

**AGRICULTURE AND FORESTRY'S
WRITTEN RESPONSES TO QUESTIONS RAISED AT THE
STANDING COMMITTEE ON PUBLIC ACCOUNTS
Alberta Hansard (Transcript No. 29-4-7)
June 5, 2018**

PA-727

Mr. Clark: For Key Strategy 3.3 (Support the development of innovative processes and technology applications to transform agriculture and forest biomass and waste streams into renewable energy and value-added products.):

What are the outcomes in terms of energy impacts and carbon offsets as a result of activities and in *agricultural* biomass and waste streams innovations?

ANSWER:

- This strategy focused on the application of advanced technologies and processes to transform crops, organic waste streams and agricultural and forestry biomass to create renewable bio-based products and advanced materials, such as:
 - biofuels and bioenergy, composite materials;
 - intermediates and industrial chemicals and polymers; and
 - specialty chemicals for high value.
- In 2017-18, Alberta's agricultural sector offset 0.45 mega tonnes of carbon dioxide from the production of bioenergy utilizing low value and organic waste streams diverted from landfills.
- These carbon savings were achieved through the production of:
 - 230 million litres of biodiesel;
 - 35 million litres of ethanol; and
 - 22 megawatt hours of electricity from biogas.
- In addition to the environmental benefits, bioenergy production promotes economic growth and diversification, as well as rural development and job creation. Agriculture and Forestry collaborates with the Alberta Climate Change Office and other bio-industrial stakeholders to further develop the bioenergy and other bio-industrial sectors.

What are the outcomes in terms of energy impacts and carbon offsets as a result of activities and in *forest* biomass and waste streams innovations?

ANSWER:

- Mill facility wood waste is used for production of heat, electricity within their mills as well as wood pellets (for other users).
- Between 2011 and 2016, a total of seven million megawatt hours of electricity were produced from mill waste, accounting for a reduction in carbon dioxide emissions of just over 2.24 mega tonnes.
- During the same period, forest sector mills (pulp and sawmills) produced some 53 million gigajoules of heat from waste biomass combustion. This use of forest residue material reduced carbon dioxide emissions by just over 16.4 mega tonnes.
- Wood waste from forestry operations were also used (over the same time period) to produce some 283,800 tonnes of wood pellets. Wood pellets are used in a variety of

other facilities for electricity and heat production. On average each tonne of pellets is expected to reduce carbon dioxide emissions by some five tonnes.

- A new dedicated wood pellet plant is nearing completion with a capacity of 475,000 tonnes per year (potentially reducing carbon dioxide production by approximately 2.37 mega tonnes).

PA-728

Mr. Gottfried: Could you tell us if there are any specific contracts, not just relationships but specific contracts that have been signed during the activity undertaken during international trade missions? I don't need the company names. I think just the volume (number of contracts) and what the product is, would be more than sufficient.

ANSWER:

- Agriculture and Forestry (AF) does not collect information on the number of contracts made during an international mission due to confidentiality.
- The ministry does track client reported estimated sales linked to ministry-led international trade missions. Through this performance criterion, the department can assess and report on its contribution to achieving ministry outcomes, attributable to our international market development activities.
- In 2017-18, Alberta industry reported estimated sales of nearly \$82 million as result of AF-led international trade missions.

PA-728

Mrs. Schreiner: Does AFSC have any plans to measure the impact its lending program has on rural economic development and the incremental benefit it provides?

ANSWER:

- The total impact of Agricultural Financial Services Corporation's (AFSC) lending activities in rural Alberta in fiscal 2017-18 was 1,487 loans approved, \$360,461,776 authorized dollars, and \$412,021,153 in total project dollars.
- Current records show 6,583 jobs were maintained/created under all AFSC loan programs.

PA-730

Mr. Gottfried: Which key target markets have Alberta Ag identified for export expansion or new market penetration by major agriculture export commodities, and has a competitive analysis been done to determine the market share potential based on our shared production capacity and our current performance or share in these key markets?

ANSWER:

- Key target markets identified for export expansion opportunities include China, United States (Midwest, West Coast and East Coast regions), Mexico, the European Union, India, Turkey and Kazakhstan.

- Countries/regions identified for new market penetration are Vietnam, Philippines, the Pacific Alliance countries (Chile, Colombia, Peru and Mexico), Brazil, United Arab Emirates and the Sub-Saharan Africa countries.
- Yes, comprehensive market analysis (both regional and sector-based) are done on a continual basis to guide international market development activities.

PA-730

Dr. Turner: A number of workshops, a framework, and an action plan have been developed in relation to the risk of antimicrobial resistance. Are there measures to determine whether these actions undertaken are working?

ANSWER:

- Antimicrobial resistance (AMR) is extremely complex because it relates to practices in animal health, human health, and the environment.
- As a result of all of these variables, it is very difficult to determine whether one action has a specific positive or negative outcome on the overall issue of AMR.
- In general, measures related to AMR fall into two basic categories:
 - the level of resistance that is present in bacteria and whether it is rising or falling; and
 - the amount of antimicrobial usage in both animal and human health.
- The Canadian Integrated Program for Antimicrobial Resistance Surveillance has been in existence for over 15 years and tracks the levels of resistance in a few indicator species of bacteria in poultry, swine, and cattle.
- This information could be further supported in the future by planned surveillance programs that are Alberta specific.

