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Modified Oil Soybean Test—South

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Abstract
The purpose of this test was to evaluate the experimental modified oil soybean lines adapted to southern Iowa for comparison of agronomic traits. The 2007 Modified Oil Test included 1% linolenic, 2.5% linolenic, mid oleic, and low saturates of new and 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.

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Introduction

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Materials and Methods

The modified oil soybean test for the southern district was planted at five Iowa locations—Ames, Carlisle, Lewis, Osceola, and Ottumwa. 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 1% linolenic experimental line A05-314011, the 2.5% linolenic variety IA2065, and the commodity variety IA3023 are summarized in Table 1. The data obtained from the test helped determine that A05-314011 should be released as IA3041.

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