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BEEF FOCUS GROUP: CHALLENGES FACING THE SECTOR

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BEEF FOCUS GROUP: CHALLENGES FACING THE SECTOR

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EXECUTIVE SUMMARY

The Simpson Centre ran a focus group in July 2022 to better understand how the Canadian cattle industry is handling various challenges, how they interact with policy and their short-term and long-term priorities. The focus group was made up of industry stakeholders from various points throughout the supply chain. The discussions were recorded and then analyzed and coded to determine the key points and develop policy recommendations.

Four key points were identified from the focus group: policy, sector challenges, future generations and supply chain challenges. Communication between the provincial and federal governments, between governments and the public and between governments and producers needs to be improved to help form better policies, remove red tape, provide investments where needed and ensure the industry's longevity.

Participants noted that governments are creating policies and programs to help the cattle industry but many gaps still need to be addressed. Current programs and policies can be very difficult to navigate and are often developed without proper knowledge of the industry. In addition, the provincial and federal governments need to collaborate to provide financial investment to boost certain subsectors, ensuring parity and revenue flow along the supply chain.

Successes within the cattle industry need to be more prominent in the media. Environmentalism and sustainability programs and practices have been widely implemented and continually evolve, yet participants believe the public sees them in a negative light. Education and information sharing should show the public the benefits of the industry and its initiatives in capturing greenhouse gas emissions.

The longevity of the cattle industry is also affected. There is a shortage of younger people entering the industry, not just producers but other key players such as large-animal veterinarians. This is due to the high costs prohibiting them from entering the industry, especially with the low economic returns. The lack of veterinarians creates challenges with animal welfare, economic losses and emotional well-being of producers. The government needs to provide more programming and incentives to help fill these gaps.

Other challenges include competitiveness, particularly internationally, high production costs due to taxation, regulations and climate challenges and a general lack of knowledge leading to policies that may hinder the sector.

While many of the policy recommendations that resulted from the focus group require investigation to determine their feasibility, many others can be accomplished in the short term as well.

KEY FINDINGS

- Participants were largely concerned with challenges surrounding the financial longevity of the beef industry and how to incentivize younger generations to work in the industry. While many participants spoke to various efforts that are being undertaken to encourage younger generations to join the sector, many alluded to the implications surrounding high start-up costs, as well as challenges associated with incentives and a lack of available education investment;
- There was large consensus on the need for red-tape reduction, referring to the reduction of duplicate or inefficient costs, resources and processes cattle producers need to navigate within the government. This was in regard to creating easier and more accessible ways to access financial supports and programs in place for beef farmers;
- Many participants felt that the beef industry was misrepresented both in the public eye and in policy decisions as industry stakeholders were not always provided with an opportunity to voice their concerns and suggestions or to present policy-makers and the public with accurate data;
- Participants frequently mentioned the need to keep the beef industry competitive in national and international markets. They noted that some of the various other challenges the sector faces make it difficult to stay competitive in the industry; and
- Parity, communication and data sharing throughout supply chain sectors was often mentioned as a primary supply chain issue that needs to be addressed through policy in order to ensure the longevity of the beef sector in Canada.

POLICY RECOMMENDATIONS

Research staff have aggregated the recommendations made explicitly by focus group participants along with implicit suggestions to address the issues the focus group identified as follows:

1. It is recommended that the provincial governments increase funding and scholarships towards agriculture-focused education, while also decreasing start-up costs for new producers to incentivize future generations to work in the agriculture sector and encourage farm succession;

2. It is recommended that the provincial governments develop a red-tape reduction strategy that targets the expansion of land dedicated to livestock and reduces the economic tax burden on cattle farmers to promote competitiveness. Furthermore, the governments must increase subsidies to help reduce the price of beef for consumer markets;

3. It is recommended that the provincial and federal governments collaborate to support parity and revenue flow along the supply chain. This should be accomplished through a semi-annual analysis of which subsectors are struggling to produce positive profit margins. Governments should then provide financial investment to boost subsectors and ensure high-quality Canadian beef remains affordable for consumers; and

4. It is recommended that the federal and provincial governments work together to increase consultation levels with beef sector stakeholders. Several stakeholders have expressed a need for improved sharing of information and data to better inform evidence-based policies for the beef sector. One such solution is a data-sharing platform between various levels of government on the needs of producers, production levels and costs associated with the beef sector.

INTRODUCTION AND BACKGROUND

In Canada, agriculture accounts for 1.7 per cent of the gross domestic product (GDP), with limited variation over the last few years. Beef production is one of the most prominent agricultural industries. For Canada as a whole, the cattle sector contributed $51.6 billion to GDP and was directly or indirectly associated with the creation of nearly 350,000 full-time equivalent jobs (Kulshreshtha and Nagy 2021). Canada's total annual beef production peaked in 2004 at 1.46 million tonnes, then fell to 1.0 million tonnes in 2015 before seeing a major recovery to current production levels of approximately 1.3 million tonnes annually. From 1990 to 2020, the percentage of production exported increased to a peak of 49 per cent, falling to a range of around 40 per cent by 2004 and remaining relatively flat to 2020 (Statistics Canada 2021a). An average of 19 per cent of Canada's beef cattle production was exported as live cattle in the past 20 years, with virtually all destined for the United States (Statistics Canada 2021b; Statistics Canada 2021c). The majority of Canada's beef production is thus exported as processed beef products.

