

## **RESOLUTION 1-19**

### **LOSS OF 2% LIQUID STRYCHNINE**

**WHEREAS** Under the authority of the *Pest Control Product Act* and based on the evaluation of currently available scientific information, Health Canada is proposing that products containing strychnine for control of Richardson's Ground Squirrels do not meet the current standards for environmental protection and, therefore, proposed to be cancelled;

**WHEREAS** There needs to be a product available to producers to effectively assist in the control of Richardson's Ground Squirrels;

**THEREFORE BE IT RESOLVED**

**THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST**

Health Canada and the Pest Management Regulatory Agency reconsider their decision and leave 2% Liquid Strychnine on the market available on a permanent basis to agricultural producers to utilize on their farms for control of Richardson's Ground Squirrels.

**BACKGROUND INFORMATION**

Health Canada and the PMRA have reviewed the label and use of 2% Liquid Strychnine. According to the review conclusion the recommendation is to remove the use of 2% Liquid Strychnine for use on ground squirrels. Richardson Ground Squirrels continue to pose a significant threat to agricultural production and strychnine has been used to reduce the impacts of severe infestations.

Strychnine being a single feed bait is efficient and effective and allows producers to treat small area and large area infestations when other parts of their integrated pest management practices have failed. Using multi-feed baits is ineffective due to the fact that there are too many other options for Richardson's Ground Squirrels to eat. Using shooting and trapping methods can be time consuming especially during peak times of production (seeding, spraying, irrigating, calving, branding, etc.). The use of fumigants can be unpredictable depending on soil conditions, as well they pose a high risk for primary poisoning as they will control all down hole inhabitants.

Strychnine is often attributed to unwarranted secondary poisoning, linked to species at risk (Burrowing Owls) and raptors. Although there could be a possibility of secondary poisoning, both of those birds of prey regularly prey on live rodents and far less often will they consume a dead gopher.

2% Liquid Strychnine is an essential tool in any agricultural producers integrated pest management toolbox as a consistent, effective tool in controlling Richardson's Ground Squirrel infestations.

## **RESOLUTION 2-19**

### **WILDLIFE PREDATOR COMPENSATION PROGRAM ENHANCEMENT**

**WHEREAS** Predation by carnivores and birds of prey continues to be a problem for ranchers and agriculture producers;

**WHEREAS** Many Municipalities have submitted multiple resolutions in this regard for these same problems;

**WHEREAS** To maintain the credibility of the program, livestock losses must be confirmed by Fish and Wildlife Officers, as killed or injured by predators;

**WHEREAS** The protection of life and property is a priority for the provincial government, which means providing a response to reports of problem wildlife, may sometimes shift the efforts of Fish and Wildlife Officers away from the predator control mandate;

**THEREFORE BE IT RESOLVED**

**THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST**

that the Ministers of Environment and Parks, Justice and Solicitor General, and all other relevant government ministries implement an enhanced Predator Compensation Program that could utilize the GPS location and date time features and photo capabilities of smart phone technology to provide photographic or video evidence to assist in the confirmation of livestock death and livestock injury in a timely and prompt manner, and reduce the number of physical site investigations Fish and Wildlife Officers must conduct.

**BACKGROUND INFORMATION**

Alberta's Wildlife Predator Compensation Program provides compensation for eligible food-producing livestock (cattle, swine, goats, sheep and bison) confirmed to be killed or injured by predators (bears, wolves, cougars, and eagles). The program provides compensation at the average market value for the type and class of animal lost.

To maintain the credibility of the program, livestock losses must be confirmed to be killed or injured by predators. Predators are opportunistic animals and are often found feeding on livestock carcasses that have died from other causes. Livestock producers seeking compensation for lost or injured animals are encouraged to contact Fish and Wildlife Officers as soon as possible to confirm that the animal was killed or injured by a predator. This is the point where if Fish and Wildlife Officers are not available to investigate, then the producer may not get compensation due to the delay in investigating the loss or injury of the livestock and the deterioration of evidence.

With the prevalence of smart phones and the level of technology these devices have for including the GPS location as well as date and time that a picture is taken, and high resolution cameras, allowing ranchers and agricultural producers to take pictures of loss or injury of livestock and emailing or texting these pictures to the local Fish and Wildlife Officer would be strong step forward in timely confirmation of predation and reduce the number of locations the Fish and Wildlife Officers would have to physically attend to investigate injury or loss of livestock to predation.

## **RESOLUTION 3-19**

### **DEADSTOCK REMOVAL**

**WHEREAS** rendering companies would travel the Province of Alberta picking up deadstock for free and turn the deadstock into by products;

**WHEREAS** Bovine Spongiform Encephalopathy (BSE) was discovered in Canada in 2003;

**WHEREAS** regulatory changes were made to remove Specified Risk Materials from carcasses causing rendering companies to charge a fee for service;

**WHEREAS** producers are trying to limit or manage the cost of removing deadstock and started disposing of deadstock on-farm;

**WHEREAS** on farm disposal of deadstock attracts livestock predators such as coyotes, wolves and bears;

**WHEREAS** large carnivore interaction with farm families has increased, causing public safety concerns;

**WHEREAS** the primary producer bears the cost of regulatory changes for the entire food production chain;

**THEREFORE BE IT RESOLVED**

**THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST**

That the Provincial Government compensate producers fifty percent (50%) of the deadstock pick up fees with producers bearing the remainder of costs.

**BACKGROUND INFORMATION**

Prior to BSE Alberta had a viable rendering industry that removed a significant amount of the dead livestock from our rural landscape. Implementation of a feed ban and specified risk material regulations has made on-farm pick up unrealistic.

