



INVESTING IN A **STRONG FUTURE** FOR CANADA'S BEEF INDUSTRY

CANADA'S

NATIONAL BEEF STRATEGY

2020-2024

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EXECUTIVE SUMMARY

The Canadian beef industry is facing new opportunities and challenges with strong influences on the supply and demand of beef. These include:

- The Canadian Food Guide was released in January 2019, as part of a larger Healthy Eating Strategy, with an emphasis on eating plant-based protein. While beef was shown on the plate guide, there is insufficient recognition that beef adds critical micronutrients (such as zinc, iron and vitamin B) to the food supply with greater bioavailability of nutrients when beef and plant proteins are consumed together.
- Global reports continue to spread misinformation about beef production and information that is not applicable to Canada; therefore, there is an increasing need for communications with the public about facts related to the environmental impact, animal welfare and the nutritional value of Canadian beef.
- Larger protein supplies in North America and globally were expected to pressure prices lower. However, a major supply disruption to Asian pork production with African Swine Fever could set up protein sectors world-wide into a prolonged expansion phase over the next five years that is highly volatile and uncertain.
- As trade agreements are ratified, strong international demand presents opportunity to increase export volumes to several countries looking for high-quality grain-fed beef.
- In 2014, the Canadian Agricultural Human Resource Council reported that the beef industry had a labour shortage of 3,500 jobs at primary production (cow-calf through feedlot). Labour is one of the main impediments to expansion.
- New technology is available that can be applied to the beef industry, creating opportunities in research, innovation, and adoption that reduce production costs and support producer competitiveness.
- The competitiveness of Canadian cattle producers is under constant threat, with pending changes to transportation and traceability regulations being the most recent example. In addition to competitiveness concerns, the proposed transportation regulations may in fact have unintended animal welfare implications.

The 2020-24 National Beef Strategy is positioned to take advantage of the opportunities facing the industry while simultaneously addressing the challenges. It is about how to best position our industry to compete for a larger share of the world market and to become the high-quality beef product of choice in the world.

This Strategy demonstrates leadership and provides clarity as various stakeholders come together to work towards a common goal. It facilitates collaboration and coordination between the national organizations to leverage available resources effectively on behalf of producers. The National Strategy has been developed with the aim to achieve industry goals that are aligned with the industry's vision and mission under four pillars.

VISION: *A dynamic profitable Canadian cattle and beef industry*

MISSION: *To be the most trusted and competitive high-quality beef cattle producer in the world recognized for our superior quality, safety, value, innovation and sustainable production methods.*

PILLARS: *Beef Demand, Competitiveness, Productivity and Connectivity*

The pillars identify focus areas and objectives that contribute to the overarching goals. For some focus areas there are specific national organizations responsible for them; others will have multiple industry stakeholders working together to collectively achieve the outcomes identified. The goals are measurable benchmarks for which the industry is held accountable.

The **Beef Demand** pillar goal is to enhance beef demand and as a result support the comprehensive carcass cutout values above \$270/cwt over the next five years. Historically, for every \$1/cwt increase in the cutout value, live fed cattle prices increased \$0.59/cwt. This will be achieved by focusing on domestic and global marketing, market access, the Canadian Beef Advantage, consumer confidence, public trust, and sustainability.

The **Competitiveness** pillar goal is to encourage a competitive regulatory, policy, and market environment. Emphasis is on reducing the labour shortage by 50% and reducing cost disadvantages with main competitors. This will be achieved by focusing on youth involvement, easing regulatory burden, and providing access to competitively priced inputs.

The **Productivity** pillar goal is to improve production efficiencies through the supply chain. This will be achieved by focusing on genetic selection, information flow, research capacity, research and development, and technology adoption. Measurements will include reducing pregnancy open rates, and calf death losses as monitored through regional cow-calf surveys; and improving feed efficiency and hay yields.

The **Connectivity** pillar goal is to enhance industry synergies and connect positively with government and partner industries by actively addressing industry issues, challenges and opportunities with a unified industry voice. Connectivity is the responsibility of every organization in the industry.

BACKGROUND

In January 2015, the Canadian beef industry presented the first National Beef Strategy spanning 2015-19. This communicated the industry's vision, mission, and priorities to stakeholders with a clearly defined five-year plan outlining specific outcomes under key focus areas. It was designed to facilitate greater collaboration and coordination between the national organizations to leverage available resources effectively on behalf of producers.

Over the last five years, the Canadian beef industry has witnessed both market and structural changes. The rapid cattle price increases in 2014 and 2015 pushed cattle prices to new highs. Normally the record high cattle prices would compel a strong and rapid expansion, as seen in the United States, however numerous factors including higher input costs, weather, and uncertainty prevented the expansion in Canada. Strong demand for high quality protein continues to grow in most developing nations along with new market access and trade agreements coming into effect. International competition is robust as exporting countries increase production.

The Canadian beef industry has invested in infrastructure and relationships to position itself for success. These include the establishment of the Canadian Roundtable for Sustainable Beef (CRSB), the development of the Public and Stakeholder Engagement program (SE), and the increase in Canadian Beef Cattle Check-Off to \$2.50 per head in most provinces starting in 2018. The development of the Canadian Beef Industry Conference, and Canadian Beef Advisors as a leadership group for macro industry issues and initiatives, has fostered unprecedented connectivity and collaboration within Canada's beef industry. More information on the accomplishments from the 2015-19 National Beef Strategy can be found in the [Status Update](#) at www.beefstrategy.com.

PROCESS OF DEVELOPMENT

The Canadian Beef Advisors were developed as stewards of the National Strategy in 2014. As part of that oversight, industry was invited to provide input into the 2020-24 National Strategy during the fall of 2018 through an open survey and presentations at producer meetings. In December 2018, the provincial associations provided direction on what objectives to keep, what needed to be revised, and current issues that needed to be added. Based on this direction, the Canadian Beef Advisors developed the draft National Beef Strategy for 2020-24, which was presented to the provincial cattle associations for review and feedback. This review and update on a five-year cycle ensures the priorities and outcomes established are aligned with the current needs of the beef industry.

THE CANADIAN BEEF ADVISORS

The Canadian Beef Advisors consist of the current chair or president and senior staff of each of the seven national beef organizations responsible for policy, marketing, research and sustainability.

The **Canadian Beef Check-off Agency** ([the Agency](#)) manages and administers the Canadian Beef Cattle Check-Off, a mandatory levy collected on cattle sales throughout Canada to fund research and marketing activities on behalf of the entire industry. It is collected from cattle producers when they market their cattle by provincial organizations, using their existing collection systems involving auction markets, order buyers, brand inspectors and others who handle cattle sales. The goal of the Canadian Beef Cattle Check-Off is twofold – to increase sales of domestic and export beef and to find better and more efficient methods of producing beef and beef cattle. To achieve these goals the Agency funds Canada Beef, the Beef Cattle Research Council and Public and Stakeholder Engagement Program. The Agency sits as an observer on the Beef Advisors.

The **Beef Cattle Research Council** ([BCRC](#)) is Canada's industry-led funding agency for beef, cattle and forage research. The BCRC's mandate is to determine research and development priorities for the Canadian beef cattle industry and to administer Canadian Beef Cattle Check-Off funds allocated to research. Priorities include: Animal Health & Welfare, Antimicrobial Use, Resistance & Alternatives, Beef Quality, Environmental Sustainability, Feed Grains & Feed Efficiency, Forage & Grassland Productivity, Food Safety, and Technology Transfer.

Canada Beef is the national [marketing and promotion](#) organization developing and delivering programs domestically and internationally to maximize the cutout value. The domestic market continues to be the largest and most stable market for Canadian beef. Canada Beef identifies and develops key export markets to increase the value of Canadian beef and veal products – in collaboration and cooperation with like-minded companies, organizations and institutions.

The **Canadian Beef Breeds Council** ([CBBC](#)) supports purebred cattle producers through service provision aimed at genetic improvement, animal health, extension services, and information dissemination. The CBBC is focused on the promotion of Canadian beef cattle genetics by identifying market opportunities, facilitating access through timely intelligence and informing the commercial industry of the attributes of the Canadian Beef Advantage both at home and abroad. The CBBC also represents the purebred cattle sector to government by advocating effective policy, ensuring market access and enhancing competitiveness. Funding is provided through member fees and matching government funds.

The **Canadian Cattlemen's Association** ([CCA](#)) is the national voice for beef producers on policy issues for its provincial members who include: the British Columbia Cattlemen's Association (BCCA), Alberta Beef Producers (ABP), Saskatchewan Cattlemen's Association (SCA), Manitoba Beef Producers (MBP), Beef

Farmers of Ontario (BFO), Les Producteurs de bovins du Québec (PBQ), Prince Edward Island Cattle Producers (PEICP), New Brunswick Cattle Producers (NBCP) and Nova Scotia Cattle Producers (NSCP). All policy activities performed by the CCA and provincial organizations are funded through the provincial check-off, which is \$2-3/animal marketed across the provinces. The CCA provides national policy representation in animal health and care, domestic agriculture policy, environment, foreign trade, and food policy.

