

Creating Western Canada's Hemp Industry

March 15

2019

On March 15th over 175 people gathered at Olds College in Olds Alberta to contribute to development of Western Canada's Industrial Hemp Industry. The 2nd Annual Conference was co-hosted by the Alberta Council of Technologies Society and Agriculture Food Council. The attendees were given this workbook containing 11 objectives/priorities as identified at the 1st Annual Conference in April 2018. Attendees were asked in small groups to review and revise each Objective as warranted. The comments are contained below. Also cited are the proportions of responsibility identified for each Objective for Government, Business, Academia, and NGOS – non-government organizations.



Developing Western Canada's Hemp Industry Conference Summary - April 20, 2018

Objective #1 Transportation			
Getting the hemp products to market efficiently and economically.			
Recommendations	Notes	Action Team	
		Name	Contact Info
<ul style="list-style-type: none"> Investigate existing grain/oilseed capacity constraints for hemp seed and assess what additional capacity and alternative solutions could address the gap Minimize the transportation effort and time for the farmer-maximize value Harvest, storage, sorting and handling of transfer and understand what the customer wants How do you certify for standards? 	<ul style="list-style-type: none"> Ability to pre-sort products separately (seed, fiber) at regional depots Drop-off capacity Rail capacity Sealed flexi-bags in 20 ft containers Better to be shipping in goods rather than raw materials Regarding decortication, how do you densify the material as early as economically appropriate? Portable decortication that is moving with the harvest season. Consideration for regional/global buyers 	Terry Hampson Jason Richl Stuart Ackland	terry@hnhmp.com guloenviro@gmail.com stuart@innovationclusters.ca

Comments 2019.

<ul style="list-style-type: none"> Hemp seed capacity constraints could be alleviated by allowing and approving hemp seed as a feed source for cattle and other livestock. We need hemp to be a commodity, with agreed and accepted values including future market value. Field based separation (flowers/ seed/fibre) Pedigri seed grower every region Ease fi see producers Producers are hard to find Regional processing and portable 1st bullet. Transportation is not the issue, the issue is limited processing capacity and 	Ecosystem Sector	Count	Proportion
	Government	2	5.0%
	Business	17	85.0%
	Academia	1	5.0%
	NGOs	0	0.0%
	TOTAL	19	100%
	Interest/Rank	6%	10th

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<p>market demand.</p> <ul style="list-style-type: none">• 2nd bullet. Non-issue.• 3rd bullet. Product moving event deadline needs to be in all contracts• How to plan ahead from storage if product doesn't move• 4th bullet. You need to establish standard from storage and transportation from first and engage al stakeholders.• Decortication should be within 100km radius confirmed against trucking costs• Rail is not an answer in the near term – already at capacity• Develop technology to improve shipping efficiency• Shipping methods. Relationship building. Collaborations.• Bulk transport can use the organiz system as a template to ensure trucks are clean and safe/• Hemp needs to have its own independent drop-off spot along rail• Mobile processing – on-site – where applicable.• Decorticators – use model similar to grain terminals for set-up.• Establish regional processing facilities in optimal transportation locations• Group 6: Josh Billyk, Rohit Sati, Ed Wilanowski, Dennis Halabisky, Norma Halabisky, Robert Herscovitch, Alex Lowe:<ul style="list-style-type: none">○ Set up a Supply Chain○ Identify key: Supports and Barriers and work in each to streamline• Allocate resources and provide incentives	
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Objective #2 Financing			
Ensuring access to capital for industry development. Include government, research, farmers and investors.			
Recommendations	Notes	Action Team	
		Name	Contact Info
<ul style="list-style-type: none"> Relationship building Matchmaking investors and investees Continuous education of all stakeholders - Network Pitching/articulations the problem and solutions Connecting "qualified" buyers, growers, suppliers, financiers etc. for new entrants into the hemp industry to reduce risk to their business Government should assist to build a "community" Capital financing support until "industry" is more developed 	<ul style="list-style-type: none"> Marrying / integrating processing to market capacity Commitments Educations-where should I put my money? Matching the right investors with the right investment Hemp is a new industry and governments should work together to develop various stages A lot of risks to investing in new industry when there is uncertainty to markets 	Angie Alexander (overview/strategic plan) Jeff Klotz (overview/strategic plan) Christopher Robblee (fibre/financing) Antonio Arias (financing)	Angie.alexander@me.com jeff@farmlandcapital.net crobblee@vegreville.com tarias@alamidascapital.com

Comments 2019.

