

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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Penn State/PDMP Corn Silage Hybrid Testing Program 2018



Early maturity (85-103 day RM) silage hybrids

Combined hybrid performance across Bradford and Centre Counties

Notes: Planting was delayed until May 25 at Jeff Morse's due to wet field conditions. Wet field conditions through most of the summer resulted in lower than expected performance at PSU Agronomy Farm.

Cooperator: Jeff Morse and PSU Agronomy Farm

Brand	Hybrid	Traits*	Dry	Yield	CP	NDF	Lignin	Starch	Ash	Fat ²	NEL	NDFD			uNDF	Pop.	Relative
			Matter	Tons/Acre***								%	%	%	%		
			%**		%	%	%	%	%	%	Mcal/lb	30hr	120hr	240hr	240hr	plants/ac	Maturity
			%**		%	%	%	%	%	%	Mcal/lb	%NDF	%NDF	%NDF	%NDF		
Very Early (85-94 day) RM Silage Hybrids																	
Masters Choice	MCT 3891	1	56.2	13.4	7.6	38.3	3.0	41.0	2.6	2.4	0.76	54.6	62.2	65.7	34.4	33,667	88
Doebler's PA Hybrids	2519AM	20	54.5	13.7	7.9	37.5	3.0	38.0	2.5	2.4	0.76	54.6	61.3	64.2	35.8	33,583	85
Hubner	H4062RC2P	30	54.0	14.9	7.6	38.6	3.2	39.5	2.7	2.4	0.75	53.5	61.1	64.5	35.5	33,750	86
Augusta	Augusta 2843	3	54.0	14.9	7.8	35.8	2.7	42.3	2.5	2.7	0.78	56.6	63.1	66.1	33.9	30,177	93
Local Seed Co.	LC9287 SSXRIB	32	53.8	15.1	7.4	36.2	2.8	44.3	2.4	2.6	0.77	55.8	66.3	69.2	30.8	33,500	92
Channel	192-98STXRIB	30	52.9	15.3	8.1	36.1	2.9	42.7	2.7	2.5	0.77	54.4	63.7	66.6	33.4	33,250	92
Dupont Pioneer	P9377AMXT	26	47.4	13.6	8.0	38.3	3.1	38.2	2.7	2.3	0.76	53.8	61.3	64.3	35.7	31,667	93
Seedway	SW3600	32	45.8	16.5	7.5	37.7	3.0	39.3	2.7	2.7	0.76	54.4	63.1	66.2	33.8	33,167	92
Hubner	H6157RCSS	32	45.1	15.9	7.6	41.2	3.5	36.4	2.5	2.1	0.74	50.6	58.8	61.6	38.5	33,500	94
85-93 day means			51.5	14.8	7.7	37.7	3.0	40.2	2.6	2.4	0.76	54.3	62.3	65.4	34.6	32,918	
Early (95-103 day) RM Silage Hybrids																	
Dekalb	DKC50-09RIB	30	55.0	15.0	7.1	38.1	3.0	41.9	2.4	2.4	0.76	54.8	63.0	66.1	33.9	33,167	100
Doebler's PA Hybrids	3916GRQ	3	52.1	14.9	7.3	38.1	3.1	40.7	2.5	2.4	0.76	53.4	60.8	64.1	35.9	33,083	99
Masters Choice	MCT 4632	4	51.9	17.0	7.4	36.0	2.6	41.7	2.7	2.4	0.77	58.4	67.5	70.4	29.6	32,333	96
Agrigold	A625-78VT2PRO	30	51.9	15.1	7.1	39.6	3.2	39.5	2.6	2.2	0.75	52.9	62.0	65.1	34.9	33,500	95
Hubner	H6124RCSS	32	51.6	14.6	7.0	38.5	3.1	40.0	2.6	2.2	0.75	53.1	61.5	64.5	35.5	33,750	96
Dekalb	DKC51-40RIB	30	51.4	15.3	7.1	39.2	3.1	39.4	2.6	2.3	0.75	55.7	62.4	65.4	34.7	33,667	101
Local Seed Co.	LC9888 VT2PRIB	30	50.0	17.5	7.6	38.3	3.3	38.8	2.8	2.5	0.75	51.6	60.2	63.4	36.7	33,417	98
