

## DIVERSE AND GROWING: BC'S AGRICULTURE INDUSTRY ON THE RISE

### HIGHLIGHTS

- BC's agri-food industry has enjoyed strong growth in recent years.
- The value of BC's exports of agricultural and seafood products has surged, thanks to strong gains in shipments to the US (aided by the weaker Canadian dollar) as well as growing exports to China. The US takes more than two-thirds of BC's agri-food exports, while China buys 12%.
- Overall, BC's agri-food sector punches below its weight within Canada, but this is mainly because we have a smaller share of agricultural land than some other provinces; BC punches above its weight in many segments of crop production.
- BC has the most diverse agriculture sector of any province in Canada.
- The province's agri-food sector is well positioned for future growth due to the array of high quality products we produce together with rising demand in Asia.

British Columbia's agriculture and agri-food establishments span a mix of industries. The sector includes primary agriculture, aquaculture and other fisheries, and food processing, manufacturing and distribution. The most diverse in Canada, agri-food in BC has expanded to the point where it now makes a sizable contribution to the economy, both in generating export earnings as well as in the large amounts of food produced for local consumption.

The past two decades have seen the sector grow at a healthy pace, punctuated by a particularly strong upswing in recent years. This steady expansion means that agri-food now rivals other large export-oriented BC

industries in the value of export sales. China has been a prominent part of the growth story, but BC agriculture and seafood products today are being shipped to many foreign jurisdictions - with the United States still the leading market.

While expanding and deepening the export base is essential to ensuring BC's future prosperity, it is also important to recognize that the local population benefits immensely from having a rich and diverse domestic agriculture sector. An agriculture industry that produces a wide range of food products reduces BC's reliance on imports. Much of the province's agri-food industry is comprised of smaller, niche

producers, often cultivating higher-value products used in the domestic food services sector. This product diversity coupled with growing success in export markets is the foundation of the sector's strength and resiliency.

Looking ahead, we believe BC's agriculture sector is set to become an even bigger economic engine for the province.

### OVERVIEW OF BC'S AGRICULTURE SECTOR

In BC, the value of sales in the primary agriculture and seafood industries amounted to more than \$3.7 billion in 2014. Of this, farm

cash receipts were \$2.9 billion, and the landed value of aquaculture and other fisheries was \$0.8 billion. The processing of primary foods and related manufacturing activity adds significant value within the sector, with food and beverage manufacturers' shipments reaching \$8.5 billion in the same year. The total value of primary and processed food sales flowing from BC's agri-food complex amounted to ~\$12.3 billion in 2014.<sup>1</sup> In aggregate, sales – both domestic and export – in the agri-food sector have expanded at an impressive 6% annual rate in recent years.

There are approximately 20,000 farms in the province. Collectively, they utilize 2.6 million hectares, which is 2.8% of all provincial land. This is a small fraction of the land base and represents a very different footprint from the prairie provinces, where agriculture is more dominant and the mix of products is different. For example, Saskatchewan's 37,000 farms cover 42% of that province's land mass. Alberta's 43,000 farms utilize 32% of land within its borders.

With nearly 52,000, Ontario has the most farms of any province, but the proportional land coverage is more in line with BC: Ontario farms utilize just 5.6% of its land base. Just 2.5% of Quebec's land mass is devoted to agriculture.<sup>2</sup>

Varying climatic conditions and regions allow BC farms to produce more than 200 different products, giving our province the most diverse primary agriculture industry in the country.

Although the sales figures cited above are impressive, BC's agri-food sector generally punches below its weight within Canada in economic terms. BC's farm cash receipts, for example, amount to just over 5% of all Canadian farm cash receipts, whereas BC is home to 13% of Canada's population and economic output. The reason the sector is proportionally smaller here than in some other provinces stems largely from geography, as BC contains just 3.5% of the country's farmland. The supply of arable land is the chief reason why BC has just

