

INDUSTRIAL AND NUTRITIONAL HEMP IN MANITOBA: A CASE STUDY  
EXPLORING STAKEHOLDER STRATEGIES AND LEGITIMACY

HUMBOLDT STATE UNIVERSITY

By

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## ABSTRACT

### INDUSTRIAL AND NUTRITIONAL HEMP IN MANITOBA: A CASE STUDY EXPLORING STAKEHOLDER STRATEGIES AND LEGITIMACY

Anna C. Owen

Hemp is an ancient crop that has supported civilizations for millennia. Industrial hemp refers to the non-psychoactive varieties of *Cannabis sativa* L. This crop is used in numerous goods and industrial applications, such as nutritional food and oil, building materials, and body care products. In Canada, hemp is bred to have no psychoactive value. Due to years of Cannabis stigma, this crop has been perceived as a controversial issue. Canada's decision to re-legalize hemp cultivation was pivotal for legitimizing and developing hemp as a viable agricultural crop in North America. Organizations in Manitoba pioneered a unique industry based initially on hemp seed. Over the years, stakeholders met challenges through industry collaboration and adaptive strategies. Stakeholder organization such as hemp-based cooperatives and trade alliances are examples of strategies. More than business entrepreneurship was needed to advance this industry. Social movement theory and framing explain the development of the hemp industry in Manitoba. This explores stakeholder framing, resources, political opportunities, cognitive processes and legitimacy. Movement leadership and social entrepreneurship are also key concepts. Case study research was utilized in the capital city, Winnipeg, and rural communities. This work positioned Manitoba as a "case" taken from the North American hemp industry and movement. Methods included formal and

informal interviews, document analysis, artifacts and participant observation. Interviews were conducted with representatives from cooperatives, trade alliances and hemp businesses in the food, oil and fibre sectors. Interviews were also held with provincial, Federal and municipal government officials. Stories from Manitoba illuminate the evolution of this growing industry. Stakeholder input explores the work behind reincorporating and legitimizing this crop into farmlands, including social and political arenas. Communities abroad can learn from Manitoba's strategies that advanced a hemp movement and industry. This case study provides a tangible example of how a regulated, hemp industry can succeed in North America.

**Key Words:** industrial hemp, *Cannabis sativa* L., Manitoba, hemp seed, legitimacy, Cannabis stigma, framing, strategy, hemp movement, industry collaboration, case study, social entrepreneurship, social movement theory: resources, political opportunity, cognitive processes, movement leadership

## DEDICATION

To the farmers, the White Plumes, mom, dad and my loved ones.

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## ABBREVIATIONS

AAFC	Agriculture and Agri-Food Canada
CDSA	Controlled Drugs and Substances Act (Canada, 1938)
CDAPCA	Comprehensive Drug Abuse and Prevention Control Act (1970)
CHIRP	Canadian Hemp Industry Review Project
CIC	Composite Innovation Centre
CHTA	Canadian Hemp Trade Alliance
DEA	Drug Enforcement Administration
GRAS	Generally Recognized as Safe
HIA	Hemp Industries Association
IHR	Industrial Hemp Regulations
IHFA	Industrial Hemp Farming Act (H.R. 1831, 2011 / S.B. 3501, 2012)
LTIHs	Long-Term International Hemp Strategy
MAFRI	Manitoba Agriculture Food and Rural Initiatives
MHA	Manitoba Hemp Alliance
UMHAC	University of Manitoba Hemp Awareness Committee
NDCS	National Drug Control Strategy (U.S)
NIHS	National Industrial Hemp Strategy (2008)
NAIHC	North American Industrial Hemp Council
MTA	Marihuana Tax Act (1937)



ONDCP	Office of National Drug Control Policy
PIHGC	Parkland Industrial Hemp Growers Co-op
PCDF	Parkland Crop Diversification Foundation
PARC	Parkland Agricultural Resource Co-op
THC	Delta-9 Tetrahydrocannabinol

## CHAPTER 1 INTRODUCTION

### Preface

This thesis is my effort to portray accurately and ethically the development of a hemp industry and movement in Manitoba, Canada. Many have invested decades and lifetimes in this crop and movement. The following stories do not belong to me and I consider this work a shared effort. My contribution has been to compile stories and information that stakeholders shared. Artifacts such as newspapers have informed this work. This information was combined with social movement theory to understand how stakeholder strategies, experiences, motivations and cosmologies (world-views) have shaped the development of hemp in Manitoba. Legitimacy is a central concept that explores the politically and socially constructed issues surrounding Cannabis<sup>1</sup>. Overcoming stigma associated with this crop and the extent to which stakeholders networked is impressive. This work speaks to the accomplishments and the challenges found within this industry. I await feedback from the individuals to which this thesis pertains.

While I have attempted to capture the evolution of this movement and industry, there remain unexplored details. This work does not account for everyone involved in this

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<sup>1</sup> Hemp is defined as, “the low-THC oilseed and fiber varieties of *Cannabis*, which is grown for their seeds and fiber”. Hemp is legal to farm in nearly all industrialized nations except the U.S. (see Appendix E). Marijuana and hemp are the same species *Cannabis sativa* L., but are from different varieties or cultivars. Marijuana is defined as “the flowering tops and leaves of psychoactive varieties of *Cannabis* that are [typically] grown for their high THC content”. <http://www.votehemp.com/faqs.html>.

movement and industry; nor does it mention all who participated in these events. For example, in Saskatchewan, Canada, multiple people helped to develop this movement and industry. As of 2011, the “Farmers Direct” co-op in Saskatchewan is working to include hemp as a fair trade crop.

In order to include background information, footnotes are found throughout this document. There appears to be a lack of social science research pertaining to this industry and movement. Primary sources were central to this work. Web addresses linking to documents, reports, government policy and other web-sources are in the footnotes. This study can be considered a step for future research. As an exploratory work, this is a snapshot and glimpse into this movement and industry.

### The Title

It seems that using the term “industrial” to describe hemp (*Cannabis sativa* L.) focuses on the utility of this fibre crop. Hemp is also an oil-seed crop packed with protein, fiber and essential fatty acids such as the rare omega 6, gamma-linolenic acid, (GLA)<sup>2</sup>. In order to emphasize this aspect of hemp, introducing hemp with “nutritional” in its title can help to spread awareness about the health benefits of the crop.

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<sup>2</sup> Gamma-linolenic acid (GLA) is an antioxidant. GLA: “is an omega-6 fatty acid that is found mostly in plant based oils...Omega-6 fatty acids are considered essential fatty acids: They are necessary for human health, but the body can't make them -- you have to get them through food. Along with omega-3 fatty acids, omega-6 fatty acids play a crucial role in brain function, as well as normal growth and development” <http://www.umm.edu/altmed/articles/gamma-linolenic-000305.htm>

## Industry Background and Stakeholders

In 1937, hemp production fell in the United States and eventually became federally restricted<sup>3</sup>. Hemp farming was outlawed in Canada in response to drug concerns in 1938. The Canadian government's decision to re-legalize hemp cultivation in 1998 supported a North American hemp industry. Currently, the province of Manitoba is home to the first cooperative for hemp farmers. Manitoba is a world-renowned epicenter for hemp production and breeding. One of the first hemp fibre processing facilities in North America is underway in Gilbert Plains, Manitoba.

After learning about the nutrition profile of hemp, I visited Manitoba to meet stakeholders in this industry. Stakeholders include: hemp advocates, farmers, business entrepreneurs, researchers, trade alliances and government officials. Due to decades of Cannabis stigma in North America, I sought to learn how this industry persevered and grew to its current status. Overall, it required more than solid business plans and entrepreneurship to advance and legitimize this industry. Applying social movement theory helped to understand how Cannabis stigma and legitimacy issues were handled. Not all hemp industries are embedded in a social movement. Unlike North America, countries such as France, Finland, China, and Spain never banned hemp production.

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<sup>3</sup> Hemp was largely grown in North America during the Colonial period until the mid-1800s. Domestic production was used for shipping- such as sails and rigging. Canvas, rope, clothing and paper were common. Hemp seed was also used for oil [e.g. soap making]. At the beginning of the 20<sup>th</sup> century the cotton gin was invented. Hemp production declined and the market for natural fibres such as, Manila hemp and Sisal were met by imports. At the onset of the 20<sup>th</sup> century, synthetic petroleum products lowered the demand for hemp (National Industrial Hemp Strategy 2008).

Investigating the first hand accounts of stakeholders in Manitoba may offer guidance to challenge hemp prohibition and inform hemp movements outside of Canada.

### The Setting Manitoba, Canada

Manitoba is bordered by Ontario, Saskatchewan, Nunavut and the Northwest territories. The province is 250,900 sq. mi, and is located above North Dakota and Minnesota. In the Northeast, it connects to the Hudson Bay, which is a central trading port. Manitoba is home to boreal, coniferous forests, bog lands, and tundra. Southern Manitoba is the geographical location for this case study. This setting topographically, flat, it has prairie, grassland, and converted agricultural land. Examples of First Nation people in Manitoba are the Ojibwe, Cree, Dene, Mandan, Sioux and the Assiniboine.

Manitoba's economy is heavily based on agriculture and extractive industries such as energy production, mining, and forestry. It is also known for tourism and manufacturing. Agriculture production is concentrated in Southern Manitoba. According to Statistics Canada, the population of Manitoba is expected to reach 1,266,866 in 2012<sup>4</sup>. Sixty percent of the population is centered in the capital city of Winnipeg.

### Manitoba and Climate Change

Flooding is a serious threat to the province. During this century, they have experienced unprecedented floods. Last year, this cost one billion in damage, thousands of people were evacuated and "...flooding swamped three million hectares of

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<sup>4</sup> Statistics Canada: <http://www.statcan.gc.ca/ig-gi/pop-mb-eng.htm>

farmland...[at] Lake Manitoba, engineers called the flood a one-in-2000-year event.” (Environment Canada 2011)<sup>5</sup>. Manitoba has responded to climate change through provincial legislation – “The Climate Change and Emissions Reductions Act”.

Regarding agriculture, this policy stated:

In our agriculture sector, biofuel production, lowering on-farm energy use, supporting climate friendly cropping practices and organic and local food production will help reduce farm input costs, diversify the farm economy and lower greenhouse gas (GHG) emissions. (Government of Manitoba)<sup>6</sup>.

Adapting to climate change, while promoting economic growth, is a goal of the province. In 2005, BusinessWeek magazine considered Manitoba the “top regional jurisdiction in the world for action on climate change”. (Government of Manitoba).<sup>7</sup> As a result Manitoba has politically latched onto the concept of “sustainable development”. This has created a political climate favoring bioeconomies such as, bioproducts, bioenergy, crop diversification, and green building. Industrial hemp has potential to greatly contribute to the bioeconomy sectors in Manitoba.

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<sup>5</sup> Environment Canada: <http://www.ec.gc.ca/meteo-weather/default.asp?lang=En&n=0397DE72-1>

<sup>6</sup> The Climate Change and Emissions Reductions Act: <http://web2.gov.mb.ca/laws/statutes/ccsm/c135e.php>

<sup>7</sup> Executive Summary Meeting Our Commitment – Reducing Emissions in Manitoba and Beyond: [http://www.gov.mb.ca/asset\\_library/en/beyond\\_kyoto/executive\\_summary.pdf](http://www.gov.mb.ca/asset_library/en/beyond_kyoto/executive_summary.pdf)

## My Position

Coming from Humboldt State University, I must state my philosophy regarding hemp outreach. I assert that the movement advocating for hemp is most effective when it is managed as a separate issue from the medical marijuana movement. Discussing the relationship between hemp and the psychoactive varieties of *Cannabis* is part of the educational process. However, as many hemp stakeholders agree, mixing the two causes or movements can be problematic. The hemp movement and industry in Canada largely followed this protocol. In the U.S., I argue this is often necessary to gain political allies. Personally, I employ this tactic as I promote industrial and nutritional hemp through the national campaign - Hemp History Week (also their mandate). I cannot pretend to be an objective researcher. Volunteering to do farmer-organization outreach is an effort to give back to the movement that is working to restore hemp farming in the United States.

## Why Hemp?

Industrial hemp produces a critical amount of biomass – one acre can provide several tons of fibre. Industrial hemp is an impressive crop. For example, Lyster H. Dewey, a previous U.S. government botanist, conducted extensive hemp research in the early-mid 20<sup>th</sup> century. In his work, he noted that when “properly handled [it] improves the land, and...yields one of the strongest and most durable fibers of commerce” (USDA

1913)<sup>8</sup>. In 1916, the United States Department of Agriculture Bulletin, No. 404, stated that one acre of hemp could produce *four* times more paper-pulp than one acre of trees<sup>9</sup>. Hemp provides nutrition; and has the potential to lower our dependency on cotton, wood and petroleum based materials. This is a remaining crop that has not been genetically modified.

Lastly, we cannot expect one crop to “save the world”. Yet, hemp is an untapped opportunity, capable of supplying populations with food and raw materials. Hemp should be incorporated into crop rotations to help lessen disease cycles and repair soils<sup>10</sup>. It should be both workable and profitable for farmers. People of all socio-economic backgrounds should have access to the nutritional benefits of hemp. Under the right circumstances, hemp production and processing could benefit communities.

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<sup>8</sup> Yearbook of the United States Department of Agriculture, 1913, pages 283-346  
[http://naihc.org/hemp\\_information/content/1913.html](http://naihc.org/hemp_information/content/1913.html)

<sup>9</sup> Dewey, H. Lyster and Merrill Jason L. 1916. *Hemp Hurds as Paper-Making Material* United States Department of Agriculture, Bulletin No. 404 , <http://www.votehemp.com/17855-h/17855-h.htm>. Lyster Dewey also bred hemp used to supply World War II. Dewey tended a hemp farm in Arlington Virginia on the same area of land that the Pentagon currently resides.

<sup>10</sup> Hemp promotes resilient crop rotations. For example, a Hungarian hemp breeder and researcher, Dr. Ivan Bosca stated, “It is easier to grow hemp without any chemicals. The experience of both old and new hemp-growing countries in Western Europe verify this”. He also stated, “strong weed suppression is virtually guaranteed” (Bosca, Karus 1998:132). Dr. Ivan Bosca, Karus Michael, *The Cultivation of Hemp, Botany Varieties, Cultivation and Harvesting*, Hemtech Sebastopol, California, 1998



## CHAPTER 2 REVIEW OF LITERATURE

*In the 1980s and 1990s, there was increased interest in the cultivation of industrial hemp as a potential source of new jobs in the agricultural and industrial sectors. As well, there was an increased need to develop alternative sources of fibre. Research conducted between 1994 and 1998 showed it could be successfully grown in Canada as a separate entity from cannabis (marijuana). With the demand and encouraging research findings, Health Canada chose to give the agricultural and industrial sectors the opportunity to grow and exploit industrial hemp in a controlled fashion. Laws were amended to allow for the cultivation of industrial hemp. ~ Health Canada<sup>11</sup>*

Changing Canadian law to re-legalize industrial hemp (*Cannabis sativa* L.) was a momentous shift in North America. However, it was merely the beginning to legitimize and develop the hemp industry. Following years of hemp advocacy, organizations in the Canadian prairies pioneered a hemp industry based on hemp seed. The province of Manitoba is now world-renowned for hemp production where stakeholders have organized into cooperatives and trade alliances<sup>12</sup>.

Those who cultivate and handle hemp follow strict government regulations. The hemp-fibre sector<sup>13</sup> has been energized by the development of the first large-scale, hemp

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<sup>11</sup> Health Canada: <http://www.hc-sc.gc.ca/hc-ps/substancontrol/hemp-chanvre/about-apropos/faq/index-eng.php>

<sup>12</sup> Specific hemp organizations that formed in Manitoba are: The Parkland Industrial Hemp Growers Co-op (PIHGC) and the Canadian Hemp Trade Alliance (CHTA). The PIHGC is the first co-op focused on hemp farming. The Canadian Hemp Trade Alliance is a non-profit organization representing the Canadian hemp industry.

<sup>13</sup> There are groups in Manitoba working with hemp such as The Composites Innovation Centre. They are utilizing hemp fibre for technologies such as biocomposites for the car and aerospace industry. Since the 1990s, numerous stakeholders have tried to construct fibre-processing plants in Manitoba. Emerson Hemp Distribution Co. has produced hemp into products such as animal bedding. Schweitzer-Mauduit is another company that is capable of processing hemp fibre in Manitoba. Alberta and Ontario are also working with hemp fibre. For example, the Alberta Research Council's "Technology Futures Program" researches hemp through the University of Alberta. <http://www.albertatechfutures.ca>

fibre processing plant in North America<sup>14</sup>. Despite the growing momentum, managing a previously illegal crop within farmlands, businesses, and political contexts can be challenging. Over the years, stakeholders overcame obstacles by developing industry collaboration, winning government support, and employing adaptive strategies. Studying how stakeholders organized around Cannabis issues is a valuable approach to this research. Especially considering the long process behind legitimizing hemp within the public sphere, such as educating consumers about hemp foods. Therefore the application of social movement theory will be central to this discussion.

I will begin by sharing the research objectives behind this study including my guiding questions. I will provide background on hemp, specifically the historical stigma and controversy surrounding *Cannabis* in the United States (U.S.). I will then give a synopsis of re-legalizing hemp in Canada, including mention of influential people and organizations behind this work. This process was largely educational and to manage the connection between hemp and marijuana, political backing was key. The Canadian government's use of language and framing is an important part of this progression. Legitimacy is a key concept designed to recognize the obstacles around which stakeholders have organized and strategized. Ideas of legitimacy regarding hemp are rooted in complex understandings and classifications of *Cannabis*<sup>15</sup>. Processes of hemp

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<sup>14</sup> Plains Industrial Hemp Processing Ltd. is a company that involves the Federal, provincial (Manitoba) and municipal (Parkland) governments and the company president from Shanghai, China.

<sup>15</sup> In Canada, industrial hemp and marijuana are part of the Controlled Drugs and Substance Act (Department of Justice). They are both listed as a Schedule II. This department also has oversight of medical marijuana. Industrial Hemp: <http://laws-lois.justice.gc.ca/eng/regulations/SOR-98-156/index.html>  
Medical Marijuana (Canada): <http://laws-lois.justice.gc.ca/eng/regulations/SOR-2001-227/index.html>

legitimacy involve education within various public, political and media spheres, and include direct conflicts with power. For instance, the development of the North American hemp industry produced direct confrontations with the United State's Drug Enforcement Administration (DEA). As a result, industry struggles need to be addressed to provide an understanding of the barriers stakeholders have encountered while building this industry. I also discuss hemp as a social movement and position the "hemp movement" within the larger "sustainability movement". Following will be a discussion of scholarly interpretations of social movements. After exploring various social movement theories, I will then describe a "synthesis of social movement theory", which will serve as the primary framework for this research. This framework recognizes how stakeholders have organized over the years, including ways they have strategized to deal with various industry obstructions.

### Research Objectives

The goal of this research is to share the story of how a hemp industry was developed in Manitoba. Moreover, this study strives to document the evolution of this movement –past, present, and future, starting in the 1990's. When considering the unique obstacles stakeholders encountered over the years, a synthesis of social movement theory will be applied. This is designed to understand how business and social entrepreneurs, farmers, government officials, and researchers contribute to this industry. To highlight how strategy is contextualized in this study, I follow the work of (Bobo, Kendall and Max 2010). A strategy is an overarching plan to build power for an organization or

campaign with an imbedded goal. A strategy also analyzes power relationships to compel those in power to work with the strategy. Tactics are individual steps that build a strategy (Bobo 2010). Tactics and strategy work in tandem. Therefore, the tactics behind the growth of this industry will also be documented. When considering the link between industrial hemp and marijuana, concepts of legitimacy will guide this research.

The overarching research question is:

*In what ways do social movement theory and framing inform our understanding of how a hemp industry was developed and legitimized in Manitoba?*

Sub-research questions are:

1. How have stakeholders strategized to develop this industry?
2. How does the concept of legitimacy contribute to understanding the development of this industry?
3. What are stakeholder goals and motivations regarding their involvement with industrial hemp?
4. How do stakeholders attract and maintain public and governmental support?

The following concepts provide insight into these questions: resource mobilization, political opportunity, and cognitive theories. Additionally, the hemp industry's use of framing – specifically, transformative, collective action framing, conflict management and power frames will be highlighted. The following section begins by acknowledging the archaic past of industrial hemp.

## Historical Positioning

*Cannabis* is an ancient plant—it is like a “complex thread that weaves through the tapestry of time. It’s been used for textiles, cordage, paper, seed oil, food, fuel and more” (Conrad 1994:5). This crop has been an essential resource for millennia where: “women, religions, music, cultures, languages—all have a special connections with hemp” (1994:5). In western countries industrial hemp, (*Cannabis sativa* L.), is bred to be non-psychoactive. The seed and oil are highly nutritious and it is a popular ingredient in cosmetic products<sup>16</sup>. In addition, hemp is utilized in biocomposites, plastics, building materials, geo-textiles, bio-remediation, and industrial oils (see appendix F). In the early 19<sup>th</sup> century the Lieutenant Governor of the province of Upper Canada was ordered by the King of England to grow hemp and distribute hemp seed freely to Canadian farmers (NIHS 2008:290).

In the United States industrial hemp was a vital resource during the colonial era and was crucial during World War II. Eventually, there were alternative resources such as cotton and synthetic materials that displaced hemp. In the 1930s, hemp was regaining momentum in the U.S. For example, in 1937 Mechanical Engineering declared hemp “the most profitable and desirable crop that can be grown,” and Popular Mechanics called it the “new billion-dollar crop” a year later (Smith-Heisters 2008: 3). However, this did not

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<sup>16</sup> According to Hemp Oil Canada: “hemp seeds are second only to soybean in protein content.... Hemp protein contains the 18 key amino acids including 10 essential amino acids (EAAs) our bodies cannot produce... Hemp seed oil is reputed to be the most unsaturated oil derived from the plant kingdom... [it] has been dubbed "Nature's most perfectly balanced oil" <http://www.hempoilcan.com/nutrition.php>.

come to fruition because of the connection between hemp and marijuana and the stigma associated with *Cannabis* in general.

