

Request for Quotes

NUTRITIONAL ANALYSIS OF PULSE INGREDIENTS

BACKGROUND

Pulse Canada is looking for a third-party laboratory to conduct nutritional analysis in the development a database on the nutritional profile of pulse ingredients. As a major producer and exporter of pulses, Canada is well-positioned to establish itself as a large and competitive international player in pulse ingredient processing. However, there is a need to understand the inherent variability in the nutritional quality of these ingredients. Commercial processors are using several different proprietary methods for ingredient processing, where the specific conditions applied will strongly influence the nutritional composition and digestibility of the resulting ingredient. The significance of processing history on the resulting nutrition composition is so great that it makes it difficult to translate any data collected on the whole seed to its derived ingredient. In addition to the processing history, other factors such as genetics, growing environment, storage conditions and the analytical testing method employed will also influence and contribute to the variability of pulse ingredients currently available in the marketplace.

SCOPE OF WORK

This proposed work will source up to 100 commercial samples from Canadian processors of pulse flours, fibres, proteins, and starches that will undergo chemical analysis to quantify nutritional differences that a customer might expect when sourcing pulse ingredients. The quotation should include cost per sample and proposed methods of analysis for each of nutrients listed below.

Quotations can be submitted by email to Janelle Carlin at jcarlin@pulsecanada.com no later than April 12th, 2024.

- Moisture
- Ash
- Protein
- Total Fat
- Saturated Fat
- Carbohydrate
- Sugars
- Amylose/Amylopectin
- Energy
- Total Fibre
- Soluble Fibre
- Insoluble Fibre
- Resistant Starch
- Cholesterol
- Sodium
- Vitamin A
- Vitamin C
- Iron
- Potassium
- Calcium
- Folate
- Phosphorus
- Magnesium
- Zinc
- Selenium
- Amino Acids
- In Vivo - Protein Digestibility Corrected Amino Acid Score (PDCAAS)
- In Vitro – PDCAAS
- DIAAS
- Starch Digestibility
- Total Phenolic Compounds
- Saponins
- Phytic Acid
- Tannins
- Convicine/Vicine