Beef Cattle Research Council (BCRC)

The Beef Cattle Research Council (BCRC) is Canada's industry-led funding agency for beef, cattle and forage research. Its mandate is to determine research and development priorities for the Canadian beef cattle industry and to administer the Canadian Beef Cattle Check-Off funds allocated to research. The BCRC is led by a 14-member Council, comprised of 13 producers and one member at large, who proportionally represent each province's research allocation of the Canadian Beef Cattle Check-Off.



Dr. Kim Ominksi (University of Manitoba) is co-leading a research project with Dr. Tim McAllister (AAFC Lethbridge) to examine the impacts on productivity, environmental sustainability, and economic viability associated with the removal of productivity-enhancing implants, beta-agonists and ionophores. The in-depth analyses to understand whether market premiums associated with domestic and international beef market opportunities for beef raised without, and the environmental and economic drawbacks of removing these performance enhancing technologies, is expected to be complete in 2023.

The BCRC is completing its third year of a ten-year plan presented with the increase in Canadian Beef Cattle Check-off in 2018/19. The allocation of check-off funding to beef research increased to be in line with the National Strategy recommendations - acknowledging historic under funding of research and the need to address many significant priorities.

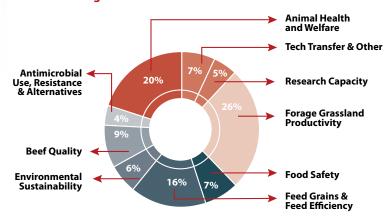
BCRC continues to operate within a 10-year plan in an effort to manage multi-year research funding contracts (three to 10 years in length). This plan is built on the assumption that provincial allocations of the national check-off to research will remain unchanged moving forward.

Impacts of COVID-19 on BCRC Activities

Since March 2020, the BCRC has been working closely with industry and government to assess the impacts of the COVID-19 pandemic on research at facilities across the country. The impacts vary greatly across the provinces and depend on factors including project requirements, as well as local pandemic situations. Most of the ongoing research projects continued with minimal interruption. Some of the projects which were scheduled to start as early as April 2020 were delayed, however all projects are scheduled to continue. The second wave of the pandemic during the fall could result in further delays although the overall impact is undetermined at time of writing. BCRC continues to work with its funding partners, including Agriculture and Agri-Food Canada (AAFC) to evaluate if there will be any program and/or budget implications for 2020/21 or 2021/22, but to date the impact has been minimal on the research program.

Specific to the pandemic, BCRC funded COVID-19 related research initiatives including investigating technology to support the remote delivery of inspection services, research to determine the risk of COVID-19 infection due to changing airflows in processing facilities as COVID-19

5-Year Funding Portfolio







physical barriers are put in place, and economic analysis to support the development of eastern cattle price insurance indices. BCRC extension programming has continued to operate without interruption.

Overall, the impact of COVID-19 on the BCRC budget and operations has been manageable, given the flexibility in allocating industry funding across years, the existing online platforms for resource and program management and the ability of BCRC staff to work remotely as required. Larger than expected funding deferrals did occur in 2019/20 due to delayed project start-ups. Most of these projects are set to start up spring of 2021.

National Beef Strategy Renewed

The BCRC is a key partner in renewing and achieving the goals of Canada's five-year National Beef Strategy. Research and/or technology transfer outcomes are relevant under each of the four pillars of the 2020-2024 Strategy; productivity, competitiveness, beef demand and connectivity.

Building on the five-year goals identified in the National Beef Strategy, industry identified a suite of ambitious ten-year goals to address continually improving practices, reducing carbon footprint and enhancing natural environments. The ten-year goals address animal health and welfare, greenhouse gas and carbon sequestration, land use and biodiversity, water, beef quality and food safety, human health and safety, and technology. These goals will direct key BCRC programming and priorities through the next 5-year Research & Extension Strategy, which will be published in June 2021. Visit beefstrategy.com for more information on the National Beef Strategy.

Beef Science Cluster III in Year Three of Five

The Science Clusters are a partnership with AAFC that combines their strengths with the BCRC's to make joint investments in a variety of research programs with the greatest potential to advance the industry.

Projects funded under the current Beef Science Cluster III under the Canadian Agricultural Partnership (CAP) run from April 1, 2018 to March 31, 2023. The third Cluster is a \$21.7 million program, with AAFC contributing \$14.1 million and BCRC and industry partners contributing a total of \$7.6 million over the five years. There are 27 Cluster projects, including Science Coordination, managed by the BCRC. The multi-year research projects are all underway but not yet complete, however there are some preliminary findings. Relating to food safety, analyses of 750 STEC isolates collected from cattle and processing plants indicate that E. coli are not becoming more resistant to heat-based food safety interventions. Specific to animal health, preliminary data indicates that aside from body energy status, a rest stop did not benefit the welfare, health or performance of weaned, conditioned calves transported for 12 or 36 hours. Related to feed efficiency, findings have helped researchers better understand how bacteria use substrates such as pre and probiotics. A summary of each project is available on BeefResearch.ca.

Priority Research Projects Underway

In addition to the projects within the third Science Cluster, BCRC funds research projects aimed at achieving specific goals of high priority to the beef industry. During 2020, 17 research projects funded by BCRC were initiated, and are scheduled to be complete in two to four years.

The research will focus on various practices, including: antimicrobial use and resistance in cow-calf herds, and whether anything will change after the switch to prescription only sales of medically important antimicrobials; characterization and optimization of visual pen checking criteria to improve BRD treatment outcomes in feedlot cattle; and forage potential of Hybrid Fall Rye (HR) in Alberta and Saskatchewan, to list a few. A study is also underway to estimate the economic impact of the Canadian cattle industry. A summary of each project is available on BeefResearch.ca.



