

THE VERDANT ELEMENT

Lakeland Agricultural Research Association

Spring Anew with Some New Funding

Every spring we all feel new hope for a great growing year ahead. As soon as that snow starts to disappear, and the first of the geese return we all get itchy to go play in some soil. As soon as that first hint of green appears, new possibilities come with it.

Just in time, there has been a new release of funding opportunities for agricultural producers. If you missed your opportunity with the On Farm Climate Action Funding, the new Sustainable Canadian Agricultural Partnerships (SCAP) arrived April 1st. This is a five year funding agreement that supports various goals for farm improvements.

To access this funding you do need an up to date Environmental Farm Plan (that is either completed within the last ten years, or at least have your EFP started to apply for funding and will need to be completed before your project completion). The Environmental Farm Plan is a self-assessment to highlight risks, your successes and areas that could be improved. To get started contact us at the LARA office.

Programs for producers include: efficient grain dryers, farm technology, resilient agricultural landscapes, on-farm value added, and the water program. A resiliency and public trust program is still being developed for projects that focus on assurance, food sustainability, risk management, youth ag education, mental health or industry governance.

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Farm Technology Stream

The Farm Technology Program supports the adoption of innovative technology that minimizes agricultural waste, optimizes farm efficiency, and encourages the adoption of best management practices in farm security. The program will enable primary producers to better anticipate and manage risks, while reducing environmental impacts and protecting their farm.

Many components of 'Smart systems features' are eligible such as,

- *Digital sensors*
- *Data collection*
- *Connectivity*
- *Automated data analysis*
- *Efficiency improvement*



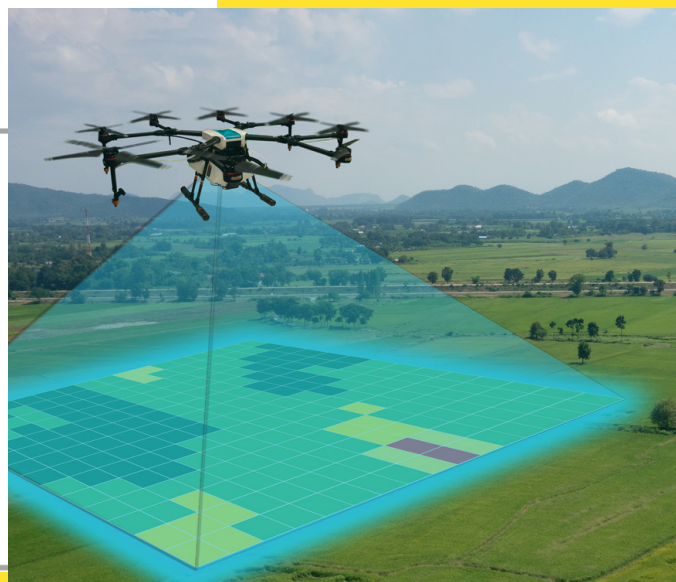
Digital Sensors are electrical input instruments for measuring or monitoring conditions with the ability to transmit data to data logs or to other applications. They differ from analog sensors (i.e., non-electrical measurement devices that use physical components like dials).

Data Collection refers to the logging and storage of measurements and conditions. Once collected, datasets can be analyzed to assist in decision making, often in real time.




Connectivity allows various components within the smart system to communicate with each other. Connections may be hard-wired, or wirelessly, through Bluetooth, Wi-Fi, radio frequency, or cellular service. When systems utilize the internet for connectivity, they increase the potential for automation and digital intelligence capacity.

Automated Data Analysis is what allows smart systems to make real time decisions and adjustments. Data collected by sensors is analyzed by a computer and new outputs are generated. Outputs could be recommendations, information for decision making, or automated action.

