



BC FORAGE ACTION PLAN PROJECT CONSULTATION SUMMARY

PREPARED FOR THE BC MINISTRY OF AGRICULTURE



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EXECUTIVE SUMMARY

Introduction

The Forage Action Plan project was initiated to engage broadly with forage and forage-related stakeholder in British Columbia and to develop a guiding document for the BC Ministry of Agriculture based on the regional challenges facing the forage sector in BC and the priorities for action identified by stakeholders. The overall objective of the Forage Action Plan as stated at the outset of the project is to:

- Increase quantity and quality of forage produced
- Increase access to domestic and global forage markets
- Increase livestock performance through improved forage quality
- Increase innovation to enhance forage production
- Increase the capacity for producers to respond to market signals
- Increase the adaptive options for producers to respond to climate change

The Forage Action Plan project is a multi-phased approach that includes:

- Stakeholder Consultation
- Analysis of opportunities and challenges
- Development of an Action Plan
- Implementation of Action Plan

The purpose of this Forage Action Plan Project – Consultation Summary Report is to highlight potential opportunities, challenges and priorities identified by forage stakeholders and that are reflected in the Forage Action Plan Consultation Summary Background Report.

Key Opportunities

Opportunities to address stakeholder challenges and priorities are organized according to the major themes that emerged from the research conducted for the Forage Action Plan Consultation project: research and knowledge transfer; wildlife and invasive plants, pests and disease; climate, weather and water; land use, availability and affordability; and, transportation and market access. For each theme opportunities are identified address one or more objectives of the Forage Action Plan and could likely be initiated in the near term (i.e. 0-2 years) and that would require longer to achieve and/or would involve multiple actors including other levels of government, other provincial agencies, etc. Supporting evidence and rationale for opportunities are described in the main body of the report. Additional detail on stakeholder challenges and recommendations can be found in the Forage Action Plan Consultation Summary Background Report.

Stakeholder Priority: Research and Knowledge Transfer:

Near term opportunities:

- Establish funding opportunities for stakeholder associations to conduct knowledge transfer activities of existing and emerging best practices and research results related to forage
- Establish funding opportunities for stakeholder associations and producers to conduct forage-related research
- Increase the level of Ministry of Agriculture resources devoted to the forage sector including provision of extension services

Longer term opportunities:

- Support the establishment of university-based and other academic forage researchers
- Improve the collection and dissemination of baseline data relevant to the sector

Stakeholder Priority: Wildlife and invasive plants, pests and disease:Near term opportunities:

- Support research and knowledge transfer activities that are focused on reducing the negative impacts resulting from wildlife damage and invasive plants, pests and disease
- Increase monitoring and prevention of the spread of invasive plants, pests and disease
- Ensure that provincial land is maintained to the standards required by the Weed Control Act
- Help stakeholders communicate to the public regarding wildlife and invasives
- Study the cost/benefit of providing infrastructure funding in certain regional applications where doing so could substantially mitigate damage from wildlife

Longer term opportunities:

- Support collaboration between producer organizations and the Business Risk Management Branch of the Ministry to ensure BRM programming meets the risk management needs of the forage industry, to identify opportunities for improvement and to disseminate information on available programming.
- Work with municipalities and Regional Districts to ensure consistent application of the Weed Control Act

Stakeholder Priority: Climate, weather and water:Near term opportunities:

- Provide funding opportunities for research and knowledge transfer activities that will improve the ability of the forage sector to respond to the challenges caused by changing weather and climate patterns
- Provide funding opportunities for implementation or expansion of infrastructure that will improve the sustainable management and availability of water
- Ensure that accurate weather forecasting and weather data is available to the sector on a sub-regional level

Longer term opportunities:

- Monitor ongoing research and support the sector with respect to the carbon sequestration potential of forages

Stakeholder Priority: Land use, availability and affordability:Near term opportunities:

- Support the sector in ongoing issues with other government agencies and non-agricultural land users

Longer term opportunities:

- Advocate for land use and taxation regulations and/or policy that incentivizes the productive use agricultural land

Stakeholder Priority: Transportation and market access:Near term opportunities:

- Support domestic and international market development and market access efforts
- Support the development, implementation and maintenance of an efficient and effective online hay marketing platform

Longer term opportunities:

- Advocate for improved access to transportation infrastructure for the sector
- Study the need and ability of government to incentivize access to certain agricultural inputs

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I: INTRODUCTION

A. Project Background

The Forage Action Plan project was initiated to engage broadly with forage and forage-related stakeholders in British Columbia and to develop a guiding document for the BC Ministry of Agriculture based on the regional challenges facing the forage sector in BC and the priorities for action identified by stakeholders. The overall objective of the Forage Action Plan as stated at the outset of the project is to:

- Increase quantity and quality of forage produced
- Increase access to domestic and global forage markets
- Increase livestock performance through improved forage quality
- Increase innovation to enhance forage production
- Increase the capacity for producers to respond to market signals
- Increase the adaptive options for producers to respond to climate change

The Forage Action Plan project is a multi-phased approach that includes:

- Stakeholder Consultation
- Analysis of opportunities and challenges
- Development of an Action Plan
- Implementation of Action Plan

From November 2017 to March 2018 the Forage Action Plan Consultation project involved a document and environmental scan, a total of 7 regional engagement sessions and 1 provincial engagement session, an online survey of stakeholders, and interviews with Ministry of Agriculture and other government representatives, as well as researchers, stakeholder organizations and producers. The project was guided by a Technical Working Group comprised of Ministry of Agriculture Regional Agrologists and other staff, and a Steering Committee comprised of representatives of key provincial stakeholder organizations. A detailed description of the project methodology can be found in the Forage Action Plan Consultation Summary Background Report.

B. Purpose of the Draft Forage Action Plan Consultation Summary Report

This Consultation Summary Report supports the Stakeholder Consultation phase of the overall Forage Action Plan Project. The purpose of this Forage Action Plan Project – Consultation Summary Report is to highlight potential opportunities, challenges and priorities identified by forage stakeholders and that are reflected in the Forage Action Plan Consultation Summary Background Report.

C. Structure of the Report

The report is organized thematically according to the challenge/priority areas identified by stakeholders and described in the Background Report. Within each chapter potential opportunities are divided by those that could likely be initiated within the next 2 years (i.e. short term) and those that would require longer to achieve and/or would involve multiple actors including other levels of government, other provincial agencies, etc. Chapter II relates to research and knowledge transfer; Chapter III relates to wildlife and invasive plants, pests and disease; Chapter IV relates to climate, weather and water; Chapter V relates to land use, availability and affordability; Chapter VI relates to transportation and market access. Appendix 1 presents the linkages between selected opportunities contained in this plan with the Priority Areas identified in the Canadian Agricultural Partnership Multi-Lateral Agreement.

II: RESEARCH AND KNOWLEDGE TRANSFER

Stakeholders have expressed that an increase in forage-related research, development and knowledge transfer should be a major priority of the Forage Action Plan.

Opportunities included in this section could result in increased quantity and quality of forage produced, increased innovation to enhance forage production and increased adaptive options for producers to respond to climate change.

A. Near term opportunities (e.g. 0-2 years)

1. Establish funding opportunities for stakeholder associations to conduct knowledge transfer activities of existing and emerging best practices and research results related to forage.

- Stakeholders have described the need for more knowledge transfer activities to ensure that research and best practices are communicated to producers and other stakeholders.
- Funding opportunities should support the transfer of existing knowledge (i.e. results and best practices from research that has already been conducted) as well as support future research funding by committing appropriate resources to ensure that knowledge transfer activities occur when successful research is completed.
- Relevant topics and specific knowledge transfer activities should be determined primarily by producer and industry stakeholders but the Ministry of Agriculture should establish a process that ensures organizations carrying out knowledge transfer activities are acting in accordance with best practices concerning knowledge transfer and adult education.

2. Establish funding opportunities for stakeholder associations and producers to conduct forage-related research.

- Stakeholders have identified the need for additional funding opportunities to conduct a wide range of research including development and trial of forage varieties and forage management practices in order to address a multitude of challenges including weather, climate change, water, wildlife and invasive species, soil health and productivity and others.
- Funding opportunities should be designed and delivered in a manner that considers the need for a regional focus and regional distribution of available funds; allows research priorities to be established by stakeholder organizations and producers; supports administrative costs and core funding to build ongoing organizational capacity for stakeholders including the capacity for post-research knowledge transfer activities; recognizes that some types of forage-related research may require a 5-10 year lifecycle or longer.

3. Increase the level of Ministry of Agriculture resources devoted to the forage sector including provision of extension services.

- Stakeholders indicated an interest in the Ministry of Agriculture developing greater capacity to assist the forage sector.
- Stakeholders indicated that the Ministry should provide core extension services to the forage sector
- The Ministry could consider developing forage specialist(s) positions and otherwise enhancing the ability of Regional Agrologists to provide expertise to producers and other forage stakeholders.
- The Ministry could determine, with stakeholder input, the areas of research and knowledge transfer that would most benefit from government coordination or execution and commit resources to supporting those research and knowledge transfer activities.

