



2023 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
45.106946°, -97.098724°

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 + 300-0-100 broadcast preplant

Previous crop: soybeans

Tillage: conventional

Row spacing: 30 inches

Seeding Rate: 33,500/acre

Herbicide: Pre: 1.5 qt/acre Surpass + 1 pt/acre Atrazine
Post: 1 qt/acre Roundup PowerMax + 3 pz/acre Callisto

Date seeded: 5/5/2023

Date harvested: 9/11/2023



Table 1. Corn silage hybrid variety performance results (average of three replications) at South Shore, SD (30 day ensiled 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	200-42VT2PRIB	100	31700	25.4	36.6	8.9	8.3	33.8	2.4	2.3	39.3	57.5	76.5	3636	277
Channel	203-83STXRIB	103	33700	25.3	37.5	8.9	8.2	34.9	2.0	2.1	38.1	62.6	79.5	3746	303
Check	DKC48-95RIB	98	32400	29.2	39.4	10.2	8.3	36.3	2.2	2.3	37.6	60.5	77.2	3690	295
Dekalb	DKC101-33RIB	101	31200	25.3	36.8	8.9	8.0	36.4	2.1	1.8	38.6	60.9	78.0	3732	295
Dekalb	DKC105-33RIB	105	31800	24.6	37.4	8.6	7.7	37.2	2.1	2.3	37.4	60.1	76.3	3772	297
Dekalb	DKC49-24RIB	49	33100	23.5	39.6	8.2	8.0	34.9	2.1	1.5	40.4	62.4	78.8	3657	294
Proseed	LFY 101	101	29900	23.2	31.4	8.1	9.0	16.7	3.3	4.4	50.5	54.8	71.2	2987	194
Proseed	STS 106	106	31900	20.2	30.8	7.1	8.1	24.2	2.7	3.3	47.0	56.2	72.9	3368	232
Renk Seed	RK600VT2P	93	33700	24.9	37.6	8.7	8.0	34.8	2.1	2.5	39.2	61.4	78.8	3719	297
Renk Seed	RK642VT2P	95	33400	25.0	37.0	8.8	7.7	36.2	2.2	2.4	39.1	59.2	76.3	3732	287
Renk Seed	RK700SSTX	101	32700	25.1	35.5	8.8	8.8	28.6	2.6	4.9	39.7	56.2	72.5	3518	259
Trial Average			32300	24.7	36.3	8.7	8.2	32.2	2.4	2.7	40.6	59.2	76.2	3596	275
LSD(0.05)†			1200	3.9	2.3	1.4	0.6	4.8	0.5	2.2	2.8	3.8	4.9	116	27

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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