

## **Alberta Crop Commissions Working to Minimize Carbon Levy Impact**

*Submitted by Team Alberta*

### **(Leduc, Alberta) December 21, 2016**

Alberta's four major crop commissions, operating as Team Alberta, continue to work together to minimize the impact of the carbon levy on farmers.

In recent consultations with the provincial Climate Technology Task Force, Team Alberta advocated for many solutions-based changes to be considered, including research investments, and recognition that agriculture already contributes to reducing greenhouse gases.

In these meetings, Team Alberta recognized the farm fuel exemption for a significant input, but never waived that the full impact of the tax on input costs, transportation and prices that farmers receive for their crops remains unclear.

"Producers are natural leaders in carbon capture and an important part of the climate change solution," said Allison Ammeter, Chair of Alberta Pulse Growers. Kevin Auch, Chair of the Alberta Wheat Commission adds, "Agricultural crops are great users of carbon dioxide (CO<sub>2</sub>) as part of their metabolism to produce essential oxygen through photosynthesis, making producers who grow crops natural leaders in carbon capture and sequestration."

In a series of meetings with provincial cabinet ministers, Team Alberta has reinforced that farmers rely on global markets and cannot pass the increased costs onto their customers. Farmers should be recognized for the contributions they have already made to reducing greenhouse gases through practices such as conservation tillage. In addition, Team Alberta cautioned the government against imposing an increased tax burden on exporters, processors, and crop input manufacturers that will reduce market competitiveness.

Team Alberta has also called for more funding for research into technologies that would benefit farmers, as well representation on the Emissions Reduction Alberta panel that allocates research expenditures.

"The tremendous growth in the cropping sector can be traced back to research investment, and adoption of new practices and technologies," said Jason Lenz, Chair of Alberta Barley. "Sustainable cropping practices in Alberta, which are among the most globally advanced, contribute to productivity increases that produce more yield per acre using less resources and more research can be done for further advancements."

Continuous improvement in land management practices and a strong commitment by farmers to address soil degradation have resulted in crop productivity increasing at twice the rate of increases in GHG emissions between 1990 and 2013. In 2000, for the first time in Canada's history, agricultural soil sequestered more carbon than was emitted.

Team Alberta met with Alberta's Deputy Premier and Minister of Health Sarah Hoffmann, as well as Minister of Agriculture and Forestry Oneil Carlier and Minister of Environment Shannon Phillips to discuss climate change and the work that producers have done in this regard.

“Climate change policies aimed at the cropping sector must be fluid in nature,” added Greg Sears, Chair of Alberta Canola. “Economic and environmental conditions change rapidly and producers employ different production practices for diverse growing regions.”

The cropping sector is engaged on this file as farmers are an important part of the climate change solution. Team Alberta will continue to represent our members with the provincial government and advocate for a thriving and competitive agriculture industry in Alberta.

*Team Alberta is made up of the Alberta Wheat Commission, Alberta Canola Producers Commission, Alberta Pulse Growers Commission and Alberta Barley. Together the organizations represent over 43,000 farms across Alberta.*

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**TEAMALBERTA** ADVANCING POLICY ON BEHALF OF ALBERTA'S CROP SECTOR

## **Impact of Amended Feedlot Pen Surface on Cattle Health and Welfare, Environmental and Economic Sustainability**

*Submitted by Ike Edeogu*

Feedlot pen floors in Alberta are traditionally constructed of compacted clay. Annual feedlot pen maintenance requires sourcing and excavating clay to repair damaged pen floors, which significantly adds to the input costs and environmental footprint of cattle feedlots in the province. Constructing feedlot pen floors with fly ash-amended concrete, in this case, roller compacted concrete (RCC), has been suggested as one possible sustainable solution for stabilizing the pen floors, and subsequently improving efficiencies of feedlot operations and animal performance, among other potential benefits.



Research is underway at a commercial feedlot operation in southern Alberta where some of the traditional clay floor pens have been retrofitted to RCC floors. Funding to conduct the research project was provided by Government of Alberta. The project commenced in February 2016 and is anticipated to be completed by February 2019.

This research project aims to assess the social, environmental, technological and economic performance (positive, negative or neutral) associated with housing feedlot cattle in RCC floor pens versus traditional clay floor pens.

