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MANITOBA



SUSTAINABLE PROTEIN CHALLENGE DIALOGUE

Deep Dive Sessions Summary Report

- #1: Visioning the Future of Sustainable Protein
- #2: Optimizing By Products Use Through Interconnection
- #3: Creating a Total Value Framework

October 21, 2020

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01 | OVERVIEW OF DEEP DIVE SESSIONS

CONTEXT: MANITOBA SUSTAINABLE PROTEIN CHALLENGE DIALOGUE

As a follow up to the feedback we received from the [Challenge Paper](#) on Sustainable Protein, there was a need to dive deeper into certain topics through three online sessions. The purpose of these sessions was to bring a group of diverse stakeholders together across the protein supply chain to collaboratively discuss the topics and inform the next phase of work – an action and impact map – to advance Manitoba's Sustainable Protein Advantage.

The champions of this process are the Manitoba government and the Manitoba Protein Consortium. The ultimate goal is to clarify and define a Sustainable Protein agenda that Manitoba can act upon to become a leader in Sustainable Protein.

For more information on the feedback gathered from the Challenge Paper, please read the [Progress Report](#).

CONTEXT: DEEP DIVE SESSIONS

Each Deep Dive Session consisted of two main breakouts, where smaller 'table' groups discussed high-level questions before coming back together to report to the larger group. The following pages summarize key discussion points, takeaways and possible next steps against each of the topics.



Held September 25, October 1 and 2, 2020



Each session had ~25 participants across the protein supply chain, along with a facilitator and a Reporter



Sessions were 2.5 hrs, hosted on Zoom, with two main breakout discussions

02| DEEP DIVE #1:

VISIONING THE FUTURE OF SUSTAINABLE PROTEIN

BREAKOUT #1 DISCUSSION QUESTION:

As a group, review, discuss and refine the definition of Sustainable Protein put forward in the Challenge Paper:

Sustainable Protein: protein sources – animal, plant and alternative – that are sourced, developed and scaled to meet the need of the present, without compromising the future. Sustainable Protein is produced through globally best-in-class practices that mitigate climate change and environmental impact, support economic development, and provide safe and nutritious food to meet global consumer demand.

FEEDBACK AND HIGHLIGHTS

Suggested Adjustments:

- Replace the word “best-in-class” with concepts of continuous improvement. Being a global leader is a noble goal, but achieving local best management practices provides focus.
- Consider using the word ‘principles’ or ‘outcomes’ instead of ‘practices’.
- It is critical to include the social aspect - health and wellness are key pieces - in addition to environment and economic.
- The addition of the nutrition aspect is necessary to be fully representative.
- The definition mostly focuses on the social aspects of producers not consumers, but it needs to be concerned about consumers too. There is an ever growing demand for food and it needs to be balanced with the world’s carrying capacity.
- Clarification is needed on whether it is about the ‘food system’ all the way to consumers or just production on the farm.
- Instead of using ‘scaled’, consider ‘processed’, as this better encompasses value-add/by-product production.

Other comments:

- **Nitrogen:** Do we need to trace the nitrogen molecule and export less by making the system more efficient?
- **Innovation:** The past is the key to the future. e.g. canola is a great model of success, driven by economics to become sustainable. Use this as a lesson as we look forward.

Existing definitions:

- Food and Agriculture Organization of the United Nations (FAO).
- Beef Sustainability Round Table has a good working definition of sustainable protein.
- World Economic Forum has conducted work on protein sustainability.
- Tyson has launched initiative on sustainability of protein.

02| DEEP DIVE #1:

VISIONING THE FUTURE OF SUSTAINABLE PROTEIN

BREAKOUT #2 DISCUSSION QUESTION:

What do you think Sustainable Protein should look like in 2030? What is the long-term goal?

- Imagine a journalist arrives to interview you 10 years from today; what would you say to him/her?
- Describe what will be different as a result of us realizing the vision of 2030 discussed above. What are the three conditions that will achieve a sustainable protein future?



