# Association Among Seed Components of Large and Small-Seeded Soybean Lines. (C01-hoffman132354-Poster)

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## **Abstract:**

Seed size is an important characteristic for a number of soy-food products. Large seeds are desirable for tofu production while small seeds are desirable for natto preparation. Protein, oil and sugar content also affect the quality of the end soy-food product. Advanced lines from both large and small-seeded breeding projects were evaluated in the field over two years at four locations to determine if correlations among seed characteristics were similar between the two groups. Most correlations were consistent. Total sugar content was positively correlated with all three of the major soybean sugars; sucrose, raffinose and stachyose. Sucrose was negatively correlated with oil. Total sugar and sucrose were both negatively correlated with protein plus oil. Some traits were not consistent between seed size categories. Stachyose was positively correlated with sucrose and raffinose in the large-seeded group in both years but not in the small-seeded group. Correlations between some traits appeared to be influenced by environmental factors. Oil was negatively correlated with protein for both size groups but only in 2001. Similarly, sucrose and total sugar were negatively correlated with protein only in 2000.

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