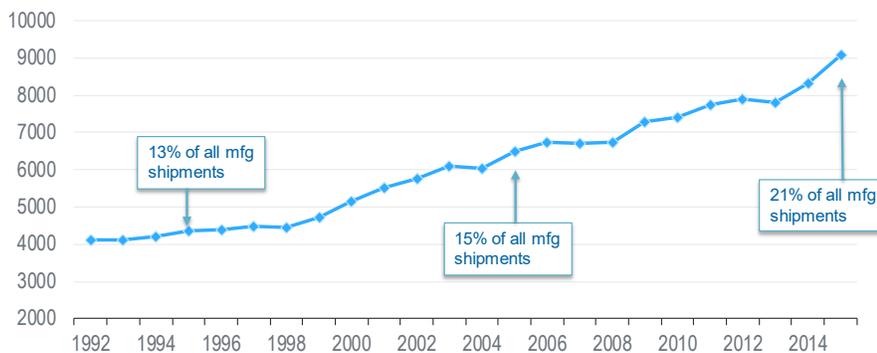
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8% of all farms in Canada. A higher share of arable land has boosted the agriculture sector in several other provinces: farm cash receipts in Alberta, for example, are 23% of the national total, with Saskatchewan at 24% (Alberta accounts for 18% of the national economy and Saskatchewan for 4%<sup>3</sup>).

The top 10 agri-food commodities produced in BC, in descending order, are: dairy products, farmed salmon, chickens, beef, floriculture, nursery, greenhouse peppers, wild salmon, greenhouse tomatoes, and eggs. Despite having an "undersized" agriculture sector by Canadian standards, in a number of segments BC punches well above its weight. Measured by farm cash receipts, in 2014 BC ranked first in Canada in farm sales of blueberries, cranberries, sweet cherries, raspberries and apricots. And we were second in farm sales of floriculture products, nursery products, greenhouse peppers, tomatoes, cucumbers, mushrooms, grapes, lettuce, peaches and a number of other farm crops.

In BC there are some 900 food manufacturing establishments, counting just those that have paid employees. The significance and relative importance of agri-food in

**FIGURE 1: BC FOOD & BEVERAGE MANUFACTURING SHIPMENTS, MILLIONS \$**



Source: Statistics Canada, seasonally adjusted. Note: values of beverage manufacturing between 2004 and 2012 are estimates because actual data are suppressed for these years.

<sup>1</sup> BC Ministry of Agriculture, "Sector Snapshot: BC Agrifood and Seafood 2014," October 2015.

<sup>2</sup> Statistics Canada, 2011 Census of Agriculture.

<sup>3</sup> Shares of Canadian real GDP.

**TABLE 1: BC'S TOP 20 AGRICULTURE RECEIPTS**

| Rank | Commodity              | 2014 BC Receipts (\$, 000s) | 2014 Canada Receipts (\$, 000s) | BC share of 2014 National (%) |
|------|------------------------|-----------------------------|---------------------------------|-------------------------------|
| 1    | Dairy Products         | 554,730                     | 6,073,355                       | 9.1%                          |
| 2    | Farmed Salmon          | 380,400                     | na                              | na                            |
| 3    | Chickens               | 367,595                     | 2,383,410                       | 15.4%                         |
| 4    | Beef                   | 279,137                     | 9,767,021                       | 2.9%                          |
| 5    | Floriculture           | 271,856                     | 1,126,699                       | 24.1%                         |
| 6    | Nursery                | 177,192                     | 536,807                         | 33.0%                         |
| 7    | Peppers (Greenhouse)   | 129,135                     | 408,486                         | 31.6%                         |
| 8    | Wild Salmon            | 124,700                     | na                              | na                            |
| 9    | Tomatoes (Greenhouse)  | 116,401                     | 519,960                         | 22.4%                         |
| 10   | Eggs                   | 116,153                     | 913,984                         | 12.7%                         |
| 11   | Mushrooms 2            | 114,741                     | 376,097                         | 30.5%                         |
| 12   | Blueberries            | 112,210                     | 244,926                         | 45.8%                         |
| 13   | Turkeys                | 50,447                      | 388,006                         | 13.0%                         |
| 14   | Grapes                 | 46,947                      | 116,159                         | 40.4%                         |
| 15   | Halibut                | 46,900                      | na                              | na                            |
| 16   | Crabs, Other 3         | 46,500                      | na                              | na                            |
| 17   | Apples                 | 46,193                      | 191,493                         | 24.1%                         |
| 18   | Sweet Cherries         | 45,696                      | 47,711                          | 95.8%                         |
| 19   | Cranberries            | 45,558                      | 96,021                          | 47.4%                         |
| 20   | Cucumbers (Greenhouse) | 42,208                      | 325,905                         | 13.9%                         |

Source: FastStats 2014, British Columbia's Agrifood and Seafood Sector, BC Ministry of Agriculture, December 2015.

our economy is reflected in the fact that these entities account for 12% of all BC manufacturing establishments.<sup>4</sup> In comparison, Alberta has just 470 food manufacturing establishments, which represent 9% of all manufacturing firms in that province. Saskatchewan has just 144 establishments in its food manufacturing sector. And Ontario has about 2,000, which is 10% of all manufacturing establishments in the province.