FUTURE STATE/SUCCESS:

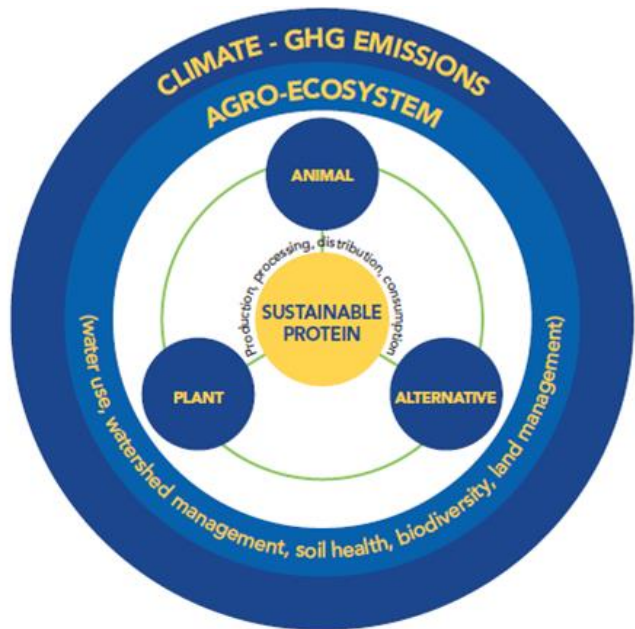
- There is a **reduction in methane emissions** from animals and **nitrogen emissions** from plants.
- There is **clarity around long-term carbon storage** in agriculture and better long-term land management on both agriculture and associated land.
- There is an **improved lifestyle and economic return** for those in the industry – from cost-plus pricing, to a real wage for farmers based on stewardship, nutrient density and the levels of care and attention to detail.
- There is **traceability and transparency in the production chain** which has resulted in better marketing of Canadian products on the international stage, and has encouraged more sustainable practices.
- There is **greater focus on “low food miles”** and Manitoba has an increased ability to transform more of what is being produced. A balance has been found between production and transformation (look to Ireland and Demark for learnings), and a more strategic approach to exports has been achieved.
- There is **increased biodiversity**, and we have plants and animals co-existing symbiotically, with more upcycling between animal and plant products. There is **better utilization of the full value of the product** rather than creating “waste”.
- There is **better optimization of land base productive capacity** - no more land has been brought into production and the markets dictate whether crops or cattle are produced.
- **Sustainability branded products** have become the price of selling into international markets.
- **2030 key words:** balance, efficiency (follow N waste), integration (e.g. First Nations, urban food deserts, nutrition), solving food insecurity issues. Promotion of Indigenous people and First Nations.

03| DEEP DIVE #1: OPTIMIZING BY-PRODUCTS USE THROUGH INTERCONNECTION

BREAKOUT #2 DISCUSSION QUESTION (CONT'D):

What do you think Sustainable Protein should look like in 2030? What is the long-term goal?

- Imagine a journalist arrives to interview you 10 years from today; what would you say to him/her?
- Describe what will be different as a result of us realizing the vision of 2030 discussed above. What are the three conditions that will achieve a sustainable protein future?



PRECONDITIONS

- A benchmark of current state in order to measure future state. We currently lack the analytical capacity to measure on a consistent basis.
- Better science on carbon footprint of alternative products, like non-meat burgers.
- A common sense review of food inspection and regulations.
- Infrastructure that is ready to access international markets/exports.
- A willingness to collaborate across industry, academia and government.
- A favourable investment package to attract investors – one that moves beyond taxes to consider the full cost of doing business (i.e. labour costs etc.).

03| DEEP DIVE #2: OPTIMIZING BY-PRODUCTS USE THROUGH INTERCONNECTION

BREAKOUT #1 DISCUSSION QUESTION:

Imagine as a group what desired high-level outcomes would be for optimizing by-products use through interconnection?

