

### Northern NY Agricultural Development Program 2016-2017 Project Report APPENDIX

## Commercial Corn Hybrid Evaluation for Silage and Grain in Northern NY

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#### Table 1. Results from evaluation of 80- to 95-day corn silage hybrids in Willsboro, NY; summer 2017.

Company/Brand	Hybrid	Traits	Relative Maturity	Dry Matter	Yield, 35% DM	Starch	Starch Digestibility	Crude Protein	Lignin	Ash	Total Fatty Acids	aNDFom	NDF	Wet Chem 30 hr NDFD				240 hr uNDF	RFC - Fill Ratio <sup>1</sup>	Harvest Population
				%	tons/ac	% DM	7 hr, 4mm	% DM	% DM	% DM	% DM	% DM	% DM	% NDF	%NDF	%NDF	%NDF	%NDF		plants/ac
Doebler's PA Hybrids, Inc.		HX1/YGCB/LL/RR2	89	37.4	19.8	41.3	61.1	7.7	2.9	2.7	2.8	36.6		53.6		66.6	68.6	31.4	3.8	28500
Dekalb	DKC41-99RIB	GENVT2P RIB	91	33.4	19.2	38.5	62.3	7.2	3.2	3.1	2.6	40.5	41.1		55.4	66.3	68.3	31.7	3.4	26167
Masters Choice	MCT3891 <sup>4</sup>	Agrisure GT	88	32.5	_	39.1	60.7	7.5	3.1	3.1	2.7	39.2	39.8		55.8	66.9	68.9	31.1	3.5	-
Dekalb	DKC36-28RIB <sup>4</sup>	GENSS RIB	86	32.0	-	42.6	60.3	8.0	2.8	3.6	2.9	35.4	35.9		55.9	66.9	69.0	31.0	4.0	-
Schlessman Hybrids	916RR	RR	91	31.5	20.6	36.4	64.5	7.5	3.0	2.9	2.6	39.9	40.6	54.5	58.8	70.4	72.6	27.4	3.6	29333
King Fisher	KF 35C10	Conventional	85	31.4	14.9	38.3	61.8	8.0	3.1	3.1	2.5	40.0	40.6		56.2	67.3	69.4	30.6	3.4	28667
Growmark FS	40R27SS <sup>3</sup>	GENSS RIB	90	31.0	18.8	39.9	62.2	7.6	3.1	3.3	2.7	39.0	39.6		55.0	65.8	67.9	32.1	3.5	28500
Hubner	H4046RC2P	GENVT2P RIB	88	30.6	17.0	40.6	62.5	7.4	3.0	3.2	2.7	37.8	38.4	55.4	56.5	67.7	69.8	30.2	3.7	31333
NK	NK8920-3010	Agrisure 3010	89	30.6	20.4	36.0	60.1	7.9	3.3	3.0	2.6	42.4	43.1		56.0	67.0	69.1	30.9	3.2	29167
Seedway	SW3654RR <sup>3</sup>	RR	91	27.8	19.4	31.5	63.6	8.3	3.5	3.8	2.4	43.2	43.9		55.4	66.4	68.4	31.6	2.9	26167
		85-91 day	RM Mean	31.8	18.8	38.4	61.9	7.7	3.1	3.2	2.6	39.4	40.0	54.5	56.1	67.1	69.2	30.8	3.5	28479
