







# Technical Session for Agriculture - Climate Leadership Consultations: Cropping Sector Overview

Thursday, September 17, 2015

## ALBERTA'S CROP COMMISSIONS

Alberta's crop commissions are producer elected and directed organizations established to represent the interests of barley, canola, pulse and wheat producers across the province. We 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.

## **KEY MESSAGES**

- 1. Agriculture's overall contribution to Green House Gas Emission's (GHG) in Alberta is approximately 7% (crops and livestock each contributing about half).
- 2. Alberta's barley, canola, pulse and wheat producers are among the most environmentally sustainable in the world. The advancements and investments that Alberta producers have made to date demonstrate the sector's commitment to reduce emission intensity by producing more food (increased yield) with fewer emissions (decreased inputs) in the absence of any related regulations. Some of the practices that Alberta producers have voluntarily implemented over the years with an aim to reducing GHG emissions include:
  - a. A significant reduction in the number of summer fallow acres.
  - b. Widespread adoption of conservation tillage which has significantly increased carbon sequestration of atmospheric CO<sub>2</sub> i into soils and reduced fuel use and related GHG emissions; all while protecting soil surfaces from water and wind erosion and improving soil aggregate stability, rainfall capture efficiency and water holding capacity.
  - c. Responsible fertilizer use (careful selection of nitrogen fertilizer source, rate, timing and placement practices) have decreased nitrous oxide emissions
  - d. Adoption of precision agriculture technology such as: Global Positioning Systems, Sectional Control, Soil Testing, field mapping, and Variable Rate Technology have allowed farmers to increase their yields while reducing GHG emissions, thereby decreasing the overall emission intensity in Alberta's cropping sector.
- 3. Alberta producers have made significant financial investments in research to improve crop genetics using biotechnology and traditional plant breeding methods (high yields, herbicide tolerance, resistant cultivars, water use efficiency, nitrogen use efficiency).
- 4. Alberta's cropping sector is a net exporter poised to meet the increasing demands of a growing global population.

  Barley:
  - In 2014, Canada produced 7.12 million tonnes of barley, 58% of which was grown in Alberta. Our key export markets for barley were China, United States, Japan, Saudi Arabia and Columbia.
  - Alberta produces about 410,000-430,000 tonnes of malting barley that is sold to Canadian maltsters for malt production for Canadian and international sales. Alberta exported about 350,000 tonnes of malting barley in 2014.

#### Canola:

- Canola contributes over \$6 billion annually and nearly 43,000 jobs in the province of Alberta alone.
- Canada exports over 90% of the canola we produce, which accounts for over 30% of the world's canola supply and 60% of the global canola trade.

#### Pulses:

- Pulses fix atmospheric nitrogen to meet their growing needs and do not require synthetic nitrogen.
- Pulse acres within Alberta have grown from 5% to 8% cent in the past five years. Canada accounts for 32% of world pea production and 55% of world pea trade.

#### Wheat:

- Wheat is Alberta's largest crop with annual production of 8.5 9.5 million tonnes and annual farm cash receipts over \$2.3 billion.
- Approximately 70 per cent of Alberta wheat is exported to major markets including Asia and the US.
- 5. Policies that support the adoption of practice changes <u>must</u> consider the economic impact on a producer's economic viability. Our farmers rely on global prices and are therefore price takers. Any regulations that increase the cost of inputs, such as fuel and fertilizer, cannot be passed on to buyers and are therefore borne by producers.
  - a. Reduction of GHG is a benefit to society, therefore society must be prepared to recognize and compensate farmers for the role they play.
- 6. Education and extension are the greatest barriers to the adoption of practices such as automation, crop rotation, the ideal timing of fertilizer application.
- 7. Any 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. A one-sized fits all policy approach will not be effective.
- 8. Climate change policies should be outcomes based, not practice based. It is not the government's role to prescribe practice changes. The crop commissions will commit to partner with the government to implement education and extension around the various beneficial management practice changes that enable farmers to meet those objectives.
- 9. Financial incentives encourage implementation of practice changes required to meet climate change objectives.
- 10. Going forward, collaboration between government and producer commissions is critical in areas of research, education and extension. In most instances reducing the GHG emission intensity goes hand in hand with economic viability. Production practice changes where this is the case are a win, win, win for the achievement of government's intended objectives, promoting ecosystem services and protecting producers' livelihoods.

### **For More Information**

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