B. Longer term opportunities (e.g. 2-5 years)

The following opportunities would take longer to implement or would involve the cooperation and consideration of multiple actors in addition to the Ministry of Agriculture (other levels of government, other agencies, etc.).

4. Support the establishment of university-based and other academic forage researchers.

- Stakeholders from several regions indicated that they want their local post-secondary institutions to be more involved in conducting forage research and to provide agricultural courses and programs.

5. Improve the collection and dissemination of baseline data relevant to the sector.

- Stakeholders indicated a need for more widely available forage testing support, feed analysis, soil testing and advice, fecal analysis, weather and other data.

III: WILDLIFE AND INVASIVE PLANTS, PESTS AND DISEASE

Stakeholders have expressed that action to reduce negative impacts resulting from wildlife damage and invasive plants, pests and disease should be a major priority of the Forage Action Plan.

Opportunities included in this section could result in increased quantity and quality of forage produced, increased access to domestic and global forage markets, and increased adaptive options for producers to respond to climate change.

A. Near term opportunities (e.g. 0-2 years)

1. Support research and knowledge transfer activities that are focused on reducing the negative impacts resulting from wildlife damage and invasive plants, pests and disease.

- Among other research priorities, stakeholders indicated that research should be conducted to determine varieties and practices that will reduce negative impacts to forage resulting from wildlife and invasive plants, pests and disease.
- Funding opportunities should support the transfer of existing knowledge (i.e. results and best practices from research that has already been conducted) as well as support future research funding by committing appropriate resources to ensure that knowledge transfer activities occur when successful research is completed.
- Funding opportunities should be designed and delivered in a manner that considers the need for a regional focus and regional distribution of available funds; allows research priorities to be established by stakeholder organizations and producers; supports administrative costs and core funding to build ongoing organizational capacity for stakeholders including the capacity for post-research knowledge transfer activities; recognizes that some types of forage-related research requires a 5-10 year lifecycle or longer.

2. Increase monitoring and prevention of the spread of invasive plants, pests and disease

- Stakeholders have signalled a strong preference for a proactive approach to mitigating the negative impact of invasive plants, pests and disease. Increased monitoring would be a key way of delivering on that priority.

3. Ensure that provincial land is maintained to the standards required by the Weed Control Act.

- Stakeholders view the relative lack of enforcement of the Weed Control Act Regulations concerning noxious weeds to be a significant contributor to the proliferation of invasive plants and the ensuing negative consequences for forage quantity, quality and return on investment.
- In the short term the focus could be on ensuring that all lands under the control of the Province of BC where invasive plants are responsible for significant impact on forage are maintained to the standard required by the Act.

4. Help stakeholders communicate to the public regarding wildlife and invasives

- Stakeholders have reported that in some cases public perception and preference have outweighed the wants of the sector with respect to potential responses to wildlife and invasive plants, pests and disease. For example, the public at large is perceived as enjoying the large flocks of waterfowl which gather in the South Coast region or the presence of ungulates and bears in other regions of BC and so generally do not support the concept of population reduction (i.e. hunting); likewise, chemical pesticides are viewed negatively by some members of the public, as is the bioengineering of crops, meanwhile both use of pesticide and exploration of genetically modified crops were recommended by some stakeholders as approaches to managing the impacts from wildlife and invasive.
- In certain instances it may be appropriate to support stakeholder organizations that are interested in conveying a message to the public that enforces the importance of agriculture and the need for farmers to respond to threats

from wildlife and invasives.

5. Study the cost/benefit of providing infrastructure funding in certain regional applications where doing so could substantially mitigate damage from wildlife.

- It is not realistic to attempt to protect all forage in BC with fencing through a government funding program, but in some instances it is likely that the use of infrastructure can help mitigate the impact from wildlife and therefore improve forage quality, quantity or return on investment. For example, the use of fencing was suggested by stakeholders as a method to prevent elk damage to standing forages or to allow for innovative practices such as swath grazing to occur in some areas despite their having significant wildlife populations.
- Studying the issue further would allow for appropriate implementation over the longer term.

B. Longer term opportunities (e.g. 2-5 years)

The following opportunities would take longer to implement or would involve the cooperation and consideration of multiple actors in addition to the Ministry of Agriculture (other levels of government, other agencies, etc.).

6. Support collaboration between producer organizations and the Business Risk Management Branch of the Ministry to ensure BRM programming meets the risk management needs of the forage industry, to identify opportunities for improvement and to disseminate information on available programming.