Mycogen	TMF2Q419	34	49.6	17.1	8.0	38.5	3.0	38.9	2.4	2.6	0.76	55.5	65.5	68.3	31.7	34,000	96
Doebler's PA Hybrids	3618AMXT	26	49.5	16.1	7.4	36.5	2.8	40.8	2.5	2.6	0.78	56.2	64.6	67.7	32.3	34,000	96
Prairie Hybrids	418	Conv.	49.3	12.2	7.5	37.4	2.7	40.4	2.3	2.4	0.77	58.3	65.5	68.4	31.6	31,500	97
Channel	203-01STXRIB	32	49.3	15.1	7.2	34.1	2.4	43.8	2.4	2.7	0.79	59.7	68.9	71.8	28.2	33,667	103
Channel	202-81STXRIB	32	48.5	17.0	7.5	36.5	2.8	41.5	2.5	2.6	0.77	57.0	65.6	68.6	31.5	32,750	102
Hubner	H6225RCSS	32	48.4	17.7	7.3	37.8	3.0	41.2	2.5	2.3	0.77	54.6	63.0	66.0	34.0	34,000	102
Chemgro	Chemgro 5776V2	4	48.3	14.1	7.6	35.6	2.5	42.3	2.4	2.6	0.78	58.5	67.0	69.8	30.2	31,191	97
Augusta	Augusta 2448	8	48.2	15.8	7.2	39.9	3.3	38.2	2.5	2.5	0.75	51.7	60.3	63.3	36.7	33,417	98
Masters Choice	MCT 4572	4	48.2	16.6	7.6	37.3	3.1	40.0	2.8	2.8	0.77	53.6	60.7	63.7	36.3	32,700	95
Hubner	H6219RCSS	32	47.0	15.3	7.3	42.3	3.6	35.1	2.6	2.5	0.73	52.1	59.5	62.3	37.7	33,167	99
Dupont Pioneer	P0242AMXT	26	46.7	16.7	7.1	37.1	2.9	40.8	2.5	2.2	0.76	53.5	62.8	65.8	34.2	33,000	102
Doebler's PA Hybrids	4219AM	20	46.1	18.5	7.0	34.9	2.7	43.1	2.5	2.6	0.78	55.7	66.0	68.9	31.1	33,000	102
Masters Choice	MCT 4934	5	45.7	14.8	7.6	37.0	3.0	40.3	2.4	2.4	0.76	52.0	60.4	63.0	37.0	33,167	99
Doebler's PA Hybrids	4018AMXT	26	45.7	17.2	7.3	36.5	2.7	40.7	2.6	2.6	0.77	57.7	66.1	69.3	30.7	33,941	100
Dupont Pioneer	P9998AMXT	26	44.7	15.5	7.3	38.0	2.9	38.7	2.6	2.6	0.77	55.8	62.8	65.9	34.1	32,667	99
Doebler's PA Hybrids	4115AMXT	26	44.7	17.6	6.9	38.1	2.8	39.0	2.6	2.3	0.76	55.8	66.2	69.0	31.0	32,167	101
Agrigold	A6355STXRIB	32	44.4	17.2	6.9	35.9	2.7	42.6	2.5	2.5	0.77	56.3	65.9	69.0	31.0	32,250	103
Agrigold	A6267STXRIB	32	44.0	16.8	7.5	41.5	3.4	35.3	2.9	2.2	0.74	53.0	60.2	62.9	37.1	33,583	102
Channel	197-90STXRIB	32	43.3	18.0	8.1	38.2	3.2	38.4	2.4	2.6	0.76	54.0	61.6	64.5	35.5	33,500	97
Mycogen	TMF03Q57RA	34	43.2	16.6	6.9	40.6	3.2	37.2	2.6	2.5	0.75	53.3	62.9	65.8	34.2	33,333	103
Doebler's PA Hybrids	4318AMXT	26	42.6	18.4	7.3	38.5	3.1	38.7	2.6	2.4	0.76	52.8	62.1	65.1	34.9	33,583	103
Masters Choice	MCT 5375	7	41.8	16.7	7.5	38.0	3.1	37.9	2.6	2.7	0.76	52.9	60.7	63.7	36.3	32,250	103
95-103 day means			47.7	16.2	7.3	37.9	3.0	39.9	2.5	2.5	0.76	54.8	63.3	66.3	33.7	33,095	
Overall Mean			48.6	15.9	7.4	37.8	3.0	40.0	2.6	2.46	0.8	54.7	63.1	66.1	34	33053	
LSD(0.1)			4.7	2.3	0.6	4.8	0.5	5.7	0.4	0.36	0.0	3.7	3.9	4.0	4	1606	
CV%			7.11	10.83	6.03	9.35	11.67	10.5	12.8	11	3.04	5	4.61	4.51	8.79	3.6	