Eligible Expenses	Ineligible Expenses
Electronic soil sensors <ul style="list-style-type: none"> • Electromagnetic <ul style="list-style-type: none"> ○ <i>Salinity, organic matter, moisture data</i> • Electrochemical <ul style="list-style-type: none"> ○ <i>Nitrate, potassium, hydrogen ion (pH) data</i> • Soil compaction sensors • Solar powered soil sensors 	<ul style="list-style-type: none"> • Analog soil sensors <p>Example: sensors with dial read-outs, sensors without a digital signal that stores data.</p>
Farm equipment-mounted sensors and cables <ul style="list-style-type: none"> ○ <i>Vegetative index data</i> ○ <i>Grain protein, oil, starch content data</i> • Drone-mounted agriculture specific sensors & lenses (e.g., <i>thermal imaging, multispectral imaging</i>) • Sensor based fertilizer spreader components that optimize granule distribution • Yield sensors retrofitted onto equipment to gather real-time data for yield maps. <ul style="list-style-type: none"> ○ <i>Including hay bale</i> • Weed detection and elimination systems (e.g., <i>precision weed sprayers</i>) 	<ul style="list-style-type: none"> • iPads, TV's • Recreational drones



Farm Technology Program Continued

Eligible Expenses	Ineligible Expenses
<p>Farm equipment-mounted data collection and data storage units for:</p> <ul style="list-style-type: none"> • Accelerometers • Gyroscopes • Magnetometers • Altimeters • Remote monitoring cameras (<i>i.e. remote monitoring for existing water sites</i>) 	<ul style="list-style-type: none"> • Recreational mobile cameras (<i>e.g., GoPros</i>) 
<p>Electronic livestock ID readers that allow data collection for individuals animals</p> <ul style="list-style-type: none"> • E.g., ID reader wands that are linked to weigh scales • E.g., Herd management handheld devices 	<ul style="list-style-type: none"> • Mandatory RFID tags • Structural parts of weigh scales 
<p>Other sensors</p> <ul style="list-style-type: none"> • Leaf wetness sensors • Beehive temperature, humidity, audio and movement sensors • Livestock body movement and body temperature sensors 	
<p>OPEN</p> <p>Equipment that is not explicitly ineligible and it can be shown to meet or exceed the program goals.</p> <p>NOTE: Any items listed in any ineligible row column in the Funding List are not eligible under this category.</p>	<ul style="list-style-type: none"> • Drones for general or recreational use, not specifically for agriculture 
Internet Boosters – MAXIMUM \$2,000 GRANT	

FARM SECURITY FUNDING LIST	
Eligible Expenses	Ineligible Expenses
<ul style="list-style-type: none"> ➢ GPS Equipment Tags and Trackers ➢ Remote Monitoring for Fixed Cameras ➢ Remote Fuel Tank Monitors ➢ Wireless Base Stations (Gateways) ➢ Motion Detectors/Driveway Alert Systems ➢ Door Sensors 	<ul style="list-style-type: none"> ➢ Bluetooth Trackers ➢ Regular Fuel Tank Monitors ➢ Installation Costs ➢ Lighting Systems ➢ Alarms

For More Information:

<https://www.alberta.ca/farm-technology-program.aspx>



Environmental Farm Plans

The environment is becoming a more prominent issue. It is a large factor in marketing agriculture and food products in today's global markets. Consumers are demanding more transparency and are demanding high quality and safe products. Reputation of food safety is critical to retain and gain access to domestic and international markets.

Environmental Farm Plans (EFP) provide a tool for producers to self analyze their operation and identify environmental risks, current standards, areas for improvement and also highlight what they are doing well.

Having a completed EFP allows producers to access different funding opportunities, such as the Canadian Agricultural Partnerships Programs or OFCAF. It is also useful in product branding that demonstrates specific environmental standards.

The EFP is a living document and should be reviewed and updated periodically.

If you wish to complete an EFP or have any questions regarding EFP please contact Kellie at the LARA office at 780-826-7260

The Dangers of Fatigue in the Busy Seasons on The Farm - Jeff Melchior, Alberta Farm Express

Damaged equipment is bad enough for any farmer in the middle of harvest, but a co-owner of a southern Alberta farm says they could have lost much more.