**THE AGRICULTURAL LAND RESERVE**

The BC Agricultural Land Reserve (ALR) protects approximately 4.6 million hectares of land for agriculture purposes, which essentially covers all provincial

land suitable for farming. With 2.6 million hectares being utilized for farming, just over half (56%) of the protected ALR is currently farmed. The most productive agricultural regions – the Fraser Valley and the Okanagan Valley – are within or in close proximity to population centres which are also desirable places to live. This has led to periodic land use conflicts. The population of Metro Vancouver continues to expand by 35,000-40,000 annually. More people increases the demand for fresh, local food, but it also exacerbates the competition for scarce land.

Some observers argue that potentially productive farm land has been lost to industrial, commercial and residential purposes, despite

the protections afforded by the ALR, and that urbanization pressures will continue to see farm land shifted to alternative uses. Others claim that a sizable portion of the existing protected farm land is actually marginal for agricultural purposes and should be available for other uses.

There have been significant changes in the farming industry and in the make-up of the province's large urban centres since the ALR's inception in the mid-1970s. Technology and innovation have greatly enhanced the productive capacity of agricultural land, which has also affected what land is considered the most desirable for cultivating. Challenges associated with a limited supply of land available for residential and other forms of development have also intensified since the ALR was established. The constrained supply of land is one of the principal factors behind the high cost of housing in the lower mainland.

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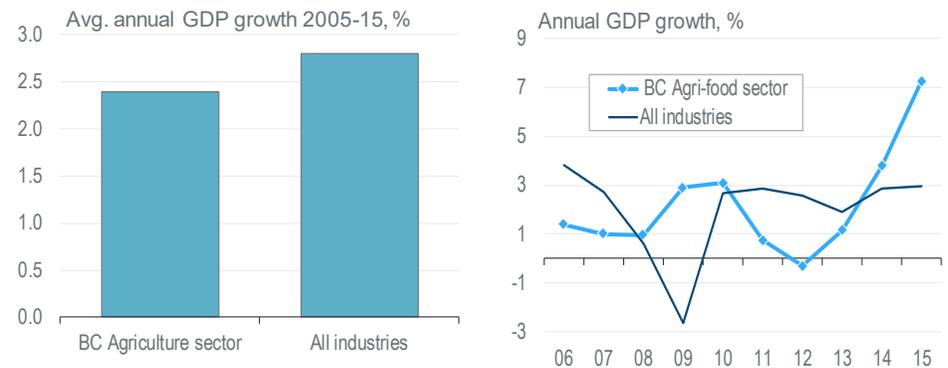
<sup>4</sup> Excluding establishments with no paid employees.

In Metro Vancouver there are nearly 61,000 hectares in the ALR. The region's land mass covers ~279,000 hectares, meaning that nearly 22% of Metro Vancouver's land is in the ALR – a remarkable situation in a densely populated urban area.<sup>5</sup> Of the ~61,000 hectares of ALR land in Metro Vancouver, roughly half is actively farmed (not all of it productively, as there are lots of small scale “hobby farms” located in the area). Approximately 9,500 hectares (or 16%) of the ALR is unavailable for farming due to existing land uses – this includes protected areas, parks, reserves and recreation & leisure (golf). A further 2,221 hectares (4%) has limited potential for agriculture owing to physical characteristics such as drainage, flooding, and inappropriate topography.