Dyna-Gro/CPS	D34VC54	GENVT2P	94	33.1	19.6	38.5	61.4	7.2	3.1	3.2	2.7	39.1	39.7		55.0	66.0	68.0	32.0	3.4	31000
Seedway	SW3768GenSS	GENSS RIB	95	32.2	19.0	40.9	62.6	7.6	3.0	3.0		38.1	38.7		56.2	67.3	69.4	30.6	3.7	28833
Wolf River Valley Seeds	2693RR	RR	93	32.1	21.7	40.7	63.0	7.2	3.0	3.2	2.9	37.8			55.5	66.5	68.5	31.5	3.6	32167
Growmark FS	46R77SS <sup>4</sup>	GENSS RIB	95	31.8	_	38.3	63.1	7.7	3.1	3.2	2.8	39.0	39.6		56.2	67.3	69.4	30.6	3.5	_
Dekalb	DKC43-48RIB	GENVT3P RIB	93	31.6	22.1	38.1	64.6	7.4	3.3	3.3	2.6	39.4			54.8	65.6	67.6	32.4	3.3	31500
Seedway	SW3600GenSS	GENSS RIB	93	31.0	19.5	37.9	63.3	7.4	3.2	3.4	2.4	40.3	40.9		55.3	66.2	68.3	31.7	3.3	30667
Dekalb	DKC45-07RIB	GENSS RIB	95	30.8	18.4	36.3	61.8	7.8	3.2	3.5	2.5	41.4	42.0		56.6	67.7	69.8	30.2	3.3	32000
NK	NK9535-3110	Agrisure Viptera 3110	95	30.7	20.8	38.1	63.9	7.5	3.2	3.2	2.7	38.4	39.0		53.5	64.1	66.1	33.9	3.3	30333
Doebler's PA Hybrids, Inc.	RPM3618AMXT	RW/HXX/YGCB/LL/RR2	96	30.6	19.1	39.4	61.8	7.7	2.9	3.0	2.6	38.8	39.4	54.3	57.9	69.3	71.5	28.5	3.8	31000
Masters Choice	MCT4572	Agrisure Viptera 3110	95	30.5	23.4	38.3	60.1	8.0	3.1	2.9	2.8	38.6	39.2		55.4	66.4	68.4	31.6	3.4	32167
Augusta Seed Corporation	2843 3	Agrisure Viptera 3110	93	29.7	20.0	37.6	60.7	7.5	3.2	2.9	2.6	40.5	41.1	56.5	55.1	66.1	68.1	31.9	3.3	26333
NK	NK9227-3110A	Agrisure Viptera 3110A	92	28.6	19.2	33.9	62.4	8.0	3.3	3.3	2.5	41.1	41.7		54.3	65.0	67.1	32.9	3.0	30833
King Fisher	KF 43C40 <sup>4</sup>	Conventional	93	28.3	_	33.0	60.8	8.8	3.3	3.4	2.6	41.4	42.1		56.0	67.0	69.1	30.9	3.1	-
92-96 day RM Mean				30.8	20.3	37.8	62.3	7.7	3.2	3.2	2.6	39.5	40.1	55.4	55.5	66.5	68.6	31.4	3.4	30621
		LSD (0.10)		1.7	3.4	4.4	NS <sup>2</sup>	0.5	0.2	0.4	0.2	3.3	NS	NS	2.1	NS	NS	NS	0.4	3698
		OverallMean		31.3	19.6	38.1	62.1	7.7				39.5	40.1	54.9	55.8	66.8	68.8	31.2	3.4	29719

