



Government of Canada

Trade Commissioner Service

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Canada

# CANADA'S WATER INDUSTRY PROTECTING AGRICULTURE WATER RESOURCES

According to the 2018 World Water Development Report, agriculture is the economic sector that is most affected by the increasing variability of water resources globally. Rural communities in developing countries are especially affected, accounting for 84% of harmful economic impacts of droughts, and 25% of all damages from extreme weather events.

This precarity is especially critical when farmers remain the biggest consumers of freshwater globally, with more than half of their usage lost to leakage and inefficient water management. Canadian firms are developing innovative solutions to overcome these challenges by applying new technologies to treat and reuse water for irrigation, recharge aquifers, and recover nutrients. These companies are improving performance and reliability against water scarcity. As well, AI-driven management tools are helping farmers monitor water quality, prevent human error, and provide discerning insights about how to plan an adaptive and responsive water system.

**70%** **AGRICULTURE ACCOUNTS FOR ABOUT 70% OF GLOBAL WATER WITHDRAWALS**, the vast majority of which are used for irrigation.<sup>1</sup>



1. United Nations World Water Development Report: Nature-based Solutions for Water. 2018.



**LIVESTOCK WATER RECYCLING INC. >**  
[livestockwaterrecycling.com](http://livestockwaterrecycling.com)

**Livestock Water Recycling Inc.** (Alberta) is a water treatment company focused on providing livestock operations with sustainable and cost effective manure treatment technology. With systems installed and operating throughout Canada and the United States, the innovative technology has been awarded patents in Canada, New Zealand, Russia, the European Union, and the United States. It is patent pending in three other countries around the world.

In October 2018, Liban Lait, the largest dairy farm in Lebanon adopted Livestock Water Recycling's technology, becoming the first dairy farm outside of North America to install the system. Liban Lait is home to 2000 cows and a fully automated processing plant. With its franchise agreement with Candia, the dairy manufacturer is one of the leading producers of UHT milk in France.



**WATER  
INDUSTRY**

**Bringing leadership and innovative solutions to the world.**

**TRADE COMMISSIONER SERVICE (TCS)**

## CANADIAN COMPANIES WORKING GLOBALLY

When it comes to water and wastewater solutions for the agricultural sector, Canadian companies are leading the way. Here are some examples of firms at work around the world.



### **FARMERS EDGE** > [farmersedge.ca](http://farmersedge.ca)

**Farmers Edge** (Manitoba) is at the forefront of the next agricultural revolution, developing data-driven technologies that help farmers run efficient operations and scale up production to meet the food demands of a rapidly growing global population. FarmCommand™ is the company's turnkey, water-focused decision support tool to help farmers track moisture data in real-time, calculate infiltration and water consumption, and manage irrigation timing and application rates to reduce crop water stress. Farmers Edge is currently exporting to several countries, including the United States, the United Kingdom, and Brazil. In November 2018, Farmers Edge partnered with CNH Industrial, one of the world's largest farm machinery manufacturers. Through its extensive network, CNH Industrial will make the Farmers Edge solution available to its customers, propelling the company's goal of 150,000 connected devices over the next three years, including 100,000 pieces of farm equipment, and 50,000 connected field sensors.



### **OSTARA NUTRIENT RECOVERY TECHNOLOGIES INC.** > [ostara.com](http://ostara.com)

**Ostara Nutrient Recovery Technologies Inc.** (British Columbia) helps growers and cities protect precious water and food resources by providing nutrient management solutions to communities around the world. The company's Pearl® technology recovers phosphorus and nitrogen from industrial, agricultural, and municipal water streams, transforming them into Crystal Green®, a premium, sustainable fertilizer. Crystal Green is the first fertilizer to release nutrients in response to plant demand. Its Root-Activated™ granule (5-28-0 with 10%Mg), sold globally to the turf and agriculture sectors, is proven to improve crop yields, enhance soil health and significantly reduce phosphorus tie-up, leaching, and runoff, improving food security while protecting local waterways from nutrient pollution.



### **HORTAU INC.** > [hortau.com](http://hortau.com)

For more than a decade, **Hortau Inc.** (Quebec) has been an industry leader in precision soil tension monitoring, developing one of the first online irrigation management systems in the market. The company's patented technology helps the agriculture industry take the guesswork out of irrigation management, providing growers with real-time soil tension data that provides vital insight on crop stress. As well, Hortau works with growers to create irrigation schedules that produce high-quality crops and maximum yields. Recently, the company has been finding export traction in the table grape industry. Since 2016, Anthony Vineyards in Mecca, California has been using Hortau's system to gather analytics about the available water in the soil. This allows for better water-use efficiency and a higher quality harvest. As a result of this data, this vineyard has been able to reduce water usage by over 20% and is reporting healthier vines and better quality grapes.

MORE CANADIAN  
FIRMS OFFERING  
AGRICULTURAL  
SOLUTIONS:

- > Anaergia
- > A.U.G. Signals Ltd.
- > Canada Culvert
- > Lystek
- > UV Pure Technologies Inc.

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