The **Canadian Meat Council** ([CMC](#)) has represented Canada's federally registered meat packers, meat processors and suppliers of good and services to the meat industry for nearly a century. CMC provides evidence-based advocacy on behalf of its members, works to secure and improve Canada's global meat competitiveness and promotes a balanced diet, which includes high-quality and nutritious Canadian meat. Funding is provided through member fees.

The **Canadian Roundtable for Sustainable Beef** ([CRSB](#)) is a collaborative multi-stakeholder community devoted to advancing sustainability in the Canadian beef industry. Its membership includes organizations across the beef value chain and beyond; farmer/rancher associations, academic institutions, processor and processor associations, food and agriculture businesses, non-governmental associations (animal care and environmental organizations), retail and foodservice companies as well as governments and observers. Funding is provided through member fees and government grants.

The **National Cattle Feeders' Association** ([NCFA](#)) represents Canadian cattle feeders on national issues and works in collaboration with other cattle organizations across the country. Key focuses include improving industry competitiveness, increasing domestic value-added production, and expanding markets for Canadian beef. Funding is provided through member fees.

CANADA'S NATIONAL BEEF STRATEGY

The 2020-24 National Beef Strategy is designed to take advantage of the opportunities facing the industry while simultaneously addressing the challenges. It is about how to best position our industry to compete for a larger share of the world market and to become the high-quality beef product of choice in the world. The industry vision, mission and pillars remain unchanged providing consistency with the 2015-19 National Beef Strategy. Focus areas and tactics have been updated to reflect the current market and regulatory environment that producers face.

VISION: A dynamic profitable Canadian cattle and beef industry

MISSION: To be the most trusted and competitive high-quality beef cattle producer in the world recognized for our superior quality, safety, value, innovation and sustainable production methods.

The National Beef Strategy has been developed with the aim to achieve specific goals that are aligned with the industry's vision and mission under four pillars. The pillars identify focus areas where industry stakeholders will work together to collectively achieve the outcomes identified. Under each focus area specific outcomes have been defined that work towards meeting the goals established by industry.

PILLARS AND GOALS:

- 1) **BEEF DEMAND:** Support the comprehensive cutout above \$270/cwt
 - a. *METRIC 1: To support the retail beef demand above 115 (Index 2000=100)*
 - b. *METRIC 2: To support the wholesale beef demand above 105 (Index 2000=100)*
 - c. *METRIC 3: To support the international beef demand above 100 (Index 2000=100)*
- 2) **COMPETITIVENESS:** Encourage a competitive regulatory, policy, and market environment
 - a. *METRIC 1: To reduce the labour shortage by 50%*
 - b. *METRIC 2: To reduce cost disadvantages compared to main competitors by 2%*
- 3) **PRODUCTIVITY:** Improve production efficiencies throughout the supply chain
 - a. *METRIC 1: To reduce average open rates by two percentage points in each region*
 - b. *METRIC 2: To reduce average calf death losses to 5% in each region*
 - c. *METRIC 3: To improve feed efficiency by 5%*
 - d. *METRIC 4: To improve national average hay yields by 2-10%*
- 4) **CONNECTIVITY:** Enhance industry synergies and connect positively with government and partner industries

PILLAR 1: BEEF DEMAND

The **Beef Demand** pillar goal is to enhance beef demand and as a result support the comprehensive carcass cutout values above \$270/cwt over the next five years. This will be a challenge as larger protein supplies becomes available in North America and around the world, pressuring prices. The industry remains focused on getting the right product to the right customer every time, using product development and finding markets for under-valued cuts.

While many core activities continue, others will be enhanced and further developed. This includes, for example, taking the Canadian Beef Centre of Excellence on the road and using market segmentation to refine marketing and promotion activities. As well, the Canadian Food Guide released in January 2019 has

spurred on a renewed focus on consumer confidence in the health and nutrition of beef, and the need to address concerns about beef production, sustainability, animal care, and the environment.

FOCUS AREA A: DOMESTIC AND GLOBAL MARKETING

Context

In the domestic market, beef faces growing competition from traditional proteins (i.e. pork and poultry) and non-traditional proteins (i.e. plant-based protein and cell-cultured meat alternatives). In addition, the consumer demographic is changing as baby boomers retire and millennials represent a larger portion of the spending dollars. This shift in demographics provides new opportunities and challenges for marketing and promotion of beef.

Each animal we raise will be processed into over 300 products. The Canadian consumer has a preference and culinary culture for a select few of those beef products. Other beef products command a higher value in foreign markets where those items are a staple or delicacy.

Approach

Evolve the Canadian Beef Centre of Excellence's ability to take its skills and expertise 'on the road' and deliver them to clients across Canada and internationally. Continue to refine and evolve the Canadian beef brand with focus on the technical and emotional attributes that define the brand position. Continue to grow the number of domestic and international customers committed to 100% Canadian supply.

Using market segmentation tools, Canada Beef will identify high growth-high value consumer groupings by demographics, behaviour, ethnicity, geography, and other attributes. Then an overarching blend of emotional and technical attributes that are meaningful and relevant to each consumer group will be created and developed into marketing and promotional campaigns for specific segments resulting in increased awareness, improved perception, heightened product desire, and ultimately increased demand.

OUTCOMES & OBJECTIVES

1. Establish the Canadian Beef Advantage (CBA) as the most recognized and loyalty-based premium beef program in the world
 - a. Ongoing development and communication of a differentiated brand position for Canadian beef leveraging the attributes of the CBA through technical resources, training platforms, advertising and trade media, and competitive benchmarking
 - b. Enhance existing communication and distribution platforms ensuring impactful communication of CBA messaging to targeted trade clients; including web platforms, trade advertising, and digital assets
 - c. Collaborate with brand license holders to leverage brand marketing initiatives
 - d. Positively impact key consumer influencers in domestic and export markets with positive messages on Canadian beef through the use of brand ambassadors, trade events, and marketing partnerships
2. Get the right product to the right customer every time
 - a. Through new product development and the Centre of Excellence enhancing carcass utilization and value
 - b. Procure market intelligence and direct resources to markets and market segments that represent opportunities for incremental value and return on marketing investments
 - c. Engage targeted customers in priority markets/segments through retail, foodservice and influential industry events; support of trade partner programs; and trade missions with domestic and international clients

- d. Align with supply chain partners in target markets through the development of national programs, value-added beef products, and partnerships with packers and exporters, trade commissioners and other commodities
- e. Collaborate with industry and channel partners to implement targeted promotional brand initiatives in priority markets

FOCUS AREA B: MARKET ACCESS

Context

Around 45% of Canadian beef production is exported annually. Trade agreements are essential to ensure Canada has commercially viable access to markets that is comparable to other major beef exporters which helps to add value to every animal produced.

There are substantial export opportunities in Asian countries created with the recent ratification of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). Marketing efforts will take advantage of the major tariff reductions achieved in recent trade agreements. Canada has significant duty-free quotas for both fresh and frozen beef in the Canada-European Union (EU) Comprehensive and Economic Trade Agreement (CETA). Previously very high tariffs in Korea (from 40% to zero), Japan (from 38.5% to 9%) and Vietnam (from 20% to 0) are well on their way to reaching their negotiated end-point. Further work is needed on full systems recognition.

Approach

Continue to pursue regulatory cooperation with major trading partners including U.S. (through the - Canada-United States-Mexico Agreement CUSMA), EU (CETA), UK, and China while giving confidence to Canadian beef producers to grow the beef herd. Pursue expansion of the countries included in the CPTPP. Market access priorities are focused on creating value and competition. Such as gaining access for offal items including meat and bone meal.

