

2018 South Dakota Corn Silage Trial Results – Volga

Jonathan Kleinjan | SDSU Extension Crop Production Associate

Jill Anderson | SDSU Associate Professor - Dairy Science

Kevin Kirby | Agricultural Research Manager

Shawn Hawks | Agricultural Research Manager

Location:	1.5 miles south of Volga (57101) in Brookings County, SD GPS: 44.298788°, -96.925979°
Cooperator:	SDSU Volga Research Farm - Jack Ingemansen, manager
Soil Type:	Brandt silty clay loam, 0-2% slope
Fertilizer:	30-10-10 starter + 180-40-40-8S preplant
Previous crop:	Soybeans
Tillage:	Conventional
Row spacing:	30 inches
Seeding Rate:	31,400/acre
Herbicide:	Pre: 1.8 pt Staunch II (acetochlor + flumetsulam + clopyralid) Post: 1 pt Buctril (bromoxynil)
Date seeded:	5/7/18
Date harvested:	9/11/18

Table 1. Corn silage hybrid variety performance results (average of 3 replications) at Volga, SD.

Hybrid Information			Agonomic & Nutritional Performance											
Brand	Hybrid	Maturity Rating	Plants ¹ (1,000/A)	Harvested ² (T/A)	DM ³ (%)	DM ⁴ (T/A)	CP ⁵ (%DM)	Starch ⁶ (%DM)	Lignin ⁷ (%DM)	WSC ⁸ (%DM)	NDF ⁹ (%DM)	NDFD240 ¹⁰ (%NDF)	Milk2006 ¹¹ (lbs/T DM)	ISU Beef ¹² (lbs/T DM)
Check	CHECK	101	27.9	26.3	42.7	11.2	7.1	40.1	2.8	8.4	35.6	71.1	3572	275
Dekalb	DKC51-38RIB	101	27.0	25.7	43.0	11.0	6.8	39.4	3.0	8.0	37.6	71.6	3491	269
Dekalb	DKC54-38RIB	104	28.7	27.0	42.1	11.3	6.9	41.0	2.6	8.6	34.6	69.5	3646	278
Dekalb	DKC56-45RIB	106	29.6	29.0	41.5	12.0	6.8	39.7	3.1	7.5	37.5	71.8	3529	268
Legend Seeds	LNG 9800RR	100	27.9	29.1	41.4	12.0	7.8	35.1	3.1	8.8	38.7	71.0	3462	259
Legend Seeds	LR 97S05 GENSSRIB	105	27.9	28.0	40.1	11.2	6.8	36.4	3.0	8.6	38.8	72.3	3541	265
Legend Seeds	LR 98S08 GENSSRIB	108	28.7	30.5	38.7	11.8	7.5	35.3	3.3	9.4	38.4	69.1	3516	251
Master's Choice	MCT4572	95	27.9	25.9	43.8	11.3	7.8	41.4	3.1	7.9	34.1	66.8	3383	251
Master's Choice	MCT4632	96	28.7	24.7	43.8	10.8	7.5	42.0	2.7	6.9	35.0	71.4	3480	268
Master's Choice	MCT4934	99	28.7	25.2	44.4	11.2	7.3	41.7	2.8	8.1	34.3	68.8	3515	268
Master's Choice	MCT5375	103	28.7	29.9	40.6	12.1	7.0	38.1	3.2	8.0	38.5	69.3	3489	258
Master's Choice	MCT5454	104	27.9	28.5	42.3	12.0	7.5	40.3	3.2	7.4	36.1	69.3	3453	255
Master's Choice	MCT5663	106	27.9	29.6	39.1	11.6	6.9	38.9	3.0	8.2	36.3	70.5	3605	264
Proseed	STS 103 GT	103	28.7	29.6	41.5	12.3	7.2	39.2	3.0	8.9	36.1	71.4	3579	274
Proseed	STS 104 GT	104	27.9	27.0	40.3	10.9	7.0	39.1	2.9	7.8	37.4	72.8	3596	273
Proseed	STS 105 GT	105	26.1	29.2	43.8	12.8	7.4	40.8	2.8	8.9	33.8	69.7	3560	275
Trial Average			28.1	27.8	41.8	11.6	7.2	39.3	3.0	8.2	36.4	70.4	3526	266
LSD(0.05)†			-	4.0	1.7	1.7	0.5	3.4	0.3	0.9	3.4	2.4	160	18

¹⁻¹² Performance statistics are explained on page 3.

† Value required (\geq LSD) to determine if varieties are significantly different from one another.



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- ¹ Plant population at harvest.
- ² Tons per acre harvested on an “As Is” or wet basis.
- ³ Dry matter (DM) percentage of harvested corn silage.
- ⁴ Tons per acre of dry matter (DM).
- ⁵ Crude protein (CP), % of dry matter.
- ⁶ Starch, % of dry matter.
- ⁷ Lignin, % of dry matter.
- ⁸ Water Soluble Carbohydrates (WSC), % of dry matter.
- ⁹ Neutral detergent fiber (NDF), % of dry matter.
- ¹⁰ 240 hour digestibility of NDF (NDF240) is the amount of NDF digested in 240 hours as a percentage of NDF.
- ¹¹ Milk2006 is the prediction of the amount of milk produced per ton of corn silage dry matter.
- ¹² ISU Beef is the prediction of the amount of beef produced per ton of corn silage dry matter.

Procedure:

Corn was harvested for silage by hand cutting at 6 – 8 inches from the ground.
Material was weighed.
Material was chopped through a chipper/shredder.
Green chop samples were frozen.
Samples submitted to a commercial laboratory for nutrient analyses using calibrated NIR instrumentation.

For Further Information:

Jonathan Kleinjan
605-688-4211
Jonathan.Kleinjan@sdsu.edu