<ul style="list-style-type: none"> Financing is available, just need to find. RISK. Vulnerability with lack of specifications and qualifications Who owns quality – marketing councils or boards need to be created to set quality Ho do we protect the industry from people flying under the radar and ruining the industry's reputation? Need to consider IP as an investable proposition Validate ROI and Exits Federal support through banking institutions Action Team – Results?? Recommendations & Notes are vague 	<table border="1"> <thead> <tr> <th>Ecosystem Sector</th> <th>Count</th> <th>Proportion</th> </tr> </thead> <tbody> <tr> <td>Government</td> <td>13</td> <td>37.1%</td> </tr> <tr> <td>Business</td> <td>18</td> <td>51.4%</td> </tr> <tr> <td>Academia</td> <td>1</td> <td>2.9%</td> </tr> <tr> <td>NGOs</td> <td>3</td> <td>8.6%</td> </tr> <tr> <td>TOTAL</td> <td>35</td> <td>100</td> </tr> <tr> <td>Interest/Rank</td> <td>11%</td> <td>4.5th</td> </tr> </tbody> </table>	Ecosystem Sector	Count	Proportion	Government	13	37.1%	Business	18	51.4%	Academia	1	2.9%	NGOs	3	8.6%	TOTAL	35	100	Interest/Rank	11%	4.5th
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- Establish PM=FTE/Emerging sector
- Establish location/ environment for sustainable investment and growth
- Incentives that bring investors to the table - a tax strategy.
- Arrange to secure hemp shipments inside of Canada as does Export Development Bank of Canada.
- Take a market-centric orientation – secure production
- Develop the market
- End-user demand and investment
- Identify eligible grants
- Identify financial networks for start-ups – private and public
- Note, delete Christopher Robblee from Action Team
- Easier government grants with grant facilitators to help write.
- Bank 3 feasibility studies –look this up, with government incentives to get to this stage so banks will finance.
- It is a standoff between government processors and the farmers
- Feasibility studies would help with banks
- Grant application process should be less complex and widely available with support
- Relax lending restrictions to allow quicker adoption
- Need education on the 3 phases – proof of concept, research, commercialization, scale-up before seeking financing
- Where could entrepreneurs go to get guidelines on what needs to be done for financing, what grants are available for that industry – put on CHTA website.
- Establish defined markets
- Group 6: Josh Billyk, Rohit Sati, Ed Wilanowski, Dennis Halabisky, Norma Halabisky, Robert Herscovitch, Alex Lowe:
 - Farm Credits Purchases
 - Relate financing to innovation -> carry to commercialization
 - Attractive and be open to foreign investment. Government NOT to be involved, other than in policy formulation – less red tape.

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Objective #3 Research-Product Applications			
Innovation in developing value-added hemp products and their introduction to the market. Include supply chain management, plant usage, food-stock and equipment.			
Recommendations	Notes	Action Team	
		Name	Contact Info
<ul style="list-style-type: none"> • Research what can be done with hemp roots • Hemp juice • New technology machinery to harvest • Purpose based equipment for extraction of specific products • New products for health food areas • Hemp and lignin-hemp board with natural resin • Research for financing of start-ups for hemp products • Research on sources to develop hemp products • Research on customizing food products to the profile of the client • Hemp-crete applications, processes and engineering • Change guidelines for accessing government money • Deregulating hemp, loosening the THC limits 	<ul style="list-style-type: none"> • Market opportunities with lower THC and higher CBD's • Barriers to the market: <ul style="list-style-type: none"> ○ Undeveloped value chain ○ Decortication ○ No fiber market secured • Whole plant utilization is important • Cosmetic and medical applications (issues with strength and quality) • Research needed on strains and genetics of CBD's, role of CBD in the plant • Who are the people at the table? • Very little useful research on hemp bio-info • Hemp-crete <ul style="list-style-type: none"> ○ Applications engineering ○ Product engineering ○ Process engineering ○ Product testing with 	Pat Guidera (research applications) Erin Bosch Laura Mellveen Michael Chae Kaley Segboer Margaret Lange Eric Loo Rene Schieritz Cynthia Strawson Mike Mason Bonnie MacKay Christina Goodvin Dr. Jian Zhang Ryan Tucker	Pat.guidrea@albertainnovates.ca 403-383-7332 laura@techfibreind.ca mchae@ualberta.ca 403-828-8184 Margaret.lange@gov.ab.ca eloo@mitacs.ca rene.schieritz@web.de artemisinmontem@gmail.com Michael.mason@norquest.ca bonniemackay87@gmail.com goodvinedesigns@gmail.com jzhang@agfoodocouncil.ca rtt@g2vopics.com

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for hemp <ul style="list-style-type: none"> Grant writing guidelines, more knowledgeable people to assess applications 	target client <ul style="list-style-type: none"> Food products-customize food products to the profile of clients More products created will create more opportunity to grow production and create opportunities in rural communities 		
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Comments 2019.

<ul style="list-style-type: none"> Researchers need to be connect to market demand Prove there is a market Ways to support prior to R&D – market discovery] Define CBD as either NHP or Pharma? Validate shelf life or products? Cold chain transportation logistics? Local university supports Research program ease-ability Functional properties of hemp derivatives needs to be analyzed and published: pectin, lignin, protein, fibre (dietary), oil quality (Omegas) How do we utilize existing resources/ research organizations more effectively. How can we put entrepreneurs together with the research groups. An CHTA coordinate – be an information hub? Re new products for health food areas: healthy burger, snack/ food patty replacement, Leduc food processing Re change guidelines.. Is government behind case? Re: Whole plant use – Why is this important? New name C.O.R.E. – compatible, organic, reusable, environmental.’ Re: Hemp-crete – e.g. name change from Rape to Canola Is there a GMO for hemp? Can we replicate soya in the markets of hemp Agrium (Bear) – into canola not hemp. 	<table border="1"> <thead> <tr> <th>Ecosystem Sector</th> <th>Count</th> <th>Proportion</th> </tr> </thead> <tbody> <tr> <td>Government</td> <td>3</td> <td>7.3%</td> </tr> <tr> <td>Business</td> <td>3</td> <td>7.3%</td> </tr> <tr> <td>Academia</td> <td>22</td> <td>53.7%</td> </tr> <tr> <td>NGOs</td> <td>13</td> <td>31.7%</td> </tr> <tr> <td>TOTAL</td> <td>41</td> <td>100%</td> </tr> <tr> <td>Interest/Rank</td> <td>12%</td> <td>2.5th</td> </tr> </tbody> </table>	Ecosystem Sector	Count	Proportion	Government	3	7.3%	Business	3	7.3%	Academia	22	53.7%	NGOs	13	31.7%	TOTAL	41	100%	Interest/Rank	12%	2.5th
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<ul style="list-style-type: none">• Prioritize which results will help Alberta most• Common platform for sharing research findings	
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Objective #4 Research-Plant Management			
<p>Innovation supporting hemp farming production and harvesting. Include grain growth, resilience and whole plant usage, genetics, fertilizers, water, emerging technologies, pest control, quality control, stability, standards (certified reference materials) and conveyance of innovation to farming.</p>			
Recommendations	Notes	Action Team	
		Name	Contact Info
<ul style="list-style-type: none"> • Provide resources (funding etc.) to research projects (applied) • No new funding agencies, only industry committee to steer and choose products • Understand the end product you are growing for (CBD, seed or fiber) • Research is required to help aid farmers to make decisions on what to grow • Collaboration will help the industry to grow faster 	<ul style="list-style-type: none"> • Whole plant-extraction/ decortication of byproducts (shell and dust are currently unused) • Balance of income for whole plant (CBD vs. fiber) staged harvest-acres for food and fiber • Uniform maturity • Geographic traceability • Manipulate (reliably, reproducibly) chemical process control for environment • Need entire fertility package and micronutrients • Indoor vs outdoors is different (40% more plants indoors) • Need to know mechanisms for nutrition, genetics and environment • Increase grain size, adjust ratio of shell to meat • Tendency to drop seed should be reduced • Increase length of time grain is viable • Genetic foundations and library (cannabinoids etc.) • Issue with sharing and 		