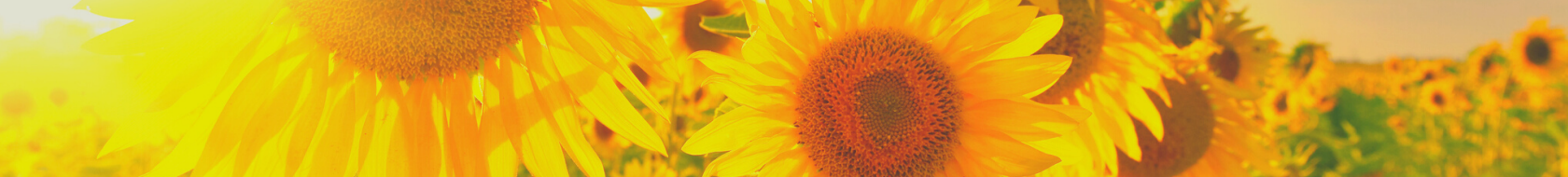
KCL Cattle Company lost thousands of dollars last fall when an employee crashed into a header after a long day in the field. The header was totalled, as was the truck hauling it. The culprit? Fatigue. "It had been a long stretch of harvest because we had had no weather delays, which is great, but I think you forget just how much weather delays help with fatigue," said Karleen Clark, business manager with the Lethbridge-area operation.

"We had just finished up a field; I think they finished around midnight. They decided to move the equipment to another field and start in the morning. There were two trucks pulling the headers. The one in the front slowed down to check a pivot. The one behind him had dozed off and so he ran into the one in front."

Luckily, no one — including the driver who had fallen asleep — was hurt.

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Resilient Agricultural Landscapes

The Resilient Agricultural Landscape Program (RALP) funding is offered on a per-acre payment basis for a term of 3 years. In this way, RALP can better support producers in their ability to implement projects on their land that over time can provide significant benefits for the producer, the public and future generations.

The program will pay a per-acre fee that is calculated to cover most of the applicant’s implementation cost and may also pay an opportunity cost. Additionally, applications will be evaluated based on project size, carbon sequestration improvement, number of livestock impacted, and water quality and biodiversity enhancement, which may result in an impact adjustment payment (impact adjustment payments will vary based on the minister's discretion).

The program funding maximums are:

- \$150,000 – active primary producers
- \$300,000 – Grazing Reserve Associations/operators of a Community Pasture, or an approved Indigenous applicant

The minimum payment under the program is \$2,000.



<https://www.alberta.ca/sustainable-cap-programs.aspx>

Funding Category	Eligible BMP Activity
Pasture Management	<ul style="list-style-type: none">• Riparian area management• Rotational grazing• Adding legumes to existing forage stands• Targeted grazing for invasive plant bio-control
Cropland Conversion	<ul style="list-style-type: none">• Annual cropland conversion to native forages• Annual cropland conversion to tame forages• Strips/ Grass waterways/ Salinity• Intercropping
Tree Establishment	<ul style="list-style-type: none">• Shelterbelts• Eco-buffers• Establishment of pollinator strips
Wetland	<ul style="list-style-type: none">• Wetland restoration and construction of new wetlands

A close-up photograph of several bright yellow sunflowers with dark brown centers, set against a soft-focus background of more sunflowers and a clear sky.

On-Farm Water Supply Stream Funding

The Water Program supports agricultural water management by helping primary producers adopt agriculture water better management practices and priority actions. This supports better management of risks to water quality and supplies, adaptation to climate variability and the efficient use of water resources.

There are two streams of funding within the On-Farm Water Supply Stream: Standard and Special Incentives.

Standard Incentives for new or expanded water source developments include:

- wells
- dugouts
- spring developments
- tie-in to a multi-user water supply pipeline
- dams
- water source for crop irrigation
- cisterns
- unshared water pipelines
- off-source watering systems

Special Incentives:

- well decommissioning
- well pit conversions
- wetland assessments

For dugouts, dams and spring developments under the On-Farm Water Supply Stream, applicants must speak to an Agriculture and Irrigation Water Specialist and receive an approved Construction Sheet prior to planning and construction. This will confirm the proposed project meets legislative and program requirements. Call 310-FARM to speak to an Agriculture and Irrigation Water Specialist. There is an On-Farm Water Supply Stream maximum of \$35,000 per applicant for the period April 1, 2023, to March 31, 2028.

Standard incentives are at a 25% grant, 75% applicant cost share to a maximum funding of \$15,000. Special incentives have varied cost share rates to a program maximum of \$20,000.

On-Farm Water Stream

Phone: 310-FARM (3276)

Email:

farmwatersupply@gov.ab.ca

<https://www.alberta.ca/water-program.aspx>



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The Dangers of Fatigue in the Busy Seasons on The Farm - Jeff Melchior, Alberta Farm Express

“Fortunately, we were able to get a header the next day but that was just a stroke of luck, I think. It could have been worse,” said Clark.