The provinces of Alberta and Saskatchewan account for the largest share of the 11.1 million national beef herd, at 59 per cent of the national total in 2022 (Statistics Canada 2022). The average number of beef cows per farm in Canada increased from 38 in 1991 to 69 in 2016. The average herd size is greatest and still increasing for Alberta and Saskatchewan (Chen et al. 2019).

Dietary preferences have remained stable over the past years according to research from Dalhousie University (Agri-Food Analytics Lab 2021). The percentage of Canadians with no dietary preferences remains at 73 per cent. The flexitarian diet rate, which consists of reducing meat intake, remains at around seven per cent in the country (Agri-Food Analytics Lab 2021). Three percent of Canadians declare being vegans in a survey conducted in 2021 (Agri-Food Analytics Lab 2021). Beef consumption in Canada has also remained relatively stable despite a reported reduction in all-red meat and poultry products (Canada Beef 2021). Total beef consumption in 2020 increased slightly by 1.5 per cent, with 77 per cent of beef consumed in Canada sourced from domestic production, down from 81 per cent in 2019 (Canada Beef 2021).

The Dalhousie study provided three factors that have influenced consumers to reduce beef consumption: (i) health; (ii) environment; and (iii) animal welfare (Agri-Food Analytics Lab 2021). There are provincial variations, with Quebec being the province where most people consider reducing or removing beef from their diet. Younger generations seem to be likelier to decrease or even stop their meat consumption (Agri-Food Analytics Lab 2021).

As any other economic sector producing outputs, agriculture uses natural resources, some renewable (e.g., fisheries and forests) and others that are non-renewable (e.g., groundwater or fossil energy sources). Beef production processes generate significant negative externalities, such as greenhouse gases (GHG) and other kinds of environmental damages. Studies such as Rotz et al. (2019) have found the emission intensity per cow in the United States is 21.3 ± 2.3 CO_2 eq per kg carcass weight from field to farm gate. The pressure to reduce GHG emissions and align with sustainability goals has put agriculture under scrutiny. In Canada, agriculture accounts for approximately 10 per cent of GHG emissions and global food systems contribute an estimated 21 to 37 per cent of annual global GHG emissions (Environment and Climate Change Canada 2018; Lynch et al. 2021). Yet, ruminants play a crucial role in socioeconomic functions, particularly in systems of subsistence agriculture, and ruminant production has been shown to have positive impacts on biodiversity and maintenance of grasslands. Despite this, the beef sector is often challenged by consumer perception and opinion (Food and Agriculture Organization of the United Nations n.d.; Teague and Kreuter 2020).

To gain a better understanding of how Canadian agriculture industry stakeholders integrate and address these challenges, but also find opportunities of economic growth, a focus group was organized with actors representing several stages of the beef supply chain. We opted to run a focus group to foster an opportunity to openly exchange viewpoints and connect participants with each other. The goal of the focus group was to solicit feedback on how various elements of the supply chain interact with government policies and incentives to determine where there are synergies and roadblocks. This deliberative process has been shown to be suitable for formulating policy recommendations because it allows participants to discuss concerns in a dynamic conversation whereby viewpoints aggregate naturally as the discussion flows. The participants were asked a set of questions (Appendix A) relative to the challenges and perspectives for the beef sector, the resilience of supply chain and the longevity of beef production. Their responses were aggregated and analyzed under four dimensions: policy, sector challenges, future generations and supply chain.

RESULTS AND DISCUSSION

The following results are an aggregate of both the focus group and one interview with a participant unable to join the focus group.

Four dimensions that encapsulate the challenges presented by the beef sector were identified: policy, sector challenges, future generations and supply chain challenges.

Figure 1 below is a summary of the dimensions discussed in the focus groups and their respective subcategories. Each colour represents a specific dimension, with the lighter colours representing the subcategories. The size of the rectangle correlates with the frequency that the dimension or subcategory was discussed as per the number of statements that were coded into each dimension or subcategory through NVivo software. For example, sector challenges represented by the grey boxes were the most discussed dimension, which covered 30.9 per cent of the total contents of the discussion (based on word count), with competition being the most frequently discussed sub-node, with a coverage rate of 9.5 per cent.