The primary objective of the project is to assess the following sustainability indicators:

- Social: Cattle Health and Welfare - lameness rates; mud scores; and physiological and behavioural indicators of cattle welfare
- Environmental: Water - runoff volume and water quality (contaminants); Air - ammonia emissions; Climate Change - greenhouse gas emissions; Soil - pen soil quality (contaminant levels); Manure - volume at cleanout and quality (composition and contaminant levels)
- Technological: RCC - compressive strength, floor thickness, density, durability and potential mobility of heavy metals introduced via the use of fly ash in the RCC
- Economic: Cattle - average daily gain and tag scores; Manure - handling costs; Clay - handling costs and pen floor maintenance costs; RCC - construction costs and maintenance costs

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## **May the forage be with you: DUC/CPS forage program offers financial break for grassland conversions**

*Submitted by Cathy Mackenzie*

On land not so far away, farmers across the Canadian prairies will see their herds going to the green side thanks to a forage program available now from Ducks Unlimited Canada (DUC) and Crop Production Services (CPS).

Available to agricultural producers in Alberta, Saskatchewan and Manitoba, the DUC/CPS forage program provides cash-back incentives on all Proven<sup>®</sup> Seed forage seed purchases paid at full-retail price when producers convert cultivated land to hay or pastureland. In Alberta and Saskatchewan, producers receive a rebate of \$100 per 50 lb. bag of forage seed; in Manitoba, producers receive a rebate of up to \$125 for every new forage acre seeded as part of the program.

With the growing need for high quality pastureland, it's expected that this year's program will be an attractive option for producers, says Craig Bishop, DUC's regional forage lead, especially in light of economic and climatic conditions.

"Declining prices for wheat and other cereal crops, as well as a simultaneous increase in beef prices, are leading many landowners to increase the size of their cattle herd," explains Bishop. "This spurs a demand for more forage. Last year's weather conditions also resulted in poor hay crops and further motivated producers to convert more land to forage. In 2016 across the Prairies, 30,000 acres of cultivated fields were seeded to grass under this program with CPS."

Bishop adds that reducing input costs, especially at a time when expenses are rising more quickly than revenues, makes a real difference to a farmer's or rancher's bottom line. "Offering incentives to producers to convert cultivated acres to forage is an extremely cost-effective means for increasing grassland and it makes good agronomic sense. Essentially, the program covers approximately 40–50 per cent of the producer's seed investment."

Under the terms of the program, producers must agree to keep all acres of converted land as forage for ten years.

The long range benefit of more forage acres helps cattle producers as well as waterfowl. Bishop explains that research shows that the level of waterfowl nesting is significantly higher in areas of perennial cover than in cultivated fields. It also helps with other conservation measures such as wetland restoration.

"The link between wetlands, associated grasslands and waterfowl productivity is well understood," says Bishop, "and initiatives like the DUC/CPS forage program ensures that farmers in Alberta, Saskatchewan and Manitoba also receive benefits from increasing their forage base."

The DUC/CPS forage program is best suited for producers in the parkland and prairie regions. Anyone interested in the program or who wants more information should contact their local CPS retailer or DUC conservation program specialist.





For more information contact:  
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## **Partner Profile: Alberta Hatching Egg Producers**

*Submitted by Chelsea Kamprath*

### **Overview**

The Alberta Hatching Egg Producers are committed to provide the industry with a superior quality product while fostering profitable growth. The AHEP prides itself in fostering confidence in the hatching egg industry through effective communications and by building co-operative relationships with other stakeholders in the poultry industry value chain.

### **What is a Hatching Egg Producer?**

Hatching egg producers are poultry producers engaged in the production of broiler hatching eggs (seed stock) for the commercial production of chicken meat. Broiler hatching egg production in Alberta is a regulated industry which is governed under Alberta Marketing of Agricultural Products Act.

### **Vision**

The Alberta hatching egg producers are committed to provide the industry with a superior quality product while fostering profitable growth.

### **Mission**

To ensure the availability of a high quality product by encouraging and promoting high standards and efficient practices.

To provide an economic environment for the profitable production of broiler hatching eggs.

To foster confidence in the hatching egg industry through effective communications and by building co-operative relationships with other stakeholders in the poultry industry value chain.

To provide input into the agricultural policy regulatory environment and general agricultural policies impacting broiler hatching eggs.