On-farm disposal of dead livestock can be very challenging. Burial is difficult under frozen conditions and incineration is not often practical. Alberta's predators are becoming habituated to dead livestock and predation is the next step. For example, bears will dig up eight (8) feet of cover in a dead animal pit to access a dead carcass as they are very efficient excavators. Farm families and the general public are increasingly at risk as grizzly encounters become more common in the ranch country. Furthermore, research has proven that wolves will return to old dead pits on a regular basis, using them

as waypoints as they travel their territories. *Wolves* have impacted cattle in the province causing significant losses.

Albertans enjoy a healthy and expanding wildlife population. In Alberta, money would be better spent being proactive, removing attractants such as deadstock and reducing scavenging of livestock to a minimum.

In 2010 a bounty program on coyotes in Saskatchewan cost \$1.5 million and took out 71,000 coyotes. Saskatchewan has a compensation program for predation paying producers 100% compensation for confirmed kills and up to 80% for injured livestock.

Rendering costs for 2018 are as follows:

West Coast Reduction Ltd.	
Animal	Cost
Horse	\$250.00/horse
Cattle	\$0.14/lb (minimum \$120+GST)
Pork	\$0.04/lb
Poultry	Special pricing, confirm with manager
Sheep	No pick-up

**RESOLUTION 4-19**  
**CARBON CREDITS FOR PERMANENT PASTURE AND FORESTED LANDS**

**WHEREAS** A significant amount of Carbon is stored within land used for permanent pasture, estimated at ten to thirty percent of the worlds carbon;

**WHEREAS** A significant amount of Carbon is stored within private land associated with agricultural operations that is left forested;

**WHEREAS** There is currently a carbon credit program available for annual crop growers but nothing for permanent pasture or forested lands;

**WHEREAS** Producers with permanent pasture and forested lands should be compensated for their contributions to reducing atmospheric carbon dioxide;

**THEREFORE BE IT RESOLVED**

**THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST**

that Alberta Agriculture and Forestry develop a process to allow farmers and landowners to access carbon credits for land used for permanent pasture, perennial forage crops or land that is left forested.

# Carbon Sequestration in Grazing Land Ecosystems<sup>1</sup>

Maria Silveira, Ed Hanlon, Mariana Azenha, and Hiran M. da Silva<sup>2</sup>

This publication provides basic information about the important role of native and improved pastures (referred to as grazing land) in sequestering carbon from the atmosphere. Because of the relatively high sequestration rates and extensive area, grazing land represents an important component of terrestrial carbon dioxide (CO<sub>2</sub>) offset and is a significant sink for long-term carbon sequestration and greenhouse gas mitigation. This publication contains information for stakeholders, students, scientists, and environmental agencies interested in enhancing ecosystems services provided by grazing lands.

## Global Carbon Cycle

The global carbon cycle consists of complex processes that control the movement of carbon between the atmosphere, land, and oceans. Although natural processes dominate the carbon cycle, human-induced activities can also alter these carbon transfers. In the atmosphere, carbon is mainly present as carbon dioxide (CO<sub>2</sub>). Large amounts of carbon are also present in the soil, primarily as soil organic matter. Soil organic matter plays a key role in determining soil quality and its potential to produce food, fiber, and fuel. During the past two decades, the global carbon cycle has received significant attention because of its role in global climate change.

Two important global topics are the rising atmospheric CO<sub>2</sub> concentrations caused by human-induced activities (primarily combustion of fossil fuels) and the potential effects

on climate change. In addition to CO<sub>2</sub>, increased atmospheric concentrations of nitrous oxides (N<sub>2</sub>O and NO) and methane (CH<sub>4</sub>) are also believed to cause global warming. Carbon dioxide, nitrous oxides, and methane (also known as greenhouse gases) can trap heat in the atmosphere and contribute to global warming. Levels of several important greenhouse gases have increased by 25% since large-scale industrialization began approximately 150 years ago, and this increase is primarily caused by energy use.

Plants remove carbon from the atmosphere during photosynthesis, a process done without human intervention. However, to address the contributions made by humans, the carbon must be stored or sequestered. Typically, carbon in plants undergoes several conversions. Some conversions are rapid, such as the addition of fresh plant material to the soil, while others may take long periods of time. For example, a large amount of carbon is already sequestered in our soil.

## What Is Soil Carbon Sequestration and Why Is It Important?

Carbon sequestration refers to the process of transferring CO<sub>2</sub> from the atmosphere into the soil (Figure 1). Once carbon is transferred to the soil, carbon can be stored for decades or longer. This sequestering process may be accomplished by 1) increasing crop yields through the use of management practices such as fertilization, irrigation,

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and grazing management, and 2) reducing decomposition of existing or new soil organic matter.

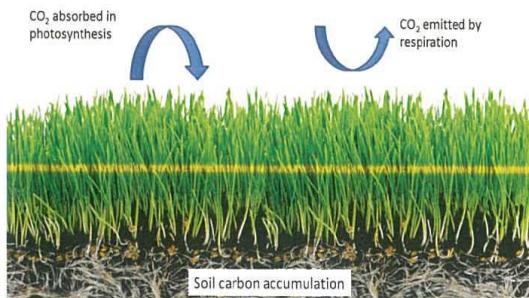


Figure 1. Simplified carbon cycle diagram. While  $\text{CO}_2$  is removed from the atmosphere and incorporated into plant tissue via photosynthesis, it can also be re-emitted back to the atmosphere as plant (autotrophic) and soil microbial respiration (heterotrophic). The balance between carbon inputs and outputs determines the amount of carbon sequestered in the soil.