OUTCOMES & OBJECTIVES

1. Reduce non-tariff and tariff barriers in our export markets for beef, live cattle, and beef cattle genetics
 - a. Reduce or mitigate re-inspection of beef exports to the U.S.
 - b. Achieve ability to utilize U.S. beef grading on exports to the U.S.
 - c. Establish maximum residue limits (MRLs) for ractopamine in China and achieve the resolution of other technical issues including the definition of chilled/frozen product
 - d. Bi-lateral trade agreement with China to eliminate tariffs
 - e. Negotiate acceleration of eliminating Korea's beef tariff, to be the same as the U.S., through CPTPP accession
 - f. Continue to guard against resurgence of mandatory Country of Origin Labeling (mCOOL) or some other attempt to bar access to the U.S.
2. Increase our capability to utilize preferential access in key exports markets for Canadian beef, live cattle, and beef cattle genetics
 - a. Improve our domestic capability to certify cattle for EU-eligibility through use of Verified Beef Production plus (VBP+) and establishment of a mature cattle protocol
 - b. Enhance communications to producers on protocols for exports to the EU
 - c. Ensure Veterinary Health Certificates required to export live cattle, semen and embryos are science based and effective for beef cattle in all markets

- d. Encourage government agencies to adopt efficient import and export procedures for live breeding cattle, feeder cattle, semen and embryos
 - e. Ensure adequate port facilities to support trade for live animal trade
 - f. Ensure electronic certification is available to support timely exports
3. Eliminate market access restrictions
- a. Achieve access for over-thirty-month (OTM) bone-in product in China and South Korea; and obtain comprehensive approval of Canada's meat inspection system
 - b. Obtain approval for citric acid, peroxyacetic acid and blends by the EU for beef production
 - c. Gain meat and Bone Meal (MBM) access to Indonesia
 - d. Resolve Korea protocol that prevents Canadian fed cattle from being processed in U.S. facilities
 - e. Gain offal access to several markets, including Vietnam, Korea and China
 - f. Re-establish live cattle access to China

FOCUS AREA C: THE CANADIAN BEEF ADVANTAGE

Context

The Canadian Beef Advantage provides proof points on both functional and emotional attributes communicated in the Canada Beef brand. These proof points are validated by national benchmarking studies that are updated every five years to monitor the progress of industry and identify areas that could be improved throughout the supply chain. Continuous improvement in these areas support consumer confidence and work to establish Canadian Beef as the most recognized and loyalty-based beef brand in the world.

Approach

Canada's National Beef Quality Audit at Retail and Processing document changes in carcass and beef quality over time, identify opportunities for further improvement along the value chain, and educate stakeholders on industry efforts to meet customer demands. The National Beef Sustainability Assessment outlines economic, environmental, and social performance. Research and development efforts focus on opportunities to improve consumer satisfaction of Canadian beef through pre and post-harvest interventions.

OUTCOMES & OBJECTIVES

1. Monitor the Canadian Beef Advantage to assess the effectiveness of efforts to improve the product attributes with the greatest impact on carcass value and beef demand
 - a. Beef Quality Audit demonstrates a reduction in carcass defects below 2016 levels and maintained or improved consumer satisfaction for tenderness, juiciness and flavour of inside round, cross-rib, top sirloin and strip-loin steaks
 - b. Complete a retail meat case audit to benchmark attributes related to value and merchandising of Canadian beef including carcass utilization, grade, specification, composition, sustainability attributes, production methods, packaging, production claims, origin, counter space allocation, protein market share, and other important attributes
 - c. Monitor the sustainability (social, economic, and environmental) performance of the Canadian beef industry, from farm to fork, through the National Beef Sustainability Assessment
 - d. Leverage research available from the Canadian Roundtable for Sustainable Beef (CRSB), its membership, and the Canadian Centre for Food Integrity on consumer attitudes toward beef and sustainability
2. Development of a National Total Quality Management System to enhance decision making in support of customer satisfaction with Canadian beef and the profitability of the industry

- a. Validate objective in-plant measures of tenderness that can be used at line speed
- b. Develop and implement processes that facilitate the automated collection, recording, evaluation, and communication of desirable (i.e. high lean yield/high marbling, healthy livers) and undesirable (i.e. low lean yield/low marbling, abscessed livers) characteristics to streamline the Beef Quality Audit and provide real-time feedback to industry
- c. Increase information exchange between sectors along the supply chain to better inform production decisions that ultimately improve carcass value and consumer satisfaction
3. Research and development to improve consumer satisfaction with Canadian beef
 - a. Demonstrate the cost-effectiveness and value of genetic markers for tenderness in commercial cattle
 - b. Identify potential interactions between tenderness genotype and animal management (i.e. implants, backgrounding, grassing, finishing, etc.) and develop appropriate breeding and management recommendations
 - c. Develop packaging and other technologies to improve shelf life and appearance
 - d. Improved algorithms for predicting lean meat yield and / or retail product percentage
 - e. Implement genomic and grading technologies that allow for market segmentation according to carcass quality and/or yield
 - f. Research technologies to enhance the ability to sort cattle/carcasses at line speed in packing plants, and product by quality

FOCUS AREA D: CONSUMER CONFIDENCE

Context

Consumer confidence and affinity, in the health and nutritional benefits of beef and Canada's science-based food safety systems are continually being challenged. Consumers have more choice than ever on where they spend their food dollars. In general, when people feel good and are confident about Canadian beef, they will buy our products more often. Consumer confidence is essential to maintain current customers and attract new ones.

Approach

Consumer confidence starts with understanding that Canadian beef is a safe, high quality, nutritiously dense product that is produced in a sustainable manner. It is essential the core aspects of nutritional benefits and Canada's food safety systems are conveyed regularly to consumers domestically and internationally. Investment in food safety and beef quality research continues.

See Focus Area E: Public Trust for details around communicating about production practices

OUTCOMES & OBJECTIVES

1. Enhance consumer confidence in Canadian beef across all markets through a focus on enabling industry advocates, leadership in stakeholder engagement, and partnerships with influencers
 - a. Increase the number of strategic partnerships and networking with food, media and nutrition influencers on the nutritional and environmental benefits of beef consumption
2. Improve the effectiveness and reach of consumer communication
 - a. Provide global social media support for all Canada Beef led and partnered activities
 - b. Produce a seasonal kit for provincial/national cattle associations and partner organizations to use for seasonal promotions, key consumer events and include coaching on the development of promotional assets

- c. Conduct targeted promotional brand initiatives in priority markets through brand license partners, resource development, and brand mark promotion
 - d. Lead the development of industry consumer campaigns focused on delivering the Canadian beef story, executed in collaboration with national and provincial stakeholders
 - e. Conduct consumer research to understand purchase drivers/motivators, collaborate on research undertakings to maximize information use and leverage existing research efforts
3. Promote the health and nutritional benefits of beef to consumers
 - a. Support communication of beef's premium quality by development of culinary and nutrition-related messaging and resources for inclusion in marketing campaigns
 - b. Produce nutrition communications promoting beef's nutrients to key demographics
 - c. Communicate beef's premium quality and safety by engaging targeted health professionals via trade events/conferences/seminars
 - d. Provide nutrition communications to key health professionals including doctors and dieticians focused on heart health and diabetes and early childhood nutrition
 - e. Participate and align with key industry networks (such as the International Meat Secretariat and Nutrient Rich Alliance) in order to connect and collaborate on key health and nutrition issues that impact beef
 4. Support consumer food safety education initiatives that demonstrate the effectiveness of Canada's science-based food safety system
 - a. Enhance consumer education regarding their role and responsibility in ensuring food safety in the home, including at-home food handling and storage practices to ensure food safety
 5. Research and extension to drive the reduction of food safety incidences and improve food safety along the beef supply chain
 - a. Develop and implement cost-effective technologies targeting multiple pathogens in cattle and beef production and processing facilities, including heat- and acid-resistant *E. coli* and biofilm forming bacteria
 - b. Develop objective, cost-effective approaches for verifying effectiveness of packing plant equipment cleaning processes, and adopt them for 85% of processed cattle
 - c. Increased surveillance to detect, characterize and quantify the relative human health risk of (re) emerging pathogens
 - d. Effective probiotic intervention to eliminate pathogens for beef developed

FOCUS AREA E: PUBLIC TRUST

Context

The public's trust of the beef industry is determined by overall societal perceptions, not just the attitudes and opinions of consumers. These perceptions can influence consumer preferences, government regulations and policies that impact producer's ability to operate. Acceptance of sustainable technologies and production practices are being questioned and have the potential to limit future competitiveness of the industry – through both regulatory changes and public perceptions. Specific to the beef industry there is increased attention being paid to the environmental impact, implications on public health from antimicrobial use in livestock, and perceived nutritional concerns with choosing to consume red meat.

Approach

The Canadian beef industry is placing significant emphasis on engaging producers and industry partners to communicate directly with consumers and the general public; building trust and confidence in the Canadian beef industry. The Public and Stakeholder Engagement program is developing resources and

providing training for a wide range of users who can then spread a broad and consistent message; fostering transparency and trust.

The beef industry has a great story to tell as cattle convert cellulous from land that is too rocky, steep or unsuitable for cultivation into high quality protein, adding critical micro-nutrients to the food supply that support public health. The beef industry utilizes one-third of agricultural land in Canada; but provides 68% of the potential wildlife habitat. Given that Canadian grasslands are an endangered ecosystem with less than 20% remaining intact, the relationship between beef production, biodiversity and grassland conversation should not be overlooked.