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	collaboration-possessive ownership <ul style="list-style-type: none"> • Emerging tech-spore sensors, composition analysis, hand-held devices for quality and health • Unlocking competitive advantages • Collaborate to get ahead • There is a huge opportunity to create a new machine to collect CBD • Educate farmers and producers to increase ROI • More research is needed to get a good crop • Genetics are a large component to growing 		
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Comments 2019.

<ul style="list-style-type: none"> • Ongoing • Recommend renaming Objective to Agricultural Research & Development • Since late 2018 several new programs have appeared. By October 2019 expect the regulation of edibles and topicals. <ul style="list-style-type: none"> ○ Canadian Agricultural Program (CAP Funding) ○ CleanTech ○ NRC – National Research Council – IRAP ○ Alberta Innovates Voucher Program • Facilities like Vegreville • Brooks, AB’s new programs include: <ul style="list-style-type: none"> ○ Variety assessment ○ Field Day in July ○ Latest farming practices ○ Decortication plant • New harvesting techniques for flowers and buds • Development and approval of new CBD varieties 	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Ecosystem Sector</th> <th>Count</th> <th>Proportion</th> </tr> </thead> <tbody> <tr> <td>Government</td> <td style="text-align: center;">8</td> <td style="text-align: center;">22.9%</td> </tr> <tr> <td>Business</td> <td style="text-align: center;">8</td> <td style="text-align: center;">22.9%</td> </tr> <tr> <td>Academia</td> <td style="text-align: center;">13</td> <td style="text-align: center;">37.1%</td> </tr> <tr> <td>NGOs</td> <td style="text-align: center;">6</td> <td style="text-align: center;">17.1%</td> </tr> <tr> <td>TOTAL</td> <td style="text-align: center;">35</td> <td style="text-align: center;">100%</td> </tr> <tr> <td>Interest</td> <td style="text-align: center;">11%</td> <td style="text-align: center;">4.5th</td> </tr> </tbody> </table>	Ecosystem Sector	Count	Proportion	Government	8	22.9%	Business	8	22.9%	Academia	13	37.1%	NGOs	6	17.1%	TOTAL	35	100%	Interest	11%	4.5th
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| <ul style="list-style-type: none">• Converting dust to pellets for fuel• Only 3 labs in process to conduct analysis• Keeping quality control high• Needs of licensing producers (Farm to Pharma):<ul style="list-style-type: none">○ What are the requirements○ Contract harvesters• Drying technologies – quality of CBD's- reducing mold.• Research programs – Allow easier research paths for industry.• A more transparent contracting process between producers and processors. Modeling the right hemp varieties.• Regional studies• Alberta Agriculture is not involved – hemp needs to be their priority for Alberta.• Who is doing the agronomic worth on extract removal from a fibre crop?• Why is Alberta Agriculture not involved in providing producer recommendations on fertility and harvest?• Funds were available through ACIDF but cut by government.• Can colleges (Olds, Lakeland, Norquest) plus seed producers assist in education.• Re opportunity to create new machine to collect CBD. More input from harvesting machinery manufacturing for development | |
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Objective #5 Industry Standards			
Creating safety standards for hemp products and production.			
Recommendations	Notes	Action Team	
		Name	Contact
<ul style="list-style-type: none"> Testing or technology procedure at the farm level for THC levels Develop industry quality and processing standards at and international level-include full value chain in and independent process which will be seen by an independent process which will be overseen by and independent or government agency Include full value chain- producer to processor 	<ul style="list-style-type: none"> Platform for marketing and traceability Certification throughout the supply chain Avoid contamination risk How do you certify for standards and quality? Standards appear to be in place today-refer to Health Canada- Industrial Hemp Safety Standard Operating Manual Independent control/oversight that is independent of marijuana Canadian sourced International body Industry driven CFIA needs to be a partner Need processor at the table ASTM program 	Barry Mehr	mehr@mehrholdings.com

Comments 2019.