* 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.

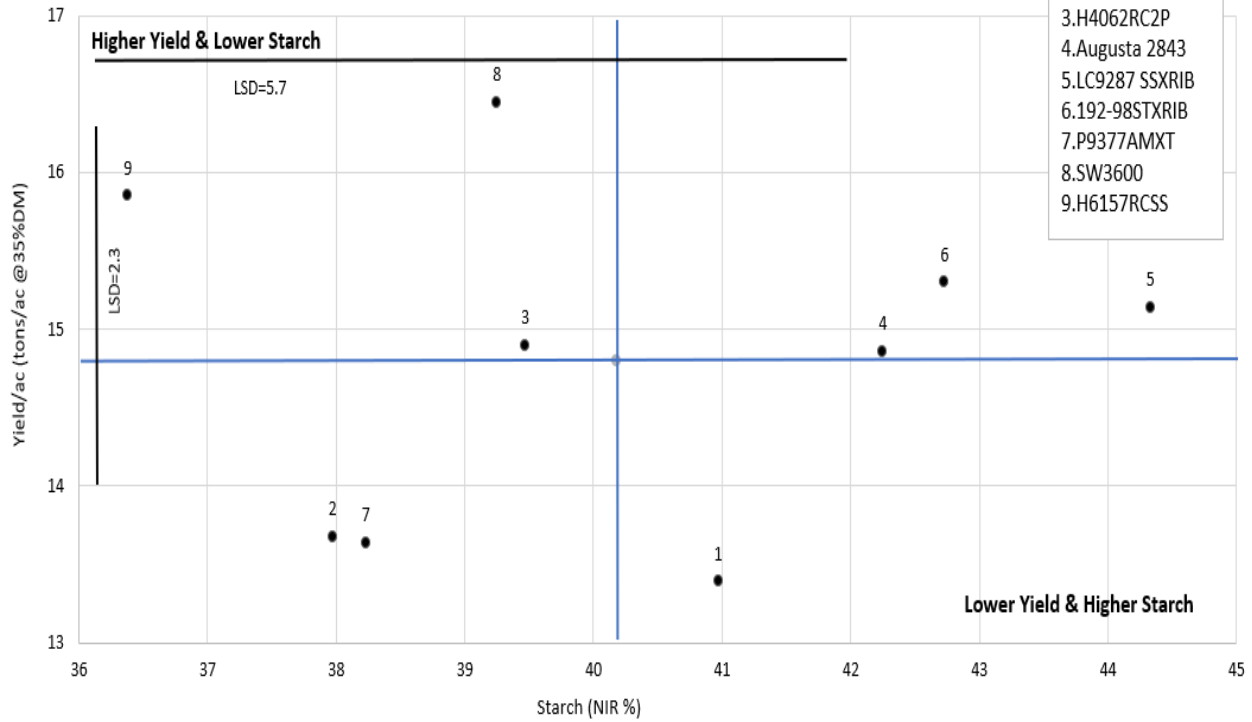
*** Silage yields are expressed on a 35 percent DM basis; all other parameters are expressed on a dry matter basis. CP=crude protein, NDF= neutral detergent fiber, NEL=net energy for lactation, and NDFD=neutral detergent fiber digestibility.

