



Missouri

Soybean Yield Trials

1971

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All tests were in replicated 4-row plots 18-20 feet long. A pre-emergence herbicide was used at all locations. The plots were trimmed to 15 feet and the center 2 rows were harvested for yield. Yields are expressed in bushels per acre. Lodging is based on a 1 to 5 scale with 1 equalling all plants erect and 5 equalling all plants flat. Height is the average height in inches from the ground to the stem tips. Maturity is when 95 percent of the pods have turned color: they can be harvested in 4-10 days, depending on weather conditions. The varieties are grouped by maturity and are generally in order of maturity within the groups.

The test results are shown in Tables 1 through 5 as follows:

<u>Table</u>	<u>Location</u>	<u>Soil Type</u>	<u>Row Width</u>	<u>Seeds/ft Planted</u>
1	North Mo. Center	Seymour silt loam	15"	4
2	Columbia	Mexico silt loam	15"	4
3	Southwest Center	Huntington silt	15"	4
4	Bertrand Essex	Bertrand sand	38"	10
5	Delta Center	Salix silt loam Sharkey clay	38"	10

Growth Conditions

North Mo. Center—The latter part of the 1971 season was dry and the later varieties suffered most. However, in 1970 the drouth came earlier and the early varieties were hardest hit. In 1970 harvest was delayed and seed quality was poor.

Columbia—The 1969 tests failed; the poor stands were caused by heavy rains on the late planted beans. In 1970, planting again was delayed by

a wet spring but growth and yields were good. The 1971 season was good.

Southwest Center—The 1971 season was good. In 1970 the summer drouth was hardest on the early varieties, and some varieties did not ripen normally, stems and leaves remaining green. This was associated with poor seed quality and lower yields.

Bertrand—This test was planted on May 6 after incorporation of Treflan and irrigated to keep adequate moisture on the plots. Root knot nematodes were a tremendous problem as demonstrated by the yields of Custer (very susceptible) and Dyer (resistant). Climatic conditions for the 1971 growing season and harvest were good.

Essex—Climatic conditions were relatively good. Cyst nematode races 3 and 4 were present and damaged some plots considerably. Several seedling and root diseases were also observed. Plant growth was small where diseases were heavy and weeds tended to be a problem.

Delta Center—The 1971 tests were planted June 10. Growing season and harvest climatic conditions were unusually good. Disease incidence was relatively low. Soybean cyst nematodes were present on the loam soil in small populations and phytophthora root rot present on the clay soil was insignificant.

TABLE 1. NORTH MISSOURI CENTER (SPICKARD)

	Yield		Height (in.)	Lodging
	1971	'69-'71	1971	1971
SRF 100	38.8	-	33	1.1
Chippewa 64	38.1	28.4	36	1.7
SRF 150	37.4		34	1.5
Hark	34.7	34.2	35	1.2
Corsoy	43.3	37.0	38	2.8
Amsoy 71	42.1	40.5	40	2.2
Beeson	37.3	38.9	36	2.3
SRF 300	33.0	32.9	45	2.6
SRF 307B	36.9	-	42	2.9
Wayne	38.3	36.1	41	2.4
Calland	36.3	38.4	42	2.5
Williams	34.4	39.7	40	1.8
Clark 63	28.7	-	40	2.8
Cutler 71	26.5	-	37	1.6
SRF 400	30.8	-	44	1.6
SRF 450	27.5	-	38	1.4

TABLE 2. COLUMBIA

	Yield		Maturity 1971	Height 1971	Lodging 1971
	1971	70-71			
SRF 100	37.7	32.8	8-26	29	2.2
Chippewa 64	36.7	33.4	8-28	31	2.0
SRF 150	41.7		9-2	29	1.5
Hark	42.8	37.2	9-4	30	1.6
Corsoy	46.5	36.4	9-5	34	3.0
Amsoy 71	48.9	39.5	9-7	39	2.5
Beeson	50.5	39.6	9-7	36	2.6
SRF 300	49.6	40.4	9-12	43	3.0
SRF 307B	45.1		9-14	42	3.5
Wayne	46.8	38.7	9-14	41	2.1
Galland	50.0	40.9	9-15	41	2.6
Williams	46.5	41.2	9-16	42	2.0
FFR 991,551	38.4		9-19	43	3.2
Clark 63	42.6	36.4	9-21	42	3.0
Cutler 71	44.0	40.2	9-21	45	2.2
SRF 400	42.5	37.2	9-23	44	2.8
Bonus	45.6	40.2	9-24	44	2.5
Wye	39.3		9-26	43	2.9
SRF 450	42.0	37.0	9-28	42	2.7
Custer	36.6	31.0	9-28	48	3.9
Kent	42.0	36.8	9-28	42	3.1
FFR 991,550	38.3		9-28	48	3.9
Oksoy	35.0		10-2	46	3.9
Columbus	37.0		10-4	45	4.0
FFR 953.317	26.6			50	4.5

