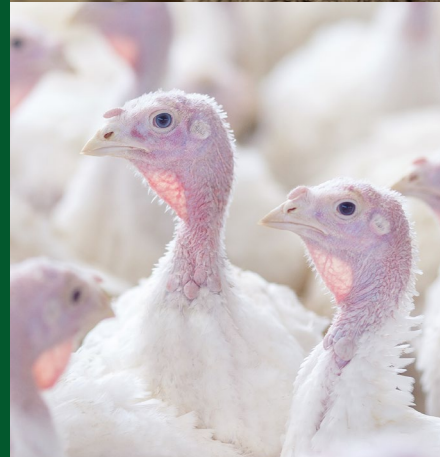




The Plant and Animal Health Strategy for Canada:

Progress, Impact, and Future Directions for Animal Health and Welfare

Prepared for Animal Health Canada by ACER Consulting
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The Plant and Animal Health Strategy for Canada: Progress, Impacts, and Future Directions for Animal Health and Welfare

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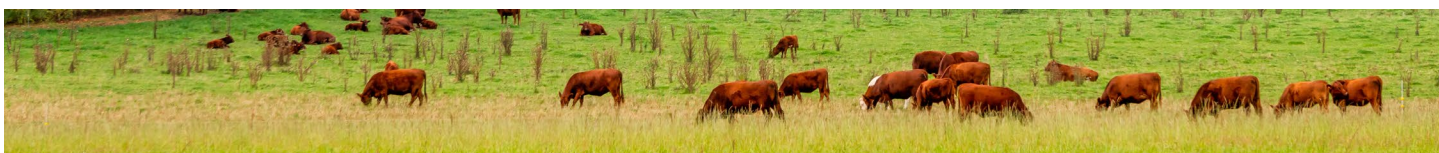
EXECUTIVE SUMMARY

BACKGROUND. The Plant and Animal Health Strategy (PAHS) was developed in 2017 by the Canadian Food Inspection Agency (CFIA) as a guiding document for the goals and objectives of plant and animal health in Canada. Development of the PAHS was led by the Canadian Food Inspection Agency (CFIA) but the document is considered to have been co-developed by a wide range of Canadian partners (see Acknowledgments). The National Farmed Animal Health and Welfare Council (NFAHWC), now Animal Health Canada (AHC), was tasked with the coordination of reporting on the animal health aspects of the PAHS. To support them in this work, AHC commissioned ACER Consulting to conduct an assessment of how the PAHS has influenced animal health progress, successes, and challenges over the past 5 years. This assessment included interviews with AHC staff, industry commodity groups and partners, academia, and representatives from key government organizations.

ORGANIZATIONAL INVOLVEMENT IN THE PAHS. A total of 23 animal health organizations were interviewed using a semi-structured discussion guide. Interviewees generally felt that their responsibilities under the PAHS were limited, or were not well communicated. Most major commodity groups had been consulted in the development of the Strategy, yet felt that their involvement since then has been limited, with these groups feeling that their PAHS-related roles and expectations beyond the initial consultation were not clearly communicated. In addition, major commodity groups requested additional consultation and inclusion with AHC to foster more meaningful engagement moving forward. Several interviewees indicated that the PAHS was not influential in guiding their overall strategic direction, priorities, or goals. Others felt that the PAHS was valuable to animal health and welfare in Canada, as it provided a cohesive overview of shared goals and objectives for all animal industries. Regardless of sentiments towards the PAHS, the resounding take home message from interviewees was that while the majority of the activities, progress, and successes achieved in the past several years could not be directly attributed to the PAHS itself; the Strategy speaks broadly to key areas that industry and government have already been working on and prioritizing.

ORGANIZATIONAL PRIORITIES. When asked to describe the major animal health and welfare priorities each interviewee's organization had focused on, the most common themes related to emergency preparedness and response, surveillance and disease monitoring, biosecurity, development and implementation of quality assurance programs, addressing animal welfare priorities, supporting development and revisions of Codes of Practice, One Health and One Welfare, and antimicrobial stewardship, use, and resistance. Interviews also covered how respondents coped during the COVID-19 pandemic. The impact of the COVID-19 pandemic did not go unnoticed in Canada's agricultural industries, with different organizations responding to this crisis in different ways. While some groups experienced extreme loss and hardship, others were able to conquer these challenges and thrive in the face of a global pandemic.

THE FUTURE OF THE PAHS. Looking at the future of the PAHS, general stakeholder sentiments suggested that while the Strategy provides a useful high-level vision for animal health in Canada, the utility of the PAHS may be limited, as it did not provide actionable items to guide industry groups in their organizational goals. When asked about future priority areas, participants noted that the previous areas of emphasis were still relevant. However, they also noted that additional areas had been added, including addressing issues with veterinary capacity and workforce shortages, industry sustainability, and preparing for and responding to the impact of climate change. Through Animal Health Canada, this is an opportunity to articulate future priorities and organizational goals based on the lessons learned from challenges associated with the PAHS and to perhaps help industry, government, and academia to co-create and operationalize a shared strategic plan. In particular, organizations feel that AHC has the potential to be a guiding body and organizational force in coordinating, collaborating, and communicating between all industry groups, government organizations, and associated stakeholders. In future planning, AHC is strongly encouraged to align its strategic goals with remaining action areas within the PAHS, taking into consideration opportunities for improvement that were identified in this report.



INTRODUCTION

The Plant and Animal Health Strategy

Plant and animal health is the foundation of a safe and resilient food system, and contributes to the overall health of the environment, people, and economy. In 2016, the [Plant and Animal Health Strategy \(PAHS; the Strategy\)](#) was developed as a key output of the Emergency Management Framework for Agriculture in Canada. The impetus for the creation of PAHS was to build a collective vision for plant and animal health in Canada, and to prevent and mitigate risks to these critical resources in a rapidly evolving world.

Through consultation with partners across industry, academia, and government (federal, provincial, territorial), the PAHS identified three outcome-based objectives, including:

1. Canada has the necessary information and awareness needed to support forward-looking risk management and evidence-based decisions;
2. Canada has a comprehensive, effective, and integrated system that prevents and proactively addresses plant and animal health risks; and
3. Canada has a robust and responsive plant and animal health system that supports economic growth and market competitiveness for Canadian products.

In addition to the overarching objectives, the PAHS relies on a set of principles meant to guide the development and implementation of the Strategy (**Figure 1**).

The Need for Reporting & Evaluation

At its inception, the National Farmed Animal Health and Welfare Council (**NFAHWC; Council**) was tasked with leading the coordination and reporting on Canada's progress as it relates to the animal component of the PAHS. Assessing and reporting on progress within the PAHS is important in understanding the successes, challenges, and future opportunities for improving plant and animal health strategies and collaboration in Canada.

Additionally, in more recent years, the NFAHWC has worked collaboratively with government and industry partners to transition itself into [Animal Health Canada \(AHC\)](#): a public-private collaboration-based organization with a coordination and convener role for animal health management in Canada. The development of AHC highlights the importance of robust reporting and evaluation frameworks that can inform new

initiatives, outline alignment between the PAHS and AHC, and add value to initiatives moving forward. Thus, the objectives of this report are to:

1. Provide a high-level overview of animal-related PAHS progress-to-date, including organizations' understanding and perceptions of the value and utility of the PAHS;
2. Highlight organizational success stories and priorities (past and future);
3. Outline gaps, opportunities, and next steps for the PAHS and AHC moving forward



Figure 1. Guiding principles of the Plant and Animal Health Strategy.

METHODS

PAHS WORKING GROUP

Representatives and members of AHC were asked to form a working group to guide and support project development, implementation, and reporting. Specific members included: Colleen McElwain (CAHI/AHC); Jim Fairles (CVMA/AHL); Luc Marchand (AAFC); Patti Negrave (AAFC); Martin Appelt (CFIA); Jeff Wichtel (OVC); Marina (Nina) von Keyserlingk (Chair, UBC, appointed April 2022); Keith Lehman (AB CVO); Cheryl Schroeder (DFC); Lorne Jordan (CFIA).

Members of the ACER Consulting team met with the working group regularly between November 2021 and June 2022. Working group members were asked to provide input on the project design and methodology, provide background context and guidance with respect to the Strategy, support identification of appropriate organizations and key organizational representatives to participate in interviews, review interview discussion guides, progress reports, preliminary and final reports, and support the project team as needed.

BACKGROUND REVIEW & EVALUATION FRAMEWORK

A background review of key NFAHWC materials was conducted to inform the development of the PAHS evaluation framework. More specifically, the following documents were reviewed:

- [The suite of PAHS documents](#)
- [2009 & 2020 NFAHW Strategy](#)
- [2020 NFAHWC Annual Report](#)
- [Core divisions](#) and [work areas](#) of Council: CAHSS, NFACC, AHEM, ASF-EMB, CLT
- [NFAHWC 2020 Pilot Project / Infographics](#)
- [AHC Mission/Vision](#), [Progress Report](#), [Inventory/Gap Analysis](#)

In addition to the background review, six in-depth interviews were conducted with representatives from (1) Animal Health Canada / Canadian Cattlemen's Association; (2) Canadian

Food Inspection Agency; (3) Office of the Chief Veterinarian of Alberta; (4) Agriculture and Agri-Food Canada; (5) Animal Health Canada/Canadian Pork Council; and, (6) Canadian Animal Health Institute. It is recognized that not conducting an initial interview with a smaller Canadian organization is a limitation, as having a smaller organization involved at the outset may have influenced the interview process that followed. Stakeholder interviews were used to inform the design of the framework and solicit feedback before finalization and the formal interview process. Following discussions with the above-mentioned stakeholders, the ACER team created a plan for evaluating the animal health progress that has been made since the development of the PAHS. Based on a background review of pre-existing documents, interviews with stakeholders, and internal team discussions, a qualitative-based evaluation framework was proposed. This framework entailed interviews with 42 key industry stakeholders that were identified by AHC, a detailed question guide approved by both the internal ACER team and the PAHS working group, and a comprehensive analysis of the interview data.

The finalized framework was structured around five key foci, including (1) individuals' understanding of the PAHS, their organization's involvement in the Strategy development, and utility of the Strategy in informing organizational activities; (2) organizational priorities and successes related to animal health and welfare over the last four years; (3) impacts of COVID-19 (4) One Health/One Welfare and (5) future priorities and alignment with AHC.

Subsequently, two complementary strategies were implemented to conduct the evaluation. First, was to explore partner perspectives on the PAHS through the AHC Annual Forum. Second, was to conduct in-depth, semi-structured interviews with Canadian animal health partners.

AHC ANNUAL FORUM

On November 23rd, 2021, AHC presented the [second session of their annual Forum](#) in collaboration with [ACER Consulting](#). The three-hour session was hosted virtually and built off of Session 1 of the 2021 Forum by sharing updates on key animal health and welfare activities in Canada and describing Council's [Plant and Animal Health Strategy](#)

[\(PAHS\) summary project](#). Over 100 participants were also engaged in a facilitated discussion to help inform strategic planning and the path forward for animal health and welfare in Canada. The specific goals of the session included:

1. Building off of Session 1 by highlighting what resonates in Canada based on presentations from our international partners;
2. Sharing an update on the PAHS strategy, Animal Health Canada (AHC) and Council evaluation project; and
3. Engaging Canadian academic, government, and industry partners in describing (1) some of our key impacts/successes over the first 4 years of PAHS, and (2) some of our key anticipated challenges and opportunities for the next 5 years

Prior to forum participation, all registrants were offered the opportunity to complete a pre-forum survey that assessed participant demographic information, animal health and welfare priorities of the past 4 years, and future animal health and welfare goals. The survey was available for 2 weeks and had a total of 55 responses. Opportunities were presented throughout the forum for additional participation and discussion, through the facilitation of breakout sessions.

