

## Processing platform for food functionality of faba bean (3F-Platform)

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SPG Contributions	Project Status	Duration/Timeline of Project (Year to Year)	Total Project Cost
\$399,930.00	Completed	May 2015 – April 2018	\$399,930.00

### Project Description

To screen faba bean for nutritional composition, anti-nutritional factors and functionality; to select faba bean varieties which will meet the needs of the food industry; to conduct primary processing and ingredient modification trials; secondary processing and ingredient characterization.

### Outcome

Faba bean milling was conducted using a cracking aspiration followed by pin milling respectively, despite conducting a few trials over 7% hulls were left in the cotyledon suggesting further work is needed to efficiently dehull faba beans.

Wet extracted fababean ingredients had better oil and water binding capacities, and tasted more compared to air classified ingredients.

Application of fababean starches to product development showed that the wet extracted starch resulted in products with a beany flavour compared to products of air classified starch.

Wet extracted proteins produced smoothies which were relatively neutral in flavour compared to the beany taste of smoothies made from air classified proteins. However, the addition of wet extracted faba bean proteins to muffins and protein bar formulations resulted in products with a beany after taste.

### Research Objective

#### OBJECTIVE 1

To screen faba bean for nutritional composition, anti-nutritional factors and functionality.

#### OBJECTIVE 4

Secondary processing and ingredient characterization.

#### OBJECTIVE 2

To select faba bean varieties which will meet the needs of the food industry. To conduct primary processing and ingredient modification trials; secondary processing and ingredient characterisation.

#### OBJECTIVE 3

To conduct primary processing and ingredient modification trials.