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Elite Soybean Test—South

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Abstract
The purpose of this test was to evaluate the experimental elite soybean lines adapted to southern Iowa. The 2012 Elite Test included commodity–yellow hilum, high protein–large seed, lipoxygenase free, and for comparison of agronomic traits, commercially grown varieties released by Iowa State University. These varieties are used in the production of soy foods.

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RFR-A1286

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Introduction

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Materials and Methods

The elite soybean test for the southern district was planted at four Iowa locations including Ames, Agency, Carlisle, and Greenfield. At each location, three replications of four-row plots were planted. The plots were 13 ft long with row spacing of 27 in. The seeding rate was nine seeds/foot. Agronomic characteristics evaluated at Greenfield included plant height and lodging susceptibility. The center two rows were harvested using a self-propelled research plot combine. The moisture and weight of each plot were measured on the combine during harvest. The harvested seed was brought to Ames for seed weight calculation, and oil and protein analysis.

Results and Discussion

The test results of the commodity varieties, the high protein–large seed varieties, and the lipoxygenase free varieties including the new variety IA3045LF, are summarized in Table 1. The data obtained from the test helped determine that IA3045LF should be released to interested growers.

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Table 1. 2012 Elite Soybean Test—South, Iowa State University Ames, Agency, Carlisle, and Greenfield, Iowa.

Entry	Yield bu/a[1]	Maturity date[2]	Lodging score[3]	Height in.	Seed weight mg/sd	Seed weight sds/lb	Protein %[4]	Oil %[4]	Chlorosis score	Character
IA2102	52.3	9/15	2.8	35	167	2710	33.6	19.9	3.3	Commodity, yellow hilum
IA3052	53.0	9/19	2.3	33	156	2910	33.8	19.6	3.6	Commodity, yellow hilum
IA3023	53.7	9/22	1.8	32	167	2720	32.2	20.1	3.4	Commodity check
IA3048	54.1	9/21	2.3	34	157	2890	33.4	19.4	4.0	SCN resistant, yellow hilum
IA3051	50.9	9/14	1.8	33	195	2330	38.1	17.8	3.5	High protein, large seed
IA3027	45.1	9/14	2.0	31	205	2220	36.7	18.0	2.9	High protein, large seed
IA3047	44.8	9/15	2.3	34	210	2160	37.2	18.1	3.6	High protein, large seed
IA30327RA12	43.3	9/17	1.8	31	214	2120	36.7	18.2	2.5	High protein, large seed, aphid resistant
IA3027RA1	48.4	9/18	1.9	32	210	2170	37.3	17.8	2.8	High protein, large seed, aphid resistant
IA3045	47.4	9/18	2.3	35	200	2270	37.3	18.1	3.3	High protein, large seed
IA3027LF	47.0	9/17	2.2	32	209	2170	36.7	18.2	2.8	Lipoxygenase free
#IA3045LF	46.7	9/17	2.1	34	201	2250	37.7	18.1	3.1	Lipoxygenase free

[1]Yield: bushels/acre at 13% moisture.
[2]Maturity: month/day.
[3]Lodging: 1 = erect, 5 = prostrate.
[4]Protein and oil: 13%-moisture basis.

#Released in November 2012.