ANIMAL HEALTH PARTNER INTERVIEWS

In collaboration with the PAHS working group, a total of 38 government and industry organizations/groups with a mandate for animal health and welfare were identified for participation in this project (**Table 1**). Key representatives from each group were identified, and beginning in January 2022, those representatives were contacted via email and invited to participate in interviews via NFAHWC's executive director. Invitations conveyed information on the goal of the interviews, background to the project and the Strategy, and included a copy of the interview questions in order to assist in determining the best contacts at each organization for potential interviews (**Appendix 1**). The list of interview questions was developed based on the background review, and reviewed and approved by the PAHS working group prior to implementation (**Appendix 2**).

Interviews were held virtually via Zoom by two members of the ACER Consulting team, and lasted approximately one hour. Detailed notes were taken by one member of the ACER team,

while the other conducted the interview. The interviews were not recorded in any capacity. In addition to the qualitative feedback collected during the interview, interviewees were prompted to provide any additional documentation (e.g., annual reports, public websites, etc.) that could provide additional context and evidence to support a more in-depth understanding of their comments during the interviews. Following completion of the interview, both members of the ACER team debriefed on the interview; discussing the most salient points in each major section of the interview, and briefly describing how these responses compared and contrasted with previously conducted interviews.

Roughly half way through the conduct of interviews, the PAHS working group received a progress update from the ACER team. During this update, the group discussed whether the interviews were yielding new themes/ideas/concepts, or whether the broad categories that interviewees spoke to were generally similar. With agreement that a certain level of data saturation had been reached, and no drastically different themes were emerging out of the interviews, the decision was made to postpone the conduct of additional interviews. Each organization that had not yet participated in an interview was contacted and given the option of whether they would still like to participate; 3 additional organizations indicated a preference to still be included and 15 who chose to not be interviewed. The results presented herein are therefore, based on the 23 conducted interviews. It should be noted that the interviews conducted were not selected based on priority of organization, but rather convenience of scheduling.



Table 1. List of stakeholders that were consulted for evaluation and strategy development, formally interviewed, and those that were not interviewed due to change of project scope.

Initial stakeholder consultations for evaluation and strategy development	
1	Animal Health Canada / Canadian Cattlemen's Association
2	Canadian Food Inspection Agency
3	Chief Veterinary Officer (CVO) of Alberta
4	Agriculture and Agri-Food Canada
5	Animal Health Canada / Canadian Pork Council
Completed organizational interviews	
1	National Farm Animal Care Council
2	Animal Health Emergency Management
3	Canadian Council of Veterinary Registrars
4	CVO of Manitoba
5	CVO of Ontario
6	CVO of Québec
7	CVO of Prince Edward Island
8	Canadian Animal Health Institute
9	Canadian Pork Council
10	Association of Canadian Faculties of Agriculture and Veterinary Medicine
11	Chicken Farmers of Canada
12	Canadian Sheep Federation
13	Turkey Farmers of Canada
14	Canadian Honey Council
15	Canadian Hatching Egg Producers
16	Public Health Agency of Canada
17	Canadian Veal Association
18	Egg Farmers of Canada
19	ASF Work Area
20	Agriculture and Agri-Food Canada
21	Dairy Farmers of Canada
22	Canadian Veterinary Medical Association / Species-Specific Veterinary Associations / Registered Veterinary Technologists and Technicians of Canada
23	Canadian Food Inspection Agency
Interviews scheduled but not completed*	
1	CVO of Alberta
2	CVO of British Columbia
3	Canadian Animal Health Surveillance System
4	Canadian Aquaculture Industry Alliance
5	Canadian Cattlemens Association
6	Canadian Livestock Transport
7	Canadian Meat Council, Dairy Processor Association of Canada, and Canadian Poultry and Egg Processors Council
8	Equestrian Canada
9	CVO of New Brunswick
10	CVO of Newfoundland and Labrador
11	CVO of Nova Scotia
12	CVO of Nunavut
13	CVO of Northwest Territories
14	CVO of Saskatchewan
15	CVO of Yukon

* Note that due to project scope adjustments, 15 of the scheduled interviews were canceled based on direction from the PAHS working group. Results are based on the 23 conducted interviews. The interviews conducted were not selected based on priority of organization, but rather convenience of scheduling.

RESULTS

PERSPECTIVES ON THE PAHS: UNDERSTANDING, ALIGNMENT, VALUE & INFLUENCE

Understanding & Involvement

When asked about their understanding of the PAHS, interviewees generally described the PAHS at a high level, often stating that it described a set of goals and objectives, with a broad strategic vision meant to guide priorities for animal health and welfare in Canada. Most interviewees also acknowledged the intent of the Strategy was to encourage collaboration and partnership between industry, academia, and government. However, the majority of partners were not able to speak in detail about the roles, responsibilities, accountabilities, activities, and strategic objectives outlined in the Strategy. Importantly, interview participants frequently stated that their organization was involved in the early discussions and development stages of the Strategy. In fact, roughly two thirds of interviewees noted that they had been personally involved in preliminary PAHS consultations in 2016. Despite this early involvement, the general sentiment amongst interviewees was that after the initial PAHS consultations, there was limited follow-up or further involvement in the Strategy. Many of these same partners suggested that PAHS was poorly communicated once developed, as reflected in the voice of one participant, “if our organization was meant to have a more specific role or set of activities related to the PAHS, that has not been made clear to us”. Some interviewees reflected that their desire was to have been more actively engaged throughout the entire process, not just at the beginning. Others indicated their organization was not consulted at all during the development process; this was noted as disappointing by some of the smaller industry groups in particular, who felt this was not just an issue specific to the PAHS, but that they were often excluded from larger initiatives and industry consultations.

Alignment, Value & Influence

When asked what role the PAHS has played in each individual organization’s thinking, actions, and/or policies, respondents most commonly stated that the PAHS had little

impact. Participants often mentioned not referring to the PAHS when setting goals and/or priorities over the past few years, and a few participants were unaware of the PAHS prior to registration in the Forum in 2022. Furthermore, most organizations did not have someone who was accountable for, or dedicated to, carrying out specific activities under the PAHS. That said, most interviewees discussed how the priorities of their organization tended to align well with those of the PAHS, even though they were not intentionally informed by the Strategy. More specifically, many noted that while they agreed and were in alignment with the Strategy as a whole, they were already working toward these goals independent of the PAHS, and thus it did not necessarily add value to their organization. Some industry groups were quite adamant about this point, citing that while the Strategy may speak to common activities, priorities, and goals of their industry, their focus on these issues and their corresponding successes should not be attributed to the Strategy itself, as it did not guide or cause them to take such direction. Organizations from Quebec also noted that they had their own provincial strategy under the Ministry of Agriculture, Fisheries, and Food (**MAPAQ**).

Participants noted that if there had been specific indicators or dedicated funding, there may have been more opportunity and motivation to organize intentionally under the PAHS. Many commented that the Strategy did not contain specific indicators or guidance on how to achieve the priorities, making it difficult to act on. A few participants did make reference to positive aspects of the PAHS, particularly in regard to its emphasis on the need for collaboration and/or increased communication between industry and government. They felt outcomes such as NFAHWC’s role in championing the ASF Executive Management Board, the NFACC Codes of Practice, and CAHSS were good examples of successful frameworks for collaboration towards tackling complex issues related to animal health and welfare. Additionally, some participants highlighted the fact that the PAHS moved the NFAHWC into a forward-thinking group, now the AHC, which is more operational and able to start committing to action, rather than just consolidating others’ actions, and facilitating public-private relations.

Overall, while not many respondents could attribute specific

successes or impacts of the PAHS in their organization's line of work, respondent actions, priorities, and achievements were aligned with many goals stated in the PAHS. It is worth noting that the development process for the PAHS was one that prompted partners to consider and outline their future priorities, needs, wants, and opportunities for animal health and emergency management. Therefore, it might be realistic to anticipate that the PAHS reflects where partners have been focused in more recent years. Regardless, it is clear there was value in the consultative efforts that went into developing the Strategy at the outset, but the Strategy itself has not been routinely referenced as a guiding document for partners.

towards, common themes and topics were identified across discussions and are presented below. Theme-specific case studies have been included to highlight success stories and key activity areas from a selection of interviews that represent common priorities and past issues of industry stakeholders. Please note that this is not an exhaustive list of topics or successes, but rather examples of key takeaways to highlight lessons learned across different organizations. Look for icons that showcase how the PAHS guiding principles support each of these case studies!

PAST PRIORITIES & SUCCESS STORIES

In an effort to better understand how animal health and welfare partners' activities aligned with the PAHS, interview participants were asked to discuss the primary animal health and welfare topics, or issues, that their organization had been prioritizing over the past 4 years. While each organization had different priorities and goals that they had been working

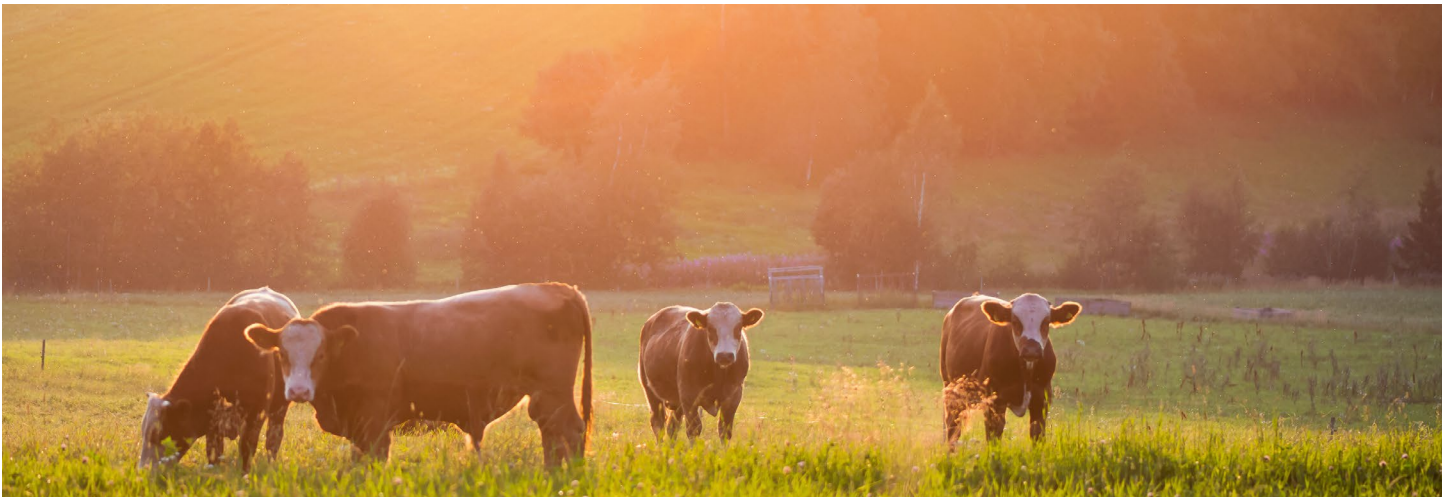


Emergency Preparedness & Response

Theme 1

From disease outbreaks to climate crises, emergencies that threaten the health and welfare of farmed animals, the livelihoods of those that raise them, and the stability Canada's agriculture and agri-food sectors, have challenged the resilience of plant and animal industries. Over recent years, a common area of focus for Canadian organizations has been preparing for, and in some cases responding to, animal health and welfare emergencies. Notable examples discussed during interviews included the prioritization of Avian Influenza (AI), a highly relevant and pressing issue in the Canadian poultry sector, past experiences and lessons learned dealing with Bovine Spongiform Encephalopathy (BSE), and the impact of drastic climate events, such as extreme flooding in Western Canada. Above all, African Swine Fever (ASF) was the most commonly mentioned foreign animal disease that Canadian agriculture groups are working towards preparing for. Interview participants often described how a more deliberate emphasis has been placed on emergency preparedness during peacetime phase of emergency response; a proactive approach that will enable both government and industry to mount a more timely and efficient response to an emergency, and facilitate recovery and reconstruction. The case studies presented below showcase some of the major strides that have been made in relation to emergency response and preparedness in the Canadian context.