\* All nutrient parameters analyzed by NIR methods, except where indicated. Select companies opted to receive wet chemistry information for an additional fee.

\*\* Tables are sorted by descending dry matter for comparison purposes

\*\*\* NDF = neutral detergent fiber, aNDFom = ash corrected neutral detergent fiber, NDFD = neutral detergent fiber digestibility, uNDF = undigested neutral detergent fiber

1- RFC-Fill Ratio = Rumen Fermentable Carbohydrate - Fill Ratio, defined as ((NDFd30 + starch)/uNDF30). Jones, L.R., and J. Siciliano-Jones. 2015. Index useful for ranking silage samples. Feedstuffs 17, 19.

<sup>2</sup> - NS = Not Significant

<sup>3</sup> - One plot replicate had a harvest population count < 25,000

<sup>4</sup> - Yield and harvest population data removed due to 2 plot replicates having a harvest population count < 25,000

# Table 2. Results from evaluation of 96- to 110-day corn silage hybrids in Madrid, NY; summer 2017.

Company/Brand	Hybrid	Traits	Relative	Dry Matter	Yield, 35% DM	Starch	Starch Digestibility	Crude Protein	Lignin	Ash		aNDFom	NDF	Wet Chem 30 hr NDFD			240 hr NDFD	240 hr uNDF	RFC - Fill Ratio <sup>1</sup>	Harvest
			Maturity	%	tons/ac	% DM	7 hr, 4mm	% DM	% DM	% DM	Acids % DM	% DM	% DM	% NDF	%NDF	%NDF	%NDF	%NDF	- Turto	plants/ac
Dekalb	DKC48-57RIB	GENVT2P RIB	98		31.8	35.7	56.6	7.0	3.6	4.2	2.5	41.5	42.1	70 1401	49.7	59.0	60.8	39.2	2.7	35333
King Fisher	KF 49C60	Conventional	99	40.9	32.7	43.5	56.5	6.9	3.1	4.0	2.7	35.7	36.3		51.6	60.6	62.5	37.5	3.6	35333
Augusta Seed Corporation	3750	Agrisure Viptera 3111	100		34.5	38.2	56.9	7.1	3.5	3.9	2.8	39.3	39.9			59.7	61.6	38.4	3.0	35167
Hubner	H6124RCSS	GENSS RIB	96		33.9	35.6	59.0	7.0	3.9	4.1	2.6	43.5	44.1	56.7	49.3	59.2	61.6	38.4	2.6	35833
Mycogen Seeds	TMF2Q419	Smartstax Refuge Advanced	96		33.2	36.7	58.6	7.4	3.4	4.0	2.7	40.6				60.8	62.6	37.4	3.1	35833
Pioneer	P9789AMXT	AMXT,LL,RR2	98		31.8	35.4	60.3	7.6	3.7	3.9	2.6	41.9			50.6	59.6	61.5	38.5	2.7	36000
Hubner	H6191RCSS	GENSS RIB	99	37.4	29.7	38.2	54.0	7.2	3.7	3.8	2.7	41.3	41.9			57.8	59.6	40.4	2.8	35833
Mycogen	F2F499	Smartstax Refuge Advanced	99		29.7	39.9	55.5	7.6	2.7	3.6	3.1	36.3	36.8			72.7	75.0	25.0	4.3	34500
Doebler's PA Hybrids, Inc.	3916GRQ	Agrisure 3011A	99		33.5	34.2	57.5	8.2	3.7	4.0	2.4	41.0				60.7	62.5	37.5	2.7	33167
Augusta Seed Corporation	2847	Agrisure Viptera 3110	97	36.8	30.6	33.5	54.7	7.8	4.1	4.5	2.6	43.9	44.6			57.7	59.5	40.5	2.4	34500
Growmark FS	49R79SS	GENSS RIB, DAIRYSELECT	99	36.8	30.1	36.3	59.4	8.0	3.7	4.1	2.7	39.7	40.3		48.2	57.5	59.4	40.6	2.8	35667
Hubner	H6157RCSS	GENSS RIB	94	36.5	30.5	38.0	60.2	7.4	3.6	4.3	2.7	40.1	40.7			59.1	61.0	39.0	3.0	34333
Masters Choice	MCT4632	Agrisure Viptera 3110	96	36.5	31.6	37.7	52.3	7.7	3.4	4.7	2.6	39.1	39.7		51.2	60.1	62.1	37.9	3.0	35500
Mycogen Seeds	TMF99Q47	Smartstax Refuge Advanced	99		30.3	34.4	58.7	7.4	3.6	3.7	2.8	41.1	41.7	51.0		60.7	62.6	37.4	2.7	35667
