



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

November 30, 2016

By Email to: [cttf@gov.ab.ca](mailto:cttf@gov.ab.ca)

Dear Members of the Climate Technology Task Force;

**RE: Team Alberta Submission for Consideration to the Climate Technology Task Force Study**

We write on behalf of the Alberta Barley Commission, Alberta Canola Producers Commission, Alberta Pulse Growers Commission and Alberta Wheat Commission, which are operating as Team Alberta for the purpose of this letter. The members of these four organizations represent the vast majority of farmers who grow crops in the province of Alberta.

Over the past 10 years, the industry in Alberta has seen significant growth due to increased production and market access opportunities. Exports of unprocessed agricultural products rose 158% to \$5.5 billion during that time. In 2015, crops accounted for 86% of primary agricultural exports from wheat, canola, barley and pulses, rising 175% from 2005 to \$4.7 billion. Canada has a significant export focus, being the fifth largest exporter in the world, which subjects us to competition from other exporting jurisdictions without similar environmental regulations and costs.

The tremendous growth in the cropping sector can be traced back to research investment, and adoption of new practices and technologies. Organizations such as ours within Team Alberta have invested significant resources to addressing improved genetics, better disease management and technological discoveries to help farmers grow better crops in an efficient way. Sustainable cropping practices in Alberta, which are among the most globally advanced, contribute to yield increases such as the ability to produce more yield per area of land using less resources. More research can be done in this area to focus on continuous improvements.

Crops are great users of carbon dioxide (CO<sub>2</sub>) as part of their metabolism to produce essential oxygen through photosynthesis. This makes producers who grow crops natural leaders in carbon capture and sequestration. Continuous improvement over decades in land management practices (i.e. conservation tillage, reduction in summer fallow, increase in soil sampling, adoption of precision agriculture, enhanced crop rotation, increased nitrogen use efficiency, and improvements in diesel engine combustion), and a strong commitment by farmers to address soil degradation have vastly increased the amount of CO<sub>2</sub> that is effectively removed from the atmosphere and sequestered in the soil. This has 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<sup>1</sup>.

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<sup>1</sup> See AAFC report on carbon cycling in Agricultural systems - <http://www.agr.gc.ca/eng/science-and-innovation/agricultural-practices/agriculture-and-climate/greenhouse-gases/carbon-dioxide/?id=1329321971040>

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Recognizing that producers are natural leaders in carbon capture and an important part of the climate change solution, the cropping sector is providing the following comments to the Climate Technology Task Force Study for consideration:

- 1) **Research:** Producers are a significant investor in research opportunities to look at addressing issues in the sector. As noted, producers have already supported and funded work that has benefited the industry and shown to improve practices, however, more work is needed.

**FOR CONSIDERATION: Identification of a portion of the CCEMC/ERA/Energy Efficiency panel funds to be allocated to support the continued investigation of research areas that are beneficial to agricultural practices. These funds should be available for access by agricultural groups, such as Boards and Commissions, for work that their membership deems important to advancing agricultural practices and tools that are part of the climate change solution.**

Suggested areas of research focus include:

- I. Research directed towards increasing productivity per acre, which increases photosynthetic efficiency to maximize carbon sequestration.
- II. Agronomic research which enhances N<sub>2</sub> fixing.
- III. Investments in the continuous uptake of existing best management practices (i.e. wetland conservation, soil amendments, soil nitrogen management) that have already been increasing in adoption at a cost to producers in the absence of regulations.
- IV. Mobilize the biological capture and storage opportunities across Canada and, thus, realize the significant tonnage that could arise from these activities through coordinated, supported and strategic investments.
- V. Funds can be directed to offset costs borne by producers through a rebate/incentive structure for their investments in GHG mitigating technologies.
- VI. Funds directed to investment in innovative research in the agriculture sector aimed at reduction of carbon equivalents.
- VII. Investment to overcome barriers to the continuous uptake of the world-renowned 4R nutrient stewardship program. The total reduction potential of N<sub>2</sub>O emissions by the target date is predicted to be between 15-25% and could show a result benefit of up to \$87/acre.
- VIII. Enhancing the value and productivity for farmers in running DEF (diesel exhaust fuel) systems: Farmers must pay the cost of the emission package on Tier 4 B diesel machinery, plus bear the costs of the DEF fuel, higher costs of parts, and the costs of specialized technicians and loss of productivity when failures occur.
- IX. Support for programs that encourage sectional control on seeding units: Inefficient shaped fields with trees, sloughs and other ecological preserves result in overlaps. Sectional control can reduce seeding overlap by 2-12 percent, resulting in an immediate reduction in emissions related to seed, fertilizer (N<sub>2</sub>O), seed treatments, etc. The adoption rate remains low due to the initial capital cost. This technology

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has potential to bend emission curves, reduce double fertilization, reduces P and N loading to ecosystems while saving producers money.