“I know this feels like a small incident but it was eye-opening to us as to how bad it could have been. If our employee had been hurt, that would really shake us because we’re all friends, we’re all family. It’s important to make sure everyone is staying safe.”

With another busy season approaching, KCL Cattle Co. is looking at ways to manage fatigue to prevent any similar (or worse) accidents.

“We’ve had a lot of conversations about it. I think the biggest thing is to have honest discussions about fatigue,” said Clark, who serves on the board of directors of AgSafe Alberta.

“There’s a sense of pride — farmers push to finish. I think it’s important to remind everyone that there are times when it’s not smart to keep going.

“If you’re tired, don’t be afraid to say ‘hey I need to be switched out today. I need some help. I need to get some more rest. Or maybe let’s not move this equipment tonight. Let’s go rest first.’”

As a farm owner, Clark understands the need to seed and harvest quickly, “but a bad incident is going to cost you a lot more than a weather event or not getting your crop off in time.”

More dangerous than alcohol

Although sometimes shrugged off by farmers as part of the job, fatigue is no joke. According to AgSafe Alberta, it’s four times more likely to cause worker impairment than drugs or alcohol. A tired employee is three times more likely to be involved in a workplace incident.

Fatigue is also estimated to cause 20 per cent of all vehicle fatalities, while unmanaged fatigue contributes to diabetes, obesity and heart disease.

One of Clark’s plans for the upcoming busy season is to encourage the timely use of caffeine — or even water — when the work day runs long.

“Maybe bring out some coffee at 8 p.m., giving the guys a little bit of a break later on in the evening, probably could help.”

Employees or operators in general should take notice of things that help keep them awake.

“My one farm manager said being barefoot helps keep him awake. Opening windows can help; warm vehicles make you dozy. I think sometimes getting out of your equipment and just moving around can help. Having someone in the cab ... can help too.”

On the managerial side, Clark recommends setting up shifts if possible. Not every farm has that luxury, of course. “But if farmers can make an arrangement with neighbours — whatever they can do to avoid getting into a position of fatigue I think is important.”

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Lakeland Agricultural Research Association

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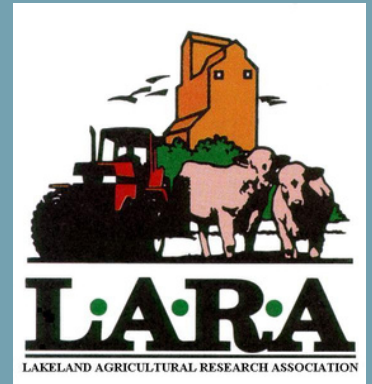
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Sustainable farming encompasses a wide range of practices and principles; combining environmental stewardship with profitability and ensuring that the family farm will be there for generations to come.



www.laraonline.ca

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Managers should pay particular attention to younger or more inexperienced employees, said Clark. The worker who got into the accident was younger, less seasoned and probably hadn't yet found the tools needed to cope with fatigue.

"Our farm manager, my husband Jared, knows how to deal with fatigue and knows how to identify when he's too tired because he's been doing this for 10, 20 years.

"With the younger guy, we probably could have done a better job of telling him 'hey, this might be helpful', or 'you need to make sure that in your off days, you're getting enough rest.'"

AgSafe Alberta says managers can watch for workers who become Inattentive, have difficulty remembering or thinking clearly, struggle to make decisions and show errors in judgment.

AgSafe Alberta has resources to help farmers manage a broad range of farm safety issues. One of its latest is Farmers Care, billed as a free program designed to be "a simple, effective and interactive tool to help you improve farm safety in a practical way." As its website says, "you don't need any previous safety knowledge or experience; all that it will take is a computer, tablet, or mobile device, an Internet connection, and a little time." "It touches base on the key hazards on the farm," said Clark.

"The program takes you through each section and does a really good job of overviewing what the hazard is, how you can avoid the hazard, and has quick snippets on people who have had incidents related to those hazards. "I would say it took me an hour to go through the entire program, which I think is pretty quick."

Farmers Care and other AgSafe programs and information can be found at agsafeab.ca