<ul style="list-style-type: none"> No further requirements if licensed Testing protocols contaminants of remediation (intumb) In place In the works Industrial hemp initiative: <ul style="list-style-type: none"> What is governments role? When is testing done? 	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Ecosystem Sector</th> <th>Count</th> <th>Proportion</th> </tr> </thead> <tbody> <tr> <td>Government</td> <td style="text-align: center;">16</td> <td style="text-align: center;">55.0%</td> </tr> <tr> <td>Business</td> <td style="text-align: center;">3</td> <td style="text-align: center;">10.3%</td> </tr> <tr> <td>Academia</td> <td style="text-align: center;">1</td> <td style="text-align: center;">3.4%</td> </tr> <tr> <td>NGOs</td> <td style="text-align: center;">9</td> <td style="text-align: center;">31.0%</td> </tr> <tr> <td style="text-align: center;">TOTAL</td> <td style="text-align: center;">29</td> <td style="text-align: center;">99.9%</td> </tr> </tbody> </table>	Ecosystem Sector	Count	Proportion	Government	16	55.0%	Business	3	10.3%	Academia	1	3.4%	NGOs	9	31.0%	TOTAL	29	99.9%
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<ul style="list-style-type: none"> • Define CBD as either NHP or Pharma? • Stability data • Grain elevators concerned with contamination, capacity, process • Establishing standardization • Grading system • Independent body • Parallel industries that would be consulted • Harvest at specific moisture content (Range?) <ul style="list-style-type: none"> ○ Flame-ability of product • Excretion of volatiles- an issue? • What about storage? • Security? Build public awareness. • Use technology to maintain security. • Contamination? Ecoli? Storage and handling-> standard • Canadian Grain Commission should help develop grading standards. • GMP is standards • OH&S Is standard • On farm safety recommendations for farmers/ educational. 	Interest/Rank	9%	6 th
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Objective #6 Education			
Ensuring continuous and contemporary learning fitting for each industry segment. Include public, farmers, investors processing and government.			
Recommendations	Notes	Action Team	
		Name	Contact
<ul style="list-style-type: none"> • Education program (Grow Calgary) • Bring more public participation into the industrial hemp conferences • More workshops and video workshops • Educational grants • Education of producers • Start a hemp grower council • Advisory board from grassroots to end user • Investors-strategic introduction of hemp into the value chain targeting specific industries-prepping industries to use hemp products 	<ul style="list-style-type: none"> • Teaching the young • Stop media and the government from turning pot into the “celebrity” • Old school conferences are not as successful anymore-kitchen table or smaller events are more effective • Public sector is the easiest to educate • Key message is the difference between hemp and marijuana • History of prohibition or marijuana-negative stigmatism if racism • End of life and care usages • Hemp is not “evil” • Need to change the dreadlock hippie perspective • Farming, agronomy, marketing, legal contracts, regulations, storage 	Dave Luxton Jim Newman Michael Chae Trevor Caswell Debbie Oyarzun Kaley Segboer	Smakdab.dave@gmail.com Jim.n@lamontcounty.ca mchae@ualberta.ca tcaswell@flyeia.com doyarzun@countybarrhead.ab.ca ksegboer@oldscollege.ca

Comments 2019.

<ul style="list-style-type: none"> • Ongoing: Seminars/ educational programs • CTLS – Cannabis Tracking Licensing System • Norquest College • MHC – September? 	Ecosystem Sector	Count	Proportion
	Government	7	15.2%
	Business	7	15.2%

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<ul style="list-style-type: none"> • CBO is becoming mainstream • Olds College and Norquest are supporting already • SME to contribute to both • Education of farmers to potential markets. Education of communities on the value of hep product to help demand • Plan growth of the industry through education • General consumer education programs • University programs fro plant-based products • A growers council makes sense, nut as hemp is a small industry, working together on the CHTA makes sense at this point. • Make smoke shops remove hemp from their name! • Accredited courses. • Agro facilities. • Institutionalize in education – proven, scientific approaches involving: farmers (growers, industrial production (processing), manufacturers for Investor education, end users (consumers), and government. • Government supports education through youth employment programs. Farmers need different types/forms of education – specificity. • One size does not fit all: depth of knowledge and appropriate education delivery platforms (analog/digital/print): hands on vs. theoretical, digestible. • Segmented education supporting diversification. • Validation accuracy – no BS. • Re-training for oil and gas facilities engineer out of work. Skills are transferable as are logistics. • See other pages, i.e. Can colleges (Olds, Lakeland, Norquest) plus seed producers assist in education • Group 6: Josh Billyk, Rohit Sati, Ed Wilanowski, Dennis Halabisky, Norma Halabisky, Robert Herscovitch, Alex Lowe: <ul style="list-style-type: none"> ○ Promotion via print media oor run adds on TV ○ Use social media platform (Facebook/ Twitter) ○ Design a course (continuing education) at the U of A or other universities ○ Specific courses in Engineering and Chemistry ○ Streamline province 	Academia	19	41.3%
	NGOs	13	28.3%
	TOTAL	46	100%
	Interest/Rank	14%	1st