Channel	199-72STXRIB	GENSS RIB	99	36.2	34.2	36.2	60.0	7.4	3.4	4.0	2.7	39.3	39.9		52.9	62.6	64.6	35.4	3.1	34333
Dekalb	DKC46-20RIB	GENVT3P RIB	96		31.7	31.7	58.9	7.3	3.8	4.4	2.3	43.2	43.9		49.2	56.9	58.7	41.3	2.4	34500
Channel	198-98STXRIB	GENSS RIB	98	35.7	30.0	34.3	59.7	6.8	4.1	4.2	2.5	42.7	43.4		45.8	54.0	55.7	44.3	2.3	35000
Masters Choice	MCT4934	Agrisure Viptera 3111	99	35.1	32.5	33.9	58.6	7.4	4.0	4.3	2.5	41.7	42.4		45.5	53.3	55.2	44.8	2.3	35667
Mycogen	BMR97B37	Smartstax	97	33.9	30.1	35.1	59.7	7.6	3.2	3.8	2.8	40.3	40.9	59.9	59.1	70.8	73.0	27.0	3.6	34667
,		94-100 day		37.5	31.7	36.2	57.7	7.4	3.6	4.1	2.6	40.6	41.3			60.1	62.1	37.9	2.9	35096
NK	NK0142	Agrisure 3122 E-Z Refuge	101	40.2	30.6	37.7	59.9	7.2	3.8	4.2	2.6	40.0	40.6		46.5	54.3	56.5	43.5	2.6	35833
Growmark FS	53R41SS	GENSS RIB, DAIRYSELECT	103	38.8	29.8	40.3	60.8	7.7	3.2	3.6	2.9	36.6	37.2		52.1	62.4	64.4	35.6	3.4	36167
Masters Choice	MCT5371	Agrisure GT	103	38.4	32.9	38.5	61.1	7.2	3.1	3.4	2.6	36.4	37.0		54.2	64.9	66.9	33.1	3.5	32500
NK	NK0199	Agrisure 3011A	101	37.6	32.1	37.3	60.9	7.5	3.4	3.5	2.5	38.6	39.2		52.3	62.7	64.6	35.4	3.1	34000
Dekalb	DKC52-30RIB	GENSS RIB	102	36.9	31.7	36.7	61.2	7.2	3.7	3.8	2.5	40.1	40.7		49.2	57.7	59.5	40.5	2.8	36500
Dekalb	DKC55-21RIB	GENVT2P RIB	105	36.3	30.8	35.3	61.3	7.0	3.9	3.9	2.6	42.1	42.7		47.6	56.2	57.9	42.1	2.5	33667
Channel	203-01STXRIB	GENSS RIB	103	36.2	31.8	40.6	59.3	7.1	3.1	3.9	3.0	36.8	37.4		53.8	64.4	66.4	33.6	3.5	36500
Doebler's PA Hybrids, Inc.	RPM4115AMXT	RW/HXX/YGCB/LL/RR2	101	35.7	30.7	33.9	57.9	7.2	3.7	4.1	2.4	43.5	44.2	56.4	50.1	59.7	62.0	38.0	2.6	37500
Hubner	H6257RCSS	GENSS RIB	104	35.7	32.0	38.2	60.1	7.4	3.4	4.4	2.8	38.3	38.9	53.7	51.8	60.1	62.3	37.7	3.1	34833
Hubner	H6225RCSS	GENSS RIB	102	35.4	32.5	37.2	60.6	7.0	3.7	4.0	2.6	40.2	40.8	53.4	49.2	57.0	58.7	41.3	2.8	35000
NK	NK0519	Agrisure 3122 E-Z Refuge	105	34.7	32.9	32.6	60.7	7.2	4.1	3.9	2.6	43.5	44.2		46.1	55.6	57.3	42.7	2.2	33667
Dekalb	DKC54-40RIB	GENVT2P RIB	104	34.4	35.0	35.2	53.9	7.6	3.6	3.9	2.8	41.1	41.8		50.7	60.7	62.6	37.4	2.8	37000
Seedway	SW5430GenSS	GENSS RIB	105	34.0	35.9	32.4	60.9	7.3	4.0	4.3	2.7	43.1	43.7		46.6	55.4	57.1	42.9	2.3	37167
Channel	202-20STXRIB	GENSS RIB	102	32.6	31.4	35.9	59.3	7.2	3.8	4.1	2.6	40.3	40.9		48.4	58.0	59.8	40.2	2.7	34833
Pioneer	P0242AMXT	AMXT,LL,RR2	104	32.4	30.7	34.5	61.6	7.5	3.6	4.1	2.4	40.6	41.3		49.9	58.2	60.0	40.0	2.7	33833
King Fisher	KF 52C20	Conventional	102		31.9	32.0	61.3	7.5	4.0	4.3	2.3	43.2	43.9		47.8	57.0	58.8	41.2	2.3	33000
Doebler's PA Hybrids, Inc.	RPM4318AMXT	RW/HXX/YGCB/LL/RR2	103		31.7	33.2	59.3	7.8	3.7	4.1	2.4	42.0			51.2	60.1	61.9	38.1	2.7	31833
Wolf River Valley Seeds	3805FLRR	Floury Leafy, RR	103		26.6	25.6	56.1	8.2	4.5	4.3	2.4	49.6	50.4	53.9		55.6	57.6	42.4	1.8	32000
,,		101-105 day		35.1	31.7	35.4	59.8	7.4	3.7	4.0	2.6	40.9				58.9	60.8	39.2	2.7	34769

