



2022 South Dakota Corn Silage Trial Results Brookings

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Location: 2.5 miles north of Brookings in Brookings County, SD
44.362560°, -96.790249°

Cooperator: South Dakota State University Volga Research Farm

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

Fertilizer: 90 lb/acre 30-10-10 starter + 67-46-0-24S preplant broadcast + 18-40-110 feedlot manure

Previous crop: spring wheat

Tillage: conventional

Row spacing: 30 inches

Seeding Rate: 33,500/acre

Herbicide: Pre: 2.25 pt/acre Harness
Post: 1 qt/acre Roundup PowerMax

Date seeded: 5/6/22

Date harvested: 9/13/22



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

Hybrid Information			Agonomic & Nutritional Performance												
Brand	Hybrid	Maturity Rating	Harvest Population ¹	Harvested (T/A) ²	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	29600	31.2	43.2	10.9	7.2	41.5	1.9	8.0	33.2	59.9	71.2	3685	300
Channel	203-83STXRIB	103	29900	35.4	46.9	12.4	7.3	42.9	2.0	8.4	32.2	56.6	68.5	3584	296
Check	DKC48-95RIB	98	30200	36.5	49.8	12.8	6.7	43.1	2.1	7.3	34.6	55.6	68.9	3437	282
Dairyland Seed	DS-4567Q	105	29500	34.1	44.0	11.9	7.6	40.3	2.0	8.7	33.9	58.2	69.7	3621	292
Dairyland Seed	HIDF-3855	98	32500	35.9	48.1	12.6	7.1	38.7	2.3	8.0	36.6	53.8	68.0	3354	262
Dairyland Seed	HIDF-4545Q	105	32200	37.7	42.2	13.2	7.2	38.8	2.0	7.1	37.1	57.0	70.3	3550	274
Dekalb	DKC50-88RIB	100	30900	34.2	47.9	12.0	7.4	40.8	2.2	7.4	34.9	52.3	67.0	3350	261
Dekalb	DKC52-18RIB	102	29000	34.0	45.5	11.9	7.4	39.5	2.1	8.2	34.8	54.7	68.0	3458	272
Dekalb	DKC53-94RIB	103	33000	32.2	41.8	11.3	6.9	35.1	2.3	9.6	38.6	57.7	68.7	3558	270
Legacy Seeds	LC506-22	100	30800	28.1	39.1	9.8	7.5	21.5	3.2	13.2	44.9	52.1	66.3	2789	208
Legacy Seeds	LC525-21	102	32500	35.6	40.7	12.5	7.5	37.7	2.3	8.3	36.6	54.6	67.3	3566	264
Legacy Seeds	LC555-21	105	31500	33.5	45.1	11.7	6.8	40.1	1.9	7.4	37.4	58.7	70.6	3541	285
Proseed	LFY 101	101	31900	29.9	43.0	10.5	7.5	28.2	2.8	11.5	41.2	52.9	65.9	3143	230
Proseed	STS 106	106	23800	34.0	37.6	11.9	7.7	30.7	2.5	10.8	39.3	55.1	67.6	3450	248
Renk Seed	RK600VT2P	100	33100	35.1	48.8	12.3	6.4	44.2	2.1	7.4	34.0	56.6	70.4	3511	293
Renk Seed	RK642VT2P	103	33000	33.8	45.2	11.8	6.8	40.9	2.1	8.3	34.6	55.9	69.6	3557	286
Renk Seed	RK700SSTX	108	32400	30.3	41.4	10.6	7.7	35.7	2.4	9.4	36.8	55.9	67.6	3571	268
Trial Average			30900	33.6	44.1	11.8	7.2	37.6	2.2	8.8	36.5	55.8	68.6	3454	270
LSD(0.05)†			2300	3.7	3.1	1.3	0.7	4.1	0.4	1.4	4.0	2.1	2.1	146	20

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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