RESULTS OF THE

KENTUCKY SOYBEAN VARIETY PERFORMANCE TESTS

(With Observations on Herbicide, Rate-

of Planting, and Fertilizer Tests)

1964

By
J. F. Shane, Roy E. Sigafus
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Department of Agronomy

Lexington

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SOYBEAN VARIETY TESTS

Henderson

The soybean variety performance reports for 1964 are based on plantings made on the farm of Allan Toy, 3 miles south of Henderson, with the cooperation of the Henderson County Extension Service, the Owensboro Grain Co., Owensboro; and Ellis Elevator Co. and Henderson Elevator Co., of Henderson. Several varities and 20 experimental strains were planted in the Uniform Tests of the U. S. Regional Soybean Laboratory, Urbana, Ill. Planting date of all plots was May 5, 1964. The soil type was Falaya silt loam.

Fulton

Named variety yield trials were conducted on the Robert Sanger Farm in cooperation with the Fulton County Agricultural Extension Service. The planting of all plots was May 5, 1964. Soil type was Commerce silt loam.

Lexington

Named variety tests were conducted on the University of Kentucky Experiment Station Farm. Soil type was Gutherie silt loam.

Princeton

Named variety tests were conducted at the Western Kentucky Substation at Princeton.

METHODS USED

The varieties were planted in four-row with three replications. The rows were 19 feet long and 40 inches apart. A 16-foot section was harvested from each of the two center rows. Beans were planted at a rate of approximately 12 seeds per foot of row. The plants were cut by hand and the beans threshed with a nursery thresher. The beans were cleaned of trash and let stand in the laboratory until they had reached a constant moisture content before plot weights were taken. At that time the moisture content was about 10 percent. Acre yields were calculated and are reported on a 13 percent moisture basis.

Amiben, band treated over the row, and timely cultivation were used on all plots except those in the weed control trial area.

Oil and protein contents were determined by the U. S. Regional Soybean Laboratory, and the University of Kentucky Department of Feed and Fertilizer and Department of Agronomy Service Laboratory.

Lodging notes were recorded at or near maturity when the height was also measured from the ground to the top extremity of the plants.

Maturity is expressed as months and days beans could be combined. In 1964, the soybeans tended to dry up rather than mature, so too much emphasis should not be placed on the recorded maturity because of the abnormally dry weather.

Seed quality was rated on appearance. Brightness, plumpness, freedom from wrinkling and the relative appearance of the seed were considered in rating for quality.

Table 1. - Soybean variety performance. Henderson, 1964

Variety or Strain	Yield 1/ Bu/Acre	Yield 1/ Rank	Matur. Index	Lodging	Ht. In.	Seed Qual.	Gms/100 Beans	Purple Stain
Kent	35.1	6	10-1	2	40	2.5	17.2	1.0
Clark	33.5	8	9-30	4	48	2.0	16.8	1.0
Clark 63	35.8	4	9-30	2	48	2.0	15.4	1.0
Lee	28.9	9	10-21	2	37	2.0	11.8	1.0
Ogden	22.1	12	10-21	1	44	2.0	14.8	1.0
Bethel	26.8	11	10-14	2	50	2.5	14.9	2.0
Shelby	35.5	5	9-10	3	41	2.0	15.2	1.0
Harosoy 63	36.2	3	9-1	4	38	1.0	16.3	1.0
Lindarin	36.8	2	9-1	2	36	1.0	15.6	2.0
Wayne	40.6	1	9-30	2	46	3.0	17.7	1.0

1/ Yield differences less than 2.3 are not significant.

Table 2. - Soybean Variety Performance, Henderson Co., Period of Years Yield Averages
Location: Two farms - Henderson Co.
Soil: Falaya silt loam

Variety	3-yr Ave 1960-61-62	2-yr Ave 1962-63	3-yr Ave 1962-63-64
	Bushels Per Acre 1/		
SHELBY 2/	37.8	40.0	38.6
CLARK 63	43.6	43.1	40.7
CLARK	39.9	39.7	37.7
KENT	45.7	47.3	43.2
Perry	41.0	39.0	--
Bethel	35.3	37.7	34.1
Delmar	37.9	--	--
Scott	37.6	37.9	--
Hill	39.1	--	--
Dorman	35.9	38.5	--
HOOD	35.0	--	--
Ogden	36.1	34.2	--
Lee	36.0	--	--

1/ Yield differences less than 5.8 Bu/Acre are not significant.

2/ Capitalized varieties are recommended for use in Kentucky.

Table 3. - Soybean variety performance - Princeton, 1964

Variety	Yield 1/ Bu/Acre	Maturity	Lodging	Ht. In.	Seed Qual.	Gm/100 Beans
Kent	45.4	9-22	1	36	3	20.4
Ogden	42.4	10-18	3	40	2	19.4
Scott	41.2	10-7	2	44	4	16.4
Clark	39.5	9-16	2	40	3	20.2
Hood	38.5	10-16	3	38	2	15.3
Hill	38.3	10-2	4	37	2	15.8
Bethel	38.3	9-30	4	58	3	18.2
Clark 63	38.2	9-16	1	40	2	16.0
Ford	37.5	9-16	4	36	3	20.2
Delmar	37.4	9-30	2	50	4	20.2
Lee	37.1	10-20	3	40	2	16.4
Dorman	36.5	9-30	4	40	3	14.2
Wayne	35.9	9-16	2	37	3	19.8
Shelby	33.4	9-16	3	40	3	19.6
Lindarin 63*	26.5	9-10	3	23	4	20.0
Chippawa 64*	20.7	9-10	3	22	3	16.0
Harosoy 63*	20.0	9-10	2	28	4	18.8

1/ Yield differences less than 4.6 Bu/Acre are not significant.

Table 4. - Soybean variety performance - Fulton County, 1964

Variety	Yield 1/ Bu/Acre
Clark	22.6
Clark 63	29.0
Kent	26.6
Scott	31.8
Delmar	29.7
Dorman	34.1
Hill	34.2
Hood	31.5
Ogden	32.8
Lee	27.1
Hampton	5.3
Rebel	13.4

1/ Yield differences less than 6.2 Bu/Acre are not significant.

Table 5. - Soybean variety performance - Lexington, 1964

Variety	Yield 1/ Bu/Acre
Ford	20.9
Clark	24.5
Scott	16.6
Wayne	18.6
Delmar	10.1
Bethel	14.9
Dorman	7.2
Hood	3.9

1/ Yield differences less than 4.4 Bu/Acre are not significant. Low yield resulted from summer drought with greater effect on later maturing varieties.

Table 6. - Fertilizer Test - Henderson, 1964

Treatment	Yield 1/ Bu/Acre
0-0-80	44.1
0-80-0	43.5
40-80-80	40.7
0-80-80	39.4
0-160-160	36.6
0	36.4
0-80-80, Lime	34.4

1/ Yield differences less than 3.5 are not significant.

Soil Test pH 6.03
P High
K Low

Table 7. - Rate of Planting Test - Henderson, 1964

Variety	Number of Seeds per Foot			
	6	9	9 1/	12
	Bushels per Acre 2/			
Clark	38.2	37.9	36.8	38.9
Hood	22.4	24.4	23.4	23.3

1/ 200 lb. 4-10-15 added.

2/ Yield differences less than 5.1 are not significant.

Table 8. - Soybean Herbicide Test - Henderson, 1964

Material	Yield 1/ Bu/Acre
Amiben	42.2
Check	32.5
Weedbeads	40.3
Vernam	38.2

1/ Yield differences less than 5.1 Bu/Acre are not significant.