



The Verdant Element

MONEY IN FARMING?!

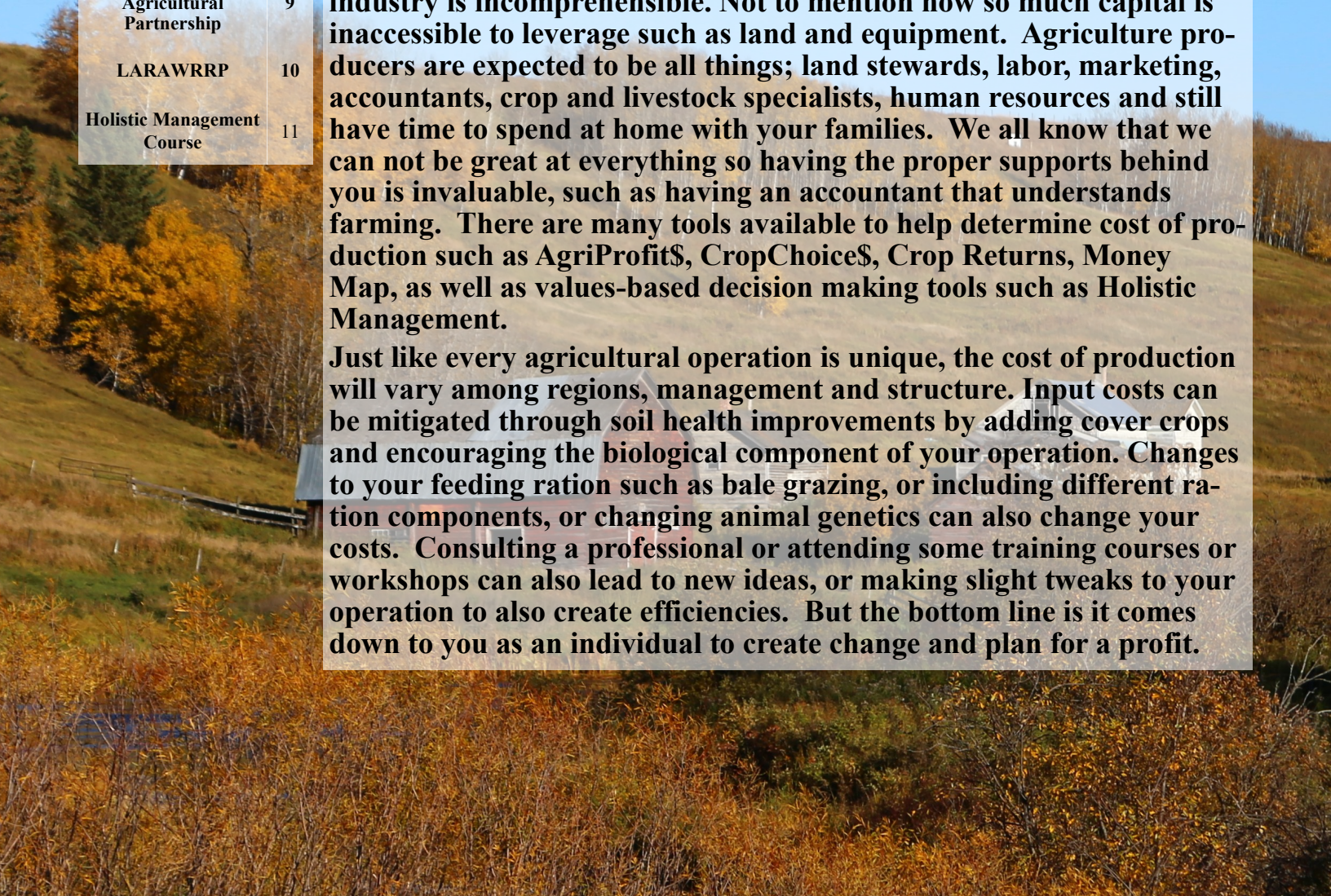
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This is a regularly asked question amongst farmers; is there money in farming? The answer is yes. However, how much money is dependent of course on the markets, the weather, and trade economics. But an even larger factor is management. One of the biggest factors in farming profitability is knowing your cost of production. If you know exactly how much that bushel of canola costs to produce, or how much per pound that yearling took to take to the auction then you know what your break even costs are and you would not sell for less.