One of many resources for beef producers on the BCRC's website, Forage U-Pick is an interactive tool that provides information for forage selection, forage seeding rates, and weed management. Efforts are underway to expand the tool to include Eastern Canada.









Proof of Concept Informs Research Investment

BCRC continues to allocate funding to short-term (six months to one year) proof of concept based (POC) research to help inform whether a concept is worth pursuing as a larger, more defined research investment in that area. Three POC projects are now complete. One explored whether using "good" bacteria could be used to prevent spoilage in meat, while another studied whether prebiotics and probiotics can help avoid respiratory disease and antimicrobial treatment. The third tested whether seeding high legume forages between the rows of corn plants would reduce the need for fertilizer and supplementation for cows grazing corn. Researchers were faced with a drought and yields fell short but it was shown that intercropping legumes and corn is possible. The BCRC has committed funding to a second project to test different agronomic practices (e.g. wider row spacing) and evaluate animal performance when grazing corn/legume pastures. In 2020, four additional POC projects were initiated.

Knowledge and Technology Transfer (KTT)

The KTT project funded under the Cluster program focuses on enhancing technology transfer in the Canadian beef industry through various tools, including: articles and regular social media activity; fact sheets on various research priority areas; interactive decision-making tools; videos; articles for Canadian Cattlemen's the beef magazine; webinars; blog posts; infographics and radio clips.

In addition to the KTT project funded under the Cluster, BCRC funds technology transfer and production economics initiatives managed by external groups including researchers as well as provincial and other beef organizations. One example is the Forage U-Pick tool.

The BCRC also initiates and funds collaborative extension projects of priority. One such project currently underway is the Eastern Extension Content Project, which is identifying information and data gaps in current BeefResearch.ca content and enhancing resources to reflect the production practices of eastern Canadian beef producers.

While it is difficult to measure or quantify the adoption of innovative knowledge, especially in the short term, BCRC's technology transfer efforts appear to be successful due to consistently positive feedback from producers and other stakeholders, increasing website traffic, increasing subscribers and followers, and increasing levels of redistribution of BCRC resources by other publications and organizations. Visit BeefResearch.ca to access or download the BCRC resources.

Beef Mentorship Program Engages Applied Researchers

BCRC supports a Beef Researcher Mentorship Program to facilitate greater engagement of upcoming and new applied researchers with Canada's beef industry. The 2020/21 mentees, mentored by beef producers and other industry experts, include: Dr. Alexander Koiter, an assistant professor in the Department of Geography and Environment at Brandon University; Dr. Christine Liu, a research scientist at the Lacombe, Alberta AAFC



L-R: Dr. Francois Eudes, Agriculture and Agri-Food Canada (Lethbridge); Dr. Karen Beauchemin, 2020 Award Recipient; Dr. Tim McAllister, Agriculture and Agri-Food Canada (Lethbridge).

Research Station; Dr. Jonathan Bennett, an assistant professor of plant ecology at the University of Saskatchewan; Dr. Marcos Cordeiro, who holds a PhD in Biosystems Engineering from the University of Manitoba; and Dr. Monika Gorzelak, a soil microbial ecologist and Dr. Trevor Coates, a specialist in air quality and greenhouse gases, both at the Lethbridge, Alberta AAFC Research and Development Centre in Lethbridge.

Canadian Beef Industry Award for Outstanding Research and Innovation

Dr. Karen Beauchemin, a Principal Research Scientist of Ruminant Nutrition at AAFC's Lethbridge Research and Development Centre, was awarded the 2020 Canadian Beef Industry Award for Outstanding Research and Innovation. She has assisted producers, researchers, veterinarians, nutritionists, and policymakers across Canada with numerous research projects on ruminant nutrition, such as feed additives and diet formulations, and industry-relevant issues, such as the environmental sustainability of beef cattle production while improving animal performance. Dr. Beauchemin's work on emissions is a major asset to Canadian beef producers. Her work has not only led to a better understanding and quantification of greenhouse gas produced by cattle, but she continues to lead the way in researching new ways to reduce the overall impact.

Advancement of the Verified Beef Production Plus Program

BCRC remained responsible for the delivery of the Verified Beef Production Plus (VBP+) program during 2020/21. For mor information see the full VBP+ report.

To learn more about BCRC initiatives and take advantage of its extension resources, visit the BCRC website at www.BeefResearch.ca.



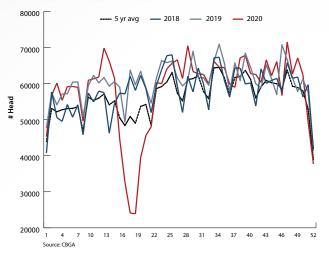
Canfax

The cattle market started the year with a stronger market tone as strong domestic and international meat demand was expected to absorb the extra North American meat production in 2020. At the start of the year, all cattle types were trading higher than the previous year and feedlots were retuning back to profitability after a tougher couple of years in 2018 and 2019.