Credits: <http://www.thinkstock.com>

Soil carbon sequestration helps offset emissions from combustion of fossil fuels and other human-induced activities. During the past decade, U.S. agricultural soils overall have acted as a net sink of atmospheric CO<sub>2</sub>, sequestering approximately 12 million metric tons of carbon per year. Although agricultural soils can also emit CO<sub>2</sub> to the atmosphere, adoption of best management practices (BMPs) for soil and cropping allowed agricultural soils to remove more carbon from the atmosphere than the soils release. Increasing carbon storage in soils offers significant accompanying benefits such as improved soil and water quality, reduced soil erosion, increased water conservation, and greater crop productivity.

Native and improved pastures are two types of land use that retain carbon in the soil. These land uses usually cause little soil disturbance, which reduces the carbon loss from organic matter and allows fresh plant materials from the grasses to become part of the soil organic matter over time. Figure 2 demonstrates a typical soil pit profile collected from a bahiagrass pasture in South Florida.

## Soil Carbon Sequestration in Grazing Lands

Grazing lands can be important sinks of atmospheric CO<sub>2</sub> and play a major role in the overall carbon cycle fluxes. This land use contains approximately 10%–30% of the world's soil carbon reserves (Eswaran et al. 1993). Unlike tropical forests, where the majority of the carbon is stored in the vegetation, as much as 90% of the carbon pools in

grazing-land ecosystems are located in the soil (Schuman et al. 2001), hence it can be readily transferred into more permanent storage in the soil. Because carbon stored below ground is more permanent than plant biomass, soil carbon sequestration in grazing lands provides a long-term alternative to mitigate atmospheric greenhouse gas emissions.



Figure 2. Typical soil pit profile collected in a bahiagrass pasture in South Florida. While the majority of the roots tend to concentrate in the top 4- to 8-inches depth, they can also occur at deeper soil depths. Soil carbon concentration is typically greater at the surface (4-6" depth) where carbon inputs (via root and aboveground biomass) are more abundant.

Credits: M.L. Silveira

Several factors promote greater soil carbon accumulation in pastures as compared to agricultural lands, including high density of roots, root exudation, and, as stated previously, a lack of physical soil disturbance because of the absence of tillage. Researchers have estimated that from 29.5 to 110 million metric tons of carbon can be sequestered annually in grazing lands in the United States (Follett et al. 2001). Because native and improved pasturelands encompass an extensive area in the United States (~1/3 of the land area), small changes in the amount of carbon sequestered in grazing-land soils have significant consequences in the global carbon cycle. Reports have shown that an increase (or loss) of only 1% of the soil carbon in the top 4 inches of grazing-land soils is equivalent to the total carbon emissions from all U.S. cropland agriculture (Follett et al. 2001). This trend underscores the importance of grazing lands to mitigate at least part of global atmospheric CO<sub>2</sub> emissions.

Carbon sequestration rates vary by climate, topography, soil type, management history, and current practices. The majority of the grazing lands in the United States are located in arid and semiarid ecosystems; however, grazing lands in eastern regions receive more precipitation and, consequently, have greater potential to respond to management inputs. For example, because of the warm climate and ability to grow crops year-round in Florida, there is the potential to return great amounts of carbon to the soil as above-ground (i.e., dead leaves) and below-ground (i.e., roots, root exudates) plant inputs. However, carbon accumulation in Florida's soils remains a major challenge because of the fast decomposition rates in warm and moist conditions. Appropriate management practices that favor carbon inputs and minimize decomposition are the key to increase carbon sequestration in Florida soils.

## Management Practices That Enhance Soil Carbon Sequestration

Current pasture management strategies (e.g., fertilization strategy and grazing management) are generally aimed at increasing forage production to match animal stocking rates or forage demand from hay. However, pasture management can also promote carbon storage in the soil. In fact, most techniques used to improve forage production promote carbon inputs to the soil and increase soil carbon sequestration. For instance, fertilization, irrigation, grazing management, fire regimen, introduction of legumes, and use of improved grass species can boost plant productivity while promoting soil carbon sequestration. Opportunities for increasing soil carbon sequestration in response to management practices vary in intensity and are specific to each ecosystem.

Studies have shown that when low-fertility soils receive fertilizer or lime, forage productivity and soil carbon levels generally increase (Conant et al. 2001). Research also shows that grazing intensity can have major impacts on soil carbon accumulation. Although overgrazing is often associated with reductions in soil carbon concentrations, proper grazing management can result in greater soil carbon concentrations than non-grazed systems. Well-managed grazing lands generally maintain or even increase soil carbon accumulation compared with native ecosystems. Also, livestock benefit from well-managed lands because the grass usually has higher nutrient concentrations because of proper fertilization (Silveira et al. 2009).

## Future Outlook

Native and improved grazing lands are a significant sink for long-term carbon sequestration and play an important role in mitigating global climate change. Because grazing lands occupy a vast area throughout the world, small changes in the amounts of carbon stored in this ecosystem can have significant consequences in the overall carbon cycle and atmospheric CO<sub>2</sub> levels. Although opportunities for increasing soil carbon sequestration in response to management practices are site-specific, grazing lands in Florida offer a unique opportunity to sequester large amounts of carbon.

However, global estimates show that a significant portion of grazing land area in the United States is being replaced by more intensive agriculture and urban development. This land-use trend is particularly true in Florida, where urban development is increasingly competing with natural resources for land. Reducing grazing land area and increasing management associated with land use intensification (i.e., converting extensively-managed pastures into intensively-managed agriculture or urban development) will change the amounts of carbon sequestered in grazing land soils. Continuation of this trend is expected to have major impacts on our regional climate, potential future carbon sequestration, and greenhouse gas emissions.