Agriculture is a different beast when you want to talk about everyone's favorite topic, finances. Cash flows from someone outside of the industry is incomprehensible. Not to mention how so much capital is inaccessible to leverage such as land and equipment. Agriculture producers are expected to be all things; land stewards, labor, marketing, accountants, crop and livestock specialists, human resources and still have time to spend at home with your families. We all know that we can not be great at everything so having the proper supports behind you is invaluable, such as having an accountant that understands farming. There are many tools available to help determine cost of production such as AgriProfit\$, CropChoice\$, Crop Returns, Money Map, as well as values-based decision making tools such as Holistic Management.

Just like every agricultural operation is unique, the cost of production will vary among regions, management and structure. Input costs can be mitigated through soil health improvements by adding cover crops and encouraging the biological component of your operation. Changes to your feeding ration such as bale grazing, or including different ration components, or changing animal genetics can also change your costs. Consulting a professional or attending some training courses or workshops can also lead to new ideas, or making slight tweaks to your operation to also create efficiencies. But the bottom line is it comes down to you as an individual to create change and plan for a profit.



A Different Perspective

For those of you who have met me, my love of travel is very evident. I have had the fantastic opportunity to see much of the world, and be in awe of different cultures, traditions and economies. On most of my travels I love to include an agricultural component; be it the wineries and express interest in viticulture, to dairies and cattle operations, or to growing a crop I know nothing about such as rice. It is always amazing to see how our food is grown and how farmers love to share their love of the land and what they do.

On my most recent adventure I went to Vietnam and Cambodia; and I think it was one of the places that has affected me the most. These are incredibly poor nations. I have been to the third world before, in places such as Malawi in Africa, where the average age of the population is around 15 due to child labour in tobacco and coal industries, and the illnesses that ensue with the working

conditions. But in Cambodia, for some reason it hit me much harder. I think perhaps it was so much more graphic in Cambodia, but also because the people were at such a disadvantage. In Malawi, NGO's had come in and drilled proper wells for villages to collect clean water; whereas in Cambodia I watched floating villages with each boat having a "toilet" that directly entered the river on one side and then people pulling up buckets of river water to use as potable water on the other side of the boat. The lands are prone to drought and floods, and the groundwater wells that they do have are poorly drilled and very shallow and susceptible to overland flooding making water-borne disease very common.



One quarter of the Cambodia people were tortured and murdered under the Pol Pot Khmer Rouge regime, which only ended in 1979. Before I started planning this trip I knew almost nothing of this genocide. I think that is one of the things that shocked me on how little this was discussed in school, or on the global scene. As part of my trip, I visited 3 schools, having carted school supplies over there with me to hand out. To see how the kids valued pencils, crayons and scribblers, and to show them on maps where I came from was rewarding. At one school they sang me "If you are happy and you know it" in

their language followed by “you are my sunshine” in English. It was delightful.

The atrocities of man can sometimes take your breath away. I visited the Killing Fields, where tens of thousands of people were murdered, as well as the War Remnants Museum where the photos of the Vietnam War are displayed along with the documentation of the effects of agent orange on generations of people. I crawled through a few of the Ku Chi tunnels (which were enlarged slightly for our bigger Canadian bodies) and was amazed at the resourcefulness and determination of the people to build over 250 kilometers of tunnels that are up to three stories deep that were dug by no more than a hammer and bamboo basket.