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| <ul style="list-style-type: none">○ Specific/ core basics and understanding (Hemp 101)○ Better name re: marketing such as replacing rape with canola○ Webinars/ seminars re YouTube, etc.○ Celebrity sales person○ Stronger media engagement and participation○ Education for investors (Investor Tax Credit Program, Carbon Credits.○ Do specific focus groups (Young/ Youth, etc.) to broaden beyond aligned professionals and go to K-12 for transition to post-secondary○ Site tours and tangible experiences (Farm Tours) | |
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Objective #7 Industry Advocacy			
Establishing cooperative relationships essential for business to prosper. Include communications and public affairs and the roles of cooperations and associations.			
Recommendations	Notes	Action Team	
		Name	Contact
<ul style="list-style-type: none"> • Advocate for whole plant use • Extension for general public and producers to increase knowledge capacity • Identify gaps in the supply chain and other systems • Advocating for investors • Help provinces to work together in initiatives /markets • Education on benefits of hemp • Industry regulatory body • Industry interaction with provincial government-federal • Education of potential members of coop benefits • Study the working models (Home Hardware) 	<ul style="list-style-type: none"> • Need to connect with producers to find out what their needs and barriers are • Producers need more info on regulations • Need to determine supply chain issues • Increase general public knowledge on hemp • Advocating to government to change regulations (CBD) • There is a challenge with everyone having different agendas and competing • Advocate to investors to invest in decortication • Create a list of producers with primary interests for sourcing purposes • Advocate to funders on variety of opportunities available with hemp • Train the trainer for extension • Advocate for more variety in food products • Help provinces to work together on initiatives 	Debbie Oyarzun Danny Fieldberg Brad Guyon Antonio Arias Trista Pewapisconias	d.oyarzun@countybarrhead.ab.ca dfieldbe@hotmail.com dghaarsma@gmail.com tarias@alamidascapital.com trista@cooperativesfirst.com

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	<ul style="list-style-type: none"> • Surface rights board-protect producer contracts • Recruiting members to form coops • Early stage of coop formation • Lack of awareness of what coops are • Brokers or commission needs an advocacy group 		
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Comments 2019.

<ul style="list-style-type: none"> • On-going but need to source and clearing house concept “soils to sales”- Bart Guyon • Advocate for proper disposal of waste • Continue to advocate for cooperative people: reduces risk, ownership stake, scale, pan-Alberta co-operative e.g., Alberta Milk Producers? • Focus on education. Advocacy establishing the difference between hemp and marijuana, and federal government protection from imports/exports • Carbon policy for hemp. • Government support for cluster formation will reduce risk to financiers, knowing that the cluster is self-supporting. • A directory of producers, processors, manufacturers, etc. • An Alberta or Western Canada Hemp Collective • Create a map of where everyone is located to encourage networking and proper • Clearly layout the entire supply chain and layer it with all the different support for everyone can visualize their place. • Identify every single type of service or company required to be a complete value chain and find companies to fill their spot. • Start with an industry association for the entire value chain • Form a cannabis and Hemp Consortium 	<table border="1"> <thead> <tr> <th>Ecosystem Sector</th> <th>Count</th> <th>Proportion</th> </tr> </thead> <tbody> <tr> <td>Government</td> <td>3</td> <td>10.3%</td> </tr> <tr> <td>Business</td> <td>3</td> <td>10.3%</td> </tr> <tr> <td>Academia</td> <td>3</td> <td>10.3%</td> </tr> <tr> <td>NGOs</td> <td>11</td> <td>69%</td> </tr> <tr> <td>TOTAL</td> <td>20</td> <td>100%</td> </tr> <tr> <td>Interest/Rank</td> <td>6%</td> <td>8th</td> </tr> </tbody> </table>	Ecosystem Sector	Count	Proportion	Government	3	10.3%	Business	3	10.3%	Academia	3	10.3%	NGOs	11	69%	TOTAL	20	100%	Interest/Rank	6%	8 th
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Objective #8 Marketing			
Identifying and developing hemp industry markets. Include branding, messaging, linkage to competitive products, advising farmers and the role of associations.			
Recommendations	Notes	Action Team	
		Name	Contact
<ul style="list-style-type: none"> Alliance of like-minded individuals from industry, government, academia, come together with shared values for awareness, education and advocacy. Let’s get hemp in every newspaper article just like what we have seen with cannabis Associations need to advocate and lobby Alberta needs to help brand hemp (industrial vs. high THC) as “Alberta Hemp” Government to connect with potential customers, especially specific products and internationally, also ID other stakeholders to develop a new industry Develop consumer awareness Be specific about segmenting our markets and clear on objective (farmers, health, consumers, government) 	<ul style="list-style-type: none"> Governments (municipal → national) need to buy local products to support hemp industry Need to know end markets and educate producers on them Connect with global organizations Need to know how to market a new industry Important to brand Industrial hemp vs. cannabis Connect value chains (farmers to markets/end users) Push the AB brand-local then export Marketing to producers Marketing to investors Pushing AB ecosystem and cluster (economic diversification/full life cycle) Be clear on objectives Partner with livestock associations to promote use of hemp in that sector 	Cyndal Johnston Mitch Raynard Wim Van Beek Jenny Bruns Brent Jensen Dan Madlung Cynthia Strawson My-Linh Walker Daniel Nguyen Amanda Arbour Judy Mehr Andrea Eriksson Alan Cheven Joe Gulayeds Peter Cardinal Peter Sykora	cyndal@hempe.ca w.l.vanbeek@gmail.com bjensen@pqconsulting.ca dmadlung@biocomposites.ca artemisinmontem@gmail.com my-linh.walker@gov.ab.ca daniel@studentautomotive.ca Amanda.arbour@norquest.ca mehr@mehrholdings.ca andrea.ericksson@norquest.ca joe@awesolutions.ca petercardinal1958@gmail.com pgsykora@gmail.com

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<ul style="list-style-type: none"> • Seed/fiber to finished product in AB • Attract investors • “Canadian hemp” • Consider market alignment eg. Medical marijuana + hemp food + fiber products • Reliable data-what are the gaps and how do we fill them? • Consistent communication to educate people • Building markets so farmers get confidence to grow • Educate farmers on big picture of hemp industry market opportunities for bi-products, selling price for farmers’ products use of marginalized land, less inputs, less water, opens soil, value in crop rotation system 	<ul style="list-style-type: none"> • Connect with other agriculture associations to influence farmers • Leaders need to communicate the benefits of hemp • Access global markets by setting standards of quality • Shifting mindsets to better the planet 		
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Comments 2019.

