2021 South Dakota Corn Silage Trial Results South Shore

Jonathan Kleinjan | SDSU Extension Agronomist
Kevin Kirby | Agricultural Research Manager
Shawn Hawks | Agricultural Research Manager

Location:	8.5 miles west of South Shore (57263) in Codington County, SD 45.106052°, -97.098736°
Cooperator:	South Dakota State University Northeast Research Farm
Soil Type:	Kranzburg-Brookings silty clay loams, 0-2% slope
Fertilizer:	100 lb/acre 30-10-10 starter + 200-0-50-5Z broadcast preplant
Previous crop:	soybeans
Tillage:	conventional
Row spacing:	30 inches
Seeding Rate:	33,500/acre
Herbicide:	Pre: 1.6 qt/acre Harness Xtra (acetochlor + atrazine) Post: 1) 3 oz/acre Callisto (mesotrione) + .9 oz/acre Accent Q (nicosulfuron); 2) 1.5 pt/acre Buctril (bromoxynil)
Date seeded:	4/30/21
Date harvested:	9/22/21

S-0002-05

South Dakota State University Extension

2021 South Dakota Corn Silage Trial Results South Shore

Table 1. Corn silage hybrid variety performance results (average of three replications) at South Shore, SD (green chop samples).

Hybrid Information			Agonomic & Nutritional Performance												
Brand	Hybrid	Maturity Rating	Harvest Population[1]	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)	NDFD30[10] (%NDF)	NDFD240[11] (%NDF)	Milk2006[12] (lbs/T DM)	ISU Beef[13] (lbs/T DM)
Channel	195-85DGVT2PRIB	95	32500	22.7	43.9	9.9	7.0	47.0	2.8	5.3	33.2	55.4	70.7	3548	296
Channel	199-60TRERIB	99	33700	21.9	43.1	9.5	7.8	45.1	2.8	5.3	33.0	57.6	71.1	3577	299
Check	DKC48-54RIB	98	31400	23.9	43.5	10.4	7.4	47.5	2.8	5.3	32.1	55.2	70.8	3572	298
Dekalb	DKC47-54RIB	97	32800	23.6	44.4	10.5	7.5	44.0	3.2	5.5	35.4	55.2	69.3	3464	286
Dekalb	DKC51-25RIB	101	34300	23.7	42.7	10.1	7.6	44.7	3.1	5.6	33.7	53.6	68.7	3491	281
Dekalb	DKC51-92RIB	101	31100	25.7	41.4	10.6	7.5	42.8	2.9	5.7	35.2	58.3	71.6	3622	296
Peterson Farms Seed	14M00	100	33100	21.5	45.9	9.9	6.7	47.3	2.8	5.4	33.4	56.7	71.7	3517	302
Peterson Farms Seed	2LF01	101	32800	23.7	36.0	8.5	7.6	26.3	5.0	6.4	49.0	50.3	65.8	3000	183
Peterson Farms Seed	2LF95	95	32200	20.7	37.5	7.8	8.1	31.1	4.3	6.2	43.4	49.8	65.9	3170	212
Proseed	LFY 101	101	30800	23.7	35.8	8.5	7.8	27.8	4.7	6.2	47.3	50.9	66.6	3071	194
	Trial Average		32500	23.1	41.4	9.6	7.5	40.3	3.4	5.7	37.6	54.3	69.2	3403	265
	LSD(0.05)†		2200	4.6	3.4	1.9	1.1	4.7	0.4	1.3	4.9	2.2	1.5	168	28

[1-12] Performance statistics are explained on page 3.
† Value required (≥LSD) to determine if varieties are significantly different from one another.

SOUTH DAKOTA STATE
UNIVERSITY EXTENSION

2021 South Dakota Corn Silage Trial Results South Shore

[1] Plant population at harvest (plants/acre).

[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] 30 hour digestibility of NDF (NDFD30) is the amount of NDF digested in 30 hours as a percentage of NDF.

[11] 240 hour digestibility of NDF (NDFD240) is the amount of NDF digested in 240 hours as a percentage of NDF.

[12] Milk2006 is the prediction of the amount of milk produced per ton of corn silage dry matter.

[13] 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, Ph.D.
605-688-4211
Jonathan.Kleinjan@sdstate.edu