Figure 1: Summary of Focus Group Dimensions

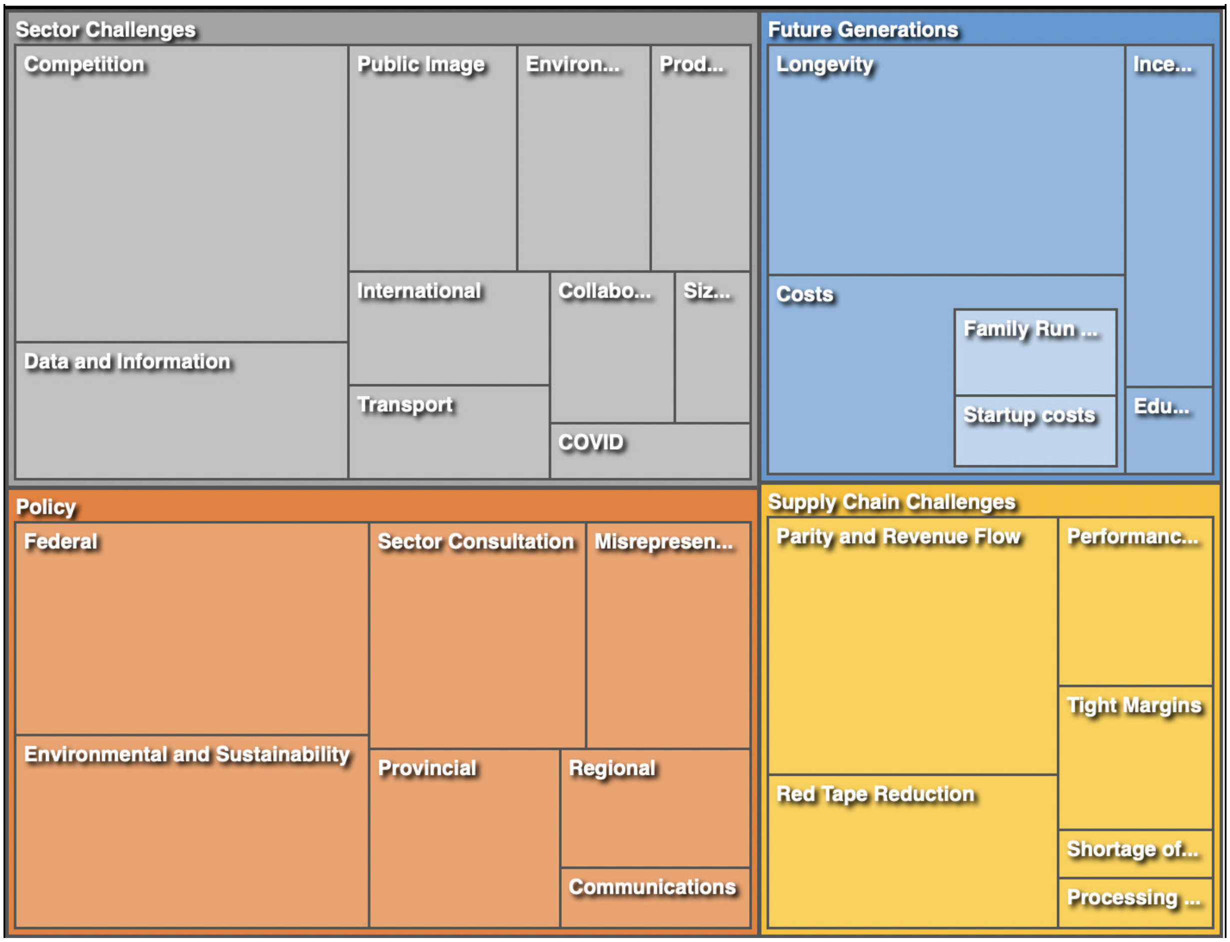

Figure 1 depicts the prevalence of the topic in discussion based on coded responses. Larger areas depict a larger portion of overall discussion.

FUTURE GENERATIONS DIMENSION

Future generation covered approximately 24 per cent of all points of discussion in the focus group, as calculated by NVivo. In both the focus group and the one-on-one interview, there was large concern surrounding future generations' ability to enter the sector and concerns about their incentive to enter. Many participants spoke to the high costs associated with the beef sector and the financial infeasibility of farm succession. While there is some provincial financial programming in place to aid with industry costs and agriculture educational incentives, many participants felt that this was not enough to keep the industry sustainable and pointed to a lack of large-animal veterinarians and younger generations in the industry.

COSTS

This sub-node was further broken down into start-up costs and family-run businesses. Participants primarily spoke to the excessive costs associated with being a producer and supplier in the beef sector. Overall, the participants were quite welcoming and happy to assist future generations with entering the industry, and often noted how they were already making changes in their personal businesses to encourage such succession. It was noted, however, that the cost of land and other start-up costs continue to increase, keeping new generations out of the sector.

EDUCATION

Education was spoken of in the context that many focus group participants were concerned with dwindling numbers of large-animal veterinarians and have suggested government intervention to increase programming or incentives for individuals to pursue schooling in this field. Not only did this raise concerns surrounding the sector's sustainability, but it also raised concerns about animal welfare, economic losses and the emotional well-being of producers. Participants spoke to the need for government intervention to tackle veterinary shortages.

INCENTIVES

This node coded responses that spoke to concerns regarding the need for financial and policy incentives to entice younger generations to join the beef industry. Ultimately, it was noted that there is some interest among younger generations to join the sector, but with high start-up costs and low economic returns, it is quite difficult to manage. Many participants spoke to creative ways that the company they work for or run is attempting to increase incentives to bridge the gap between those retiring from the sector and those entering.