<ul style="list-style-type: none"> • Educate end customer. The customer is key to everything. Need people to buy hemp.: <ul style="list-style-type: none"> ○ Co—promote dollars particularly funded by government – provincial/federal ○ Certified association supported by CHTA <ul style="list-style-type: none"> ▪ Like a hang-age: <ul style="list-style-type: none"> • Target specific end-user groups by many observers marketers to their potential targets • Highly specific targeting for maximum impact • How to collect market segment data: <ul style="list-style-type: none"> ○ Central data hub, open source, wiki page ○ Input from individual members 	<table border="1"> <thead> <tr> <th>Ecosystem Sector</th> <th>Count</th> <th>Proportion</th> </tr> </thead> <tbody> <tr> <td>Government</td> <td>4</td> <td>16%</td> </tr> <tr> <td>Business</td> <td>11</td> <td>44%</td> </tr> <tr> <td>Academia</td> <td>1</td> <td>4%</td> </tr> <tr> <td>NGOs</td> <td>9</td> <td>36%</td> </tr> <tr> <td>TOTAL</td> <td>25</td> <td>100%</td> </tr> <tr> <td>Interest</td> <td>8%</td> <td>7th</td> </tr> </tbody> </table>	Ecosystem Sector	Count	Proportion	Government	4	16%	Business	11	44%	Academia	1	4%	NGOs	9	36%	TOTAL	25	100%	Interest	8%	7th
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- Reports available to members from aggregate studies
- Guidance pm how to of marketing/ market research:
 - Co-ordination offered through CHTA. See - mrybiak@opsinc.ca
- Cottage Industry Marketplace//Government funded and promoted
- Education
- Partnering with livestock associations – major block due to feed restrictions
- How to create a trading floor for 1st step coop processing that creates product from whole plant – so they can sell the components after initial processing
- Locally marketing program for farmers markets:
 - Booths selling hemp products usually sell out fast
 - Need to fee up farm gate restrictions to allow farm gate manufacturing of hemp by-products
 - See micro-producing regulation changes
 - See Norquest College's course promotion videos
- Additional marketing from associations to general consumers:
 - One-minute explanations of what his available and being developed locally
- Also web-presence, high SRO, so when the consumer can find bite-sized, clear explanation of features and benefits – GREAT NORTH INDUSTRIAL HEMP
- Ongoing and evolving
- Develop a provincial hemp marketing group – part of a National group
- Insurance for hemp customized packages
- Rumor control
- What is our Alberta Advantage?
- Trails/ showcasing
- Support for research oriented toward increasing consumer awareness of the benefits of hemp food and fibre.
- Need to have solid economics for farmers for irrigated/ non-irrigated – input costs/ product value. Government co-ordinate/ pull data together. i.e. Call of the Land
- Government support – not lead – market and customer development. Leave leadership o industry organizations. Hemp Trade Alliance (HTA) should have a marketing are, R&D arm.
- Demonstration houses, etc. show homes.

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Objective #9 Regulations			
Government regulations that recognize the differences between hemp and cannabis. Include legislation that is transparent and equitable, incentives, streamlining administration.			
Recommendations	Notes	Action Team	
		Name	Contact
<ul style="list-style-type: none"> • Incentives for green building products like hemp products • Regulation differential for CBD levels in hemp and cannabis • Origin of CBD-need to determine where CBD is coming from • Proper labelling for composition of CBD • Need approval for animal feed usage of hemp products and screenings • Regulate seed ownership to prevent monopoly in the future • Incentives to produce and build processing facilities in Canada • Need a common industry test for seed sampling • Ability to monetize by-products by changing regulatory approval (livestock feed) • Differentiation in regulations pertaining to industrial hemp vs medical or cannabis • Aim to have consistent international regulations • Need ability to produce different concentrations of 	<ul style="list-style-type: none"> • Role for government to mandate use of greener products with regulation on how it will be used will help to move industry to bigger plants • Regulations need to be established • Incentives for decortication facilitates • Remove requirement of having agrologist inspecting crops annually • Concern with seed supplies vs. company like Monsanto • Incentives to have growers save seeds? • Industry has concerns with not knowing the regulations • Changing animal feed regulations • Name change for industrial hemp might help • Border crossings create challenges • Regulations should focus on creating a vibrant industry not dominated by seed sellers or cannabis companies 	Stuart Ackland Erin Moskalyk Erin Bosch AFC	stuart@innovationclusters.ca scooter_09@live.ca info@agfoodcouncil.com

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<ul style="list-style-type: none"> varieties Establish regulations that are flexible and can be revisited in the future Involve CFIA in creating and developing regulations and the industry 	<ul style="list-style-type: none"> Applications for ACMPR - medical approvals should take considerably more time than applications for IHR-Industrial. Standards for cleaning common seed or pedigree seed 		
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Comments 2019.