Travelling around gave me a good idea of what it was like for my grandparents coming to Canada from Ukraine and starting to farm. Once you leave the cities in both Vietnam, but especially Cambodia, it was like stepping back into the early 1900s. Many people are without electricity and running water. I saw one combine (which was the same size as our LARA plot combine), and a handful of tractors. Much of agriculture relies on cattle or water buffalo and manual labour. They feed their livestock hay (because it is either drought or flood), which only has 3-4% protein, which would be a partial reason their cattle look more than a little hungry. But they love their animals and were often seen bathing them in the river. Both countries have primarily agriculture driven economies. Vietnam is the second largest exporter of rice in the world.

Very few people outside of the cities have a refrigerator, so daily trips to the markets are required to purchase food. At the markets you can find almost any kind of vegetable and fruit, many river creatures (75% of their protein comes from seafood), meat (beef, chicken, ducks and pork), eggs, insects, rice, beans and grains. There is very little in the way of wildlife such as birds and small creatures; due to everything was considered food during the wars and the Khmer Rouge regime. In one of the markets you could have purchased rats.



Pictures (both pages) clockwise from top right: hauling produce on motorbike; cattle; bathing cattle in a river; houses on stilts for wet season to survive the flooding with a pile of hay for feed and their boats for fishing; women selling meat in the market; skinned rats for sale; rice barge heading to a rice factory; floating village with no electricity or potable water; one of the schools I visited; a mass grave at the Killing Fields is marked in remembrance; insects and eggs for sale at market.



The one thing I will mention as “waste reduction week” is coming up in October, is that the amount of trash that covers the entire country is extraordinary. Within the last decade plastic has replaced the biodegradable materials (such as leaves) that people used to take home their market purchases in. With Vietnam having one of the fastest growing economies (as they are now considered capitalist-communist) the amount of garbage that is being produced is growing at an exponential rate. Outside of the cities there is no method for handling trash. Think of a country like Vietnam with a population of 98 million, with only a small fraction of that having a place to handle waste. There is not a ditch or road not littered with plastic. The government of Cambodia is even discussing putting a ban on plastic bags, with increasing pressure as tourism is becoming a major driver of their economy.

The people of Cambodia and Vietnam are resilient, resourceful and hopeful. After all the atrocities they have suffered, Cambodians do not let the past hold them back; they are incredibly forgiving and peaceful. As one of my guides said “we don’t forget but we do forgive”. And it is a very beautiful and incredible thing to witness.

There is tremendous potential for both these nations and it will be interesting to see how both countries progress into the future.

Pictures clockwise from top right: people working in the rice fields;

water buffalo grazing after harvest; a typical house on stilts with rice drying on tarps to be able to de-husk; the only combine I saw on my journey harvesting rice; motorbikes are used to transport EVERYTHING; market offerings; Saigon (Ho Chi Min) city at night; meat for sale at the market.



Western Water Hemlock and Cow Parsnip



Western water hemlock is a very toxic native member of the parsnip family. Its toxins are concentrated in



Pest Watch

the hollow rootstock, but are also found in the leaves and stem. It can easily be mistaken for Cow Parsnip as both grow in marsh areas such as wetlands and along roadsides with moist ditches and have umbel flowers. Western water hemlock can be distinguished by its compound pinnate leaves with coarse teeth. Flowers are white or greenish in color. It takes very little of the toxin to be lethal and can cause death in as little as 15 minutes after consumption. Symptoms include: stomach pain, nausea, vomiting, diarrhea, fever, labored breathing, tremors, convulsions, and weak and rapid pulse.

Cow parsnip, part of the carrot family, can grow to 1 to 2 meters tall. It has large hairy heart-shaped leaves with small white flowers that grow in flat-topped clusters and produce flat seed pods. The leaves can cause skin irritation and blisters in humans and livestock. Cow parsnip can also be confused with Giant Hogweed, an introduced ornamental which contains phytotoxins.

Above: Cow Parsnip. Top Right: Cow Parsnip flowering. Below (from right, clockwise): Western Water Hemlock flower; Water Hemlock leaves; Water Hemlock entire plant.