LONGEVITY

Due to high costs, the longevity of working within the beef industry was often mentioned as a challenge that needs to be addressed. Participants noted, however, that the beef industry is vibrant and growing, but that economic and generational challenges make it difficult to grow the sector. Ultimately, it is most important for longevity to ensure that new generations can replace the older generations who are retiring.

POLICY DIMENSION

Policy-specific points covered approximately 32 per cent of all points of discussion by both the focus group and the one-on-one interview. Concerns were split into two themes: consultation and public perception. Issues were raised surrounding the communication of government policies and the lack of producer awareness about significant changes. The focus group also felt that provincial and national consultation failed to account for producer differences, such as between large and small producers. Within public perception, the group discussed a lack of public knowledge around work done promoting environmental sustainability. They also felt there was a lack of accurate information in the public sphere about the beef sector and its benefits.

COMMUNICATION

Overall, the majority of participants felt that governments (both provincially and federally) were bringing forth a lot of policies and programming that aim to help the industry, but that these need to be better communicated so that producers are aware of them. Further to this, participants felt that the media often portrayed the beef sector negatively. Participants felt that media explanations of how the beef industry helps the economy and is working diligently to be environmentally sustainable were missing from the public. Ultimately, a more positive government dialogue about the sector with the public is encouraged.

ENVIRONMENTAL AND SUSTAINABILITY

This sub-node's responses from participants largely spoke to how beef policies can promote sustainability as well as profitability. Many of the conversations on this topic surrounded land and the beef industry's efforts thus far to be environmentally sustainable. The beef sector has been implementing many environmental policies, but there are still large gaps. Participants noted one of the reasons for these gaps is that while the beef sector intends and desires to implement such policies, they can be quite expensive and there is not enough funding to implement them fully. Participants also spoke to the lack of positive public knowledge on the environmental efforts that the beef sector uses and how they are assisting in the capture of greenhouse gas emissions.

THE FEDERAL GOVERNMENT'S ROLE

Overall, participants' attitudes towards the federal government and its efforts were positive. Participants noted that the federal government was doing a good job of implementing policies to help the sector and producers through various efforts such as consultation and focus groups, but that there were still large gaps in addressing what the sector actually needs. Many participants noted that this was because the government has been cherry picking who participates in these focus groups, with small farms normally making the decisions and large farms being left out of the discussion. There were also some further concerns around a lack of federal and public consultation, so that individuals who do not know the actual needs of producers are making policy decisions, creating red tape and further burdens on the industry.

The Provincial Government's Role

Participants generally felt that provincial governments heard them and that they have a good working relationship with the government. Some participants alluded to provincial policies that have seen some success in other provinces, such as the Saskatchewan Investing in Canada Infrastructure Program, and have further noted provincial policy areas that need improvement. Some of these policy areas include increased veterinary and agriculture education funding and incentives, revenue parity between sectors and carbon-capture policies for cow and cow-calf producers. The majority of the recommended provincial policies have economic underpinnings with the exception of more veterinarians, alluding to the need for increased provincial funding towards agriculture and the beef sector specifically.

The Role of Regional Policy-Making

Within this sub-node, some participants spoke of the need for customized, advanced regional policy where producers can choose what gets produced on their farms and ranches. They also recommended that policy-makers consider geographical and provincial differences, and other varying factors that producers might face, prior to implementing a policy that applies to all producers. This would ensure that producers are more likely to be successful and have control over their production means, while not being harnessed by red tape.

Misrepresentation in Policy

Conversations surrounding this sub-node largely spoke to a lack of accurate information in the public sphere surrounding the beef sector and its benefits, as well as the feeling that policy-makers lack expertise and understanding of the beef sector and therefore make misinformed policies. Some participants felt that because the public and policy-makers were not informed enough about the beef sector, the producers themselves were responsible for educating and communicating their role in environmental sustainability and the economy. As mentioned previously (see federal policy node), although there are attempts to involve the opinions of farmers and producers in policy through focus groups, misrepresentation continues to happen as focus group participants have been selected in ways that often leave out larger farms.

Sector Consultation

Overall, the majority of participants expressed that they saw advocacy for producers as a huge priority and that they were taking it upon themselves to make their voices heard and advocate for their own needs within their farm or company, as well as the industry's needs. They noted that while there is an overall good working relationship with all levels of government, there is still some consensus that robust groups of farmers are not consulted sufficiently when creating policy. These concerns are based on the belief that the policy-makers in government do not know first-hand what the beef sector needs and that policies are not based on evidence from the industry itself. Further to this, while there are some government efforts in creating focus groups to hear from stakeholders, large groups of individuals are left out of these conversations, which has created perceived gaps in policy.

SECTOR CHALLENGES DIMENSION

The focus group and the one-on-one discussion also tackled the challenges facing the beef sector. Points specifically related to challenges in the beef sector covered approximately 30 per cent of all points of discussion. Some of the key themes that emerged were around enacted policies that hampered sector competitiveness and the public perceptions facing the sector. The beef sector's ability to compete was raised as a challenge due to a variety of factors: government red tape, environmental policies, transport and capacity regulations, data restrictions, climate challenges, awareness of international regulations and standards and tax requirements. The focus group also believed that the sector is challenged by public perception issues with the majority believing the beef sector was largely seen in a negative light on social media and from the general perspective of the public.