**VALUE OF OUTPUT**

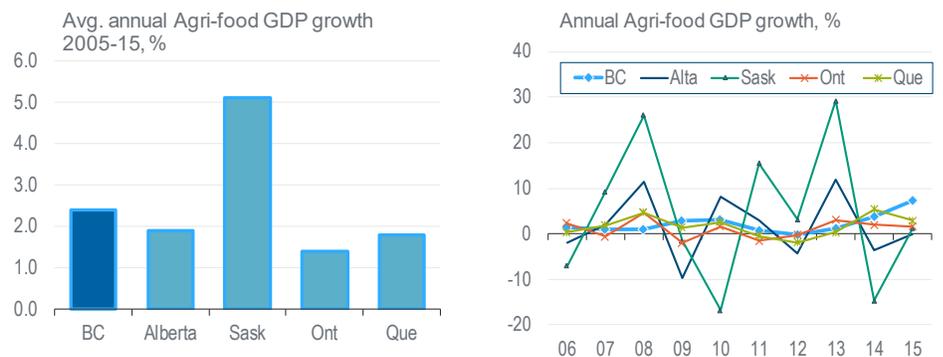
When examining an industry and tracking its growth over time, real gross domestic product (GDP) is the most useful measure. In contrast to the sales figures cited above, GDP measures only the final value of all output (adjusted for inflation) and thus avoids double counting, which occurs when one simply adds the value of farm sales and the value of manufactured food products (because local farm sales frequently are an input into the food manufacturing process). GDP is also measured in inflation-adjusted dollars, which removes some of the effects of year-to-year price variation in the sales figures. Using inflation-adjusted dollars is helpful in tracing changes in output because prices can be volatile in the farming and fishing industries.

**FIGURE 2: AGRICULTURE HAS RECENTLY OUTPACED THE OVERALL ECONOMY**



Source: Statistics Canada, LFS. Latest: June 2016 \* Jan to June

**FIGURE 3: BC AGRIFOOD SECTOR: RELATIVELY STRONG AND STABLE GROWTH**



Source: Statistics Canada.

Real GDP in the BC agriculture sector (which includes farm production and downstream processing and manufacturing) stood at \$3.5 billion in 2015, equal to 1.6% of all economic output in the province. Between 2005 and 2015, GDP in the province's agriculture sector grew at an average annual rate of 2.4%, somewhat slower than the 2.8% economy-wide figure over the same period. However, bolstered by high prices for aquaculture products and some crops and ongoing growth in export

markets, the agri-food sector has grown at an above-average pace over the past few years.

Although GDP growth in the agri-food sector has not quite kept pace with overall economic growth, BC's sector has outpaced the agri-food industry in most other provinces. Among the five larger provinces, only Saskatchewan's agri-food industry expanded more rapidly than BC's between 2005 and 2015. The other notable characteristic of the BC agri-food sector is that output (real

<sup>5</sup> Ministry of Agriculture, Metro Vancouver Regional Report (March 21, 2014).

GDP) is more stable than in other provinces, where large volumes of a smaller number of crops coupled with global price swings often result in a high degree of volatility in output from year to year. Even in Ontario, where agriculture is quite diversified, output in the agri-food sector declined in four of the past 10 years.

Agriculture continues to become more productive as an industry. For decades farm output has expanded while the number of workers in the sector has fallen. In BC this long-term trend continued over the past decade: although the agri-food sector posted a significant jump in production (real GDP) and exports, the total number of people employed in the industry edged lower. Employment in the agriculture sector dropped from around 36,000 in 2005 to roughly 23,000 last year. Food manufacturing has recorded modest employment gains, but overall employment levels in the agri-food complex are down in BC.

**EXPORTS ON THE RISE**

BC's exports of agri-food products have grown over the past two decades but really accelerated in the past several years. The mid- and late-1990s saw significant gains in the value of agri-food exports, in part reflecting the rapid expansion of the greenhouse industry during this era. Then by 2003 the uptrend in exports levelled off, largely due to the stronger Canadian dollar which made BC agri-food products less competitively priced in the North American marketplace. Following nearly a decade of generally sluggish growth, the past four years have seen BC's agri-food exports grow at the

TABLE 2: **BC EXPORTS OF  
AGRI-FOOD PRODUCTS**

| Product/Commodity                         | 2014<br>(\$, 000s) |
|---|--------------------|
| Cultured Atlantic                         | 254,989            |
| Food Preparations for Manufacturing       | 234,648            |
| Baked Goods and Other Cereal Preparations | 185,155            |
| Blueberries                               | 168,613            |
| Crab                                      | 102,016            |
| Chocolate and Cocoa Preparations          | 91,366             |
| Wild Sockeye                              | 90,237             |
| Other Fruit and Nut Products              | 88,192             |
| Mushrooms                                 | 88,075             |
| Alfalfa, Fodder and Animal Feeds          | 84,259             |
| Pork Products                             | 84,088             |
| Plants, Bulbs and Flowers                 | 81,770             |
| Peppers                                   | 71,492             |
| Live Cattle and Bison                     | 63,518             |
| Tomatoes                                  | 63,409             |
| Milled Cereals and Milling Products       | 56,825             |
| Other Salmon and Trout Products           | 54,106             |
| Cherries                                  | 53,815             |
| Shrimp and Prawns                         | 48,649             |
| Geoduck Clams                             | 47,009             |

Source: FastStats 2014, British Columbia's Agrifood and Seafood Sector, BC Ministry of Agriculture, December 2015. Note - table lists Top 20 Agri-Food and Seafood Products.

fastest pace on record and reach new highs.

