



ASSOCIATION OF
EQUIPMENT MANUFACTURERS

AGRICULTURE
CONSTRUCTION
FORESTRY
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The Standing Committee on Agriculture and Agri-Food Study on the Advancements of Technology and Research in the Agriculture Industry that can Support Canadian Exports

Presentation by:

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Thank you, Mr. Chair and honourable members of the Committee for providing the Association of Equipment Manufacturers with the opportunity to address you this afternoon.

As an introduction, allow me to first say a few words about the member companies of the Association of Equipment Manufacturers (AEM). AEM is a trade association representing manufacturers of agricultural, forestry, construction, mining and utilities equipment.

Members include very successful Canadian manufacturers like MFE Manufacturing in Miramichi—Grand Lake, Prinoth in Shefford Quebec, Atlantic Braids, Glengarry—Russell—Prescott, Skyjack in Guelph, and Groundworks Safety Systems in Red Deer—Mountain View, and Rulmeca Canada Ltd in Lambton—Kent--Middlesex to name a few. As well, members include global equipment manufacturers – such as Caterpillar and John Deere.

Collectively, AEM member companies support 149,000 jobs in Canada and contribute \$44 billion annually to the Canadian economy.

This morning I would like to touch upon three subjects:

- The importance of trade as an engine of growth for agriculture;



- Innovative achievements of Canadian equipment manufacturers; and,
- Challenges facing equipment manufacturers today, such as access to rural broadband.

International Trade and Canadian Exports

Technology plays an important role in increasing sustainable measures in agriculture and environmental protection. AEM is supportive of the government's goals, announced in Budget 2017, to reach \$75 billion in agri-food exports annually by 2025.

As well, in 2016 the Advisory Council on Economic Growth led by Dominic Barton identified agriculture and agri-food as a sector of great economic growth potential.

At a Canada 2020 event on June 1st, 2018, Dominic Barton shared McKinsey Analytics¹ research identifying a number of growth opportunities where agri-business investment is likely to focus. The four areas of greatest growth opportunity include: protein in Asia, functional foods, aquaculture and Agriculture Equipment.



Given these global growth opportunities, Agriculture Equipment and the agriculture sector as a whole will continue to be key for future Canadian economic growth.

The Council recommendations also advised the government to begin developing strategies to clear a path for growth of high-potential sectors like agriculture. In our view, to achieve these goals, the Government of Canada must be committed to setting strategic goals for the Ministers of Agriculture and Agri-Food, Health, International Trade, Innovation, Science & Economic Development, and Environment and Climate Change for 2025.

Well-defined, measured, performance targets – such as employment and exports – across departments will be necessary for these goals to become a reality. Indeed, performance measurement is one of the principles of the Canadian government’s “Policy on Results” directive.

AEM member companies operate and export globally. Therefore, international trade and continued regulatory alignment between Canada and the United States continues to be a priority for AEM members. AEM continues to be a strong supporter of NAFTA, and is advocating for a modernized agreement in both the United States and Canada. AEM continues to spearhead industry efforts to discourage tariffs which will harm not only manufacturers, but our customers. It is



of vital importance to our industry that farm equipment works seamlessly across the Canadian-American border, and manufacturers are able to freely export products to other markets.

Canadian Innovations in Equipment Manufacturing

Innovative technologies integrated into farm equipment have helped increase agricultural productivity while making the industry more sustainable than ever. Canadian farmers rely on the equipment designed and developed by AEM members to have access to clean technologies and innovative tools to reduce greenhouse gas emissions (GHGs) from agricultural production.

Members of the Committee will have seen first-hand during their tour of the CNH Saskatoon Plant how this investment in innovation makes its way to the shop floor and into the equipment. Modern manufacturing processes now allow for the production of equipment that is unique to the farmer's individual needs.

As we enter the next phase of farming, what is often referred to as Farming 3.0, Precision Agriculture, big data and Artificial Intelligence will be critical and revolutionary.



Recently, AEM commissioned a study analyzing the future trends of agriculture over the next ten to twenty-five years. The current environment is ripe for digital transformation: pressures to increase food production will continue to increase, farmers need to adapt to changing climates, and consumers want to know more about their food. It is an exciting time to be in agriculture.

Although it can be difficult to predict exactly what the future of agriculture will look like, we can agree that it will look different from today.

It is imperative that the Canadian government continue to foster technological growth as investments in ag technology will be coming from within the sector, but also from external disruptors. Canadian farmers will have access to new platforms or hardware solutions from the likes of Google, or start-ups, disrupting the agriculture technology market.

Technology such as satellite image analysis, in-field monitoring, real time soil testing, plant-by-plant analysis, robots, and predictive analytics will be at the core of Farming 3.0. As Canadian farmers become more digitally advanced, data will be at the centre of the farm as these tools become common place. Growers will become less of



an operator and more of a manager. Here are quick sketches of each of these technologies:

- Satellite image analysis allows county-by-county yield predictions that farmers then use in making their marketing decisions.
- Predictive analytics tools help farmers reduce their risk when making crop marketing decisions under a controlled risk level framework.
- Wireless soil sensors relay information about the fertility of a crop in real time, 24 hours a day, 7 days a week.
- Plant-by-plant analysis allows the application of fertilizer and pesticides only on the plants that need the nutrition or protection.
- Already in use, robots ease the labour challenges of faced by farmers in both the barn and the field.

As the government considers regulatory reform in the agri-food sector, it is critical to take into account the technology and market forces that will shape the sector. In the context of “Farming 3.0” – rural broadband will be a critical tool for Canadian farm families to remain globally competitive.



Challenges Facing Equipment Manufacturers today

Access to these technologies begins with broadband in rural and remote parts of the country. Today, rural broadband deployment across the country does not meet the high data transmission requirements of precision agriculture and other data rich services deployed by farmers.

In April 2018, the Standing Committee on Industry, Science and Technology published a report on this subject. AEM supports the recommendations put forward by the committee for Innovation, Science and Economic Development Canada, to develop a comprehensive rural broadband strategy in collaboration with key stakeholders. Rural broadband is key for Canadian farmers and ranchers to be globally competitive and is necessary stepping stone to level the playing field with other farmers and ranchers in other countries and to unleash the innovation potential in agriculture technology.

Conclusion

Thank you for undertaking this study and your consideration of AEM's submission. We look forward to your questions.

¹ Source: Global agriculture's many opportunities. McKinsey on Investing Number 2, Summer 2015 (page 63).