Canadian Bovine Spongiform Encephalopathy (BSE) in 2003: Recent Successes and Lessons Learned



On May 20th, 2003, the Canadian Food Inspection Agency (CFIA) announced a cow from northern Alberta was found to have BSE. This detection led to the United States immediately closing its border to Canadian beef and cattle, along with forty other countries. Countless lobbying efforts, trade negotiations, and court rulings followed over the next few years as the CFIA and the Canadian dairy and beef cattle industries worked to fully re-open trade and reduce imposed animal health management through surveillance, risk mitigation and BSE eradication measures. In May 2021, Canada obtained its negligible risk status for BSE from the World Organization for Animal Health (OIE).

Key Successes & Lessons Learned

The Market Access Secretariat (MAS) within Agriculture and Agri-Food Canada (AAFC) is an example of an entity that was constructed out of the BSE crisis. The MAS is a coordinated effort to address international barriers to agricultural trade and can share information to allow international partners to advocate on behalf of Canadian products, if needed.

In terms of regaining access to foreign markets, a key factor in achieving success is the relationships developed with key decision makers, which extends well beyond the scientific community. Canada was the first country in the world to have beef consumption increase after the detection of BSE (stated by CFIA). This can be attributed to the confidence animal and human health officials instilled with consumers

during the early days of the announcement. The Beef Value Chain Round Table morphed into the communication network between industry and government during the BSE crisis and met at least weekly, and sometimes daily, to provide two-way communication. Going forward, the Canadian Cattlemen's Association (CCA) will continue to work collaboratively with Global Affairs Canada and AAFC to continue to remove remaining BSE-related market access barriers.

Looking Forward

In times of disasters, there is cohesion and willingness of all industry stakeholders to work towards a common goal. The personal tragedies related to BSE are endless and mental health was considered a key challenge during this crisis. A key lesson learned is that mental health needs to be more deliberately built into the response and recovery. A robust purpose-built mental health response system must be available for all stakeholders (industry and government). Early crisis classification is critical. Government(s) can be hesitant to proclaim an emergency animal health event as a disaster, as this has wide-ranging compensation implications. Yet, doing what is right, without political intervention is critical. Proclaiming a disaster allows measures to be taken that otherwise would not be available to governments.



Emergency Response and Management in Manitoba: A PED Success Story



Porcine epidemic diarrhea (PED) is a provincially-regulated viral disease, causing vomiting, diarrhea, and death in pigs across Canada. Prevention and management of PED requires strict biosecurity measures, enhanced traceability systems, emergency response plans, and strategies for vaccination. In 2017 Manitoba experienced an outbreak of PED, with 80 premises testing positive for the virus. Though devastating for the swine industry, this outbreak of PED resulted in the province of Manitoba coming together to swiftly and collaboratively respond to the crisis.

Key Successes & Lessons Learned

An interview with Dr. Scott Zaari, the current Chief Veterinarian of Manitoba, revealed how the province developed a PED Management Plan to effectively respond to the disease. Manitoba's PED Management Plan involved collaboration, sharing, and transparency among all stakeholders along the pork supply chain. This management plan was developed into a functional and effective operational strategy that can be easily implemented in the field.

Given limitations in human resources, the province needed to be creative in establishing public-private partnerships between government and industry partners, rather than creating a regulatory response. This strategy allowed for use of resources available in the most effective and efficient ways possible. Cooperation with all major stakeholders in the province was crucial. The [Manitoba Coordinated Disease Response \(MCDR\)](#) was developed as a way to share

information and increase communication across the entire supply chain. Dr. Zaari described how today, all members of the pork supply chain are actively involved through monthly meetings, daily discussions during an outbreak, and established lines of communication with all Manitoba swine veterinarians. All major swine stakeholders are acting by the same playbook, with full buy-in across the supply chain.

Looking Forward

While PED still exists within the Manitoba pork sector today, collaborative effort in preparation, communication, and response to the virus has allowed the province to be more effectively prepared to combat an outbreak. The key has been to establish a multi-stakeholder group that comes together with a common goal. Though different organizational mandates, goals, and politics have traditionally presented challenges to open discussions, the use of a public-private partnership has enabled the province to establish trust and engage federal, provincial, and industry partners effectively. Lessons learned from the 2017 PED outbreak will be carried into the future and have laid the foundation for a more resilient industry that is prepared to take on new challenges in emerging disease.



A Multi-Stakeholder Approach to Foreign Animal Disease: The African Swine Fever Executive Management Board



African swine fever (ASF) is a viral disease of all swine species that has been spreading internationally at an alarming rate since 2018. It has been reported in 25 countries including China, many countries in Asia, many European countries, and more recently in the Dominican Republic, and Haiti. To date this virus has never been detected in North America. ASF has a near 100% case fatality rate and there is currently no commercially licensed vaccine. If ASF is detected in North America, all international trade of live hogs and pork products will stop immediately. While specific outbreak scenarios differ, it is generally agreed that detection of ASF will cause disruption throughout the pork value chain with unprecedented and unpredictable impacts. This case study brings together stories from interviews with Christa Arsenault, the National ASF Coordinator, the Canadian Food Inspection Agency (CFIA), and a previous case study shared by the Animal Health Canada (AHC) working group.

ASF Executive Management Board

The African Swine Fever Executive Management Board (EMB) was launched in 2019 and has since helped to promote a stronger industry-government national approach for foreign animal disease planning. The ASF EMB was initially brought together to develop and action the [Pan-Canadian ASF Action Plan](#). Christa Arsenault acted as the National ASF Coordinator with the ASF EMB for a 1-year term in 2021. Her role included the difficult task of coordinating different federal, provincial, territorial, and industry organizations to work together to create an action plan for ASF in Canada. While this has been a challenge, Christa noted that she has improved access to documents and made information available to those who need it, encouraged communication and information sharing across the industry, and championed action across a number of critical pillars, including enhanced biosecurity-prevention, preparedness planning, ensuring business continuity, and coordinated risk communications.

Key Successes & Lessons Learned

A key success of the ASF EMB has been learning how organizations can work together in the event of an ASF response being needed. Through routine networking, plans have been created from group discussion. These conversations have allowed for understanding the differences in knowledge that exist for those involved and their individual roles and responsibilities. The ASF EMB has greatly helped with information sharing, relationship-building, and coordination on priorities and national-level activities defined in the Action Plan. Within the ASF EMB, all stakeholders have shown an increasing level of transparency leading to the clarification of roles and responsibilities around ASF.

Interviews with members from the CFIA revealed how ASF preparedness has been a top priority for the organization over the last three years. Through this preparation, all involved organizations learned about the complexity of animal emergency disease management, which led to increased awareness and structural changes throughout the swine industry. While the thought of an ASF outbreak in Canada can be overwhelming, the preparation for this event has led to all provincial industry and government groups knowing that they have to prepare, what their roles will be, the importance of collaboration, and why accepting responsibility and commands from higher levels in industry is crucial. The close and consistent engagement of various levels of federal, provincial, territorial government, and industry stakeholders on the ASF file across Canada has enhanced communications, flagged key gaps to preparedness and response, and stimulated collaborative action towards a more robust emergency management plan for ASF incursion.

Looking Forward

Although major strides have been made in regard to preparing for the potential occurrence of ASF, work must still continue in this area to address gaps within industry collaboration. Looking forward, the ASF EMB still has work to do in areas of accountability, implementation, identifying resources, representation of all affected stakeholders, and communication across all groups.

Surveillance & Disease Monitoring

Theme 2

Surveillance and monitoring are critical components of prevention and management of animal disease, and advances in processes and technology continue to change the ways in which we can collect, interpret, and share data. A number of interviewees spoke of calling for an increase in testing and surveillance for diseases of concern over the past several years. This was often accompanied by mention of increased collaboration and information sharing between sector-specific industry groups and relevant government organizations. Numerous industry groups had implemented national or provincial programs for disease prevention, which often included a form of disease surveillance (e.g., Canadian Integrated Program for Antimicrobial Resistance, Canadian Johne's Disease Initiative, CanSpot ASF, CAHSS networks, Ontario Chronic Wasting Disease wild cervid surveillance program, etc.). Below, we showcase two different examples of how surveillance is being enhanced in Canada: traceability in the sheep sector and the development of the Canadian Animal Health Surveillance System.





Surveillance & Disease Monitoring

Case Study 04

Innovating Traceability in the Canadian Sheep Sector



The Canadian Sheep Federation (CSF) has continued to innovate in the area of surveillance and traceability. In 2004, they implemented the Canadian Sheep Identification Program (CSIP), a full-scale traceability system aimed at adapting to an evolving food system and global market while operating in a way that is affordable, flexible, and effective across the industry. In 2010, CSIP introduced mandatory RFID ear tags for all sheep, creating additional tools and opportunities to monitor animal movement and control the spread of disease along the food supply chain.

Ongoing innovation in the CSIP

Since implementing the CSIP, the CSF is continuing to improve on its identification program. For instance, they have invested in the development of a facial recognition software that in addition to improving sheep movement monitoring, will also enable estimation of sheep welfare parameters. Given the

success of this cutting-edge traceability program, the CSF is planning to commercialize and expand their developed technologies outside of the sheep sector through the [AgriLedger platform](#).





Surveillance & Disease Monitoring

Case Study 05

Streamlining Surveillance in Canada: Observe, Connect, Detect, and Protect



The Canadian Animal Health Surveillance System (CAHSS), a division of AHC, is a network of animal health surveillance networks that share a national approach to strive for an effective, responsive, and integrated animal health surveillance system in Canada. The [CAHSS Information Sharing Website](#) is a centralized hub for collection, analysis, and sharing of information about animal health in Canada. It brings together information from across various regions and differing animal species. Since the launch of the site in 2020, there have been more than 43,000 page views, with most visitors from Canada, and the remainder of visitors from the US, UK and Australia. The most popular pages are the Covid in Animals Dashboard, Equine Network, AMU/AMR Network, Disease Alerts, and Resources library.

Key Successes

Key features of this website include real-time disease alerts, interactive dashboards, an extensive library of Canadian Animal Health Surveillance initiatives and resources, and podcasts with CAHSS industry partners. In addition, public

facing and member-only pages have been created throughout the website for each of the eight CAHSS animal species networks. Pages have also been specifically dedicated to Smallholdings, Antimicrobial Use and Resistance, Vectors and Vector borne diseases.

