

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

Site:	Rock Springs, PA
Cooperator	Rock Springs Agronomy Research Farm
Planting Date	May 30, 2018
Soil Type	Hagerstown
Herbicides	pre- None
	post- Harness Xtra - 2 qt./A, Balance Flexx- 5 oz/A, Roundup -1qt./A
Previous Crop	Wheat
Tillage	None
Starter Fertilizer	10.5 gal - 10-34-0
Insecticide	Force 3G
Manure	None
Fertilizer	400 lbs of Urea (46-0-0)
Harvest Date	October 2, 2018

Field Summary:

This site was one of the last planted in 2018. The backup G0-1 trial was used due to poor emergence at the Troy site. Wet field conditions through most of the summer resulted in lower than expected performance. Harvest was delayed for several weeks due to flooded field conditions.

Weather Summary:

May 30th-October 2nd

Month	Precip.	GDD
May	0.06	45
June	5.57	489
July	9.99	644
August	6.35	692
September	10.79	481
October	0.00	16
Seasonal Total	32.76	2367

Precip. Data:

<http://www.theweathercollector.com/?gclid=Cj0KCQjw6fvdBRCbARIsABGZ-vQL2zlhMnTDKuqmXNfv18X7Hn8ZRJ->

GDD data:

<http://climatesmartfarming.org/tools/csf-growing-degree-day-calculator/>

Penn State/PDMP Corn Silage Hybrid Testing Program 2018



Early maturity (85-103 day RM) silage hybrids in Central PA

Centre County location

Notes: SEE BACKGROUND TAB

Cooperator: PSU Agronomy Farm

Brand	Hybrid	Traits*	Dry Yield									NDFD			uNDF	Pop. plants/ac	Relative Maturity
			Matter %**	Tons/Acre***	CP %	NDF %	Lignin %	Starch %	Ash %	Fat ² %	NEL Mcal/lb	30hr %NDF	120hr %NDF	240hr %NDF	240hr %NDF		
Very Early (85-94 day) RM Silage Hybrids																	
Doebler's PA Hybrids	2519AM	20	68.4	11.7	7.8	34.9	2.7	46.1	2.0	2.2	0.78	55.5	61.4	64.7	35.3	33,167	85
Masters Choice	MCT 3891	1	67.9	10.9	7.7	35.9	2.7	46.6	1.9	1.9	0.77	55.7	62.0	66.1	33.9	34,000	88
Channel	192-98STXRIB	30	65.2	12.8	8.3	36.0	3.0	44.8	2.1	2.0	0.77	53.3	61.7	64.7	35.3	32,833	92
Hubner	H4062RC2P	30	64.8	12.1	7.8	36.3	3.0	44.9	2.1	1.9	0.76	54.0	60.1	64.1	35.9	34,000	86
Augusta	Augusta 2843	3	62.7	11.6	7.7	34.2	2.8	47.1	1.9	2.4	0.79	54.2	59.4	62.5	37.5	30,355	93
Local Seed Co.	LC9287 SSXRIB	32	60.6	12.2	8.0	35.3	2.8	46.8	1.9	2.1	0.77	55.1	66.0	68.8	31.2	34,000	92
Dupont Pioneer	P9377AMXT	26	57.5	9.4	7.8	37.9	2.9	42.9	2.2	1.8	0.76	54.1	60.3	63.6	36.4	30,500	93
Seedway	SW3600	32	53.3	13.8	7.5	36.4	3.0	43.5	2.3	2.4	0.77	52.3	60.4	64.0	36.0	34,000	92
Hubner	H6157RCSS	32	52.2	13.2	7.9	42.6	3.8	38.2	2.1	1.7	0.72	48.0	55.2	58.0	42.0	33,500	94
85-94 day means			61.4	12.0	7.8	36.6	3.0	44.5	2.1	2.1	0.77	53.6	60.7	64.1	35.9	32,928	
Early (95-103 day) RM Silage Hybrids																	
Dekalb	DKC50-09RIB	30	66.4	10.5	7.2	38.9	3.0	43.3	2.0	1.9	0.75	54.6	61.0	64.4	35.6	33,500	100
Agrigold	A625-78VT2PRO	30	64.6	12.8	7.6	36.2	2.8	45.8	1.8	1.9	0.77	56.0	62.1	65.5	34.5	33,000	95
Hubner	H6124RCSS	32	63.2	12.5	7.1	38.4	3.1	43.0	2.0	1.9	0.75	52.6	58.6	61.9	38.1	33,500	96
Dekalb	DKC51-40RIB	30	62.8	12.7	7.0	40.5	3.3	41.7	2.0	1.8	0.74	55.5	59.4	62.5	37.5	34,000	101
Doebler's PA Hybrids	3916GRQ	3	61.7	12.2	7.5	38.2	3.1	43.3	2.1	2.0	0.75	53.2	58.8	62.7	37.3	33,333	99
Channel	203-01STXRIB	32	61.1	10.5	7.6	33.5	2.3	48.2	2.1	2.3	0.79	60.0	69.1	72.0	28.0	34,000	103
Masters Choice	MCT 4632	4	60.9	14.8	7.3	37.1	2.5	42.6	2.0	2.1	0.77	59.3	66.5	69.3	30.7	31,167	96