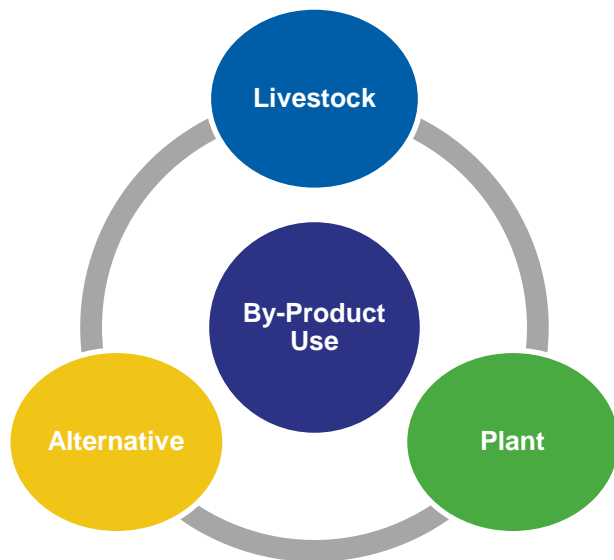
Consider:

- What does success look like?
- What will be different as a result?
- What elements may have changed?



SUCCESS LOOKS LIKE:

- **Greater profitability** for by-product use in a range of sectors – seen as a good business opportunity, not just sustainable.
- A **shift from using the word “waste”** to consistently use the word “by-product” - highlights the need for better utilization and confirms that waste is actually valuable product.
- **More interconnection and linkage between the animal and plant protein** sectors through by-product utilization.
- Broader appreciation of a need to **operate outside of silos** so that we see more connectivity and values-alignment beyond those immediately involved in the food supply chain (extends to research, investors, broader community etc.).
- **Information systems** that are community populated and map out who is doing what in the system, what by-products are available, the nutrient profile of the by-products, the geographic region and more.
- Identification and **creation of clusters** that generate similar by-products to streamline the process (proximity, volume, logistics etc.).
- **Fewer regulation barriers** so that good ideas are not stifled.
- By-product utilization **considered from the start** of any initiative.



03| DEEP DIVE #2:

OPTIMIZING BY-PRODUCTS USE THROUGH INTERCONNECTION

BREAKOUT #1 DISCUSSION QUESTION CONT'D:

As a group, discuss what is needed to achieve the high-level outcomes? Consider:

- What preconditions should be in place?
- What partnerships/strategic alliances might be required or should be engaged?
- What barriers might need to be removed?



PRECONDITIONS:

- **Incentives/economic rewards** offered for all partners.
- Available **young talent**.
- Understanding of what is out there and who to talk to, and a **common language** across all disciplines.
- A focus on **two-pronged education** – for both workers and the public.
- Ability to think **geo-politically**.
- **Access to capital** - aquaculture and Indigenous is finally on the radar, but still very difficult to access capital.
- **Mapping of resources** available for conversion, as a start to breakdown silos.
- **Consistent certification of by-products** across accrediting bodies - must be in sync with what is happening and be willing to move quickly and meet the needs of innovation. More liaising and more emphasis on sense of urgency.
- **Government capacity** to encourage investment into these new areas.
- **Policies, programs and initiatives** to support geographic clusters.

PARTNERSHIPS AND STRATEGIC ALLIANCES:

- **Create a multidisciplinary research team** (industry, government and academia) to inventory the types of expertise required.
- **ENGOS and animal welfare groups** as partners for public trust.
- **Engage youth** for commercialization of sustainable products.
- **Investment partnerships** – must be exciting (almost revolutionary) – concentrate on specific sustainability regenerative metrics (look to French and German gov'ts) – 4/1000.
- **Growth through local investments** could be a potential opportunity (e.g. investments in indigenous enterprises).
- Working more closely with federal agencies such as **Global Affairs and PIC**.