OUTCOMES & OBJECTIVES

1. Enhance the public image of the Canadian beef industry emphasizing the many positive benefits our industry contributes along with the continual improvement in environmental sustainability, animal health and welfare, and food safety practices
 - a. Increase participation in the Beef Advocacy Canada (BAC) program to ensure industry leaders are informed and prepared to communicate consistent key messaging (*see Youth Participation and Succession under the Competitiveness Pillar for more details on BAC enhancement*)
 - b. Produce and launch consumer directed print/downloadable resources featuring factual insights around Canada's beef production systems and standards that convey transparency and confidence to global consumers
 - c. Align with key partners to develop broad-based Canadian beef industry promotional videos
 - d. Participate in strategic partnerships and networking opportunities to positively influence attitudes regarding beef's role in a healthy and sustainable diet
 - e. Encourage public figures to promote the image of Canadian beef producers and beef production systems and seek other publicity opportunities that promote the Canadian beef industry in a positive and proactive manner
 - f. Support the Public Trust Steering Committee to work together across all sectors in enhancing public trust for all of agriculture
 - g. Continue to align with select organizations who have a favorable image with the public on animal welfare and sustainability
 - h. Provide content to those developing education materials, for all age groups (elementary through post-secondary), on agriculture in Canada
2. Increase public recognition of the beef industry's direct and indirect contributions to the Canadian economy and society
 - a. Maintain broad stakeholder support of beef cattle production practices
 - b. Achieve an alternative pathway to Front of Package labelling regulations that target saturated fats
 - c. Clearly communicate beef as part of a healthy, balanced diet – and that the Canada Food Guide supports protein consumption from a variety of sources
 - d. Speak on the beef industry's contribution to sustainability in partnership with Canada Beef, CRSB and other stakeholders; utilizing appropriate publications, video vignettes, social media, and other forums to reach end users, consumers, and the public
 - e. Increase public understanding of beef industry animal production practices and how they are held up by the Code of Practice for the Care and Handling of Beef Cattle
 - f. Communicate the role of responsible antimicrobial stewardship in maintaining the effectiveness of human health products
3. Maintain the Canadian beef industry's social license to operate through communicating production practices and identifying opportunities for continuous improvement in areas of public concern
 - a. Actively participate through the International Meat Secretariat in international initiatives

- b. Keep the Code of Practice for the Care and Handling of Beef Cattle current with consideration for advances in science, production practices, availability of new technologies, and public expectations
 - c. Active participation in international forums (ISO, OIE) on animal care and handling to ensure Canadian beef production practices are appropriately represented and understood as new international standards are developed
4. Implement the Stakeholder Engagement Strategy
- a. Proactive cross organization plan that facilitates the management of issues related to industry reputation through strategic response to issues
 - i. Informal issues and reputation management through media/issues monitoring, sharing of information, discussing and coordinating strategies and determining the most appropriate course of action for communication and information procurement; including the identification of responsible organizations
 - ii. Formal regular strategy discussions between national organizations on issues management to clearly define industry priorities and organizational strategies
 - b. Ensure the continuous monitoring of polling data and issues, while developing appropriate resources and messages to enable industry to speak consistently
 - c. Make information easily understood and readily accessible to assist producers in being industry advocates
 - d. Solidify relationships with key public influencers to support and promote the healthfulness of beef in the diet

FOCUS AREA F: SUSTAINABILITY

Context

Substantial progress has been made on the sustainability front over the last five years with the establishment of the Canadian Roundtable for Sustainable Beef (CRSB). As well as work by the Global Roundtable for Sustainable Beef (GRSB) in providing a common definition and principles that are being used by multiple countries. Issues such as animal welfare, antimicrobial resistance, and environmental impact continue to be raised by consumers, retailers and foodservice.

Approach

Consumer concerns about animal care and the environmental impact of beef will continue to be addressed through scientific studies and communications. This is an area of non-competitive cooperation with international partners through the Global Roundtable for Sustainable Beef, the International Beef Alliance, and the International Meat Secretariat. Aligning communications on the biodiversity and carbon sequestration benefits of beef production ensure consistent messaging among partner organizations. The work of the CRSB is built around three pillars. First, the National Beef Sustainability Assessment to monitor progress over time. Second, the Certified Sustainable Beef Framework which provides a consumer facing logo and supply chain driven by market signals to incentivize producers. Third, sustainability projects that communicate the efforts undertaken across Canada throughout the supply chain. All of this is aimed at encouraging continuous improvement.

OUTCOMES & OBJECTIVES

1. Support the activities of the Global and Canadian Roundtables for Sustainable Beef
 - a. Recognize the CRSB as the go-to forum for beef sustainability information and conversations in Canada
 - b. Participate in the Global Roundtable for Sustainable Beef

- c. Support multi-stakeholder processes and engagement in order to build public trust in the beef industry and enhance transparency
- d. Continue to build strategic partnerships through the roundtable that advance beef sustainability efforts, particularly with non-industry stakeholders
- 2. Advance the sustainability of the Canadian beef industry
 - a. Measure and track the sustainability performance (including production practices) of the Canadian beef industry through the National Beef Sustainability Assessment and identify opportunities for improvement in areas of public concern
 - b. Advocate for the continued and/or enhanced collection of important agriculture and environmental data to assist in establishing sustainability benchmarks and measure how agriculture is changing and improving over time
 - c. Develop ways to recognize and support projects, programs and initiatives that advance the goals in the National Beef Sustainability Strategy and CRSB research priorities
 - d. Increase industry adoption of Beneficial Management Practices supporting environmental sustainability and resource conservation through the support of existing technology transfer programs and advocating for the continued support of and participation in important stewardship programs
- 3. Implement and increase uptake of the Certified Sustainable Beef Framework
 - a. Support the maintenance and regular review the Certified Sustainable Beef Framework
 - b. Promote the Certified Sustainable Beef Framework to supply chains seeking assured sustainability claims and other related method of production claims or attributes
 - c. Support adoption of VBP+, and other certification bodies, by producers to effectively demonstrate responsible on-farm production practices related to environmental sustainability, animal care, on farm food safety, and biosecurity to the marketplace through the Certified Sustainable Beef Framework and broader producer-focused VBP+ training activities
- 4. Science-based information to support the development of effective public communication and policy regarding environmental goods and services provided by the beef industry
 - a. Develop cost-effective methods of reducing greenhouse gas (GHG) emissions in forage-based diets
 - b. Quantify factors impacting the rate and extent of carbon sequestration in tame and native pastures across Canada as well as the impacts of pasture management on soil health, plant, animal, bird and insect biodiversity, water use, water cycles, and watersheds
 - c. Identify cost-effective cleaning technologies to reduce water use in beef packing and processing facilities
 - d. Quantify Nitrogen (N) and Phosphorus (P) excretion rates in grazing animals, and N impacts on GHG emissions and P runoff and leaching impacts on water quality / eutrophication, and develop feedlot manure management best practices to reduce the risk of phosphorus overload in soils

PILLAR 2: COMPETITIVENESS

The **Competitiveness** pillar goal is to encourage a competitive regulatory, policy, and market environment. Emphasis is on reducing the labour shortage by half and reducing cost disadvantages with main competitors. This will be achieved by focusing on enhancing youth engagement, reducing regulatory burden, and access to competitively priced inputs.

Competitiveness with other commodities within Canada is critical as there is competition for land, labour and capital. As well as compared to other major beef exporting countries. Domestically, there needs to be equality in the business risk management programs and services provided to each commodity; as these can create distortions in resource allocation within the marketplace.

The political environment has changed in the last five years with pressure on municipalities to explore alternative tax revenue. Ensuring that the beef industry retains a competitive tax regime with the U.S. and

between regions within Canada is essential to long-term competitiveness and economic viability. Ongoing efforts to improve regulatory cooperation with major trading partners will continue. Maintaining and updating long-term trade relationships as well as addressing any issues that arise with newer trading opportunities. As regulations transition to being more outcome-based, having an efficient regulator who is knowledgeable will be key to avoiding costly disruptions to production.

Access to labour is a priority moving forward as any expansion of the herd will need labour at every stage of production and processing. As well maintaining industry's ability to have access to technology and production practices that contribute to the competitiveness of the Canadian beef sector as a whole is critical.

FOCUS AREA A: YOUTH INVOLVEMENT AND SUCCESSION

Context

The beef industry is Canada's third-largest agricultural employer. However, a dwindling supply of workers will put the industry's growth potential at risk over the next decade. In 2014, the Canadian Agricultural Human Resource Council reported that the beef industry employed 40,900 people at primary production (cow-calf through feedlot) and was unable to fill 3,500 jobs, costing \$141 million or 1.8% of sales. Primary producers reported 42% experiencing a shortage of workers, 35% lost sales and 21% reported delaying or canceling expansion plans. By 2025, the labour gap could more than triple reaching an estimated 12,500 jobs unfilled.