A number of factors have aligned to lift BC's agri-food exports. One important shift is the decline in the Canadian dollar over the past three years: this has made BC products more competitive in the US as well as in the domestic marketplace. After holding steady at around \$1.6 billion between 2001 and 2012, BC food exports to the US have climbed by more than 50% (rising from around \$1.5 billion to \$2.5 billion last year). With the US accounting for 66% of all agri-food exports, the rise in shipments to the US is the most significant factor driving recent gains in BC's agri-food sales.

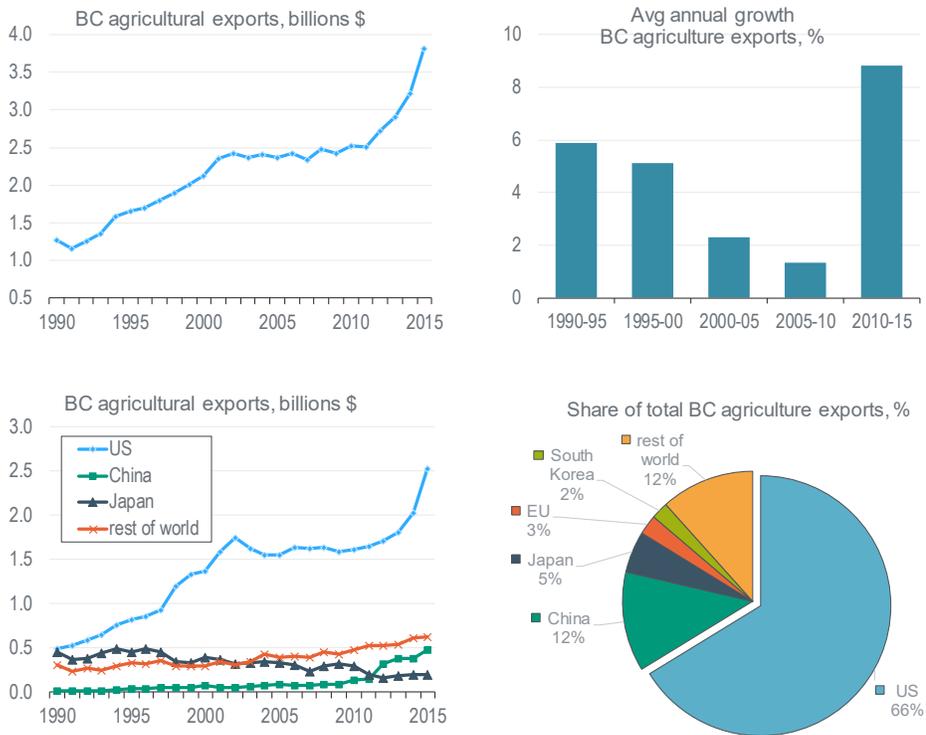
China, however, has also emerged as an important growth market for BC. Agri-food exports to China have soared by 250% over the past five years and are approaching half a billion dollars (up from \$173 million in 2010). BC is also producing high quality products that consumers are willing to pay a premium for in different export markets. The growth of the middle class in China and the accompanying increase in demand for high quality food is underpinning BC's export advances in that market and will continue to do so in the coming decade. China is now BC's second biggest market for agri-food products, accounting for 12% of BC's international exports in the sector.

Overall growth in BC's agricultural exports, however, has been tempered somewhat by a decline in the value of shipments to Japan. Two decades ago the province's agri-food exports to Japan stood at almost half a billion dollars; last year they were less than \$200 million. Most of the decrease is attributable to a decline in the seafood products segment.

The expansion of BC's agri-food sector means that agriculture products now rival a number of large commodity export categories that have long been the foundation of BC's export base. As shown in Figure 4, agriculture exports have risen from around \$1.2 billion in the early 1990s to nearly \$4 billion in

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**FIGURE 4: STRONG GROWTH IN AGRICULTURAL EXPORTS**



Source: Statistics Canada, seasonally adjusted.