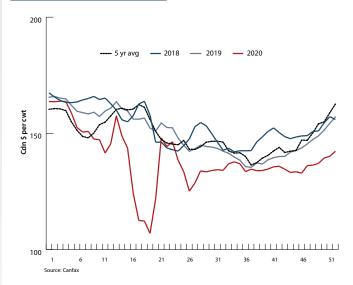
A strong market and higher prices were expected in 2020, but that quickly changed in March as concerns arose about the possible impact COVID-19 could have on the supply chain and beef demand. Prices started to deteriorate in March, and by April packing plants were facing operational slowdowns, or having complete shutdowns as a significant portion of their workforce was impacted by COVID-19. Impacts were felt across North America, but western Canadian processing levels were some of the hardest hit, while eastern Canadian plants saw very limited production impacts.

In late April, Canadian weekly cattle slaughter dropped down to 24,000 head, the smallest slaughter level on record going back to 1973. The two major Canadian processing plants saw the greatest reduction, as the Cargill plant in High River, Alberta was shut down completely for over two weeks, and the JBS plant in Brooks, Alberta was running well below half capacity. In a matter of seven weeks in April and May, Canadian packing plants processed 150,000 head less than 2019, which created a significant backlog of cattle that needed to be worked through. Given the larger numbers of cattle on feed at the start of the pandemic, this backlog of cattle weighed on the slaughter cattle market through all of 2020. As a result of the slowdown in fed cattle movement, placements were also delayed until later in the summer, which will also increase first quarter 2021 fed cattle marketings relative to what had previously been anticipated.

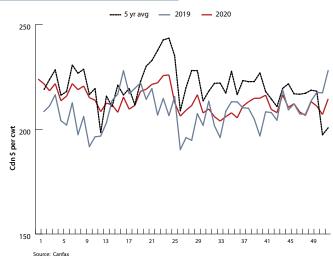
WEEKLY CANADIAN SLAUGHTER



ALBERTA WEEKLY FED STEER PRICE



ONTARIO 5-600 LB FEEDER STEER PRICE



Prices

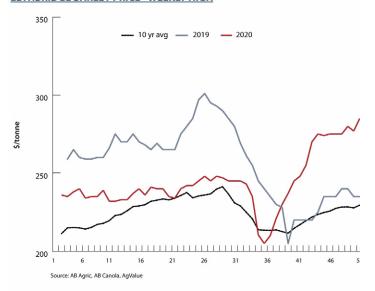
The market and supply chain issues caused by COVID-19 have weighed on the cattle markets this year. The fed cattle market has been hardest hit with limited processing capacity and an abundance of slaughter cattle available for processing. The second quarter saw extreme volatility for fed prices as only limited numbers of cattle were trading on the cash markets given production uncertainties. Alberta fed steer prices ranged between \$107/cwt and \$149/cwt in the second quarter before prices leveled of in the mid \$130's/cwt through the second half of the year. In the second half of this year, Alberta fed prices averaged at the lowest level since 2013. The Ontario fed market faired better than Alberta, as they did not have the processing issues this spring that the west had. Ontario fed prices have been higher than Alberta since the second quarter and have generally been above a year ago as well.



Despite the fed cattle market struggling this year, the calf and feeder market performed relatively well. After the feeder market dropped in the second quarter due to market uncertainty, prices rebounded and were close to 2019 prices in the third quarter with Alberta 850 lb steer averaging around \$186/cwt for the quarter. Demand for feeder cattle did drop in the fourth quarter with 850 steer calf prices generally \$10-\$15/cwt below a year ago. Calf prices saw the least impact, as prices in the second half of the year averaged in line with 2019. Alberta 550 steer prices continued in the similar range they have been the last couple of years trading generally from \$210 - \$220/cwt. The stronger Ontario fed market also supported calf and feeder prices as Ontario prices were generally higher than a year ago for the different cattle types and traded at a premium to Alberta.

In addition to the volatility in the cattle markets related to COVID-19, cattle prices also faced other market pressure from major swings in the currency and grain markets. The Canadian dollar dropped to under 70 cents U.S. this spring, but generally trended higher the remainder of the year to hit over 78.5 cents and be at the highest level in two years. The fluctuations have been partly related to changes in the U.S. dollar, but as the Canadian dollar rises it is negative to the Canadian cattle market.

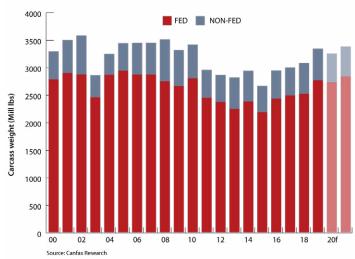
LETHBRIDGE BARLEY PRICE - WEEKLY HIGH



Feed prices had been holding relatively steady through the first half of the year as there were expectations for a record large U.S. corn crop, and ample feed grain supplies. Barley prices and feed costs in western Canada were higher than Ontario and the U.S., as barley supplies were tighter and strong export demand to China kept barley prices elevated. As the year progressed, U.S. corn crop production expectations were reduced, and China also stepped into the U.S. corn market which saw corn prices increase about \$1/bushel from the summer lows into the late fall. Given the tight barley supplies in western Canada, feedlots were importing corn to fill their feed requirements and these market shifts drove Canadian



CANADIAN BEEF PRODUCTION



feed grain costs higher. Higher feed costs added to feedlot losses and also added pressure to calf and feeder prices later in the year.