### A Controversial Crop

The historical controversy behind *Cannabis* shows the challenges that hemp entrepreneurs and advocates have encountered as they legitimized and developed a North American hemp industry. Stigma is a key concept to understand Cannabis politics because stigma can pertain to something that is deeply discredited (Erving Goffman 1990:132). The crop was primarily stigmatized by the U.S. government's war on *Cannabis* beginning in the late 1930's. The "Marihuana Tax Act" of 1937, and anti-Cannabis campaigns such as "Reefer Madness", repressed hemp from competing with other U.S. business interests.<sup>17</sup> In 1930, the Federal Bureau of Narcotics (precursor to DEA) was headed by Harry J. Anslinger<sup>18</sup>. Housed in the Treasury Department, he held this position for an unprecedented thirty-two years. Commissioner Anslinger was appointed by his father-in-law Andrew Mellon; and "it is worth noting that Mellon was then the principal banker for the largest emerging petrochemical firms, including Dupont, as well as other corporations controlling vast timber acreage" (Roulac 1997:48). In 1938, Canada followed U.S. precedent and passed the "Opium and Narcotics Control Act" and deemed *Cannabis* illegal. Years later, as a result of the "Comprehensive Drug Abuse and

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<sup>17</sup> After passing the Marihuana Tax Act the Federal Bureau of Narcotics applied stringent rules on the hemp industry. The policy implied that "permitting the transfer of hemp (for example from farmer to processor) [was allowed] only if the fiber-producing stalks were completely free of flowers and leaves...[thereby] imposing upon both growers and processors the threat of criminal prosecution and confiscation of product...[also] the Federal Bureau of Narcotics [current DEA] licensing procedure thwarted scores of legitimate hemp ventures" (Roulac 1997:48).

<sup>18</sup> [http://en.wikipedia.org/wiki/Harry\\_J.\\_Anslinger](http://en.wikipedia.org/wiki/Harry_J._Anslinger)

Prevention Control Act” of 1970, the U.S. defined *Cannabis* as a Schedule I Narcotic. Currently, hemp farming in the U.S. is only allowed through DEA issued permits. With the exception of a few research studies, DEA regulations and Federal policy restrict hemp farming. The alliance of these policies and the “War on Drugs” expelled hemp from North American farmlands. As a result, hemp was nearly erased from western history.

Beginning in 1985, hemp was unearthed, in part from an influential book by Cannabis activists Jack Herer and Chris Conrad<sup>19</sup>. This book spread globally and propelled efforts to re-legalize hemp farming in Canada. For example, a co-founder of a pioneering hemp-food company, Manitoba Harvest, expressed his inspiration: “despite the government’s best effort to rid us of hemp completely, it hung on in quieter parts of the world until the information revolution began. I read a book that changed the course of my life, ‘The Emperor Wears No Clothes’” (Moravcik 2011). Inspired hemp advocates helped convince the Canadian government to reconsider hemp as an agricultural option. This process began with efforts to re-structure understandings of hemp and its relative, marijuana.

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<sup>19</sup> Hemp and the Marijuana Conspiracy: The Emperor Wears No Clothes, The Authoritative Historical Record of the Cannabis Plant, Marijuana Prohibition & How Hemp Can Still Save the World: <http://www.jackherer.com/thebook>

## Canada Considers Industrial Hemp

It is unlikely that hemp would have become a legitimate crop in Canada without stakeholders working to promote a reframing and a new understanding of hemp. In the work by Dr. Ernest Small, and David Marcus (2002:319), titled *Hemp: A New Crop with New Uses for North America*, they express that stakeholders presented their pro-hemp arguments with “an image that was business-oriented and conservative”<sup>20</sup>. Despite the professionalization of hemp advocates, there were unique obstacles to overcome, primarily due to the relationship between hemp and marijuana. Understandably, government officials were initially skeptical. For example, Dr. Ernest Small stated, “the idea of reintroducing hemp as a Canadian crop was not taken seriously, and indeed in common with the U.S., our authorities considered this unwise in view of the problems posed by narcotic forms of *Cannabis*” (Clarke 1999:5). Evidently, the process for re-legalizing hemp in Canada began with attempts to garner political support to conduct the necessary hemp research.

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<sup>20</sup> Dr. Ernest Small is a Canadian researcher who has extensively studied *Cannabis*. He worked as the Principal Research Scientist at the Eastern Cereal and Oilseed Research Centre, in Ottawa, (AAFC). He wrote two-dozen publications on *Cannabis*. Small’s research helped set the standard for psychoactive, chemical THC (Delta 9-Tetrahydrocannabinol): at a maximum 0.3% for hemp cultivars. Hemp field tests often show THC levels lower than 0.3%. (Clarke 1999)



According to Dr. Small:

Key to the change in climate was educating the Canadian authorities that the word “hemp” or the phrase “industrial hemp” should be reserved for the non-drug class of *Cannabis*, and was different from the drug class that produces marihuana...perceptions began to shift in the following years and people began to consider hemp as a legitimate new crop for Canada (Clarke1999:5)

### Canada Ends Hemp Prohibition

Canada, a country that cannot grow cotton, witnessed European nations such as Great Britain and China growing hemp for fibre. In addition to business entrepreneurship, hemp was considered an attractive prospect by the Canadian government since new crops were desired for agriculture and economic diversification. Therefore, Canada considered a “combination of prospective economic benefit coupled with assurance that hemp cultivation will not detrimentally affect the enforcement of marijuana legislation” (Small and Marcus 2002:319). Additionally, stakeholders looked to Article 28 from the *United Nations Single Convention of Narcotic Drugs*, 1961, stating: “this convention shall not apply to the cultivation of the Cannabis plant exclusively for industrial purposes (fibre and seed) or horticultural purposes” (United Nations 1961:14)<sup>21</sup>. As a result of thorough research, stakeholder pressure, and political

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<sup>21</sup> United Nations Single Convention of Narcotic Drugs, 1961, Article 28 (p.14)  
[https://www.incb.org/pdf/e/conv/convention\\_1961\\_en.pdf](https://www.incb.org/pdf/e/conv/convention_1961_en.pdf) (copy/ paste link in web browser)

support, in May 1997, the *Controlled Drugs and Substances Act* (CDSA) was amended and Bill C-8 was implemented to re-legalize hemp in Canada. On March 12, 1998, Health Canada introduced *Industrial Hemp Regulations* (IHR), which has served as the regulatory framework for the Canadian hemp industry<sup>22</sup>. Health Canada declared, “with the demand and encouraging research findings, Health Canada chose to give the agricultural and industrial sectors the opportunity to grow and exploit industrial hemp in a controlled fashion” (Health Canada). From here, Canada re-structured law and language. Hemp was re-listed as a Schedule II, Controlled Substance. Hemp was distinguished from marijuana and re-defined as, “the plants and plant parts of the genera *Cannabis*, the leaves and flowering heads of which **do not** contain more than 0.3% THC...”(Health Canada)<sup>23</sup>. Hemp was no longer considered a narcotic drug. Instead it was viewed as a unique, agricultural crop that required monitoring and regulating to ensure its proper use<sup>24</sup>.

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<sup>22</sup> *Industrial Hemp Regulations* (SOR-98-156), govern every action related to hemp, such as cultivation, processing, manufacturing, sale, and distribution. The *Seeds Act and Regulations* operating under the Canadian Food Inspection Agency regulates the handling and the certification of low THC cultivars including the grading of seeds for commercial use. Additionally, farmers can only purchase hemp seed from designated seed proprietors and they cannot save seeds. Each hemp field in Canada, has a corresponding GPS coordinate and a detailed map. Farmers must pass a background check and the THC levels in hemp fields pass a field test administered by a certified field sampler. Hemp field tests are paid for by the farmer. Other governing bodies are: Agriculture and Agri-Food Canada, Revenue Canada (presently Canada Border Services Agency) and the Royal Canadian Mounted Police.

<sup>23</sup> THC (Delta-9 Tetrahydrocannabinol) is “a compound that is obtained from cannabis or is made synthetically; it is the primary intoxicant in marijuana and hashish” <http://medical-dictionary.thefreedictionary.com/THC>

<sup>24</sup> Registered under Special Crops Canada, Agriculture and Agri-Food Canada <http://www4.agr.gc.ca/AAFC-AAC/display-afficher.do?id=1174595656066&lang=eng>

Currently, the government agency Agriculture and Agri-Food Canada (AAFC) openly supports hemp because:

Hemp's agronomic and environment attributes are remarkable: it can be grown without fungicides, herbicides and pesticides, it absorbs carbon dioxide five times more efficiently than the same acreage of forest ... These advantages are in tune with the environmental and health preferences of today's North American public" (AAFC 2007).

### Hemp Advocacy in Canada

The above declaration from Health Canada blossomed from years of hemp advocacy involving various stakeholder groups. These people were key to influencing Canada's decision to end 60 years of hemp prohibition. A momentous time for hemp began in 1995 in Canada because "that year seven different groups right across Ontario, Manitoba and Saskatchewan planted a combined area of 40 acres for hemp field trials" (Kime 1996). Field trials were promoted by farming sectors that were pursuing hemp because "enterprising farmers and farm groups became convinced of the agricultural potential of hemp in Canada" (Marcus and Small 2002). Moreover, Joe Strobel, a tobacco farmer and Geoff Kime, an engineer, lobbied the Canadian government on behalf of hemp farming<sup>25</sup>. In 1994, they were granted research permits to grow the first legal hemp in Canada. Meanwhile, hemp interest was circulating in the Canadian prairies where The

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<sup>25</sup> Other important figures in the Canadian hemp industry are Peter Dragla (passed away in 2004) and Gordon Scheifele. In 1995, they began extensive work in hemp breeding research. According to the Ontario Hemp Alliance website, in 1997 Gordon Scheifele became the first industrial hemp breeder in Canada since 1939.

Manitoba Hemp Alliance (MHA) lobbied officials and organized hemp support. The MHA convinced the Manitoban government to permit the first hemp research in Manitoba after hemp's 50-year hiatus. Elsewhere, government officials were lobbying for hemp; such as: "Sally Rutherford, executive director of Canadian Federation of Agriculture which represent[ed] 200,000 farm families nationwide...[and] Brian Taylor, mayor of Grand Forks, B.C. [who] planted hemp illegally... [he] was charged with cultivation and possession" (Walton 1998). Moreover, there were numerous individuals who were part of this process such as: Gordon Reichert of Agriculture and Agri-Food Canada and Dr. Jack Moes from Manitoba Agriculture Food and Rural Initiatives (MAFRI)<sup>26</sup>. Clearly, these individuals were considered creditable with farming and governmental backgrounds. This advocacy represented legitimate interests to return this crop to Canada.

### Legitimacy Matters

The principle of legitimacy resonates within the hemp movement. Something is considered legitimate if it is "in accord with the norms, values, beliefs, practices, and procedures accepted by a group" (Jost and Mayor 2001:33). Legitimacy also implies "social change and the development and diffusion of new norms, attitudes, practices and

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<sup>26</sup> Manitoba Agriculture Food and Rural Initiatives (MAFRI) works to agriculturally enhance Manitoba's economy, "to capitalize on available natural resources and advantages, in a sustainable manner...[they seek] opportunities to add value to Manitoba-produced commodities for food, animal feed, bio-energy, bio-fibre and other uses... [this includes] Products, such as nutraceuticals, functional foods and pharmaceuticals, to increase the health and wellness of Manitobans and the world". <http://www.gov.mb.ca/agriculture/intro/about01.html>

institutional forms” (Jost and Mayor 2001:54). The process of legitimizing the hemp industry began with targeting government officials and reforming Canadian law. Authority comes from legitimate power; therefore, the government had the legitimate authority to change the Federal listing of *Cannabis* and make hemp a Schedule II, Controlled Substance. This progression did not stop here. Transforming a previously illegal and stigmatized plant into a viable industry involved processes of education striving to gain support and resources. Central to these efforts was the backing of stakeholders such as farmers, political allies, government funders, researchers, and patrons.

Multiple stakeholders such as hemp entrepreneurs, researchers, and farmers had to adapt to the unfolding challenges of working with this crop. For instance, there have been a number of distinct legitimization hurdles. Hemp’s link to marijuana has produced an effect referred to as the “snicker factor”. Stakeholders in this industry are in an exceptional position because:

They must navigate the shifting sands of public opinion – or, as one Alberta report called it, ‘the snicker factor’...According to an Alberta Agriculture Department report on industrial hemp production in Canada, the plant’s cultivation evokes chuckles largely because of its hippy-dippy image and close association with marijuana, its consciousness-altering cousin (Trichur 2011).

The snicker factor is frequently found in discourses about hemp. For instance in 1997, a journalist from the Winnipeg Press announced the upcoming re-legalization of hemp. He began by exclaiming: “after years of lobbying the hemp industry may finally be smoking” (Mckie 1997). This is merely one example of the jokes, puns and

misunderstandings that embody hemp. Despite misconceptions and the snicker factor, there have been serious struggles to legitimize this crop and industry.

## Hemp Industry Struggles

The stigmatized history of *Cannabis* primarily stems from the U.S. government's anti-cannabis stance. This has generated unique challenges for the hemp industry. In fact, the hemp food sector came under attack by the U.S. Drug Enforcement Administration. In 2001, the DEA published a rule in the Federal Register to ban all hemp-food products from entering the United States. Consequently, this resulted in tensions between the DEA and hemp stakeholders in Canada and America, who depend on cross-border business relations<sup>27</sup>. The attack on the hemp industry greatly impacted Canadian hemp sectors because the U.S. has continuously been the largest consumer of Canadian hemp products. In the U.S., the Bronner family (Dr. Bronner's Magic Soaps Co.) helped to spearhead a lawsuit against the DEA with the collaboration of industry stakeholders through the Hemp Industries Association (HIA)<sup>28</sup>. How did Canada respond? The Canadian government denounced the DEA's decision and sent a formal letter of complaint in December of 2001. The Canadian company Kenex filed a North American Free Trade

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<sup>27</sup> There are numerous U.S. based hemp companies. Consumers in the U.S. are the largest purchasers of hemp products to illustrate: "in 2009, exports of hemp seed and hemp products were valued at more than \$8 million with most exports going to the U.S." (Market Wire, Agriculture and Agri-Food Canada:2010). Data from the marketing firm SPINS, show that "retail sales of hemp food and body care products in the U.S. continued to set records in 2010 reaching \$40.5 million." [http://www.thehia.org/PR/2011-06-28-Steady\\_Growth\\_in\\_Hemp\\_Food.html](http://www.thehia.org/PR/2011-06-28-Steady_Growth_in_Hemp_Food.html)

<sup>28</sup> In 1992, the Hemp Industries Association was formed "representing hemp companies [primarily in North America], researchers and supporters; [they] drive for fair and equal treatment of industrial hemp...[they focus on] education, industry development, and the accelerated expansion of hemp world market supply and demand". <http://www.hia.org>

Agreement, lawsuit against the U.S. in August of 2002<sup>29</sup>. In 2004, after years of battling this issue, Vote Hemp, a leading hemp advocacy group in the U.S., distributed a press release declaring victory because the:

Hemp Industries Association (HIA), representing over 200 hemp companies in North America won their 2 ½-year old lawsuit today against the Drug Enforcement Administration (DEA) in a decision that permanently blocks DEA regulations that attempted to ban nutritious hemp foods... [according to Mr. Bronner] “the court reasonably views trace insignificant amounts of THC in hemp seed in the same way as it sees trace amounts of opiates in poppy seeds” (votehemp.com)<sup>30</sup>.

Without doubt, this was historic for the hemp industry. Industry mobilization and collaboration saved the North American hemp industry. From this point forward, the Canadian and U.S hemp sectors gained momentum from publicity and they also regained access to the U.S market.

### Barriers and Adaptability

Evidently there is a relationship between the White House’s Office of National Drug Control Policy (ONDCP), and the North American hemp industry. To illustrate the Executive Branch’s opinion of hemp one can look to the U.S. *National Control Drug*

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<sup>29</sup> United Nations Commission on International Trade Law and NAFTA (Section B, Chapter 11)

<sup>30</sup> Vote Hemp “is a national, single-issue, non-profit advocacy group founded in 2000 by members of the hemp industry to remove barriers to industrial hemp farming in the U.S. through education, legislation and advocacy” (Votehemp.com). Presently, twenty-nine states have introduced hemp legislation and seventeen have passed legislation. A federal bill, with 33 cosponsors, has been re-introduced on capital hill to legalize hemp cultivation. Note: The Industrial Hemp Farming Act of 2011 (H.R. 1831) was placed in the Sub-committee on Crime, Terrorism and Homeland Security. <http://hdl.loc.gov/loc.uscongress/legislation.112hr1831>

*Strategy* (NCDS) from 2001. This document summarizes the executive branch’s anti-hemp arguments. For example, according to the ONDCP legalizing hemp cultivation would:

Be a stalking horse ...[or] de facto legalization of marijuana cultivation...DEA also learned...that individuals who tested positive for marijuana use subsequently raised their consumption of these [hemp] products as a defense against positive drug tests (NCDSR 2001:51).

Dr. David P. West refutes these claims in his work *Hemp and Marijuana: Myths and Realities*<sup>31</sup>. Dr. West explains that hemp and marijuana should never be grown in proximity because it would result in cross contamination, thereby decreasing the drug value of the marijuana. Additionally, while several hemp advocates such as the notorious Jack Herer, were also pro-access, “as the hemp industry has matured, it has come to be dominated by those who see hemp as the agricultural and industrial crop that it is, and see hemp legalization as a different issue than marijuana” (Dr. West 1998:18).

Fear that consumers of hemp food could use it as an excuse behind a failed drug test, has not proven to be true. In order to legitimize hemp food, the U.S. hemp trade group - Hemp Industries Association, worked with Canadian stakeholders such as the Canadian Hemp Trade Alliance to implement the “TestPledge” program<sup>32</sup>. The

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<sup>31</sup> Dr. West conducted the first hemp research in decades. It took place in Hawaii with a DEA permit. After severe license delays, Dr. West ended the study. He stated, “it was increasingly obvious that I was involved in a war of attrition with the Federal government that saw hemp as a camel’s nose under the tent of its War on Drugs. They could outlast me with administrative delays. It was not a battle I was likely to win. Nor did it appear likely that hemp would soon become a crop available to American farmers... In this Project I was able to demonstrate that the genetic potential exists within the world’s hemp germplasm... I had the plants; I showed it could be done...On September 30, 2003 this hemp germplasm, like Kentucky Hemp before it, was lost to humanity” (West, Final Status Report:2003 - Hawai’i Industrial Hemp Research Project Act 305)

<sup>32</sup> The CHTA was created in 2003 to represent hemp stakeholders in Canada. They promote Canadian hemp and hemp



TestPledge label on edible hemp products acts to “protect consumers from workplace drug-testing interference; they are based on a study, jointly commissioned by a Canadian governmental program and industry members published in the *Journal of Analytical Toxicology* (Nov./Dec. 2001)” (HIA 2004). The test pledge program was a response to the DEA’s and the ONDCP’s concerns, while it offered peace of mind to hemp-food patrons.

The battle with the DEA was a major obstacle for the hemp industry. To add to this, there were numerous setbacks that likely cast doubt upon this fledging industry. As the industry was born, stakeholders encountered a serious setback in 1999. A U.S. company (Company X) contracted numerous Canadian farmers to cultivate an over-production of hemp without the resources needed to process the crop<sup>33</sup>. Manitoban farmers were hit the hardest. To illustrate: Manitoba planted 21,950 acres in 1999, versus 1,497 acres of industrial hemp in 1998 (see Appendix A). The company went bankrupt and defaulted on its commitment to farmers where “parkland growers were left with thousands of tonnes of hemp grain and no buyers” (Growing News 2011). In addition to this setback, farmers needed to learn methods for working with a new crop - specifically,

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products globally. CHTA members include “farmers, processors, manufacturers, researchers, entrepreneurs and marketers. The key functions of the Alliance are to disseminate information, promote the use of nutritional and industrial hemp and coordinate research”. <http://www.hemptrade.ca>

<sup>33</sup> This company prompted the Parkland Industrial Hemp Growers Co-op. Some of the co-op’s founding members are Joe Federowich, Chris Dzisiak, and Art Potoroka. The collective of farmers adapted hemp agronomics and breeding for the Canadian prairies. The co-op is aided by the Parkland Crop Diversification Foundation (government of Manitoba). The cultivars developed are named after family members, mainly women. Joe Federowich who passed away in 2009, had a hemp cultivar (Joey) named after him.

harvesting hemp was difficult. Adapting to this crop while coping with major industry mal-functions called into question the legitimacy and feasibility of cultivating hemp.

It seems likely that a primary issue for the two pioneering hemp food companies, Hemp Oil Canada Inc. and Manitoba Harvest Hemp Foods & Oils was adapting to hemp's relationship with marijuana<sup>34</sup>. Consuming hemp foods in the modern, western world was a revolutionary idea. Bringing hemp foods into the marketplace and public spheres required extensive research into the health and safety of hemp foods. This includes a focus on educating consumers. Currently, hemp is recognized by celebrities such as Martha Stewart, and is "becoming a staple of daytime TV. Oprah, Dr. Oz and others extol the health virtues of hemp oil, protein powders and pasta" (Trichur 2011). Getting hemp foods to this level of legitimacy evolved over years. Presently, there are other milestones to reach. For instance, the U.S. Food and Drug Administration has not registered hemp foods as "Generally Recognized as Safe". This impedes hemp ingredients from entering most mainstream product lines. To reach GRAS status, cost-intensive research is required; and it is the hemp industry's responsibility. This undertaking represents one of the many hurdles facing the hemp industry. When considering the various challenges this young industry has encountered, coupled with the apparent tenacity of stakeholders, it is appropriate to evaluate the hemp industry in Manitoba through social movement theory.

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<sup>34</sup> Hemp Oil Canada and Manitoba Harvest (Fresh Hemp Foods) were the first in the world to develop a full-fledged hemp food industry. Other companies followed. The two pioneer companies are based in Manitoba.

## Hemp as a Social Movement

Historically, social movements have transformed socio-political arrangements in society. Challenging the status quo is critical for progressive change and success takes time to achieve. For example, “campaigns can persist over decades, even generations, and involve millions of people, such as occurred in battles for racial justice, or to broaden legal rights for minorities, workers, women and gays” (Rubin and Rubin 2003). Work, dedication, and sacrifice are required to bring about large-scale, social change. Social change involves ideological shifts and rearranging statuses and power dynamics. The return of hemp in North America came from processes of social change rooted in a social movement.