- X. Shared investment in soil water probes to help improve irrigation efficiency and reduce energy use while improving water use efficiency and conserving water.
- XI. Research into climate change mitigation related to drainage in periods of heavy rainfall and storms, moisture retaining ponds for drought periods, investment in shelterbelt programs (reversal of cuts to PFRA for shelterbelt programs and trees for producers) to enhance wildlife and pollinator habitat, reduce soil erosion and increase ecological services.
- XII. Alternatives to the internal combustion engine currently do not exist for the powering of tractors and field equipment. At this point in time, there are also no non-legume nitrogen fixing cereals or oilseeds. We are aware research is underway; however, the technologies are a long way off.
- XIII. Positioning of the research funding to match or support other initiatives so that there could be advantages for accessing federal government Next Policy Framework funding support for the cropping sector.

- 2) **Governance:** In the opinion of the cropping sector, the CCEMC/ERA Board of Directors does not hold enough agriculture expertise within its appointed membership. The cropping sector, as mentioned above, plays a significant role in the climate change story, and expertise from the production sector – an area that can be highly impacted as there are no other segments of the industry to pass increased costs to – can provide valuable advice and guidance to the discussion.

**FOR CONSIDERATION: Support for increased agricultural expertise and engagement from the cropping sector with the ERA that includes producer membership/representation on the ERA Board.**

- 3) **Engagement:** The agriculture sector has an established process that enables researchers to access multiple organizations that can provide research support through a one-stop process. The **Agriculture Funding Consortium** has been established for more than 10 years and demonstrated an efficient and manageable way to engage and support agricultural research projects. Leveraging funding is a desire for all members of Team Alberta, and this can be accomplished through the Agriculture Funding Consortium process. Alongside 12 other organizations, groups such as Alberta Innovates are already participating at the Funding Consortium table.

**FOR CONSIDERATION: The CCEMC/ ERA consider becoming a member of the Agriculture Funding Consortium for agricultural research projects and participate in the established process that researchers are familiar with in the agriculture industry.**

- 4) **Market Competitiveness:** The cropping sector continues to be export-oriented. While increased provincial value-added potential may be on the horizon, it will take considerable time to switch from export-oriented to domestic market production. Markets where

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Alberta's agricultural products are destined are not currently demanding products that have a reduced CO2 footprint. Producers are voluntarily working towards these reductions. The CCEMC/ERA and government must be cognizant as to not price Alberta products out of the market due to unintended consequences of an additional tax burden. The grains and oilseeds industry is export dependent, and until this situation changes, the government and CCEMC/ERA need to be mindful of this reality.

**Value-Added:** The additional costs imposed on value-added processing by a carbon tax, including canola crushing, malting, processing, elevation, removal of dockage, and cleaning, are also a concern to our sector. The additional costs threaten new investment in adding value to Alberta primary products prior to export that includes significant jobs, economic diversity often in rural areas of the province. The potential erosion of Alberta value-added competitiveness, relative to neighbouring jurisdictions, may stifle our recent advancements in the area and result in an uncompetitive investment attraction environment.

**FOR CONSIDERATION: Alberta's grains and oilseeds industry is an export dependent, trade exposed sector and, therefore, caution is requested upon institution of any additional tax burden that could decrease Alberta's competitiveness in international markets as well as that of our provincial value-added maltsters, processors, millers and oilseed crushers.**

Team Alberta is pleased to put forward these comments for your consideration. Climate change policies aimed at the cropping sector must be fluid in nature. Economic and environmental conditions change rapidly and producers employ different production practices for diverse agro-climatic regions and soils. The cropping sector is engaged and interested in seeking opportunities that allow us to continue to be part of the climate change solution. We'd like to arrange a meeting to discuss our proposals. Please contact one of our representatives listed below to arrange a meeting.

Sincerely,

Mike Ammeter  
Chair, Alberta Barley Commission

Greg Sears  
Chair, Alberta Canola Producers' Commission

Allison Ammeter  
Chair, Alberta Pulse Growers' Commission

Kevin Auch  
Chair, Alberta Wheat Commission

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**REPRESENTATIVES FROM THE ALBERTA CROP COMMISSIONS CAN BE REACHED AT:**

**Alberta Barley Commission:** Rob Davies, General Manager

Email: [rdavies@albertabarley.com](mailto:rdavies@albertabarley.com); Office: 403.219.6262

**Alberta Canola Producers Commission:** Ward Toma, General Manager

Email: [ward@albertacanola.com](mailto:ward@albertacanola.com); Office: 780.454.0844

**Alberta Pulse Growers' Commission:** Leanne Fischbuch, Executive Director

Email: [lfischbuch@pulse.ab.ca](mailto:lfischbuch@pulse.ab.ca); Office: 780.986.9398 ext. 2

**Alberta Wheat Commission:** Tom Steve, General Manager

Email: [tsteve@albertwheat.com](mailto:tsteve@albertwheat.com); Office: 403.219.7900

*Team Alberta represents a working relationship between Alberta's four crop commissions. The commissions are producer-elected and directed organizations established to represent the interests of barley, canola, pulse and wheat producers across the province. The commissions are funded by our members through a refundable check-off to deliver extension and education initiatives and to advise government on their behalf in the areas of research, policy and market development, among others.*

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