An aging workforce and a large number of retirements are projected over the next 10 years, with nearly one in three domestic workers in the 'beef' industry (32%) is expected to retire. This is above Canada's agricultural average of 27% and will result in a massive transition between generations. It also will require recruitment of youth and young adults from general society, including attracting immigrants to primary agriculture.

Approach

Through the continued advancement of programs including the Young Cattlemen's Council (YCC), Cattlemen's Young Leaders (CYL) Mentorship Program, and Beef Advocacy Canada efforts are focused on mentorship and enabling interested individuals to be ambassadors speaking in a competent and consistent manner about the Canadian beef industry. These programs promote agriculture and agri-food as honorable and achievable professions within Canadian society.

OUTCOMES & OBJECTIVES

1. Support succession between generations and attract new talent to the beef industry
 - a. Advocate and communicate financial lending options to support new entrance into the industry
 - b. Engage producers in succession planning and provide them with a platform to communicate about their experiences
 - c. Create a number of good news stories that encourage other young producers to take succession into their hands
 - d. Work with industry partners to create a program targeted at helping young producers to navigate their way through succession planning
 - e. Continue to build and improve the Cattlemen's Young Leaders program to assist in building careers for young producers and new entrants
2. Increase involvement of youth in the beef industry
 - a. Through the further development and implementation of initiatives such as the Young Cattlemen's

- Council, Cattlemen's Young Leaders, and breed association youth development programs
- b. Successfully train through the Beef Advocacy Canada (BAC) program 1,000 in level one, 750 in level two, and reach 200 graduates with media training by 2024
 - c. Beef industry organizations increase coordination with the Young Cattlemen's Council (YCC) in the implementation of approved advocacy projects, social media efforts, and communicating job opportunities
 - d. Empower the YCC and its members to provide input into CCA policy direction and actively work towards a more coordinated communication effort on key issues facing the Canadian beef industry
 - e. Establish international networks and relationships through participation in the International Beef Alliance Young Leaders program
 - f. Provide industry specific training and mentorship through the Cattlemen's Young Leaders program to 88 beef enthusiasts by 2024, providing participants with a chance to explore a potential career choice or involvement in provincial/national producer groups, while gaining industry knowledge and contacts
 - g. Expanding young leader advocacy efforts through the creation of videos promoting industry and providing face to face experiences with beef producers (i.e. Ag More Than Ever campaign, Behind the Beef, and Canada Beef)
3. Encourage industry engagement in the Young Cattlemen's Council, Cattlemen's Young Leaders, and other programs including direct participation, being a mentor, or networking with participants

FOCUS AREA B: SUPPORTIVE REGULATORY FRAMEWORK

Context

Canadian cattle producers have demonstrated their economic competitiveness with other high-quality beef producing nations around the world. In order for the Canadian beef industry to be competitive, it is necessary to have a regulatory system that encourages innovation and efficiency, and does not add unnecessary costs. The current government's focus on regulatory reform is positive for industry.

The one for one approach where one regulation is removed for every new regulation introduced provides an environment where very careful thought must be given before any new regulation is introduced and offsetting alternatives to regulation are given greater credence. But this may not be enough. Regulatory creep at a time when the United States, a major competitor, is reducing regulatory burden is a concern for future competitiveness.

Approach

Regulations must be outcome and scientifically based; and interpreted and enforced by an efficient regulator. Ongoing work is needed to ensure a competitive tax regime for beef producers that does not create regional disparities.

The largest Canadian beef cattle transport study ever completed determined that 99.98% of beef cattle in transit for short hauls (4 hours or less) and 99.95% of cattle in transit on long hauls (4 hours or more) reach their destination with no serious problems. The same benchmarking study found that the time for long-haul trips averaged 16 hours in length, and more than 95% of cattle spent less than 30 hours in transit. The new transportation regulations have been gazetted even though additional research funded by AAFC is currently underway. There is also concern, that the reduced travel limits were not based on science, but rather political pressure from special interest groups. In regard to pending traceability regulations, cost estimates associated with implementation and ongoing reporting are expected to be 'highly significant' across all sectors of the beef value chain.

Industry strongly encourages CFIA's timely application with the World Organization for Animal Health (OIE) for Canada to receive negligible bovine spongiform encephalopathy (BSE) risk status. While at the same time the industry is promoting BSE sampling and surveillance and will ensure other regulatory initiatives are undertaken once negligible status is achieved. For example, pursue the move to a short list specified risk material (SRM) in harmony with the U.S. and in accordance with scientific research on the effectiveness to eradicate BSE in Canada.

OUTCOMES & OBJECTIVES

1. Improve return on investment and long-term profitability of the beef industry
 - a. Improve Business Risk Management and Livestock Tax Deferral programs for producers to reduce the exposure associated with market volatility, varying climatic conditions, and other unforeseen events
 - b. Work with the federal government to ensure Canadian tax policy does not put producers at a disadvantage compared to U.S. competitors
 - c. Work with the federal and provincial governments to ensure government programs (such as crop insurance) adequately address the production risks due to climate change and encourage best management practices to improve environmental stewardship
 - d. Advocate for ongoing investment in Canadian processing sector, including ongoing plant modernization that ensures Canada's competitiveness with international counterparts
 - e. Protect and enhance property rights by advocating on behalf of producers during the creation or amendment of government Acts and policies
2. Advocate and uphold a scientific, risk-based regulatory system
 - a. Actively engage in consultations on the regulatory modernization framework that streamlines approvals of agriculture inputs, forage and grain varieties, and biotechnology to encourage investment in research and the development of new products that are accessible to the Canadian beef industry
 - b. Support the government policy of one for one removing a policy/regulation for every new one introduced
3. Pursue outcome based flexible alternatives to prescriptive tactic-based regulations
 - a. Pursue the movement toward outcome-based food safety regulations that define the desired outcomes and allow for flexible approaches to achieving outcome rather than point by point prescriptive regulations
 - b. Ensure outcome-based regulations are administered by an efficient regulator
 - c. Pursue the move to a short list SRM, in harmony with the U.S. and in accordance with scientific research on the effectiveness to eradicate BSE in Canada
4. Pursue regulatory cooperation with major trading partners
 - a. Actively engage in discussions with the Regulatory Cooperation Council and other efforts to harmonize regulations that facilitate trade, reduce transaction costs and improve data available to industry
 - i. Streamline regulatory requirements to allow free flow of Restricted Feeder Cattle from the United States to enter Canada
 - ii. Develop 'disease zoning' agreements that minimize trade disruptions with trading partners
 - iii. Streamline and align livestock handling procedures and standards at border ports
 - iv. Prioritize development and delivery of electronic certification at all livestock border port crossings
 - b. Actively participate through the International Beef Alliance and in partnership with the grains and oilseed sector to support adoption of regional standards in advance of full CODEX adoption of standards for new technologies

5. Ensure that traceability systems are based upon real benefits and fairly allocated costs; through national industry-led cattle identification systems with an emphasis on animal identification, premise identification, and animal movement
 - a. Implement the use of electronic manifests (movement documents) for traceability
 - b. Adhere to the industry endorsed Cattle Implementation Plan for traceability implementation
 - c. Actively research new and emerging technologies in animal identification

FOCUS AREA C: A RESPONSIVE MARKETPLACE

Context

A competitive market place is supported through industry's response to producer requests for changes in services and demand for technological solutions to issues. Industry must be prepared for emergencies and maintain infrastructure that facilitates business at the speed of commerce.

For example, in response to industry's request in 2011 the Canadian Beef Grading Agency (CBGA) began delivering five yield grades in January 2019. The newly created Livestock Grade Requirements Standing Committee reporting to the CBGA oversees recommendations for changes to the Livestock Grades Requirement Document which has been moved from the regulation and into Incorporation by Reference under the *Safe Foods for Canadians Act*. This will allow for timely and consumer driven changes to grade standards in Canada.

Approach

In order to support a responsive marketplace industry needs to be prepared for emergencies, have the necessary infrastructure to carry out business and be generating science-based information to inform regulations, as well as advocating for recognition of the global standards developed and used in Canadian beef production.