Collaboration

Conversations coded to this sub-node alluded to an increased need for collaboration within the beef sector and the agriculture industry. While many participants noted that there was an overall working level of collaboration, there could be increased collaboration between the beef sector and agriculture industry surrounding environmental policy implementation and along the production line in general.

Competition

This node was one of the most discussed topics and spoke to the need for increasing competition in national and international markets. Many participants spoke to challenges in being competitive due to a high amount of red tape that the government has introduced, as well as other factors such as various environmental policies, taxes and processing capacity regulations. Some concern was noted that transitioning from land dedicated to livestock to crop land is becoming more economically viable and is pushing producers out of the market. Further to this, farming technology or production technology owned by some of the larger companies and farms has made it more difficult for smaller companies to compete in the market. Outside of the production aspect, some participants spoke to the notion that with the rising price of beef in Alberta, many consumers are no longer able to afford to buy these products. Overall, almost all participants spoke of the need for government assistance through tax breaks or strategic investments to increase the beef sector's competitiveness in the market.

SARS-CoV-2 (COVID=-19)

COVID-19 was not a largely discussed topic, with only 1.3 per cent of the overall coded commentary being related to this sub-node. Those who spoke about COVID-19 noted challenges surrounding disruptions in the supply chain, specifically at packaging and transportation stages. It was noted that this led to a halt in production and challenges with packaging and receiving feed for the cattle. Within this discussion, the supply chain was noted as being effective but fragile.

Data and Information

The participants spoke to the need for more robust data and information sharing to increase efficiency and accuracy in policy creation and implementation, as well as the efforts that participants have been making in their own regard to gather data and information in the beef sector. Many participants spoke to specific initiatives that their companies were conducting to gather data for things such as traceability, product claims and to reinforce policy ideas. While some companies are making the effort to gather these data, some participants said that policy-makers have not reached out to gather this information or have not considered or used it when formulating policy, leading to policies that hinder the sector rather than help. Through increased data and information sharing with both the public and government, participants feel that the industry will be more accurately represented and that such information can help address the gaps between what the sector needs and how the government is assisting. Participants also felt that access to data would help change public perceptions about the beef sector's environmental impacts. A final aspect of this conversation was the idea that increased data and information sharing between agriculture sectors can increase cohesiveness and effectiveness.

Environmental

Challenges discussed within this node specifically spoke to Canada's cold climate and carbon capture. Cow-calf producers spoke to the challenges of maintaining their cattle feedlots, as well as breeding cattle in the cold climate. While this challenge cannot be directly addressed, it is something to be considered by policy-makers when trying to determine how to assist producers in the colder seasons. In regard to carbon capture, some participants spoke of how the beef industry has an abundance of retained carbon that can be purchased but stakeholders are looking at purchasing newly generated carbon credits, creating further environmental and fiscal challenges.

International Market

Canada's beef sector relies heavily on exportation into the international market. While this aids in overall economic benefit, it has also put somewhat of a strain on the packaging industry, as some participants noted. Overall commentary in this sub-node spoke to the need for stronger awareness of the increasing competitiveness and presence in the international market and ensuring that policy-makers consider this when creating and implementing policy.

Production Costs

Overall, participants noted that Canada tends to have higher production costs than other countries for various reasons such as taxation, regulations and other factors affecting costs, such as climate. Pressure on farms to use the latest technology and introduce new environmental sustainability standards, while also paying high taxes, has left many farms unable to meet production costs. Also, certain Canada-specific challenges, such as the cold weather, make it difficult for farmers to rely on grass-feeding their cattle and having to provide them with feed year-round, putting them at a disadvantage with their competitors who might not necessarily have this high cost of feed.

Public Image

The majority of participants felt that the beef sector was largely seen in a negative light on social media and from the general perspective of the public. One of the notable reasons for this is the "anti-meat" voice that makes itself quite prominent in social media, making it difficult for the beef sector to succeed. Further to this, many participants felt as if the benefits that the beef sector contributes to the economy and the environmental sustainability efforts that they have been making have not been sufficiently showcased in social media. In order to minimize the negative public image towards the beef sector, participants felt that sharing real data and information from the producers themselves would be beneficial.

Size of Operations

Conversations arose out of the focus group surrounding the size of operation, both to the size of one's farm or company, as well as the size of the beef sector in general. Overall, many participants concluded that smaller beef farming is economically infeasible to keep up with demands and to be competitive in national and international markets. Policy decisions can impact the size of the operation. Examples of this include policies surrounding regulations and capacity that serve as a blanket policy without accounting for size differences. Some participants noted that the beef industry is quite large and complex with many moving parts, making it difficult to navigate not only when entering the industry but when already established.

Transport

Difficulty in transporting animals was noted as being related to changes in transportation policies in 2021 from the Canadian Cattlemen's Association (CCA). Under this new policy, cattle can be transported for 36 hours without food, water and rest, a decrease from the original 48-hour policy. Further to this, the mandatory rest period following these hours increased from five hours to eight hours (Harris 2022). Many participants noted that the livestock go through many different hands and have to travel a significant distance in some situations. Such policies have created a huge halt in transportation and resulting production. In regards to transportation policy specifically, participants noted that there should be a change management system in place to evaluate the effectiveness of the introduced policy and allow for changes that producers may feel work better in the industry.

