

Gene silencing technology boosts levels of monounsaturated fats in flax

Amid increasing use of RNAi as a crop-modification technology, a research team led by scientists at Australia's Commonwealth Scientific and Industrial Research Organization has published a report detailing the use of the gene-silencing technology to boost levels of a preferred oil in flax seeds.

The work, which [appeared](#) in *Plant Cell Reports*, demonstrates that RNAi can effectively inhibit target gene expression in flax in a tissue-specific manner, with the effects strongly and stably passed on to subsequent generations. It has also laid the groundwork for similar efforts in other crops, leading to a newly developed high-oleic safflower oil.

Flax is a commercially important crop with its fiber used to manufacture items such as linen, rope, and canvas, and its oil has long been used in industrial products such as paints and varnishes.

In recent years, there has been a shift in consumer demand away from polyunsaturated fatty acids, such as linoleic acid found in a form of flax oil commercialized as Linola toward healthier monounsaturated fatty acids (MUFA) such as oleic acid, CSIRO researcher Allan Green told GenomeWeb in an email. Due to this trend, Linola is no longer commercialized.

"Additionally, high oleic oils also have important industrial applications due to the higher oxidative stability," Green and his collaborators from Viterro wrote in *Plant Cell Reports*.

Read full, original article: [Researchers Report Data on Use of RNAi to Alter Linseed Oil Content](#)