Carbon trading-related markets and the growing interest in carbon sequestration as mechanisms for environmental protection can change this scenario in favor of preserving grazing lands in Florida while reducing the rate of urbanization. While carbon markets potentially offer new income for farmers, the present outlook for this revenue is not bright. The recent recession and problems with assigning value for carbon sequestration have prevented a stable or significant carbon-trading market from developing in the United States. The European market, while still functioning, reflects a wait-and-see approach in both low carbon-credit trading volume and low prices. This agriculturally-based ecosystem service is unlikely to be adopted if there is no incentive to sequester carbon in grazing lands.

## References

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**RESOLUTION 5-19**

**MULTI-STAKEHOLDER COMMITTEE TO WORK AT REDUCING THE USE OF FRESH  
WATER BY THE OIL AND GAS INDUSTRY IN ALBERTA**

**WHEREAS** there is a concern about the enormous loss of fresh water (see Reference 1) by the oil and gas industry in the hydro-fracking and water injection processes (see Reference 7 and 8);

**WHEREAS** the oil and gas industry is licensed over one billion cubic metres of fresh water annually;

**WHEREAS** fresh water is a critical resource to Alberta's agricultural producers;

**WHEREAS** free and easy access to fresh water for enhanced oil recovery acts as a disincentive for oil and gas companies to pursue alternate methods such as CO2 injection, light oil hydro-fracking or to drill deeper to locate and pipe saline water (see Reference 3 and 7) for injection purposes;

**WHEREAS** the Brazeau County Agricultural Service Board is concerned with the amount of fresh water used in the fracking and water injection process;

**WHEREAS** the Council of Brazeau County recently moved a Motion requesting a multi-stakeholder committee be struck to look at reducing the use of fresh water by the oil and gas industry;

**THEREFORE BE IT RESOLVED**

**THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST**

that the Provincial Agricultural Service Board Committee request the Government of Alberta to immediately strike a multi-stakeholder committee to work at reducing the use of fresh water by the oil and gas industry in Alberta.

**BACKGROUND INFORMATION**

A reliable water supply for a sustainable economy is one of the key goals of Water for Life, Alberta's Strategy for Sustainability. The Advisory Committee on Water Use Practices and Policy was formulated in 2003 to examine the use of fresh water for underground injection. The Government of Alberta working in partnership with industry, interest groups and non-government organizations developed the Water Conservation and Allocation Policy for oilfield injection, with a goal to reduce or eliminate the allocation of non-saline water for deep well injection. Applications for the use of fresh water for injection continue to be filed with the Energy Resources Conservation Board, and are approved on the basis that there is no economical alternative (saline water or carbon dioxide) that is available or because the diversion of ground water was previously approved through the licensing process. Currently the oil industry holds licenses for up to 32 million cubic meters of ground water diversion. The suggestion that use of non-saline ground water for enhancing oil field production is the most economical means is found on the premise that ground water has no dollar value. Such is not the case for those communities in Alberta that must pipe water to support the residents. Alberta's agricultural producers rely on the province's fresh water resources for crop and livestock production. Water is a critical resource to agricultural industry. With the ever-increasing drought conditions across the Prairie Provinces, ground water is becoming a scarce resource that must be conserved. Fresh water flooding of oil fields results in the water being lost to the eco-system forever.

## REFERENCES

1. Potable Water – Drinkable – Fit to Drink
2. Fresh Water – Non-saline
3. Non-potable/Saline Water – Brackish – Unfit to Drink
4. Surface Water – Water collected on the ground or in a stream, river, lake, wetland, or ocean, it is related to water collecting as ground water or atmospheric water.
5. Ground Water – Water located beneath the ground surface in soil pore spaces and in the fractures of rock formation. A unit of rock or an unconsolidated deposit is called an aquifer when it can yield a usable quantity of water.
6. Water Table – Underground depth at which point the ground is totally saturated by water. The level of a water table can fluctuate considerably. When underground water deposits are large enough to be considered sustainable for use, they are known as aquifers.
7. Fracking – Source Watch
  - **Fracking also referred to as hydraulic fracturing or hydro fracking.** A process in which a fluid is injected at high pressure into oil or methane gas deposits to fracture the rock above and release the liquid, (oil/gas) below.
  - **Light-Oil Fracking** – Alternative method using light oil for fracking
  - **Hydro-Fracking** – Process in which water is used as the fluid in fracking
  - **CO2-Fracking** – Process in which carbon dioxide is used as the injection fluid in fracking
8. Hydraulic Fracture – Formed by pumping the fracturing liquid into the wellbore at a rate sufficient to increase the pressure downhole to a value in excess of the fracture of the formation rock.
9. Water Cycle – AKA Hydrologic Cycle or H2O Cycle – Describes the continuous movement of water on, above and below the surface of the Earth.
10. ERCB – Energy Resources Conservation Board
11. EUB – Alberta Energy and Utilities Board

A resolution, passed and advocated for by the Rural Municipal Association (formerly Alberta Association of Municipal Districts and Counties) recently expired. Following is the resolution and its responses.

7-07F (expired): THEREFORE BE IT RESOLVED that the Alberta Association of Municipal Districts and Counties requests that the Government of Alberta implement an immediate moratorium on new water licenses for deep well flooding with fresh groundwater, in all areas of the province where groundwater IS AND MAY BE required for human consumption; and

FURTHER BE IT RESOLVED that the Alberta Association of Municipal Districts and Counties request the Government of Alberta to implement a one-year timetable for the cancellation of existing water licenses

that allow deep well flooding with fresh groundwater, in all areas of the province where groundwater IS AND MAY BE required for human consumption; and

FURTHER BE IT RESOLVED that the Alberta Association of Municipal Districts and Counties draft a petition based on these two clauses and send it out to municipalities who want to participate, so that the will of the people can be expressed on this vital issue.