To report prohibited noxious weeds call the Alberta Pest Surveillance System at :

310-APSS (2777)

HM Grazing Tour

In July several producers hopped on the bus and headed into Saskatchewan for the Holistic Management Grazing Tour. The day began at the B-C Ranch, and then headed to the Chuiko Ranch. The B-C ranch has been operating under the practices of Holistic Management for over 30 years, whereas the Chuiko operation has been for the past 3 years.

Holistic management is a process that considers how to make decisions that are socially, environmentally and financially sound. By beginning with defining your own quality of life, thinking about where you want to be with your relationships, how you feel about yourself, what do you need to feel secure and differentiating quality of life from standard of living. By being able to set goals and make better decisions you can take your land, work with nature to make it more productive, which lowers your costs and results in a higher profit (and hopefully less work).

The definition of insanity is doing the same thing every time and expecting different results. If we have a problem or things are not working we have three choices: do nothing, do the same thing harder, or stop and assess and make a change. On your operation the greatest asset is yourself.

Both operations have planned grazing



Innovative watering system made from bale tarps and lumber

with sufficient recovery periods between grazing. They both utilize bale grazing to rejuvenate pastures. Working with the energy, water and mineral cycle builds the land and in turn increases the potential for profitability. It is impossible to waste captured solar energy (green growth) as it is an investment in biological capital and can be converted to cash as hay or pasture or animal gain. To increase your solar energy potential plants should be tightly spaced, wide leafed with abundant diversity. For effective water management and to minimize loss, increase ground cover with diverse and abundant plants to reduce runoff, increase absorption, and decrease evaporation (more porous soils with increased organic matter). Make use of available nutrients, your animals are the best source of fertilizer. The quicker your manure breaks down the healthier your land is.



Utilizing holistic management practices has improved the quality of life for all people on the ranches. B-C Ranch sustains 3 families that all work together, building their individual strengths and using consensus decision making to move the operation sustainably into the future. For the Chuiko's, it has allowed both Deanne and John to no longer work off farm by creating efficiencies, being innovative and running more cattle to replace the income from John's former welding occupation.



In the picture above you can visibly see the difference that bale grazing made to the pasture on the right as opposed as to the one on the left.

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 Growing Forward Stewardship Program. It is also useful in product branding that demonstrates specific environmental standards.

The EFP Process

An EFP can be completed through workshops, online or one-on-one session(s). The EFP first identifies the soil and farm site characteristics. Following this, the producer completes only the relevant chapters that apply to their operation; such as wintering sites, fertilizer, pesticides, crop management etc.

Upon completion the EFP is submitted to a Technical Assistant for review. Once reviewed the EFP will be returned along with a letter of completion.

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

Effective April 1, 2018, producers will need to have an EFP completion letter dated within the last 10 years to be considered current and eligible for cost-share funding with the Environmental Sustainability and Climate Change programs of the Canadian Agriculture Partnership (CAP). That means, for example, if you apply in September 1, 2018, your EFP will need to have been approved on or after September 1, 2008 to be considered for current funding.

Riparian Health Assessment

The riparian zone is the interface between the upland and a water course. A healthy riparian area: traps and stores sediment; builds and maintains banks and shorelines; stores water; recharges aquifers; filters and buffers water; creates primary production and much more!

A riparian health assessment is a tool designed to evaluate the site and can provide a foundation to build an action plan and identify priorities.

If you would like a FREE Riparian Health Assessment conducted on your property or more information please call Kellie at 780-826-7260 or email sustainag.lara@mcsnet.ca

CANADIAN AGRICULTURAL PARTNERSHIP

The Canadian Agricultural Partnership is a five-year, \$3 billion federal-provincial-territorial investment in the agriculture, agri-food and agri-based products sector set to begin in April 2018, and is the successor of the 2013-18 Growing Forward 2 partnership. In Alberta, the Canadian Agricultural Partnership represents a federal - provincial investment of \$406 million in strategic programs and initiatives for the agricultural sector.