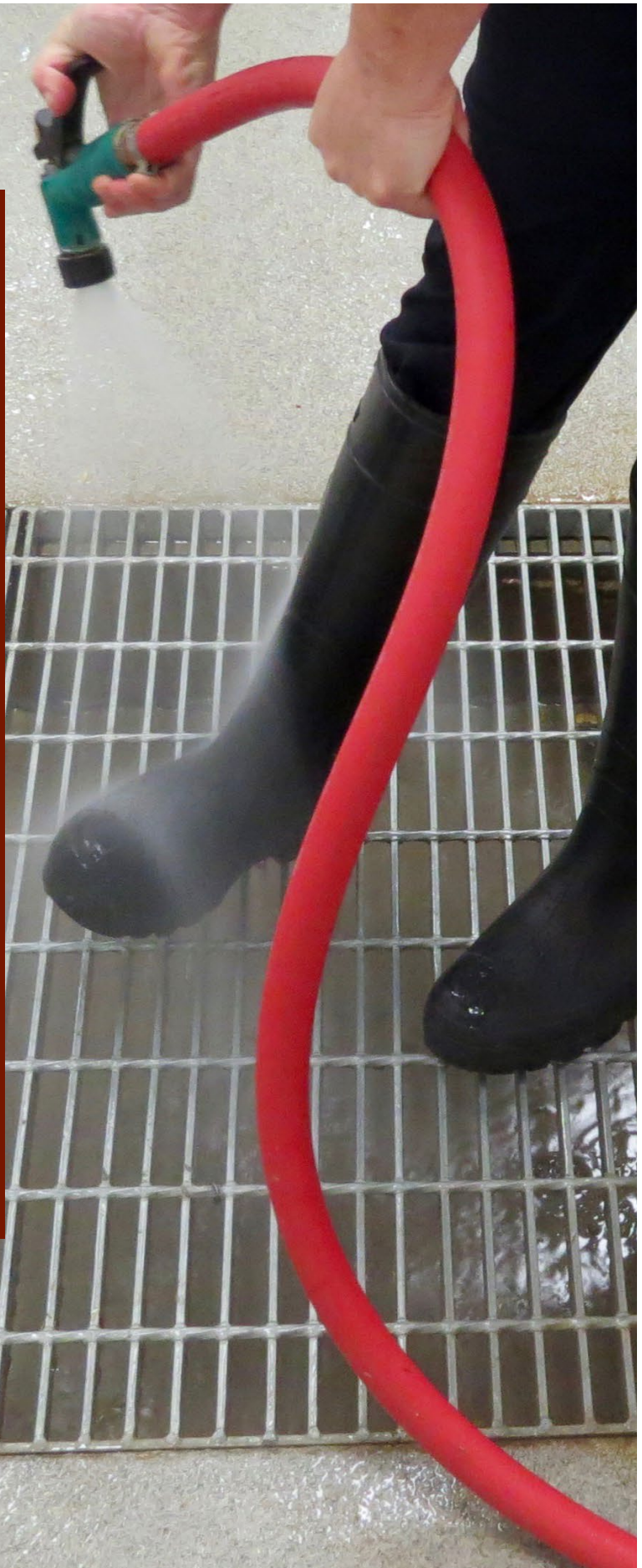
Looking Forward

The CAHSS hopes to continue to share and develop more web-based resources and materials to support collection, analysis, and sharing of information for animal health. In addition, strategic use of social media will be built on to support communication, especially for time sensitive or high priority information.



Theme 3 | Biosecurity

Biosecurity is critical to protecting against the introduction and spread of diseases. Biosecurity can be cost effective and easily implemented, with small changes to management having a large impact. Nearly all industry groups interviewed spoke about disease prevention as a core pillar of their animal health and welfare strategy. Through national quality assurance programs (e.g., Dairy Farmer of Canada's proAction program, Canadian Cattle Association's Verified Beef Production Plus, Canadian Swine Biosecurity Initiative, etc.), disease-specific programming, and close collaboration with livestock veterinarians, Canadian livestock industries are championing a proactive approach to animal health through disease prevention. While many groups, such as the Canadian poultry and swine sectors, have heavily focused on emerging and foreign animal diseases, such as AI, ASF, and PED, other groups have focused on supporting farmers in working with on-farm advisors, such as the herd veterinarian, to support them in identifying tailored practices that ought to be implemented on-farm to control existing disease challenges, and prevent the introduction of new ones. Biosecurity practices have been instrumental in helping to eradicate past diseases, and prepare for future outbreaks. The following case studies from the CFIA and the Animal Health Emergency Management (AHEM) project demonstrate some key successes and lessons learned through biosecurity in animal agriculture.





Biosecurity in Canadian Animal Agriculture: Building A Culture Around Disease Prevention



The Canadian Food Inspection Agency (CFIA) defines biosecurity as *a set of practices used to minimize the transmission of pathogens and pests in animal and plant populations including their introduction (bioexclusion), spread within the populations (biomanagement), and release (biocontainment).*

The desired outcome of biosecurity in animal agriculture is reduction in the frequency, scope, and impact of disease outbreaks. The fundamentals of biosecurity have been practiced in veterinary medicine and by Canadian farmers for many years.

Key Successes & Lessons Learned

The CFIA has developed [National Biosecurity Standards](#) for all animal sectors within Canadian agriculture. Biosecurity projects and programming at all levels has raised awareness of biosecurity, provided tools (knowledge and resources) to producers and support sectors, and established links between primary producers and service providers. The biosecurity standard development process demonstrated collaboration among producers, producer organizations, academia, and government. In addition, these Standards established national biosecurity advisory groups and networks that can

be re-engaged to address new challenges and led to the development of programs for producers and significant provincial-level programming.

Looking Forward

The level of awareness and the degree of biosecurity implementation varies greatly, both within and between commodity groups. Biosecurity communications need to be targeted, and ongoing. Geographic fragmentation in programs (both government and industry) has contributed to a patchwork approach across the country. Improvements need to be made along the production continuum, both upstream and downstream of the primary producer. Increased utilization of service professionals (veterinarians, feed operators, transporters, processors) is crucial. An increased need for shared risk management strategies among industry and government has been identified. The culture of biosecurity needs to be in existence before a major event, including protocols, training, and equipment/infrastructure.



Biosecurity

Case Study 07

Empowering Producers Through the Animal Health Emergency Management Project



The Animal Health Emergency Management (AHEM) project works to develop resources for relevant agricultural industries to minimize the future impacts of livestock diseases. The team behind the AHEM project has created resources for the individual producer to prepare for emergency situations and implement better management practices on their farms. Linking national Standards, best practices, and guidance from government and industry, AHEM has produced protocols, handbooks, best practice guides, and response plan frameworks have been developed (and in many cases, are province-specific) to support Canadian livestock and poultry sectors.

Key Successes & Lessons Learned

The AHEM project has fostered producer assistance and support, which empowers producers and builds relationships across all levels of the industry. Previously, the individual producer had not been supported in this way, making the AHEM project the first of its kind to produce documents

for producers to assist them in emergency planning and biosecurity. [Biosecurity resources](#) are available for the individual producer on the AHEM website. These easily accessible and highly relevant documents are helpful in allowing producers to prepare for disease on their own farms.

Through AHEM resources, livestock owners and their advisors have guidance on how to prepare, prevent, and respond to emergency disease situations, as well as better understanding their roles and responsibilities as an individual farmer. Through this project, relationships and partnerships have been developed between commodity groups and different levels of government. Producers have been able to share experiences and identify ways to work with different government groups and associations.

AHEM
Animal Health Emergency Management Project

GUSA
Gestion des urgences en santé animale



Theme 4 | Quality Assurance Programs

As the needs, wants, and expectations of society change, so too must the supply chain change to meet them. Quality assurance (QA) programs have historically focused on food safety programs for livestock and poultry commodity groups; where, at minimum, they dictated the actions required at the farmgate to ensure food is safe to consume. However, beginning a decade ago, the mandates within these programs have shifted to also include other aspects, such as food safety and quality. While enhancements to these topics continues to be a priority, the majority of Canadian livestock and poultry commodity groups have been working to take these QA programs to the next level. This involves a more explicit focus on animal care, traceability, biosecurity, antimicrobial stewardship, and environmental sustainability; these pillars represent areas of interest across the supply chain and primary industries are taking steps to provide assurances on these matters.

Many commodity groups have established, or are in the process of establishing, more robust QA programs for their commodity groups, and have been working towards developing, implementing, and improving these programs. In particular, the case study below features successes of the QA program for Canadian dairy industry, proAction, as well as future goals for QA in the poultry sector.

Striving For More: How Quality Assurance is Taking Canada To the Next Level



Full Implementation of the proAction Program: Success in the Dairy Industry

The Dairy Farmers of Canada (DFC) have made major strides towards QA in the dairy sector through the proAction program. proAction is a mandatory QA program that ensures that the ~12,000 Canadian dairy farmers implement a minimum set of best practices across 6 modules for excellence: Milk Quality, Food Safety, Animal Care, Livestock Traceability, Biosecurity, and Environment. While implementation of all modules was a gradual process, starting with Food Safety in 2015, the DFC have managed to fully implement all 6 modules, with Environment most recently coming into effect in September 2021. Through proAction, the Canadian dairy industry has been able to clearly establish a process to ensure commitment to high standards through a mandatory set of best practices, on-farm validations to assess compliance, a corrective action system to prompt continuous improvement, and a suite of resources to guide and support producers

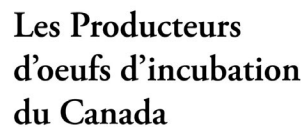
as they look to address areas for improvement. The result is a high degree of consistency across farms, widespread implementation of evidence-based practice, and a quantifiable set of claims that Canadian dairy farms are committed to meeting consumer expectations.

The proAction program underpins Dairy Farmers of Canada's iconic [Blue Cow logo](#), which identifies products made with 100% Canadian milk and milk ingredients. The DFC marketing department has been incorporating proAction messaging into product advertising. This progress represents a substantial success for the Canadian dairy industry. Claims presented on Canadian dairy products must be supported by action for them to have value. The proAction program has been able to support and substantiate all claims and messaging advertised through DFC. The proAction program is one to be proud of for Canadian agriculture, as it presents a great example of the successes achieved through quality assurance.



Expanding Quality Assurance Across the Poultry Sector

The proAction dairy program is an example of an established QA program that has been successfully implemented over a period of time. Other industry sectors have been working towards similar goals with newly developing and/or revising quality assurance programs. The Canadian Hatching Egg Producers (CHEP) organization was started 4 years ago with the goal to launch an animal care program for this sector. Since then, CHEP has been working with other organizations, such as the Chicken Farmers of Canada, to use other established programs as a guide to develop a program for their industry. The Chicken Farmers of Canada have a long-standing QA program for animal care. The [Raised by a Canadian Farmer](#) Animal Care Program was developed to demonstrate and maintain high standards of animal care throughout all steps of the chicken production cycle. This program was most recently revised in 2018 to incorporate the 2016 NFACC Code of Practice. Similarly, the Egg Farmers of Canada (EFC) discussed their progress forward with the Egg Quality Assurance program. This program is now being advertised on egg cartons across the country, which provides assurance to buyers that standards are being upheld for hen welfare and egg quality. This program is proactive in its industry with standards for sustainability being included within the 5 pillars of the program. These examples showcase how quality assurance programs in Canada have been a top priority for organizations across all livestock commodity groups and the forward strides made towards ensuring health, welfare, and quality of all Canadian agricultural products and practices.





Theme 5 | Animal Welfare & Codes of Practice

Animal welfare is a long-standing point of emphasis for Canadian agriculture. Though welfare is closely linked to health, key aspects of welfare that surpass the simple expectation of animals being free from disease are included, such as feelings and expressions of natural behaviour. It is important to note that the PAHS speaks to animal health and not to animal welfare explicitly, and this is viewed as a considerable weakness by many in the industry today. This omission is particularly notable given the emphasis placed on developing codes of practice by the individual industries over the last decade.