Government Response:

Environment and Water:

To minimize the use of fresh water for oilfield injection, industry must adhere to the Water Conservation and Allocation Policy for Oilfield Injection. Since 2006, there has been a significant reduction in the use of fresh water for oilfield injection, particularly in areas with limited water sources. Alberta Environment and Water is always striving to improve our policies and practices in an effort to meet the unique needs and challenges we face here in Alberta.

Energy/ERCB:

Alberta Energy is committed to the safe and sustained development of Alberta's energy resources. There have been significant reductions in the use of fresh water for oilfield injection since 2006, particularly in areas with limited water supplies. Oil and gas developers are strongly encouraged to use alternatives to fresh water in these areas and new oil development projects are required to demonstrate that all feasible options were evaluated and that only non-saline water resource use will prevent stranding oil resources. Policies on water use for oil and gas injection are being reviewed to ensure fresh water use is minimized by all upstream oil and gas activities including hydraulic fracturing.

Development:

While both the Ministry of Environment and Sustainable Resource Development and the Ministry of Energy note policies are either in place or under review to encourage minimal use of fresh water for the extraction of oil and gas reserves, neither indicates that a total cessation is contemplated or feasible. As such, the AAMDC finds this response Unsatisfactory and will continue to advocate on this issue through ministerial meetings.

Provincial Ministries: Energy, Environment and Sustainable Resource Development

Provincial Boards and Organizations: ERCB

## **RESOLUTION 6-19**

### **STEP PROGRAM AGRICULTURAL ELIGIBILITY**

**WHEREAS:** Farming operations, whether they are incorporated, or a sole proprietorship can be very labour intensive, especially in the fruit and vegetable sector;

**WHEREAS:** As of October 1, 2018, the minimum wage goes up to \$15.00/hour creating an even greater expense to farming operations with high labour costs;

**WHEREAS:** The STEP program states that "Small businesses must be registered in Alberta and have a valid Alberta Corporate Access Number (ACAN);

**WHEREAS:** Opening up opportunities for students both high school and post secondary for summer employment in the agricultural industry whether the employer is incorporated or not will benefit both employer and employee and support local agriculture, local food production, agritourism, and farmers markets;

**THEREFORE BE IT RESOLVED**

**THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST**

the Government of Alberta review its Summer Temporary Employment Program to include farms and small businesses that are not incorporated.

**BACKGROUND INFORMATION**

Summer Temporary Employment (STEP)

The Summer Temporary Employment Program (STEP) is a Government of Alberta program whereby eligible organizations can apply for a wage subsidy to hire high school or post-secondary students into summer jobs.

From the website [www.alberta.ca/step.aspx](http://www.alberta.ca/step.aspx)

*"The STEP program provides funding to eligible Alberta employers to hire high school or post-secondary students into summer jobs from May to August."*

*"Summer positions created through STEP provide students with the opportunity to build meaningful work experience, increase their skills, gain workplace insight and help prepare them for the future."*

*"It is up to the employers to find students they would like to hire through STEP"*

*"The Government of Alberta will provide an employer with a wage subsidy of \$7 per hour for a minimum of 30 hours per week (on average) and a maximum of 37.5 hours per week."*

At this time the program is only accessible to businesses that are incorporated. Small businesses must be registered in Alberta and have a valid Alberta Corporate Access Number (ACAN).

Many farms are not incorporated and operate as sole proprietorships. These farms can provide valuable summer employment opportunities in the agricultural sector closing the gap between rural and urban. Employing more students in agriculture will provide a valuable appreciation of agriculture, local food production and agritourism.

### **Canada Summer Jobs (CSJ)**

Another program for obtaining summer employees is the Canada Summer Jobs (CSJ) program. CSJ is an initiative of the Summer Work Experience program. It provides wage subsidies to employers to create employment for secondary and post-secondary students.

Canada Summer Jobs welcomes applications from small businesses, not-for-profit employers, public sector and faith-based organizations that provide quality summer jobs for students.

CSJ provides funding to not-for-profit organizations, public-sector employers and small businesses with 50 or fewer full-time employees to create summer job opportunities for young people aged 15 to 30 years who are full-time students intending to return to their studies in the next school year.

The Assessment criteria for this program does not mention agriculture. From the website <https://www.canada.ca/en/employment-social-development/services/funding/canada-summer-jobs/review.html>

“Job supports the provision of services in the community:

- To persons with disabilities
- To newcomers to Canada (including Syrian refugees)
- To indigenous people
- To members of visible minorities
- To persons who are homeless or street-involved
- To other groups with social or employment barriers including literacy and numeracy
- To children or youth
- To seniors
- To the LGBTQ2 community
- Related to environmental protection
- Related to crime prevention
- Related to public health and safety
- Related to cultural development or historical preservation”

## **EMERGENT RESOLUTION E1-19**

### **ACCESS TO AGRICULTURE-SPECIFIC MENTAL HEALTH RESOURCES**

**WHEREAS** Agriculture is economically essential, both provincially and federally, and agriculture needs healthy farmers to function;

**WHEREAS** Agriculture is a stressful occupation, which has become especially clear with three consecutive years of poor harvests, livestock feed shortages and other effects of climate change;

**WHEREAS** Despite mental illness diagnoses increasing, a large stigma exists around mental illness and asking for help which is especially prominent in industries like agriculture where members are isolated and have a distinct workplace culture of not requesting help;

**WHEREAS** Alberta does not have an agriculture-specific mental health crisis line, although neighbouring provinces do (e.g. Saskatchewan);

**WHEREAS** 310-FARM is a well-known and commonly utilized number that can direct callers to an abundance of resources, but only offers agronomic information during office hours;

#### **THEREFORE BE IT RESOLVED**

#### **THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST**

That the Provincial Government of Alberta facilitates the formation of a free, year-round, all hours, mental health crisis hotline, dedicated to the agriculture industry, providing farmers with direct access to uniquely qualified professionals and resources, whom have both an understanding of mental health issues and agriculture-specific stresses.