Despite the major production issues due to COVID-19, Canadian fed beef production is expected to be equal to a year ago as packers ramped up the fed kill and carcass weights averaged about 5 to 10 pounds larger than a year ago. The non-fed kill saw significant reductions this year as Canadian packing plants focused on the fed kill after COVID-19, and producers also had better grazing and feed conditions to potentially reduce the cull rate in 2020 or hold their cull cows back until the new year. Non-fed beef production is projected to be about 20 per cent below last year. Slaughter cattle exports are slightly higher than a year ago, which would bring total Canadian beef production about 2 per cent below 2019, but about 6 per cent above 2018. Despite the Canadian beef cow herd being only 3.56 million cows, and the smallest cow herd since 1990, in the past five years Canada has seen strong growth in its beef production through feedlot expansion and increased processing



rates. Competitive basis levels have meant more cattle have stayed in Canada for finishing and processing, and feeder imports have also been increasing to support more feedlot and packing plant utilization. Canadian cattle slaughter hit a low in 2015 at just under 2.5 million head and has since expanded to just over 3 million head the last three years.

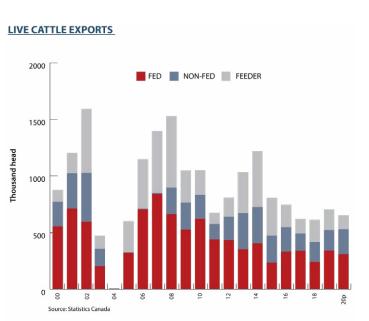
Trade

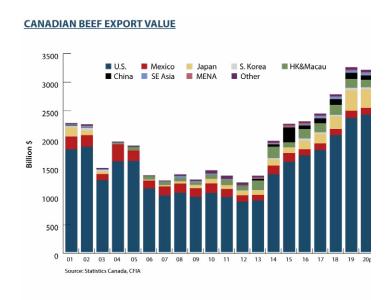
The Canadian beef industry remains very export dependant. Although live cattle exports have been declining as the Canadian herd has shrunk, it has still been exporting about 600,000 to 700,000 head per year, with slaughter cattle accounting for about 75 per cent of live cattle exports.

The major shift in live cattle trade over the last couple of years is the fact that Canada has become a net importer of feeder cattle from the U.S. In 2019, Canada was a net importer for the first time in many years, with feeder imports exceeding exports by almost 75,000 head, and this year Canada will be a net importer of over 200,000 feeder cattle.

Beef exports have been on the rise over the last five years as strong international demand and increasing Canadian beef production has supported beef exports. Beef exports increased by about \$1 billion dollars from 2015 to 2019 to hit over \$3.2 billion in 2019. Despite production issues, and export volumes possibly down about 6.5 per cent, exports could still be near \$3.2 billion in value this year. The U.S. continues to be the main export destination taking about 75 per cent of Canadian beef exports. Japan has moved solidly into second place, taking 10.6 per cent and Hong Kong/Macau is third taking about four per cent.

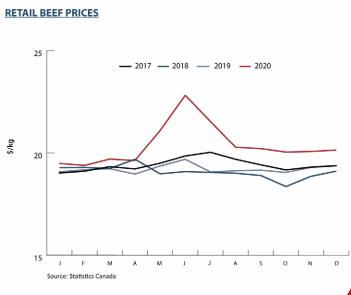
Beef imports did see an increase this year after trending lower for the past five year. Production issues and record high wholesale beef prices had retailers and food service users looking overseas to ensure consistent supplies. Beef imports increased about 22 per cent this year, back to levels not seen since 2015 and 2016.





Demand

There were major shifts in consumption patterns as restaurants were either closed or had to operate at limited capacity this year. This shifted a significant amount of beef to be sold through retail channels. Despite all the economic challenges this year, beef demand performed well. The slow down in packing capacity this spring created a shortage of some cuts of meat at retail and this resulted in retail prices hitting record high levels in the summer, but even as production returned to normal, retail beef did correct but remained above a year ago. The overall beef demand index is expected to be higher this year given beef consumption levels and the higher retail beef prices. Beef continues to be the top expenditure for Canadians at the meat counter.





Canfax Research Services

Canfax Research Services (CRS) provides market information and economic analysis of issues that are of importance to the Canadian beef industry. In the last year CRS has been focused on the launch of several new initiatives, as well as the enhancement of existing activities. These include:

The Eastern Price Insurance Project started in June 2020 with Phase 1 finding that price discovery was robust enough to support an Eastern Price Insurance index when using data from Ontario and Quebec for calves and feeder cattle. Historical lot data is being sourced from Ontario auction markets and indices being developed by March 2021.

The Canadian Beef Cost of Production Network provides a collaboration with provincial coordinators to establish regional benchmarks in every province that reflect specific ecoregions and production systems. There will be 26 to 30 typical farms established with benchmarks, future farms that explore the adoption of different management and production practices, and the accompanying Greenhouse Gas (GHG) emissions to establish where there are opportunities to both reduce GHG emissions while also supporting cowcalf competitiveness. This will provide the foundation for the Canadian Roundtable for Sustainable Beef (CRSB) updated Economic Assessment. Data collection is taking place in the first quarter of 2021.

Canadian Roundtable for Sustainable Beef: CRS is providing staff support for the Science Advisory Committee and Chair's the Global Roundtable for Sustainable Beef (GRSB) GHG Science Committee examining Global Warming Potential (GWP) and the compilation of a standardized beef methodology document summarizing Food and Agriculture (FAO) Livestock Environmental Assessment and Performance (LEAP) methodology documents related to the beef industry on a variety of environmental topics.

Beef Cattle Research Council (BCRC): Blog articles and decision-making tools continue to be produced to support adoption and extension communications. The development of a Core Question document for future Canadian Cow-Calf surveys was published in March 2020 and distributed to provincial collaborators. CRS has contributed to the BCRC internal record keeping project and Eastern Content project's working group. CRS provides technical comments on the Scientific Review Body on the Technology Transfer and Production Economic Call.