The past 5 years have been accompanied by a flurry of activity on animal welfare, with the National Farm Animal Care Council (**NFACC**) coordinating progress across a number of different species through the development and revision of Codes of Practice for the Care and Handling of farmed animals. Work in this area is ongoing; however, various commodity groups throughout the livestock industry have celebrated areas of success and major strides of improvement towards updating Codes through multi-stakeholder engagement and collaboration.

Codes of Practice: A Collaborative Model for Defining and Guiding Animal Welfare



A Perspective from the National Farm Animal Care Council: Major Wins for the Industry

Since its inception, NFACC has had a mandate to bring together a diverse set of industry partners in a consensus-based effort to develop a set of evidence-based requirements and recommendations that aim to guide farm animal care and welfare for each farmed animal species in Canada. [Codes of Practice](#) exist for many of the major livestock commodity groups in Canada, amongst others beef cattle, poultry, equines, dairy cattle, and pigs. Each Code is developed through a collaborative effort from the Code Development Committee and Scientific Committee, who inform the expectations of each document through a scientific, practical, and the animal humane movement. Codes of Practice are systematically updated and/or revised on a pre-established timeline, which ensures continuous evolution as science around best practice evolves. This process can be lengthy and includes collaboration and deliberation from various industry representatives within, and exterior to, the NFACC. The public are provided an opportunity to comment on a draft version of the Code, which adds a layer of transparency and ensures voices across the supply chain are considered.

NFACC General Manager, Jackie Wepruk, discussed some of the major successes that the NFACC has experienced in recent years. The Code of Practice for the Care and Handling of Pullets and Laying Hens was newly developed in 2017. This Code focused on hen welfare, with the Committee staying true to focus in this area. As this is a very technical Code, development of this document within a timely manner was seen as a great success for the industry. For the NFACC, creating achievable Codes within a timely manner improves trust from industry stakeholders, which allows the industry to move forward in adopting and implementing best on-farm practices as recommended within each Code of Practice. The successes achieved with this Laying Hen Code of Practice were seen as a win for the poultry industry, as participants representing this sector now stand behind this comprehensive guide for animal care.

In addition to updated Codes in the poultry industry, the NFACC has newly developed the first ever Code of Practice

for the Care and Handling of Rabbits in 2018, and a Code of Practice for Farmed Salmonids in 2021. The latter Code of Practice is the first Code of its kind in Canada for the care and welfare of fish and was celebrated throughout the supply chain as a method of recognizing the importance of fish welfare. Looking forward, the NFACC is working towards developing the First Code for Goats and Livestock Transport and updating and revising the Code of Practice for the Care and Handling of Dairy Cattle.



An Industry Perspective on Codes of Practice in Guiding Animal Welfare

Industry groups have been working towards developing, revising, and implementing Codes of Practice within their respective sectors. Groups such as Equestrian Canada (**EC**) and the Turkey Farmers of Canada (**TFC**) are currently working on rolling out animal welfare assurance programs that use their respective Codes as a foundation for on-farm expectations. More specifically, EC has been working towards creating an equine quality assurance program that mirrors the recommendations from the Equine Code of Practice to highlight equine welfare based on the idea of continuous improvement. The TFC have made major strides towards the implementation of the [Flock Care Program](#), a quality

assurance program for turkeys that complements the Code of Practice for Chickens, Turkeys, and Breeders.

The Canadian Pork Council (CPC) provide an excellent example of an industry group that is working towards updating and revising their current Code of Practice. The Code of Practice for the Care and Handling of Pigs was released in 2014 reviewed again 5 years later. Amendments proposed during this review process are still under review. Although to date a full consensus on the proposed Code revisions has not yet been achieved, work continues. Updates to currently existing Codes can be more challenging than an initial Code development. Additionally, it can be difficult to incorporate each Code into existing QA programs within the industry. It is important to discuss the challenges associated with industry progress because despite the difficulties associated with moving forward, progress is still being made and lessons learned through successes of Code development for differing species can be used to inform future processes.



Canadian Pork Council
Conseil canadien du porc



EQUESTRIAN
CANADA
ÉQUESTRE



TURKEY FARMERSTM
OF CANADA

LES ÉLEVEURS DE DINDON
DU CANADA





Theme 6 | One Health

One Health is a concept and framework that has garnered more focus across government, industry, and academic organizations in recent years. The consideration of One Health approaches to tackle specific diseases of interest was mentioned by several federal and provincial government associations, such as the Ontario Ministry of Agriculture, Food, and Rural Affairs and the Department of Agriculture, Aquaculture, and Fisheries in New Brunswick. Similarly, veterinary academic institutions across Canada have invested heavily into One Health approaches. The Ontario Veterinary College has championed the critical roles that animal health and veterinary medicine play in One Health. The development and impact of the Centre for Public Health and Zoonoses, as well as translational clinical research from the Institute for Comparative Cancer Investigation and the Centre for Cardiovascular Investigations, are impressive examples of OVC's considerable strength in the areas of zoonotic disease prevention and control, and in translational medicine. The University of Calgary Faculty of Veterinary Medicine also led the development of One Health at UCalgary, which designates funding for research, training, and community engagement programs that aim to tackle complex problems at the convergence of people, animals, plants and the environment and the underlying economic and social factors that determine the opportunities for health across all ecosystems.



One Health: A Past Priority to Guide the Future



Early Adoption in Québec

While One Health is a newly emerging topic of focus for some industry groups, the Ministry of Agriculture, Fisheries, and Food in Québec (Ministère de l'Agriculture des Pêcheries et de l'Alimentation, or **MAPAQ**) have had mentions of One Health in their provincial strategy since 2010, along with other notable topics like sustainable development. The Quebec government policy for health prevention incorporates subjects like antimicrobial use and stewardship, as well as mental health, which are both cross-cutting issues that MAPAQ is a large part of. In addition, the Québec Center for Wildlife has also focused on One Health from an environmental and wildlife perspective through areas like carcass disposal. Although more progress is needed, MAPAQ continues to work to incorporate One Health, and more recently One Welfare, into their goals and priorities through collaborative efforts on zoonotic diseases, such as COVID-19 and *Salmonella enteritidis*. Québec presents an example of a Canadian province that has been, and will continue to, actively work towards improving One Health in various human, animal, and environmental industries.

Recent Priorities and Current Progress

Provincial groups in Prince Edward Island and Ontario have been working through a One Health lens in recent years. The Ontario Ministry of Agriculture (**OMAFRA**) has been focusing on fostering relationships with the Ontario Ministry of Health to create a more complete picture of how disease impacts all areas of provincial health. In the past year, OMAFRA has taken a much stronger focus on One Health and has applied it to problem solving with the Ministry and other resource groups. Specific areas of collaboration have included planning for and responding to SARS COV-2 in mink and deer, Chronic Wasting Disease, Rabies in dogs, and Avian Influenza, among other diseases of note.

Shauna Mellish and Dr. Jill Wood from the Government of PEI have described their recent focus on One Health as a lens with which they view emerging issues, rather than a topic of interest. A key example of how One Health has been implemented in the province of PEI is through the mapping of Avian Influenza. Colleagues in the wildlife sector coordinated the development of maps that showed the importance of how management of the plant disease potato wart could impact disease risk in wild bird populations. Maps showed that disposal of affected crops by spreading waste potato crop on fields near commercial livestock operations could actually

cause an issue with wild birds and increase the risk of disease for animal health by potentially increasing the susceptibility and exposure of bird populations to Avian Influenza. This forward-thinking example presents a clear picture of the interconnectedness between humans, animals, plants and the environment, through human food production, environmental waste, and animal disease.

One Health Looking Forward

The Canadian Honey Council (**CHC**) presents an area of opportunity for One Health. The very nature of this commodity and industry group represents the three key areas of One Health - humans, animals, and the environment. Bees are known to be a keystone species in the environment given their role in pollination needed for food production, and public and private interest in this species has made bees the face of environmental sustainability and global pollination. Bees and related species exist in an intersection of human, animal, and environmental health, making this species a unique representative of the potential for One Health in the agricultural industry. However, bee health is affected by

pesticide and fungicide use; therefore, environmental health and sustainability are an important factor to their survival. While One Health has not historically been a called-out priority for the CHC, this lens is now applied to past and future priorities through the nature of the industry. The CHC represents an area of current and future opportunities for One Health and would like to be included as part of the progress in this area moving forward.

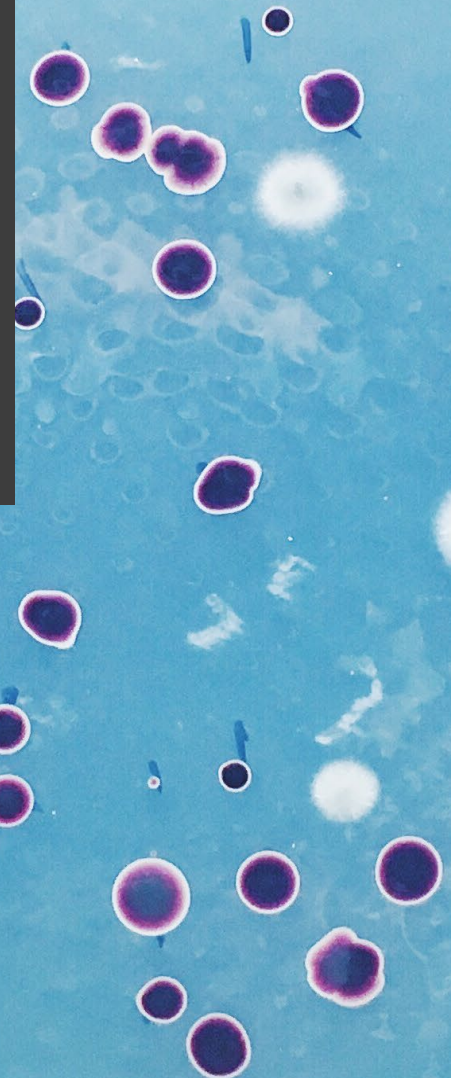


Canadian Honey Council



Theme 7 | Antimicrobial Use, Resistance, & Stewardship

Antimicrobials are essential in animal agriculture for disease management and preventing animal welfare issues. However, antimicrobial resistance (AMR) is a global problem arising from the use of antimicrobials in both humans and animals. Antimicrobial resistance is well documented as a critical threat to modern medicine. Those involved in animal agriculture where medically important antimicrobials (Health Canada Classifications I, II, III) are used must develop strategies and programs to foster appropriate use of antimicrobials with a goal of retaining the effectiveness of antimicrobials for use in animals and humans. The need for the use of antimicrobials can be reduced through various infection prevention and disease control strategies at the farm level. Both the Chicken Farmers of Canada and AHC, in collaboration with numerous animal health partners, have made successful strides towards combating antimicrobial use and resistance.





Championing Stewardship Through Proactive Policy: Successes of the Chicken Farmers of Canada Antimicrobial Use Strategy



Development of the Antimicrobial Use Strategy

Acknowledging the critical importance of responsible antimicrobial use and reduction, the Chicken Farmers of Canada (CFC) have been actively involved in the development and implementation of their [Antimicrobial Use Strategy](#) to monitor, control, and support the reduction in antimicrobial use on poultry farms in Canada. This strategy has been developed over the last 10 years in collaboration with industry partners, including the Animal Nutrition Association of Canada, Canadian Hatchery Federation, Canadian Hatching Eggs Producers, Canadian Poultry and Egg Producers Council, Turkey Farmers of Canada, and the Canadian Association of Poultry Veterinarians.