SUPPLY CHAIN CHALLENGES DIMENSION

Supply chain-specific challenges comprised approximately 20 per cent of the focus group and one-on-one discussion. Several challenges unique to the supply chain were identified including the shortage of truck drivers and the requirements to "do more with less." Participants felt that the supply chain needs consistency, which may be achieved through continuous review and seeking of input for policies in place. The focus group felt that red tape provided a major barrier to a successful supply chain.

Shortage of Workers

Within this sub-node, participants spoke to the shortage in truck drivers and how this has halted transportation and production. Participants noted the importance of the government stepping in to assist in this transportation crisis to ensure that feed gets to cattle.

Parity and Revenue Flow

Conversations coded to this sub-node largely spoke to the need for increased revenue flow in the beef industry, as well as across the whole supply chain, to ensure longevity and adequate staffing. Some participants said they are operating in or near negative margins, and they may lose production staff as a result. It was noted that a majority of people in agriculture are feeling the pressure to do more with less and must make sacrifices and production cuts to ensure that they can continue to operate. While some government policies offset costs for producers, there is a need for policies that increase revenue flow throughout the beef industry sector to ensure its longevity.

Performance Measures

The participants said that if a policy is put in place, policy-makers should continually review it with the feedback of industry stakeholders to see what is working and what is not working. Policies should be adjusted to what works for each individual part of the sector rather than a blanket policy. Where blanket policies are required, participants flagged a need for flexibility in the policy to allow for differences in operation.

Processing Capacity

The participants noted that many challenges exist in the sector's processing capacity. The focus group highlighted a need for reliance and consistency in the supply chain.

Red-Tape Reduction

Strict government policies and guidelines are creating challenges for individuals in the sector. Many are calling for red-tape reduction in order to harness the benefits of streamlined policies and regulations. The focus group identified several government red-tape or regulatory burdens including environmental policies and taxes, processing capacity regulations, land designations and lack of investment in developing a strong processing capacity. Almost all participants spoke of the need for government assistance in reducing red tape through harmonization of policies, education of policy-makers and re-evaluation of inefficient practices, such as the ultra-high frequency tags required to meet International Organization for Standardization standards.

CONCLUSION

A majority of participants highlighted a lack of parity and revenue flow between the various aspects of the beef industry, as well as tight margins distributed across the supply chain. The economic component of the production was seen as a paramount priority for the stakeholders. Many other salient points were raised, a major one being the lack of accurate representation and industry knowledge by policy-makers, which many believed had resulted in an abundance of red tape. Little emphasis was made on consumers' beliefs or behaviours. Rather, human resources challenges in primary production, service providers (e.g., veterinarians) and supply chain seem to threaten the competitiveness on an international level and the industry's longevity in Canada. Some policy recommendations appear actionable in the short term, such as stakeholders' consultations and incentivizing younger generations to join the sector. Other recommendations appear vaguer, such as red-tape reduction and increasing competitiveness, and would require in-depth investigation to define their feasibility and cost-effectiveness.

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APPENDIX

FOCUS GROUP QUESTIONS

1. What are your perspectives on the Canadian beef sector and how the various aspects of the industry interact with policy?

2. What challenges do you think are unique to the Canadian beef industry compared to the other agricultural sectors in Canada and also beef industries around the world?

3. What are the elements of an effective supply chain to you? What's working right now on the supply chain and what maybe isn't working as well and what do you think it would take to improve those aspects that aren't working?

4. To ensure longevity in the beef industry what needs to be prioritized? What needs to be prioritized by stakeholders and by the government through policy? How should the government be taking stakeholders into consideration and improve communication through the policy process? What kinds of ways do you envision enticing future generations of producers?

5. If you were to prioritize one or two of the things that have come up today, what would those be?

    a. Participants were also prompted to bring up anything they felt they did not get a chance to talk about up to this point in the discussion and how they would like their perspectives represented in this report in terms of policy recommendations.

ONE-ON-ONE INTERVIEW QUESTIONS

1. What are your perspectives on the Canadian beef sector and how the various aspects of the industry interact with policy? Are there any specific policies that you're referring to?

2. You spoke a bit about policies that have been implemented affecting the industry. Do you feel the policy-makers take industry into consideration?

3. What challenges do you think are unique to the Canadian beef industry compared to other agricultural sectors and even beef industries around the world, if you feel like you can answer that?

4. To ensure longevity in the beef industry, what needs to be prioritized? By industry like yourself, or and by government policy. How should the government be taking stakeholders into consideration?

    a. Is there anything else that you think kind of needs to be done to ensure longevity in beef specifically?

5. Would you say that transportation is impeding the supply chain right now? For instance, the trucker shortage or in packing? (Question adapted to follow along with what the participant had previously brought up.)