Canada Beef: Additional reports are being provided including a quarterly Domestic Market Intelligence Report launched in May 2020, monthly U.S. articles for the Global Market Intelligence Report and oversight of a student providing monthly beef trade articles.

CRS Provides Secretariat Services to the Beef Advisors:

Ten-year goals are being developed building on the 2020 to 2024 National Beef Strategy. In setting these goals, industry is aiming to build support for beef production and its activities through a clear consistent message that communicates industry ambition and the benefits of beef production.

Data-mapping was completed in September 2020 for Verified Beef Production Plus (VBP+) matching national statistics with audit questions.

The Canadian Boxed Beef Model is scheduled for an update. These periodic updates ensure current cutouts are captured as market access changes shift demand for cuts from the packing plants.

The Implementation of Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) in January 2019 has provided opportunities for yield specifications to adjust. This project was delayed due to COVID-19 and is expected to resume in 2021, depending on the availability of packer engagement.





Canadian Roundtable for Sustainable Beef

The mission of the Canadian Roundtable for Sustainable Beef (CRSB) is to advance continuous improvement in Canadian beef industry sustainability through multi-stakeholder engagement, collaboration, communication and science. The CRSB continues to play a leadership role in the beef sustainability space.

While 2020 presented many unexpected challenges, it was also a year with many milestones and opportunities to build trust with stakeholders and consumers.

The CRSB drives progress against its mission through three main pillars of work: sustainability benchmarking and setting strategic goals for improvement, CRSB Certified – a voluntary 3rd party certification program, and demonstrating progress through on-the-ground projects.

CRSB's membership continues to grow, with over 110 members and observers, including addition of 12 new members in 2019-20 from a diverse range of categories, including producer associations, processors, academic research, NGOs, retail and foodservice, and agribusiness.

CRSB continues to engage on the Global Roundtable for Sustainable Beef (GRSB) through its seat on the Board of Directors, Communications Council and Goals Working Groups.

National Beef Sustainability Strategy

CRSB kicked off 2020 with an Interim Report on the goals and action items in the National Beef Sustainability Strategy, reporting on progress since the first strategy was released in 2016, and where to focus efforts over the next few years leading up to the next National Beef Sustainability Assessment. We are pleased to report that 86 per cent of the environmental, 75 per cent of the social and 83 per cent of the economic action items in the strategy have been completed or are in progress. Check out the Interim Report for details on action items that will be addressed over the next three years. Visit csrb.ca for the full report and infographics introduced this year to help further communicate about beef sustainability.

The Canadian Beef Advisors are building upon the five-year goals outlined in the 2020-2024 National Beef Strategy with a suite of ambitious ten-year goals that aim to show how the industry is continually improving practices and making steady progress. CRSB participated in the development of these goals, and held two series of webinars (six in total), in the spring and fall of 2020. The purpose of the webinars was to provide scientific background from experts and gather feedback as draft goals were developed.













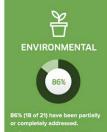










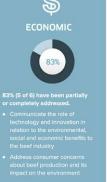


- Develop a key performance
- Reduce food waste at consumer level
- Support consumer education and awareness by joining transsectorial initiatives that target consumers, retailers, restaurants
- Develop consumer education material on food preparation, freezing preservation etc.
- Promote improved product packagin
- Promote research and adoption of packaging that enhances product life and reduces food waste
- Enable dialogue regarding how package messaging can enable less food waste (e.g. replace 'best before' with 'use by' or 'freeze by' dates)



75% (9 of 12) have been partially or completely addressed.

- Improve median income for downstream value chain participants
- Promote a culture of diversity, inclusion and transparency within the beef supply chain
- Promote awareness of the Code of Practice for the Care and Handling of Beef Cattle
- Regulatory changes to branding requirements on exported animal:



The CRSB encourages all members and industry partners to identify and prioritize any initiatives that advance these action items before the National Beef Sustainability Strategy is renewed in 2023. By reporting activities in the annual survey for sustainability projects, they will be included in future reports.





Certified Sustainable Beef Framework

Recognizing and Advancing beef sustainability through a world class, operation-level certification program

The CRSB's Certified Sustainable Beef Framework continues to build momentum. Four foodservice companies are now sourcing beef from CRSB Certified farms and ranches, and over 8.6 million lbs of beef was sold with a CRSB Claim since 2018.

In 2017, the CRSB launched the first outcome-based certification framework for beef sustainability in the world, known as CRSB Certified. The Framework recognizes sustainable practices in beef production and processing, supports sustainable commitments in the retail and foodservice sector, and builds trust for Canadian beef through credible, science-based claims.

Adoption of the program continues, with a 28 per cent increase in beef producer participation in 2020, over 9 million cattle currently raised on CRSB Certified Operations, and 8.6 million lbs of beef have been sold with a CRSB Claim since 2018. The demand for beef raised on CRSB Certified farms and ranches outweighs the supply, and there has never been a better time for beef producers to seize opportunities through this certification program.