¹ - NS = Not Significant , ² - Fat = Total Fatty Acids

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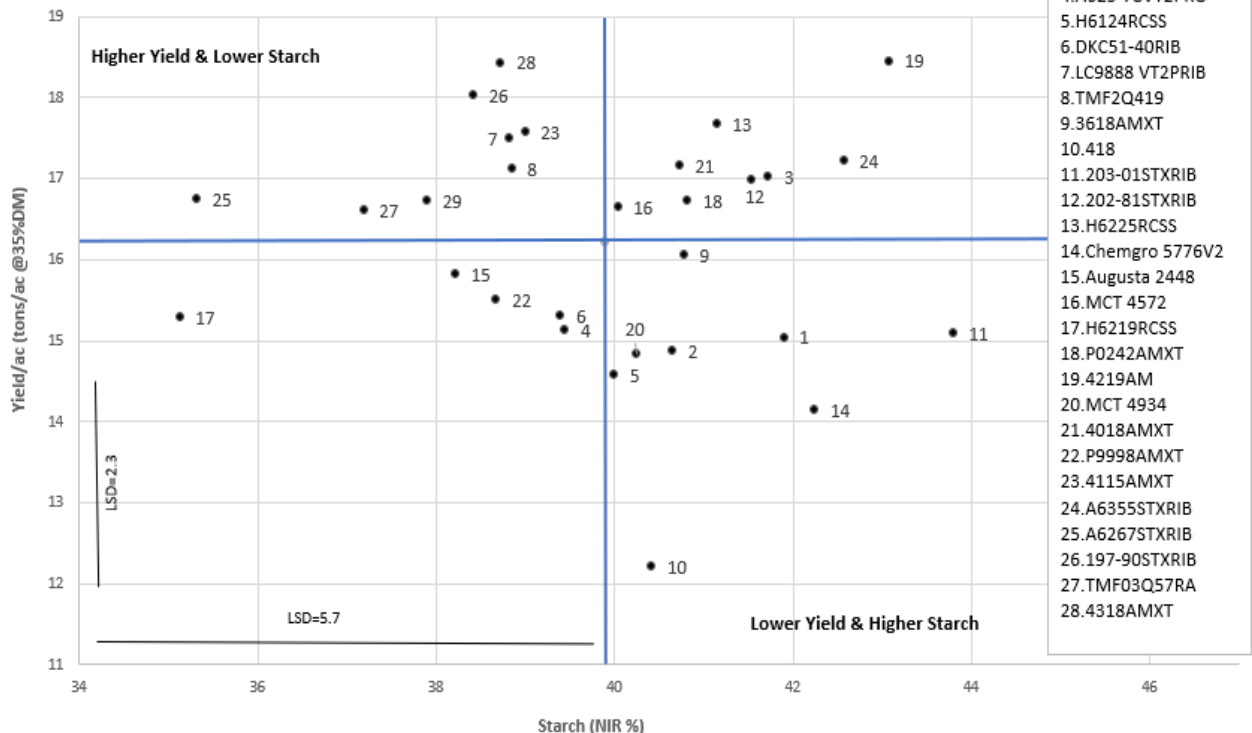
Table Key #	Trait Family Product	Bt protein(s)	Marketed for control of:	Resistance to a Bt protein in the trait package has developed in :	Herbicide tolerant?
Conv.	Conventional	None	None	---	No
RR2	Roundup Ready 2	None	None	---	GT
Agrisure					
1	Agrisure GT	None	None	---	GT
2	Agrisure GT/CB/LL,3010A	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				

Very Early (85-94 day) RM Silage Hybrids Yield and Starch (NIR %)