### **What We Produce**

#### *What is a broiler hatching egg?*

A broiler hatching egg is a fertilized egg that is produced as the result of a hen and rooster mating. Farmers ship their eggs to a hatchery where baby chick's hatch after the eggs are incubated for 21 days. Once hatched, the chicks are transported to a chicken grower's farm where they are grown and shipped to a processor. After being processed, chicken meat is supplied to retail stores and restaurants for human consumption. A broiler hatching egg is never sold in retail stores and is not meant for human consumption.

100% of all registered hatching egg farms are family owned and operated.

There are currently 30 registered producers in Alberta.

All birds are “free run” (not caged) in large, clean barns. Stocking density policies established by AHEP requires that producers provide a minimum of 1.8 sq. feet per hen.

The hatching eggs produced in Alberta supply the hatcheries with 85 percent of the chicks needed for their provincial broiler market. Hatcheries import the remainder of their hatching egg requirements from the United States under the terms of the North American Free Trade Agreement (NAFTA).

The broiler hatching egg industry is a highly specialized production system that is the foundation of the chicken meat industry. As the first link in this food supply chain, hatching egg producers follow very strict bio-security and food safety protocols. All hatching egg production facilities in Alberta are certified under AHEPs “On-Farm Food Safety Program”. Participation and compliance in this program is ensured through a system of audits.

#### *How are Hatching Eggs Produced?*

##### *Grandparent Breeding Stock*

Breeding stock used by the hatching egg industry comes from specialized bird strains developed by one of three breeding companies with offices worldwide. The grandparent flocks that supply the industry in Alberta are located in the south eastern part of the United States.

##### *Pullet and Cockerel Rearing*

The hatching egg production cycle begins when a hatching egg producer places pullets (females) and cockerels (males) as baby chicks in their grow facilities (grow houses). Producers must carefully manage the bird for the first 18 weeks by allocating quantities of feed to achieve specific growth and body weight targets. These targets are important to ensure that the bird achieves the body composition traits necessary to create an efficient breeder hen and/or cockerel. Because the target weights for cockerels are approximately 25% to 30% higher, pullets and cockerels are usually raised and fed separately.

A primary challenge during the grow phase is to ensure that the flock is highly uniform in body weight. This requires careful attention to the distribution and control of feed and water as well as air quality and lighting control. Typically, birds are transferred from the grow house to the lay house when they are between 18 to 20 weeks of age. At the time of transfer, the pullets will have achieved a body weight of approximately 2 kilograms and cockerels will weigh approximately 2.6 kilograms.

##### *Egg Production*

The lay house is designed to provide the space and environment for birds to exhibit normal mating behavior and have free access to nests. While barns may be configured differently, birds are typically provided with a “scratch” area consisting of litter (either straw or shavings) as well as a raised “slatted” area that is elevated approximately 16 to 20 inches above the litter. This slatted area(s) provide birds a place to “roost” and is where the nesting system is located. Because the nutritional requirements of hens and roosters are significantly different during the production period, separate feeding systems are used. The feeding process must be carefully managed to minimize males and females stealing each other’s feed.



The number of males that are placed into the lay house at the time of transfer varies considerably between producers. By the time birds begin to achieve sexual maturity however, (usually between 23 to 25 weeks of age), an optimal ratio of males to females must be obtained. This ratio varies from flock to flock and is primarily gauged by the level of male aggression. Depending on bird strain, male body weight and condition as well as the ratio of male to female body weights, the optimal ratio is usually between seven to nine percent.

Once the flock has been transferred into the lay house, the process of bringing the birds to sexually maturity and egg production begins. Initially feed increases are provided to achieve specified body weight targets that may vary somewhat between bird strains. Usually at about 22 weeks of age a lighting program, also known as “photo stimulation” is undertaken. The lighting program involves incrementally increasing the number of hours that the lights remain on from the standard 8 hours of light each day to 16 hours over a period of approximately 5 weeks. During this time period, most producers will also increase the light intensity. The lighting program is designed to simulate the onset of the spring season and triggers the development of the bird’s reproductive system. Egg production will usually commence within two to three weeks of starting the lighting program and will gradually increase in volume.

The time period from when the lighting program is initiated until the birds are in full egg production is arguably the most critical time to properly manage feed increases in the life of the flock. The rate of feed increases should be determined by the rate of sexual maturation and if not properly managed will have a seriously negative impact on the overall reproductive performance of the flock. If properly managed, flocks will achieve a peak level of production of approximately 85 percent. This means that the number of eggs produced daily will be 85 percent of the number of hens in the lay house. Peak production is usually achieved by 31 weeks of age and gradually declines to approximately 50 percent by the end of the production cycle (usually 59 to 60 weeks of age). Peak fertility rate (the percentage of eggs that are fertile) is usually between 96 to 98 percent in well managed flocks. Peak fertility is usually achieved at about 35 weeks of age and will normally decline to between 85 to 90 percent by the end of the production cycle.