OUTCOMES & OBJECTIVES

1. Develop a National Emergency Management Strategy in event of a major trade disruption (e.g. Foot and Mouth Disease)
 - a. Support the development of a collaborative national multi-stakeholder risk management structure supporting Canada's prevention, preparedness, response, and recovery to an emergency or animal health risk event
 - b. Address provincial gaps in a cross-sector Emergency Preparedness Plan
2. Address internal barriers to a competitive marketplace
 - a. Eliminate interprovincial trade barriers
 - b. Identify, preserve and enhance infrastructure necessary to carry out business and minimize transactions costs (i.e. border crossing facilities)
3. Generate science-based information to inform regulatory approvals of:
 - a. Effective food safety interventions in key international markets (i.e. European Food Safety Authority approval of peroxyacetic and citric acid interventions for beef); cost-effective methods of separating specified risk material (SRM) from non-SRM in order to reduce SRM disposal costs and the amount of material directed to landfill
 - b. Evidence-based antimicrobial resistance decision making and communication:
 - ii. Increase the Canadian Integrated Program for Antimicrobial Resistance Surveillance (CIPARS) activities to encompass on-farm, abattoir and retail beef antimicrobial resistance surveillance, including *Enterococcus hirae* or other indicator organisms that are informative with regard to macrolide resistance

- iii. Conduct pilot projects to identify whether the prevalence of antimicrobial resistance in market beef cows, dairy cows and bob/veal calves differ from fed cattle, and include in ongoing CIPARS surveillance
- iv. Develop methodology to evaluate and monitor the potential movement of antimicrobial resistant genes from cattle associated environments to human environments via manure, soil, food and water
- v. Implement ongoing surveillance of antimicrobial resistance through sampling of live animals at feedyards, focusing on Bovine Respiratory Disease (BRD) pathogens and enteric bacteria
- c. Ensure that Canada's beef industry continues to have access to antimicrobials to protect animal health and welfare:
 - i. Establish a working group to determine the governance, structure, potential data sources (veterinary, farm and feedlot data, CgFARAD¹, VBP+, etc.), data collection methodology (i.e. sentinel vs. random sampling), data reporting (i.e. kg active ingredient, animal defined daily doses, population corrected unit, etc.) and resources required to develop an antimicrobial use database for the beef industry
 - ii. Conduct pilot projects to identify which sectors of the beef and veal industries (cow-calf, feedlot, dairy, bob/veal) pose the greatest antimicrobial use risk (classes of antimicrobials used, treatment rates, etc.)
 - iii. Develop a database to track antimicrobial use in sectors deemed to be highest risk
 - iv. Use the database to monitor changes in antimicrobial use over time and relate changes in antimicrobial use practices to changes in antimicrobial resistance in cattle pathogens and indicator organisms isolated from cattle, beef and cattle associated environments
- 4. Proactively address and influence domestic and global food production standards, codes of practices, and potential regulations
 - a. Maintaining an active presence in appropriate global and domestic forums focused on animal health, food safety and quality, sustainability, environment, and public and social welfare topics
 - b. Encourage Canadian regulators and legislators to champion the Canadian food-safety system at home and abroad as ways of maintaining and growing consumer confidence and market access

FOCUS AREA D: ACCESS TO COMPETITIVELY PRICED INPUTS

Context

Decisions as to the number of cattle raised in Canada, where Canadian feeder cattle are fed, Canadian fed cattle are marketed, and Canadian beef is sold are all dependent on the cost of production along the entire supply chain. If costs are too high at any one point, cows and heifers may not be retained and feeder or fed cattle may be exported to the U.S., Canadian processors may not be able to compete to procure animals, and Canadian beef may be too expensive compared to competing proteins.

This is really about the relative costs of our inputs and ensuring the prices we pay are not artificially inflated by our regulations, a cumbersome approval process, lack of access to new and more innovative products, or a lack of arbitrage that can result in a pricing to market policy that make us less competitive.

Approach

It is imperative that Canada's beef industry has access to competitively priced inputs and that the business environment in Canada supports the development of new innovative inputs that could potentially reduce production costs. This is particularly important as Canada is a relatively small market in terms of

¹ Canadian global food animal residue avoidance databank (CgFARAD) based at the Western College of Veterinary Medicine in Saskatoon, SK

population and industry size, which can be a disincentive for companies to pursue commerce in Canada and register new products.

Continue to work with the Government of Canada to find workable solutions to the acute labour shortage in Canadian agriculture that threatens the viability of food production and the competitiveness of beef producers in Canada.

Improve access to technologies throughout the supply chain by private and public sectors, that enhance efficiencies and reduce costs (i.e. Electronic Delivery Platform for trade data). A competitiveness study on feedlot production in Alberta is underway to compare against competitors in Texas, Nebraska, and Kansas. In addition, efforts will focus on applications of new technologies to reduce the carbon footprint in feedlots.

OUTCOMES & OBJECTIVES

1. Improve access to affordable skilled labour; most particularly improving processing times
 - a. Establish a clear and mutually agreed upon definition of skilled labour between industry and government, recognizing that jobs in agriculture do not fit the current definition of "skilled", nor are they unskilled and suitable for anyone without proper experience in the handling of livestock, equipment operation, and other areas
 - b. Actively pursue improvements in the Labour Market Opinion process and Temporary Foreign Worker (TFW) program including a more streamlined process, improved coordination between foreign embassies, reduced processing time, and increased communication of the processing stages and any processing changes
 - c. Pursue the amendment of immigration law to create a more streamlined process for current TFWs to reapply, facilitate longer stays, and allow more immigrant nominees from the pool of TFWs to facilitate the continued employment of suitable employees
2. Improve access to competitively priced inputs including animal health products, feed grains and forages, new technologies, and other inputs
 - a. Advocate for faster approval times and more streamlined processes that are competitive with other countries
 - b. Advocate for greater coordination of approvals between government agencies and acceptance of new biotechnology by all levels of government
 - c. Advocate for change to the current extended approval process to recognize other countries' regulatory regimes and approval processes as being equivalent. Facilitating faster approval times and greater availability of products for Canadian producer through a more cooperative synergistic approach to product approval with regulators of similar caliber around the world
 - d. Advocate for the harmonizing of approvals for products already approved in the U.S.
 - e. Advocate for the harmonization of withdrawal periods and maximum residue levels for products between countries
 - f. Advocate for price equivalency of products between countries
 - g. Advocate for electronic report of information to support commerce

PILLAR 3: PRODUCTIVITY

The **Productivity** pillar goal is to improve production efficiencies through the supply chain. This will be achieved by focusing on genetic selection, information flow, research capacity, research and development, and technology adoption. Measurements will include reducing open rates, calving length, calf death losses as monitored through regional cow-calf surveys, improving feed efficiency, and hay yields.

Productivity is where producers are in direct control. Research and technology adoption must include the entire supply chain from seedstock through to the packer, and all climatic conditions where beef is produced across Canada recognizing that what works in one location for that production system may not work elsewhere. Data and research must be transformed into information that is useful for decision making on the farm – it is only then that change occurs.

FOCUS AREA A: GENETIC SELECTION

Context

Most methods of improving agricultural productivity require regular and repeated inputs (i.e. fertilizer, implants, antimicrobials, vaccines). In contrast, effective genetic selection allows much more permanent improvements in crop and animal efficiency and productivity. Genetic improvement of beef cattle has been slower than in poultry or pork because of longer gestation periods and lower reproductive rates; and slower than in the dairy sector because of negative genetic associations between traits that are economically important to the cow-calf (reproductive traits), feedlot (growth and efficiency) and packing (meat quality) sectors. Furthermore, some economically important traits are hard to select for because they are difficult and expensive (i.e. feed efficiency) or impossible to measure in live breeding stock (i.e. tenderness).

Genetic improvement will be an important area of focus to position the industry competitively with other global exporters who are making their own advancements in genetic improvement.

Approach

New technology, expanding knowledge and understanding, advanced individual animal information systems, and improved management tools offer the opportunity to make more rapid advancement in the area of genetic improvements in the beef industry. Investments to improve cattle performance through genetic selection and encouraging the adoption of new genetics will contribute to both improvements in production efficiency and beef quality.

Obtain funding to launch Canadian Beef Innovation Network (CBIN) and collaborate with industry partners in collating data collection thereby increasing the rate of genetic gain of economically, environmentally important traits in the Canadian beef herd; continue to work with researchers and industry partners to achieve greater efficiency in cattle production.