Key pillars of the CFC Antimicrobial Use Strategy include (1) defining antimicrobial use; (2) examining and analyzing trends in antimicrobial resistance; (3) assessing best management practices; (4) developing controls for antimicrobial use and reduction; (5) education on antimicrobial resistance and use; and (6) research on antimicrobial alternatives.

Key Successes & Lessons Learned

Through the Antimicrobial Use Strategy, CFC has been successful in eliminating preventative use of Category I (very high importance to human medicine) and II (high importance to human medicine) antibiotics from Canadian chicken production. The effectiveness of this has been demonstrated by the government's Canadian Integrated Program for Antimicrobial Resistance Surveillance (CIPARS) program. Further, CFC has committed to eliminating preventative use

of Category III (medium importance to human medicine) antibiotics. A single antibiotic, Bacitracin, will be impacted by this, as it is the only Category III antimicrobial used preventively in chicken production. To ensure alternative products and approaches are in place for this change, Chicken Farmers of Canada is extending the reassessment timeframe for preventive Category III elimination. This will ensure that the sector is taking a responsible, pragmatic approach to antimicrobial use reduction. These reductions help to limit the emergence of antimicrobial resistant bacteria, which benefits both the chicken sector and public health more broadly, given the importance of these drugs for treating infections in humans.

Looking Forward

The CFC Strategy, covering all chicken raised in Canada, works in collaboration with the federal government's Pan-Canadian Framework

on Antimicrobial Resistance and Antimicrobial Use, and is centered around the key guiding elements of surveillance, stewardship, and research. Moving forward, the CFC continues to build on their Strategy and successes through research to better understand the impacts of gut health and develop antimicrobial alternatives and vaccines. The success of the CFC Strategy to-date shows the value of collaboration, education, and research in the development and implementation of industry-wide changes.



One Health Mindset to Stewardship: Synergies & Support Between Human & Animal Health Sectors



AHC, livestock producer organizations, provincial, territorial, and federal governments, veterinarians, the animal pharmaceutical industry and other stakeholders in animal agriculture have demonstrated leadership by actively engaging in the topic of antimicrobial use and antimicrobial resistance for many years.

Key Successes & Lessons Learned

In recent years, the agricultural sector has felt an increasing amount of pressure to address antimicrobial use and resistance. There are many active initiatives that contribute to finding solutions, provide communication opportunities with producers and veterinarians, reduce risk of disease and foster appropriate use of antimicrobials. The PHAC has worked collaboratively with these two groups with the goal of being more solution-focused, by fostering a common understanding around AMR between human and animal medical practitioners, and taking a “we all have a role to play” mindset. AHC has played an important coordinating role in championing animal health partners around the [Pan Canadian Framework for Action](#). More specifically, they have helped to benchmark the antimicrobial stewardship activities that are underway in animal agriculture, including communication and educational activities, and were actively engaged in advocating for regulatory amendments to establish limitation and control on the antimicrobials imported under the provisions of Own Use Importation or as Active Pharmaceutical Ingredients (API). In particular, the Canadian Animal Health Institute (CAHI) has been instrumental in the progress on AMU Own Use Importation and API Imports, as well as increasing AMU oversight, improved collaboration with stakeholders, and ensuring good manufacturing requirements (GMPs) are met for ingredients. Livestock commodity associations have begun to communicate broadly about responsible use of antimicrobials, develop tools through on-farm QA programs to stimulate responsible use and prompt engagement of the herd veterinarian to develop tailored strategies that can reduce use without compromising animal welfare. The Council has also recommended that livestock commodity groups incorporate AMU and AMR into their research priorities to support the sector. The Canadian

Veterinary Medical Association (CVMA) has also taken a leadership role, actively developing AMU stewardship tools for veterinarians, and supporting provincial veterinary associations and provincial governments to develop and offer informational sessions on regulatory changes, and on species-specific topics where there may be gaps in veterinary resources, such as bees. Lastly, Council has helped encourage commodity groups and provinces to engage in the Canadian Integrated Program for Antimicrobial Resistance and Surveillance (CIPARS), through the CAHSS Amu/AMR Network, to help monitor the effects of newly implemented stewardship approaches and to engage in ongoing surveillance on AMU. More details on these activities, and the activities of key Canadian partners, can be found in their 2019 report, [“Antimicrobial Stewardship in Food Animals in Canada: Progress on Recommendations and Stakeholder Activities”](#).

Looking Forward

As with many industries, the COVID-19 pandemic has slowed the progress on AMR in Canada. Moving forward, Canadian animal health partners must work to re-engage stakeholders and keep the conversation around AMR going, so that progress will continue to be achieved. A key goal to assist with this is to make AMR a top priority for all industry stakeholders and continue the successful work that has been done in recent years around antimicrobial use and resistance.



CANADIAN VETERINARY
MEDICAL ASSOCIATION
L'ASSOCIATION CANADIENNE
DES MÉDECINS VÉTÉRINAIRES



CONTAINS
ANTIMICROBIAL
USE RESPONSIBLY



Lessons Learned From COVID-19

The global COVID-19 pandemic created and exacerbated challenges across the agricultural supply chain. Organizations discussed challenges around the need to rapidly adapt to the evolving situation and the reallocation of focus and resources toward pandemic response. For instance, interviewees discussed their experiences with production issues, such as delays in receiving imported goods and the need for mass depopulation of animals in response to backlogs and supply chain disruptions. Others spoke about the impact of the pandemic on workers in the industry, including staff shortages and challenges around shifting to virtual operations. Most interviewees felt that they were able to navigate through these challenging times by rapidly adopting virtual means of communication, timely decision-making, and leveraging close relationships with government and industry.

Importantly, some organizations also commented on their successes and resilience in the face of COVID-19. These successes and lessons learned align with, and reflect, the relevance of the PAHS guiding principles moving into the future of animal health in Canada. For example, relating to the principle of efficiency and continuous improvement, the Canadian Sheep Federation highlighted that through strong diversification and system efficiency in their industry, they managed to avoid many processing and supply chain disruptions, and did not have any facilities close down during that time. Agriculture and Agri-Food Canada discussed how their prior experience with emergency response and preparedness for other infectious diseases aided in their response to COVID-19 and allowed them to avoid worst case scenarios around animal culling, intersecting with the prevention focus and adaptive, evidence and risk-based approach principle of the PAHS. In relation to shared accountability and collaboration, sharing, and transparency, the Chief Veterinary Officer of Manitoba commented on how their intentional consultation with occupational and public health sectors on pandemic response mitigated negative outcomes through stronger intersectoral partnerships. Furthermore, some interviewees discussed broadly how COVID-19 has highlighted the importance of a One Health and One Welfare approach to preparedness and response.

FUTURE PRIORITIES & GOALS

Looking ahead, government, industry, and academic organizations will continue the work that is already being done on many of the topic areas mentioned above, while they prioritize additional areas of importance, such as climate change and sustainability. The above-mentioned successes across animal health and welfare in Canada provide a small snapshot of some of the notable achievements of industry groups, while also highlighting the work that still needs to be done in many aspects of the agriculture sector. The following themes of focus for future work are shared areas of priority for many industry, government, and academic groups moving forward.

EMERGENCY PREPAREDNESS & RESPONSE

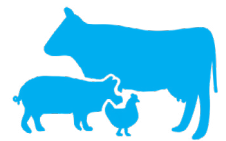


While major progress and achievements have been made in the area of emergency preparedness and response, this is a topic that will be ongoing and ever evolving for many organizations. The most common organizational goals for this include sufficiently preparing for responses to threats such as ASF, AI, Foot and Mouth Disease, and other notable animal diseases. Response planning for these outcomes includes building structures within organizations for communication, orders of operations, and protocols for action; establishing lines of communication across all industry groups; determining steps for depopulation and disposal of animals; and food safety and security. The progress and actions mentioned throughout this report highlight some of the major accomplishments that organizations have had in preparing for and responding to emergency situations; however, lessons learned through response have demonstrated areas of opportunity and gaps in response plans that can be improved moving forward. Areas like food safety, the impacts of disease on producers, communication across various levels of industry, and emergency response plans, are topics that will continue on as major focuses moving forward.

Within this theme, traceability, biosecurity, and surveillance were most commonly mentioned as being prioritized as actionable items that organizations are working towards to improve their preparedness in responding to emergency situations. Underscoring this concept is the work led by the Canadian Cattlemen's Association (CCA) to work collaboratively with the dairy, pork and sheep associations to calculate the annual industry contributions to traceability, biosecurity and animal health. CFIA modelling has shown that a FMD outbreak in highly populated livestock regions would represent one of the worst-case scenarios for Canada and would require between 1.9 million and 2.7 million doses of FMD vaccine. It has been estimated that a large-scale outbreak of FMD could have over a \$65 billion impact to Canada's GDP. The work of CCA is intended to lead to a collaborative, industry-government national Foot and Mouth Disease vaccine bank to help mitigate this risk.

Continued monitoring of emerging animal diseases is a future priority for many organizations, particularly as changing climates, human and animal movement, and international trade alters patterns of disease occurrence and spread.

ANIMAL WELFARE, QUALITY ASSURANCE, & CODES OF PRACTICE



Animal welfare continues to be a major focus and priority for organizations beyond the progress that has been made in recent years. Through QA programs and Codes of Practice, organizations can continue to prioritize animal health and welfare and the actions needed to ensure all Canadian livestock species receive the utmost care. Integrated plans for animal health and welfare continued to be developed for many species throughout Canada. Some specific topics for future action include pesticide and fungicide use on bee health, humane transportation requirements and regulations for cattle, and getting equines recognized as a species within agriculture due to their significant impact on Canada's agricultural gross domestic product (GDP). Continued development, emphasis, evaluation, communication, and promotion of QA programs is on the horizon for most livestock species groups, along with striving for government recognition of animal care programs.

Updating Codes of Practice is a major priority for many groups, with the NFACC focusing on this area through Codes being reviewed and updated every 5 and 10 years respectively. Amendments to the Pig Code and finalizing work on the Transportation Code are in progress and will continue to be key focus areas moving forward. Codes of Practice continue to be a focus, particularly in the area of assessment, which creates assurances and public confidence in Canadian animal products. Academia also plans to continue with a heavy focus and critical role in Code development and improvement. Major strides have been made and will continue onward through bringing various groups together to work towards a common goal of improved animal health and welfare through Codes of Practice.

ONE HEALTH & ONE WELFARE PRIORITIES



Mental health, particularly in the context of farmers and veterinarians, is a core priority for many groups as they look towards future planning. Utilizing the concepts of One Health and One Welfare to improve and prioritize producer mental wellbeing were mentioned as key action items for some groups such as the Public Health Agency of Canada (PHAC), the Canadian Hatching Egg Producers (CHEP), and the CFIA. In some cases, this was mentioned as a focus in the context of producer supports being needed in situations of emergency response, such as the potential for a welfare cull due to ASF in the Canadian pork sector. Others spoke to finding ways to support the broader systemic mental health and wellbeing issues present in the farming sector as a whole. A clear focus on how to support the animal industries in tackling mental health was shared by numerous interviewees.

One Health was similarly brought forward as a concept that requires more attention and integration. Both federal and provincial government participants anticipated strongly embracing a One Health approach to improve communications, address resource gaps, and find novel approaches to addressing complex challenges. Academic partners will continue to teach, train, research, and develop programs under a One Health lens. Other industry groups, such as the Canadian Council of Veterinary Registrars (CCVR) explicitly highlighted a desire to embrace a One Health lens; stating they have particular goals for improving the way conversation is leveraged between veterinary/animal health, and public health. Looking towards the future, the CCVR have a strong desire to explore collaborative approaches to address

human and animal health and welfare issues in Indigenous communities. It is worth noting that this was the only instance within this project in which Indigenous communities were discussed.

