

Modified Oil Soybean Test—North

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Introduction

The purpose of this test was to evaluate the experimental modified oil soybean lines adapted to northern Iowa. The 2008 Modified Oil Test included 1% linolenic and low saturates, and for comparison of agronomic traits, commercially grown varieties released by Iowa State University. Oil from 1% linolenic and low saturates soybean varieties grown in Iowa is used in the frying oil market. This oil is healthier for the consumer.

Materials and Methods

The modified oil soybean test for the northern district was planted at four Iowa locations—including Ames, Charles City, Curlew, 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/ft. 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, and fatty acid analysis.

Results and Discussion

The test results are summarized in Table 1 of the 1% linolenic experimental lines A05-213034 and A06-715003, the low saturates experimental lines A05-215007, and A06-816002, A06-816003 and A06-817010, and the commodity varieties IA1022 and IA2094. The data obtained from the test helped determine that A05-213034 (now IA3042), A05-215007 (now IA2095), A06-715003 (now IA2096), A06-816002, A06-816003 (now IA1024), and A06-817010 should be released to interested growers.

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