The North American hemp movement does not exist in a fixed location nor is it cemented in a particular time. Eyerman and Jamison (1991) describe the dynamic nature of movements as transitional and cyclical. Movements are not fixed, they can “ebb and flow” where there are “latent and active periods”. It is important to note that the hemp movement is comprised of numerous organizations and alliances that shape movement strategies and outcomes (Staggenborg 2011). The nature of a particular social movement can be puzzling due to the complexity of space and time, including the diversity of peoples’ motives behind a movement. The hemp movement is informed by the macro, sustainability movement<sup>35</sup>. The sustainability movement is an umbrella movement where

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<sup>35</sup> Andres R. Edwards in his book *The Sustainability Revolution - portrait of a paradigm shift* describes the sustainability movement as a global response to environmental and social problems. The precursor for the sustainability movement is the environmental movement of the 1960s and the 1970s. The sustainability movement also pertains to agriculture. Sustainable agriculture deals with serious threats to human well-being and ecological health such as: “high energy costs, groundwater contamination, soil erosion, loss of productivity, depletion of fossil resources, low farm

local food movements, green building, alternative energy and other “green” movements are part of this larger discourse.

### The Three Pillars of Sustainability

Ideas of sustainability are circulating the globe and are embraced by innumerable organizations pushing for various policies and agendas. As a result, this study will consider a popular concept of sustainability known as the “three pillars of sustainability”. This concept is commonly found within sustainable and green rhetoric. Interest groups such as policy makers, government agencies, environmental advocacy groups, and green companies often embrace this concept of sustainability. According to the International Union for the Conservation of Nature, the three pillars are environmental, social and economic. Environmental sustainability supports biodiversity and productive agriculture that avoids encroachment on natural systems (Frid and Raffaelli 2008:140). Social sustainability promotes healthy populations and improved livelihoods; this includes access to “ecosystem goods” (e.g. drinkable water). Social sustainability also refers to populations having opportunities to enhance their quality of life. Lastly, economies under this model “provide income to rural communities [plus] enhance agricultural value[s]” (Frid and Raffaelli:141). Ideas of sustainability are diverse and play out differently within various socio-political circumstances.

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incomes and risks to human health and wildlife habitats. It is not so much a specific farming strategy as it is a system-level approach to understanding the complex interactions within agricultural ecologies” (Reganold, Papendick and Parr 1990). Related sustainability movements are the “back to the land” movement, permaculture movements, local food production, and farmer’s markets.

## Identifying Hemp as a Social Movement

Numerous pro-hemp individuals and organizations link hemp within the sustainability movement. For example, the Canadian group Hemp Out Agency, appear to link marketing hemp within a social movement by stating:

Hemp could help save people all over the world who are dying of starvation... It's our profound belief in awakening a wider environmental consciousness, by collectively marketing 'hemp out' of an alternative culture and into the mainstream...[hemp] feeds our planet, and supports sustainability. Hemp Out is a social movement that views social behaviour around natural food trends in the marketplace (HempOut.com).

This vision not only positions hemp within a social movement, it also references sustainability. Moreover, in 2000, the Canadian Auto Workers Union commented on their hemp advocacy by explaining:

The CAW is part of a broader social movement committed to job security ... we strongly believe that the preservation of the family farm is key to the survival of Canada as a sovereign nation. The cultivation of hemp as a cash crop would help many family farms to remain solvent, not to mention, the many spin-off green jobs this new “Industrial Hemp Revolution” could create (GlobalHemp.com)<sup>36</sup>.

This larger social movement can be considered part of the sustainability movement because they seem to advocate for tenets of sustainability such as green jobs and labor rights.

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<sup>36</sup> The Canadian Auto Workers (CAW) Union: “represents more than 238,000 members that cover a wide cross-section of trades and professions from coast-to-coast”. The CAW launched a pro-hemp campaign in 1995 where “the primary objective of our campaign was to educate and inform Canadians on the seemingly endless virtues of this most versatile crop. We felt that, by providing the facts, we allowed Canadians the opportunity to reach a rational and informed decision on the merits of legalizing industrial hemp, rather than drawing on conclusions based on myth, propaganda or prejudicial information”. <http://www.globalhemp.com/2000/05/canadian-auto-workers-caw-perspective-on-the-political-debate-on-industrial-hemp.html>

The hemp movement has evolved over the years since the late 20<sup>th</sup> century. People have been attracted to hemp for various reasons<sup>37</sup>. For example, the White Plume Family of the Oglala, Lakota Tribe in South Dakota, has greatly shaped the hemp movement. The family sought to bring hemp to the Pine Ridge Reservation to develop “political and economic autonomy by growing industrial hemp...their efforts illustrate...both the question of sovereignty and political struggle in the context of Native American political life, as their activities constitute a larger social movement” (Smith 2008)<sup>38</sup>. In a recent interview with National Geographic, in an article titled “Pine Ridge, In the Shadow of Wounded Knee”, Alex White Plume described this experience as “It was an experiment in capitalism and a test of our sovereignty, but it seems the U.S. government doesn’t want to admit that we should have either” (Fuller 2012). While one goal was economic development, the Oglala Lakota tribe has shown that hemp can be pursued as an avenue of liberation while encompassing larger socio-political struggles.

Organizations such as the North American Industrial Hemp Council (NAIHC) support hemp as a value-added, rotation crop to break disease cycles and potentially

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<sup>37</sup> Canada has attracted non-Canadian citizens to immigrate in order to work with industrial hemp. For example, Anndrea Hermann a hemp consultant/agrologist, came to Canada “to live the American dream... now a landed immigrant...[she] is excited by the potential growth of her own plant breeding work...[Anndrea:] ‘I’ve been told that I’ve walked more miles in hemp fields than anybody alive today’” (Baltessen 2006).

<sup>38</sup> To help alleviate the 85% unemployment rate, in 2000 Oglala Lakota Tribe passed a tribal ordinance to allow non-drug, industrial hemp. The White Plume family planted hemp for 3 years and each time the DEA destroyed it. The DEA raided the family’s property with helicopters and automatic weapons. The family filed a lawsuit but the U.S. government did not comply with native sovereignty. Ramona White Plume: “We want to let the federal government know: you put us in this prison but you gave us a paper that says we can grow what we want to here” (*Standing Silent Nation*, Prairie Dust Documentary, 2007).

lower herbicide use<sup>39</sup>. Erwin Sholts, chairman of the NAIHC, stated that in 2004 the United States had “eight out of ten acres planted with 3 crops – wheat, corn and soy. The corn and soy rotation is in trouble. It’s a two year rotation, and that’s not long enough to effect the biological control of pests” (Balling 2004). Pests such as the Soybean Cyst Nematode have been shown to lower soybean yields up to 80% where “ Canadian farmers have seen dramatic reductions in Soybean Cyst Nematode populations when hemp is added to rotations” (Balling 2004). Hemp cultivation can also be pursued as an avenue for economic and rural development, wherein non-profit groups demand ‘Hemp for Jobs’. Politically, there is a movement spearheaded by Vote Hemp, to gain allies to change federal policy in the U.S. There also exists collaboration within the North American Hemp industry to support a U.S.- based hemp education and advocacy event called Hemp History Week<sup>40</sup>. This is designed to gain public and political support for re-legalizing hemp farming in the U.S.

When studying movements there are numerous approaches for analysis. First we need to consider the time and space that bounds the study. In this case, the story begins in the 1990’s where we can focus “on individuals or on the society as a whole, on partial change or on more global change, and on efforts to effect change” (Stockard 1997:506). Varying scales of analyses operate through meso, macro and micro levels. A meso

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<sup>39</sup> The North American Industrial Hemp Council is a “non-profit membership organization open to all. NAIHC is dedicated to educating the public and government at all levels about the value of industrial hemp”. <http://www.naihc.org> Some of NAIHC board members include James Woolsey a former U.S. CIA director, Jeff Gain a former executive director for the U.S. Soybean Association and former CEO of the National Corn Growers Association, and Dr. Paul G. Mahlberg (plant biology) who has studied Cannabis for over 30 years. Kentucky is another state with hemp organizations such as the Kentucky Hemp Growers Co-op and the Kentucky Hemp Coalition. <http://kentuckyhempcoalition.blogspot.com/>

<sup>40</sup> Hemp History Week, June 4-10<sup>th</sup>, 2012. <http://www.hemphistoryweek.com>

analysis investigates a movement's organizational structure and the role of leadership. To explore larger societal forces, a macro lens looks at how and why social movements emerge. This includes the political and cultural factors within society that shape a movement (Stockard 1997: 507). In order to delve into individual motives, the micro approach looks at peoples' participation in a movement, such as how a social movement impacts a person's views and behaviors (Stockard 1997:507). Next, it is helpful to look at the various ways scholars define a social movement.

### Understanding Social Movements

In addition to the multiple ways of looking at a particular movement, attention will be given to interpretations of what constitutes a social movement. This includes a definition of social change. Roberta Garner (1996:12) defines a social movement as

Constituted by human beings engaged in discourses and practices to challenge and change society as they define it. It's formed by people who, over the course of time, are involved in non-institutional [and institutional] discourses and practices of change.

Likewise, Eyerman and Jamison (1991:4) envision a social movement as a force that provides societies with ideas and "new knowledge". Staggenborg suggests that social movements should be understood by considering "why they originate when they do, how they attract and maintain support, how they present issues and formulate strategies and tactics, [and] how they structure organizations" (2011:3). Numerous social movement theories fall under Staggenborg's approach to studying movements. A fundamental task is to determine the appropriate theories to better understand a particular movement. In



order to meet the goals of a movement, it is an ongoing process to gain the necessary resources.

## Social Movement Theory and the Hemp Movement

### Resource Mobilization

Resource mobilization theory will be used to explore how entrepreneurship and business strategies intersect with social movement strategies. This framework primarily analyzes the role of movement organizations - as opposed to individual perceptions within a movement. Resource mobilization is helpful to study the development of organizations in this industry, such as the two pioneering hemp-food companies. According to this theory, organizations such as the Canadian Hemp Trade Alliance and the Parkland Industrial Hemp Growers Co-op are considered to be the vehicles that serve a particular movement by implementing its goals. Hence, resource mobilization theory can help explain the evolution of entities that represent Manitoba's hemp industry.

Resource mobilization theory was originally developed by McCarthy and Zald (1973); it suggests that "social movements are successful to the extent that they can effectively activate resources needed to accomplish their goals" (Stockard:491). Edwards and McCarthy (2004:125-128) identify the various types of resources that movements implement and create themselves. For the purpose of this study, I refer to these as moral, cultural, social-organizational, human and material resources. Moral resources pertain to "legitimacy, solidarity, sympathetic support, and celebrity support". Cultural resources

include “tactical repertoires, organizational templates, [and] technical and strategic know-how” (Edwards and McCarthy 2004:126). In addition, social-organizational resources are central because they function as movement infrastructures, social networks and organizational structures. Equally valuable are human resources, which involve the labor and experience of activists and industry stakeholders. Material resources such as money and office space are necessities for social movements. For instance, processing hemp seed required the development and adaptation of food-processing equipment.

### Stakeholder Typologies

Resource mobilization includes “movement typologies” to describe the individuals that influence a movement. For example, this framework asserts that “movement leaders” shape a movement. This accounts for leadership that motivates, garners support and propels a movement forward. The concept of the “social entrepreneur” is also helpful. Bornstein, (2004:1) describes social entrepreneurs as people who promote “systemic change”. They are “transformative forces” that change status quo understandings of the world. These individuals hold a “sustained energy and focus” to implement their goals. This captures the decades of commitment from hemp advocates and entrepreneurs. A crop diversification specialist from Manitoba Agriculture Food and Rural Initiatives (MAFRI) describes the entrepreneurship he witnessed from farmers<sup>41</sup>. In an interview he was asked why Manitoba “is at the forefront of the Canadian hemp industry?”... he

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<sup>41</sup> Keith Watson has been a key partner and leader in the hemp breeding programs/field trials through the Parkland Crop Diversification Foundation (MAFRI). He is a government liaison who works with the Parkland Industrial Hemp Growers Co-op on these projects.

responded, ““It’s partly because Manitoba has the right growing conditions, but mostly because growers and processors here had the entrepreneurial spirit and persistence to make the industry succeed”” (MASC 2011). This quote describes the entrepreneurial work of stakeholders to develop a hemp industry. Additionally, the role of the government and the legitimate authority of power-holders greatly impact a movement’s success.

### Political Opportunity

Within various social movements there exist relationships between movement organizations and the government<sup>42</sup>. This dynamic can facilitate a movement or hinder it. To attempt to grasp the relationship between the hemp industry and the government, a political process framework can be useful. According to Staggenborg, the political process framework focuses on the relationship between social movement actors and governments. Specifically, this includes the impact of political opportunities regarding mobilization and the outcomes of social movements. Political opportunity (Tarrow 1998) refers to the “openness in the polity, shifts in political alignments, division among elites, the availability of influential allies and repression or facilitation by the state” (Staggenborg 2011:19). To illustrate, the hemp industry in Canada has been awarded governmental support, yet in 2008 the National Industrial Hemp Strategy (NIHS) stated that, “many government stakeholders have not yet demonstrated a significant

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<sup>42</sup> This spans municipal, provincial, Federal, and international governments.

commitment to hemp as a crop. As such they are funding ‘higher’ profile products, and provisional agricultural departments may have other priorities, making funding more difficult to access for hemp” (NIHS, 2008:v). In 2010, there was an influx of Federal funds (\$728,000) for the hemp industry<sup>43</sup>. Crops such as canola are granted millions of dollars of support. For example, “Agriculture and Agri-Food Canada announced \$14.5 million in funding for agronomic and nutrition research under a new Canola/Flax Agri-Science Cluster. ... [additionally there is a] \$7.8 million federal investment [that] will help the Canola Council of Canada develop a comprehensive strategy” (www.rural.gc.ca). Although the hemp industry is very young, this reflects the political climate in which hemp is operating.

Connecting the political process model with resource mobilization theory looks at how a movement gains power while considering its “energizing cultural content” (Morris 2000:3). Combined, the two theories aid this research because “resource mobilization and political process could be seen as part of one evolving perspective” (Staggenborg 2011:20). The role of intellectual processes is also important when studying a social movement.

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<sup>43</sup> In 2010, funding grew for the Canadian hemp industry when the Federal government provided the Canadian Hemp Alliance with \$728,000 to increase production and “make new inroads into the U.S. market”. The Honourable Vic Toews, Minister of Public Safety stated "This Government is proud to invest in this growing industry so that farmers can continue to expand their markets and develop more products" (Market Wire, Agriculture and Agri-Food Canada:2010).

## Cognitive Theory

Intellectual processes or “cognitive theory” suggest “it is precisely in the creation, articulation, formulation of new thoughts and ideas - new knowledge - that a social movement defines itself in society” (1991:55). As a result, this study focuses on the knowledge production and communication processes circulated by stakeholders to develop a hemp industry. Obviously, a social movement is positioned within a specific historical, political and cultural context. Eyerman and Jamison take this into account when they contend, “a social movement is not one organization...it is more like a cognitive territory, a new conceptual space that is filled by a dynamic interaction between different groups and organizations” (1991:55). Within this space there are “dimensions of knowledge interest”. This includes cosmological, technological, and organizational knowledge interests (1991:66). Cosmological refers to worldviews that motivate people to pursue their goals or mission within a movement. Technological refers to the technology and innovations developed by a movement. Lastly, organizational knowledge interests connect modes of organizing the production and the dissemination of knowledge. Knowledge, according to Eyerman and Jamison, does not exclusively pertain to academic or scientific understanding; “it is rather the broader cognitive praxis that informs all social activity. It is thus both formal and informal” (1991:49). To illustrate, there is a recent push in Canadian academic circles to conduct research on both hemp seed and fibre. Research, specifically peer-reviewed work, is an avenue of knowledge

production that could further legitimize the hemp industry. Additionally, communicative processes such as stakeholder reports develop government and public support. Within various intellectual processes, the use of “framing” is an important tool for social movements to convey their messages.

### Framing

People make sense of the world and organize their experiences through processes of “framing” (Lewicki, Gray and Elliott 2003). In their work “Making Sense of Intractable Environmental Conflicts”, the authors explore the impact of framing within conflicts. An “intractable conflict” is challenging to resolve, and the conflict can last a long time. Intractable conflicts have occurred regarding issues of Cannabis stigma and hemp legitimacy. The three framing categories adopted from this work are: conflict management, power and identity frames (Lewicki, et. al. 2003). Within conflict management frames there are: fact-finding, and adjudication (third-party decision) frames. Power frames include: expertise, coalitional and voice frames.

The act of framing helps to define issues, inform our actions and develop knowledge. For example, by framing messages we can convince others to accept a new position or develop a new understanding of an issue. Conflict management frames influence how we understand a conflict and how the conflict will be managed. Power is generated when people agree on the way an issue is framed. This can prove complex because people within a conflict often frame the issues differently. An identity frame is

used when someone communicates a self-understanding with a designed intent. Frames are not fixed; they evolve and change just like our world-views.

Additionally, the work of Benford and Snow (2000) describes the importance of a social movement's use of framing. They describe framing as a method of communicating to a target audience, an "action-orientated set of beliefs and meanings that inspire and legitimate the activities and campaigns of a social movement organization (Benford and Snow:625). Likewise, frames make events meaningful and serve to organize actions and experiences (Benford and Snow:614).

Frames are often planned, such as inspiring collective action and calling for mobilization. Frames that produce actions often emerge from shared beliefs and understood meanings. Social movements are known for events of protest or confrontation with forms of power. To illustrate, in 2009 several hemp representatives from Hemp Industries Association performed an act of civil disobedience by planting hemp seeds in the lawn at the DEA's headquarters<sup>44</sup>. They framed their mission as "American Farmers Shall Grow Hemp Again, Reefer Madness Will Be Buried" (votehemp.com). In addition to collective action frames, transformative framing can be a powerful avenue in "changing old understandings and meanings and/or generating new ones..." (Benford and Snow:625). This can prove useful in understanding the educational processes within the hemp movement and industry in Manitoba.

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<sup>44</sup> They were actually non-viable hemp seed snacks. It was a symbolic act.

Frames are found everywhere, such as calls for mobilization, educational outreach, media outlets, and marketing. Looking at framing is important in this study to understand stakeholder strategies and processes of legitimization.

### A Synthesis of Social Movement Theory

In order to capture and integrate stakeholder involvement and strategies behind the development of this industry, I will focus on: “the concepts of political opportunities, mobilizing structures, and...framing [which] became core elements of North American social movement theory in the 1990s” (McAdam et al 1996). Looking at stakeholders’ use of framing provides insight into various strategies behind the growth of this industry. Moreover, the role of cognitive theory or intellectual processes is fundamental to understand how knowledge and communication serve stakeholder goals. In summary, “attention to political opportunities reflect...[the] state centered approach of political process theory, and conceptions of mobilizing structures...[draw] on [the] entrepreneurial-organizational version of resource mobilization theory...” (Staggenborg 2011:20). Understanding how industry stakeholders have organized and mobilized their efforts is valuable. In addition, the role of the Canadian government in hindering and/or facilitating the hemp industry is paramount.

In conjunction with social movement theories, the theme of legitimacy continually resonates due to the shadow that marijuana casts upon the hemp industry. Gaining allies, such as patrons of hemp foods, and adapting to the “snicker factor” are



key themes found within this literature. When considering opposition towards the hemp industry from the DEA combined with misinformation from ONDCP, both social movement theory and themes of legitimacy are relevant. Seeking to understand how stakeholders have organized themselves while strategizing to promote this industry, will be embedded in processes of legitimization.

When considering the multitude of challenges and hindrances this niche industry has faced during its mere fourteen years, it is fitting to position the movement in Manitoba within the broader context of the North American hemp movement. Strategies, organizational tactics and routes to legitimization are aspects to consider when exploring the intersections of business strategies and social movement strategies. Manitoba could prove exemplary, because a social movement established and maintained a hemp industry.

### CHAPTER 3 RESEARCH METHODS

The process for developing this study began in November 2010, when I attended the annual convention of the Hemp Industries Association. The day before the conference, I spent time at the “Green Festival”, which is an event that sponsors “green” companies and themes of “sustainability”. I spent time at the booth of a Canadian hemp-food company. Until then, I was largely uneducated about the nutritional benefits of hemp. As a result, I decided to go to Manitoba to meet people in this industry. This study began with themes from the conference and a review of hemp-related literature. From there, I explored the development of this industry through documenting how stakeholders have organized themselves and strategized along the way. These concepts, combined with social movement theory, explained the growth of the hemp industry in Manitoba.

The following discussion describes the research design of this study. This work utilizes a case study approach to explore and describe the emergence of the hemp industry in Manitoba. In this section, I will share how I gained access to research participants. Interviewee categories and the use of participant labeling are also described. Lastly, the process of data analysis is reviewed which involved phases of initial and focused coding.

## Approach to Research

### Exploratory and Descriptive

The qualitative approach involves interpretative processes that embody a wide range of disciplines and subjects. Exploratory studies are helpful when an issue is relatively new and there is minimal pre-existing work (Tutty, Grinnell and Williams 1997). While I found sources that depict the hemp industry as a social movement, there was a gap in academic work that permitted a social movement framework. Therefore, I *explored* this topic. A descriptive approach is also applicable because hemp has regained prominence in media and research outlets, including political and advocacy efforts. Combining exploration and description aligns the goals of case study research.

### The Role of Knowledge

The theoretical perspective behind this work originates from postpositivism. This approach asserts that research is not unbiased, nor is it objective. Notably, research is historically, socially and politically positioned; and it can be considered “a metaphor for colonial knowledge, for power and for truth” (Denzin and Lincoln 2005:1). Thus, I recognize the complexity of knowledge formation, while I reflect on my role within this research. By integrating a “knowledge claim” approach, I present a theory of knowledge to inform this study. A *socially constructed knowledge claim* (Creswell 2003), suggests that researchers cannot develop “positive” or “universal truths” regarding human behavior. Likewise, individuals develop knowledge according to their lived experience where subjective realities are “negotiated socially and historically”. Processes of “sense-

making” are shaped through social interactions influenced by “historical and cultural norms...[and] we are born into a world of meaning bestowed upon us by our culture ” (2003:5). Hence, the backgrounds and the stories of research participants are important to this study.