#### **FURTHER THEREFORE BE IT RESOLVED**

#### **THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST**

That the Provincial Government of Alberta secure long term, sustainable funding for the operation and maintenance of this mental health crisis hotline.

#### **BACKGROUND INFORMATION**

##### **Agriculture is economically essential**

The foundation of Alberta's economy rests on petroleum and agriculture (Mansell & Percy, 1990). Put as simply as possible, we have seen historical slumps and peaks because of the weight placed on these industries. Therefore, when world oil supply increases, our oil prices drop, and the economy slows. Provincially this impact can be mitigated when the agriculture industry remains strong; however, poor weather conditions locally or world market trends can impact prices and exports here (Mansell & Percy, 1990). Canada is vulnerable to world market trends as we are a net-exporter of the agricultural goods we produce. Our largest market is the United States, which accounts for 38% of total agri-food exports, followed in order by China, Japan, and Mexico (AAF, 2017).

According to AAF, (2017), Alberta's real gross domestic product for agri-food industries is up 2.5% at \$6.5 billion, and Alberta exports of primary and processed agri-products reached a record of \$11.2 billion. Food and beverage manufacturing sales reached \$14.4 billion – a new high. Generally, both farm income and expenditures are increasing. Naturally Alberta continues to be the largest beef producer of the provinces, accounting for 41% of all cattle in Canada. Nationally, 75.7% of beef processing occurs in Western Canada; the majority of that is focussed in Alberta specifically.

Canada-wide, agriculture's impact is smaller but still substantial. According to Agriculture Canada, (2017), the agriculture industry generated \$111.9 billion of gross domestic product (GDP), accounting for 6.7% of Canada's total GDP. Agriculture's GDP grew by 11%, compared to the Canadian economy growing by 7.8%. Approximately 2.3 million people were employed within the agriculture industry, accounting for 12.5% of Canadian employment (Agriculture Canada, 2017). Agricultural sales and farm incomes are at record highs, and Canada remains as one of the world's largest exporters of agricultural commodities. Grocery store sales, commercial foodservices sales, and employment in those sectors has increased. Farm market receipts for primary agriculture remained at record highs and net operating expenses dropped for the first time in six years (Agriculture Canada, 2017).

### **Agriculture is stressful**

According to Fraser *et al.*, (2005), farming has one of the highest rates of suicide across all industries and is associated with a unique set of characteristics that can be hazardous to mental health. Included are things such as difficult physical environments/weather, farm-family-business structure, economic difficulties, and many more. Physical and mental health are distinct entities, but often have related effects; farming is a physically dangerous occupation which innately causes stress to workers. Many work activities have inherent risks involved, with large moving equipment, large livestock and zoonotic disease, climbing bins or buildings, or applying various chemicals (Gerrard, 1998).

To quote Fraser *et al.*, (2005):

"The physical stressors and hazards of the farm environment are compounded by the regulatory frameworks and economic dynamics of managing a farm business. Farming enterprises operate in a context of declining terms of trade for agricultural produce; volatile commodity markets; limited availability of off-farm employment; growing cost of machinery and production; loss of farm or livelihood due to crop or production failure; and changing government policy in relation to a range of economic and environmental issues (Elkind *et al.*, 1998)."

98% of farms in Alberta are family owned and operated (Ontario Farm Animal Council, 2010). Working with your family does provide support, but in a farm setting it can impose demands not seen in other industries (Weigel *et al.*, 1987). Increased conflict is seen between family members as the lines between personal and business become blurred; family problems can become work problems, and vice versa. It has been shown that these family related issues most adversely impact the younger generations. (Marotz-Baden, 1988; Weigel *et al.*, 1987). British studies completed by Thomas *et al.*, (2003), demonstrated that most farmers who reported moderate symptoms of depression were concerned with family problems. Contrastingly, other studies show that monetary issues were the predominant factor in suicide and depression; however,

it is likely the interrelated nature of family, business, and money in farming that account for those contrasting results (Fraser *et al.*, 2005). Family support can provide a buffer and increase resilience in a farming community but needs to be acknowledged for its potential to simultaneously add stress.

Women in agriculture face a high level of stress, depression, and fatigue, at reportedly higher levels than men (Fraser *et al.*, 2005). This is primarily due to role conflict and high workloads. Farm women are traditionally in charge of household tasks, childcare, and running farm errands (Gallagher & Delworth, 2003), but are increasingly required to undertake more on- and off-farm work. Often this is referred to as the third shift – one shift on-farm, one shift off-farm, and one shift as a wife and mother.

As is well known and documented, farming is reliant on weather conditions, and is therefore vulnerable to extreme weather. Two snowfalls in September of an accumulated four inches of snow, that melted away within a few days, nearly derailed the Northwest Region within the province of Alberta (AFSC, 2018). Droughts throughout the rest of the province, and a cold spring lead to a feed shortage large enough to more than triple the regular cost of livestock feed. In no other industry would these relatively small weather events cause such a widespread impact. As climate change progresses, weather patterns shift, and extreme weather events occur more commonly, farmers will only continue to feel the financial strain caused by these poorly timed events.

Farming families and those living in rural communities also have several obstacles in accessing mental health care. Some of the major barriers include but are not limited to: maldistribution of health care practitioners (many are in cities, and few are located in rural areas), poor roads, long distances, heightened visibility in small towns (gossip travels quicker through 100 people than through 10,000), and lastly the notion that farmers should be self-reliant and stoic. This only serves to increase the stigma around mental illness and asking for help.