There is increasing consumer awareness and interest about how food is produced and the sustainability of the food system. In fall 2020, there were several exciting announcements and new players partnering with the CRSB to help share the great beef sustainability story in Canadian beef. Key highlights of the year included:

- JBS Canada facility in Brooks, Alberta was certified to Sustainable Beef Processing Standard
- Chop Steakhouse & Bar was first to feature CRSB Certified on a restaurant menu with its Chop Burger
- McDonald's Canada introduced sustainable beef sourcing to its
 Quarter Pounder® line-up featuring a full-scale advertising campaign,
 in-store marketing and packaging, coupled with a "Future of
 Sustainable Beef Ranching" campaign
- Gordon Food Service Canada Ltd. committed to beef sustainability in its Gordon ChoiceTM brand boxed beef program, another first for CRSB
- Cargill Guelph facility was certified to the Sustainable Beef Processing Standard; further, with successful Chain of Custody certification in place, Cargill is now sourcing beef from CRSB Certified farms and ranches across Canada for both High River, Alberta and Guelph, Ontario facilities
- Ontario Corn Fed Beef Quality Assurance Program was approved as a CRSB Certification Body for feedlot operations in Ontario

 Loblaw made its first purchase of one million pounds of beef sourced from CRSB Certified farms and ranches, the first grocery retailer in Canada

The CRSB looks forward to further momentum in 2021.



Communicating Beef Sustainability

Communications and marketing were a key focus for the CRSB in 2020. Working with an external agency, a robust three-year marketing strategy was developed to expand on the plans already in place. One of the key recommendations is expanding our reach to consumers. To kick that off, CRSB carried out its first consumer-directed social media ad campaign in the summer of 2020, focusing on creating awareness about the environmental benefits of sustainable beef production in Canada. The campaign was supported by the development of a website, beeffortheplanet.ca, which highlights key data from our National Beef Sustainability Assessment, showcases the Guardians of the Grasslands documentary, and shares numerous CRSB Certified beef producer stories and videos. The social ads are linked to this website to enable people to learn more. The campaign was successful and started an important conversation; we continue to leverage this website as we work with our retail and foodservice partners. The icing on the cake was receiving a Best of CAMA award - awarded annually by the Canadian Agri-Marketing Association to recognize excellence in marketing and advertising in agriculture. Surprisingly, the website was also recognized with a special Best in Show award. CRSB would like to recognize Kahntact and Nourish Food Marketing who worked with CRSB to develop the campaign and AdFarm for designing the website.



We continue to collaborate with members and industry partners in many areas, particularly with Public and Stakeholder Engagement, and Canada Beef. A great example of this working relationship was a sponsored campaign with the Toronto Star called "Cooking by Degrees". It brought together university and college executive chefs, their favourite beef recipes, and features Canadian beef producer stories from across Canada, penned by Owen Roberts, a great supporter of agriculture storytelling. Sponsored ads by CRSB, Canada Beef and Guardians of the Grasslands were embedded from December 2,2020 to January 12, 2021, and the articles will live on in the Toronto Star digital space. Check it out at thestar.com/sponsored_sections/cooking-by-degrees.html.

We are excited to expand our reach in our social channels and develop more of these types of campaigns in 2021.

Of course, none of our work would be possible without our farmers, ranchers and industry partners. We continue to promote sustainability within the industry, such as through industry events like the Canadian Beef Industry Conference. CRSB was part of the Program Committee, and then the core planning team, as the conference shifted to a virtual event in 2020. A sustainability panel discussion was one of the most popular sessions, and brought together beef producers from Alberta and Ontario, with foodservice and restaurant speakers for a great discussion facilitated by Shaun Haney of RealAgriculture.

Shifting Priorities and "The New Way" to Engage

As we all experienced in 2020, CRSB had to make some changes in how we operated and how we engaged with our members. As we look back over the past year, we were able to pivot quickly, maintain contact and even improve engagement to meet our 2020 goals. We held both our semi-annual and annual meetings virtually, and in addition to our Canadian beef Goals webinars, CRSB held a series of webinars on a diverse range of topics.

Alongside CCA, our environmental NGOs helped share the importance of grassland conservation with the media, and CRSB participate in its first government fly-in (virtually) in Ottawa. To connect with the heightened awareness about the security and sustainability of Canada's food system, we worked with Canada Beef, restaurant partners and beef producers across Canada to share their stories of gratitude to help the supply chain moving.

Check out our Annual Report for more details on our progress in 2020. We look forward to making further progress together in 2021 with initiatives such as phase two of the Canadian Beef Goals, supporting GRSB's global goal setting, working with supply chain partners committed to supporting Canadian beef producers and sustainability, and continuing to build trust for Canadian beef here in Canada and around the world.



RBC® is a gold sponsor of Cattlemen's Young Leaders.

Cattlemen's Young Leaders (CYL), by the Canadian Cattlemen's Association, offers industry-specific training and mentorship opportunities to young people ages 18-35.

With a 10-year, \$500M commitment to empowering young Canadians, the RBC Future Launch initiative invests in programs like the CYL that help our youth with opportunities for networking, skill development, and practical work experience, as well as mental wellbeing supports and services.

Learn more at rbc.com/futurelaunchag



RBC Future Launch





Public and Stakeholder Engagement

Like most of the other divisions of CCA, the Public and Stakeholder Engagement (PSE) team had to be flexible and able to pivot plans in 2020. Although the adversities experienced throughout the year challenged the industry, we have also seen tremendous gains in public trust for the food system overall.

Annual research from the Canadian Centre for Food Integrity (CCFI), showed an incredible 12-point gain in trust over the year previous, concluding that "Canadians are confident in and optimistic about the food they eat and those who produce it" (CCFI 2020). This demonstrates clearly how crisis situations can also present great opportunities to foster trust through our response.

