



**SOUTH DAKOTA  
STATE UNIVERSITY**  
College of Agriculture, Food  
and Environmental Sciences

South Dakota State University Extension  
South Dakota Agricultural Experiment Station at SDSU

# 2023 South Dakota Corn Silage Trial Results Brookings

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**Location:** SDSU Campus - Brookings, SD  
44.320784°, -96.771318°

**Cooperator:** South Dakota State University Research Farm

**Soil Type:** Barnes clay loam, 0-2% slope

**Fertilizer:** 90 lb/acre 30-10-10 starter + 134-70-50-24S preplant broadcast

**Previous crop:** winter wheat

**Tillage:** conventional

**Row spacing:** 30 inches

**Seeding Rate:** 33,500/acre

**Herbicide:** Pre: 2.25 pt/acre Fearless  
Post: 3 oz/acre Bellum + 1 pt/acre Atrazine + qt/acre Roundup

**Date seeded:** 5/3/2023

**Date harvested:** 9/6/2023

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

Hybrid Information			Agonomic & Nutritional Performance												
Brand	Hybrid	Maturity Rating	Harvest Population <sup>1</sup>	Harvested <sup>2</sup> (T/A)	DM <sup>3</sup> (%)	DM <sup>4</sup> (T/A)	CP <sup>5</sup> (%DM)	Starch <sup>6</sup> (%DM)	Lignin <sup>7</sup> (%DM)	WSC <sup>8</sup> (%DM)	NDF <sup>9</sup> (%DM)	NDFD30 <sup>10</sup> (%NDF)	NDFD240 <sup>11</sup> (%NDF)	Milk2006 <sup>12</sup> (lbs/T DM)	ISU Beef <sup>13</sup> (lbs/T DM)
Channel	203-83STXRIB	103	31800	28.8	47.1	10.1	7.6	40.9	2.5	4.6	36.2	57.5	71.4	3544	286
Check	DKC48-95RIB	98	33000	29.1	48.3	10.2	7.1	37.0	3.4	4.4	42.7	53.2	69.2	3232	235
Dairyland Seed	HIDF-3855Q	98	32400	29.0	47.4	10.2	7.8	36.4	3.1	4.7	40.5	52.5	69.2	3222	239
Dairyland Seed	HIDF-4545Q	102	32800	27.9	46.4	9.8	8.1	32.4	3.5	4.6	44.5	53.7	69.4	3146	223
Dekalb	DKC101-33RIB	101	30300	29.5	48.3	10.3	7.5	38.8	2.8	4.3	39.7	56.4	72.7	3372	266
Dekalb	DKC105-33RIB	105	30300	28.0	48.2	9.8	7.5	41.2	2.8	4.5	36.4	55.0	71.3	3444	277
Dekalb	DKC49-24RIB	99	32500	26.6	48.0	9.3	7.5	39.0	3.1	4.4	39.1	51.8	68.5	3281	245
Proseed	LFY 101	101	28300	26.8	43.6	9.4	8.5	29.1	3.5	4.3	46.7	53.0	69.0	3115	208
Proseed	STS 106	106	30500	31.8	39.6	11.1	8.5	33.7	3.4	5.0	41.8	50.6	67.1	3346	225
Renk Seed	RK60XPWE	94	31100	27.0	45.3	9.4	7.9	38.9	2.8	4.5	38.0	56.0	72.2	3417	267
Renk Seed	RK811PWE	104	29900	26.1	42.5	9.1	7.7	31.5	3.4	4.1	45.9	54.8	71.1	3261	224
Renk Seed	RK842VT2P	105	33300	27.7	43.1	9.7	7.6	32.7	3.5	4.2	45.0	53.9	69.5	3268	224
Renk Seed	RK895DGV2P	105	30600	27.2	42.0	9.5	7.9	34.8	3.4	4.4	42.3	51.7	68.0	3277	222
<b>Trial Average</b>			31300	28.1	45.3	9.8	7.8	35.9	3.2	4.5	41.4	53.8	69.9	3302	242
<b>LSD(0.05)†</b>			1600	5.1	5.6	1.8	0.6	5.6	0.8	0.5	6.1	6.5	6.0	272	54

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



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- <sup>1</sup> Plant population at harvest (plants/acre).
- <sup>2</sup> Tons per acre harvested corrected to 65% moisture.
- <sup>3</sup> Dry matter (DM) percentage of harvested corn silage.
- <sup>4</sup> Tons per acre of dry matter (DM).
- <sup>5</sup> Crude protein (CP), % of dry matter.
- <sup>6</sup> Starch, % of dry matter.
- <sup>7</sup> Lignin, % of dry matter.
- <sup>8</sup> Water Soluble Carbohydrates (WSC), % of dry matter.
- <sup>9</sup> Neutral detergent fiber (NDF), % of dry matter.
- <sup>10</sup> 30 hour digestibility of NDF (NDFD30) is the amount of NDF digested in 30 hours as a percentage of NDF.
- <sup>11</sup> 240 hour digestibility of NDF (NDFD240) is the amount of NDF digested in 240 hours as a percentage of NDF.
- <sup>12</sup> Milk2006 is the prediction of the amount of milk produced per ton of corn silage dry matter.
- <sup>13</sup> 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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