- Some stakeholders expressed that they are satisfied with the suite of BRM programming available for their forage production, however many others provided anecdotal reports of a multitude of ways in which the current programming does not treat forage equitably when compared to other crops. Some indicated that current programming has not been sufficiently responsive to be able to take into account the specific nature of their forage operations, and as a result the programming has underpaid or has not provided coverage for all or parts of their production. Additionally, changing weather and climate patterns are introducing new threats including winterkill of forage.
- Programming for BRM is not solely determined by the BC Ministry of Agriculture and so any improvements for forage would need only result through cooperation of multiple agencies and with the Federal government. As a result it is realistic to consider this a longer term action.

7. Work with municipalities and Regional Districts to ensure consistent application of the Weed Control Act.

- Stakeholders view the relative lack of enforcement of the Weed Control Act Regulations concerning noxious weeds to be a significant contributor to the proliferation of invasive plants and the ensuing negative consequences for forage quantity, quality and return on investment.
- Section 9 and 10 of the Weed Control Act provides for the establishing of weed control committees and weed control officers by municipal councils. The importance of achieving sufficient buy in from municipalities and regional districts is the reason for this approach being considered a longer term opportunity.

IV: CLIMATE, WEATHER AND WATER

Stakeholders expressed that changing climate and weather patterns are negatively affecting forage quality, quantity and return on investment.

Opportunities included in this section could result in increased quantity and quality of forage produced and increased adaptive options for producers to respond to climate change.

A. Near term opportunities (e.g. 0-2 years)

1. Provide funding opportunities for research and knowledge transfer that will improve the ability of the forage sector to respond to the challenges caused by changing weather and climate patterns.

- Stakeholders want resources directed to locally based and relevant research, trials and knowledge transfer that will help mitigate the effects of climate change
- Funding opportunities should support the transfer of existing knowledge (i.e. results and best practices from research that has already been conducted) as well as support future research funding by committing appropriate resources to ensure that knowledge transfer activities occur when successful research is completed.
- Funding opportunities should be designed and delivered in a manner that considers the need for a regional focus and regional distribution of available funds; allows research priorities to be established by stakeholder organizations and producers; supports administrative costs and core funding to build ongoing organizational capacity for stakeholders including the capacity for post-research knowledge transfer activities; recognizes that some types of forage-related research requires a 5-10 year lifecycle or longer.

2. Provide funding opportunities for implementation and expansion of infrastructure that will improve the sustainable management and availability of water.

- Many stakeholders require improvement to or development of water storage and irrigation infrastructure in order to have access to water that is affordable and sustainable and to be able to utilize water to maximize the quality, quantity and return on investment of forage grown on private land in BC.
- Additional research would be required to determine the appropriate level of financial contribution available through such opportunities.

3. Ensure that accurate weather forecasting and weather data is available to the sector on a sub-regional level

- Stakeholders have indicated that having access to reliable and consistent weather forecasting will allow them to more effectively mitigate the effects of climate change.
- The potential of partnering with existing improvements in weather forecasting should be explored (e.g. University of Washington).

B. Longer term opportunities (e.g. 2-5 years)

The following opportunities would take longer to implement or would involve the cooperation and consideration of multiple actors in addition to the Ministry of Agriculture (other levels of government, other agencies, etc.).

4. Monitor ongoing research and support the sector with respect to the carbon sequestration potential of forages

- Stakeholders want established forages to be assessed for their carbon sequestration impact and reward carbon credits or other subsidies to producers.

- Research is currently being carried out on a national level. Meanwhile, regulation of carbon emissions is increasingly based on federal or federal-provincial agreements. For these reasons, this is a longer term opportunity but the Ministry of Agriculture could maintain current knowledge on the topic and advocate for BC forage producers in all ways possible as the conversation develops.

V: LAND USE, AVAILABILITY AND AFFORDABILITY

Stakeholders expressed concern that land use, availability and affordability are all negatively affecting forage quality, quantity and/or return on investment.

Opportunities included in this section could result in increased quantity of forage produced.

A. Near term opportunities (e.g. 0-2 years)

1. Support the sector in ongoing issues with other government agencies and non-agricultural land users.

- Stakeholders expressed that they want the “right to farm” to be affirmed. The Ministry of Agriculture could address this priority by advocating for the forage sector as issues arise that put the sector and either government or other non-agricultural land users in opposition.

B. Longer term opportunities (e.g. 2-5 years)

The following opportunities would take longer to implement or would involve the cooperation and consideration of multiple actors in addition to the Ministry of Agriculture (other levels of government, other agencies, etc.).

2. Advocate for land use and taxation regulations and/or policy that incentivizes the productive use of agricultural land.