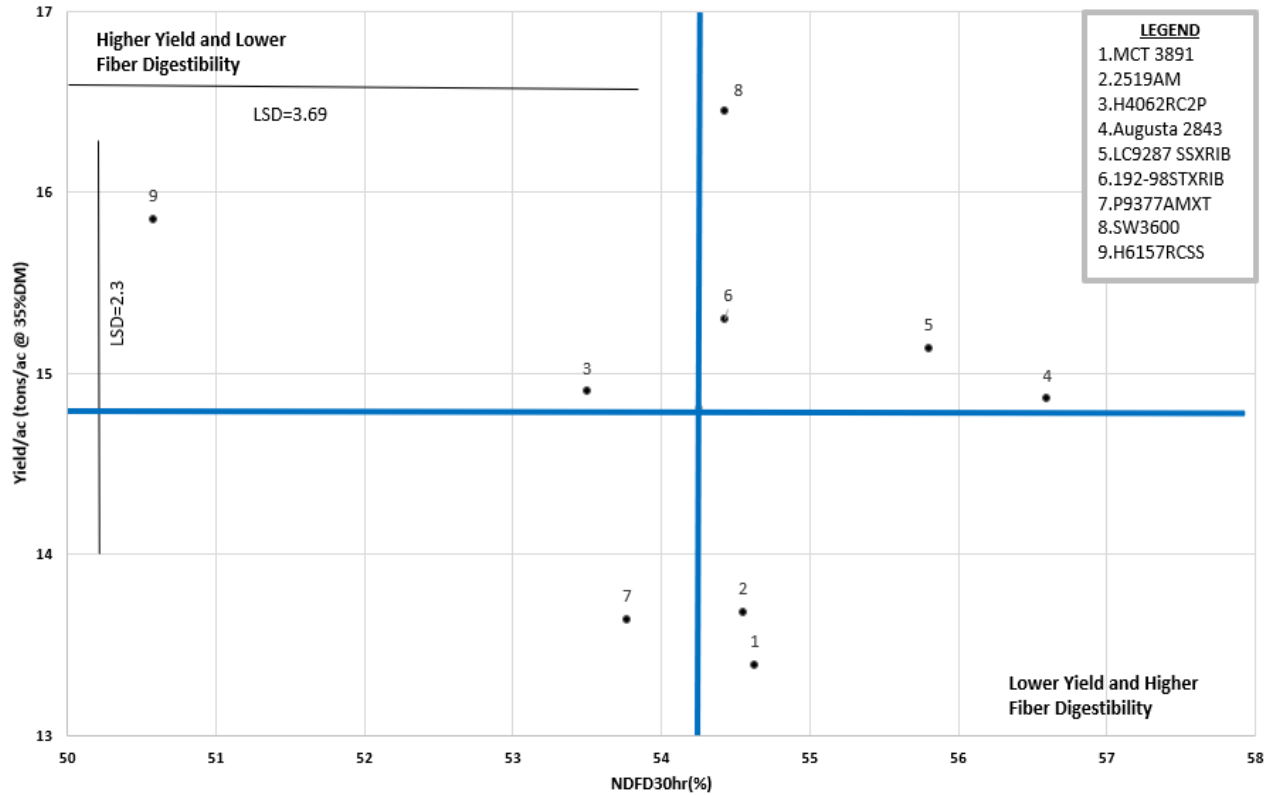
* How to use this chart: This chart can be used to determine yield (tons/ac) and Starch (NIR%) of corn silage hybrids. The horizontal line represents the Starch (NIR %) mean in this group of data. The vertical line represents the YIELD mean in this group of data. Each point represents a data point that reflects dry matter yield in tons to Starch (NIR%). The number beside the data point can be referenced to the hybrid name located within the Legend. The LSD lines represent the differences between hybrids that are significantly different at the 0.1 level.

Early (95-103 day) RM Silage Hybrids Yield and Starch (NIR %)