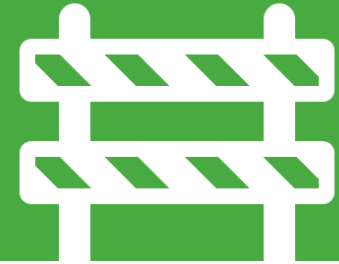
03| DEEP DIVE #2:

OPTIMIZING BY-PRODUCTS USE THROUGH INTERCONNECTION

BREAKOUT #2 DISCUSSION QUESTION:

As a group, discuss what is needed to achieve the high-level outcomes? Consider:

- What preconditions should be in place?
- What barriers might need to be removed?
- What partnerships/strategic alliances might be required or should be engaged?



BARRIERS TO REMOVE:

- **Research capacity** – it is currently limited and needs to be increased.
- **Regulation barriers** – shift to a more flexible, inviting regulatory environment.
- **Breakdown barriers between disciplines** – need a more interdisciplinary, holistic approach. Each sector has different agendas.
- **Biotechnology** – strengthen public trust around application.
- **Lack of connection between provincial and federal level** – there is no champion for Canada leading this at a senior level (compared to what we see happening in Europe). Canada needs an ambassador of Agriculture and Food to elevate the conversation.
- **Competition and speed** – pace of change and mobility of capital is unprecedented. Need to remove barriers to ensure we can react quickly to remain competitive – must get the investment happening in Manitoba. People have to see this as being a positive place to go.
- **Improved collaboration** – municipalities don't always work well together. How can we help this group in particular work better together so that we encourage input and engagement?
- **Adequate infrastructure / water** – must make sure infrastructure is adequate to meet the needs of industry and community. This is a barrier if there isn't the capital required to invest, or if the amount/volume of work that might be required to meet these needs is prohibitive.

04| DEEP DIVE #3: CREATING A TOTAL VALUE FRAMEWORK

OBJECTIVE: To discuss how to understand and value environmental goods and services, including carbon storage, and social factors, so overall sustainability can be incorporated and communicated as an (integral) part of the sustainable protein system.

BREAKOUT #1 DISCUSSION QUESTION:

Imagine as a group, what high-level outcomes we would like to achieve for a total value framework? Contemplate:

- What are we trying to accomplish?
- What does success look like?
- What elements should be considered in a total value approach?
- What will be different as a result?



SUCCESS LOOKS LIKE:

- **A comprehensive map of Manitoba's Total Value Framework** – EU has mapped its total value framework and measured against UN sustainable development goals, which enables different parties and investors to understand what the 'total value framework' means. Most sectors, particularly commodity associations, have already mapped what sustainability means for their sector.
- **Full cost accounting and financial reward** – for taking actions that improve total value.
- **A more inclusive and equitable framework** – one that benefits the producer.
- **Revised policy around taxes** – to encourage actions that maximize total value. The current system often conflicts with stewardship.
- **More similarity among existing frameworks** – because existing frameworks aren't the same, i.e. energy and agriculture.
- **A 'Made in Manitoba' brand** – using a value framework to build the province's presence in the market and to create a story behind the product (producer to shelf) that tells how Manitoba is measuring the metric of the Total Value Framework.
- **More value-added opportunities creating a more robust economy** – one that brings value to the entire value-chain.
- **Increased focus on quality of the product** – an environment where there is compensation for 'how a product is being produced'.
- **Collaboratively building on what is already being done** – an environment of best practice sharing has been created, individuals and organizations are actively looking to what others are doing (e.g. dairy industries pro-action program), and the government is playing a key role in bringing together stakeholders to discuss success stories, identify gaps and synergies.

04| DEEP DIVE #3: CREATING A TOTAL VALUE FRAMEWORK

BREAKOUT #2 DISCUSSION QUESTION:

As a group, what is the pathway to advance adoption of a total value framework? Contemplate:

- What *actions* can be taken and by whom?
- What *barriers* might need to be removed?
- What *partnerships/strategic alliances* might be required or should be engaged?