### **Stigma around mental health in agriculture**

The stigma around mental illness is fading over time as movements like Bell Let's Talk and Do More Agriculture become more popular, but it is slower to fade within the agriculture industry. This stigma is an especially difficult obstacle for men to overcome due to the typical persona of a farming man (Phillipe *et al.*, 2017). The culture of agriculture is that – especially male – farmers are resilient, strong, stoic, relentless workers. Anecdotally, women often feel that since agriculture is a male-dominated industry, they need to perpetuate the ‘toughness’ that is traditionally masculine.

Historically, hegemonic studies concentrated on the fact that males have a lower sensitivity to signs of depression, reluctance to seek help, and violent expressions of distress, across all industries. This led to an understanding of male socialization having negative impacts on mental health and well-being (Gough, 2013). The fallacy in that thinking was seen and currently, there is a shift towards a balanced approach to mental health. (Roy *et al.*, 2017).

Robertson (2007) presents an old-fashioned model of norms that stress health as a feminine concern. Therefore, to follow historical masculine norms, men should not speak of their health concerns. This would additionally mean that men should cope with their problems alone, and only get external help as a last

resort, or when pressured by others. To top that off, men are simultaneously expected to care for others as their protectors and providers.

Although those pressures are being alleviated with the feminism movement, it can take generations before humans will adjust their way of thinking.

As stress builds, there is a large array of symptoms that can appear in a farmer and are easily associated with other causes. Some symptoms that can be directly related to high stress include, but are not limited to: fatigue, loss or gain of appetite and weight, irritability, panic attacks, and depression (Roy, *et al.*, 2017). There is a basic recognition that stress can cause these problems, so many farmers already have coping methods that they believe to be enough. Those methods include: self distraction, cognitive strategies, and maladaptive coping methods.

Farming – especially with livestock – requires working seven days a week, and there is usually little to no geographical work/home separation giving a feeling of being on-call all the time (Roy *et al.*, 2017).

Therefore, self distraction such as taking work breaks or vacations is crucial. Across the industry, the importance of breaks and vacations is recognized. Conversely, however, there is still a prevailing notion that farmers should be working all the time, since farming is so intensive. This causes a stigma towards taking those necessary breaks as being a 'lazy' farmer. Unfortunately, this social pressure is often exerted more by fellow farmers than other parts of society (Roy *et al.*, 2017).

On top of pressure to not take vacations, the advances in technology have increased the likelihood of farmers working in isolation as less people are needed to operate the businesses. A constant frustration in agriculture is that a farmer can have great technical performance and produce a high-quality product, but this does not always lead to financial success. Therefore, many farmers combat this through cognitive strategies; basically, they use humour, positive reframing, pride, values, and long-term perspectives and strategic planning to help them survive the bad times. According to Roy *et al.*, (2017) few farmers turned to religion as a coping mechanism.

The previously mentioned mechanisms are sometimes not enough, which is why farmers need more resources to turn to, before maladaptive strategies are chosen. These include substance abuse (excessive drugs or drinking, etc.), social isolation, and suicide. Fortunately, many farmers recognize that those coping methods are detrimental in the long term and try to avoid them (Roy *et al.*, 2017).

Although the stigma around maintaining good mental health, and admitting to mental illness is fading over time, it is still heavily present, especially in male farmers (European Commission, 2011). Men often self-report their health as better than women with the same symptoms. This is consistent with the stereotype of farming men being traditionally masculine, and therefore may cause men to favour some of the negative coping methods.

### **Saskatchewan's mental health link and funding model**

In our neighbouring province, Saskatchewan, agriculture is also a key industry. The Farm Stress Line operates through Mobile Crisis Services, a non-profit community-based organization that is governed by a volunteer board of directors. They contribute significant time to assist in direction of programs and

services (Mobile Crisis Services, 2017). In the 2014/15 fiscal year, Mobile Crisis Services responded to a total of 23,286 calls. They receive funding from seven strategic funding partners from various departments of municipal and provincial governments (from the AGM report of Mobile Crisis Services, 2017). An additional method of funding is private, tax deductible donations, either by mail, online, or in person.

Simply, the Farm Stress Line provides confidential counselling, support, information, and referral services that respond to the needs of rural individuals (Mobile Crisis Services, 2017). The Farm Stress Line is toll-free, open all hours, and promises no call display for anonymity. They help callers by clarifying problems and identifying possible solutions, connecting you with the organization or program best suited to your problem, and listening. The Crisis Counsellors are qualified to help in areas including, but not limited to: mental health, parenting, grief, youth issues, and finances.

July 2012 is when the Farm Stress Line was officially moved to the Mobile Crisis Services responsibility (AGCanada, 2018). This gave the Farm Stress Line the ability to run 'round-the-clock' and 'one-on-one.' The focus of this service was to provide stressed farmers with the listening ear of their peers, who can understand what 21<sup>st</sup> century farming feels like (AGCanada, 2018). Saskatchewan's provincial government wanted farmers and ranchers to know they can rely on those services if they need them.

Despite not being a mental health crisis line, Alberta already offers a similar platform with the program of the Ag-Info Centre: 310-FARM. This is an agriculture information line, with specifications towards crop and livestock education. They only answer inquiries during office hours, 8:00 am to 5:00 pm, Monday to Friday (AAF, 2018). However, this phone line is commonly used and well-known. Annually, 310-FARM takes up to 30,000 calls and receives 5000-6000 emails; the level of traffic is dependent on what programs are currently being offered (AAF, 2018).