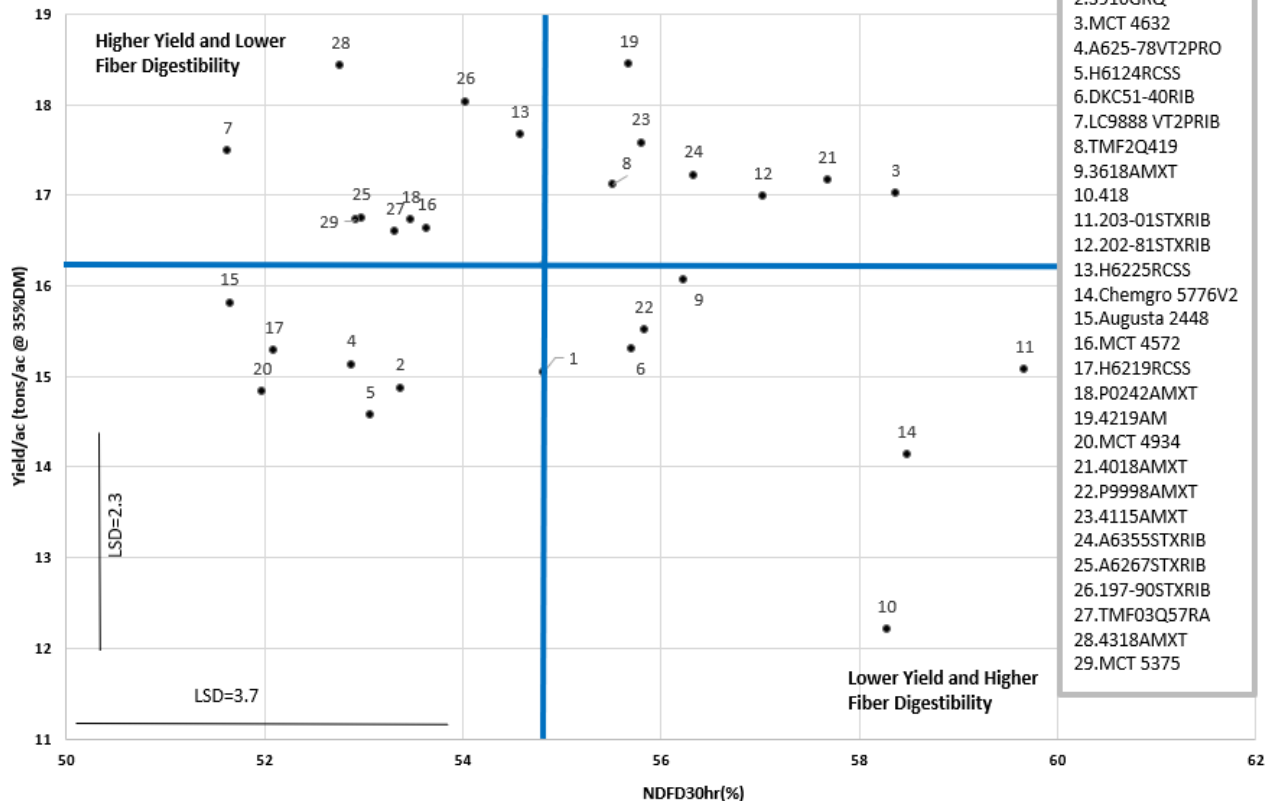
* How to use this chart: This chart can be used to determine yield (tons/ac) and Starch (NIR%) of corn silage hybrids. The horizontal line represents the Starch (NIR %) mean in this group of data. The vertical line represents the YIELD mean in this group of data. Each point represents a data point that reflects dry matter yield in tons to Starch (NIR%). The number beside the data point can be referenced to the hybrid name located within the Legend. The LSD lines represent the differences between hybrids that are significantly different at the 0.1 level.