Structural and staff changes to the program this year included the finalization of governance structure which saw outgoing CCA President, David Haywood-Farmer, joining the program as the first PSE Chair. Haywood-Farmer will serve a two-year term in the position and act as a strategic advisor for the Stakeholder Engagement (SE) Manager. Staff changes in early March left a team of only two to manage through the first wave of the COVID-19 pandemic. In late October, Lynsay Beavers joined the team as SE Specialist, bringing a wealth of knowledge from her career in communications and extension in the dairy sector. With Domonique Anderson celebrating the arrival of her first baby, current master's student Sydney Fortier has accepted a one-year contract to fulfill the role of SE Technical Advisor.

COVID-19 Response

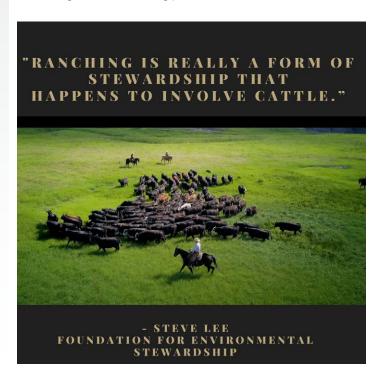
As COVID-19 was declared a pandemic, PSE became part of the media relations team for crisis response. This included assisting with industry statements, news releases, selecting spokespersons and prepping with key messages. Virtual media scrums were created to maximize spokesperson time with multiple media requests and online town halls were developed to keep stakeholders aware of industry updates. Campaigns to express gratitude to frontline workers were created with Canada Beef and provincial association partners, including a video with participation from producers across the country.

Issues Management

An investment in the media tracking platform Meltwater early in the year allowed for refined media tracking, calculating reach of negative articles, and following emerging trends. During COVID-19, the team monitored online narratives attempting to link intensive feeding operations with zoonotic disease outbreaks. When this was supported in a CBC e-newsletter, PSE collaborated with veterinarians at the Western College of Veterinary Medicine and the University of Calgary Faculty of Veterinary Medicine to develop a response and create media statements for future use. In early 2020, responses were developed with Canada Beef for publications advocating diet changes for the new year, which resulted in a letter to Chatelaine being published in the magazine. Other trends included messaging about reduced environmental impacts of blended

beef products. Meetings were held with members of Maple Leaf's senior management, in partnership with the Canadian Pork Council, to discuss how future campaigns could focus on the benefits of both plant and animal proteins in blended products.

In July, Burger King launched a campaign announcing an open source solution to methane emissions from cows. Unfortunately, the video focused on bovine flatulence instead of belching and the solution proposed was based on trials demonstrating mixed results. PSE developed key messages that were shared with National Cattlemen's Beef Association and utilized by the Global Roundtable for Sustainable Beef (GRSB) in discussions with Burger King marketing executives. The result was an apology letter from Burger King and edits to the original campaign video. PSE also worked with the GRSB on a letter to the United Nations (UN) following a tweet advising a reduction in meat consumption. In response, the tweet was deleted and meetings between the two organizations are being planned.



Consumer Research

Planned public perception research went ahead in July 2020 to provide bench line data to inform the strategic direction of the PSE program's proactive content. This research found that most Canadians have positive impressions of the industry and support its' role in providing high quality food and contributing to the economy. Challenges included less support for the industry from an environmental perspective, which was felt most strongly in the millennial demographic and particularly from females. However, key messages about environmental benefits of cattle production were effective in increasing positive sentiment towards the industry in all age categories. Other highlights included



To Leave Something Behind



CANADIAN AGRI-MARKETING AWARDS
BEST CRISIS
COMMUNICATIONS/ISSUE
MANAGEMENT

an overwhelming 70 per cent of millennials that are interested to know more about the beef industry, presenting an incredible opportunity for engagement and building trust.

Partnerships

Although still a new division of CCA, PSE has demonstrated its value to industry through fostering collaborations, partnerships and synergies across Canada and beyond. This includes a continued membership with the Canadian Centre for Food Integrity and increased engagement with Steve Lee, formerly of the 3% project and now a policy advisor to the UN. The Simpson Centre at the University of Calgary was up and running early in the year and hosted an entire series of webinars, many of which focused on the beef industry specifically. Amie Peck, previously on the GRSB communications council took on the role as Chair which will allow for closer alignment between Canadian communications and issue management perspectives with a global reach.

Public Outreach

One of the most important aspects of the PSE program, Public Outreach, had to be especially nimble in 2020 with the cancellation of in-person events. This included positioning content for virtual events, such as the Earth Day presentation of Guardians of the Grasslands hosted in partnership with Ducks Unlimited Canada (DUC) and the Nature Conservancy of Canada (NCC) which saw an incredible attendance of over 150 people.

As CCA partnered with the Canadian Federation of Agriculture on their 'Food for Thought campaign', the PSE program identified an opportunity



to have aligned messaging in a complimentary initiative, but specific to the beef industry. Called 'Leave Something Behind', this included a series of producer videos that emphasized how farmers and ranchers are working to leave the land and environment better than they found it, for the next generation of beef producers and Canadians. This was complimented by two special media presentations, the first focusing on the risks to

young producers because of COVID-19 impacts, which included Young Cattlemen's Council members. The second, hosted with CRSB, focused on potential risks to native grasslands with guests from Dalhousie University, DUC, NCC and Birds Canada. This campaign was also awarded best Crisis Communications and Issue Management at the Canadian Agri-Marketing Awards.

Guardians of the Grasslands continued to see film festival success throughout the year. Worth noting was that many of the festivals had an environmental focus in target urban areas including Elements Environmental in Vancouver, the 'Caring for the Climate' series in Oakville and the Wildlife Conservation festival held in Los Angeles and New York. Although unfortunate that most festivals were online events due to COVID-19 restrictions, the film continued to reach audiences in large urban centres including Montreal, Toronto and Ottawa. It also drew the attention of the Narwhal, a publication based in Vancouver that focuses primarily on environmental issues. In their article, "Meet the People Saving Canada's Grasslands," two of the film's participants were interviewed and provided their perspective of the role of ranching in grassland preservation.

