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NEWS RELEASE

FOR IMMEDIATE RELEASE

AFA receives go-ahead funding to develop water risk management tool

Lacombe, Alberta (March 19, 2015) – The Alberta Federation of Agriculture (AFA) has received federal funding to develop a unique computer model to better identify risk and impacts of overland flooding and drought in agricultural areas.

“Water-related risks can be catastrophic for the agriculture sector, whether from flooding, excess moisture or drought,” says Lynn Jacobson, AFA President. “This investment by the Government of Canada will support an innovative approach to assessing water-related risk facing agricultural producers.”

The project’s focus will be to construct and showcase a suite of complex hydrologic models that describe interactive water movement throughout the South Saskatchewan River Basin. Under each water-related risk assessment, the model will build maps that define risk zones within the study area. The model will then quantify the frequency, geographical extent and severity of water-related events to establish premium rates for insurance products or assess the value of mitigation projects.

To execute the project, AFA will team up with private consultants experienced in agriculture risk and with world-renowned hydrologic and climate change scientists to generate the computer simulation model. The three-year project will begin April 1, 2015 and continue through March 31, 2018.

Jacobson notes this information will have tremendous value for farmers. It can be used to build insurance products and/or assess risk mitigation strategies to reduce income losses on farms, ranches and rural communities due to drought, excess moisture or overland flooding. While this AFA project is focused on rural areas, this type of hydrologic model could be used for urban areas as well.

Jacobson points out that this project was a natural fit for his organization. AFA’s focus on supporting a sustainable agriculture industry with viable farm incomes includes solutions to effectively manage on-farm risk. AFA’s role complements the efforts of other farm organizations while addressing broader agricultural issues that go beyond a commodity-specific focus.

“We support science-based projects that demonstrate innovative solutions to complex problems and generate benefits to a broad segment of society,” Jacobson says. “This project is a perfect example of that.”

Alberta Federation of Agriculture is Alberta’s largest producer-funded general farm organization. Whenever decisions are being made that affect the province’s agricultural industry, we’re there, providing an effective voice for Alberta’s farmers. For more information on AFA, please visit our website at: www.afaonline.ca

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BACKGROUND

What is the project?

Over the past several years, disastrous water events in Alberta, Manitoba and Ontario have focused attention on the devastating impacts of flooding. Much of the attention dealt with urban property impacts rather than agricultural-based risks. Yet extreme variation in water availability is also a major risk to primary agriculture production across Canada.

The project will focus on constructing and showcasing a suite of complex hydrologic models to describe interactive water movement throughout the South Saskatchewan River Basin, including the Red Deer, Bow, Oldman and South Saskatchewan sub-basins.

The model will describe the movement of water throughout the study area, including:

- along river systems and through the soil
- accumulation/decline of water in wetlands, ponds and lakes
- flooding over river banks and/or overland due to high precipitation and/or snow melt
- water uptake by crops and vegetation
- water loss through evaporation and transpiration processes

Under each water-related risk assessment, the model will build a succession of maps that can define risk zones within the study area. Once developed, the model will be used to quantify the frequency, geographical extent and severity of water-related events. This information can then be used to build insurance products and/or assess risk mitigation strategies (e.g. upstream flood control) to reduce income losses on farms, ranches and rural communities due to drought, excess moisture or overland flooding.

The three-year project will begin April 1, 2015 and continue through March 31, 2018.

Who is leading the project?

To execute the project, AFA will team up with private consultants experienced in agriculture risk and with world-renowned hydrologic and climate change scientists to generate the computer simulation model.

What is the cost of the project?

On March 17, 2015, Member of Parliament for Wetaskiwin Blaine Calkins, on behalf of Federal Agriculture Minister Gerry Ritz, announced \$1.3 million in federal support to AFA to launch the \$2 million project.

Federal funding for the project is being provided under the AgriRisk Initiatives (ARI) program which supports research and development, as well as implementation and administration of new risk management tools for use in the agriculture sector. ARI is a Growing Forward 2 Business Risk Management initiative.

What are the project deliverables?

This initiative aims to develop robust simulation hydrologic models and maps that can assess overland flooding, drought and soil saturation issues to be used to predict the likelihood and impact of future

water patterns. Data collected could contribute to better flood risk analysis and could eventually lead to the development of overland flooding insurance products.

The project model is focused on the South Saskatchewan River Basin, but this model will also be readily transferrable to any rural area in Canada. While this AFA project is focused on rural areas and risk to farm enterprises, the benefits of the hydrologic model could also be applied to urban areas where water-related events can also have devastating consequences.

Why is AFA involved?

AFA is Alberta's largest producer-funded general farm organization. AFA's role complements the efforts of other farm organizations while addressing broader agricultural issues that go beyond a commodity-specific focus. Whenever decisions are being made that affect the province's agricultural industry, AFA provides an effective voice for Alberta's farmers.

AFA's focus on supporting a sustainable agriculture industry with viable farm incomes includes solutions to effectively manage on-farm risk. This makes the hydrologic project a natural fit for the organization.

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Additional Links

- [Alberta Federation of Agriculture Website](#)
- [AAFC News Release March 17, 2015](#)
- [Growing Forward 2](#)
- [AgriRisk Initiatives](#)