ANTIMICROBIAL USE, RESISTANCE, & STEWARDSHIP



Many industry groups and organizations recognize the importance of continuing the positive work that has been done in the area of antimicrobial stewardship. Antimicrobial resistance is, and will continue to be, a key priority area for various organizations moving forward. Several interviewees highlighted that core focus areas will be to improve monitoring and surveillance of antimicrobial use, create AMU reduction strategies within their given commodity groups, and work collaboratively with government and industry partners to improve availability of, and access to, vaccines, drugs, and drug alternatives. Many interviewees also commented that they will look for additional coordination and support from Animal Health Canada moving forward, and increased activity and engagement in the Pan-Canadian Action Plan when it is released.

VETERINARY CAPACITY & ADDRESSING VETERINARY SHORTAGES



Concern surrounding veterinary capacity in Canada is growing. Shortages in the veterinary workforce have become a major issue for many animal health partners. The CVMA, RVTTTC, and species-specific veterinary groups have been particularly focused on this issue, as has members of the veterinary academic community. This topic was also salient amongst national representatives from academic and government groups, as it directly relates to animal health and welfare and food security. Whilst the shortage spans both small and large animal veterinary medicine, it is greatest on the large animal side. Further, interviewees noted that equine veterinarians are frequently omitted from conversations around this issue. It should be noted that the issue is not one of declined attraction to the field, but rather Canada is experiencing difficulty in retaining veterinarians in the large animal sector. Issues in veterinary mental health contribute to this, with many animal practitioners experiencing burnout, lack of capacity, lack of support, and being committed to

responsibilities beyond their capacity. But it is clear that a complex array of social, economic, and structural barriers exist that contribute to this issue. Considerable effort is being placed on this problem in many other jurisdictions globally, and it is clear that Canadian animal health partners will be heavily invested moving forward.

It is worth noting that outside of this strategic review process for the PAHS, the Canadian Agricultural Human Resource Council (**CAHRC**) has focused on topic recently, stating that veterinary capacity and workforce shortages are related to general labour shortages Canada. Day-to-day animal care to support animal health and welfare will be affected by this as Canada experiences a shortage in overall labour within the agricultural sector. Future effective implementation of animal health plans and animal welfare programs will be more difficult without the staff to carry out their requirements. The CAHRC has created a strategic plan for growing the national agricultural workforce, called the [National Workforce Strategic Plan for Agriculture and Food and Beverage Manufacturing](#). This plan includes various strategies to assist labour shortages in both the long and short term. Through systematic efforts and well-thought-out solutions, CAHRC plans to make progress towards the improvement of labour capacity across the agricultural industry in Canada

INDUSTRY LONGEVITY & ENVIRONMENTAL SUSTAINABILITY



Sustainability is a broad term that can encompass many overarching goals, including the prioritization of longevity in both industry and the environment. Industry sustainability is a concern for some groups, such as the Canadian Veal Association. After experiencing a loss in the milk-fed veal market in Ontario, this group will focus future efforts on ensuring their sector is sustained as Canada moves forward with changing markets. With an increase in public awareness and interest in Canadian agriculture, organizations are feeling pressure to focus efforts on environmental impact, such as greenhouse gas (**GHG**) emissions. Environmental sustainability has become a future priority for many organizations, particularly for the commodities that do not yet have standards focused on these issues. A good example of this is the work by the Canadian Cattlemens Association (CCA), which has been actively engaged on this issue through the Canadian Roundtable for Sustainable Beef (**CRSB**) since 2014. Future research will focus on areas within agriculture production and animal life cycles to reduce environmental

impact and climate change. Social license and public trust in all areas of livestock production is important and industry groups recognize how ensuring environmentally sustainable farming practices can foster positive relationships with consumers.

The [Agri-Food Performance Project](#) is one that the Association of Canadian Faculties of Agriculture and Veterinary Medicine has focused on in recent years, and will continue to prioritize. Deans of the major veterinary and agricultural colleges in Canada have been involved in this project that speaks to where Canada aspires to be as a country in terms of the sustainability of our food system, including as it relates to animal health and welfare. This project provides a benchmark to identify gaps and areas of opportunity, as well as future areas for research capacity and academic employment. This is a clear demonstration in how academic partners can support industry and government moving forward.

CLIMATE CHANGE PRIORITIES



Climate change has become, and will continue to be, a major concern for many organizations. Increasing discussions are occurring around sustainability, our food production system, and food safety as the climate crisis continues to impact the livestock industry. Recent flooding and extreme fires in B.C. have highlighted the need for greater preparation across all provinces and industry sectors for extreme weather events and natural disasters. Moving forward, partners noted that they will continue to focus more efforts on better understanding how the veterinary workforce can help in emergency preparedness and response to climate disasters. The agriculture and livestock industry has recognized the impacts that climate change can have on health and welfare, and will take action to prioritize this moving forward and to leverage existing relationships and work areas related to animal health emergency management.



A ROADMAP FOR THE FUTURE

The PAHS was intended to offer a collaboratively developed vision to address and prevent evolving risks to plant and animal health in Canada. Its primary purpose has been to galvanize partners around this shared vision and a series of objectives for an integrated approach to safeguarding plant and animal health in Canada. In doing so, the PAHS aimed to provide strategic direction for essential sustained improvements to Canada's approach, build upon and coordinate efforts, identify priorities and concrete actions, and position partners to continuously improve and evolve as risks, needs, and capacities change.

Five years since its inception, much has changed. Interviews with key partners have demonstrated that the development of the PAHS in and of itself was a meaningful exercise in strategic planning and direction. Many government and industry partners feel the PAHS today adequately reflects key areas of emphasis that they have been working on, individually and collectively. While the PAHS may not be routinely referenced, or hold individual organizations accountable for specific activities, it was commonly noted that this guiding document speaks to the overarching vision, guiding principles, and key areas of emphasis that the animal health sector in Canada ought to stay focused on.

The question remains, how could animal health management in Canada be improved? What lessons have we learned through this exercise? And what should the future of the PAHS be?

AREAS OF OPPORTUNITY & LESSONS LEARNED

Coordination

The PAHS clearly identified the National Farm Animal Health and Welfare Council (now Animal Health Canada) as being responsible for coordinating the implementation of the animal side of the strategy. It also highlights that coordination is essential to minimize overlaps and gaps, and ensure the sector is able to respond to needs and capacities, as they evolve. Our interviews highlighted two key challenges and

areas of opportunity in the context of coordination.

First, it was noted that while AHC assumed responsibility for coordinating the animal health side of the strategy, there were no specific resources provided to enable them to take on such a role. In the past 5 years, AHC has developed considerably in terms of scope, staffing, funding, and function; however, a lack of devoted resources focused on coordinating PAHS-related activities has inhibited AHC from taking a more substantial role. It is important to note that the NFAHWC was likely originally chosen based on its unique position within the national animal health landscape, and that many existing activities (annual Forum, strategic projects and work areas, such as antimicrobial use and stewardship, emergency preparedness, and emerging issues) were tied to the visions and overarching objectives of the Strategy. However, Council was not resourced sufficiently to take on such a role given its tight operating resources. The goals and objectives of the PAHS are overarching and true oversight and coordination across all Canadian partners is a considerable task. Therefore, it was likely unrealistic to expect that AHC would be able to successfully take on the coordinating role needed for a focused and continuing engagement of Canadian partners around PAHS objectives, explicit projects and work areas, and holding national and provincial partners accountable for specific roles and deliverables.

Partners also noted that the PAHS, as written, speaks at quite a broad and high level. While this offers useful guidance from a long-term vision perspective, it lacks certain actionable/operational elements that would be needed to support more focused activities. More specifically, partners noted it would be helpful for the PAHS to have outlined specific activities and actionable items that partners should have taken, along with clearly defined key performance indicators/evaluation metrics to understand impact. Again, the role of operationalizing the PAHS in a more coordinated manner might have been possible with more focused resources.

Collaboration

The PAHS highlights the importance of building upon and coordinating the efforts of all partners to achieve cohesion, maximize synergies, and minimize duplication, overlaps, and gaps. AHC has been a catalyst for multi-stakeholder discussions, and a key liaison between government and

industry. Activities such as the annual Forum demonstrate clear successes in engaging the broader animal health and welfare community in Canada around key priorities and emerging issues. One key finding from partner interviews has been that there needs to be more engagement of, and collaboration with, certain sectors and partners. For example, historically, AHC has engaged quite heavily with government and industry, and academic partners to a much lesser extent. This might be considered a missed opportunity, as Canada boasts considerable research capacity, with numerous globally renowned institutions and colleges focused on animal health and welfare priorities. Our academic partners are uniquely positioned to explore new issues, inform future direction through the generation of new knowledge and evidence; all of which are valued by AHC members in government and industry. The Canadian Faculties of Agriculture and Veterinary Medicine have expressed a strong desire to be more engaged moving forward, and efforts to do so on the part of AHC would be meaningful in supporting broader collaboration, as outlined in the PAHS, and benefit all partners in the sector. This could come in the form of involvement in future working groups and committees, as well as a more formal role of academia within the governance structure of AHC.

Similar sentiments have been shared by commodity group associations that represent minor species in Canada, such as the Canadian Veal Association and Canadian Honey Council. While smaller in size and scale, these organizations expressed a desire to be more fully engaged and considered in future AHC activities. Moving forward, AHC would benefit from implementing a more robust and inclusive collaborative model for engaging partners across the Canadian animal health sector.

Communication

A key underlying activity that is essential to achieving the outcomes listed in the PAHS is consistent and effective communication with all partners. Communication about ongoing activities, new opportunities, collaborative discussion on key priorities and emerging issues, and efforts to understand partner issues, needs, and interests. Many interviewees noted that AHC has done a good job in communicating with them on key work areas and issues relevant at the national level. However, it was noted by certain partners (e.g., academia, minor species commodity groups) that more could be done to communicate on an ongoing basis. More transparency, routine communication, and ongoing engagement was viewed as a strong opportunity moving forward; particularly with respect to the evolution of AHC. The same is true of the PAHS itself. Many interviewees

felt that the PAHS was developed, put on the internet, and poorly communicated beyond that. Many highlighted that if there were more specific expectations and accountabilities associated with their role in the PAHS, they should have been communicated with on a more consistent basis. Clearly, the ability to effectively and consistently communicate with a vast array of government, industry, and academic partners across Canada requires resources that AHC lacked to sufficiently achieve these activities as might have been needed; this presents an area of opportunity moving forward for AHC.

WHAT'S NEXT FOR THE PAHS?

The majority of interviewees highlighted that the PAHS remains a useful, high-level vision document that speaks to how Canadian partners should be working together in the animal health sector. While some interviewees noted that no further effort should be put into revising or updating the document, others felt it could be made to be more useful if it is created to be a roadmap with actionable items and key performance indicators specific to each commodity group and government agency. Most of these interviewees highlighted that in order to do that, more focused resources should be provided to AHC moving forward to enable them to appropriately implement activities at the level needed. To ensure success and the continuation of the overall well-supported elements of the PAHS, its guidance principles, vision, and objectives of the PAHS into the future direction of AHC.

