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Modified Oil Soybean Test—South

Kevin O. Scholbrock

Iowa State University, kscholbr@iastate.edu

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Abstract

The purpose of this test was to evaluate the experimental modified oil soybean lines adapted to southern Iowa. The 2010 Modified Oil Test included 1 percent linolenic, 2.5 percent linolenic, low saturates, and mid oleic, and for comparison of agronomic traits, commercially grown varieties released by Iowa State University. Oil from 1 percent linolenic, 2.5 percent linolenic, low saturates, and mid oleic soybean varieties grown in Iowa is used in the frying oil market. This oil is healthier for the consumer.

Disciplines

Agricultural Science | Agriculture | Agronomy and Crop Sciences

Modified Oil Soybean Test—South

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Kevin Scholbrock, agricultural specialist
Department of Agronomy

Introduction

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Materials and Methods

The modified oil soybean test for the southern district was planted at four Iowa locations including Ames, Carlisle, Chariton, and Lewis. 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 Lewis 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 and Discussion

The test results of the commodity varieties IA3023, IA3048, and IA4004, the 1 percent linolenic varieties and experimental lines A08-252040, and A08-351023, the 2.5% linolenic variety IA3018, the low saturates varieties and the mid oleic varieties, are summarized in Table 1. The data obtained from the test helped determine that A08-252040, A08-351023, IA2101, and IA3050 should be released to interested growers.

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