**Very Early (85-94 day) RM Silage Hybrids
Yield and NDFD30hr(%)**



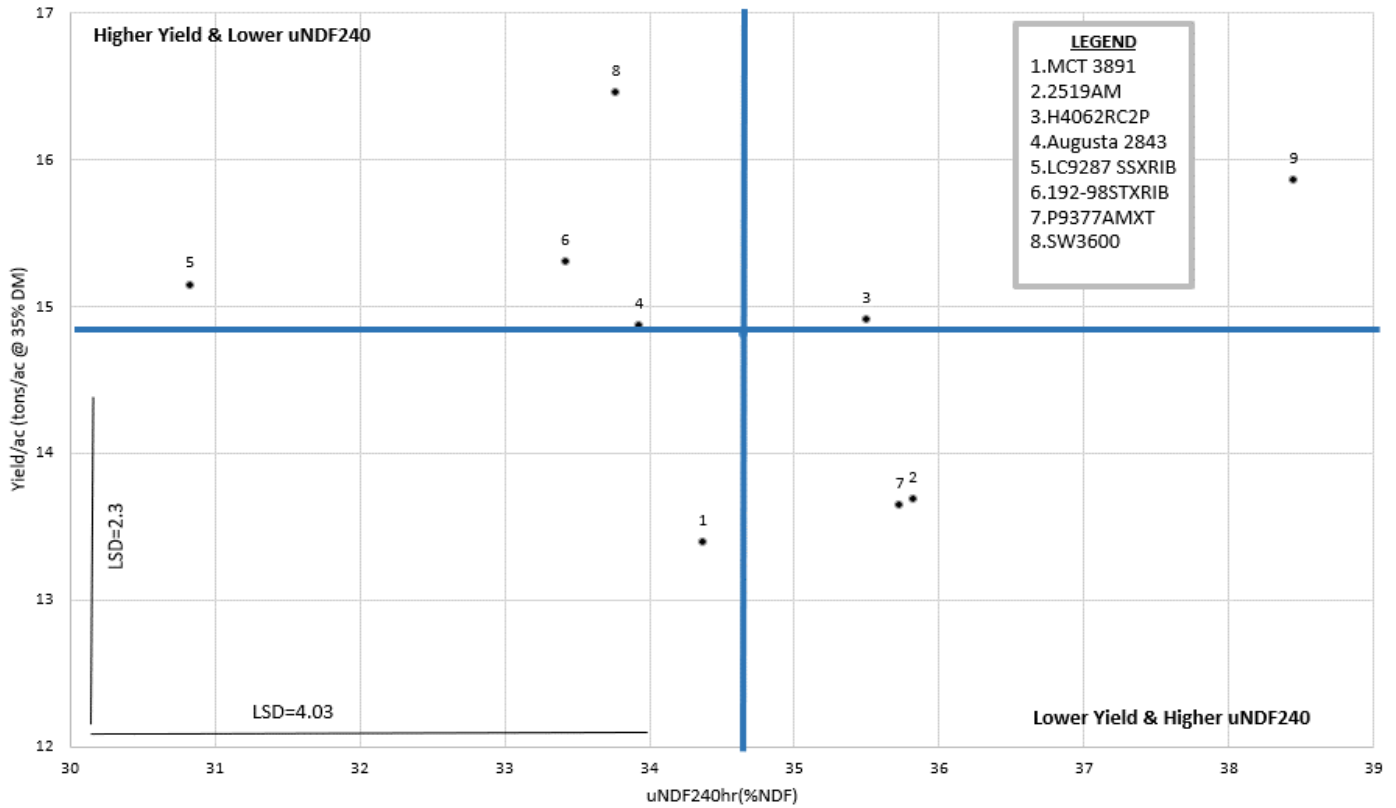
* How to use this chart: This chart can be used to determine yield (tons/ac) and NDFD30(%) of corn silage hybrids. The horizontal line represents NDFD30 mean in this group of data. The vertical line represents the YIELD mean in this group of data. Each point represents a data point that reflects yield to NDFD30. The number beside the data point can be referenced to the hybrid name located within the Legend. The LSD lines represent the differences between hybrids that are significantly different at the 0.1 level.

**Early (95-103 day) RM Silage Hybrids
Yield and NDFD30hr(%)**



* How to use this chart: This chart can be used to determine yield (tons/ac) and NDFD30(%) of corn silage hybrids. The horizontal line represents NDFD30 mean in this group of data. The vertical line represents the YIELD mean in this group of data. Each point represents a data point that reflects yield to NDFD30. The number beside the data point can be referenced to the hybrid name located within the Legend. The LSD lines represent the differences between hybrids that are significantly different at the 0.1 level.

