

## Application of Canadian pulse flours in Chinese food products

### Various

Chinese Cereals and Oilseeds Association

SPG Contributions	Project Status	Duration/Timeline of Project (Year to Year)	Co-funders	Total Project Cost
\$339,090.00	Completed	March 2014 – March 2015	Alberta Pulse Growers Commission; Chinese Cereals and Oils Association (CCOA)	\$720,637.00

### Project Description

To utilize Canadian pulse flours in Chinese short biscuits and cookies with improved nutritional qualities and healthy benefits and to examine the possibility of commercialization of the product working with an industry partner; to study the applicability of Canadian pulses in traditional Chinese dried noodles, develop and industrialize new products rich in pulse nutrients; to investigate the application of Canadian pulse flour in Chinese steam bun, and determine the effects of different pulse flour with different incorporation levels on the properties of based wheat flour and on the steam bread quality.

### Outcome

Sensory evaluation total scores of biscuits showed substitution level of refined and unrefined pea flour substitution levels could be 40 and 20%, however, red lentil flours would not be suitable for Chinese short biscuits due to too much beany favor. When the pulse content was low, the material characteristics and processing techniques performed little effects on dried noodle quality, with wider suitable processing conditions. Both fine dehulled and course whole pea flours can be applied in the development of pea steam bread products. With vital gluten as an improver, the quality of pea steam bread (northern-style) was good enough to be accepted. The flavor of pea in the final product is very strong, which might be an obstacle for the future popularization in Chinese market.

### Research Objective

#### OBJECTIVE 1

To utilize Canadian pulse flours in Chinese short biscuits and cookies with improved nutritional qualities and healthy benefits and to examine the possibility of commercialization of the product working with an industry partner.

#### OBJECTIVE 2

To study the applicability of Canadian pulses in traditional Chinese dried noodles, develop and industrialize new products rich in pulse nutrients.

#### OBJECTIVE 3

To investigate the application of Canadian pulse flour in Chinese steam bun, and determine the effects of different pulse flour with different incorporation levels on the properties of based wheat flour and on the steam bread quality.