

# **REQUEST FOR PROPOSAL**

## **RESEARCH INTO THE DEVELOPMENT, PRODUCTION, AND UTILIZATION OF PULSE CROPS**

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### **Background and Overview:**

Saskatchewan Pulse Growers (SPG) is the producer organization representing registered growers of pulse crops in Saskatchewan. Its Vision is to be an industry leader in production, processing and marketing of high value pulse products for a viable and profitable pulse industry. The Mission of SPG is to provide leadership for an innovative, profitable and sustainable Saskatchewan pulse industry, through research, market development and communication in collaboration with stakeholders.

The Saskatchewan Pulse industry is a dynamic and growing sector of the Saskatchewan agri-food economy. The reasons for growth include:

- Private and government investments in pulse crop research and development;
- Excellent collaboration between SPG and the University of Saskatchewan (Crop Development Centre);
- Innovative and adoptable outputs from research and development (R&D) investments;
- Producer demonstrated leadership and innovation; and
- Access to traditional pulse markets.

The continued growth of the pulse industry will depend on these reasons and on expanding demand in the traditional export markets as well as developing new markets; the new markets will include finding new uses for pulses. For its investments in research, the SPG has identified these areas as having a higher priority to contributing to industry profitability and sustainability:

1. Increased genetic gain leading to pulse quality improvements;
2. Optimum bio-economic performance of pulse crops from enhanced agronomic and sustainable production practices; and
3. Increased demand for Saskatchewan pulse crops from novel applications in processing and utilization.

### **Goal of RFP:**

To provide financial contributions to R&D projects in pulse crop improvement, production, and utilization that target outputs contributing to increased profitability and sustainability of the Saskatchewan pulse industry in particular, and also the broader Canadian pulse industry.

### **Project Proposal Requirements:**

In addition to the requirements in the SPG Project Application Form, applicants must adhere to the following.

1. **Scope of research is limited to the following elements:**
  - i. **Pulse Quality Improvement:**
    - a) Development of genomic tools to enhance pulse crop genetic improvement;
    - b) Micronutrient biofortification of Saskatchewan-grown pulses, including the effects of genetics, production environment, and processing on micronutrient bioavailability. The micronutrients of interest are Iron, Zinc, Folate, and metabolites such as pigments and peptides;
    - c) Developing rapid regeneration techniques for pulse crop genetic improvement;

- d) Improving the market and processing characteristics of pea, lentil, chickpea and bean;
  - e) Disease resistance and management in pea, lentil and chickpea; and
  - f) Other innovative research outputs that will generate significant economic benefits to the Saskatchewan pulse industry.
- ii. **Pulse Agronomy and Sustainable Production:**
- a) Developing weed management options for lentil and chickpea production;
  - b) Enhanced disease management in pea, lentil, chickpea and bean production;
  - c) Improving the harvest and storage quality of Saskatchewan-grown pea, lentil, chickpea and bean;
  - d) Improving the yield and agronomic performance of pea in the black soil zone of Saskatchewan;
  - e) Enhanced beneficial management practices for pea, lentil, chickpea and bean production in Saskatchewan; and
  - f) Other innovative research outputs that will generate significant economic benefits to the Saskatchewan pulse industry.
- iii. **Pulse Processing and Utilization:**
- a) Development of consumer-ready foods from Saskatchewan-grown pulses;
  - b) Pea starch utilization in food and industrial applications;
  - c) Elucidating the human health and nutritional benefits of pulse-based foods and diets;
  - d) Increasing the value of Saskatchewan peas through innovative uses as livestock feed and pet food; and
  - e) Other innovative research outputs that will generate significant economic benefits to the Saskatchewan pulse industry.
- iv. ***Eligible Pulse Crops:*** Pea, lentil, chickpea, bean (Saskatchewan-grown varieties), and faba bean.
- v. ***Funding limit:*** Up to \$300,000 per project, including the applicable university overhead to a maximum of 15%. Projects exceeding this budget must provide justification.
- vi. ***Funding duration*** of up to three years. Projects exceeding this duration must provide justification.
- vii. Both public good type research and research with commercial potential.
2. ***Specific exclusions from research proposals:***
- i. Crops – Soybean and other pulse crops not mentioned.
  - ii. Proposals that are focused solely on nutrient composition analysis of pulse varieties.
  - iii. Research areas not identified in Section 1.
3. ***Applicant eligibility:***
- Researchers in universities, federal and provincial research institutes are eligible to apply for funding. Companies that are conducting research that will benefit the Saskatchewan pulse industry are also eligible to apply. Applicants must demonstrate the capacity to undertake proposed research.

4. ***Collaborative research:***

Collaboration among various scientific disciplines is encouraged. Because pulse crops are comprised of several varieties and market classes, research proposals that include a multidisciplinary approach involving plant breeders, agronomists, food scientists, livestock nutritionists, and other appropriate expertise are strongly encouraged. Applicants are also encouraged to leverage financial contributions from other sources, including federal, provincial, and industry.

**Application process:**

1. ***Application deadline:*** The deadline for submission of research proposals is **March 2, 2009**. Interested applicants must complete the attached SPG Project Application Form only. Electronic submissions in PDF format are encouraged but applicants **must** also send a signed copy of the proposal by facsimile to the SPG office.
2. ***Application evaluation criteria:*** In addition to the project proposal criteria listed under ***Scope of research is limited to the following elements***, project proposals will be evaluated according to the following criteria:
  - a) Benefits to Saskatchewan/Canadian pulse industry - 25 points
  - b) Technology transfer and communications plan - 10 points
  - c) Capability of researcher(s), institute and collaborators - 15 points
  - d) Rationale for research and literature review - 20 points
  - e) Research plan - 20 points
  - f) Budget (includes requests from other sources) - 10 points
3. ***Notification of Applicants:*** Applicants will be informed of the funding decision by **April 1, 2009**.
4. ***Collaborative Funding Agreement:*** Successful applicants will be asked to enter into a contract with Saskatchewan Pulse Growers. The Collaborative Funding Agreement contains the terms and conditions of the research project.
5. ***No guarantee of funding:*** Applicants must note that submission of the research proposal does not guarantee funding approval. Saskatchewan Pulse Growers reserves the right to fund proposals as determined by the evaluation criteria outlined and subject to available funding.
6. ***Contact information:*** All correspondence pertaining to the RFP must be directed to:  
Saskatchewan Pulse Growers  
Attn: Director of Research  
104-411 Downey Road, Saskatoon, Saskatchewan, S7N 4L8  
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