



# CANADA: A GLOBAL LEADER IN QUANTIFYING AGRICULTURAL EMISSIONS REDUCTION



Canada's carbon offset markets provide the largest number of opportunities in the world for farmers to participate.

**Did you know?** Over 20 million metric tons of carbon dioxide emissions reduced from agricultural carbon offset projects in Alberta.

Canadian firms have developed niche expertise in agricultural emissions reduction. Today, Alberta is one of the few places in the world to have successfully demonstrated that large volumes of carbon credits can be generated from the agriculture sector. This has driven interest from the United States, Kenya, Switzerland and elsewhere. Building on their carbon market expertise, Canadian firms are now leading the development of cutting-edge systems for tracking sustainability in corporate supply chains. They are also developing innovative technologies for minimizing waste. Find out how you can leverage Canadian expertise to achieve your sustainability goals.



› Quantification

## VIRESCO SOLUTIONS INC. - A PIONEER IN QUANTIFYING AGRICULTURAL EMISSIONS REDUCTION

Viresco Solutions led the implementation of several protocols for agricultural carbon offset development in Alberta, including the Conservation Cropping, Nitrous Oxide Emission Reductions and Fed Cattle protocols. Viresco has adapted these protocols for the United States and assisted numerous project developers in their implementation, including the world's first beef carbon project. In collaboration with its partners at Climate Smart Group and with funding from Bayer and the U.S. Department of Agriculture, Viresco has now developed a new carbon accounting and insetting framework for reducing agricultural supply chain emissions. This framework uses low-touch, low-cost verification techniques and will help agri-retailer corporations achieve their emission reduction targets.

› [virescosolutions.com](http://virescosolutions.com)

Carbon insetting is different from carbon offsetting. Carbon offsetting is a financial transaction between a company that wants to "offset" its emissions and a company that has achieved and quantified its emissions reduction in accordance with an approved carbon offset methodology. Carbon insetting occurs when a company invests in upstream or downstream emissions reduction within its supply chain.



# CANADIAN SUCCESSES AROUND THE WORLD



› Sustainable technology

## LIVESTOCK WATER RECYCLING - MANURE TREATMENT TECHNOLOGY OPTIMIZES PRODUCTION, MAXIMIZES YIELDS AND REDUCES ENVIRONMENTAL IMPACT OF LIVESTOCK OPERATIONS

Livestock Water Recycling is the world's leading provider of manure treatment technology. From its Innovation Center in Calgary, Alberta, the company works with farms around the world to reduce greenhouse gas emissions, reduce concentrate, separate nutrients for strategic fertilizer application and recycle water. The Livestock Water Recycling system is the only proven and fully operational technology that reduces manure volumes and concentrates nutrients while delivering a renewable high-quality water source. Better yet, it provides a minimum 20% to 30% return on investment. Lebanon's largest dairy farm, Liban Lait, is just one of many leading dairy operations to install the system. As the market leader, Livestock Water Recycling's vision has always been to help livestock farmers increase farm efficiencies while also improving sustainability.

› [livestockwaterrecycling.com](http://livestockwaterrecycling.com)



› Monitoring

## FARM-TRACE - A COFFEE TRADER MANAGES ITS SMALLHOLDER SUPPLY CHAIN IMPACTS WITH EASE

FARM-TRACE's software platform is used by a large coffee trader to manage and communicate its sustainability impacts with confidence and transparency. FARM-TRACE provides intelligent automated monitoring and reporting across hundreds of smallholder coffee-farm suppliers in Nicaragua. Combining satellite imagery, environmental data and cell phone information, FARM-TRACE uses machine-learning technology specific to the local climate to track forest cover and carbon stock on each farm. Providing near-real-time insights, FARM-TRACE saves time and money by eliminating the need for external experts to conduct site assessments. With every farm's performance data at its fingertips, the company has been able to improve its operations and outcomes with farmers. FARM-TRACE can be used to manage and report on a broad range of sustainability impacts and can be applied anywhere in the world.

› [farm-trace.com](http://farm-trace.com)

### CANADIAN FIRMS OFFERING EMISSION REDUCTION AND SUSTAINABLE SUPPLY CHAIN-ENABLING SERVICES

#### Traceability

- › FARM-TRACE Technologies Inc.
- › TrustBIX Inc.
- › Decisive Farming
- › Cowater International
- › Agriteam Canada Consulting Ltd.
- › Viresco Solutions Inc.

#### Greenhouse gas methodology and standards development

- › Brightspot Climate

- › NatureBank
- › Viresco Solutions Inc.
- › Brinkman & Associates Reforestation Ltd.

#### Data management and analytics

- › Carbon Credit Solutions Inc.
- › Viresco Solutions Inc.
- › FARM-TRACE Technologies Inc.
- › TrustBIX Inc.
- › MotorLeaf
- › Raven Bay Services

- › Decisive Farming
- › Brinkman & Associates Reforestation Ltd.

#### Sustainable technology

- › Livestock Water Recycling
- › Sultech Global Innovation Corp.
- › Stream Technology Inc.

Canada's Trade Commissioner Service (TCS) is a government organization that has facilitated trade with Canada since 1895. With offices across Canada and around the world, we are accessible to both Canadian and international companies looking to increase their business and find trusted partners. With an in-depth knowledge of global markets and insight on Canadian industry sector capabilities, we can connect you with strategic procurement, investment, innovation or education partners in Canada. Let our team of professionals help you at [tradecommissioner.gc.ca](http://tradecommissioner.gc.ca)! For more information on Climate Finance, please contact us at [TCSclimatefinance@international.gc.ca](mailto:TCSclimatefinance@international.gc.ca).