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## Remote Area Heating Allowance Program

*Submitted by Paul Jungnitsch*

This program was designed to reduce the cost of heating fuels for those Albertans who do not have access to natural gas service.

What it does:

The program provides direct rebates of 25% of the cost of fuel (less GST) on consumption up to 18,185 litres (4,000 gallons) of propane or 12,275 litres (2,800 gallons) of heating oil per year, or a proportionate combination of both.

How it works:

If you live outside the franchise boundaries of a natural gas distributor, or the cost of installing the service (for the co-op or company) exceeds \$20,000, you can apply for the program using this form:

<http://www1.agric.gov.ab.ca/general/progserv.nsf/all/pgmsrv294>

Grain drying:

This program may apply to grain drying if the site can't be serviced with natural gas, can't be serviced with a large enough pipe for a grain dryer, or the cost of the install for the grain dryer pipe exceeds \$20,000.

FAQ

Q: Does it cover natural gas?

A: No.

Q: Is it new?

A: It has been around since 1980.

Q: Do you need a letter from the supplier?

A: The office will confirm with the natural gas company if the conditions are met.

Q: Can there be refunds for past purchases?

A: Yes, up to a year from when the application is received.

Q: What is the biggest thing to watch for when submitting an application?

A: Make sure the invoices can be clearly read.

**For more information, contact:**

Rural Utilities Branch – Remote Area Heating Allowance

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# Alberta's Carbon Levy and Farmers

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### Sorting the Facts from the Myths

Alberta's new Carbon levy has come into place as of January 1, 2017. The levy puts a price on carbon emissions of \$20/t carbon in 2017, and \$30/t carbon in 2018. There have been several measures put into place to ease the cost to producers, however. This document will help sort the facts from the myths on what impact the levy will have on you as a producer.

### Facts and Myths

FACT:

The carbon levy is charged directly on the cost of heating and transportation fuels and only on these fuels. Marked fuels are exempt from the levy, which is an exemption not provided to any other industry. The following table illustrates the levy rates:

Type of Fuel	January 1, 2017 \$20 / tonne CO <sub>2</sub> e	January 1, 2018 \$30 / tonne CO <sub>2</sub> e
Marked farm fuels	Exempt	Exempt
Unmarked Diesel	5.35 ¢/L	8.03 ¢/L
Unmarked Gasoline	4.49 ¢/L	6.73 ¢/L
Natural Gas	1.011 \$/GJ	1.517 \$/GJ
Propane	3.08 ¢/L	4.62 ¢/L
Coal	\$44.37 /tonne	\$66.56 /tonne

FACT:

Alberta isn't new to carbon pricing; it has existed since the Specified Gas Emitters Regulation (SGER) was introduced in 2007. This regulation put a price on carbon emissions of \$15/t CO<sub>2</sub> Equivalent (CO<sub>2</sub>e) for large final emitters (large industrial operations with emissions greater than 100,000 tonnes CO<sub>2</sub>e per year) for carbon emitted at the smokestack. The compliance rate under the SGER increased to \$20/t in 2016 and \$30/t in 2017. The SGER will be replaced in 2018 with a new regulation based on sector specific efficiency targets.

