CIGI PULSE FLOUR MILLING PROJECT
Creating New Opportunities for Canadian Pulses

A Partnership Between:

The Cigi Advantage
Experience, Expertise, Excellence

The Canadian International Grains Institute (Cigi) is an industry leader in developing innovative products, new processes and knowledge of Canadian field crops. Together with Pulse Canada, industry partners, universities and Canadian Food Development Centres, Cigi is adding value to Canadian pulses and leading the way to creating a better understanding of the potential of pulse flours as functional food ingredients under the Cigi Pulse Flour Milling Project.

Project Objectives:
• Expand knowledge about pulse flours including composition and functionality
• Increase understanding of how processing techniques and technologies affect pulse ingredient functionality
• Optimize pulse flour use in specific food product applications
• Work with commercial flour millers to evaluate milling processes
• Work with food processors to overcome formulation challenges

Project Design:

Phase 1: Pulse Flour Milling & Characterization

Phase 2: Product Development

Phase 3: Scale-up & Technology Transfer
**Project Outcomes:**

- Understanding of pulse flour quality produced from different milling processes and technologies
  - Compositional properties (protein, starch)
  - Physical properties (particle size, colour)
  - Nutritional properties (protein, dietary fibre, micronutrients)
  - Functional properties (water and oil absorption, foaming, emulsification, viscosity and pasting properties)
- Knowledge of pulse flour usage in food applications
  - Insight into which flours and flour streams work best in different food products
  - Optimum levels of flour that can be used in various food products
- Technology transfer and scale-up
  - Scale-up of milling processes and food prototypes
  - Technology transfer to milling companies and food manufacturers

**How Will The Food Industry Benefit?**

- Commercial availability of pulse flours for use in food applications
- Expanded options for using pulse ingredients
- Technical support to assist with prototype development and formulation challenges

**Project Funding Provided By:**

- Alberta Pulse Growers
- Canada Agriculture and Agri-Food Canada
- CSGA Canadian Special Crops Association
- Saskatchewan Pulse Growers

**Contact Us:**

To learn more about the Cigi Pulse Milling Project or to discuss your application needs please contact:

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