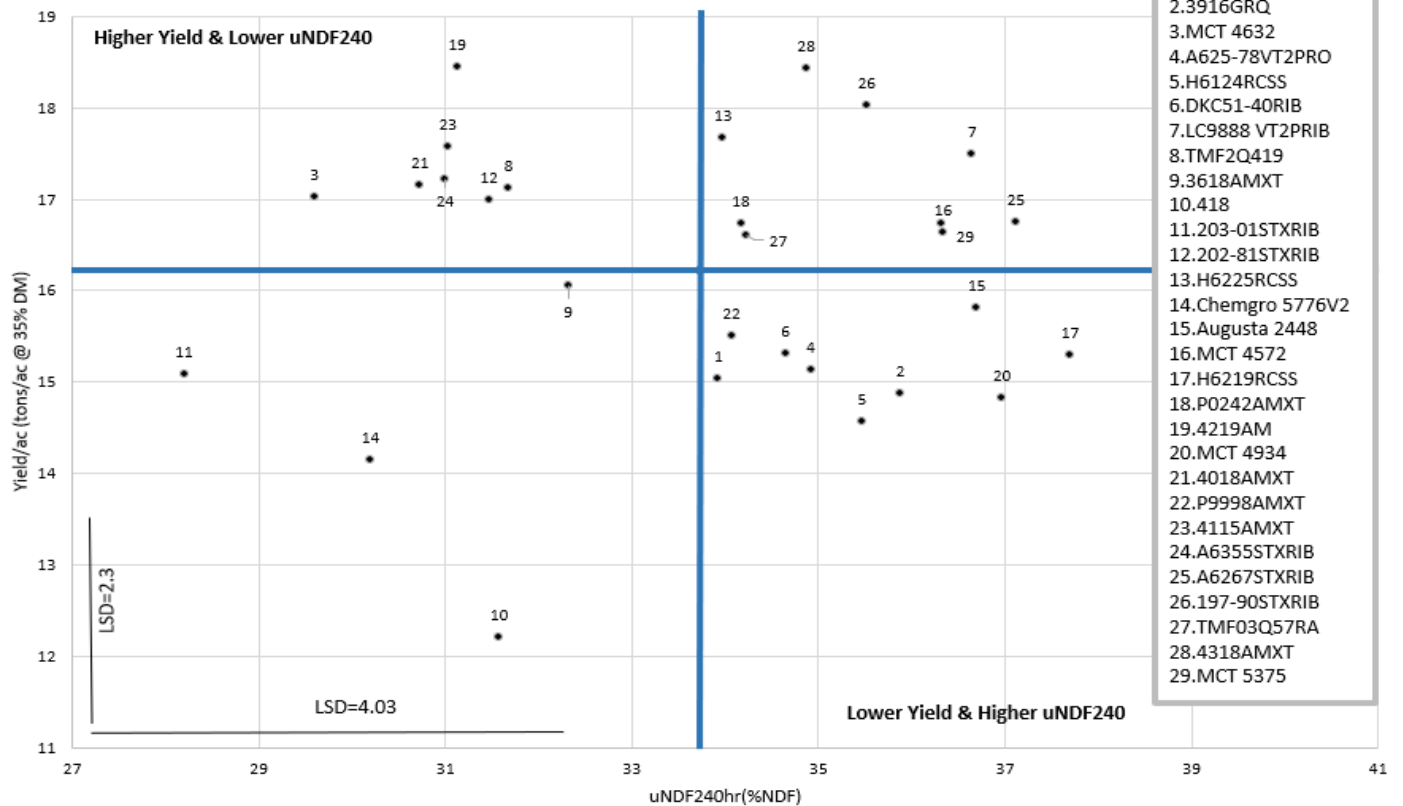
**Very Early (85-94 day) RM Silage Hybrids
Yield and uNDF240hr(%NDF)**



* How to use this chart: This chart can be used to determine yield (tons/ac) and uNDF240hr(%NDF) of corn silage hybrids. The horizontal line represents the uNDF240 mean in this group of data. The vertical line represents the YIELD mean in this group of data. Each point represents a data point that reflects dry matter yield in tons to uNDF240. The number beside the data point can be referenced to the hybrid name located within the Legend.

The LSD lines represent the differences between hybrids that are significantly different at the 0.1 level.

**Early (95-103 day) RM Silage Hybrids
Yield and uNDF240hr(%NDF)**



* How to use this chart: This chart can be used to determine yield (tons/ac) and uNDF240hr(%NDF) of corn silage hybrids. The horizontal line represents the uNDF240 mean in this group of data. The vertical line represents the YIELD mean in this group of data. Each point represents a data point that reflects dry matter yield in tons to uNDF240. The number beside the data point can be referenced to the hybrid name located within the Legend.

The LSD lines represent the differences between hybrids that are significantly different at the 0.1 level.