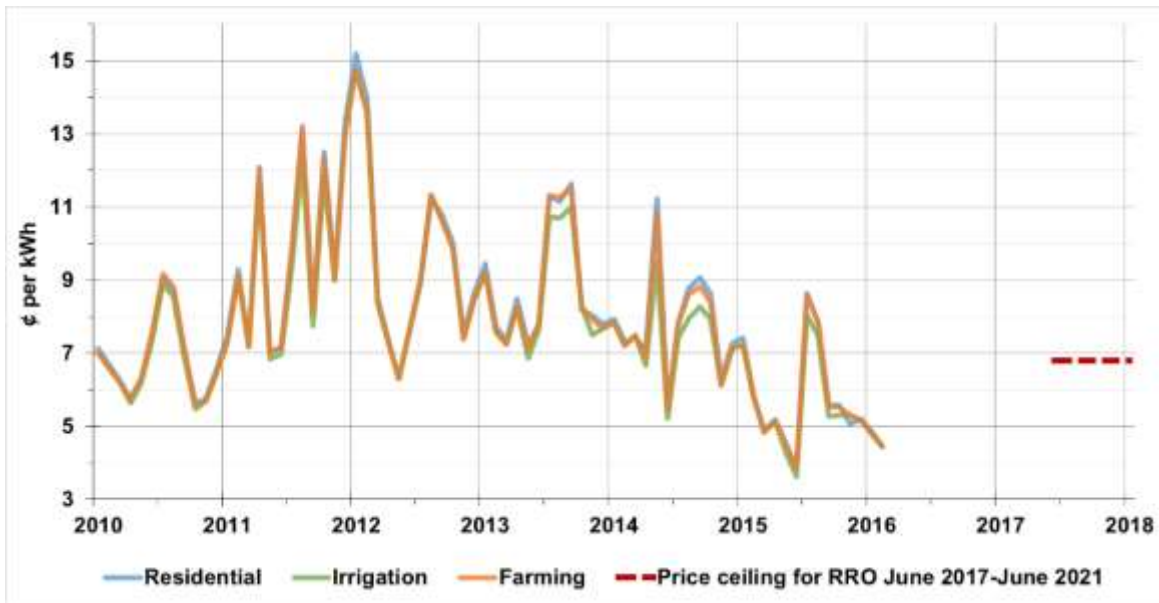
# Carbon Levy – Facts & Myths

## FACT:

If you have been receiving carbon credits for zero-till cropping, you have been getting paid for sequestering carbon in the soil for up to 14 years. The value of these carbon credits will increase as the carbon price increases.

## MYTH:

Albertans will pay a carbon levy on electricity. This is **false**. Alberta's electricity providers have been and will continue to pay as final emitters under the SGER. This means that Albertans won't pay a carbon levy directly on their bill. However, they may notice a small increase in electricity rates from 2016 prices as electrical providers will be subject to an increase in the compliance rate under the SGER. To help stabilize prices, a ceiling of 6.8¢/kwh has been established from 2017 until 2021. This caps prices at the low end of what electricity prices have been in Alberta since 2010.



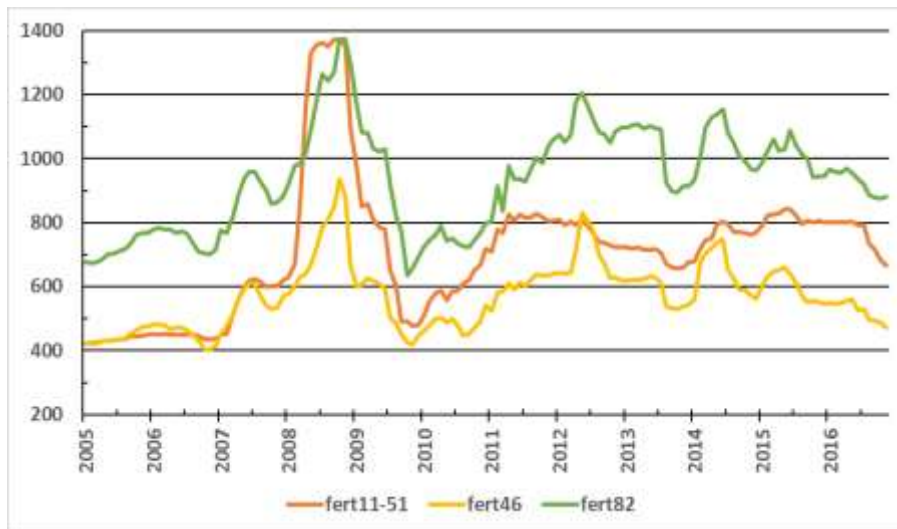
## MYTH:

Custom freight will become unaffordable due to the increase in fuel costs. **This is false.** While fuel costs will increase with the carbon levy, fuel is not the only cost associated with freight. Like any other business, trucking companies have more than one cost that are included in what they charge for their service. They pay for the driver's wages, equipment, insurance, maintenance, and other associated costs in addition to fuel. As a result, the added carbon levy for diesel of 5-8¢/L represents about 1-2 per cent of the freight bill. To provide an example, a trucking bill of \$500 should only increase by \$5-10 as a result of the carbon levy.

