



2022 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
45.106840°, -97.099932°

Cooperator: South Dakota State University Northeast Research Farm

Soil Type: Kranzburg-Brookings silty clay loams, 0-2% slope

Fertilizer: 90 lb/acre 30-10-10 starter + 200-0-60 broadcast preplant

Previous crop: soybeans

Tillage: conventional

Row spacing: 30 inches

Seeding Rate: 33,500/acre

Herbicide: Pre: 1.5 pt/acre Surpass + 1 pt/acre Atrazine
Post: 1 qt/acre Roundup PowerMax

Date seeded: 5/24/22

Date harvested: 9/21/22



Table 1. Corn silage hybrid variety performance results (average of 3 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	203-01STXRIB	103	27400	27.8	39.2	9.7	6.9	41.8	1.8	7.8	34.5	58.6	70.9	3778.3	295.0
Channel	203-83STXRIB	103	28200	30.1	42.0	10.5	6.9	39.2	2.3	7.4	37.2	56.5	70.1	3565.7	273.7
Check	DKC48-95RIB	98	26000	25.4	38.0	8.9	7.2	36.2	2.4	9.6	37.5	55.0	68.4	3563.3	262.0
Dekalb	DKC49-24RIB	99	30300	28.4	41.3	9.9	7.0	41.1	2.3	7.8	35.0	54.7	68.0	3621.3	277.3
Dekalb	DKC50-88RIB	100	29000	30.8	43.2	10.8	6.8	41.3	2.4	6.8	36.9	51.9	67.4	3403.7	259.7
Dekalb	DKC52-18RIB	102	27300	29.8	40.9	10.4	7.0	38.5	2.2	8.0	37.6	56.3	69.4	3572.0	272.0
Legacy Seeds	LC474-20	97	31200	28.1	41.7	9.9	6.8	38.7	2.5	7.2	39.2	52.6	66.6	3412.0	253.0
Legacy Seeds	LC506-22	100	26300	24.5	35.7	8.6	7.1	31.6	2.6	9.2	41.1	54.9	69.1	3406.3	246.7
Legacy Seeds	LC525-21	102	29900	29.5	34.2	10.3	7.2	34.3	2.5	8.5	39.3	55.1	68.9	3617.3	255.3
Proseed	LFY 101	101	24500	24.1	34.3	8.4	7.4	29.6	2.8	10.2	41.1	53.0	67.2	3302.7	233.0
Proseed	STS 106	106	22700	26.0	30.5	9.1	7.5	30.4	2.8	9.4	41.6	51.5	65.7	3415.7	226.3
Renk Seed	RK579DGVT2P	99	31100	29.8	39.9	10.4	6.7	40.7	2.2	7.4	36.5	56.0	69.8	3643.7	278.7
Renk Seed	RK600VT2P	100	32100	30.1	41.5	10.5	6.2	40.4	2.3	7.3	38.4	55.9	69.9	3600.3	275.0
Renk Seed	RK642VT2P	103	31500	30.7	42.1	10.7	6.4	42.2	2.2	7.3	36.9	55.1	69.1	3555.0	276.7
Trial Average			28400	28.2	38.9	9.9	6.9	37.6	2.4	8.1	38.0	54.8	68.6	3532	263
LSD(0.05)†			3200	5.2	4.7	1.8	0.4	7.4	0.5	2.8	3.9	2.7	2.3	313	24

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 (plants/acre).
- ² Tons per acre harvested corrected to 65% moisture.
- 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:

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