

Oil and Fatty Acid Profiles of Soybeans (Maturity Groups IV, V, and VI) Grown in Oklahoma. (C02-farno134121-Poster)

Authors:

- L.A.Farno - *Oklahoma State University*
- L.H.Edwards - *Oklahoma State University*
- K.Dashiell - *Oklahoma State University*

Abstract:

Soybean oil is the most widely used edible oil in the world because of its use in manufactured food products. It is generally used in the production of liquid shortenings, margarines, and soft and low fat spreads. Soybean oil contains five essential fatty acids (Palmitic, Stearic, Oleic, Linoleic, and Linolenic acids). The objectives of this study were to: 1. identify the yield, oil percentage, and percentage of five select fatty acids from selected soybean varieties and lines 2. evaluate the relationship between selected fatty acids and oil content and 3. evaluate the relationship among maturity groups, oil content, and fatty acid content. This study looked at the oil content and fatty acid profile of soybean varieties and lines grown in one soybean variety trial and three soybean yield trials. Data was collected at three different locations across Oklahoma. The oil content was determined by using the Soxtec extraction system and the percentages of the five select fatty acids were determined by using the AOCS's Official Method for sampling and analysis of commercial fats and oils.

Corresponding Author Information:

Luke Farno
Oklahoma State University
159 Agriculture Hall
Stillwater, OK 74078

phone: 405-744-8119
e-mail: farno@okstate.edu

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