# Carbon Levy – Facts & Myths

MYTH:

Fertilizer prices will rise considerably as so much natural gas is used in the production of nitrogen fertilizers. **This is false.** Following the same logic as the electricity example above, fertilizer producers have been paying under the SGER since 2007. Their cost will increase marginally as the carbon price increases in 2017 and 2018. Fertilizer manufacturers, like farmers, are price takers competing in an international market and are limited in their ability to pass on increased operational costs. As seen in the chart below fertilizer prices have fluctuated significantly since 2005, however, the SGER coming into effect is not the only contributing factor in fertilizer rates.



MYTH:

Grain drying will become an unaffordable practice as a result of the levy added to propane and natural gas. Based on several actual examples from the fall of 2016, the levy cost of drying grain in 2017 will range from 0.6¢/bu to 1.2¢/bu. It is also important to keep in mind that you may not use your dryer every year.

## So what will the carbon levy cost your farm?

The most obvious costs will be heating fuel and grain drying. To estimate your increased costs look at your last few years' heating fuel bills and multiply the total GJ per year consumed by the factor in the carbon levy table above to estimate your annual cost. If you are using natural gas or propane for other uses like irrigation drives or grain drying, be sure to include those as well. Keep in mind that administrative, distribution, and transmission charges are not subject to the Carbon Levy, the levy is only charged on the actual GJ of natural gas consumed. For example, a farm using 200GJ per year of natural gas will pay an extra \$202.20 due to the carbon levy.

You can also use the calculator in the following website to help estimate the annual cost of the levy:

<https://www.alberta.ca/calculate-carbon-levy-rebate-and-costs.aspx>



# Carbon Levy – Facts & Myths

## What about the unknowns?

Indirect costs will likely occur as businesses pass on their increased operating costs from the levy to their consumers. In some cases these costs will be built into the price of the product or service, others will itemize it as a separate surcharge in much the same way GST is reflected on sales receipts or invoices. Because many businesses are not completely clear on what their increased costs will be there may be some that overestimate the impact of the levy on their operation. While passing on production costs is a perfectly normal part of business/consumer relationships, it is important that you as the purchaser be aware of what constitutes a reasonable added cost and protect yourself from price gouging.

You now have the tools to determine how the levy is charged and whether or not the added cost is appropriate for the product or service being provided. For example, if the product or service required a large amount of fuel or natural gas, then it is reasonable to expect a higher cost as the business will pass the levy cost along, for instance in custom equipment work. However, if it is not a product or service that requires little or no fuel or heat, then there should be little to no added cost, like for professional fees. Lawyers or accountants will incur only marginal extra expense as a result of the carbon levy, mainly a few hundred dollars a year for office heat, so there is very little to no extra cost that should be passed along to the customer.

## More Information

For more information on the Carbon Levy and Alberta's Climate Change Leadership Plan go to:

Alberta Climate Change Leadership Plan: [www.climate.alberta.ca](http://www.climate.alberta.ca) or call 1-888-279-2422

Carbon Levy FAQ for Producers in Alberta: [www.agriculture.alberta.ca/clevyinfo](http://www.agriculture.alberta.ca/clevyinfo)

Alberta Farm Fuel Benefit Program: [www1.agric.gov.ab.ca/general/progserv.nsf/all/pgmsrv9](http://www1.agric.gov.ab.ca/general/progserv.nsf/all/pgmsrv9)

Carbon Levy Rates on Fuels: [www.finance.alberta.ca/publications/tax\\_rebates/rates/carbon-levy-rates.html](http://www.finance.alberta.ca/publications/tax_rebates/rates/carbon-levy-rates.html)

Growing Forward Programs: [www.growingforward.alberta.ca](http://www.growingforward.alberta.ca)

Energy Efficiency Alberta Programs: [www.alberta.ca/energy-efficiency-alberta.aspx](http://www.alberta.ca/energy-efficiency-alberta.aspx)

Agricultural Carbon Offsets: [www.agriculture.alberta.ca/agcarbonoffsets](http://www.agriculture.alberta.ca/agcarbonoffsets)

Ropin' the Web: [www.agriculture.alberta.ca](http://www.agriculture.alberta.ca)

Climate Change Leadership Plan Feedback: [www.alberta.ca/climate-feedback.aspx](http://www.alberta.ca/climate-feedback.aspx)

Ag Info Centre: 310-FARM (3276)