OUTCOMES & OBJECTIVES

1. The Canadian Beef Innovation Network (CBIN) will provide producers with world leading scientific based selection tools that will allow them to make real-time informed herd management decisions
 - a. Collaborate with breed associations to identify priority areas for improvement, ensure accurate data management, and support the continued development of genetic improvement programs
 - b. Provide opportunities for academia and service providers to expand research and development capabilities for genetic improvement by utilizing the enhanced data available
 - c. Develop programs that identify animals with desirable economically relevant traits (ERTs) and further encourage the utilization of these exceptional genetics
 - d. Develop and implement genetic selection tools for traits that help reduce the environmental impact of cattle such as feed efficiency
 - e. Enhance genetic selection tools for ERTs important to producers such as fertility, disease resistance, carcass quality, growth and structural soundness

- f. Capture phenotypic and genomic data along with additional information from commercial cattle, thereby enhancing the accuracy and value of genetic evaluations for both seedstock and commercial producers
2. Increase producer knowledge and adoption of genetic selection tools
 - a. Encourage greater technology adoption by cattle producers to facilitate genetic improvement and improved management practices
 - b. Work with industry partners to deliver extension services that educate producers on the application of genetic improvement tools and programs in commercial herds
 - c. Increase producer knowledge regarding genetic improvement programs and how to effectively apply that information in herd management decisions in both purebred and commercial operations using a variety of methods
 - d. Ensure that there is farm management software available that will allow producers to interface with the Canadian Beef Innovation Network providing them an access point and ability to capture on-farm data
 - e. Effectively communicate market demands from end users and consumers throughout the production chain that allow producers to develop breeding goals and align management practices

FOCUS AREA B: INFORMATION FLOW

Context

Advancements in digital technologies are changing the face of agriculture and agri-food value chains. Significant resources are being focused by government and industry stakeholders alike with regards to identifying what opportunities exist to develop and deliver large-scale disruptive approaches to automation and digital technologies that are applicable within specific agriculture sectors and agri-food value chains. Given the rapid pace of technological transformation and the unique dynamics associated with production systems across various agricultural sectors, a one-size fits all model does not work.

Projects and initiatives must clearly engage stakeholders across the value-chain and focus on system-based processes that recognize the production, climatic, and business environments within which the sector operates. At which point projects can be defined to focus on the development, adaptation, or implementation of relevant technologies including, but not limited to, automation and robotics, precision agriculture platforms, data and digital solutions, sensors, software and hardware solutions, artificial intelligence, machine learning, and block chain.

Approach

In this dynamic environment it is difficult to clearly articulate outcomes and objectives for the beef industry. At the same time, it is important to establish some guiding principles on how national organizations will approach this issue.

GUIDING PRINCIPLES FOR INDUSTRY INVESTMENTS AND PARTNERSHIPS IN DIGITAL TECHNOLOGY:

- Deliver significant and specific benefit to Canada's beef industry by adopting or adapting promising technologies developed elsewhere; minimizing duplication and targeting investments in areas that will provide a unique competitive advantage to the Canadian beef cattle industry
- Industry investment has a role to play in public good situations when market failure has resulted in under-investment by the private sector, but industry investment should not occur where it may suppress private sector activities and investments

- Investments should encourage market driven responses to demand by an identifiable target audience or user group
 - Include private sector support through active partnership and buy-in to proposed digital technology
 - Digital technologies should recognize the production realities of the sector they are targeting (e.g. individual animal records, group records or no records) and not force one option on all
- Must support and advance coordination within the Canadian beef and beef cattle supply chain beyond an individual supply chain
- Support the development of open access technological infrastructure to the greatest extent possible
- Leverage public and private sector funding
- Long term infrastructure developments must consider the ongoing annual maintenance costs and be sustainable by industry once public funding is done
- Support the overarching objectives of the National Strategy to increase productivity, competitiveness, beef demand, and connectivity
- Confidentiality and intellectual property (IP) need to be managed in a manner that encourages private sector investment and engagement to drive long-term development and implementation of relevant technologies

FOCUS AREA C: RESEARCH CAPACITY

Context

Canada is a large country with beef production occurring in many different regions. In order for innovation to take place that is suitable for local situations, facilities, and infrastructure research across Canada is needed. Many researchers are retiring and many of the young researchers replacing them do not have connections with the Canadian beef industry. Training and connecting young researchers with producers and other relevant industry stakeholders ensures that research being undertaken addresses industry needs and local situations. Where gaps in research capacity exist, it is crucial that industry work with research institutions to fill these gaps and maintain strong research programs that drive progress.

Approach

The cow-calf surveillance network will be expanded to collect productivity, management, economic, animal health, and disease data from 175 herds across Canada. This valuable dataset will establish benchmarks, inform future animal health research priorities for the cow-calf sector, and identify promising extension opportunities to maintain and improve productivity and competitiveness. Focus will also be placed on the maintenance and renewal of key research capacity through the support of research positions and mentoring of new researchers.

OUTCOMES & OBJECTIVES

1. Support the maintenance and renewal of key research capacity supporting Canada's beef industry
 - a. Continued industry mentorship of new scientists, with an additional 15 scientists completing the BCRC's Beef Researcher Mentorship program by 2023
 - b. Establish and/or maintain critical research and technology transfer capacity needed to address key opportunities facing Canada's forage, cattle and beef industry through the creation of 3 to 4 industry supported research chairs in identified priority areas.

2. National food safety, antimicrobial resistance and production limiting disease surveillance programs enhanced or developed, with research capacity and expertise in place
 - a. Strengthen the current proactive food safety and antimicrobial surveillance system to identify emerging public health issues
 - b. Establish an effective proactive surveillance system to identify (re)emerging animal disease issues before they pose a widespread risk to animal health and industry productivity
3. Ensure research facilities in each region are maintained and staffed to support activities that address local production practices (*Provincial Associations responsibility*)

FOCUS AREA D: RESEARCH AND DEVELOPMENT

Context

Research and development will be imperative to generating the innovative technologies and knowledge to ensure the continued competitiveness and sustainability of Canada's beef industry. With growing global demand for food and protein and limited agricultural resources, there is a need to continue to increase the productivity per animal and per acre through innovation. Thus, producing more food using less resources and continuing to reduce our environmental footprint.

Approach

Focus will be placed in several areas including animal health and welfare, feed and forage development and utilization, and feed efficiency. Examples of the areas of focus are outlined below. For additional details, please refer to the [Canadian Beef Research and Technology Transfer Strategy 2018 - 2023](#)

Several studies are underway and expected to be completed by 2023. One study will investigate the production impact of roundworms and reliably identify environmental conditions that warrant treatment to help maintain the efficacy of treatments. Another study will assess the efficacy of commonly used antimicrobial and non-antimicrobial treatments of common types of lameness in feedlots. Research will support continued efforts to develop an effective *M. bovis* vaccine and integrated disease prevention and treatment strategies for bovine respiratory disease.

A study will identify genes associated with reproductive failure to ensure that efforts to genetically improve feed efficiency do not cause severely negative unintended economic consequences by impairing fertility in Canadian beef cattle.

A research project will develop higher yielding, nutritious tame and native forage varieties and mixtures for cow-calf producers across Western Canada. Other studies will identify legume genetics, seeding practices, and grazing management practices that will enable legumes to become established and maintained in mixed grass pastures on marginal lands in Central and Atlantic Canada, and improve yields and survival of alfalfa in Northern climates.

OUTCOMES & OBJECTIVES

1. 15% Improvement in yields and nutritional quality of tame, native and annual species through regionally appropriate efforts to improve pasture, forage and grazing management, soil health, and plant breeding
2. Improved feed efficiency through cattle breeding methods that consider and balance the production traits of economic relevance to different sectors of the beef value chain
3. Improved feed supply and utilization through the development of improved feed grain varieties and feeding strategies that cost-effectively optimize animal nutrition, performance, and cost of

gain while considering impacts on animal performance, health, beef quality, and nutrient management

4. Quantify the economic and agronomic benefits of integrated annual crop, forage, and beef production systems and identify strategies to optimize and improve integrated production systems
5. Improved surveillance of the incidence and economic impact of production limiting diseases and nutritional, health management, biosecurity and welfare practices in cow-calf, backgrounding and feedlot operations
6. Improved prevention of animal disease and welfare issues through the identification, development and promotion of cost-effective vaccination, treatment and management strategies that can be widely adopted to improve health, welfare, reproductive and performance outcomes throughout the beef production system
7. Evidence-based antimicrobial resistance decision making and communication through clinical trials to confirm the best antimicrobial treatment options to minimize antimicrobial resistance throughout the cattle production cycle, and development of rapid, accurate, cost-effective diagnostic technology to detect antimicrobial resistance in production environments
8. Develop a broader toolbox for disease management through evidence-based risk assessment of the effectiveness of alternative production practices and non-antimicrobial products to prevent and control disease
 - a. development of vaccines and vaccine delivery methods to effectively protect beef cattle against pathogens associated with BRD, liver abscesses, footrot and digital dermatitis
 - b. development of rapid, accurate, and cost effective chute-side diagnostic test and tools to improve disease detection and refine individual animal treatment and management decisions
 - c. develop a better understanding of host genetics, the respiratory and gut microbiomes and their roles in disease susceptibility and resistance.