## Research Strategy

### Case study

The hemp industry centered in North America can be considered the “big picture story” or the umbrella issue. This study is based on a specific *case*: the hemp industry in Manitoba. Therefore, this research is a *case study*. Specifically, this is an *instrumental case study*. When employing this framework, a researcher chooses a research problem and a bounded case to illustrate the issue (Creswell 2007). My focus centers on how the hemp industry was developed through stakeholder strategies in Manitoba. This involves concepts of legitimacy.

Since I am applying social movement theory to unpack these strategies, I contend that the hemp industry is also a movement. As discussed in the literature review, the “hemp movement” in Manitoba is positioned within the North American hemp movement. Both are informed by the larger “sustainability movement”. Themes of legitimacy and social movement strategies exist within both cases. For example in the U.S., hemp advocates continuously work to end hemp-farming prohibition.

Another dimension of a case study is the potential to analyze processes where multiple people are involved (Stake 1995). This pertains to the wide variety of stakeholder input found within this study. Also, this research is designed to understand the complex processes of strategizing and legitimization. Despite various interconnections, this study did not over-generalize beyond the case in Manitoba. For instance, this case avoided simplifying the political differences between Canada and the U.S. that impact the hemp industry. Therefore, the movement in Manitoba does not reflect the North American hemp movement and industry in its entirety. However, there exists a cross-border, stakeholder network for business and advocacy. The next section discusses my data collection methods and the use of grounded theory.

## Methods of Data Collection and Analysis

### Research Setting

I spent six weeks in Manitoba. My time was divided between the capital city of Winnipeg and the rural areas. In the capital, I frequently visited the University of Manitoba and went downtown to government offices. I also explored the rural areas near Winnipeg, and I traveled to a specific region where hemp is commonly grown.

### Access to Participants

Prior to arriving in Manitoba, I identified specific people to interview, plus categories of potential interviewees (e.g. a farmer). I also gained access for participant observation and shadowing of research participants. From here, I must emphasize that my

success depended on securing a key research connection. She is well known and widely respected in her field. Therefore, her support secured connections to industry stakeholders. I scheduled appointments via e-mail with the majority of interviewees prior to my arrival.

### Data Sources

A case study approach offered a wide array of tools for data collection such as interviews, participant-observation, existing records and physical artifacts. Acquiring documents, reports and artifacts was rather easy because of the generosity of participants. I was gifted numerous newspaper articles, bulletins, journal articles, flyers, pictures, brochures and physical artifacts such as hemp fibre samples and hemp foods. Participant observation was helpful when I visited the workplace of stakeholders and I accompanied stakeholders on business trips and tours. During these trips, I compiled field notes to cross reference with other sources of data such as interviews, documents, and artifacts.

When interviewing, I tailored my research questions to participants' affiliated organizations and their positions, such as fibre researcher, business owner, etc. There was also a set of questions that I asked everyone in order to get foundational information to compare stories and develop themes (see Appendix C).

### Interviewing Methods

I developed open-ended and probing questions for interviewing. For this study, I conducted in-depth, formal interviews as well as informal interviews. In addition, I

employed the “snowball strategy” as research participants referred me to other interviewees. Many questions were open-ended, where I would insert probing questions when needed. Formal interviews took place by appointments. Informal interviews would occur during casual conversations.

Overall, I conducted forty-one interviews. For conceptual organization, I categorized my interviews into five types: farm, business, research, government officials and trade alliances. It was challenging to create clear boundaries when grouping my interviewees. Individual stakeholders hold overlapping positions, duties and volunteering activities. Therefore, I positioned each person according to what I perceived to be the most dominant category. For example, there are researchers involved in farming; and there are farmers who hold government positions. Interestingly, stakeholders wear numerous “hats” moving between each sector.

I interviewed five farmers, and one representative from a crop insurance company. I met with a crop diversification specialist that works for the government of Manitoba. Regarding hemp businesses, I spoke with fifteen representatives from various companies and private businesses. There were nine interviews from groups conducting hemp-related research and projects. I met with three elected, government officials and five unelected government officials. This spanned municipal, provincial and Federal government. I spoke with one current and one prior representative of the hemp trade alliance.

While some interviews were held with more than one person, the majority of interviews were one-on-one. Most interviews took place in offices and public places such as coffee shops and restaurants. A few conversations were in people's homes and over the phone. With the exception of three interviews, I recorded with a small audio recorder. Soon after, I transcribed and erased the recordings.

#### Labeling Research Participants and Confidentiality

I protected participant confidentiality by developing a labeling system (see Appendix D). Each "research participant" was referred to as "R", followed by a number. For example, the first interviewee was labeled R1. This sequence continued for each participant (e.g. R2, R3, etc.). This labeling system permitted confidentiality and helped readers to see the interconnectivity of this stakeholder network. Participants were not ranked in a specific order. In the appendix, I clustered related stakeholder groups. For confidentiality, interviewees were not explicitly named with their associated organizations. This minimized correlating stakeholder identities with specific organizations or agencies.

#### Data Analysis and Coding: A Grounded Theory Approach

When I went to Manitoba, I explored the hemp stakeholder network. Questions focused on strategies, stakeholder organization and legitimacy. Following a grounded theory approach, I reviewed the data to find emerging themes. As I coded this information, I primarily explored what I considered to be processes and descriptions



(see Appendix B). The method of both gathering and analyzing data exposed themes and interconnected stories early in the study.

### Focused Coding

My post-field experience allowed me further to organize the data. This is when I transitioned into the second phase of *focused coding* (see Appendix B). Focused coding refined the pre-existing codes to be more specific and conceptual (Charmaz 2005). As I further organized the data, I referred to other sources such as field notes, artifacts, and documents. From there, concepts of social movement theory, legitimacy, and framing were central. Next, I compiled this information into a cohesive discussion about the development of this industry and movement in Manitoba. The overarching research question is as follows:

*In what ways do social movement theory and framing inform our understanding of how a hemp industry was developed and legitimized in Manitoba?*

### Data organization

The categories that I coded were resources, political alliances, political opportunities, stakeholder typologies, frame types, and cognitive processes. Resources include human, organizational, material, social-organizational, cultural, and moral (Edwards and McCarthy 2004). Leader typologies are movement leaders, charismatic leadership (McCarthy and Zald 1973), and social entrepreneurs (Bornstein 2004). Documented frames include: power, identity and conflict management frames (Lewicki

et. al. 2003). Power is comprised of: expertise, coalitional, and voice frames. Conflict management frames are fact-finding and adjunction. Collective action and transformative frames were also coded (Benford and Snow 2000). Cognitive processes are the “dimensions of knowledge interest”, these are cosmological, technological, and organizational (Eyerman and Jamison 1991). The following chapter discusses the beginning phases of the hemp industry in Manitoba. This is rooted in advocacy.

## CHAPTER 4 Hemp Advocacy in Manitoba

*If all fossil fuels and their derivatives, as well as trees for paper and construction were banned in order to save the planet, reverse the Greenhouse Effect and stop deforestation, then there is only one known annually renewable natural resource that is capable of providing the overall majority of the world's paper and textiles; meeting all of the world's transportation, industrial and home energy needs; simultaneously reducing pollution, rebuilding the soil, and cleaning the atmosphere all at the same time. That substance is the same one that did it all before, Cannabis Hemp... ~ Jack Herer ~ "The Emperor Wears No Clothes"*

The following chapter explores the strategies used by a group of hemp activists and entrepreneurs. This begins by reviewing the framing used by advocates wherein hemp cosmology reveals pro-hemp motivations. Framing hemp as an agricultural, ecological and economic opportunity has gained public support and political allies. Next, the focus is hemp outreach. Resource mobilization theory shows the importance of an organized front. This includes the moral resources needed to implement movement goals. Movement leadership and social entrepreneurship are also important to this process. Education and transformative framing are central to successful outreach. Integrating a hemp company with advocacy further legitimized the movement. The role of political opportunity is also explored because a major shift in agricultural policy created an opening for new crops. Political opportunity also refers to serendipitous events that supported the hemp agenda of Manitoba advocates.

From here, a stakeholder meeting is described to illustrate the tenacity of the Manitoba Hemp Alliance to deal with conflict. The advocates implemented a fact-finding conflict-management frame to counter an adversarial claim. Lastly, the concept of a Knowledge Interest from cognitive theory explains how hemp research in Manitoba was

organized. This includes the strategy of bringing in the experts to communicate research findings at a Hemp Symposium. Together, this framework explains a driving force behind the re-legalization of hemp farming in Canada.

### Hemp Advocate Framing

#### Motivations

The above passage from the “Emperor Wears No Clothes” describes the *cosmology* that numerous hemp activists in the 1990s embraced. Advocate cosmologies or their world-views were motivated by their belief in the ecological and economic values of hemp. In an interview with a local newspaper, an activist (R10) stated “its not about a drug issue, its an environmental issue...if we can just grow hemp in Canada we’d never have to cut down another tree” (Winnipeg Free Press 1994). In another article he exclaimed “soil instead of oil”. A fellow advocate, who convinced his father to grow hemp, stated “to me it isn’t a dope thing or a hippy thing, it’s a farmer thing, it’s a survival thing” (Eco Journal 1995)<sup>45</sup>. The above cosmologies framed this crop as ecologically attractive, while also serving to build alliances. With ecological, social and economic sustainability in mind, hemp advocate groups organized to influence policy makers.

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<sup>45</sup> His father (R3), is a long-time farmer and member of the Parkland Industrial Hemp Growers Co-op.

## Hemp Outreach

### Entrepreneurship

An interview was held with a hemp entrepreneur/advocate/co-founder of a hemp-food company (R10). This conversation explained how hemp farming became legal. Specifically, he discussed the advocacy and entrepreneurial work done in Manitoba. Resource mobilization theory describes how movement leadership and entrepreneurship empowered a movement.

### The University of Manitoba Hemp Awareness Committee

In 1994, through (R10)'s leadership and university resources, the "University of Manitoba Hemp Awareness Committee" (UMHAC) was formed. The group's organizational strategy was to hold numerous events framed as "Peace for Hemp" and "Operation Restore Hemp"<sup>46</sup>. They sponsored "hemp socials" at the university which reached maximum capacities of 200, plus guests (Winnipeg Free Press 1994). An organized hemp advocacy front was important to gain resources and develop strategic communication for the hemp movement in Manitoba.

### Resources and Educational Framing

The UMHAC accessed *moral resources* such as bringing Chris Conrad, the co-author of the "Emperor Wears No Clothes", to Winnipeg. According to resource

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<sup>46</sup> A Pun after "Operation Restore Hope", first Iraq War.

mobilization theory, a moral resource includes celebrity support. Conrad's lectures were valuable to raise public morale for the "cause". Public outreach outside of the university was another tactic, with the goal "change their paradigm". This process framed messages to *transform* previous understandings of the Cannabis plant and clarify misinformation and false ideologies. They distributed educational materials printed on hemp paper to illustrate that "hemp was tangible and not scary. People got it" (R10). This education was aimed to share the benefits of hemp.

#### The Manitoba Hemp Alliance: Business and Advocacy

Later the energy from UMHAC created the Manitoba Hemp Alliance (MHA). A business partnership was developed between the hemp activist (R10) and a friend (R11) to begin a hemp clothing and hemp products company<sup>47</sup>. This created two fronts - a business/commerce approach and advocacy. From there, the MHA connected with politicians and officials to push for hemp farming. When the Winnipeg Chief of Police couldn't say why hemp should be illegal, the advocate (R10) thought, "Gee, if the Chief of Police can't tell me why hemp should be illegal, I should up the stakes".

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<sup>47</sup> Based on Jack Herer's book. Both owners of the Emperor's Clothing Company traveled the world and found hemp in countries such as China, Hungary, Thailand and Tibet. At the time, they were one of the first hemp companies in Canada. They advertised in the back of Herer's book for several years. They opened up a retail store "The Hemp Exchange", which eventually closed.

### A Political Opportunity

In 1994 the MHA approached a future ally, the Minister of Agriculture in Manitoba. According to (R11), the advocacy group had to educate the Minister of Agriculture about hemp because “he didn’t know about hemp even though it was once grown in Manitoba. Even though he was the head farmer he didn’t have historical information of his own, so we provided some”. A communication tactic was to develop an informational pamphlet titled “The Trillion Dollar Crop?”. After reviewing this information, the Minister of Agriculture soon became interested and requested a “solid” business plan. The official’s receptiveness resulted from the cancellation of the farmer subsidy known as the “Crow Rate”<sup>48</sup>. The Minister was also attracted to the “value added opportunities attached to hemp” (R11). Accordingly, this was a *political opportunity* because the government had a mandate to diversify crops in the Canadian prairies in order to buffer the extra costs for shipping wheat.

### Unexpected Allies

Serendipity is a word that interviewee (R10) repeated throughout our conversation. This refers to the hemp interest that was circulating in Canada at the time. Social-political processes do not occur in a vacuum. For example, the same year that the MHA approached the Minister of Agriculture, a separate movement started hemp research trials in Ontario. Also in 1994, an analyst and Manitoba resident, who worked

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<sup>48</sup> It was a 100-year railway transport subsidy in Manitoba and Saskatchewan. The subsidy made the cost of shipping farmers’ wheat from the prairies to port equal to the cost of Albertan farmers, who were closer. The elimination of the subsidy resulted in a higher cost to ship wheat overseas.

for Agriculture and Agri-food Canada, independently designed a hemp article that was published in the Ag. Canada newsletter. This was the “Bi-weekly Bulletin Vol. 7 No. 23” and it was printed on hemp paper purchased from the Emperor’s Hemp Clothing Company<sup>49</sup>. This was not a synchronized approach between the parties. Yet it served as a tactic to frame hemp as an agricultural opportunity for Canada. Since it was a Federally-written document from the policy branch of Agriculture and Agri-food Canada, it further legitimized the pursuit of this crop.

#### A Stakeholder Meeting

According to the MHA’s founder (R10), in 1995 “the buzz about hemp was deafening. Rumours were flying and farmers and bureaucrats alike, wanted to get the real story about what hemp could do”. For instance, a bureaucrat from Saskatchewan had dozens of farmers approaching him with questions; so he arranged a meeting in Regina. Hemp advocates, farmers and other stakeholders came together to talk about the prospect of growing hemp. A keynote speaker from the “Bureau of Dangerous Drugs and Narcotics” came on behalf of Health Canada. He referenced the *United Nations Single Convention on Narcotic Drugs*<sup>50</sup> and explained that this document prohibits hemp cultivation in Canada.

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<sup>49</sup> Interviewee (p10) was pleased to be the first person to sell a hemp product to the Canadian Federal government.

<sup>50</sup>The Single Convention on Narcotic Drugs, 1961 is an international treaty to control the production and supply of specific drugs such as narcotics. [https://www.incb.org/pdf/e/conv/convention\\_1961\\_en.pdf](https://www.incb.org/pdf/e/conv/convention_1961_en.pdf) (Copy/paste in Web Browser)



## Fact Finding and Conflict Management

A potential conflict came out of this meeting. Interviewee (R10) described their reaction as, “we got to go fight the United Nations to change the whole thing. This is crazy, but you know what, we’re willing to do it”. The Manitoba Hemp Alliance contacted the United Nations and requested a copy of the document. A *fact-finding frame* was created because they investigated this allegation. The MHA discovered that the official’s assertion that the United Nation’s treaty prohibited hemp production was incorrect. The spokesman did not mention Article 28. This missing section permits hemp cultivation for fibre and seed, strictly for “industrial or horticultural purposes” (United Nations 1961:14). Once they had the facts, activist (R10) framed the situation as “at that point we had it... now they can’t stop us...its just policy, its not law, so they can change the policy”. This newly found momentum further legitimized the work of the MHA.

## Organizing Hemp Research in Manitoba

Later the team brought the Minister the business plan he had requested. As a result, the Manitoba Hemp Alliance was granted nearly \$25,000 in provincial funds for the research. This included access to the provincial agronomics department and a professional agronomist<sup>51</sup>. With the political backing granted from the Minister, they acquired the necessary permits from Health Canada to plant hemp in 1995.

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<sup>51</sup> In an interview Jack Moes stated his opinion as, “My perspective is there is a lot of hype associated with hemp...nothing is that good. Part of our goal is to find out just how much truth there is behind these hype statements” (Eco-Journal 1995).

The next strategy was to conduct research from the hemp trials. The research was compiled on the yields, THC levels, and the fibre/cellulose. Manitoba was unique in comparison to research trials in other provinces because, in order to test oil content, the crops went to seed. To be extra cautious, a tactic was implemented to plant some hemp with genetics from the Ukraine<sup>52</sup>. According to an overseer (R10), “we were able to grow hemp varieties with virtually zero THC”. The next step was to formally present their findings.

#### Delivering Research Findings

In 1996, the Manitoba Hemp Alliance held a Hemp Symposium. The event was the culmination of their prior organizational work. According to cognitive theory, the research process and the delivery of information is an example of an *organizational knowledge interest*. First, this pertains to their style of organization that was successful in gaining government endorsement and resources. Second, it explains the strategy behind their research study. Third, the Hemp Symposium was their chosen mode to communicate their findings. The attendees were a diverse stakeholder group where the MHA was successful in getting all levels of government to attend.

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<sup>52</sup> According to the interviewee (p10), they purchased hemp genetics from The Hlukhiv Hemp and Flax institute in the Ukraine. A breeder was issued a mandate in the 1970's to nearly, eliminate THC in hemp.

### Bringing in the Experts

The announcement for the event stated, “this will be an opportunity to discuss with experts various aspects of industrial hemp and to envision a scenario by which the ecological and economical benefits of the low THC hemp can be introduced into the Manitoba farm”<sup>53</sup>. Key speakers included Michal Orlov, the Ukrainian seed-breeder; Dr. Kozlowski, a fiber specialist from Poland; Dr. Jack Moes (Manitoba Agriculture), the chief agronomist behind this work; and Gordon Reichert, from Agriculture and Agri-food Canada. Bringing in the European experts was a strategic decision. Europe had a legitimate hemp industry and reputable research institutes working with the crop.

Another facet to the MHA’s strategy was conducting government-endorsed research on the hemp seed. An important research finding proved that THC, the biggest concern, was not a problem. THC levels can be managed through proper breeding and hemp cultivars. The research findings were legitimized because the MHA had provincial support and oversight for their project.

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<sup>53</sup> Source: taken from an announcement flyer for the Hemp Symposium. This research “artifact” was gifted from an interviewee.

## Concluding Remarks

### Advocacy Leads to Business

Hemp education and public outreach was critical from the onset. Socio-political networking and strategic communication was key to the success of hemp advocates. Clearly, advocacy and entrepreneurial work led to government endorsed hemp research in Manitoba. The achievement of the Manitoba Hemp Alliance came from a *political opportunity* because Manitoba was looking for new crops. The Minister was a key political ally who provided the funding and agronomic resources for the project. Bringing all of the relevant stakeholders together at the symposium was pivotal to ending hemp-farming prohibition. At the symposium, a hemp entrepreneur met a banker from the United States who was researching the possibility of setting up a transnational hemp company.

## CHAPTER 5 THE BEGINNING OF A HEMP INDUSTRY IN MANITOBA

*No other agricultural crop in recent history has sparked such a level of romantic attention and controversy as industrial hemp. A new industry is emerging as the "Rip Van Winkle is waking up" to a complete new millennium.<sup>54</sup>*

### Introduction

This chapter explores the development phase of the hemp industry in Manitoba. Background on Company X (CX) is provided followed by an outline of the theoretical framework to understand this event. The appearance of Company X as a legitimate stakeholder moves into the topic of stakeholder doubt. The section, "Out of the Ashes of Company X", explains the impact of entrepreneurial organization. Next, the influence of one stakeholder's use of an *expertise power frame* is described. The intervention of the provincial government is important to this story. Lastly, this section describes the key organizations that emerged from the CX experience.

Stories from the two founding hemp food companies are shared. The two companies are referred to as Company "A" and Company "B". The discussion of company "A" begins by looking at the role of entrepreneurship. The *technological knowledge interest* from cognitive theory is brought forward. In accordance with resource mobilization theory, attaining resources was a key factor behind the growth of each company. Political opportunities impacted the availability of funding for the companies.

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<sup>54</sup> Gordon Scheifele, referencing Noble Villeneuve who was Ontario's Previous Agriculture Commissioner. In 1997 Villeneuve gave a speech advocating for hemp. (The Ontario Hemp Report, Ontario Hemp Alliance, 2006)

The growth strategy of Company “A” is then described, including the importance of Federal, provincial and local government relations. This section transitions to the concept of legitimacy and the role of public education.

The following section focuses on Company “B”, where education was imperative to their success. The significance of Company “B” gaining a critical ally is described. Next, the role of vertical integration as a company strategy is detailed - plus the significance of Company “B” utilizing a *moral resource*. Company “B” employed an *identity frame* that communicated their company’s image. Next, the role of trade and market commissioners in promoting the hemp industry is described. Social movement theory informs this chapter where concepts of entrepreneurship are combined with cognitive, resource mobilization, and political opportunity theories.

## Company X

### Background

Stakeholders often began their interviews by discussing Company X (CX). In 1998, CX pushed this industry in an unexpected direction. As previously mentioned, the business came to Manitoba forecasting significant markets and, according to various interviewees, “big promises”. The company motivated hundreds of farmers in the Canadian prairies to produce millions of pounds of hemp grain. In 1999, Manitoba grew the most acreage for CX and the most hemp in Canada. Despite the hype surrounding the enterprise, it resulted in zero markets and no hemp processing capabilities. At no fault to the farmers, the company went bankrupt.

When exploring the story of CX, concepts of *resource mobilization* theory help to explain the development of two key organizations in Manitoba. This occurred two ways. Several farmers organized themselves into the Parkland Industrial Hemp Growers Co-op in order to supply CX with product. Second, farmers and entrepreneurs had to re-organize and adapt to the aftermath of CX. This section examines the socio-organizational infrastructure that came out of the CX experience. In addition to looking at these primary resources, I acknowledge the role of entrepreneurial organization. This includes how the employment of an *expertise power frame* shaped the future of this industry. Government intervention is another component to this discussion. The concept of legitimacy will prove central to this story.

#### A Partnership Was Developed

In an interview with a veteran stakeholder, CX's substantial role behind the development of the Canadian hemp industry was shared. Apparently, CX came to Canada before hemp was legal in order to appraise business opportunities. This resulted in a partnership with the research participant - a Manitoba resident, hemp advocate and businessman. He asserts that he joined the company to "raise money for the hemp industry", therefore finally developing this industry. This took place within a stock market scenario. Interestingly, the company was a pivotal stakeholder within the lobbying process that led to ending prohibition.