Alberta does have mental health and support services available, with the most applicable option being 211. However, this is not an agriculture-specific help line, and as demonstrated previously farming has a plethora of stressors that are exclusive to agriculture; people outside of agriculture without that unique experience cannot empathize or understand a farmer or rancher's stress. Although 211 is a free service to those calling in, municipalities must pay to provide the service, and it is not offered widely throughout the province (Alberta 211, 2018). Additionally, 211 is an information and referral phone line. Although they are trained to deal with people in crisis, the focus of this phone line is to direct people to resources. In the case of farmers and those living rural, they are often directed to resources that are not present. Often there is either a wait list for the referred resource, or it can take time to have your call returned. Since 211 is not offered province wide, someone may call in but not be informed of closer resources if their municipality does not participate in the program (Alberta 211, 2018). Convincing a farmer that they need help is difficult enough already (Roy *et al.*, 2017); when they are brave enough to ask, they should receive help that is appropriate for them.

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**EMERGENT RESOLUTION E2-19**  
**NO ROYALTIES ON FARM-SAVED SEED**

**WHEREAS** Agriculture and Agri-Food Canada (AAFC) and the Canadian Food Inspection Agency (CFIA) are considering implementing a system to collect royalties on farm saved seed;

**WHEREAS** Paying royalties on farm saved seed will increase the price of seed and decrease profit margins for farmers;

**WHEREAS** Royalties on farm saved seed could limit seed choices for farmers as seed companies move to deregister old varieties, which could mean farmers would be forced to pay royalties and to grow only newer varieties;

**WHEREAS** AAFC and CFIA have not outlined details on how much a royalty would be, how it would be collected or how potentially \$100 million in royalties would be dispersed;

**WHEREAS** Farmers currently pay check-offs on almost all grains they deliver to elevators, some of these funds are funneled through the Western Grain Research Foundation (WGRF) and used for variety breeding programs;

**WHEREAS** Also, the WGRF Endowment Fund has received the CN and CP rail overages & penalties under the maximum revenue entitlement program every year since 2000 and had a balance of just under \$132 million at the end of 2017. This money has been collected from farmers via excessive freight charges, and could be used to fund research;

**WHEREAS** The purpose of Agricultural Service Boards is to improve the economic welfare of the farmer and a royalty system has potential to decrease farmers' ability to be profitable and make sound agronomic decisions;

**THEREFORE BE IT RESOLVED**

**THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST**

that Agriculture and Agri-Food Canada and the Canadian Food Inspection Agency abandon the proposal to implement the adoption of End Point Royalties (EPR's) or farm saved seed "trailing royalty contracts".

## **BACKGROUND INFO**

“Consultation” meetings on the issue of Royalties on Farm-Saved seed took place in Western Canada with the final meeting being held at the Renaissance Airport Hotel in Nisku on Dec. 6<sup>th</sup>. This concern has come to light following the Regional Conferences, which is why Special Areas #2 ASB believes the resolution meets the definition of Emergent Resolution per the rules of procedure.

### Issues

- Agriculture and Agri-Food Canada is considering a proposal; that farmers could pay royalties on seeds they produce
- Royalties are being recommended by Seed Synergy, Canadian Seed Trade Association (CTSA) and Canadian Seed Growers Association (CSGA) to increase funds to support programs for wheat and other cereal breeding programs
- There is currently no information about how much a royalty could possibly be, how it would be collected or how funds collected from royalties would be dispersed
- There is potential for \$100 million plus to be collected annually from royalties on farm saved seed
- The Federal Government has continued to put money in to wheat breeding and hopefully that continues but could they eventually back out of funding Seed developers and in the end ultimately placing the financial onus on the producer paying through royalty profits.
- AAFC has already completed consultations with farmers across Western Canada seeking feedback on two proposed royalty models, farm saved seed contracts and end-point royalties
- Two models proposed are:
  - Model one, royalty collection enabled by contracts. When buying seed of a new variety, a producer would have to sign a contract agreeing to pay a trailing royalty on farm saved seed. Part of the contractual obligation would be reporting the annual use of the farm saved seed
  - Model two, would allow for a national non-refundable levy on all the newer varieties. These royalties would then be forwarded to the breeders based on their market share. The proposal calls for the existing provincial check-off systems to be leveraged for collection.
- Royalty rates under both models have yet to be determined but regardless of which system is implemented, farmers would be paying more for seed each time they plant a crop using farm-saved seed

The federal government plan could see royalties charged on farm-saved seed begin within two to three years.

At this point in time, PBR Act allows for end-point royalties, you can't have an end-point royalty in a year when you've charged a royalty on the certified seed.

Currently, industry estimates put certified seed use at only 20 or 25% for wheat.

Producers will buy certified seed of a new variety and save their own seed for several subsequent years before trying out a new variety.

As of January 10, 2019, Minister Oneil Carlier of Alberta Agricultural and Forestry (AAF) has indicated that “he is a big advocate of research but unclear why multibillion dollar international companies need money

from our farmers for their research when they are already extremely profitable companies.” Carlier isn’t convinced collecting royalties is the right approach and concerned the cost of research will be downloaded on to farmers.

The Western Grains Research Foundation’s Mission is: WGRF will continue to build on its unique strength of being a farmer-funded, farmer-directed organization focused on funding field crop research for western Canadian farmers.

According to the 2017 Annual Report (Statement of Financial Position as of Dec. 31, 2017 follows), the WGRF balance was just under 180 million dollars, including the Endowment Fund which has just under 132 million.

More details about the proposed royalties on farm saved seed can be found in the articles below:

<https://www.producer.com/2018/12/seed-royalty-proposal-gains-farmer-support/>

<https://www.producer.com/2018/12/seed-royalty-benefits-questioned/>

<https://www.producer.com/2018/12/farm-saved-seed-royalties-not-unreasonable/>

<https://www.producer.com/2018/10/ottawa-to-consult-on-seed-royalty-proposal/>

<https://www.producer.com/2019/01/alta-ag-minister-cool-on-seed-royalties/>