SDSU Extension

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South Dakota Agricultural Experiment Station Research at SDSU

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SOUTH DAKOTA STATE UNIVERSITY®
AGRONOMY, HORTICULTURE & PLANT SCIENCE DEPARTMENT

2018 South Dakota Corn Silage Trial Results – South Shore

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Location:	8.5 miles west of South Shore (57263) in Codington County, SD GPS: 45.105915°, -97.100187°
Cooperator:	SDSU Northeast Research Farm - Allen Heuer, manager
Soil Type:	Kranzburg-Brookings silty clay loams, 0-2% slope
Fertilizer:	30-10-10 starter + 200-0-0-5S-10Z preplant
Previous crop:	Soybeans
Tillage:	Conventional
Row spacing:	30 inches
Seeding Rate:	31,400/acre
Herbicide:	Pre: 1.8 pt Dual II Magnum (s-metolachlor) Post: 1 qt Roundup (glyphosate)
Date seeded:	5/14/18
Date harvested:	9/12/18

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Table 1. Corn silage hybrid variety performance results (average of 3 replications) at South Shore, 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	30.5	25.6	44.1	11.3	6.9	39.9	3.1	6.0	37.1	73.3	3317	258
Dekalb	DKC46-36RIB	96	29.6	24.4	45.7	11.1	7.1	38.9	3.5	4.9	38.9	70.0	3135	235
Dekalb	DKC51-38RIB	101	31.4	29.2	43.6	12.7	6.6	39.2	3.2	6.1	38.2	74.2	3320	257
Legend Seeds	LNG 9800RR	100	29.6	25.7	41.9	10.7	7.1	30.3	3.8	6.5	44.7	72.2	3120	224
Legend Seeds	LR 94A01 3011A	101	28.7	24.2	44.0	10.6	7.2	37.7	3.5	6.4	37.8	70.4	3191	234
Legend Seeds	LR 97S00 GENSSRIB	100	29.6	29.2	41.3	12.0	7.2	35.9	3.4	7.5	39.8	72.2	3390	253
Master's Choice	MCT4572	95	28.7	22.9	46.4	11.1	7.1	36.6	3.6	5.4	41.1	72.7	3088	233
Master's Choice	MCT4632	96	28.7	25.2	45.3	11.3	6.9	40.3	3.0	6.0	37.0	72.1	3307	255
Master's Choice	MCT4934	99	28.7	23.4	45.8	10.7	7.0	40.0	3.4	6.0	37.1	70.5	3206	242
Master's Choice	MCT5375	103	29.6	28.9	39.6	11.5	7.2	34.8	3.4	7.6	39.3	71.5	3372	245
Master's Choice	MCT5454	104	27.0	29.7	39.8	11.8	7.1	35.6	3.5	7.7	38.2	68.9	3387	239
Peterson Farms Seed	2MD02	100	30.5	27.5	41.2	11.2	6.8	34.7	3.8	5.5	42.4	72.6	3147	224
Peterson Farms Seed	2MD95	95	29.6	25.1	45.1	11.2	6.8	36.1	3.4	6.1	40.9	74.0	3213	248
Peterson Farms Seed	76S92	92	29.6	23.3	46.6	10.7	6.8	37.1	3.5	6.0	40.5	71.6	3171	241
Peterson Farms Seed	81W01	101	26.1	30.0	41.3	12.4	6.6	33.9	3.6	7.4	40.5	69.2	3206	225
Proseed	103 GT	103	25.3	27.1	43.0	11.7	6.8	40.0	3.1	7.8	36.1	72.3	3475	269
Proseed	104 GT	104	29.6	28.8	40.8	11.7	7.0	40.8	2.9	5.9	35.6	72.8	3484	261
Proseed	105 GT	105	28.7	27.8	43.3	11.9	6.9	38.8	3.1	7.2	36.5	70.8	3336	248
Thunder Seed	4900 HDRR	100	27.9	25.2	41.9	10.5	6.9	28.5	4.2	6.1	47.3	71.9	2964	204
Thunder Seed	8902 SS	102	25.3	27.8	40.6	11.3	7.1	36.6	3.2	8.3	37.4	71.9	3498	261
Thunder Seed	EXHD18-05	105	29.6	26.8	41.4	11.1	7.4	34.5	3.7	6.8	40.5	71.0	3208	229
Thunder Seed	EXHD18-99	99	30.5	27.9	40.0	11.1	7.2	34.1	3.7	6.7	41.1	70.4	3253	230
Thunder Seed	EXT18-04	104	31.4	24.7	44.0	10.8	7.4	37.0	3.3	7.0	38.0	71.9	3370	259
	Trial Average		29.0	26.5	42.8	11.3	7.0	36.6	3.4	6.6	39.4	71.7	3269	242
	LSD(0.05)†		-	3.5	2.3	1.4	0.7	4.3	0.4	1.1	4.6	2.8	204	23

[1-12] Performance statistics are explained on page 3.

† Value required (≥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:

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