FOCUS AREA E: TECHNOLOGY ADOPTION

Context

Knowledge dissemination and technology transfer are critical to realize the economic, environmental and social benefits of investments in beef research. Historically, provincial governments and universities employed extension specialists and supported field days, seminars, and other initiatives. However, these activities have significantly declined over the past 20 years. This has resulted in significant shortfalls in industry adoption of new knowledge and technology, and lost opportunities to positively impact the profitability and sustainability of the industry through improved production efficiencies and beef demand.

Approach

Technology transfer efforts through Beefresearch.ca will be expanded and the Canadian Beef Technology Transfer Network will better connect, empower and support regional beef and forage extension agents to collaboratively develop and deliver effective technology transfer initiatives. Through the utilization of expertise in the Canadian Beef Technology Transfer Network, online resources will be developed to enable Canadian beef cattle producers to analyze their production and financial records, including comparisons to applicable benchmarks, to make informed production decisions about adopting, and fully exploit innovation.

For additional details, please refer to the [Canadian Beef Research and Technology Transfer Strategy 2018 - 2023](#)

OUTCOMES & OBJECTIVES

1. Engage academic and research organizations to encourage the development of new technologies that will benefit the beef cattle industry
 - a. Enable and encourage communication and collaboration between industry and research organizations to better understand industry needs for innovation and translate this into research
 - b. Achieve industry-wide support for the Canadian Beef Research and Technology Transfer Strategy ensuring industry's research priorities are adequately addressed and maximizing the value of research investments
2. Advance the development and implementation of the Canadian Beef Technology Transfer Network to encourage the more rapid adoption of relevant technologies and production practices
 - a. Enable and encourage academia, government, and industry stakeholders to develop on farm decision making tools and other knowledge and technology transfer initiatives by academia, government, and industry partners
 - b. Develop and continually improve online resources that support Canadian producers in the maintenance and analysis of their production and financial records, including comparisons to applicable benchmarks, to make informed production decisions about the adoption of technologies and production practices
 - c. Support short-term proof of concept-based projects and clinical trials to identify new technologies/practices of value to the Canadian industry and allow their validation and/or adaptation as appropriate
3. Increase the proportion of producers adopting new technology with reduced lag from development to adoption
 - a. Continually develop and widely distribute information with a variety of technical content, topic and format (e.g. fact sheets, blog articles, webinars, videos, cost of production tools, podcasts, radio, workshops, etc.)
 - b. Develop BeefResearch.ca into a comprehensive resource for beef, cattle and forage research information and effective extension tools for easy access to industry stakeholders and increased collaboration among extension groups
 - c. Promotion of BeefResearch.ca and other extension resources to increase awareness of and motivation to understand and adopt innovation
 - d. Provide economic analyses regarding the benefits of adopting new technology
 - e. Communicate the benefits of increased focus on technology transfer to encourage funding and best practice
 - f. Continually improve knowledge dissemination and technology transfer effectiveness
 - g. Achieve adoption of best technology transfer practices industry-wide; collaborating with other organizations and researchers to share resources and improve adoption

PILLAR 4: CONNECTIVITY

The Connectivity pillar objective is to enhance industry synergies; connect positively with government and partner industries by actively addressing industry issues, challenges and opportunities with a unified industry voice.

Successful organizations and industries have made long standing connections with governments, influencers, knowledge leaders, and are highly attuned to public opinion and changing trends. The strategy continues to build on these relationships and market awareness. Being connected and prepared to communicate in a meaningful way when events occur can directly influence how these events impact our industry. There are various organizations across the country, provincially and nationally, that share a

common goal of enhancing the viability of the Canadian beef industry - when all parts connect, synergies are achieved.

FOCUS AREA A: INDUSTRY COMMUNICATION

Effective communication is foundational to all policy, marketing, and research activities within the Canadian beef industry. Communication is integral to engaging producers, processors, retailers, consumers, industry partners, government, the public, consumers, and global trading partners.

Communication need to be transparent and consistent, with a common voice across all industry organizations. This is especially imperative in times of industry crisis. It is also critical to maintaining and enhancing consumer confidence. Consistent industry communication increases the public's understanding of the contribution the beef industry makes to the economy and environmental sustainability. Two-way communication of customers' demands throughout the supply chain from end users to primary producers is also important in order to clearly understand market trends and align production accordingly. It is also important to continue to build on and strengthen the relationships and connections developed through the Canadian Beef Industry Conference (CBIC).

Encourage information sharing across industry organizations to avoid duplication of efforts and build strategic relationships in order to facilitate responsiveness of the industry to a wide range of demands.

OUTCOMES & OBJECTIVES

1. Timely concise, and effective delivery of industry communications
 1. Ensure coordination of communication between national organizations
 2. Ensure the timely transfer of information to provincial associations and other industry organizations to ensure they are prepared to handle media inquiries
 3. Maintenance of an Industry Crisis Communication plan that is updated on an ongoing basis including direct engagement of key industry organizations, CFIA and AAFC to ensure appropriate linkages are made and processes are understood
2. Enhance industry's ability to speak with consistent messaging
 1. Provide ongoing development of approved key messages for industry to utilize
 2. Encourage provincial associations and their members to engage stakeholders using approved messaging and providing resources for local adaptation

FOCUS AREA B: ENGAGE INDUSTRY PARTNERS

All stakeholders share a common goal to enhance the productivity, profitability and competitiveness of the various sectors within our industry. This goal can be achieved with the participation of all sectors including cow-calf producers, feeders, packers, retailers and food service working together to develop new strategies and to build a solid plan from which we can all align to.

OUTCOMES & OBJECTIVES

1. The Canadian Beef Advisors to oversee the delivery and reporting on the National Beef Strategy for the beef and cattle industry
2. Maintain and enhance the Canadian Beef Industry Conference as an annual event with multiple industry organizations conducting meetings and bringing industry together
 - a. Bring together a large audience of producers to engage in multiple meetings and place continued focus on the National Beef Strategy, with annual performance reporting and priority discussions

- b. Facilitate formal and informal collaborations between industry leaders, staff, and stakeholders to encourage ongoing discussions and exchanges of information regarding issues and opportunities of priority
- 3. Expand cross organizational learning and stakeholder engagement opportunities through the expansion of programs such as webinars, lunch and learns, Beef Advocacy Canada, and other opportunities
- 4. Build strategic partnerships with external stakeholders to support and promote beef production and consumption

FOCUS AREA C: ENGAGE GOVERNMENT AND GLOBAL PARTNERS

In addition to strengthening the level of communication and engagement within and between industry stakeholders, there is significant value and opportunity in investment (on an ongoing basis) in building long-term relationships with government, regulatory agencies, the public and consumers, partner industries, and other stakeholders. Building long-term relationships is necessary to establish trust, transparency and build credibility that enables industry to effectively address issues that arise related to marketing, competitiveness and productivity.

There are also synergies and opportunities for the Canadian beef industry to leverage common messaging, problem solving and information from like-minded domestic and international partners in areas such as research, domestic and trade policy, and marketing.

OUTCOMES & OBJECTIVES

1. Engage government and regulatory agencies to build and maintain long-term relationships
 - a. Continued investment in long-term relationships with government bureaucrats and elected officials to establish trust, transparency, and build credibility in order to encourage open dialogue and communication channels that are available in times of normalcy and crisis
 - b. Encourage industry to speak with one voice when engaging government to ensure clarity of priority and direction
 - c. Active participation in government/forums such as the national Beef Value Chain Roundtable, Beef Cattle Trade Advisory Group, and others to ensure continued progress is made on files of priority to the industry
 - d. Actively partner with Federal and Provincial Governments in ministerial trade missions and market development activities with trade commissioners, embassies and consulates in markets of interest to the Canadian beef industry
2. Participate in consumer discussions and forums to obtain feedback and provide information regarding the Canadian beef industry
 - a. Producer participation in retail/end-user marketing initiatives
 - b. Participation in end-user consumer forums
 - c. Conduct proactive communications to educate consumers and the public about the Canadian beef industry and work to create an ongoing relationship where they turn to industry for their information
3. Invest in developing long-term relationships with a broad range of stakeholders, including domestic and international organizations, encouraging collaboration on priorities of mutual interest (i.e. trade agreements, animal health and care, government policy and programming, research and marketing) and open discussion when differences arise

CONCLUSION

The National Beef Strategy demonstrates leadership and provides clarity as various stakeholders come together to work towards a common goal. The four pillars address every aspect of the industry from grass-roots supply to consumer demand and all the issues that arise in between. Communicating efforts that contribute to these goals will ensure duplication of efforts are reduced and existing investments are leveraged.

The 2020-24 National Beef Strategy builds on the successes reported from the [2015-19 National Beef Strategy](#) in the [Status Update](#).

Learn more at www.beefstratetgy.com