2015. Growth in agri-food exports has exceeded total export growth, pushing the agri-food sector's share of total BC merchandise exports from 7% to more than 10%.

**GROWTH OPPORTUNITIES AND INNOVATION**

The BC agri-food sector is in the midst of a major expansion phase and looks set to continue growing in the coming decade. The lower Canadian dollar will bolster exports to the US market. And the growing demand for fresh and high quality products in other international

markets will also help to underpin future gains in the value of BC's agri-food sales.

When it comes to food products, China holds an abundance of opportunities for BC (and Canada generally). A number of factors point to steady growth in this market in the years ahead. First, and of greatest importance, is the rise in the number of middle and high income earners in that country. Higher income individuals (defined as those with gross income at least 200% above average income levels) represent a small proportion of China's vast population, but in absolute terms

this group amounts to perhaps 130 million people.<sup>6</sup> As more Chinese consumers join the ranks of middle- and high-income households, opportunities will continue to expand for foreign suppliers of premium agri-food products. In China many consumers already opt for organic fresh food and dairy products, owing to their perceived superior quality.

Food scares have also altered what and where Chinese consumers eat. Increasingly distrustful of local food sources, more Chinese are turning to organics and/or imported food items. Some Chinese consumers also focus on diet rather than medicine to cure what ails them. Thus, they are more inclined to embrace contemporary, healthy eating habits. Superfoods, for instance, such as cranberries and blueberries, are experiencing double-digit growth in the Chinese market. Naturally healthy products are gaining popularity, which aligns well with the Chinese mind-set of diet and exercise. Meal replacement products are also making inroads, as consumers increasingly worry about obesity and view meal replacement as healthier than most alternative weight loss methods.

With annual spending of \$300 billion, China is the world's largest consumer of meat, two-thirds of which is pork. Protein consumption there is expected to increase by 3-4% a year, mostly as a result of growing demand by a rising middle class. While protein consumption has risen sharply in China, it is still well below the levels characteristic of Western diets.<sup>7</sup>

<sup>6</sup> "Market Opportunity Report: China," BC Ministry of Agriculture, (2014).

<sup>7</sup> Ibid.

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## **INNOVATION AND POLICY SUPPORT FOR THE SECTOR**

As with all industries, innovation is at the heart of productivity gains and business success in the agri-food system. Innovation occurs in farming techniques as well as in product marketing and preparation. Research and development spending (both private and public) is an integral part of the innovation process.

The Growing Forward 2 Agreement is a federal-provincial-territorial agreement which provides funding of \$427 million between 2013 and 2018 to help the sector become more competitive and innovative.

The Canada-BC Agri-Innovation Program (CBCAIP) provides funding to support industry-led, late stage research and pilot and pre-commercial demonstration projects that lead to the commercialization and/or adoption of innovative products, processes, practices and technologies in BC. Funding comes from the Growing Forward 2 agreement and supports projects at all three stages of the innovation continuum. One is the research and development phase that leads to the development of innovative products, practices, processes and technologies, with the potential to move to the pilot or demonstration

stage within two years. Funding also supports pilot and other demonstration projects where the focus is on testing or proving pre-commercial products, processes, practices or technologies from around the world that are new to or developed in BC. Finally, there is the commercialization and adoption realm where projects support activities that reduce the financial and business risks associated with the late-stage commercialization and adoption of new-to-BC products, processes, practices and technologies.

## **CONCLUDING THOUGHTS**

The agri-food sector is growing in BC and its economic footprint now rivals that of some other large export industries. Success in the international export arena is good news for the sector and also for the province's economy as a whole. To advance prosperity over time, BC needs to expand its export base – and the agri-food sector has a role to play in this regard. Importantly, the agri-food sector also provides an array of fresh food options for BC's population, which lessens the need to import food products.

Based on recent export success and rising incomes in emerging economies such as China, BC looks to be well positioned to make further gains in the agri-food arena. BC also benefits from having a robust fishing and aquaculture sector, which provides a strong foundation for growth in the future.

With respect to agri-food policy, the federal and provincial governments should extend and enrich their Growing Forward Agreement to

encourage greater innovation in the industry. The provincial government promotes a vibrant agriculture sector through a variety of programs and initiatives, but there is scope to build greater public support for and recognition of the important contributions of the sector. The province also needs to ensure that energy costs, taxes and regulations do not hinder the development and growth of the agri-food sector, including both primary agriculture and downstream food manufacturing.

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