#### Table 2 (continued). Results from evaluation of 96- to 110-day corn silage hybrids in Madrid, NY; summer 2017.

Company/Brand	Hybrid	Traits	Relative Maturity	Dry Matter	Yield, 35% DM	Starch	Starch Digestibility	Crude Protein	Lignin	Ash	Total Fatty Acids	aNDFom	NDF	Wet Chem 30 hr NDFD					RFC - Fill Ratio <sup>1</sup>	Harvest Population
				%	tons/ac	% DM	7 hr, 4mm	% DM	% DM	% DM	% DM	% DM	% DM	% NDF	%NDF	%NDF	%NDF	%NDF		plants/ac
Masters Choice	MCT5661	Agrisure GT	106		36.2	37.1	63.8	6.6		3.3			39.3		50.3	60.2		37.9	2.9	34000
Doebler's PA Hybrids, Inc.	RPM4717AMX	HXX/YGCB/LL/RR2	107	34.1	31.7	30.3	60.4	7.0	4.1	3.7	2.4	44.7	45.3	56.3	47.9	57.0	58.8	41.2	2.2	35000
Dyna-Gro/CPS	D49VC39	GENVT2P	109	32.7	33.3	29.0	59.3	7.8	4.0	3.7	2.6	43.5	44.2		48.8	57.5	59.3	40.7	2.3	32000
Dekalb	DKC57-77RIB	DG GENVT2 RIB	107	32.7	29.6	35.5	61.9	6.5	3.6	3.8	2.6	41.1	41.8		50.8	59.7	62.0	38.0	2.8	35667
Seedway	SW6630GenSS	GENSS RIB	110	32.6	34.8	33.9	56.8	7.4	3.3	4.2	2.7	40.2	40.8		53.7	64.3	66.2	33.8	3.0	35000
Augusta Seed Corporation	4759	Agrisure Viptera 3110	109	31.8	31.7	30.9	54.6	7.9	3.7	4.4	2.5	44.3	45.0	54.2	51.5	60.8	62.7	37.3	2.5	34833
Channel	207-27STXRIB	GENSS RIB	107	31.7	31.5	33.9	58.1	6.9	3.6	4.1	2.8	41.4	42.0		50.7	60.1	61.9	38.1	2.7	35500
King Fisher	KF 58C80	Conventional	108	31.6	35.1	34.0	59.3	8.3	3.6	4.5	2.7	39.8	40.4		51.9	62.1	64.0	36.0	2.8	30833
Channel	209-15STXRIB	GENSS RIB	109	31.0	33.1	31.9	57.8	7.9	3.7	4.2	2.5	42.8	43.5		50.5	60.0	61.9	38.1	2.5	34667
Seedway	SW5559GTRW	Agrisure GT/RW	106	30.2	33.1	30.4	63.0	7.0	4.0	4.1	2.3	44.0	44.7		47.6	56.2	58.0	42.0	2.3	33667
Dairyland Seed	HiDF-3407RA	Smartstax Refuge Advanced	107	29.3	27.7	24.4	61.3	7.1	4.8	4.5	2.3	50.9	51.7	48.5	43.0	52.5	54.2	45.8	1.6	34500
Pioneer	P0921AMXT	AMXT,LL,RR2	110	28.7	33.2	30.0	61.9	8.2	4.0	4.6	2.4	42.6	43.3		48.5	57.0	58.8	41.2	2.3	35833
		106 -110day RM Mean		31.8	32.6	31.8	59.9	7.4	3.8	4.1	2.5	42.8	43.5	53.0	49.6	59.0	60.8	39.2	2.5	34292
		LSD (0.10)		2.9	3.5	5.4	3.3	0.6	0.5	0.6	0.3	4.8	4.9	4.6	3.5	4.4	4.6	4.6	0.7	1976
		OverallMean		35.2	31.9	34.8	59.0						41.9	54.7	50.1	59.4	61.3	38.7	2.7	34779

\* All nutrient parameters analyzed by NIR methods, except where indicated. Select companies opted to receive wet chemistry information for an additional fee.

\*\* Tables are sorted by descending dry matter for comparison purposes

\*\*\* NDF = neutral detergent fiber, aNDFom = ash corrected neutral detergent fiber, NDFD = neutral detergent fiber digestibility, uNDF = undigested neutral detergent fiber

<sup>1</sup> - RFC-Fill Ratio = Rumen Fermentable Carbohydrate - Fill Ratio, defined as ((NDFd30 + starch)/uNDF30). Jones, L.R., and J. Siciliano-Jones. 2015. Index useful for ranking silage samples. Feedstuffs 17, 19.

<sup>2</sup> - NS = Not Significant

<sup>3</sup> - One plot replicate had a harvest population count < 25,000

<sup>4</sup> - Yield and harvest population data removed due to 2 plot replicates having a harvest population count < 25,000