POSSIBLE ACTIONS:

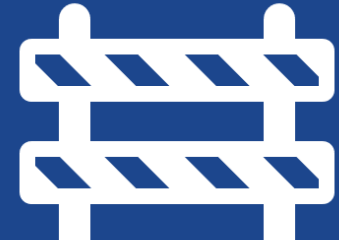
- **Create market incentives** – these work better than regulations and reward good behaviour. Landowners form the base of the value chain. It must work for farmers.
- **Develop communication plan to influence buyers** – consumers are complex beasts. Multiple issues impact their decisions.
- **Ensure data rights are equitable** – across entire value chain.
- **Run pilots** – around Environmental Goods and Services (EGS) valuation.
- **Define foundational items** – understand what we are trying to measure. Current sustainable practices need to be articulated. Verified beef practices don't always bring a premium, but farmers do it anyway to demonstrate good practices. Look to the United Nations' sustainable development goals.
- **Conduct whole-systems research** – to understand systems and components therein.
- **Take first steps and make them dramatic** – for instance, grasslands as carbon sinks. Look to actions of other provinces and nations.
- **Deliver programs** – focused on 'how a product is being produced'.
- **Conduct a comprehensive review of existing programing** – delivered by commodity associations and build on their efforts. There are metrics available through these programs. Use this to identify quick wins in terms of performance.
- **Identify 'what kinds of practices/improvements' can have the most wins** – using information that currently exists to identify gaps moving forward.
- **Host a roundtable** – to mobilize a "Made in MB" brand and/or create a story around regional sustainability. A collaborative effort among government commodity associations, food manufacturers/processors, start-up brands, retailers and consumer groups.
- **Organize workshops** – on best management practices, etc. for producers.
- **Carbon credits** – look to have carbon credits in both an offset market and in a sustainable protein certification type market.

04| DEEP DIVE #3: CREATING A TOTAL VALUE FRAMEWORK

BREAKOUT #2 DISCUSSION QUESTION:

As a group, what is the pathway to advance adoption of a total value framework? Contemplate:

- What *actions* can be taken and by whom?
- What *barriers* might need to be removed?
- What *partnerships/strategic alliances* might be required or should be engaged?



BARRIERS:

- **Questions on data ownership** – need systems that allow social buy-in and reaffirm property rights of landowners. Includes questions around tracing (who owns what), seed intellectual rights (how is data used?) and distribution of data rights.
- **Complicated consumer market landscape** – fragmentation, willingness of consumers to pay more for verified products is a question, especially with current pandemic.
- **Impact of COVID** – need commitment from processors to remain here. Breaking supply chains is a risk.
- **Regulatory challenges** – for example, reducing antibiotic use in animal agriculture.
- **Traditional thinking** – for example, from producers around ‘branding’ tied to specific marketing strategies. This could also be a generational/demographic barrier.
- **Getting buy-in across the entire value chain** – maybe it’s even at the societal level.

PARTNERSHIPS AND STRATEGIC ALLIANCES:

- **Soil C Initiative in the US** – could be a similar regional system in Canada.
- **Collaboration** – between farmers, government and other aspects of the value chain to develop metrics.
- **Champions of the brand** – collaborative effort with government, commodity associations, food manufacturers/processors, start-up brands, retailers and consumer groups.

05| NEXT STEPS

SUSTAINABLE PROTEIN CHALLENGE DIALOGUE ROADMAP

Work is progressing to Phase 2.



Q3 2020 - Phase 1 Challenge Dialogue

- Progress Report circulated to stakeholder group of Dialogue participants.
- Participants invited to Deep Dive Insight Sessions where more insight and discussion is required.



01



Q4 2020 - Phase 2 Action and Impact Mapping

- Over the course of three consecutive workshops, a dedicated design team identifies the necessary conditions to achieve a shared long-term goal.
- Conditions are mapped incrementally as a connected and coherent set of interventions, outcomes, long-term goals and beneficial impacts.
- Design team includes 20 to 25 Dialogue participants.

02



Q1 2021 - Phase 3 Innovation Forum

- A gathering of ~100 stakeholders (virtual/in person TBD) where finalized Impact Map is presented as a comprehensive framework for action.
- Opportunity for stakeholders to identify where they are currently active and what action pathways should be prioritized to begin working on.

03

QUESTIONS?

Contact us below with questions, comments or feedback.

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