
Creating Opportunity

November 6, 2008

Alberta-China research to reduce livestock impact on the land

\$1.4-million project enhances valuable feed crop and protects the environment

Shanghai... New canola research will benefit the environment while enhancing animal feed, as part of a joint project between the Shanghai Academy of Agricultural Sciences, the Alberta government, the Alberta Research Council (ARC), as well as private sector partners.

The partners will use leading-edge bioscience technology to enhance the canola eaten by livestock. This new canola will improve the nutritional quality of the feed and also reduce the amount of phosphates in the livestock manure, thus minimizing the environmental impact of livestock production.

Doug Horner, Minister of Advanced Education and Technology, announced the project at the Shanghai Science and Technology Commission: "This project takes us right from research on a good idea to practical applications for commercializing it. That's why we're glad to bring private sector partners into this international partnership. Working together, we could dramatically change the outcomes for this industry as well as improve water and soil management in many parts of the world."

Phosphates are important to animal health and a common ingredient in fertilizer. However, too much phosphate in soil can disrupt the food chain by causing algae bloom in water through erosion and leaching. By modifying North American canola to contain phytase, an enzyme that helps livestock digestion, the amount of phosphorus in livestock manure is reduced.

"ARC is one of the foremost research centers in the uses of this versatile crop," said John McDougall, President and CEO of ARC. "Our canola research projects address improving human and animal health and developing new industrial uses for oilseed crops. This project could lead to greater market share for canola producers in Alberta and China."

The project has three phases: joint collaboration on modification of canola using ARC's expertise in plant genetics and the Shanghai Academy of Agricultural Sciences' technical capabilities; application of technology developed during the project in both Alberta and Shanghai; and, animal feeding trials at ARC's Vegreville facility.

This research is one way the Alberta government is enhancing value-added activity, increasing innovation, and building a knowledgeable, skilled workforce for Alberta's next generation economy.

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Attachment: Backgrounder

Media inquiries may be directed to:

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Modified canola has environmental benefit

Shanghai... Alberta and Chinese partners are working to develop phytase-enhanced canola to reduce the environmental impact of livestock production on the land and water tables.

Project partners

Alberta Advanced Education and Technology

Advanced Education and Technology provides strategic leadership for the development of the next generation economy in Alberta through the provision of accessible, affordable and quality learning opportunities, and support for a dynamic and integrated innovation system.

Alberta Research Council

Alberta Research Council, a subsidiary of the Ministry of Advanced Education and Technology, is an applied research and development corporation that develops and commercializes technology to grow innovative enterprises.

Shanghai Science and Technology Commission

The Commission develops and implements the strategies, guidelines, policies and laws and rules and regulations of the municipality of Shanghai related to science and technology development.

Shanghai Academy of Agricultural Sciences

The Academy's research priorities include innovative genetic research, horticultural technology, processing of agricultural products, application of hi-tech in agriculture and research in urban agriculture.

Private sector partners

Branding the Peace Country Association

The Association is an innovative organization dedicated to developing and promoting strategies that promote and advocate for the agricultural products grown in the Alberta and British Columbia Peace Country region.

Champion Feed Services Ltd.

Champion Feed Services feed manufacturing facilities offer an extensive line of livestock complete feeds, supplements, premixes and feed medications. All of the company's manufacturing mills are FeedAssure™ certified.

Sage Biosciences Inc.

Sage Biosciences Inc. is an agricultural biotechnology company specializing in developing and bringing animal health and nutrition based microbiology products to market. Sage acquires products and technologies through its own internal science and marketing group as well as through the acquisition and contracting of intellectual property from third parties.

Partner contributions, cash and in-kind

Alberta Government	Cash	In-Kind	TOTAL
Alberta Advanced Education and Technology	350,000	-	350,000

Alberta Research Council	97,500	472,000	569,500
TOTAL:	447,500	472,000	919,500

Collaborating Organizations, Alberta	Cash	In-Kind	TOTAL
Branding the Peace Country Association	20,000	-	20,000
Champion Feed Services Ltd.	-	57,000	57,000
Sage Bioscience Inc.	-	57,000	57,000
Collaborating Organizations, China			
Shanghai Science and Technology Commission	184,600	-	184,600
Shanghai Academy of Agricultural Sciences	-	163,000	163,000
TOTAL:	204,600	277,000	481,600

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