6. If you had to pick one or two things that we've brought up right now in this meeting, what would you say are the one or two most important things to take away from this?
7. Is there anything that you can think of that you didn't get a chance to bring up yet that you'd like to have included in here?

MATERIALS AND METHODS

Participant Recruitment

Participants were recruited informally based on purposive research sampling and snowball sampling, where participants were intentionally selected for their role as it related to this research study and agreeable participants were asked to forward an invitation to other stakeholders. The research staff circulated an invitation based on existing connections and word of mouth, and the identified participants were encouraged to extend the survey and focus group invitation to colleagues and other industry stakeholders as they saw appropriate.

Participants were recruited to ensure that the focus group was deliberately composed of the five main supply chain sectors as highlighted by Agriculture and Agri-food Canada (AAFC): producers (primary agriculture); input and service suppliers; food and beverage processors; food retailers and wholesalers; and food service providers.

Participant Consent

Participant consent was gathered at multiple stages throughout the study. Initial consent to participate and share the participants' answers was gathered in a consent form that was circulated to participants prior to the focus group. Prior to beginning the focus group, the purpose of the study was explained, along with the explanation that participants can choose to withdraw from the study, choose not to answer a question or choose not to have their answers recorded or publicly shared at any time. It was noted that all participants' identities would remain anonymous in the report and all personal information and other forms of identifiable demographics would remain confidential. At the beginning of the focus group, the moderator received verbal confirmation that participants had not withdrawn written consent to be recorded and transcribed to ensure data accuracy and to facilitate thorough data analysis.

Focus Group Execution

One focus group was conducted on Zoom in spring 2022. This meeting involved four research staff members and 10 participants. The focus group began with a brief introduction to the research staff and the explanation surrounding consent for participation, recording and transcription of the focus group. Following this, a brief introduction of the project's goals and how the focus group would run was conducted. Questions for the focus group were drafted beforehand to guide the conversation and put through an ethics review but used semi-structured questions that allowed for open discussion. Questions were developed through a collaborative approach that targeted common agriculture issues.

One-on-one Interview Execution

One invitee spoke up during the beginning of the focus group to state that they had a conflict with the timing of the focus group and had to leave but still wished to contribute to the discussion by participating in the project. The research staff invited this participant for a one-on-one interview. In this interview, the discussion from the initial focus group was summarized and this participant added their own comments, concerns and recommendations in line with the focus group questions. The participant was also invited to voice any additional concerns. The same consent process used for the focus group was used in this interview.

Data Analysis

Transcripts of both the focus group and the one-on-one interview were uploaded to NVivo 12, a qualitative data software. To ensure consistency in the classification of participants' contributions, all data were double-coded, a process in which two researchers code data independently to mitigate subjective classification. The information was sorted into the following categories by research staff in NVivo 12: future generations, policy, sector challenges and supply chain challenges. Categories were developed inductively from the data. Many responses were coded under multiple nodes due to the overlapping dimensions or points of discussion. Criteria for each node are as follows:

Future Generations Dimension

Any participant responses related to the topic of future generations in the beef sector were coded into this dimension. The subcategories for this node are costs, education, incentives and longevity.

- Costs: comments on costs associated with the start-up of a business in the beef sector, as well as costs associated specifically with a family-run business;
- Education: comments associated with education required to enter the sector or maintain the sector's livelihood;
- Incentives: comments made regarding the presence of or lack of incentives associated with the beef sector; and
- Longevity: comments made that speak to the beef sector's longevity and its ability to continue.

Policy Dimension

Any participant responses that spoke to policy were coded into this dimension. The subcategories for this node are communications, environmental and sustainability, federal, provincial, regional, misrepresentation in policy and sector consultation.

- Communications: comments made in relation to how policy has been communicated and what is working or not working in this regard;
- Environmental and sustainability: comments made specific to environmental and sustainability policy that has been implemented or is recommended to be implemented;

- Federal: comments on federal policy, response and regulation;
- Provincial: comments on provincial policy, response and regulation;
- Regional: comments on regional policy, response and regulation;
- Misrepresentation in policy: comments specific to how the beef sector may not be accurately represented in policy from the participants' perspective; and
- Sector consultation: comments in relation to how producers and other stakeholders have been consulted regarding policies that affect the beef sector.

Sector Challenges Dimension

Any participant responses that spoke specifically to challenges the beef sector faces were coded into this dimension. The subcategories for this node are collaboration, competition, COVID-19, data and information, environmental, infrastructure, international, production costs, public image, size of operation and transport.

- Collaboration: comments made as to how workers in the beef sector are collaborating with each other, and with other sectors, and what challenges might be present;
- Competition: comments regarding challenges in the beef sector's ability to be competitive in a local and global market;
- COVID-19: comments that speak to any challenges that the beef sector has faced as a direct result of COVID-19;
- Data and information: comments in relation to challenges that the beef sector has faced regarding the sharing or gathering of data and information;
- Environmental: comments made regarding specific environmental challenges faced by the beef sector or other sectors that have impacted the beef sector;
- International: comments relating to challenges that the beef sector faces with the international market or sector equivalent;
- Production costs: comments specific to production costs that the sector faces as a result of national costs;
- Public image: concerns about how the beef industry is publicly perceived. These challenges may speak to other nodes such as the environment or federal or provincial policy;
- Size of operation: comments that speak to concerns and challenges that the beef sector faces in regard to the size of its operation, such as funding, capacity, output, public image, etc.; and
- Transport: comments made specific to transportation challenges that the sector faces when transporting inputs or outputs.