### CX Appeared Legitimate

When CX entered the political scene they upheld themselves as a transnational company and they “raised one million dollars to hire people to lobby and get the political action to get the crop legal”. CX appeared legitimate to government officials because they depicted substantial markets with an international demand for Canadian hemp products. CX networked through hemp symposiums and meetings with government officials. As a legitimate representative of CX, the interviewee was lobbying and gaining investor and farmer support. Notably, Canadian stakeholders backing CX were not only dealing with foreigners from a U.S. company. They were in direct communication with the vice president of CX, who had worked with hemp for years. For example, the interviewee was instrumental behind the hemp research trials in Manitoba.

### Stakeholder Doubt

During our interview he shared that “the whole idea behind CX wasn’t to build a hemp industry”. Actually, the company sought to “create some sort of hope or buzz on hemp”. He also stated that CX’s business plan was designed to “increase the value of shares from pennies to dollars and then sell out to someone to take it over”. Hence, CX was “looking to make the company bigger than it really was”. He then explained that the president of CX sent out a false press release under his name declaring a non-existent business deal where, “at that point I realized this was deception and I quit”. A few months later the company went bankrupt.



I held an interview with another businessman (R8) who interfaced with CX. He described his skepticism as “a huge smoke and mirror show...they couldn’t even be specific about what they were going to produce or who was going to buy it. They made themselves look really big, they had splashy events, no expense spared”. He proceeded to explain that his company was already processing hemp foods during the CX era. He also detailed that when CX went bankrupt, his company dealt with some of the surplus hemp grain - “we were one of the companies instrumental in getting rid of the seed after the fact”. He shared that, despite efforts to manage this challenge, the incident could have destroyed the hemp industry. He describes his reaction at the time:

Ok this industry has come and gone, it is barely a year old and its dead...A lot of the farmers were working on a 60-90 cent contract and ended up selling it for 25 cent per pound; that was after storing it for a couple years. It put a bad mark on the industry. Immediately farmers were very cautious about planting hemp.

Clearly, this event severely impacted investors, especially farmers. For instance, a seasoned hemp farmer (R3) admitted, “we all went at it a little too fast, even the local producers, we really thought this was the magic bullet”.

## Out of the Ashes of CX

### Entrepreneurial Organization

Remarkably, stakeholder collaboration and innovation helped fill the void left by CX. This was apparent during interviews with company co-founders and farmer input. When I asked about the impact of CX on their company, a business co-founder (R11) stated, “it was a love/hate relationship with...[CX] People lost a lot of money because they invested, but what they did was assemble farmers”. Through this interview, I learned how a group of farmers and a hemp food company built a business relationship. Because farmers were pre-organized to supply hemp to CX, a developing hemp food business convinced farmers to become shareholders in their company. This was an entrepreneurial mission where, once a farmer decided to do this, he persuaded other farmers to do the same. According to one farmer, (R3), this effort resulted in “twenty-one farmers who were willing to invest some money in this company”. Also, because the company did not have money to pay farmers upfront, various farmers became “reluctant investors”. Several farmers invested thousands of dollars worth of hemp grain into this company with a promise of future re-payment and prospective hemp grain orders. Luckily for the farmers, the company was a success and they were paid back. Several of these farmers still grow hemp today.

### An Expertise Power Frame

There is another surprise to this story. It digresses back to a meeting that CX attended in Ottawa at the cusp of legalization. This meeting was well attended and involved numerous stakeholders. The leading stakeholder at the event was CX, because the vice president had extensive hemp knowledge and represented a substantial business interest. He gave a presentation to the group stressing the importance of government permitting not only the cultivation of hemp fibre but also seed/grain production. This was necessary because Health Canada feared an uncontrollable spread of hemp seed and feral hemp. During the presentation, he introduced an *expertise power frame*. He explained to Health Canada that CX needed the hemp seed to process into oil and derivatives such as hemp foods. He framed his message as, “taking the seed crop off the table was not an option”. The entrepreneur was in a position of authority because he held unique knowledge that the other stakeholders did not have (Lewicki et. al. 2003). The *expertise power frame* pertains to the years of experience that the vice president obtained from running a hemp business, and organizing the research trials in Manitoba. When he established authority to utilize hemp seed, governmental power was readjusted; and his “expertise” established a change in previous forms of legitimacy.

Notably, hemp field-testing resulted in minuscule THC levels, thus further legitimizing the cause. Taking this into account, government skepticism was transformed into support. Without the legitimacy that accompanied CX, combined with the vice president’s former hemp advocacy and expertise, hemp grain may not have become an

option for farmers and entrepreneurs. Considering that the foundation of the hemp industry in Manitoba centers on hemp seed derivatives and oil, this is significant.

### Government Intervention

Another facet to this story is the reaction of the government to CX. According to a provincial official (R24), the Securities Commission in Manitoba intervened. Since CX was taking local investments under false pretenses, the Securities Commission recovered local capital from CX. According to the interviewee,

The local people understood the value of hemp and what it meant for farmers in our little communities, what it meant for job creation and adding value to an agricultural product. They saw it as investing in their communities. I would hate to think if a pile of local people got ripped off. It would have been a huge setback in terms of investing in this opportunity. We reorganized ourselves after that bad experience in such a fashion that I think we're going to be very successful (R24).

### Key Organizations Are Formed

The above statement from a high-ranking official demonstrates a perception that people were serious about working with this crop. Moreover, despite the outcome of CX, this incident demonstrates stakeholder adaptation and strategy. Farmers adapted to this situation as they worked with a developing food company to utilize the surplus. Also, the hemp growers co-op worked to find other markets such as birdseed. Ultimately, in spite of loss, this occurrence established two socio-organizational resources that are foundational to the industry. These were the Parkland Industrial Hemp Growers Co-op and the rise of

another hemp-food company. From there, the hemp industry became organized with the two beginning hemp food processing companies and a network of farmers working under contracts.

### Industry Leaders Two Companies Pioneer Hemp Oil and Foods in North America

The proceeding section examines the tactics and strategies that two hemp food companies used during their development. Parallels exist since each company simultaneously pioneered hemp-foods. Commonalities involve the role of stakeholder entrepreneurship, public education, transformative framing and innovation behind processing hemp foods. Interviewees shared their life experiences that they brought into their businesses and their motivations for pursuing hemp.

### Hemp Food Company “A”

#### An Entrepreneurial Whim

The founder/president of hemp food Company “A” described his motivation for starting his business. The interviewee said he has always been “a kind of entrepreneur” (R8). In 1998, after he researched hemp, he left a high paying corporate position and started his business. This was one month prior to re-legalization. He described the experience as a “trail blazing opportunity that no one has done before, not at least for 60

years” (R8). Despite skepticism, he was motivated to pursue this “entrepreneurial whim”. He figured competition from big industry was not an issue because they would avoid this crop due to “the stigma and the mystique surrounding hemp” (R8). After registering his company name, he began an intensive research and development phase coupled with a search for funding.

### Technological Innovation

During the first six months, with a staff of two people, this company devoted itself to research and development. The company had a *technological knowledge interest* in innovation. Innovation was needed to learn how to work with the unique properties of the hemp seed<sup>55</sup>. This required experimenting with machinery to answer questions such as, “Can we hull this hemp seed? How do we hull this hemp seed?” (R8). They tested different equipment and “there were many machinery vendors whose equipment we gummed and messed up so bad for them” (R8). This was a complex process where they “had to develop new products, using new processes, and then sell those into new markets...some of it was very difficult and had never been done” (R8). In order to accomplish this feat, resources were necessary.

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<sup>55</sup> The hemp seed has a hard shell and a soft inside. Hulling the hemp seed removes the outer shell. The soft middle is often called “hemp hearts”. Notably, the *Cannabis* seed is actually not a seed, it is “an achene (nut) fruit” (NIHS 2008:301). Using the term “hemp seed” refers to viable, planting seed. “Hemp grain” is the material to be processed into food products (e.g. crushed for oil).

## Monetary Resources

To gain the initial resources to start this business, he acquired “love money” from family and friends. He also convinced seven people to be original investors; and according to (R8), he “raised capital in the early years with a smile and my business card”. With start-up capital, he approached the government and got a guaranteed loan for their first equipment.

At this time, the government pushed for rural development. This was a key *political opportunity* where funding became available for rural industry. Hence, they were awarded government funding. The president described the process of acquiring this aid as:

Federally and provincially they were offering and almost falling over each other with grant money for the research and development of products, processes and marketing. We also at that time had a real push for rural development. I was rurally based, so that opened the door to numerous government grants to get this thing going (R8).

Once company “A” gained the initial monetary resources, they were able to focus on strategic growth.

## Growth Strategy

This company began with zero markets for their products. Respondent (R8) detailed their growth strategy as “we have grown this company as the market grew... we succeeded at making something from nothing and we did it by walking before

running...we're probably doing a slow jog now". Despite their impressive growth of "20-40% per annum for the last 8 years" (R8), this company grew with caution. The entrepreneur referred to their strategy as one that avoided debt<sup>56</sup>.

A long-time staff member commented on the timing of various company expansions, such as purchasing new equipment and increasing production. She explained that the expansions occurred when he "knew something big was coming down the line like a new big account or a news story, that would take hemp to the next level. That way we were prepared for it" (R12). This strategy was necessary to avoid financial overextension and overproduction. Working to promote hemp worldwide is another focus of Company "A".

#### International Strategy

In addition to fiscal responsibility, Company "A" works to expand their international markets. According to the company's president they currently export to over 15 countries. They also participate in 3-4 trade shows overseas annually. In order to promote hemp farming globally, the company has assisted in the development of hemp farming research in various countries. Public relations with Canadian government officials is another valuable tactic for Company "A".

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<sup>56</sup> People in this industry have suffered great losses investing in hemp. Especially when strong markets were not established.



## Government Relations

In order to maintain government support, the president stressed the importance of maintaining good public relations; since this is “a two way street with government officials” (R8). A good relationship with government involves a formal acknowledgement, such as writing letters to government officials to thank them and their superiors for their contributions to rural industry. Also, being available to speak at government events is another tactic to maintain support. In the next section, a discussion of education, framing and legitimacy will be examined to understand the success of Company “A”.

## Legitimacy and Education

Education and framing were key strategies to manage the relationship amongst hemp and marijuana. The president of Company “A” explained that consumer education was often a number one priority for their company. Presently, educating Canadian government officials is not a pressing issue because “they don’t look at this at all like marijuana, so they don’t get hung up on the stigma. They know that there’s a snicker factor and they’re consistently supportive” (R8). Convincing the general public was the challenge. A tactic of this company was to provide samples at events such as trade shows and to supply educational materials about hemp nutrition.

The president of this food company described peoples’ responses in the early days at trade shows. For example, in the beginning, people would question the legality of his

business. He also referenced public jokes or the “snicker factor”. To illustrate, there were people such as:

...[A] guy in a suit and tie saying, ‘I used to do this all the time in college’. That’s where hemp was kinda sexy in a way, because people who had connections to marijuana; they were very open to the whole thing...In some ways the sexiness of hemp works in your favor. I think for the most part, it works against you (R8).

This scenario evokes a debate about stakeholders’ protocol for managing public perceptions of *Cannabis*.

Like numerous stakeholders in this industry, (R8) explained their stance on Cannabis politics as, “to support both is a death wish, we are very careful around here to not mix the two. You gain so much ground and then you lose it if they think the industry is trying to legalize marijuana”. This principle has been adopted throughout the industry. When dealing with the “snicker factor” and the stigma behind hemp, a priority has been to distance the movement entirely from the politics of marijuana. Taking this position and focusing on education has been crucial to the success of the hemp industry.

#### Hemp Food Company “B”

##### Education

Education was also a key strategy behind the success of this company. A co-founder stated that they have always focused on dispelling myths about hemp. He explained that in the early years, “people didn’t know about the crop or the products. If

they did, they had a slanted view because they thought hemp was marijuana because of all the misinformation and the campaigns that happened back in the '30s and '40s" (R9). Similar to hemp food Company "A", they began with extensive research to find out what "hemp is and isn't" (R9). An educational tactic was to print brochures on hemp nutrition where they "gave out hundreds of them, then thousands....now we give out about ½ a million educational materials annually, on the benefits of hemp foods" (R9). This also takes place through social networking such as Facebook and blogs. Evoking *transformative framing* in their outreach also helped to overcome stigma. This promoted new understandings of hemp as a nutritional opportunity versus a drug issue. Also, the companies "A" and "B" continue to promote the TestPledge<sup>57</sup> program and they both support research on the hemp seed and its derivatives. For Company "B", this began by securing a place to process their first hemp foods and conduct needed research and development.

#### A Key Alliance was Formed

When they began, the three co-founders were working out of a small office. Similar to Company "A", they relied on "love money" from family and friends. Once they started the research and development process, they were lacking funds to purchase a processing facility. As a result, a key ally was formed with a local food development center that specialized in research, product development and markets. They leased a

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<sup>57</sup> The TestPledge label on edible hemp products "protect consumers from workplace drug-testing interference; they are based on a study, jointly commissioned by a Canadian governmental program and industry members published in the *Journal of Analytical Toxicology* (Nov./Dec. 2001)" (HIA 2004).

space at the facility for the first two years of their company. This was a necessary *material resource* for the company to launch their first products. This alliance was critical because “not all of us came from a food production background. There was a lot of passion, drive and energy when we teamed up with the food development center...Without them we probably would not exist today” (R11). From there, the company began to develop an adaptive strategy to grow their company.

### Vertical Integration

Vertical integration is a term that (R9) used to describe the strategy behind their company’s success. This involved “controlling all aspects of the supply line from seed to final product”(R9). This facilitated the innovation of products and helped to identify potential product quality issues along the supply line. For example, (R10) explained that through various processes, such as crushing hemp seed into oil, other bi-products would become available for other products<sup>58</sup>. According to (R9), vertical integration was a necessity because “we didn’t really have an option back when we started the industry...We had to convince the farmers to grow it and educate them, we had to figure out the manufacturing techniques and processes and we had to find markets”. Additionally, part of this company’s success came from the motivational story of a co-founder.

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<sup>58</sup> This includes protein powders where they analyze the various nutritional and functional properties such as dietary fiber and protein content.

### A Moral Resource

Each person that helped to build this business came from a unique place. A *moral resource* behind this company is the story of the co-founder (R9). His background shows a direct correlation to the health benefits of hemp, because he was once overweight (300 pounds). After a non-fat diet, he lost the weight but was very ill from a lack of healthy Omega 3 and Omega 6 essential fatty acids. Hemp restored his health. This story not only aids in marketing; it also legitimizes the health benefits of hemp through a real life example. The story of (R9) embodies a hemp health story from which the hemp-movement and industry can benefit.

### Company Image: an Identity Frame

The other two co-founders have hemp advocacy and social entrepreneur backgrounds. In an interview, the co-founder (R10) described how they decided to frame their company's public image. He stated that they designated (R9) as their "front man" because he embodied a success story to market hemp nutrition. This is an example of an *identity frame* (Lewicki et al. 2003:21). This framing served as a tactic where Company "B" answered the question: "According to our lived experiences how will we project ourselves to the public"? The defining characteristics, with which this company chose to identify, are health and nutrition. They made this decision because they "didn't want to confuse the issue with any of the political implications of hemp...we try to focus in on a couple things that everybody understands...versus having long-winded explanations for complicated stories" (R10). Overall, their marketing and publicity strategy is designed to

be simple and accessible for the public. According to (R10), this is the reason he has not shared his advocacy story with many people, and why it has been largely absent from their company's messaging<sup>59</sup>. It seems that this was helpful in order to emphasize the health benefits of hemp.

### Coalitional Business Development

As previously stated, the supportive role of government has greatly advanced the hemp industry. Federally and provincially the government employs marketing and trade professionals to grow Canadian industries. This has created a beneficial alliance for growing hemp companies such as "A" and "B". Trade and marketing specialists have helped these companies navigate application processes and requirements for funding. They also facilitate meetings with foreign investors and promote hemp at trade shows.

### Concluding Remarks

This chapter explored Company X in detail, which was a key event that impacted the development of the hemp industry in Manitoba. Social movement theory provided insight into the unique struggles that stakeholders encountered during these formative years. This resulted in stakeholder tactics and strategies designed to successfully build hemp businesses. Education and *transformative framing* facilitated public support of hemp. The experience of the two founding hemp food companies illuminates the process

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<sup>59</sup> Later he began a blog on their company's website to share his role in hemp advocacy, political lobbying and his contribution to hemp research in Manitoba.

to gain specific resources. *Political opportunity* was key to receiving government funding. A *technological knowledge interest* and entrepreneurship pushed company innovation. This was needed to secure processing capabilities. Company “B” used an *identity frame* to focus their company’s image on health and nutrition. The experience of (R9) can be considered a *moral resource* for Company “B”. His inspirational story benefits their business, and it legitimizes the health attributes of hemp. Also, government provides support for the hemp industry through their marketing and trade departments. In an interview with an industry representative, she emphasized the importance of companies “A” and “B” because “without those industry champions the industry would not be where it is today...they have really blazed the trail for others to come behind them” (R22). Clearly, these companies have created opportunities for other hemp businesses.

CHAPTER 6  
DEA STRATEGY, THE CANADIAN HEMP TRADE ALLIANCE, AND  
HEMP FOODS RESEARCH

*Government support is based on individuals and at the end of the day; we have been very fortunate...Hemp is a funny thing people fall in love with it. It's the most odd thing I have ever experienced in agriculture....Once they get exposed to it, they sort of start tip toeing through the tulips (R23).*

### Introduction

The first section of this chapter summarizes a pivotal struggle the industry overcame. When the U.S. Drug Enforcement Administration (DEA) attempted to prohibit hemp food and oils, hemp industry stakeholders collaborated to implement a strategy. A summary of the litigation process is provided to highlight stakeholder framing. Collective action and movement leadership empowered the movement that arguably, saved the hemp industry. Victory was obtained for the hemp industry when a federal court ruled that the DEA has no authority to ban naturally occurring, trace amounts of THC in hemp products.

The role of the Canadian Hemp Trade Alliance (CHTA) is explored. Social entrepreneurship is evident and the CHTA is a primary social-organizational resource representing the interests and the goals of the Canadian hemp industry. Funding is also an issue worthy of discussion, because non-profit organizations have to be fiscally strategic in order to survive. Next, strategic communication found in stakeholder reports is brought forward, followed by a discussion of regulatory challenges. Political allies are mentioned,



including the creation of the Long Term International Hemp Industry Strategy (LTIHS). Finally, this section speaks to how the CHTA has dealt with the ongoing issue of legitimacy.

Research continues to be fundamental to the growth of the hemp industry. New knowledge on hemp foods and oil is vital to gain credibility within medical, health, public and media outlets. The Canadian Hemp Trade Alliance is an important vehicle that pursues research projects on hemp. Research is necessary, yet challenging, because of the extensive costs behind these studies. Therefore, the CHTA has to be strategic when deciding studies to pursue. In conjunction with government funding, hemp food companies often fund research and supply product. The concept of legitimacy demonstrates the importance of research trials and clinical studies on hemp.

#### The U.S. Drug Enforcement Administration and the Hemp Industry: A Defense Strategy<sup>60</sup>

In 2001, the U.S. Drug Enforcement Administration closed the United States border to hemp foods and oils. Due to the seriousness of this issue, the ban on hemp food and edible oils can be considered an *intractable conflict* (Lewicki, Gray and Elliott 2003). Comparable to the stigmatized history of *Cannabis*, intractable conflicts are complex and difficult to resolve.

This section begins with stakeholder recollections of the impact of the DEA policy. A summary of events is provided, beginning with the litigation process. *Conflict*

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<sup>60</sup> For more details: [http://www.votehemp.com/legal\\_cases\\_DEA.html](http://www.votehemp.com/legal_cases_DEA.html)

*management, collective action, and coalitional power frames* are brought forward to explore stakeholder framing and their chosen strategy. The collective action of hemp activists was an important *human resource* needed to confront this issue.

From here, this section speaks to the role of movement leadership that was needed to engage with the DEA. Opposition within the North American hemp sector is also mentioned. The TestPledge program is an organizational *knowledge interest* where *fact-finding* research was critical. Legitimacy is a central concept to this story because the hemp sectors throughout North America needed to prove that THC is manageable.

### Summary of Events

#### A Shock for the Hemp Industry

The DEA Prohibition of hemp foods and oils was a surprise to stakeholders, such as food-processing companies. According to businessman (R8), he notified the Hemp Industries Association that the U.S. border was closed to hemp foods. Along with other companies such as Kenax, his product was confiscated. He stated that there was “no notice by the DEA; it just went into enforcement” (R8). A co-owner from hemp food company “B” explained that the DEA’s ban on hemp foods forced them to adjust their business plan because it “was a big blow to the marketplace. It changed our growth plan and it slowed” (R9). Another interviewee described this incident as “there was a lot of uncertainties and that’s not best for peoples’ business models. It did have a big chill effect” (R23). Without doubt, this event was a serious threat to the industry, and stakeholders were forced to adapt to this event.

## The Hemp Industry Challenges DEA Procedure

On October 9, 2001, the DEA issued an Interpretative Rule to prohibit hemp seed/oil food products in the U.S. The agency was concerned about *any* amount of trace THC residues. Meanwhile, the DEA issued a Proposed Rule attempting to change the language of the Controlled Substance Act to make any level of THC illegal in hemp foods<sup>61</sup>. Consequently, the hemp industry in Canada and the U.S. responded through their trade organization, the Hemp Industries Association (HIA). The initial strategy was to file an "Urgent Motion for Stay" to challenge the legality of the DEA's interpretative rule. The DEA claimed their goal was not to change the law but instead to *clarify* the Controlled Substance Act.