<ul style="list-style-type: none"> Concentrations of CBD per intake More clearly defined regulations for small growers and how they can grow into large. Goal: encourage small business Challenged whether an agrologist has to inspect all crops annually Very important – the concern with seed supplies vs company like Monsanto Future regulations re GMO production Goal: Accelerated industry growth not being implemented Business side. Small producers need less regulation than the larger players. Develop a “Bridging System” to grow small to large. Where did regulations re THC content come from – Dr. Ernie Smalls in the ‘0s. Decide 0,3% is arbitrary and these regulations must change to allow CBD industry success. Incentives to keep companies in Alberta as they grow. The challenge exists currently with the brain drain. Keep start-ups here – rather than move outside the province. Very important regulations do not stifle growth. Current nomenclature is causing confusion re: Cannabis, hemp, marijuana. Industrial hemp needs to have a higher THC content tolerance to increase CBD; so it should be viewed as a single plant. Government needs to accelerate the approval process. Less regulations CHTA – Fractions of whole crop. Simplify and get government consultation. Re: Incentives for green building products...in short term to kick-start hemp initiative RE: Origin of CBD...Country of origin is important 	Ecosystem Sector	Count	Proportion
	Government	22	54%
	Business	7	17%
	Academia	5	12%
	NGOs	7	17%
	TOTAL	41	100%
	Interest/Rank	12%	2.5 th

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| <ul style="list-style-type: none">• RE: Need ability to produce different concentrations of varieties. Substitute: Support for product development so it is price competitive• Reword Objective" All cannabis.: Define as low THC and higher THC I.e. >0.3• Add: Regulations for varieties that are market driven and agile.• RE: Delete Involving CFIA in creating and developing regulations and the industry. Entertain the idea of self-regulating industry.• Make regulations and legislation that support new and expanding producers• Start with an industry association for the entire value chain | |
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Objective #10 Farm Supplies			
Ensuring the supply of good and processes for farms. Include farmers, seed, seed cleaners, fertilizer, water and contractor relations.			
Recommendations	Notes	Action Team	
		Name	Contact
<ul style="list-style-type: none"> To encourage the development of appropriately scaled cooperatives that capture shared values and shared opportunities Cooperatives at varying levels (tiers) of the supply chain will further the industry Hemp broker of commission Producer owned grower coops 		Chris Tesarski Erin Moskalyk	audrey@coresource-solutions.com scooter_09@live.ca

Comments 2019.

<ul style="list-style-type: none"> Contract securities for farmer, i.e. crop advances fa contract To encourage industry understanding of the unique needs of hemp producers Does the idea of coops feedback to the need for qualifications. The co-ops soulc end up controlling the quality organically. Grants for equipment Connecting farmers to equipment . Pooling of resources or specialty equipment)CBD Extraction) could be cooperative led. Update the recommended growers guides. More focus on regional recommendations. The process should not be making recommendations to its growers froo p=crop production. Leave the agronomy to the experts. Educate the county Ag Service reps. Add: Coop gives better price on scale Add: Easy and add credibility by joining coop. Add: More understanding on coop structure Add: Building scale to create common markets and more purchasing power via coop.. 	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Ecosystem Sector</th> <th>Count</th> <th>Proportion</th> </tr> </thead> <tbody> <tr> <td>Government</td> <td>2</td> <td>10.5%</td> </tr> <tr> <td>Business</td> <td>15</td> <td>79%</td> </tr> <tr> <td>Academia</td> <td>0</td> <td>0%</td> </tr> <tr> <td>NGOs</td> <td>2</td> <td>10.5%</td> </tr> <tr> <td>TOTAL</td> <td>19</td> <td>100%</td> </tr> <tr> <td>Interest/Rank</td> <td>6%</td> <td>10th</td> </tr> </tbody> </table>	Ecosystem Sector	Count	Proportion	Government	2	10.5%	Business	15	79%	Academia	0	0%	NGOs	2	10.5%	TOTAL	19	100%	Interest/Rank	6%	10th
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Objective #11 Fiber Processing			
Ensuring the availability of fiber and accessible decortication capacity.			
Recommendations	Notes	Action Team	
		Name	Contact
<ul style="list-style-type: none"> De-risk the value chain with more facilities for decortication-within trucking distance of 100 kms and 30,000 acres of acres seeded (4 facilities for AB) Need to have enough rail cars to get fiber to market Need to determine what is the idea size of a facility Address the issue of elevators not taking hemp seed Solidify the value chain with farmers and communities driving the value chain Portable decortication units Build growth in stages Coordination on equipment in the early stages 	<ul style="list-style-type: none"> Fiber grading system needed Issue with accumulation-once baled, must be stored and keep dry Field retting to allow fiber to pull away from plant best, including turn over Issue with dust in cases where there is too much delay in the harvest process Education and awareness for farmers Fiber is the largest long-term opportunity for economic development (and most stable) Ideal range for decortication facilities is 100 km Portable decortication units will provide more options to smaller farmers in more remote areas Cooperatives could own units and keep fiber in rural communities where value added products could be produced and have industrial uses Need to start with a couple portable decortication units 	My-Linh Walker Mark Gallant Tim MacPhee Jim Newman Martin Rybiak Elena Istomina Joe Gulayets Elliott Elm Larry Perko Jenny Brews	My-linh.walker@gov.ab.ca Carlene.fuentes@nrc.gc.ca tmacphee@vegreville.com jim.n@lamontcounty.ca mrybiak@opsinc.ca istomina@ualberta.ca joe@awesolutions.ca Elliott.elm@edmonton.ca renewbiotech@gmail.com

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	<p>and build on the model</p> <ul style="list-style-type: none"> • Need to connect producers with sales opportunities • Need to show a vision to producers of the opportunities available with the fiber • Reduce risk for early projects-applied research funds • Coordinated use of combines to lower equipment costs 		
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Comments 2019.

