

Soybean Varietal Trials — Polk County

Cooperator: Chris & Ken Hove, Tyler & Harold Ross
Nearest Town: Fosston, Crookston
Previous Crop: Corn, Sugarbeets
Planting Date: May 18, May 18
Seeding Rate: 180,000 live seeds/acre
Harvest Date: October 27, October 18
Row Width: 6"
Fertilizer: None
Soil Tests:

Fosston

NO ₃ -N	
0-6"	12lb/a
6-24"	57lb/a
0-24"	69lb/a

Crookston

NO ₃ -N	
0-6"	14lb/a
6-24"	27lb/a
0-24"	41lb/a

Olsen P	5ppm
Potassium	83ppm
Sulfur	30lb/a
Zinc	.72ppm
O.M.	3.10%
Carbonates	0.40%
Salts	.13mmho/cm
pH	7.7

Olsen P	14ppm
Potassium	208ppm
Sulfur	82lb/a
Zinc	.62ppm
O.M.	3.70%
Carbonates	3.30%
Salts	.43mmho/cm
pH	8.2

Purpose of Study:

Evaluate 39 roundup-ready and 15 conventional soybean varieties in 2 environments in 2004.

Results:

The record cold 2004 growing season was detrimental to soybean production. Cool wet soil conditions early caused Valor herbicide injury at both locations. The Rezult herbicide applications caused leaf injury and delayed plant growth with both applications. The frost on August 20 severely injured all varieties and the later maturing varieties suffered the most as they had full canopy. This was the first year we had green seed evaluation as a variable in the variety results.

Conventional

Herbicide: 2.5 oz/a Valor preemergent
 1.8 pt Basagran + 1.8 pt Poast + 1 qt crop oil/a (Rezult)
 1.8 pt Basagran + 1.8 pt Poast + 1 qt crop oil/a (Rezult)

Roundup

Herbicide: 2.5 oz/a Valor preemergent
 1 qt Roundup Ultramax/a

Experimental Design: Randomized complete block with 4 replications



Soybean Varietal Trials — Polk County *(continued)*

Crookston Roundup Ready Soybean Variety Trial 2004

Company	Variety	Yield	Yield	Protein	Protein	Oil	Seed Count	Green Seed
		(bu/a)	(% mean)	(%)	(% mean)	(%)	(seed/lb)	(%)
DEKALB	DKB009-51	34.7	150.9	36.2	99.2	17.3	2407	35.0
LEGEND	LS 0094	34.7	150.9	36.2	99.2	17.6	3148	0.0
PIONEER	90M60	33.6	146.1	35.8	98.1	17.2	2436	1.5
DYNA GROW SEEDS	DG 30D09	33.1	143.9	36.0	98.6	17.2	3718	0.0
AGSOURCE SEEDS	9009RR	32.0	139.1	35.8	98.1	17.2	3851	0.0
ASGROW	AG00802	30.3	131.7	37.4	102.5	16.6	2472	0.0
DYNA GROW SEEDS	DG 34G02	29.4	127.8	35.8	98.1	17.7	3391	0.0
ASGROW	AG031	29.3	127.4	36.2	99.2	17.1	2969	0.0
INTERSTATE SEED	Garst XR05P40	27.8	120.9	36.1	98.9	17.8	2744	55.0
LEGEND	LS 0093	27.8	120.9	36.6	100.3	17.1	3848	0.0
CROPLAN GENETICS	RT0041	27.7	120.4	36.2	99.2	17.3	2842	0.5
CROPLAN GENETICS	RT0269	27.5	119.6	36.2	99.2	17.7	3147	0.0
STINE	S0086-4	26.5	115.2	35.6	97.5	17.9	3068	0.0
PROSEED	RR EXP 0.2E	26.4	114.8	35.8	98.1	17.2	2910	0.0
WENSMAN SEED	20091	25.7	111.7	36.6	100.3	17.3	3742	0.3
THUNDER SEEDS	23005RR	24.8	107.8	37.6	103.0	17.1	2944	0.0
NU-TECH SEEDS	NT 0252RR	24.6	107.0	37.3	102.2	16.8	3013	35.0
PIONEER	90M20	24.3	105.7	36.0	98.6	17.5	2653	1.5
AGSOURCE SEEDS	9023RR	24.2	105.2	35.9	98.4	17.7	3313	0.0
GOLD COUNTRY SEED	GCS 923 RR	24.1	104.8	36.8	100.8	17.2	3942	0.0
PETERSON SEEDS	PFS 0502RR	23.9	103.9	36.2	99.2	17.1	3072	3.8
INTERSTATE SEED	Garst 0095RR	23.0	100.0	37.7	103.3	16.0	3800	3.2
DYNA GROW SEEDS	DG 38D05	22.5	97.8	36.1	98.9	17.3	3308	1.3
AGSOURCE SEEDS	90075RR	22.4	97.4	38.0	104.1	16.0	4053	5.0
DEKALB	DKB005-51	22.4	97.4	37.5	102.7	17.1	2457	0.0
THUNDER SEEDS	2303RR	20.6	89.6	36.7	100.5	16.8	3409	1.2
LEGEND	LS 0553	19.0	82.6	37.4	102.5	17.1	2894	0.5
HYLAND SEED	HX 326	18.8	81.7	37.8	103.6	16.3	3698	0.3
PIONEER	90B51	17.7	77.0	36.9	101.1	17.4	2876	2.8
GOLD COUNTRY SEED	GCS 2305 RR	17.6	76.5	36.5	100.0	17.5	3158	2.0
HYLAND SEED	RR RUGGED	16.3	70.9	35.7	97.8	18.0	2348	4.8
PETERSON SEEDS	PFS 0305RR	16.3	70.9	36.3	99.5	17.2	3025	6.0
INTERSTATE SEED	Garst 0443RR	16.2	70.4	36.0	98.6	17.8	2925	5.2
HYLAND SEED	RR RAMSEY	15.4	67.0	37.9	103.8	17.0	2753	0.8
PROSEED	RR 1030	13.4	58.3	36.4	99.7	17.3	2914	2.8
STINE	S0206-4	13.2	57.4	37.4	102.5	17.0	2818	1.5
NU-TECH SEEDS	NT 0626	12.6	54.8	36.7	100.5	16.8	3121	36.5
PROSEED	RR 20-40	11.5	50.0	34.7	95.1	18.5	2605	2.5
NU-TECH SEEDS	NT 0414RR	6.2	27.0	36.4	99.7	17.0	3222	6.8
mean		23.0		36.5		17.2	3103	5.5
LSD 0.05		5.7		0.7		0.4	315	15.7