## Conflict Management: Fact-finding and Adjudication

Hemp stakeholders framed their arguments through fact finding and adjudication conflict management styles of (Lewicki et. al. 2003). Framing a conflict through adjudication refers to an outside party deciding the appropriate steps for action. First, through legal council, the Hemp Industries Association learned that the DEA's interpretative ruling was, in fact, a substantial policy change. Additionally, there had been

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<sup>61</sup> Controlled Substance Act: 21 USC 802: The term "marihuana" means all parts of the plant *Cannabis sativa* L., whether growing or not; the seeds thereof; the resin extracted from any part of such plant; and every compound, manufacture, salt, derivative, mixture, or preparation of such plant, its seeds or resin. **Such term does not include** the mature stalks of such plant, fiber produced from such stalks, oil or cake made from the seeds of such plant, any other compound, manufacture, salt, derivative, mixture, or preparation of such mature stalks (except the resin extracted therefrom), fiber, oil, or cake, or the sterilized seed of such plant which is incapable of germination.  
<http://www.law.cornell.edu/uscode/text/21/802> - 16

a long-term economic activity tied to hemp seed, such as decades of birdseed imported from China. In response, the Ninth Circuit Court of Appeals issued a “stay”. This was because the DEA did not adhere to the Administrative Procedure Act; therefore, the DEA’s interpretative rule was faulty. From there, the hemp industry had 18 months to organize their next defense.

### Collective Action

After the first round in court, a public comment period opened. Previously, this was not an option because an interpretative rule is a rushed procedure. Over 100,000 public comments were made in opposition to the DEA ruling. An HIA representative referenced this *collective action frame* as, “it is clear that the DEA is out of touch with the general public which is informed about the compelling nutritional and legal arguments in support of healthy hemp food products” (votehemp.com). In addition to public comment, demonstrations occurred.

Activism contributed to gaining public support and media attention through a nation-wide event organized on December 4, 2001. This *collective action* was framed as “The DEA Taste Test” in opposition to the DEA’s ruling on hemp foods. This was held in 76 cities, where a valuable human resource, hemp advocates, visited DEA headquarters during lunch hours. They tried to give out hemp snacks, including poppy seed products to display the hypocrisy behind this policy. After landing a front-page article in the Washington Post, the HIA gained power through media attention. During

this event, students from Syracuse University were arrested for "marijuana" possession. Eventually, they had their charges dropped after handing out hemp snacks to DEA employees.

## Victory

On March 21, 2003, the DEA came out with a “Final Clarification” rule in an attempt to ban hemp food and oil with *any* amount of trace THC<sup>62</sup>. The following week, hemp industry stakeholders and the Organic Consumers Association filed an “Urgent Motion to Stay” in the Ninth Circuit Court of Appeals. Ultimately, in 2004 the court supported the hemp industry and the Judge ruled that, “...The DEA's definition of "THC" contravenes the unambiguously expressed intent of Congress in the Controlled Substances Act (CSA) and cannot be upheld” (votehemp.com). Concerns that THC could be extracted and concentrated from hemp foods and oils were also dispelled - not because it's impractical and largely impossible - but it was already legislatively prohibited. The agency has no authority to regulate naturally occurring THC that is, "... not contained within or derived from marijuana - i.e. non-psychoactive hemp is **not** included in Schedule I ” (votehemp.com). After 2 ½ years, the HIA won their lawsuit against the DEA. The U.S. border was open to hemp foods and oils because of the stays granted by the Ninth Circuit Court of Appeals.

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<sup>62</sup> The DEA also issued a “final interim rule” to permit hemp body care and fibre products. Yet, this did not allow the importation of hemp seed and oil into the U.S. for processing and manufacturing. This would have destroyed manufacturers' ability to get the hemp oil and seed that they needed to make their products.

## Movement Leadership and Strategy

Several interviewees referenced stakeholder (R41) as the person who generated a strategy to collectively challenge the DEA. This individual can be considered a *movement leader*. When interviewed, he described the beginning efforts to develop a strategy. Initially, there was a rift in the industry in deciding how to proceed. He described the situation as:

At that time the industry was split. Some felt trace THC would somehow qualify as zero THC and we could just live with the DEA restrictions. Myself and others, thought this was a foolish strategy; there is no such thing as a true zero in anything. There was definitively trace THC, even though it was parts per million and it couldn't trigger a drug test. But saying it was zero and waiting was not a strategy.

Instead, action and industry collaboration was the chosen direction. Power was created to confront the DEA. Largely, the majority of the hemp industry understood the impending threat and favored litigation. The HIA consulted their lawyers and (R41) compiled the strategic report titled: "Industrial Hemp and the DEA, Situation and Strategy". Notably, original hemp food companies "A" and "B" monetarily contributed to the lawsuit. Also, the companies were among those who served as industry plaintiffs. Despite apparent support throughout the hemp industry, there existed a rift within the North American hemp sector.

## Opposition within the North American Hemp Sector

During this time period, a meeting took place with the Hemp Industries Association and a second organization that was supposed to represent the North American hemp industry. At this meeting, the movement leader (R41) gave the attendees copies of the strategy. Several hemp businessmen were appointed to this organization's board. The original plan was to form a coalition with the organization. However, this did not happen because they "were having none of it they did not want to get involved in hemp food at all" (R8). Another stakeholder who attended described the organization as, "they were not on board with the hemp food sector; they were fibre focused, which caused polarity. They were not standing up for food and oils" (R19). Likely, this was related to issues of Cannabis stigma. The organization may have considered hemp oil and food as risky and illegitimate. Hemp fibre was recognized worldwide, but people were largely unfamiliar with edible hemp. Likely, there were fears that hemp food and oil would be unacceptable to authorities.

The representatives of hemp food and oil, resigned from this second organization due to a difference of opinion. Despite diverging hemp organizations, the majority of hemp sectors within North America networked on this issue. Research was a critical aspect to this process.

## The TestPledge

A strategic priority for stakeholders was to compile research to address the issue of THC through the TestPledge Program. The message that the hemp industry

communicated was framed through a *fact-finding* process. This *conflict management* style came from the hemp seed and oil sectors as a consumer promise that trace THC does not cause adverse effects. When companies sign on to the TestPledge, it is a certification that trace levels of THC are controlled throughout the production process. For example, hemp fields are tested, hemp seed is cleaned to eliminate residues, and hemp foods and oil products are also tested. The TestPledge was designed to “protect consumers from workplace drug-testing interference...[this was] based on a study, jointly commissioned by a Canadian governmental program and industry members, published in the *Journal of Analytical Toxicology* (Nov./Dec. 2001)” (HIA 2004)<sup>63</sup>. In reference to cognitive theory, the TestPledge can also be considered an *organized knowledge interest* for the North American hemp industry. This is because the TestPledge communicated important research, plus cohesive industry standards, to policy makers and the public. This research was also a *fact-finding frame* that legitimized and defended hemp foods and oils as a non-psychotropic resource for health. Next, the role of the Canadian Hemp Trade Alliance in shaping the hemp industry is explored.

This section summarized the successful strategy that was designed to overcome an intractable conflict. Via litigation, stakeholders had to prove legislatively that, similar to poppy seeds, naturally occurring trace amounts of THC are not a drug. *Fact finding* and *adjudication* are two conflict management frames that helped to accomplish

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<sup>63</sup> TestPledge “requires that pledging companies achieve this goal by committing to the following THC limits - Hemp oil: 5.0 parts per million (ppm) Hemp nut: 1.5 parts per million (ppm)”. <http://www.testpledge.com/>



stakeholder goals. Power came from a *coalitional framing* of the conflict. This led to decisive action and an executed strategy. *Collective action framing* was key for activists and the public to communicate their disapproval of DEA policy; plus it empowered the “cause” and gained media attention. Opposition within the North American hemp sector did not disrupt this process. Importantly, the TestPledge helped to legitimize hemp foods within public and policy spheres. A *fact-finding frame* proved that hemp food does not accumulate in the system.

### The Canadian Hemp Trade Alliance

Organizations are often considered the driving force behind a social movement (McCarthy and Zald 1973). Due to the obstacles this industry has faced, the role of the Canadian Hemp Trade Alliance (CHTA) will be understood through social movement theory. The following begins with the concept of social entrepreneurship to explore the development of the hemp alliance, including the role of two influential people behind this organization.

The growth of the CHTA into a mature organization is also brought forth. From there, it is noted that the CHTA is a key social-organizational resource representing the hemp industry and movement. Their strategic function has been to serve as an organized body for the Canadian hemp industry. According to the CHTA, “the key functions of the alliance are to disseminate information, promote the use of nutritional and industrial hemp, and coordinate research” ([www.hemptrade.ca](http://www.hemptrade.ca)). Likewise, the CHTA is a stakeholder networker and a “go to” organization.

Like numerous non-profits, they have struggled financially. Therefore, the issue of maintaining this organization is described. Strategic communication is reviewed where the significance of stakeholder reports is explored. Next, cognitive theory is integrated where the concept of *organizational knowledge interest* helps to explain how government support and allies are developed. Also, the mission statement communicated in the National Industrial Hemp Strategy is an example of a *voice power frame* (Lewicki et. al 2003). Another form of power came from two political allies in large-scale agriculture who advocated for the hemp industry. This is a *political opportunity* that confronts a need to address regulatory issues. Next, the strategy to professionalize the hemp industry is mentioned. In conclusion, this section looks at how the CHTA has dealt with issues of legitimacy.

### Social Entrepreneurship

In 2003, the Canadian Hemp Trade Alliance was formed in the living room of a seasoned hemp advocate and writer (R23)<sup>64</sup>. In the early 1990's, he read "The Emperor Wears No Clothes" and participated in hemp symposiums. He also edited hemp magazines and ran an online newsletter that became a popular hemp news website. As a hemp enthusiast, he moved from Vancouver to Saskatchewan in order to work directly

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<sup>64</sup> Notably, the president (R8) of the hemp food company "A" was a co-founder of the Canadian Hemp Trade Alliance. Key memberships that built the organization came from the first, two hemp food companies "A" and "B". This membership and support continues today.

with hemp. He worked at the Saskatchewan Hemp Association, and later this group transitioned into the umbrella organization.

For five years, (R23) was the executive director of the Canadian Hemp Trade Alliance where he helped keep it alive through its growing pains. When he retired from his hemp work, he compiled eleven years of experience in this movement and industry. During a separate interview with a current representative of the CHTA (R22), I learned that she is a valuable *human resource*. This is because she has extensive background working in the agriculture sector in Canada. Similarly, she can be considered a *social entrepreneur* because she invests volunteer hours outside of her paid position. As of 2011, she is paid fourteen hours a week, but she works an average of twenty-six hours weekly. When asked why she does this, she responded, “I think this sector has tremendous opportunity...I just want to be part of a new endeavor for Canadian agriculture” (R22). She is exemplary in her social entrepreneurial support of this industry. She has also witnessed the CHTA’s growth into a mature organization.

### Maturation

The trade organization has matured over the years, having “gone from being like a crazy adolescent... to someone that’s kind of in their 30’s and has finally got their spot and foundation” (R22). For example, they now have an organized office, a membership database, and finalized by-laws for the organization. Currently, the CHTA has 167 members and their membership and board members range throughout Canada and the U.S.A. Some of their communication tactics include monthly board meetings,

conference calls, newsletters and annual conventions. Additionally, in 2012 the CHTA began developing their first Provincial chapter in Alberta, Canada.

### Networking

The CHTA is a central “social organizational” resource for the hemp industry. The organization connects various stakeholders together, and they function as a communication gateway for the industry. They experience several phone calls and emails daily with a wide range of inquiries, such as requests for research. Likewise, when the CHTA hears from farmers who are interested in converting acres to hemp, they connect the farmer to hemp agronomy experts.

### Funding

Interviewee (R23) described the early years of the hemp trade alliance as, “money was always a problem, doing simple things was always complex. It’s challenging to sustain a non-profit organization within an emerging industry” (R23). This required volunteer hours and doing a lot with few resources. Notably, some of their initial seed money came from a U.S. based, body-care company. Also, the CHTA continued to rely on corporate donors such as hemp food companies “A” and “B”.

Membership fees alone do not sustain this organization. While government grants sometimes cover administration fees, it is not enough. A method of acquiring funds is the CHTA’s annual convention. The annual convention can be considered an organizational structure that serves as a venue for stakeholder networking. According to (R23),

conferences are a valuable way to engage government whose support has been essential to the survival of the CHTA.

In the early years, the CHTA developed another tactic to help fund the organization - known as the “volunteer membership”. This allows farmers to become members of the CHTA while signing a contract with hemp companies such as, “A” and “B”. In turn, this funds hemp industry development such as, research and marketing.

### Strategic Communication

Up to date, there have been two key documents representing the hemp industry in Canada: The National Industrial Hemp Strategy (NIHS) and Canadian Hemp Industry Review Project (CHIRP). In accordance with cognitive theory, these reports are vital to the industry’s strategic communication and they function as *organizational knowledge interests*. This relates to the formulation and the delivery of industry goals, opportunities, challenges and regulatory concerns made within a collaborative framework.

#### The National Industrial Hemp Strategy

The NIHS was the first Canadian document where the hemp industry communicated industry needs through a unified voice and strategy. This report was spearheaded by the CHTA and a leading research group, plus “a broad cross-section of stakeholders representing producers, processors, researchers and research institutions, and the policy community” (NIHS 2008:1). When (R22) was asked about the

significance of this document, she explained that it has resonated with government officials because they require a comprehensive strategy in order to provide funding.

The NIHS has voiced the Canadian hemp industry's mission statement as, "...create an economically sustainable Canadian hemp industry, benefiting all stakeholders along the value chain and enhancing the nation's health and natural environment" (NIHS 2008:iv). This mission statement can be considered a *voice power frame* (Lewicki et. al 2003). The vision statement of the NIHS, has also helped the hemp industry gain a voice to connect with government officials and the public<sup>65</sup>. This has served to empower the hemp industry to attract government and public support. As a result, the NIHS can be considered a *voice power frame* for the entire hemp industry.

#### The Canadian Hemp Industry Review Project

Another key report was the Canadian Hemp Industry Review Project (CHIRP)<sup>66</sup>. This document was designed with stakeholder input to "evaluate their experiences with the Canadian Industrial Hemp Regulations from the perspective of industry" (CHIRP 2009:9). This communication strategy produced suggestions for Health Canada to improve the regulatory system that governs hemp. Overall, industry stakeholders agreed that regulations should be minimized now that the industry is legitimate and the appropriate hemp cultivars (varieties) are being produced. Participants also expressed a need to review the protocol for hemp field-testing.

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<sup>65</sup> The NIHS vision: "Canada is the global leader with respect to total hemp crop utilization offering solutions along the entire value chain". (NIHS 2008:iv).

<sup>66</sup> The Ontario Hemp Alliance and Agriculture and Agri-Food Canada (AAFC) sponsored this report. The work compiled input from industry stakeholders where the "opinions expressed in this document are those of the Industrial Hemp Industry and/or the Ontario Hemp Alliance and not necessarily those of AAFC" (CHIRP 2009:3).

They also asked Health Canada to reorganize their administration to better serve farmer applications and paperwork and support the expanding hemp industry.

### Addressing Regulatory Challenges

Research participant (R22) expressed that Health Canada has not formally responded to stakeholder input from CHIRP. She thinks that this is largely because the hemp industry is small compared to other agricultural sectors. Regulatory issues have been problematic; for example, sometimes farmers do not receive their licenses in time to plant hemp legally. A hemp agrologist and representative of the CHTA explained that approaching regulatory issues is a balancing act, in which they have to figure out how to “massage the regulatory thing to keep the industry going without getting us in some sort of trouble” (R19). Notably, the CHTA has communicated to Agriculture and Agri-food Canada that there is a need to pressure Health Canada to address regulatory concerns.

### Political Allies

Interestingly, two political ally groups came forward in support of CHIRP and the hemp industry. Interviewee (R22) stated that two prominent farmer organizations with political clout passed resolutions urging Health Canada to respond to the concerns that the hemp industry voiced in CHIRP. She described this as “that was coming from national mainstream agriculture; that’s pretty significant; I don’t think we have yet to recognize the significance of that” (R22). Support from big agriculture is a *political opportunity* that can influence agricultural policy. Likewise, this alignment can be considered a *moral resource* that promotes solidarity between

the hemp sector and mainstream agriculture. Clearly, strategic communication was effective in gaining powerful political allies and government support.

### *An International Strategy*

In addition to these reports, the hemp industry is developing a Long Term International Hemp Strategy (LTIHS). This document articulates how the Canadian hemp industry will position itself internationally. Crafting an international strategy is helpful because it links the Canadian hemp industry globally; also there is strong international representation that attends the CHTA's annual conventions. This strategy is Federally funded through Agriculture and Agri-Food Canada<sup>67</sup>. Attaining this monetary support has facilitated the CHTA to apply for future funding through this same channel - the AgriMarketing program. Together, the above strategies serve to legitimize the hemp industry within Canada and abroad.

### *Legitimacy*

When a representative from the CHTA was asked what she considers to be the Canadian hemp industry's biggest accomplishment, she explained that "the biggest leap has been legitimizing the sector, we sit at the table with everyone else and there's respect there, I do not hear the "snicker factor" as much...[and] government is paying attention" (R22). From there, she was asked her opinion about strategies that legitimized the hemp

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<sup>67</sup> The CHTA currently has a Market Development Officer from the Grains and Oilseeds Division of Agriculture and Agri-Food Canada serving as a government Ex-Officio (advisor) to the CHTA Board.



industry. She described this as removing the “hippie” image from the industry when she stated:

It’s how you look; it’s your professionalism. You talk about the hippies - we had to remove that face from hemp for it to become mainstream. If you look at the folks that sit in a room at a convention about hemp, it’s like going to any other agricultural convention... The conversations that we have - we are very careful to make sure we talk about industrial hemp and not medical marijuana. We draw that line very clearly and distinctly in anything we do (R22).

The previous director from this organization elaborated on the above strategy to disassociate hemp from drug varieties of *Cannabis*. He stressed that the CHTA’s decision to follow this rule was imperative. When hemp and marijuana are framed as one-issue, problems inevitably arise. For example:

You’re not doing yourself a favor by getting involved with marijuana issues because it’s a huge distraction; the room is crowded and no one wants to talk about hemp ... It’s difficult for some people to grasp. They think ‘What are you against marijuana? Are you an evil person?’ It’s more of a tactic for organizing hemp. When you talk about hemp, stick to the subject. We made a very conscious decision to just not get involved in marijuana debates because it was all off topic (R23).

This rule has helped the CHTA to further professionalize the hemp industry. Likewise, this protocol brought hemp into the mainstream marketplace while gaining more respect within the agriculture sector in Canada.

Looking at the role of the Canadian Hemp Trade Alliance illustrates the importance of *social entrepreneurship* that is needed to sustain a non-profit. The evolution of this organization into a strong networking body shows how an umbrella organization can help build an industry. The CHTA is a key *social-organizational*

*resource* that facilitates relationships between industry and government. Their *organizational knowledge interest* is evident through strategic communication, such as stakeholder reports. This secures political allies and government funding. Strategic communication also promotes industry goals and allows for the hemp industry to gain a stronger voice within agricultural circles. Clearly, the role of professionalism is integral to the success of this organization and the legitimization of this industry.

### The Role of Hemp Foods and Oil Research

Over the years, the large hemp food companies have extensively explored the health benefits of hemp. Since the beginning, company endorsed research, such as profiling hemp oil and seed derivatives, was necessary for progress. Interviews held with nutritionists and researchers show the integral role of leading hemp food companies in supporting research. For example, companies often fund research and/or donate their product “in kind”, such as hemp oil and protein powders.

The following section begins with cognitive theory to show the importance of creating new knowledge about hemp foods through research. The role of the Canadian Hemp Trade Alliance in facilitating research is explored. Legitimacy is brought forward in reference to research. Research trials and clinical studies are two forms of research that contribute to legitimizing hemp in the health and medical fields. This includes public acceptance and media attention.

### A Need for New Knowledge

Social movement theory positions the intellectual processes behind hemp research. Developing “new knowledge” is a concept used by Eyerman and Jamison (1991) to define and understand a movement. Considering the challenges the hemp industry faces, looking at processes of knowledge production is appropriate. Namely, this refers to the role of research that is needed to legitimize this crop and industry.

### The Canadian Hemp Trade Alliance and Research

Currently, third party, peer-reviewed research<sup>68</sup> is pursued mainly through the CHTA with the support of hemp companies and the government. This research is valuable; to illustrate, the NIHS aims for “research to fill the existing gaps in the knowledge of the health benefits of hemp. Credible evidence of health benefits will be needed...” (NIHS 2008 vii). Compared to other crops, existing research on hemp oil and seed is minimal; this presents a challenge. A CHTA bulletin described this as:

Here are the challenges: What research do we undertake? How do we fund that research?...How much funding is industry prepared to contribute? CHTA continues to liaise with government to ensure that they are aware of the status of our industry and our need for research (CHTA Bulletin January 2010).

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<sup>68</sup> Hemp Trade Alliance, hemp research abstracts [http://www.hemptrade.ca/research\\_response.php?one=6&two=](http://www.hemptrade.ca/research_response.php?one=6&two=)

Clearly, maintaining government support of research is required to push this industry forward. Overall, the CHTA has to be strategic with resources<sup>69</sup>. They decide which research studies to pursue, while they compile monetary resources.

An interview was held with a nutritionist and a consultant who has extensively worked with the hemp industry (R32). In this conversation, the role of the CHTA in supporting industry research was emphasized. She stressed the importance of the CHTA and described the organization as non-biased, and ethical. Likewise, industry leaders are critical because in order “to build an industry you need those entrepreneurs, those visionaries, those people who will put the sweat equity in to maintain it” (R32). She also spoke to the issue of legitimacy and the precedence of research when she stated:

The buy in of the medical community and health professionals is absolutely key. Dieticians aren't really aware of hemp.... Taking the “snicker factor” out of hemp and putting it on a level playing field with some of these other bioactives and increasing its credibility - I think it is really important.

The above statements demonstrate the necessity to produce new knowledge in order to prove the health benefits of hemp. According to the researchers and nutritionists interviewed, there is a great deal of new knowledge that is needed on hemp oil and seed. In order to broaden the market for hemp food and gain more credibility, the following areas should be researched: food stability, hemp food formulations, toxicology,

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<sup>69</sup> Once they have more funding, a goal of the CHTA is to have research studies re-written from scientific language into laymen terms to reach larger audiences. While this can be expensive, this re-framing of hemp research is another component to the CHTA's role in research.

bioavailability, and Health Claim studies<sup>70</sup>. Evidently, the support of the medical and health establishment is central to these efforts for legitimacy.

