Acids

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Table Key #	Trait Family Product	Bt protein(s)	Marketed for control of:	Resistance to a Bt protein in the trait package has developed in :	Herbicide tolerant?
Conv.	Conventional	None	None	---	No
RR2	Roundup Ready 2	None	None	---	GT
<b>Agrisure</b>					
1	Agrisure GT	None	None	---	GT
2	Agrisure GT/CB/LL,3010A	Cry1Ab	ECB SWCB	---	GT LL
3	Agrisure 3000 GT, 3011A	Cry1Ab, mCry3A	ECB SWCB	RW	GT LL
4	Agrisure Viptera 3110	Cry1Ab, Vip3A	BCW CEW ECB FAW SB SWCB TAW WBC	---	GT LL
5	Agrisure Viptera 3111	Cry1Ab, mCry3A, Vip3A	BCW CEW ECB FAW SB SWCB TAW WBC	RW	GT LL
6	Agrisure 3120 E-Z Refuge	Cry1Ab, Cry1F	BCW ECB FAW SB SWCB	FAW WBC	REFER TO BAG FOR SPECIFIC LETTER CODE: EZO=GT ONLY EZ1= GT LL
7	Agrisure 3122 E-Z Refuge	Cry1Ab,Cry1F, mCry3A, Cry34/35Ab1	BCW ECB FAW SB SWCB	FAW WBC RW	
8	Agrisure Viptera 3220 E- Z Refuge	Cry1Ab, Cry1F, Vip3A	BCW CEW ECB FAW SB SWCB TAW WBC	---	
9	Agrisure Duracade 5122 E- Z Refuge	Cry1Ab, Cry1F, mCry3A, eCry3.1Ab	BCW ECB FAW SB SWCB	FAW WBC RW	
10	Agrisure Duracade 5222 E- Z Refuge	Cry1Ab, Cry1F, Vip3A, mCry3A, eCry3.1Ab	BCW CEW ECB FAW SB SWCB TAW WBC	RW	
<b>Herculex</b>					
11	Herculex 1 (HX1)	Cry1F	BCW ECB FAW SB SWCB	FAW SWCB WBC	LL RR2 (most)
12	Herculex RW (HXRW)	Cry34/35Ab1	---	RW	
13	Herculex Xtra (HXX)	Cry1F, Cry34/35Ab1	BCW ECB FAW SB SWCB	FAW SWCB WBC RW	
<b>Optimum</b>					
14	TRIssect (CHR)	Cry1F, mCry3A	BCW ECB FAW SB SWCB	FAW SWCB WBC RW	LL RR2
15	Intrasect (YHR)	Cry1F, Cry1Ab	BCW ECB FAW SB SWCB	FAW WBC	LL RR2
16	Intrasect TRIssect (CYHR)	Cry1Ab, Cry1F, mCry3A	BCW ECB FAW SB SWCB	FAW WBC RW	LL RR2
17	Leptra (VYHR)	Cry1F, Cry1Ab, Vip3A	BCW CEW ECB FAW SB SWCB TAW WBC	---	LL RR2
18	Intrasect Xtra (YXR)	Cry1F, Cry1Ab, Cry34/35Ab1	BCW ECB FAW SB SWCB	FAW WBC RW	LL RR2
19	Intrasect Xtreme (CYXR)	Cry1F, Cry1Ab, mCry3A, Cry34/35Ab1	BCW ECB FAW SB SWCB	FAW WBC RW	LL RR2
20	AcreMax (AM)	Cry1F, Cry1Ab	BCW ECB FAW SB SWCB	FAW WBC	LL RR2
21	AcreMax CRW (AMRW)	Cry34/35Ab1	---	RW	LL RR2
22	AcreMax1 (AM1)	Cry1F, Cry34/35Ab1	BCW ECB FAW SB SWCB	FAW SWCB WBC RW	LL RR2
23	AcreMax Leptra (AML)	Cry1Ab, Cry1F, Vip3A	BCW ECB FAW SB SWCB TAW WBC CEW	---	LL RR2
24	AcreMax TRIssect (AMT)	Cry1F, Cry1Ab, mCry3A	BCW ECB FAW SB SWCB	FAW WBC RW	LL RR2
25	AcreMax Xtra (AMX)	Cry1F, Cry1Ab, Cry34/35Ab1	BCW ECB FAW SB SWCB	FAW WBC RW	LL RR2
26	AcreMax Xtreme (AMXT)	Cry1F, Cry1Ab, mCry3A, Cry34/35Ab1	BCW ECB FAW SB SWCB	FAW WBC RW	LL RR2
<b>Yieldgard/Genuity</b>					
27	YieldGard CB (YGCB)	Cry1Ab	ECB SWCB	---	RR2
28	YieldGard VT Rootworm	Cry3Bb1	---	RW	RR2
29	YieldGard VT Triple	Cry1Ab, Cry3Bb1	ECB SWCB	RW	RR2
30	Genuity VT Double PRO (or as RIB complete)	Cry1A.105, Cry2Ab2	CEW ECB FAW SB SWCB	CEW	RR2
31	Genuity VT Triple PRO (or as RIB complete)	Cry1A.105, Cry2Ab2, Cry3Bb1	CEW ECB FAW SB SWCB	CEW RW	RR2
32	Genuity SmartStax RIB Complete	Cry1A.105, Cry2Ab2, Cry1F, Cry3Bb1, Cry34/35Ab1	BCW CEW ECB FAW SB SWCB WBC	RW	LL RR2
33	Trecepta (or RIB complete)	Cry1A.105, Cry2Ab2,Vip3A	BCW CEW ECB FAW SB SWCB TAW WBC	---	RR2
<b>Others</b>					
34	Smartstax (or as Refuge Advanced)	Cry1A.105, Cry2Ab2, Cry1F, Cry3Bb1, Cry34/35Ab1	BCW CEW ECB FAW SB SWCB	CEW WBC RW	LL RR2
35	Powercore (or Refuge Advanced)	Cry1A.105, Cry2Ab2, Cry1F	BCW ECB FAW SB SWCB CEW	CEW WBC	LL RR2
36	QROME (Q)	Cry1Ab, Cry1F, mCry3A, Cry34/35Ab1	BCW ECB FAW SB SWCB	FAW WBC RW	LL RR2
	<b>BCW</b> = black cutworm	<b>SB</b> = stalk borer	<b>GT</b> = glyphosate tolerant		
	<b>CEW</b> = corn earworm	<b>SWCB</b> = southern corn borer	<b>LL</b> = Liberty Link, glufosinate tolerant		
	<b>ECB</b> = European corn borer	<b>TAW</b> = true armyworm	<b>RR2</b> = Roundup Ready 2, glyphosate tolerant		
	<b>FAW</b> = fall armyworm	<b>WBC</b> = western bean cutworm			
	<b>RW</b> = corn rootworm				