One of the largest public outreach initiatives was hosted at the Royal Agricultural Winter Fair, based in Toronto. Jill Harvie, beef producer and host of Food Careers podcast, interviewed Steve Lee about how his perceptions changed through in-person visits to farms and ranches across Canada. In the discussion, Lee talks openly of how he went from thinking the beef industry was disastrous for the environment to learning about carbon sequestration and native grasslands preservation as part of stewardship practices. When asked how he perceives the beef industry now, Lee responded, "it's not (just) environmentally friendly; it goes way beyond that. Ranching is really a form of stewardship that happens to involve cattle."

The PSE program looks to continue providing value to stakeholders through strategic issue response, coordinated both on a national and global level, to both mitigate negative attention and build opportunities for positive media stories. Fostering existing partnerships and continually seeking new potential relationships, especially those that focus on education and environment, will continue to be a priority. The development of proactive content will focus on positioning the industry as a leader in environmental stewardship, nature-based climate solutions and integral to the overall Canadian food system.

Verified Beef Production Plus Program

The Verified Beef Production Plus (VBP+) program experienced a great deal of growth in the 2020 year, pandemic notwithstanding. The year was pivotal in many ways in terms of what the VBP+ program can deliver to both industry stakeholders and Canadian beef producers. Key was the launch of VBP+ Delivery Services Inc. and the development of a comprehensive audit management tool.

VBP+ Delivery Services Inc. (VBP+ Inc.) was incorporated in February of 2019, but not fully realized until late 2019. Early 2020 saw the organization start to deliver audits in the provinces of British Columbia, Alberta and Saskatchewan while beginning the transition of the Eastern provinces. VBP+ Inc. is the certification arm of the VBP+ program and the organization tasked with delivering certification to all Canadian beef producers to the VBP+ standard. VBP+, under the umbrella of the Beef Cattle Research Council, continues to provide training and pre-certification education as well as maintenance of the VBP+ standard.

Certification services offered by VBP+ Inc. were paused and slowed in March of 2020 while public health officials and governments of all levels sought to understand and provide guidance on mitigating the spread of COVID-19. VBP+ Inc. took this opportunity to begin development on a new electronic audit management system that not only allows the organization to fully meet the requirements of the accreditations and equivalencies it currently holds but is flexible enough to incorporate additional outcomes into its audit/certification process thus providing maximum value to producers through one audit/certification.

The system also provides robust key performance indicators and aggregated metrics from the audit/certifications that are performed which can be utilized in many different ways; to provide focus to producer education in key gap areas, provide validation data to drive potential research direction and/or provide grassroots data on producer practices at the operational level to support policy or governmental change recommendations. These metrics are already being regularly utilized by the VBP+ Management Committee and in the near future by the VBP+ Technical Committee to guide program change activities.

The COVID-19 pandemic also dictated that VBP+ Inc. start development and piloting of remote audit methodologies to enable the continuation of audit activities in areas where there may be public health directives in place that are limiting. There is a small team of auditors that are currently performing pilot remote audits on operations across Canada and data generated will be utilized in methodology development that can be presented for validation of the remote audit process by any stakeholder or oversight body. Different technologies for virtual auditing will also be examined and evaluated for potential utilization in different yet distinctly Canadian environments. These technologies must meet many demanding environmental and connection challenges to be effective. A positive outcome of this activity will be remote audit technologies and methodologies that can be validated and utilized in



an audit/certification cycle to support audit rigor while keeping costs down for Canadian beef producers.

VBP+ Inc., pandemic notwithstanding, had a successful year auditing operations largely in western Canada, achieving around 60 per cent of their anticipated number of audits. Following is a chart showing the head numbers of various sectors on certified operations as of December 31, 2020.

Backgrounder	233,587	+24,762 since Jan 2020
Cow/Calf	308,616	+27,214 since Jan 2020
Feedlot	999,842	+124,057 since Jan 2020

In-person training activities under VBP+ and delivered through the provinces were essentially shut down starting in March 2020 due to the pandemic. Provincial coordinators were able to shift and start to deliver workshops by webinar, but some areas are still constrained by the lack of internet connectivity. It is hoped that sometime in 2021, in-person workshops can resume for producers that prefer that mode of delivery. On-line training remained available, but again, some areas remain restrained by lack of connectivity to take advantage of online delivery.

VBP+ took the opportunity during the slowdown of training during the pandemic to accelerate efforts on the training content redevelopment activity. Ensuring that training is relevant, current and ensures producers have the information to be successful at audit/certification is a high priority and work continues to that end. It is anticipated that the new online, inperson and webinar training, as well as updated reference material will be available end of summer 2021.

Having a substantial number of producers who are invested enough in their industry to take training to improve their management practices is a metric that is of interest to some retailers. VBP+ conducted a research project in late 2019 to early 2020 to begin to assess the value that retailers and food amplifiers place on training on management practices provided by industry. The results were interesting with more to come on this topic in 2021.

Despite the obstacles placed in our path in 2020, VBP+ and VBP+ Inc. managed to make the best of a difficult situation and show progress during the year. There remains much to do, as always, but VBP+ is up for the challenge. From all indications and without additional complications, 2021 is shaping up to be a great year for the program.