### Legitimacy

Ideas of legitimacy resonate within the research sector of the hemp industry. For example, an interview with researcher (R33), who specializes in cardiovascular health, stated that the issue of THC comes up “constantly - for example, the first paper I think we had was with...an American publication...the issue of THC content comes up all the time. I think people just aren’t aware unless you’re in the field” (R33)<sup>71</sup>. This demonstrates a frequent need for researchers to manage the connection of hemp and the drug varieties of *Cannabis* within their field. From here the importance of research trials and clinical studies are discussed.

### Research Trials

Since hemp was re-legalized in Canada, hemp research trials have advanced in Manitoba. For example, research has been done on the effects of hemp protein in reducing blood pressure; which can potentially aid those with kidney disease. According to a researcher who is involved in this work, “hemp protein can now be included as a

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<sup>70</sup> A Health Claim is backed by research where a food is known to reduce the risk of developing a disease or a condition (FDA regulated in U.S.). According to (R32), obtaining a health claim can take a long time. For instance, flax has made a come back as a health food. It has been 20 years and flax does not have a health claim despite research showing positive impacts on cardiovascular health.

<sup>71</sup> He explained that their studies on hemp and cardiovascular health are some of the first in the world. Also, according to the researcher, “hemp seed diet created protective benefits to against Ischemia reperfusion injury, [can result from a heart attack] that’s fairly important...[and hemp was found to] protect against blood clots” (R33).

potential beneficial plant protein for kidney health” (R35). Another study is seeking to build a research foundation to get hemp registered as animal feed<sup>72</sup>. A researcher from a chicken feeding trial stated, “overall I can say hemp seed oil led to the omega three enrichment of the eggs...[regarding tissue and liver samples] no THC was detected...[and there was] no negative impact on the liver samples” (R39). Clearly, research that supports the health and safety of hemp foods is critical. Yet this remains challenging.

Research trials are common in the hemp industry but they are often costly. For example, interviewee (R34) is doing a study with hemp food Company “A”. She explained that this is a simple study, but it will cost \$50,000. While the government is contributing monetarily, Company “A” is providing funding and the hemp products “in kind”<sup>73</sup>. Despite these resources, (R34) stated that it was a tight squeeze financially, and she had to pull funding from other research to facilitate this work. She described her motivation for working with hemp when she stated “I want to make Manitoba the hub of the hemp oil research...If there really is a health benefit - I am a dietician, so I can go to other dieticians in Canada and say, ‘Look you can provide this to your patients’. There is no convincing data that I can trust at the moment” (R34). Hence, the need for research is imperative.

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<sup>72</sup> Currently, hemp is not a food-source for animal feed. This is a “strategic area for action” from the NIHS which states a goal to “work with the Canadian Food Inspection Agency (CFIA) to achieve regulatory approval for the incorporation of hemp nutrients into animal feed and treats” (NIHS 2008:vii). The chicken feed trial has moved into its second phase and this study will last three years.

<sup>73</sup> Hemp research is carried out by organizations such as universities and research institutes. There are numerous provincial and Federal funds that support agricultural research and development. Often the government will match half of the cost.

## Clinical Studies

Clinical studies are instrumental to the growth of this industry. An interview with (R32) spoke to the challenges of pursuing hemp food research. Clinical trials are expensive; she quoted a quarter million dollars as an average cost per study. Presently, hemp is a new Functional Food<sup>74</sup>. Therefore, numerous studies are required for it to be accepted by large companies and the medical establishment. Big companies expect hemp suppliers to provide all of the research. For example, a research and business development expert stated, “as the hemp industry grows, it’s really important for them to do their homework about what impact this will have on consumers. Large companies are not risk takers. They need as much information as possible, and that’s the challenge for a niche industry” (R21). Evidently, the hemp industry faces pressure to provide research.

After the foundational research trials, clinical studies promote hemp legitimacy within medical and health fields. As previously explained, “Generally Recognized as Safe” (GRAS, U.S. Food and Drug Administration) is an important certification for hemp foods; but this requires extensive research. According to the CHTA representative (R22), in order to register hemp food products or derivatives with GRAS status, they were given an estimated cost of one million dollars. Apparently, each food product requires a separate body of research supporting its safety (e.g. hemp protein powder, hemp seed oil,

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<sup>74</sup> Functional Foods are “those foods that encompass potentially healthful products including any modified food or ingredient that may provide a health benefit beyond the traditional nutrients it contains,” as defined by the Institute of Medicine. Functional foods can include foods like cereals, breads and beverages which are fortified with vitamins, herbs and nutraceuticals” (<http://www.medterms.com>).

etc.). Moreover, if a research study is going to be published in a reputable journal, it needs to have a large sample size and take place over a long time period. This is also expensive.

### Concluding Remarks

Ultimately, research is and continues to be imperative for the survival of this industry. Collaboration between the CHTA, hemp companies, the Canadian government and academia are integral to the hemp research sector. Despite government funding, it is challenging to fund the necessary research; and these processes take years. It is a daunting process to obtain GRAS status and research needs to be compiled on various hemp food products. This includes comprehensive studies into the effects of ingesting hemp for health-related issues (e.g. cardiovascular health, kidney health). To build legitimacy within health, medical, public and media sectors, developing new knowledge through science is central.

This chapter covers the main strategies that have perpetuated the hemp industry. The strategy to overcome the DEA was essential to the continuance of this industry. Social organizational resources are valuable, where CHTA serves as a third party to represent the hemp industry. Valuable networking comes out of the CHTA where strategic communication is generated through stakeholder reports and annual meetings. The CHTA promotes communication between stakeholders from government, research, farm-gate, and industry sectors. Gaining political allies within Canada will potentially benefit the CHTA and help address regulatory issues. Research is vital for hemp food



products to be further legitimized within influential segments of society. As more research is conducted on the health benefits of hemp and health claims are obtained, hemp acreage will increase and this industry could exponentially grow into bigger markets.

## CHAPTER 7

THE PARKLAND INDUSTRIAL HEMP GROWERS CO-OP  
AND THE FARMING SECTOR

*I'd like to see rural development. I'd like to see my little community do better. I'd like to see people come back and work... I'd like to see my fields in better shape than they were 10 years ago. Agronomically, I'd like the soil to be healthy. In farming you think about generations, not just 2 years from now (R2).*

## Introduction

Chapter seven begins with an exploration of the Parkland Industrial Hemp Growers Co-op (PIHGC). They are a *social organizational resource* for the hemp industry and movement. There exists collaboration between the co-op and a local branch of the Crop Diversification Foundation. Together, these organizations spearheaded agronomic research and breeding programs to make hemp farmable in Manitoba. Innovative farmers had a *technological knowledge interest* to conduct “research and development” to adapt technology for harvesting hemp. Next, government support is described with input from a crop diversification specialist; who can be considered a key political ally for the hemp industry. Lobbying has been a focus of the hemp growers co-op, which has holistically benefited the industry. Likewise, the power of the co-op as an organized group and the impact of *social entrepreneurship* are brought forward. The Parkland Industrial Hemp Growers Co-op invested years working to bring a hemp fibre processing facility to their region. Representatives from the co-op describe the motivations behind this work.

The remaining section of this chapter discusses farmer input and hemp farming challenges, including company and farmer relationships. From here, the concept of the “four levels of adopters” is shared as a framework that positions farmer involvement with this crop. This framework is an *organizational knowledge interest* to organize levels of farmer experiences with hemp.

Growing hemp includes a regulatory regime that other crops do not carry. Examples are storage logistics and additional expenses, field tests and licensing. Hemp can be a challenge to farm, and if care is not taken, it can be rough on equipment. Overall, hemp needs to maintain its profitability and have buffered risks for the majority of farmers to view it as legitimate. Lessons learned from a year of overproduction show that it is mandatory to grow hemp under contract. Farmer experiences are further explored by recognizing a movement leader. Issues behind pricing discrepancies are then described, followed by company strategies for working with farmers. This chapter concludes with discussion of a movement leader, social entrepreneur and agrologist (R19). This section describes one of her jobs as an annual hemp-field sampler where industry directly interfaces with farmers. To begin, farmer persistence was central to the growth of this industry.

## The Parkland Industrial Hemp Growers Co-op

As mentioned, the Parkland Industrial Hemp Growers Co-op is a key *social-organizational resource* that has helped develop this industry and movement<sup>75</sup>. In 1999, it began as an umbrella organization for hemp producers to supply Company X (CX). After CX dissolved and the co-op dealt with surplus seed, they focused on research and development. Innovation was necessary to harvest hemp, and research centered on finding new market opportunities. The *technological knowledge interest* from cognitive theory helps to explore farmer innovation that overcame various barriers.

### Technological Innovation

When hemp was re-introduced to the Canadian prairies, farmers had no farming techniques or a system in place for managing this crop. The PIHGC and researching bodies, such as the Parkland Crop Diversification Foundation (PCDF)<sup>76</sup>, have been vital to this process. To overcome farming challenges, these organizations had to develop proper agronomics, including successful breeding and harvesting for industrial hemp<sup>77</sup>.

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<sup>75</sup> The hemp growers co-op mission statement: "...to facilitate the growing and harvesting of industrial hemp... We are seeking partners who can assist with processing seed, fibre and marketing value-added products". <http://www.pihg.net/index.php>

<sup>76</sup> Parkland Crop Diversification Foundation (PCDF) "is an applied research and demonstration organization serving the northwest region of Manitoba. The initiative is a partnership between the agricultural community in the area and Manitoba Agriculture, Food and Rural Initiatives (MAFRI). PCDF is a non-profit, non-share corporation, organized to develop and demonstrate advanced technologies, new crops, sustainable cropping systems, new uses for existing crops and other diversification opportunities that result in more profitable agricultural production and increased value added processing". <http://www.gov.mb.ca/agriculture/programs/aaa14s04.html>

<sup>77</sup> Agronomy: "the study of field-crop production, soil management and encompasses areas of cropping systems methods and physiology. Agronomic practices employed differ by region, crop type, equipment availability and cultural knowledge" (NIHS 2008:302).

Managing hemp is challenging due to its tough stalk and its ability to grow very tall. At times, hemp fibre would become wrapped around harvesting equipment, causing severe damage to expensive machinery.

### Harvesting

Currently, most combines (harvesting equipment) come with a hemp setting. For years, this was not the case and farmers were forced to make special adaptations to their equipment. This work can be considered a *technological knowledge interest* where innovative farmers had to develop new technology. This involved processes of trial and error. Often, farmers new to growing hemp worked with experienced farmers. A provincial crop specialist and hemp expert (R20) described this as:

People who are looking at growing industrial hemp need to be sure they have a well thought out plan of how they will physically combine it for grain... You can describe to someone, and we've done it many times, what they need to do to combine hemp. But until you actually do it and learn the sounds of your combine with the hemp going through it, you don't know what it's like (King 2006).

This quote demonstrates a learning curve behind harvesting hemp. There have been cases where farmers have destroyed equipment, where combines caught on fire during a harvest. In order to manage this issue, people like (R20) helped connect farmers with the co-op to guide them through hemp agronomy and harvesting. In addition, breeding programs were important to successfully produce hemp in the prairies.

## Breeding

The Parkland Industrial Hemp Growers Co-op and the Parkland Crop Diversification Foundation spearheaded agronomic research and breeding programs. The partnership between the provincially funded research group and the co-op developed hemp cultivars suitable for the Canadian prairies. For example, they successfully bred hemp with a high yielding grain and oil content. Shorter cultivars were also created to minimize damage to harvest machinery. Despite the fact that the hemp growers co-op has “registered more hemp varieties than any other group in Canada” (MASC 2011), research continues to breed new cultivars. Presently, the PIHGC and the PCDF continue to work together on hemp research. Also, they have earned monetary support, such as provincial and Federal funding, through the Growing Forward program<sup>78</sup>.

An example of the combined work of these organizations include breeding new, low THC varieties with characteristics such as high gamma-linolenic acid (GLA) – a unique Omega 6, rich in anti-oxidants. The Growing Forward program also facilitates breeding experiments through various field trials at diversification centers throughout Manitoba. Field trials through the Parkland Crop Diversification Foundation permit research on a variety of crops, including hemp. This takes place within varying climates and growing conditions to identify, “optimum seeding rates, nutrient needs and varieties under different conditions” (MASC 2011). Collectively, this work has propelled the

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<sup>78</sup> This government support is awarded to agricultural sectors: “*Growing Forward* is the foundation for coordinated federal-provincial-territorial government action over the next five years to help the agriculture and agri-food sectors become more profitable, competitive and innovative”. <http://www.gov.mb.ca/agriculture/growingforward/index.html>

hemp industry forward. The interaction of the hemp growers co-op and the government is discussed below.

### Government Support

An interview was conducted with a crop diversification specialist who is employed by the province of Manitoba (R20). This researcher who has 35 years experience working in agriculture stated, “I would have probably retired earlier if I hadn’t had a crop like this to work with” (R20). His colleague stated that (R20) “has probably done more work with hemp production than anyone else in the country” (R2). This provincial researcher can be considered a political ally for the hemp industry. Likewise, he is a valuable link between government and the hemp industry.

When discussing the role of government, the hemp expert (R20), alluded to a *political opportunity* that gained support for this crop. As previously explained, Manitoba has a mandate to diversify crop production. This includes pursuing value-added opportunities for farmers and rural communities through new crops. Because hemp has the potential to serve as a dual-purpose crop for both grain and fibre, it can be considered a “value-added” opportunity. Utilizing the whole crop could provide additional revenue to farmers and support rural economic development. This prospect is attractive to government officials. Interviewee (R20) went on to detail the role of government as:

I give our government credit. They did have the foresight and saw the potential of hemp and they supported things like staff...Also, financially they poured a lot of research money into this crop to get it where it is. They have supported organizations like the co-op to keep them alive and

help focus it. That's why basically you're seeing a lot of development in Manitoba.

In addition to the government mandate for crop diversification, a key strategy that gained support for the hemp industry came from the hemp growers co-op. Similar to the Canadian Hemp Trade Alliance, an organized group is mandatory to gain government support. The diversification specialist detailed this as:

The co-op was organized. They were a group of farmers with a goal. That is - we're going to produce hemp. They were very fundamental in lobbying and getting provincial support...If it would have been a few individual farmers it wouldn't have happened. Because their co-op was there, it was probably the single key thing behind the development of hemp in Manitoba and getting the bureaucracy and politicians to have the belief that – 'yea it could work, and it's needed by farmers and it's needed for rural community development'. (R20)

This quote demonstrates the significance of working with government through an umbrella organization. As an organized group, the co-op captured a *political opportunity* in order to grow this industry. Lobbying on behalf of farmers and the hemp industry has been a function of the PIHGC.

### Lobbying

Another function of the hemp growers co-op is lobbying government officials. Gaining a voice at the table with government gives power to farmers and the hemp industry. A *voice power frame* is apparent because the co-op has communicated various goals and needs of the hemp sector. This has been critical to negotiate regulatory issues. According to a leader of the hemp growers co-op:



We've spent a lot of time working with Health Canada because it is a Controlled Substance. You work with them to keep the regulations as trim as possible, because you can very easily make this thing so impractical to grow... People who sit behind a desk don't understand that - what they think is right - will prevent a crop from being grown at all (R2).

This process involved government officials visiting the prairies to witness hemp farming. The hemp growers co-op "had people from Health Canada come... we've had heads of departments come. If you don't have those sorts of things occurring, it could prevent any industry from happening" (R2). Due to this networking, the co-op has helped make the regulatory process easier for farmers, such as streamlining paperwork and licensing. Clearly, PIHGC is a valuable *organizational resource* for the hemp industry and movement. Further, the concept of *social entrepreneurship* describes the tenacity of hemp producers.

#### Social Entrepreneurship and the Parkland Industrial Hemp Growers Co-op

The fact that farmers share information shows the importance of *human resources* within a movement. During an interview, a long-time hemp producer and member of the hemp growers co-op (R5) elaborated on this topic. Interviewee (R5) explained: "knowledge is always transferred between farmers. There are no trade secrets. Growing and harvesting hemp is always passed on to other farmers to help. It's the farmer's nature to share and help each other" (R5). Another farmer and representative of the hemp growers co-op stated their experience as "...harvesting was a huge problem, lots of

research and development and money was spent to learn harvesting” (R1). Clearly, refining harvesting techniques has been costly for some farmers. Interviewee (R2), who is a long-time farmer and representative of the co-op, explained their role in aiding farmers:

... We provide open houses where guys can come see what we're doing and how we're doing it...[The co-op is] a resource base here and the other members of the co-op are willing to help them out with their equipment modifications or walk them through the crop with what's needed for a good crop (R2).

The farmer went on to detail other support the co-op offers. For example, they help farmers navigate bureaucratic processes such as contracting, licensing and regulatory issues. A central *material resource* is their office, where they employ a full - time office manager to deal with contacts and inquiries worldwide.

Arguably, without the *social entrepreneurial* work that is often volunteered, this industry would not be where it is today. There are several examples of social entrepreneurship. A founder of the hemp growers co-op described his involvement with hemp as:

We've been free with our knowledge. We have guys calling us from all across western Canada to eastern Canada saying “Can I use this kind of machine. How can I harvest it? What do I have to worry about?” You get guys coming in and you have to walk them through the whole process and you make sure you call back 4-5 times. ...Our cell phone bills - we just eat. It's a case of people just having faith that this will work out in the end. You don't do it for yourself; you do it because you think it's right (R2).

This is an example of contributing more than one's job description to facilitate a movement and industry. Yet, despite social entrepreneurial work, there are limits

to these volunteer efforts. The farmer shared his concern for economic survival as:

Believing in the cause... it's part of that. We have young kids that come to us. They want to talk and it's because of the cause. But in the end, we've been there, done that. In the end, it has to be economics. If I am going to pay that phone bill and not have anybody else pay it back to me, then I guess I better make a buck at it (R2).

Another farmer and representative of the co-op expressed a similar concern when he stated, "It's difficult. I have personally invested a quarter of a million dollars into this farm for hemp. That's unrecoverable. That's in R and D, combines, time lost, destroying machinery - trying to get this ball rolling" (R1). His family particularly has experienced sacrifice and hardship to back hemp and this industry. Evidently, people like (R1) and (R2) invest personal time, money and energy into this industry and movement. There are economic limitations to the *social entrepreneurship* one can contribute. The next section will discuss the fibre sector of the hemp industry. The development of this sector is central for hemp to be a value-added crop, while managing the "straw problem". The fibre issue cannot be ignored, because arguably, the entire hemp industry needs to resolve this problem.

### Motivations for Hemp Fibre Processing

During an interview with representatives from the PIHGC the topic of hemp fibre processing was further explored. They shared their work and motivations to build a hemp

fibre processing facility in their town. Years of research into processing technologies and markets were conducted with a consulting firm. They shared their vision as one that encourages rural economic development and promotes a crop with value-added opportunities. Crop diversification was also important. Farmers in this region:

Are always pushing for something new and something to diversify. We're in an area here, where we have 2 crops - we have canola and wheat and that's their rotation. Sometimes it's canola on canola in rotations for ten years in a row. And that's not good. That's not a sustainable rotation (R20).

Hemp is considered a crop that has potential to diversify economies and farmer rotations. A primary issue is developing markets.

In pursuit of building hemp fibre processing in their community, the co-op also worked to secure markets for their future materials. Once solid markets were accessed, farmers could grow dual-purpose hemp (grain and fibre) or just produce fibre.<sup>79</sup> In theory, after the co-op developed a successful hemp decortication facility and manufactured hemp products, this production model would be replicable throughout Canada. Localizing profits was another focus of their business, which was modeled from

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<sup>79</sup> Methods of producing hemp fibre depend on the product line and specific markets. This can also pertain to selecting cultivars and employing agronomic practices to obtain certain fibre qualities. For example, high-end industrial purposes, (e.g. fibreglass replacement) have specific quality requirements. Fibre requirements for products such as insulation, fibreboard and hempcrete, are less processed. According to the NIHS “the establishment of robust hemp products industry in Canada will require (at least) four conditions: 1. An adequate supply of feedstock [fibre]...2. A low enough price for that feedstock 3. Adequate characteristics for end use 4. Available proven technologies for processing raw material into products” (NIHS 2008:257).

European hemp processing technology<sup>80</sup>. One of the visionaries explained this concept as “people talk about the 100 mile diet; this would be the 100 mile industrial diet because of all the things that can be done with hemp” (R2). This refers to local production and manufacturing hemp to support rural economic development. According to (R2), the co-op came close to having their project become a reality but due to the pullout of a key investor, it did not work out. As of 2011, their membership, which was once 200, is down to 40 people. The co-op is not seeking new membership until they, “have something new and really solid for people to be excited. We don’t want to create false expectations” (R2). In the meantime, they continue to work towards their goals.

Regarding the local facility that is successfully reaching completion, the Parkland Industrial Hemp Growers Co-op vocalized support for the company. It seemed apparent that, ultimately, it is important to get a facility online in order to grow the sector and entice future investors. The crop diversification specialist stated that, “there is room for probably a dozen of these plants before you start to significantly impact any type of market because there are so many uses and potential markets. It’s not that they are in competition but they sort of synergize each other” (R20). The interviewees also agreed that with hemp, there is almost too much potential. Focused product-lines and solid markets are needed for successful business because, “people think they can do everything with it and in the end you can’t. It comes down to economics...Nobody’s prepared to buy

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<sup>80</sup> Europe is a world leader in hemp fibre processing and product development. Such as:  
Hemp Technology, United Kingdom:  
<http://www.hemptechnology.co.uk/about.htm>  
European Industrial Hemp Association:  
<http://www.eiha.org/>

20-30 tons of product from you; that's the problem" (R2). Evidently, developing markets for hemp fibre products can be difficult. Likewise, convincing investors to support a new industrial endeavor is equally challenging.

### The Farming Sector

This section focuses on farmer input and their experiences working with this crop. For farmers to accept hemp as a legitimate practice, and a normal part of their crop rotation, it needs to be profitable; and the risks must be manageable. This is challenging for a niche industry within a commodity driven market. Prices for mainstream crops such as canola and wheat fluctuate. According to a crop specialist, hemp is governed by "...laissez-faire economics; hemp price is set by the price of the other commodities, the stock market, supply and demand and speculation" (R20). For example, if canola and wheat profits increase, the price of hemp must also go up for hemp to be competitive for farmers. Over the years, farmers have latched onto hemp for various reasons. Some have continued, others have quit, and some will never try or reattempt growing hemp. The "four levels of adopters" is a concept that helps to describe farmer experiences.

