

2012

Elite Soybean Test—North

Kevin O. Scholbrock

Iowa State University, kscholbr@iastate.edu

Follow this and additional works at: http://lib.dr.iastate.edu/farms_reports



Part of the [Agricultural Science Commons](#), [Agriculture Commons](#), and the [Agronomy and Crop Sciences Commons](#)

Recommended Citation

Scholbrock, Kevin O., "Elite Soybean Test—North" (2012). *Iowa State Research Farm Progress Reports*. 99.
http://lib.dr.iastate.edu/farms_reports/99

This report is brought to you for free and open access by Iowa State University Digital Repository. It has been accepted for inclusion in Iowa State Research Farm Progress Reports by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.

Elite Soybean Test—North

Abstract

The purpose of this test was to evaluate the experimental elite soybean lines adapted to northern Iowa. The 2011 Elite Test included commodity–yellow hilum soybeans and large seed and high protein beans, along with commercially grown varieties released by Iowa State University tested for comparison of agronomic traits. These varieties are used in the production of soy foods.

Keywords

RFR A1191, Agronomy

Disciplines

Agricultural Science | Agriculture | Agronomy and Crop Sciences

Elite Soybean Test—North

RFR-A1194

Kevin Scholbrock, agricultural specialist
Department of Agronomy

Introduction

The purpose of this test was to evaluate the experimental elite soybean lines adapted to northern Iowa. The 2011 Elite Test included commodity–yellow hilum soybeans and large seed and high protein beans, along with commercially grown varieties released by Iowa State University tested for comparison of agronomic traits. These varieties are used in the production of soy foods.

Materials and Methods

The elite soybean test for the northern district was planted at four Iowa locations including Ames, Charles City, Eldora, and Kanawha. 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 Kanawha 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, oil, and protein analysis.

Results and Discussion

The test results of the commodity varieties IA1008, IA1022, and IA2094, the commodity–yellow hilum varieties and experimental lines IA2102 and A07-427027, and the large seed and high protein varieties and experimental lines IA2103 and IA2104, are summarized in Table 1. The data obtained from the test helped determine that IA2102, IA2103, and IA2104 should be released to interested growers.

Acknowledgements

Thank you David Rueber, ISU Northern Research Farm superintendent for helping select the plot site, applying the pre-plant herbicide, preparing the seed bed, and harvesting the border rows.

The soybean varieties developed by Iowa State University were made possible through the financial support of the Iowa Soybean Association.

Table 1. 2011 Elite Soybean Test—North, Iowa State University Ames, Charles City, Eldora, and Kanawha, Iowa.

| Entry | Yield bu/a ¹ | Maturity date ² | Lodging score ³ | Height in. | Seed weight mg/sd sds/lb | Protein % ⁴ | Oil % ⁴ | Chlorosis score | Character |
|------------|----------------------------|-------------------------------|-------------------------------|---------------|-----------------------------|---------------------------|-----------------------|--------------------|---------------------------|
| IA2094 | 61.8 | 9/25 | 2.1 | 39 | 150 3,030 | 33.7 | 19.0 | 3.4 | Commodity, yellow hilum |
| #IA2102 | 69.4 | 9/26 | 2.6 | 40 | 144 3,140 | 34.3 | 18.5 | 2.6 | Commodity, yellow hilum |
| A07-427027 | 61.7 | 9/26 | 1.8 | 38 | 154 2,940 | 33.5 | 18.3 | 2.8 | Commodity, yellow hilum |
| IA1008 | 58.2 | 9/15 | 1.9 | 42 | 161 2,820 | 33.5 | 19.0 | 2.9 | SCN, yellow hilum |
| IA1022 | 63.9 | 9/16 | 1.9 | 34 | 143 3,180 | 31.5 | 20.5 | 3.5 | SCN, yellow hilum |
| IA2067 | 50.4 | 9/14 | 1.9 | 40 | 175 2,600 | 37.3 | 18.3 | 2.5 | Large seed & high protein |
| IA1018 | 53.6 | 9/15 | 1.9 | 38 | 231 1,970 | 36.9 | 18.2 | 3.0 | Large seed & high protein |
| #IA2104 | 56.3 | 9/19 | 1.8 | 34 | 201 2,260 | 36.1 | 18.4 | 3.5 | Large seed & high protein |
| IA2046 | 54.9 | 9/21 | 2.0 | 35 | 200 2,270 | 36.2 | 18.3 | 3.5 | Large seed & high protein |
| #IA2103 | 58.8 | 9/22 | 1.9 | 36 | 208 2,180 | 36.2 | 18.1 | 3.0 | Large seed & high protein |
| IA2053 | 54.4 | 9/25 | 2.2 | 40 | 195 2,330 | 37.3 | 17.8 | 3.6 | Large seed & high protein |

¹Yield: bushels/acre at 13 percent moisture.

²Maturity: month/day.

³Lodging: 1 = erect, 5 = prostrate.

⁴Protein and oil: 13 percent-moisture basis.

Released in November 2011.