<ul style="list-style-type: none"> • On going • Supply agreements/ contracts • Process where grown • Need multiple decortication facilities • How to control identity of fibre source/ cultivar and grading/ pricing standards • Modular approach to decortication • Alteration in setting technology for optimization process control • How to identify equipment and processing other countries, like Europe that are used to working with long fibre, not cotton-based equipment from N.A. • What is the blue—print for cooperative-fibre processing: <ul style="list-style-type: none"> ○ Who is it that supplies raw stock ○ Who are the contractors to purchase the output <ul style="list-style-type: none"> ▪ What is the training floor to sell plant components • Understand margins – opportunities across the supply chain. • Are there fractions impeding long-term economic development • Fiber processing proximate to other industry related enterprises, e.g. “Clusters” <ul style="list-style-type: none"> ○ Fibre processing next to a cannabis growing or food processor leverages people and knowledge • Fibre processing must be kept in context of the whole plant’s usage • Size of decortication units confirmed @ 4/for 20,000 acres crop and 2 tonnes/hr production • Suggest new and specific elevator concept 	<table border="1"> <thead> <tr> <th>Ecosystem Sector</th> <th>Count</th> <th>Proportion</th> </tr> </thead> <tbody> <tr> <td>Government</td> <td>0</td> <td>0%</td> </tr> <tr> <td>Business</td> <td>12</td> <td>48%</td> </tr> <tr> <td>Academia</td> <td>8</td> <td>32%</td> </tr> <tr> <td>NGOs</td> <td>5</td> <td>20%</td> </tr> <tr> <td>TOTAL</td> <td>25</td> <td>100%</td> </tr> <tr> <td>Interest/Rank</td> <td>6%</td> <td>10th</td> </tr> </tbody> </table>	Ecosystem Sector	Count	Proportion	Government	0	0%	Business	12	48%	Academia	8	32%	NGOs	5	20%	TOTAL	25	100%	Interest/Rank	6%	10th
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| <ul style="list-style-type: none">• Portable decortication based on economics of the potential value added• Potential Equipment Coop?• Grants for technology• Create value-added opportunities of decorticators to increase the price of the product to save on shipping costs.• .Education on viable business plans before going to the bank.• Recommendations of "Need to..." should be modified to ensure needs are market driven.• RE: Build growth in stages – delete.• RE: Coordination on equipment in the early stage. Who? How? Consider Coops!!• Add: Seems like a list of ideas rather than actionable suggestions. | |
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Allocation of Responsibility

Table 1. Highlights the votes cast for allocating responsibility for each of each of the 11 objectives between the 4 sectors

Sectors	OBJECTIVES/PRIORITIES											Votes Cast	47%	Votes Eligible
	1	2	3	4	5	6	7	8	9	10	11	329		704
	Transportation	Financing	Research - Product Applications	Research - Plant Management	Industry Standards	Education	Industry Advocacy	Marketing	Regulation	Farm Supplies	Fiber Processing	TOTALS #	TOTALS %	RANK
Government	1	13	3	8	16	7	3	4	22	2	2	81	25%	2
Business	17	18	3	8	3	7	3	11	7	15	15	107	33%	1
Academia	1	1	22	13	1	19	3	1	5	0	0	66	20%	4
NGOs	0	3	13	6	9	13	11	9	7	2	2	75	23%	3
TOTAL #	19	35	41	35	29	46	20	25	41	19	19	329	100%	
Responsibility %	6%	11%	12%	11%	9%	14%	6%	8%	12%	6%	6%	100%		
RANK	10	4.5	2.5	4.5	6	1	8	7	2.5	10	10			

Responsibility and Leadership correspond to the proportion of overall votes cast for each Sector and Objective.

Note of the 170 people attending not all voted. Only 47% of the eligible votes for each sector were cast: 45% Government, 62% Business, 37% Academia, 44% NGOs.:

SECTOR RESPONSIBILITY	Overall, Business ranked highest (33%) followed by Government (25%), NGOs (23%) and Academia (20%). TOP 3 Areas of Responsibility/Leadership. Little overlap impling consensus on leadership for each objective.
LEADERSHIP	Overlapping interest of Government and Business in Financing and of Academia and NGOs in Research - Product Applications.
Government	Regulation, Industry Standards, and Financing
Business	Financing , Transportation, Farm Supplies and Fiber Processing
Academia	Research - Product Applications , Education, and Research - Plant Management
NGOs	Education and Research - Product Applications , Industry Advocacy

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OBJECTIVES RESPONSIBILITY	Overall, highest areas of interest: Education (14%), Regulation and Research - Product Applications (12%), closely followed by Research Plant Applications and Financing
	TOP 3 Areas of Interest. Education, Regulation and Research - Product Applications
TRANSPORTATION	Exclusive interest of Business
FINANCING	Shared interest of Government and Business
RESEARCH - PRODUCT APPLICATIONS	Shared interest of Academia and NGOS
RESEARCH - PLANT MANAGEMENT	Exclusive interest of Academia
INDUSTRY STANDARDS	Exclusive interest of Government
EDUCATION	Shared interest of Academia and NGOS
INDUSTRY ADVOCACY	Exclusive interest of NGOs
MARKETING	NOT in the top 3 areas of interest by any sector. Highest with Business and NGOs
REGULATION	Exclusive interest of Government
FARM SUPPLIES	Exclusive interest of business
FIBER PROCESSING	Exclusive interest of business

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