Supply Chain Challenges

- Movement of livestock: comments made regarding specific supply chain issues with transporting livestock;
- Parity and revenue flow: comments that speak to the movement of revenue between different sectors in the supply chain and in various aspects of a sector;
- Performance measures: suggestions made on how to monitor and/or implement performance measures in the supply chain to increase efficiency;
- Processing capacity: comments made that speak to issues producers have faced with the processing capacity of the facilities in the beef sector;
- Red-tape reduction: comments and suggestions that speak to red-tape reduction as a result of government policies and regulations, and how to mitigate red tape;
- Supply chain communication: comments made specifically that spoke to communication challenges in the supply chain between and across all its levels; and
- Tight margins: comments made regarding the inability for diversity and expansion within the beef sector due to tight margins in areas such as size of business, the number of cattle and how the cattle are marketed.

TRANSCRIPTION

The transcript for both the focus group and the one-on-one interview was generated through the transcription tool on Zoom. Research staff then read through the transcript and compared it to the audio recording of the focus group and interview to ensure accuracy. The interview results were combined with the focus group's results to supplement the discussion. The results were summarized based on the node that they were coded into using NVivo 12.

PARTICIPANT DEMOGRAPHICS

Employment or Supply Chain Role

Focus group participants held several professional roles and often served in both a producer and secondary role such as a provincial or national board. Invitations for this focus group were sent to the following industry types:

- National and provincial boards;
- Beef producers;
- Beef processors;
- Input and service providers;
- Financial organizations;
- Retailers;
- Government stakeholders; and
- Educational stakeholders.

The focus group hosted 10 members in a roundtable discussion from the following industry categories: five were representatives of national and provincial boards; seven worked as beef producers; two were employed as input providers; one came from a financial institution background; and two worked with educational groups.

Gender

The focus group was comprised of five female-identifying individuals and five male-identifying individuals.

Geographic Location

Participants were primarily located in the Prairie Provinces of Saskatchewan (four participants), Alberta (four participants) and Manitoba (one participant). One participant also joined from Ontario.

Size of Organization

Participants joined on behalf of organizations that ranged from small family farms to large national organizations. The smallest organizations participating comprised a family unit of two to four people with the largest comprising approximately over 7,000 employees. The average size of organization, however, was relatively small, comprising 21 employees and/or board members.

ABOUT THE AUTHORS

Rachelle Drummond is a 2022 graduate of the University of Calgary Master of Public Policy program and is currently employed by the O'Brien Institute for Public Health as a research associate. Her research and areas of interest are in health policy and social policy. As a research assistant for the Simpson Center, Rachelle studied the impact of the 2021 British Columbia floods on the Canadian supply chain and agriculture sector and conducted focus groups to identify challenges facing specific agriculture sectors in Canada. Rachelle is currently continuing her research and education at the Cumming School of Medicine, where she is completing a Master of Science in Community Health Sciences. Her current research is focused on psychosocial oncology in pediatric cancer and improving the knowledge of late effects of cancer for survivors of childhood cancer to improve adherence for follow-up care.

Dr. Guillaume Lhermie joined the University of Calgary from the University of Toulouse, where he was Associate Professor in Animal Health and Veterinary Public Health Economics. He also held an Adjunct Assistant Professor position at Cornell University for two years. A veterinarian by training, he also holds an MSc in Economics and a PhD in Pharmaco-epidemiology and Innovation.

Caitland Reynolds is interested in the creation of further opportunities for public interface in respect to Alberta's emerging agriculture industries and related policy development. With a BSc in Anthropology and a BA in Political Science from the University of Calgary, Ms. Reynolds is approaching agriculture policy from both scientific and interpersonal perspectives. Her current project has her work focused on pushing for active civic and industry stakeholder engagement, and transparency in agriculture-related policy development and implementation.

Formally educated in the field of agricultural sciences, **Elena Vinco** holds an Honours B.Sc. in Animal Biology with a minor in Nutritional and Nutraceutical Science from the University of Guelph, and an M.Sc. in Environmental Science and Sustainable Agriculture from the Universität Hohenheim. Growing up on a family farm in Southern Ontario, Elena understands the significance of agriculture and food systems in the Canadian identity, and the importance of inclusive, innovative, and accessible policy design. Elena joins the Simpson Centre team in January 2022 and looks forward to diving into the monitoring and analysis of Canadian agri-food policy developments and the transition to ecologically conscious and sustainable agricultural practices.

Shawn Wiskar is a 2022 Masters of Public Policy graduate studying the effects of climate change on various sectors of Canadian life. Shawn grew up in Swift Current SK and received a Bachelor of Human Justice from the University of Regina. His current work with the Simpson Centre is focused on developing potential future research projects that assist in the goal of being a leading voice in the agri-foods sector.

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