# Genetic analysis of sucrose, raffinose, and stachyose content in soybean seeds. (C01-huhn193408-Poster)

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## Abstract:

Raffinosaccharides such as raffinose and stachyose accumulate in most terrestrial plants but are not digestable by monogastric organisms such as humans. Genetic reduction of these sugars would improve palatability of soyfoods and increase metabolizable energy of soybean meal. However, little is known about the inheritance of raffinosaccharide content in soybeans. The purpose of this study is to determine the inheritance of soluble oligosaccharide content in soybean seeds. An experimental line was observed to have exceptionally high levels of sucrose and minimal amounts of raffinose and stachyose. This line was crossed to Essex, which exhibits average levels of sucrose, raffinose, and stachyose. Soluble oligosaccharide content of seeds from F2 plants was evaluated using HPLC techniques. Data will be presented for each of the three major soluble oligosaccharides found in soybean seeds.

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