Currently accepting funding applications is the Environmental Stewardship and Climate Change program and Farm Water Supply.

Funding Opportunities Stewardship covers projects such as:

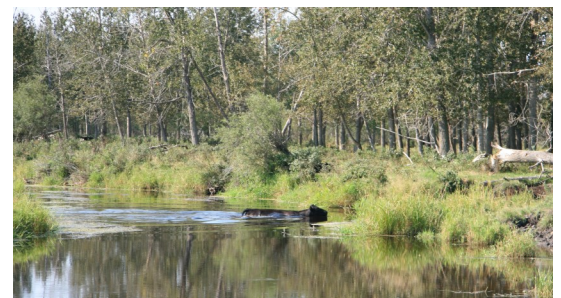
Riparian Area Fencing and Management	Permanent fencing and potentially cross fencing	Funding Maximum: \$75,000 Cost Share: 30%, 50%. Or 70%
Year-Round / Summer Watering Systems	Portable or permanent systems that are not in your yard site	Funding Maximum: \$50,000 Cost Share: 30%, 50%. Or 70%
Watercourse Crossings	Construction materials needed for watercourse crossing in accordance with the Water Act	Funding Maximum: \$10,000 Cost Share: 30%, 50%. Or 70%
Grazing Management Strategies or Innovative Solutions	Consideration will be given to projects that provide solutions to improve grazing management. The projects must meet the objectives of Environmental Stewardship and Climate Change Program and significantly improve the grazing management performance of an operation.	Funding Maximum: \$100,000 Cost Share: 30%, 50%. Or 70%
Manure and Livestock Facilities Management	Construction of surface water management system; engineering assessment; improved storage facilities; relocation of livestock facility; improved land application; manure and livestock facilities management	Funding Maximum: \$15,000 - \$100,000 Cost Share: 30%, 50%. Or 70%
Agricultural Input and Waste	Improved pesticide management; improved nutrient management (sectional controls); plastic rollers; shelterbelts; wetland assessments	Funding Maximum: \$7,000 - \$15,000 Cost Share: 30%, 50%. Or 70%

More Information On Funding Opportunities

For more information on these funding opportunities go to: <https://cap.alberta.ca/CAP/index.html>

Call the LARA office to set up a time to go over funding possibilities and for assistance with the application forms.

Please note that applications must be approved prior to work being done or purchases made to be eligible for the funding.



Stuck in the mud? Consider an offsite watering system.

LARA Watershed Resiliency and Restoration Program

Watersheds are unique, come in many shapes and sizes and can cross many different land uses. The simple definition of a watershed is the area of land that catches precipitation, and drains into a wetland, stream, river or groundwater. The riparian zone is the interface between the upland and a water course. This area is heavily influenced by water, how and where it flows and is reflected in the plants, soil characteristics and wildlife that are found there. Riparian areas have a large role in water quality, quantity and biodiversity. They provide eight key functions to: trap and store sediment; build and maintain banks and shorelines; store water; recharge aquifers; filter and buffer water; reduce and dissipate energy; create primary production; and maintain biodiversity by providing habitat for plants, wildlife and fish. These Ecological Services benefit people, other living organisms, and the overall functioning of interconnected natural systems within watersheds. Conservation and restoration of wetlands and riparian areas in Alberta are needed for sustainably functioning watersheds.



Over the past several months I have been busy applying through Alberta Environment and Parks for their Watershed Resiliency and Restoration Program for funding. We did receive the grant, and I am very happy to announce the launch of the Lakeland Agricultural Research Association Watershed Resiliency and Restoration Program (LARAWRRP). Over the next two years LARA has funding available for: offsite watering systems, riparian fencing, watercourse crossings, and wetland enhancements such as pond levelers, exclusion fencing and riparian plantings.

