

# Influence of Genotype and Seeding Date on Fatty Acid Composition of Rapeseed (*Brassica napus* L.)

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## Abstract

The value and utility of an oilseed crop for both nutritional and industrial purposes primarily depends upon a fatty acid composition of the seed oil. The objective of the following study was to examine the variability of the fatty acid composition of rapeseed (*Brassica napus* L.) oil as influenced by seeding date. Such information will provide better understanding of the impact of the environment on oil quality which is of great importance for rapeseed breeders. The ability to predict seeding date that affords the best fatty acid composition would benefit seed processors.

The analysis of variance showed significant influence of seeding date, genotype and their interaction on certain fatty acids. Seeding date had significant influence on stearic, oleic, linoleic, linolenic, arachidic and gadoleic acid. The genotype showed significant effect on linoleic, linolenic and behenic acid. Genotype x seeding date interaction had effect on the expression of linoleic, linolenic and erucic acid.

The average oleic acid content was 55.78%, the content of linoleic was 25.88%, of linolenic 11.24%, the content of palmitic acid was 3.27% and of stearic acid was 1.49%. The average content of erucic acid was 0.02%.

Genotypes revealed changes in their fatty acid composition due to different seeding dates.

Key words: *Brassica napus* L., fatty acid composition, genotype, seeding date

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