- Stakeholders would like tax or other land use regulations used to incentivize the productive use of land suitable for forages. Such policy mechanisms are not available to the Ministry of Agriculture directly so addressing this priority would be a longer term endeavour that would be based on advocating for the importance of forage to other levels of government and other agencies that have direct power to use financial incentives or disincentives in this manner.
- Stakeholders indicated that this should include limiting the use of crown land within the ALR to agricultural uses.

VI: TRANSPORTATION AND MARKET ACCESS

Stakeholders described ways in which transportation and market access issues negatively affect forage quality, quantity and/or return on investment.

Opportunities included in this section could result in increased access to domestic and global forage markets and increased capacity among producers to respond to market signals.

A. Near term opportunities (e.g. 0-2 years)

1. Support domestic and international market development and market access efforts.

- Some stakeholders called for greater marketing and promotion of British Columbia forages in domestic and international markets.

2. Support the development, implementation and maintenance of an efficient and effective online hay marketing platform.

- Many stakeholders called on government or industry to facilitate an efficient and effective hay marketing platform
 - The purpose would be to reliably and efficiently facilitate local, regional and provincial hay sales.

B. Longer term opportunities (e.g. 2-5 years)

The following opportunities would take longer to implement or would involve the cooperation and consideration of multiple actors in addition to the Ministry of Agriculture (other levels of government, other agencies, etc.).

3. Advocate for improved access to transportation infrastructure for the sector.

- Stakeholders expressed the need for improved access to transportation infrastructure including BC Ferries, rail transportation, and highway crossings. The ability for the Ministry of Agriculture to have a direct effect on transportation issues is limited so addressing these priorities would be a longer term endeavour that would be based on advocating for the importance of forage to other levels of government and other agencies.

4. Study the need and ability of government to incentivize access to certain agricultural inputs.

- Stakeholders across many regions want the availability of necessary inputs supported through travel subsidies or financial incentives/disincentives that reduce cost to obtain inputs. Any government initiative aimed at addressing these priorities would need study and careful implementation in order to avoid unintentional consequences.

APPENDIX 1: LINKAGES BETWEEN THE PLAN AND THE CANADIAN AGRICULTURAL PARTNERSHIP MULTI-LATERAL AGREEMENT

Canadian Agricultural Partnership Priority Areas for Action	Forage Action Plan				
	Research and Knowledge Transfer	Wildlife and invasive plants, pests and disease	Climate, weather and water	Land use, availability and affordability	Transportation and market access
Science, Research and Innovation	<p>Establish funding opportunities for stakeholder associations to conduct knowledge transfer activities of existing and emerging best practices and research results related to forage</p> <p>Establish funding opportunities for stakeholder associations and producers to conduct forage related research</p> <p>Support the establishment of university-based and other academic forage researchers</p>	<p>Support research and knowledge transfer activities that are focused on reducing the negative impacts resulting from wildlife damage and invasive plants, pests and disease</p>	<p>Provide funding opportunities for research and knowledge transfer that will improve the ability of the forage sector to respond to the challenges caused by changing weather and climate patterns.</p>		
Environmental Sustainability and Climate Change	<p>Establish funding opportunities for stakeholder associations to conduct knowledge transfer activities of existing and emerging best practices and research results related to forage</p> <p>Establish funding opportunities for stakeholder associations and producers to conduct forage related research</p>		<p>Provide funding opportunities for research and knowledge transfer that will improve the ability of the forage sector to respond to the challenges caused by changing weather and climate patterns.</p> <p>Monitor ongoing research and support the sector with respect to the carbon sequestration potential of forages</p>		
Risk Management	<p>Establish funding opportunities for stakeholder associations to conduct knowledge transfer activities of existing and emerging best practices and research results related to forage</p>	<p>Support research and knowledge transfer activities that are focused on reducing the negative impacts resulting from wildlife damage and invasive plants, pests and disease.</p> <p>Increase monitoring and prevention of the spread of invasive plants, pests and disease.</p> <p>Ensure that provincial land is maintained to the standards required by the <i>Weed Control Act</i>.</p> <p>Support collaboration between</p>			

		producer organization and the Business Risk Management Branch to ensure BRM programming meets the risk management needs of the forage industry , to identify opportunities for improvement and to disseminate information on available programming.			
Public Trust		Help stakeholders communicate to the public regarding wildlife and invasives.		Support the sector in ongoing issues with other government agencies and non-agricultural land users.	
Markets and Trade					Support domestic and international market development and market access efforts Support the development, implementation and maintenance of an efficient and effective online hay marketing platform