Soybean Varietal Trials — Polk County *(continued)*

Fosston Roundup Ready Soybean Variety Trial 2004

Company	Variety	Yield	Yield	Protein	Protein	Oil	Seed Count	Green Seed
		(bu/a)	(% mean)	(%)	(% mean)	(%)	(seeds/lb)	(%)
DYNA GROW SEEDS	36R01	30.3	131.7	35.7	98.3	18.2	2504	3.5
NU-TECH SEEDS	NT 0252RR	29.4	127.8	36.9	101.7	17.6	2675	36.2
PIONEER	90M60	29.0	126.1	36.6	100.8	17.7	2380	3.2
STINE	S0086-4	28.2	122.6	35.2	97.0	18.8	2659	0.0
ASGROW	AG00802	28.0	121.7	37.6	103.6	16.7	2464	0.0
PIONEER	90M20	27.4	119.1	36.1	99.4	18.0	2704	0.0
PETERSON SEEDS	PFS 0305RR	26.8	116.5	36.4	100.3	17.9	2890	0.5
GOLD COUNTRY SEED	GCS 2305 RR	26.3	114.3	36.4	100.3	18.0	2823	0.8
DEKALB	DKB009-51	26.3	114.3	36.2	99.7	17.8	2347	0.0
DYNA GROW SEEDS	33J05	26.0	113.0	36.3	100.0	17.9	2838	0.2
ASGROW	AG0301	25.9	112.6	35.1	96.7	18.2	2697	0.0
PIONEER	90B51	25.1	109.1	36.2	99.7	18.3	2455	8.2
THUNDER SEEDS	2303RR	24.8	107.8	36.3	100.0	17.8	2842	0.0
PROSEED	RR 1030	24.8	107.8	35.5	97.8	18.4	2521	2.8
CROPLAN GENETICS	RT0269	24.7	107.4	35.2	97.0	18.8	2740	0.0
PROSEED	RR EXP 0.2E	24.4	106.1	35.4	97.5	18.0	2751	0.0
PETERSON SEEDS	PFS O502RR	24.0	104.3	35.6	98.1	18.0	2729	0.0
AGSOURCE SEEDS	9009RR	23.9	103.9	37.0	101.9	17.5	3087	0.0
THUNDER SEEDS	23005RR	23.3	101.3	37.6	103.6	17.5	2566	0.0
DYNA GROW SEEDS	39P03	23.0	100.0	36.5	100.6	17.6	3148	0.0
LEGEND	LS 0094	23.0	100.0	36.0	99.2	17.6	3246	0.0
INTERSTATE SEED	Garst 0211RR	22.7	98.7	35.4	97.5	18.6	2375	0.0
HYLAND SEED	RR RUGGED	22.6	98.3	35.4	97.5	18.5	2480	0.0
WENSMAN SEED	20091	22.5	97.8	36.2	99.7	17.8	3592	0.0
AGSOURCE SEEDS	90075RR	22.4	97.4	37.3	102.8	17.0	3544	6.2
AGSOURCE SEEDS	9023RR	22.2	96.5	35.4	97.5	18.6	2808	0.0
CROPLAN GENETICS	RT0041	22.2	96.5	37.5	103.3	17.4	2536	0.0
LEGEND	LS 0093	21.6	93.9	36.8	101.4	17.6	3439	0.0
GOLD COUNTRY SEED	GCS 923 RR	21.0	91.3	36.8	101.4	17.5	3337	0.0
LEGEND	LS 0553	19.8	86.1	37.2	102.5	17.7	2500	0.0
NU-TECH SEEDS	NT 0626	19.7	85.7	36.4	100.3	17.4	2879	15.8
HYLAND SEED	HX 326	18.7	81.3	35.8	98.6	17.9	3152	0.0
INTERSTATE SEED	Garst D041RR	18.7	81.3	36.6	100.8	18.2	2270	0.0
DEKALB	DKB005-51	18.3	79.6	38.2	105.2	16.5	2675	0.0
NU-TECH SEEDS	NT 0414RR	17.8	77.4	36.4	100.3	17.8	2828	3.0
HYLAND SEED	RR RAMSEY	17.3	75.2	37.3	102.8	17.8	2406	0.0
STINE	S0206-4	17.1	74.3	36.2	99.7	17.8	2852	0.0
INTERSTATE SEED	Garst XR05Y86	14.4	62.6	36.1	99.4	18.0	3010	7.0
PROSEED	RR 20-42	12.6	54.8	36.2	99.7	18.0	3062	4.2
mean		23.0		36.3		17.9	2790	2.3
LSD 0.05		3.3		0.7		0.3	290	4.8