TABLE 3. SOUTHWEST CENTER (MT. VERNON)

	Yield		Height 1971	Lodging 1971
	1971	'69-71		
Corsoy	44.2	30.2	28	3.0
Amsoy 71	47.5	32.5	34	2.6
Beeson	54.9	36.1	32	2.5
SRF 300	58.1	43.4	40	3.6
SRF 307B	53.7		42	3.4
Wayne	54.1	42.7	39	2.8
Calland	49.9	42.2	38	3.2
Williams	52.2	43.2	37	2.4
FFR 991,551	38.6		38	3.4
Clark 63	39.4	38.5	41	3.5
Cutler 71	46.0	41.1	40	3.1
SRF 400	41.2		40	3.4
Bonus	41.1	35.9	44	3.4
Wye	43.6		36	3.8
SRF 450	47.7		39	3.5
Custer	46.2	35.4	45	4.4
Kent	50.5	45.3	38	2.9
FFR 991,550	43.6		45	4.2
Oksoy	49.6		44	3.8
Columbus	47.8		45	3.6
FFR 953,317	55.3		49	4.0
Hill	44.4	40.1	32	4.2
Mack	49.5		34	4.1
Dare	51.3	43.6	36	3.9
York	48.8	45.7	33	3.6

TABLE 4. ESSEX AND BERTRAND

	Essex				Bertrand		Essex		
	1971		4 yr avg		1971	4 yr avg	Maturity	Height	Lodging
	Dry	Irrig	Dry	Irrig	Irrigated				
Clark 63	28.3	38.0	24.5	37.2	41.2	39.3	9-24	37	4.0
Cutler 71	24.8	42.9			42.0		9-26	34	1.8
Custer	43.2	35.6	33.3	38.3	6.1	26.6	9-28	40	4.5
Kent	26.8	38.7	26.8	40.9	35.3	37.2	9-28	46	2.6
Delmar	31.7	39.6	27.5	41.1	44.4	41.1	10-3	40	3.0
Hill	28.8	40.9	29.3	38.8	43.7	36.9	10-1	35	4.3
Dyer	38.4	46.2	33.6	42.1	47.2	37.9	10-9	32	4.0
Dare	27.6	29.8	32.2	36.2	42.8	37.3	10-14	33	3.0
Mack	39.0	42.4			35.1		10-12	37	3.3
York	32.2	34.0	33.8	39.2	37.8	36.6	10-13	34	1.5
Hood	20.8	44.4	28.5	36.4	41.9	36.7	10-19	32	1.3
Lee 68	31.2	26.9	26.6	28.4	24.4	29.9	10-21	22	1.3
Davis	29.1	18.1	27.6	28.0	37.3	35.5	10-27	26	1.0
Pickett 71	40.2	34.3			35.1		10-27	37	4.0

TABLE 5. DELTA CENTER (PORTAGEVILLE)

	Loam				Clay				Loam		
	1971		4 yr avg		1971		4 yr avg		1971	Height	Lodging
	Dry	Irrig	Dry	Irrig	Dry	Irrig	Dry	Irrig	Maturity		
Clark 63	39.2	48.0	30.9	38.5	30.1	30.3	17.0	26.9	9-18	43	3.8
Cutler 71	32.0	46.6			30.0	33.6			9-18	45	2.7
Custer	36.5	46.9	32.7	43.6	20.0	25.1	17.0	23.4	9-20	48	4.5
Kent	36.4	43.5	32.4	40.7	26.9	36.0	18.7	24.5	9-24	41	1.8
Delmar	30.2	39.0	29.2	35.7	31.8	32.8	17.5	24.2	10-4	45	3.7
Hill	36.5	38.8	35.1	40.4	34.3	35.3	24.0	31.1	9-26	35	4.7
Dyer	39.7	40.5	37.4	41.6	30.6	31.8	21.8	26.6	10-9	33	4.3
Dare	44.7	42.5	38.3	41.5	41.9	40.6	25.8	34.2	10-9	38	3.7
Mack	42.4	44.6			35.7	39.9			10-11	39	4.5
York	38.9	45.8	40.0	43.1	37.4	40.0	26.2	35.8	10-14	36	2.8
Hood	38.8	39.8	37.4	39.4	31.3	32.3	24.5	28.4	10-2	44	3.5
Lee 68	42.8	41.6	39.8	39.9	38.1	34.1	30.4	34.5	10-25	38	3.3
Davis	41.3	40.8	38.1	37.0	35.8	37.5	31.7	35.6	10-31	43	3.7
Pickett 71	42.9	46.5			34.6	34.3			11-1	36	3.8
Bragg	36.2	47.9	35.4	36.7	36.8	36.7	29.6	31.6	10-31	45	3.2