

WHAT IS THE PROCESS TO DEVELOP NUSEED'S DHA CANOLA?

As with all innovative new technologies, Nuseed must achieve product development milestones (prove that the concept will work) and obtain the necessary regulatory approvals (government requirements for commercialisation). There are different regulatory requirements depending on the country involved, however the overall process follows similar patterns.

The development and pre-commercialisation process

A new product can take more than 10 years from concept to commercialisation. In the case of Nuseed's long-chain omega-3 canola, initial concept development started in 1999 at CSIRO. In 2010, a collaboration was formed between Nuseed, CSIRO and the Grains Research and Development Corporation aimed at commercialisation.

Gene discovery and selection of the best gene combination

Controlled testing and analysis of the crop and oil

Laboratory and glasshouse trials, small scale field trials, large scale field trials, product performance testing for end-market uses

Proof of concept

Select plants for development to commercialisation

Deregulation process

Specific trials and tests to meet regulatory requirements for each production country and each country where the oil may be used as a food or feed ingredient

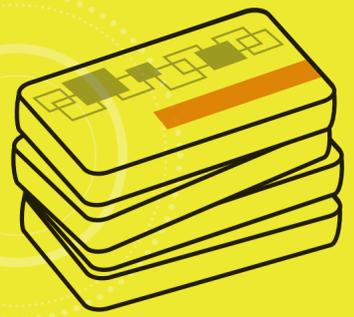
Seed production
Scale up enough seed for commercialisation

Commercial production of DHA canola
Grain production on farm, oil delivery to end users



For Nuseed's canola, all our testing and analysis is conducted under strictly supervised and controlled conditions, as required by government regulations. The best plants are selected for full development, based on agronomic performance, oil yield and long-chain omega-3 content. The oil is also tested to make sure that it is safe and meets the needs of end-use markets, including analysis by independent research organisations.

The deregulation process requires the provision of extensive and detailed testing data and analysis which is collected over a number of years. Once the crop is approved by the regulators, seed production is scaled-up so that it can be grown commercially.



Initial production countries

In the countries proposed for initial production, relevant government agencies ensure the product has been tested under appropriate growing conditions and assess it for health and environmental safety. The regulatory agencies review all the agronomic, environmental and safety data provided before granting approval for commercial production and product entry into feed and food market uses.



Office of the Gene Technology Regulator
Food Standards Australia and New Zealand



Canadian Food Inspection Agency
Health Canada



US Department of Agriculture
Food and Drug Administration

ready for commercialisation
2018/2019



Timing for commercialisation

Provided that key development milestones and regulatory requirements continue to be met, Nuseed aims to be ready for commercialisation in 2018 or 2019.

Initial product volumes will depend upon the timing of regulatory approvals relative to the growing season and the scale of plantings.