

2010

Modified Oil Soybean Test—South

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., "Modified Oil Soybean Test—South" (2010). *Iowa State Research Farm Progress Reports*. 306.
http://lib.dr.iastate.edu/farms_reports/306

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.

Modified Oil Soybean Test—South

Abstract

The purpose of this test was to evaluate the experimental modified oil soybean lines adapted to southern Iowa. The 2009 Modified Oil Soybean Test included 1% linolenic, 2.5% linolenic, mid oleic, and low saturates, and for comparison of agronomic traits, commercially grown varieties released by Iowa State University. Oil from 1% linolenic, 2.5% linolenic, mid oleic, and low saturates soybean varieties grown in Iowa is used in the frying oil market. This oil is healthier for the consumer.

Keywords

RFR A9097, Agronomy

Disciplines

Agricultural Science | Agriculture | Agronomy and Crop Sciences

Modified Oil Soybean Test—South

RFR-A9097

Kevin Scholbrock, agricultural specialist
Department of Agronomy

Introduction

The purpose of this test was to evaluate the experimental modified oil soybean lines adapted to southern Iowa. The 2009 Modified Oil Soybean Test included 1% linolenic, 2.5% linolenic, mid oleic, and low saturates, and for comparison of agronomic traits, commercially grown varieties released by Iowa State University. Oil from 1% linolenic, 2.5% linolenic, mid oleic, and low saturates soybean varieties grown in Iowa is used in the frying oil market. This oil is healthier for the consumer.

Methods

The modified oil soybean test for the southern district was planted at five Iowa locations—Ames, Agency, Carlisle, Greenfield, and Osceola. 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/ft. 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, oil and protein analysis, and fatty acid analysis.

Results

The test results of the commodity varieties IA3023 and IA4004, the 1% linolenic varieties and experimental lines A07-523041, A07-523044, A07-621064, A07-622013, and A07-622070, the 2.5% linolenic variety IA3018, the mid oleic varieties, and the low saturates varieties and experimental lines A06-817038, A07-521017, A07-521030, and A07-521055, are summarized in Table 1. The data obtained from the test helped determine that A06-817038 (now IA3049), A07-521017 (IA2100), A07-521030, A07-521055, A07-523041 (IA2101), A07-523044 (IA3050), A07-621064 (IA3043), A07-622013 (IA4005), and A07-622070 (IA3044) should be released to interested growers.

Acknowledgements

Thank you Bernard Havlovic, Armstrong Research Farm superintendent, and Jeff Butler agricultural specialist, for helping select the plot site, applying the pre-plant herbicide, preparing the seed bed, and harvesting the border rows.