PA-730

Mr. Clark: Page 34, key strategy 4.1, about enhancing lending to facilitate the success of new entrants and intergenerational transfers. How many closures or consolidations of farms, ranches, et cetera, did your lending efforts prevent in this reporting period?

ANSWER:

- AFSC does not track the specific information requested.

PA-730

Mr. Barnes: Outcome 3, agriculture and forest industries. For agriculture, what are the department's key targets and outcomes expected from the department's irrigation strategy?

ANSWER:

- The targets of the AF Irrigation Strategy are contained in the document "Alberta's Irrigation: A Strategy for the Future." The expected outcomes and related targets are:

- Improvement in irrigation productivity: The irrigation sector will meet the 30 per cent overall improvement in water-use efficiency and productivity outcome identified in the renewed *Water for Life Strategy* by 2015.
- Improvement in irrigation application efficiency: Average on-farm irrigation efficiency within the irrigation districts will increase from about 78 per cent in 2012 to at least 85 per cent by 2025.
- Improvement in irrigation distribution system conversion: All technically feasible open channel canals will be replaced with pipelines by 2035 to further reduce water conveyance losses. As a result, approximately 75 per cent of the 7,900 kilometres of irrigation canals will be in pipelines and an additional 50 million cubic metres of water will be conserved annually.
- Increased irrigation expansion: As a result of improvements in irrigation water-use efficiencies, irrigation districts will expand by approximately 12% (70,000 hectares) by 2025.
- Water storage: A comprehensive study to assess potential water storage sites to improve water supply security within the South Saskatchewan region will be completed by 2015.
- Improvement in water quality and protection of aquatic environment: Strategies to effectively manage nitrogen and phosphorus associated with confined feeding operations will be developed and implemented in selected Alberta watersheds by 2020.
- Assessment of groundwater quality: An assessment of manure management effects on shallow groundwater quality and develop mitigation strategies will be completed by 2018.
- Assessment water quality and food safety: A comprehensive assessment of irrigation water quality within the major irrigation districts will be completed by 2017. The ability to identify the source (human, livestock wildlife, environmental) of bacteria in surface and ground water will be developed to help in the implementation of effective mitigation practices.
- Progress towards these targets is noted in detail in the document "Alberta's Irrigation – A Strategy for the Future – 2016/17 Strategy Measures."

PA-730

Mrs. Schreiner: I'm referring to the OAG outstanding recommendations. What are the most significant changes AFSC has made in response to the recommendations?

ANSWER:

- The most significant change made by AFSC relates to establishing and implementing processes to ensure compliance with established policies.
- AFSC has taken a number of steps to respond to the issues identified in the internal audit report. These include:
 - The Chief Executive Officer position no longer sits on the board of directors;
 - AFSC has made changes to its Code of Conduct to include specific thresholds on gifts;

- Developed procedures to regularly report executive training and travel expenses to board of directors, including all international travel to be brought forward six months in advance for review;
- Improved board of director's reporting;
- Adherence to Code of Conduct, expense policies and procurement policies and procedures has been strengthened by the creation of a Compliance Policy and Framework; and
- Changes to general counsel role to provide more oversight for the corporation (previously just an administrative contract review role).
- AFSC is confident that it has emerged from this situation as a much stronger corporation.

PA-730

Mr. Clark: How many intergenerational transfers did your lending facilitate, in which communities and regions, and for which types of operations?

ANSWER:

- AFSC does not track the specific information requested.

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Mr. Gotfried: Have you done an analysis on our major competitors in those key export markets noted, the relative strengths and weaknesses and any competitive advantage or performance strengths that we can analyze and learn from, and what analysis has been done of our key raw export products, particularly beef, pork, grain, and legumes, to determine viable high value-added processing opportunities?

ANSWER:

- Yes, full analysis is done on a continual basis, including our major competitors (e.g., Japan and European Union), sector-based (e.g., meat, animal feed and pet food) and export readiness of Alberta-based small and medium sized enterprises.

PA-730

Mrs. Schreiner: I understand that there have been substantial overhauls of AFSC over the last few years in terms of personnel and accountability. Could AFSC tell us how they have strengthened internal controls and accountability after the minister revealed that the previous government had allowed a culture of entitlement to take hold at the corporation.

ANSWER:

- AFSC has taken a number of steps to respond to the issues identified in the internal audit report. These include:
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 - AFSC has made changes to its Code of Conduct to include specific thresholds on gifts;

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- AFSC is confident that it has emerged from this situation as a much stronger corporation.

PA-730

Dr. Swann: Given the reversal in the logging practice on the Highwood pass in the past year, has that influenced your policy regarding logging permits in relation to the value of recreation, tourism, and public access for future developments?

ANSWER:

- Timber harvesting activity in the Highwood area has not changed or influenced AF policy on lodging permits.
- All forest management activity in Alberta is based on the Forest Management Planning Standard, which was developed in accordance with Canadian Standards Association Z809-02 Sustainable Forest Management: Requirements and Guidance Document. Planning is based on principles of adaptive and sustainable forest management, wherein values such as watershed protection, wildlife habitat, and biodiversity must be considered.