THE VISION FOR ANIMAL HEALTH CANADA & ACTION AREAS FOR THE PAHS

Blending together the findings from the previous section on what is next for the PAHS, and the evolution of the Council to AHC, it would appear that AHC is well positioned to be a leader in coordination, collaboration, and communication of all Canadian partners. Indeed, AHC appears to be positioning themselves to be a pan-Canadian, public-private collaboration that provides a formal structure for the industry-government-academic collaboration required to successfully implement animal health components of the PAHS. The results of this evaluation would suggest that many partners see an opportunity for AHC to position themselves to take the strategic vision, guiding principles, and primary objectives currently listed in the PAHS, and integrate them into their strategic planning as they look to evolve their role, scope,

and mandate in the Canadian animal health and welfare space. In fact, some partners noted that the evolution of AHC in and of itself is a potentially meaningful output from the PAHS; suggesting that without the groundwork that the PAHS provided, the discussions, engagement, and original thinking that went into the concept for AHC may not have occurred.

With this integrated strategy of the PAHS and AHC in mind, the following section presents a brief overview of the five key areas for action listed in the PAHS and potential opportunities for alignment with initial results from AHC's recent strategic plan.

Coordination Through Partnerships

Over the past five years, AHC has taken on considerably more responsibility from where it started when the PAHS was first established. In recent years, AHC has adopted two clear divisions (NFACC and CAHSS), has championed numerous work areas (from One Health and One Welfare, to offering training on humane transportation of livestock, antimicrobial use and resistance, and other emerging issues), and been engaged in a number of key projects (e.g., ASF, AHEM, CLT). These are demonstrable examples of how AHC has embraced the role of coordinating and leading key animal health and welfare activities. Moving forward, AHC will need to solidify their governance structure and operational model to effectively coordinate, collaborate, and communicate with Canadian partners, and support Canada in readiness to address new challenges in animal health and welfare.

A System Founded on Prevention & Defended Through Effective Response & Recovery

Further investment in building out these initiatives, and transferring their lessons learned to support other sectors and tackle new emerging challenges will need to be a key strategic priority for AHC in the future.

Collection, Analysis, & Sharing of Information

Similar activities and previously listed strategic priorities will be needed to satisfy this PAHS action item. Increased investment in enhancing disease surveillance through CAHSS will be a critical step in facilitating ongoing collection of relevant data, timely analysis of that data into meaningful results, and broad-based dissemination of those results to key stakeholders. The ability to have impact when it comes to sharing information will also require solidifying the governance and operational model of AHC and ensuring aspects of confidentiality.

Enabling Desired Behaviours

While this action item is quite broad, it speaks to the ability to assess and understand current and emerging issues, the needs and capacities of those involved, and then enabling partners to act where possible. Moving forward, AHC will need to strategically align themselves to act as a coordinator, collaborator, and communicator around major focus areas, most notably: emergency management, animal welfare, antimicrobial use and resistance, and disease surveillance. The organization must also be nimble enough to support other emerging issues that do not fit within these predefined categories, such as climate change, the veterinary shortage, and mental health. Once again, AHC will need to solidify their governance and operational model first in order to position themselves as outlined.

Illustrating How the PAHS Addresses Challenges to the System

This report is the first attempt to begin to assess how the guiding principles of the PAHS have influenced Canadian partners, and to what extent it has supported change. Moving forward, AHC will benefit from considering how the PAHS principles and strategic priorities align, developing a more operationally-focused set of goals, objectives, activities, and desired outcomes, and crafting complementary evaluations to demonstrate impact. The ability for AHC to speak to its own impact, and to what extent challenges remain, will guide continuous improvement in the strategic direction, roles, responsibilities, and accountabilities of AHC moving forward.



APPENDIX

APPENDIX 1: INITIAL CONTACT EMAIL AND BACKGROUND INFORMATION

Hello [insert contact name],

Happy New Year! I hope this email finds you well.

I am reaching out to you to request your participation in a new project we have going on at Council.

As you may know, the Council is responsible for leading the coordination and reporting on Canada's animal health progress as it pertains to the Plant and Animal Health Strategy (PAHS). We are currently working with [ACER Consulting](#) to develop a preliminary progress report on behalf of Council. This was recently the topic of [Session 2 of our annual Forum](#) last November. Attached you will find an overview of our project and the PAHS. The goal is to better understand the key activities and impacts Council members have had over the past few years as it relates to animal health and welfare, and to learn more about their perspectives on the future in terms of organizational activities and aspirations, and how the PAHS and Animal Health Canada aligns with those goals.

As part of the project, Dr. Steven Roche and Julia Saraceni of ACER (cc'd here), are conducting in-depth interviews with government and industry partners. Attached is a list of interview questions they would like to discuss with you. I am hoping that you and/or someone from your organization might be willing to chat with the ACER team as part of this project?

Steven and Julia will reach out to schedule the interview and can certainly answer any questions you might have. Please also don't hesitate to reach out to me directly should have any further questions.

As background information for this session, please review the attached agenda, overview of the PAHS, and summary of a new project Council is undertaking to develop a national animal health progress report.

Thanks,

Melanie

EVALUATING AND REPORTING ON THE ANIMAL HEALTH PROGRESS IN THE PLANT AND ANIMAL HEALTH STRATEGY



What is the project about?

Developed in 2017, the Plant and Animal Health Strategy (PAHS) presents a national vision to address and prevent evolving risks to plant and animal health in Canada. The PAHS is a partnership-based strategy that reflects the commitment between governments, industry, academia, and other partners to protect plant and animal health. The National Farmed Animal Health and Welfare Council (NFAHW Council) is leading the coordination and reporting on Canada's animal health progress as it pertains to the PAHS. To fulfill the Council's reporting mandate, a project steering committee was established to help guide the development of a national animal health progress report. [ACER Consulting](#) was brought in to support Council in these efforts.

What are our goals?

The primary goals of this project are to:

1. Develop a national animal health progress report that describes the activities, successes, and opportunities relating to the PAHS;
2. Capture stakeholder perspectives on the value and utility of the PAHS in guiding organizational planning, policies, and activities as it relates to animal health; and,
3. Facilitate conversations with Council members and stakeholders in animal health and welfare to facilitate strategic alignment in preparation for the NFAHW Council's evolution to Animal Health Canada.

If you have any questions or concerns about the project, please contact

Steven Roche, Director and Principal, ACER Consulting (519-830-2809; sroche@acerconsult.ca) or
Julia Saraceni, Research Associate, ACER Consulting, (647-523-1177; jsaraceni@acerconsult.ca)



Figure A1(1/2). Overview of PAHS project and goals sent to organization partners.

WHAT IS THE PLANT AND ANIMAL HEALTH STRATEGY FOR CANADA?

National Farmed Animal Health and Welfare Council Forum



Background

A persistent challenge for Canadian animal health partners in safeguarding plant and animal health is that they must balance their limited resources across numerous activities related to the prevention and mitigation of risks, preparedness, response and recovery. In order to strengthen the overall approach and make it sustainable, partners must embrace opportunities to use their collective resources more efficiently and effectively.

The [Plant and Animal Health Strategy \(PAHS\)](#) for Canada presents a national vision to address and prevent evolving risks to plant and animal health in Canada. Championed by the Canadian Food Inspection Agency (CFIA), and first implemented in July of 2017, the PAHS was one of the key deliverables under the Emergency Management Framework for Agriculture in Canada. The National Farmed Animal Health and Welfare Council (NFAHW) leads the coordination and reporting on Canada's animal health progress as it pertains to the PAHS. A key component of the PAHS is partnership between government, industry, academia, and major stakeholder groups. Collaboration and coordination between these partners are a key focus for the strategy and will aid in the goal to improve animal and plant health through prevention and risk management.

Purpose

Although certain strategies for plant and animal health exist separately within Canada prior to 2017, there was a need to create a cohesive strategy that addressed major issues related to plant and animal health and welfare; a strategy that complements (but does not duplicate) current and ongoing animal health activities. The PAHS was created in 2017 to:

1. Coordinate all relevant stakeholder groups to facilitate a cohesive approach to safeguard plant and animal health
2. Set the direction for improvements to our current approach to risk management and disease prevention
3. Identify plant and animal health priorities and actions for the short and long term
4. Direct partners' efforts towards evolution in accordance with changes in their needs, risks, and capacities

Vision

The PAHS was developed with a vision to ensure Canada's plant and animal resources are safeguarded, contributing to economic growth and protection of human health and the environment.

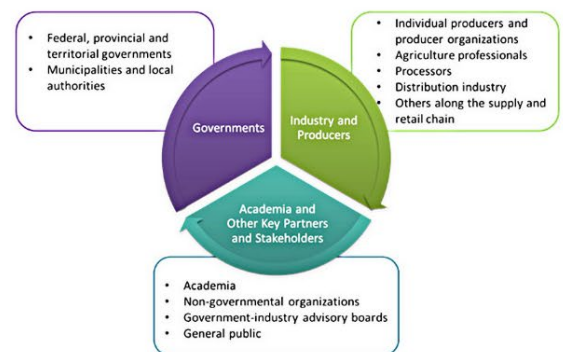


Figure A1(2/2). Overview of PAHS project and goals sent to organization partners.

APPENDIX 2: INTERVIEW QUESTIONS

Your Role in the PAHS

1. Tell us about your understanding of the PAHS.
2. Were you/your organization involved in its development? If yes, how?
3. Is there someone in your organization who is responsible for PAHS (or activities related to the PAHS)?
4. What is your organization's responsibility? In what way are you accountable for the outcomes listed in the strategy?
5. How has PAHS informed/influenced your organization (e.g. planning, actions, priorities, policies, collaborations, reporting, access to funding, etc.)? Have you referred to it to inform specific planning or activities?
6. In your opinion, what value does the PAHS have to your organization? To improving animal health and welfare in Canada?

Recall PAHS Objectives and Principles are:

Objective 1: Canada has the necessary information and awareness needed to support forward-looking risk management and evidence-based decisions.

Objective 2: Canada has a comprehensive, effective and integrated system that prevents and proactively addresses plant and animal health risks.

Objective 3: Canada has a robust and responsive plant and animal health system that supports economic growth and market competitiveness for Canadian products.

Guiding Principles

- Prevention-Focused
- Efficiency and Continuous Improvement
- Adaptive, Evidence- and Risk-Based Approach
- Shared Accountability
- Collaboration, Sharing, and Transparency

Reviewing Your Organizational Animal Health/Welfare Priorities, Activities, Outcomes

1. What have been the top 3-5 primary animal health/welfare topics/issues your organization has prioritized in the past 4 years?
2. What specific actions (policies/programs/practices) have you taken to address these priorities?
3. What would you say are your organization's top 3-5 animal health/welfare impact statements over the past 4 years? (e.g. "We are better prepared for the emergence of ASF in Canada"). What are you most proud of?
 - 3a. How do you know you have been successful? What concrete evidence can you speak to that verifies/substantiates these statements?
 - 3b. If applicable: What more needs to be done for each of these priorities?

APPENDIX 2 (CONTINUED): INTERVIEW QUESTIONS

4. What specific resources can you share/point us to, to help tell your animal health and welfare story?

COVID, One Health/Welfare, and the Future

1. How has COVID impacted animal health and welfare activities and/or outcomes for your organization? Are there any key lessons learned?
2. How have the concepts of One Health and One Welfare impacted your approach to animal health and welfare activities and/or outcomes for your organization?
3. What do you anticipate being the top 3-5 primary animal health/welfare topics/issues your organization will prioritize in the next 4 years?
4. What should the future of the PAHS be?
5. How does Animal Health Canada fit into the future of animal health and welfare in Canada?