Local Seed Co.	LC9888 VT2PRIB	30	59.9	13.1	7.4	38.1	3.4	42.4	2.4	2.1	0.75	50.7	59.5	63.3	36.7	33,333	98
Hubner	H6225RCSS	32	59.2	13.8	7.5	38.4	3.0	44.3	2.2	1.6	0.76	54.3	61.8	65.2	34.8	34,000	102
Doebler's PA Hybrids	3618AMXT	26	58.8	12.0	7.2	37.3	2.9	44.1	2.2	2.2	0.77	54.7	62.6	66.0	34.0	34,000	96
Mycogen	TMF2Q419	34	58.7	12.4	8.2	39.7	3.1	40.8	1.9	2.1	0.75	55.3	66.7	69.7	30.4	34,000	96
Masters Choice	MCT 4572	4	58.3	12.9	7.2	39.5	3.2	41.3	2.2	2.2	0.76	53.1	59.2	62.5	37.6	32,750	95
Doebler's PA Hybrids	4219AM	20	57.4	15.3	6.8	34.6	2.7	46.2	2.2	2.4	0.78	55.2	65.2	68.0	32.0	33,333	102
Channel	202-81STXRIB	32	57.0	13.4	8.0	36.3	2.8	43.9	2.1	2.1	0.77	57.0	64.3	67.3	32.7	32,833	102
Prairie Hybrids	418	Conv.	56.9	11.0	8.0	36.4	2.7	44.0	1.8	1.9	0.77	57.9	63.2	66.1	33.9	29,000	97
Augusta	Augusta 2448	8	56.6	13.5	7.1	42.2	3.4	39.5	2.1	2.1	0.74	51.2	58.6	61.9	38.1	32,833	98
Dupont Pioneer	P0242AMXT	26	56.4	13.5	7.3	37.0	3.1	44.3	2.2	1.9	0.76	51.5	59.8	62.9	37.1	34,000	102
Doebler's PA Hybrids	4018AMXT	26	55.7	13.7	7.1	37.3	2.8	43.9	2.0	2.2	0.77	56.1	63.2	66.5	33.5	34,000	100
Doebler's PA Hybrids	4115AMXT	26	54.0	14.8	6.6	37.5	2.7	44.1	2.2	2.1	0.76	56.3	66.2	69.0	31.0	32,333	101
Chemgro	Chemgro 5776V2	4	53.8	10.7	7.5	35.8	2.4	44.0	1.9	2.2	0.78	59.3	67.3	70.2	29.8	31,000	97
Hubner	H6219RCSS	32	53.7	10.7	7.3	49.7	4.4	30.1	2.5	1.9	0.68	46.6	53.6	56.4	43.6	33,000	99
Masters Choice	MCT 4934	5	53.5	10.7	7.6	36.2	2.9	45.4	1.7	2.0	0.77	52.1	59.8	62.6	37.4	33,000	99
Dupont Pioneer	P9998AMXT	26	53.4	11.8	7.1	40.3	3.0	40.7	2.0	2.0	0.75	55.2	61.4	64.9	35.1	31,667	99
Doebler's PA Hybrids	4318AMXT	26	52.3	15.2	6.9	38.6	3.1	43.2	2.0	2.1	0.76	52.2	61.0	64.4	35.6	33,500	103
Agrigold	A6267STXRIB	32	52.1	15.3	8.0	38.5	3.2	42.2	2.5	1.8	0.75	52.8	57.1	59.9	40.1	33,167	102
Agrigold	A6355STXRIB	32	51.5	14.9	6.9	36.5	2.7	45.2	2.0	2.1	0.77	55.8	64.8	68.1	31.9	32,333	103
Mycogen	TMF03Q57RA	34	51.1	13.6	6.9	37.8	3.0	43.2	2.3	2.2	0.76	53.3	62.0	65.1	34.9	34,000	103
Channel	197-90STXRIB	32	47.9	14.8	7.9	39.8	3.5	40.2	2.1	2.3	0.75	50.8	59.0	62.1	37.9	33,500	97
Masters Choice	MCT 5375	7	47.2	12.8	7.4	38.0	3.2	41.1	2.2	2.5	0.76	51.2	57.8	61.2	38.8	31,167	103
95-103 day means			56.8	13.0	7.3	38.2	3.0	42.8	2.1	2.1	0.76	54.3	61.7	64.9	35.1	32,940	
Overall Mean			57.9	12.7	7.5	37.8	3.0	43.2	2.1	2.1	0.76	54.1	61.5	64.7	35.3	32,937	
LSD(0.1)			3.9	2.4	0.6	4.2	0.4	4.1	0.3	0.3	0.03	3.3	4.3	4.4	4.4	1,582	
CV%			4.88	13.71	6.1	8.1	10.67	7.02	9.24	11	2.47	4.5	5.12	4.94	9.06	3.53	

* 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.

¹ - NS = Not Significant , ² - 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
Agrisure					
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	
Herculex					
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	
Optimum					
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
Yieldgard/Genuity					
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
Others					
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
	BCW = black cutworm	SB = stalk borer	GT = glyphosate tolerant		
	CEW = corn earworm	SWCB = southern corn borer	LL = Liberty Link, glufosinate tolerant		
	ECB = European corn borer	TAW = true armyworm	RR2 = Roundup Ready 2, glyphosate tolerant		
	FAW = fall armyworm	WBC = western bean cutworm			
	RW = corn rootworm				