Forms and information for the program are available online at: <http://www.laraonline.ca/farming-resources/environmental/funding-opportunities/>



Holistic Management with Kelly Sidoryk

November 16, 17, 18, 30, December 1 & 2

St. Paul

For over 35 years farmers and ranchers in Alberta have used Holistic Management to improve land, grow nutritious food, gain control of their finances and improve their quality of life.

Holistic Management is a values-based decision making framework that integrates all aspects of planning for sustainable social, economic and environmental considerations. Each and every operation is unique and by using Holistic Management farmers and ranchers can achieve improvements in their land and mitigate risk.

Module 1

Introduction to HM

Paradigm shifts

Enhanced decision making through testing questions

Developing holistic goals for higher quality of life, more profit and healthier land

Secrets of effective communication - working with your team

Module 2

Review principles of analytical testing questions

Learn about using tools and their effects

Grazing principles

Develop a biological plan

Module 3

Principles of holistic financial planning

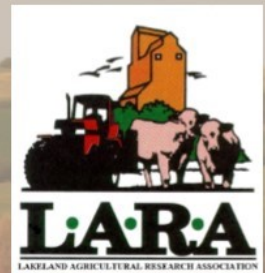
Definition of wealth

Enterprise analysis

Plan a profit

Develop your operations annual financial plan

Create a learning (support) group



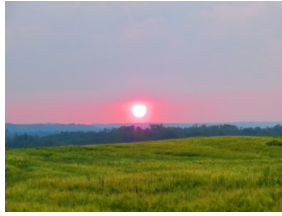
There is no blanket solution or one size fits all approach to management. This course allows you to consider your own goals and what would work best for you and help you to get to where you want to go. The course is laid out into three modules over the two, three day sessions. The Cost of the Holistic Management Course is \$1,500.00.

If you would like additional details for this or you are interested to register please call Kellie at LARA at 780-826-7260 or email sustainag.lara@mcsnet.ca

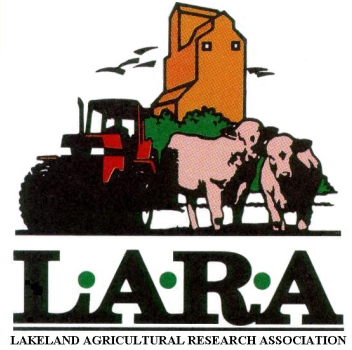
Lakeland Agricultural Research Association

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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.



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Like us on Facebook: <https://www.facebook.com/pages/Lakeland-Agricultural-Research-Association/316266591732449>

Food For Thought...

- * Access to clean water increases animal performance and shown improved growth in yearlings by as much as 23%
- * 80% of cattle will choose to drink from an offsite watering system than directly accessing the water source
- * Riparian areas make up 2-5% of Alberta's landmass
- * In Alberta roughly 26% of riparian areas were unhealthy, 22% were healthy, and 52% were healthy with problems

WWW.LARAONLINE.CA

ON-FARM SOLAR PHOTOVOLTAICS (OFSPV) PROGRAM

To be eligible for funding, a Photovoltaic system must be:

- Grid-tied, not off-grid
- Approved under Alberta's Micro-Generation Legislation
- Positioned to optimize sunshine and minimize shading
- Have manufacturer-warranties on: Solar modules, Racking, Inverters and/or Micro-inverters, and
- Installed on a Site ID that has a Distribution Rate Class of Farm, Irrigation, Grain Drying, or equivalent

Retrospective projects that have been completed AFTER APRIL 15, 2017 are eligible. See website for more details!

Ag-Info Centre: **310-FARM (3276)**
agriculture.alberta.ca/solar

FARM ENERGY AND AGRI-PROCESSING (FEAP) PROGRAM

FEAP is a combination of two discontinued GF2 programs:
 On-Farm Energy Management Program
 Accelerating Agricultural Innovation Program (Stream C)

**FARMS
 RANCHES
 AGRI-PROCESSORS
 ENERGY EFFICIENCY INCENTIVES**

Ag-Info Centre: **310-FARM (3276)**
agriculture.alberta.ca/feap