#### Four Levels of Adopters

The crop researcher shared a concept found in farming practices known as the “four levels of adopters”. This is an *organizational knowledge interest* pertaining to four categories of farmer-types. He explained that this model is transferable to hemp production. Knowledge is exchanged between farmers. When farmers communicate their experiences growing hemp, this influences other farmers. First, there are the *innovators*, and “they’re the ones that will go try it for the sake of trying it. They will figure out how to grow it”. In the beginning, hemp production was started by farmers who were risk takers. Through trial and error, these farmers discovered and compiled knowledge, and they passed it on. Second, are *early adopters* and “once they see the innovators, they’ll look at it and see the potential in it, and they’ll grab it a little bit”. Third, the *hanger-on’ers* adopt hemp “after there’s a good history of being successful in the area... then they’ll grow it” (R20). Finally, are the *non adopters* who will never try it. Currently, it is “probably the innovators that are the ones still producing most of the hemp and we’re getting a few of the early adopters starting to come in” (R20). Often, hemp production will be adopted within a community when farmers witness other farmers doing well with hemp. Innovative farmers who continue to include hemp in their rotations can be considered *movement leaders*. They have been central to building the hemp industry because they are the “very aggressive and forward thinking producers that were not willing to let the whole idea go or the crop go. They have maintained and pushed for it and the co-op is a big part of that” (R2). Evidently, the innovative farmers have been

central to the development of this hemp industry. Farmers have strongly pursued this crop, but many agree that growing hemp often comes with a higher risk.

### Hemp Can Be a Challenging Crop

In Manitoba, compared to mainstream crops, hemp is often riskier to grow. A crop insurance specialist stated, “compared to major crops, hemp from an insurance perspective, is proving itself to be two times as risky” (R6). There are multiple factors that contribute to this. Flooding is an issue greatly impacting farmers. This has been severe on agriculture production in the province. For example, “2005 was the fourth year of the last seven that Manitoba farmers have not been able to seed a full crop...losses approached \$350 million” (Environment Canada 2011).<sup>81</sup> Extreme weather is a limiting factor for the agricultural industry in Manitoba. This impacts hemp production where farmers have often been forced to re-seed their hemp fields during seasons of wet weather. Hemp is the first crop to drown because its root system cannot tolerate standing water.<sup>82</sup> It is especially sensitive to weather patterns in the Canadian prairies. Insuring hemp can make this crop more feasible for farmers.

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<sup>81</sup> *Manitoba's Worst Widespread Flooding Ever*  
<http://www.ec.gc.ca/meteo-weather/default.asp?lang=En&n=0FB29103-1>

<sup>82</sup> *Cannabis* is a “photoperiod” sensitive crop. Specific changes in the length of day trigger its flowering and when it sets seed. Therefore, hemp has an advantage to be planted later than other crops, or re-seeded when needed.



## Crop Insurance

The coalitional work of the Parkland Industrial Hemp Growers Co-op and the Parkland Crop Diversification Foundation brought hemp crop insurance to farmers. The alliance between provincial research and the co-op produced a *coalitional voice*, power frame. Through collaboration, industry leaders communicated a need for farmers to access this service. Hemp insurance was made possible from years of supporting data through field trials in Manitoba. As a result, a crop insurance specialist explained that hemp is a legitimate crop to insure. He referenced the history of hemp functioning as a viable crop in Manitoba and its reputation abroad in Europe and Asia. Overall, from an insurance perspective:

It offers another crop in rotation to avoid outbreaks in disease, insect outbreaks and suppresses weeds - particularly in regions with corn and soy - which are higher risks. We felt it would be in our self-interest. We're not taking too much risk insuring it (R6).

Insuring hemp can help farmers buffer some of the associated risks when growing hemp. Hemp incorporated into rotations can provide farmers with a method to fight disease; thus, aiding future crops. Organized research and collaboration were central to make hemp an insurable crop. Next, a discussion of supply and demand demonstrates industry challenges.

## Lessons Learned From Overproduction

In 2006 the price of major commodities dropped while hemp was up. The previous year there was a shortage of hemp and companies were lacking product. To compensate, businesses contracted extra acreage that year. Unfortunately, numerous farmers grew hemp without contracts. This event was described as “a bunch of hanger on’ers jumped in - first time growers who bet the farm on it – a whole bunch of acres... it was over-cropped and there was an over supply” (R20). Two years passed as the industry went through their supply of hemp. After this event, “farmers lost interest. There were no markets, and they didn’t grow it anymore. Then in 2009, it really picked up again” (R20). However, this occurrence disrupted hemp production and likely made farmers question the hemp industry. Ultimately, an important lesson was learned – always grow hemp with a contract. A previous representative of a leading hemp food company responded, “hemp is too big of an investment and too hard to store to be worth a producer’s time if he or she has no guaranteed buyer” (Baltessen 2006). As a result, production companies continue to manage the issue of supply and demand, such as developing models to forecast their hemp needs.

Farmers have to strategize and plan their crop rotations years in advance. Generally, the hemp companies plan ahead in three-year increments. This involves farmer contracting, storage planning and securing seed for future sowing. Hemp companies have to forecast their future growth and commit to taking farmers’ products on time. In an interview with a farmer, he reported instances where company payment

was delayed. He explained, “money should be in place to pay the farmer - period- before anything” (R1). Proper planning is critical to maintain credibility with farmers. An agriculture specialist from Hemp Food Company “B” referenced past challenges as:

Farmers have a bitter taste left in their mouth because, in the past, it’s been slow to move the product or because of other manufacturers that are not in the industry...A lot of its been around trying to ensure that we’re doing our part as an organization to repair those past broken relationships or conceptions of what the hemp industry is...There is a significant amount of growth that we’re going to see the next few years...We want to make sure we have the supply and the support of the guys we work with (R7).

This quote indicates that leading companies are aware of farmer concerns. Companies know that hemp carries a learning curve and higher risks. Forecasting supply can be a challenge, and growing a niche industry requires years of adaptation and strategy. From here, farmer experience and input point to individuals’ motivations and concerns.

### Farmer Experiences

During interviews with farmers there were mixed opinions and experiences regarding this crop. For example, farmer (R4) invested ten years working with hemp and was once very active in the hemp growers co-op. He stated that the extra work, such as licensing and wear and tear on equipment, did not bother him, as long he made a profit. He quit growing hemp because he no longer wanted to deal with the “straw issue”, where burning the fibre was a hazard on his property. Also, he was not interested in producing organic crops because “long-term hemp production looked like it was going towards organic... There’s not enough money in organics - no reimbursement for decrease in

yields” (R4). Therefore, he is no longer motivated to grow hemp, even though “anytime you can add another crop in rotations, it’s a good thing. But you can always use fungicides. Economics always trumps agrology - at least it does on the commercial farms and those are the ones left” (R4). Even though he no longer cultivates hemp, he remains a supporting member of the hemp growers co-op. He also contributes to this industry through his hemp grain drying/storage business for neighboring hemp producers.

#### A Movement Leader

Through numerous interviews, the father of (R1) was referenced as a pioneer hemp farmer. He bore the risks and the losses to learn how to work with this crop. For years, he had a *technological interest* in hemp. He underwent very large costs for research and development as he innovated with his harvesting equipment. As a movement and industry leader, he hosted farmer workshops to teach farmers how to modify their equipment. The leader gave years of work to the hemp growers co-op and those seeking knowledge about this crop. His efforts included working to build a hemp fibre processing facility in his community. According to an industry stakeholder, his drive to bring a hemp fibre processing industry to the prairies almost cost him his farm. In 2009, more than a decade after contributing his finances and time, the leader passed away. An interviewee described this social entrepreneur and leader as, “he was a spark plug. We miss...[him]; he was a real driving force...Way back in the 90’s we were meeting and talking about the potential for this industry...All we had to do was get Health Canada to see the light” (R24). A hemp industry leader who for several summers

lived and apprenticed at the farmer's property, stated: he "was my Canadian father, friend and a hemp industry leader".<sup>83</sup> Presently, his son runs their family farm.

The investment and the work that this family contributed to the hemp industry were described in an interview with (R1). While he shared motivation to continue growing hemp, he also expressed concern about company / farmer relations. He explained that, in the past, his father understood the difficulties in developing an emerging industry and he was flexible when working with companies. Now that the industry is well established, (R1) expects hemp prices to be competitive. He said:

My dad was really passionate about hemp and the industry... I don't have to grow hemp. I want to. My father worked very hard to get the industry where it is today, but if you're not going to be fair, I don't want to be part of it anymore (R1).

Concerns have led to conversations in the industry about fair pricing.

#### Pricing Discrepancies

Through a local media outlet, a stakeholder recently advised farmers that "with \$600 canola and \$350 wheat, you should be pricing your hemp, non-organic commercial hemp, at 90 cents per pound...If you're not, you're giving it away" (Arnason 2011). Hemp pricing fluctuates. According to MARFI in 2011, prices spanned from \$0.65 to \$0.95 cents per pound for conventional hemp grain. Organic hemp is generally 30 to 40%

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<sup>83</sup> <http://www.ontariohempalliance.org>

higher or \$1 - \$1.14 per pound depending on the contractor<sup>84</sup>. A debate has emerged regarding payment for hemp. Some farmers contend that the price needs to increase to make hemp competitive and buffer the extra costs for production. An agriculture specialist from Company “B” described payment protocol. When it comes to pricing,

It’s really looking at other commodities to see what makes sense...we do want to show a premium over other commodities, which are canola and wheat. Hemp is a new crop for a lot of producers and there are some added costs in there...so if there is a premium, we need to also make sure that’s built in (R7).

This discussion should continue to ensure that experienced, long-time hemp growers are maintained. Prospective farmers need to view hemp as a legitimate option. According to a veteran hemp farmer:

The thing that we really need to pay attention to is that we keep hemp competitive with other crops. That’s what will make farmers grow it. If the hemp industry wants to grow, they need to be part of the bigger picture and ensure that the rewards are there in keeping with the risk and the cost that producers have to grow it (R3).

The pricing issue is an ongoing conversation in the hemp industry. Companies continuously strive to build working relationships with farmers.

#### Working with Farmers: Company Strategies

In order to supply hemp businesses, relationships with farmers are important. Both hemp food companies “A” and “B” have agriculture and farmgate specialists on

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<sup>84</sup> MAFRI: Industrial Hemp Cost of Production, 2011

<http://www.gov.mb.ca/agriculture/crops/hemp/bko08s00.html>

staff. They need to attract new farmers, and keep experienced producers of high quality product. Having a geographically diverse group of farmers is another company strategy to spread out the risk of crop damage from flooding.

As mentioned, the Canadian Hemp Trade Alliance and the Parkland Industrial Hemp Growers Co-op are primary social-organizational resources for the industry. The two organizations have been essential to link farmers with processing companies. Industry collaboration is needed to connect with farmers. To illustrate, Company “B” hosts “grower days” where farmers learn about hemp agronomy and management practices. In addition to having online hemp farming guides, the CHTA began a “farmer roundtable”. This event links producers with industry to cross-reference experiences and knowledge. This is helpful to build rapport and working relationships between companies and farmers.

Companies “A” and “B” have ownership over various hemp cultivars (varieties). When farmers grow their cultivars, the company often provides agronomic advice for a successful crop. Representatives from companies “A” and “B” often visit farmers’ properties. Outreach and communication are necessary due to the learning curve behind this crop. Hence the *organizational knowledge interest* from cognitive theory, points to processes of sharing knowledge. Farmers need to know what to expect when they decide to incorporate hemp on their farms. Especially when:

They don’t want to grow something they’re not comfortable with. It really comes down to working with producers and giving them the agronomic advice so they feel comfortable.

Making sure they have the support of people that have grown it in the past, and they can get information to feel comfortable putting it in the ground (R7).

Communicating proper management techniques and assisting new farmers is often part of a hemp company's business model. Learning from previous mistakes and industry setbacks are necessary to build working relationships with farmers. This is central to the success of this industry. Directly interfacing with farmers is a key strategy behind the growth of the hemp industry.

#### In the Field with a Social Entrepreneur and Movement Leader

The hemp specialist and agrologist (R19), is a *social entrepreneur* and *movement leader* in the hemp industry. Through her private business, she is an internationally renowned consultant who often is a spokesperson for the Canadian hemp industry. Annual field sampling throughout Canada, is one of her many "hats". Sampling farmers' fields is a requirement of Health Canada. During this research, I conducted participant observation with (R19). We travelled over 1000 miles in three days, and visited over 20 fields. This job is labor intensive, and it requires strategic time management to cover long distances; and it involves high mileage on one's vehicle. This trade requires certification and specialized knowledge on hemp agronomy. There are only a few hemp field samplers and "its one of those little rural economies that can be built" (R19). While this service is Federally mandated, it is a networking opportunity between the industry and farmers. She described this experience as "it's nice; you see the same growers year after year and you build a rapport with them. You see their families" (R19). Communicating with farmers



can be a challenge because they are often rurally isolated, and some do not have internet access. Therefore, this service is another way industry can directly interact with farmers.

In addition to the protocol of sampling, the agrologist offers other services. After she scouts their fields, she will inform them of any signs of pests or disease. If the farmer chooses, she will provide a “feedback report” for an additional fee. The report involves advice on yield potential and other agronomic feedback. This is especially helpful for new farmers and those working with new cultivars. When farmers report problems, she will work to find the causality and “remember to be humble...hemp is not the easiest to grow” (R19). She will then transfer the message to the Canadian Hemp Trade Alliance. As a social entrepreneur, she stressed the importance of ethics. For example, despite her previous position at a leading hemp food company, she conducted field sampling independently. Farmers and potential competitors know that she “does this service for the industry as a whole”. She further expressed, “this is not something I do just to pay the bills. This is something that I fully believe in” (R19). Like other stakeholders in this industry, (R19) is motivated by working with this crop. This is more than just a form of income.

### Concluding Remarks

The existence of the Parkland Industrial Hemp-Growers Co-op has advanced the hemp industry. Technological innovation and breeding made hemp a workable crop. Maintaining relationships with government continues to be a stakeholder strategy. The hemp growers co-op was successful with officials, partly because co-op members “were

able to convince them that this is new; this is novel” (R22). Having the provisionally employed, crop specialist (R20), researching hemp has benefitted this industry. He can also be considered a political ally linking provincial government with the co-op. Likewise, this organization is a “go to” place where farmers get advice on issues such as harvesting techniques and hemp agronomy. Lobbying has been key to keep hemp regulations reasonable. *Social entrepreneurship* and *movement leadership* have made the co-op successful in promoting hemp. Motivations have centered on bringing value-added crops and hemp processing into this region. This focuses on goals for rural development and crop diversification. Despite advances in technology and breeding, hemp is still considered a new crop in Canada with limited research. Hemp growers and processors continue to experiment and refine techniques to maximize quality and yields. Building infrastructure for hemp fibre processing remains a vision of the co-op.

The concept of the “four levels of adopters” organizes the various farmer-types evident in this discussion. This framework demonstrates communication processes and the exchange of knowledge between farmers. Innovators can be considered movement leaders because they contributed to research and development. For example, the father of (R1) was both a leader in hemp innovation and a social entrepreneur. Hemp can be a riskier crop for farmers; therefore, gaining crop insurance is a safety net. Research and the work of the PIHGC and the PCDF ushered in this service. Supply and demand is an issue that must be carefully managed in a niche industry. Currently, hemp must have guaranteed buyers to be worthwhile for farmers. Despite its capacity to break disease cycles, farmers usually will only grow hemp when it is competitive with other crops. This

has led to a debate in the industry regarding hemp payments. Companies understand the need to maintain their farmers and attract new hemp growers. A farmer does not begin growing hemp by his or herself; there is an education process. Companies actively work with farmers and give agronomic advice. Directly interfacing with farmers is a strategy that companies and the co-op employ through “grower days” and “farmer round tables”. Field samplers such as (R19), are in prime positions to advise growers, give feedback, and communicate farmer needs to industry. The next chapter explores the hemp fibre sector in further detail.

## CHAPTER EIGHT A FLEDGLING HEMP FIBRE INDUSTRY AND FIBRE RESEARCH

*I'd like to think that, when I go and talk to different people around the world, that hemp is one of those success stories we could talk about that gives identity to Manitoba (R29).*

### Introduction

This chapter provides background on the hemp fibre industry in Manitoba. Presently the hemp fibre industry is facing a “straw problem” among other challenges. It was a complicated process to bring the first hemp fibre processing to North America. This required stakeholder collaboration within all three levels of government. Political allies convinced the Federal and provincial government to provide nearly half of the funding. Local taxpayer money provided the majority of this company’s infrastructure (e.g. roads). Coalitional power and municipal collaboration through the Parkland Agricultural Resource Co-op was integral<sup>85</sup>. *Movement leadership* from a long-standing hemp farmer helped to make this project possible. Interviews show that stakeholders have different processing models and technologies for working with hemp. In Manitoba, there is ongoing research pertaining to natural fibre and bioproducts. Federally, the Canadian National Biofibres Initiative supports efforts in Manitoba to build a biofibre industry. This corresponds to the provincial Bioproducts strategy. A representative from a leading

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<sup>85</sup> Parkland Agricultural Resource Co-op – Vision: “Strong and vibrant region of unified rural communities developed through innovation, investment and maximizing sustainable returns from agriculture and natural resources”. Mandate: “Municipalities committed to regional cooperation and sustainable development by working together on emerging economic opportunities that promote the agricultural and natural resources available in the region”. <http://www.parklandmanitoba.ca/abo.php>

organization researching biocomposites describes the opportunities and challenges in this sector. Research is also conducted in green building and processing technologies.

### Background on the Hemp Fibre Sector in Manitoba

In contrast to Europe's hemp industry, a strong fibre sector is lacking in Manitoba. Depending on the product line, processing hemp fibre can require sophisticated processing techniques. Often this involves expensive infrastructure. For example, when one sets out to build a high capacity, hemp fibre processing plant, it can cost millions of dollars. When purchasing an oil press for the commercial processing of hemp seed, one can begin by investing thousands of dollars.

Presently, the hemp seed and oil infrastructure is secured in Manitoba. However, according to a provincial researcher, "unless the fibre side of the hemp industry picks up, the acreage probably will not grow tremendously. We need a strong pull on the fibre side" (Dietz 2010). As a result, stakeholders need to strategize in order to develop the hemp fibre sector. This involves extensive research to further legitimize hemp fibre and develop hemp-processing infrastructure. Generating strong markets for hemp fibre and certifying products made with these materials are priorities. In theory, hemp acreage will increase once a strong value-chain is generated for the fibre<sup>86</sup>. Meanwhile, a "straw problem" exists as hemp fibre continues to pile up throughout the province. Farmers deal with it by burning or baling it. Either way, this is both time and cost intensive for farmers.

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<sup>86</sup> A value chain is: "a physical representation of the various processes that are involved in producing goods (and services), starting with raw materials and ending with the delivered product". [http://en.wikipedia.org/wiki/Value\\_chain](http://en.wikipedia.org/wiki/Value_chain)

Farmers will have more incentive to grow hemp once they can profit from the fibre. In the meantime, companies in the province are working to build a biomaterials industry.

For marketing and economic reasons, businesses are increasingly interested in incorporating environmentally conscious alternatives into their company designs. Industrial hemp can be pursued for building materials and products made with biocomposites<sup>87</sup>. Materials made with industrial hemp can be a biodegradable and a non-toxic alternative to petroleum based products. In order to capitalize on this opportunity, there are numerous stakeholders collaborating within the natural fibre and biocomposite sectors in Manitoba. Their intention is to develop an industry that is based on natural fibres and biomass, such as hemp and flax. The biomaterial sector in Manitoba is a small network of people who work in tandem with one another. This work involves businesses, researchers, government and farmers<sup>88</sup>.

Beginning in the late 1990's, numerous stakeholders developed interest in constructing fibre processing plants in Manitoba. As mentioned, the Parkland Industrial Hemp Growers Co-op invested years trying to bring hemp fibre processing to their community. In 2000, there was regional interest in the province as well as monetary

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<sup>87</sup> A biocomposite is a material formed by a matrix (resin) and a reinforcement of natural fibers (usually derived from plants or cellulose) Biocomposites are characterized by the fact that: the petrochemical resin is replaced by a vegetable or animal resin, and/or the bolsters (fiberglass, carbon fibre or talc) are replaced by natural fibre (wood fibres, hemp, flax, sisal, jute...) <http://en.wikipedia.org/wiki/Biocomposite>

<sup>88</sup> Examples of stakeholders include: "Schweitzer-Mauduit...[which is] a major flax decortication facility in North America that processes approximately 100,000 tonnes of flax straw annually for paper production. Emerson Hemp Distribution Company...processes hemp straw into animal bedding... Plains Industrial Hemp Processing Ltd. is building a hemp fibre processing facility...This facility will be capable of processing up to 18,000 tonnes of industrial hemp annually ...Composites Innovation Centre...develops advanced composites technologies for manufacturing industries." [https://www.gov.mb.ca/agriculture/pdf/the\\_manitoba\\_bioproducts\\_strategy.pdf](https://www.gov.mb.ca/agriculture/pdf/the_manitoba_bioproducts_strategy.pdf) (Note: copy/paste link into web browser)

support from actor Woody Harrelson to construct a paper processing facility for crops like hemp<sup>89</sup>. Later, this project dissolved due to investment difficulties and a lack of market. Evidently, there have been obstacles in developing fibre-processing infrastructure to utilize this crop. According to an industry stakeholder, over the years there have been multiple parties working towards the same goal – build a hemp fibre decortication facility. A stakeholder described the fibre sector as, “...they keep chugging along. People have devoted their entire lives, money, and time to get a fibre processing plant. The polarization of interested parties prevented it from happening”. In 2006, a foreign investor came to Canada in search of bast fibre to supply his clothing company<sup>90</sup>. He found no processing facilities to meet his needs. As a result, he became interested in collaborating with a local community and the Canadian government.

### An Industrial Hemp Processing Plant Arrives

In Manitoba, one of the first commercial hemp fibre processing facilities in North America is underway. It totaled around \$10 million Canadian dollars to construct (Kotak 2010). A retired parliament member from this region described his support as, “historic... It’s a cash crop - now we can use both the seed portion and the stock

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<sup>89</sup> Background on the proposed paper processing plant:

<http://www.globalhemp.com/2000/08/harrelson-goes-green-in-manitoba.html>

Woody Harrelson has shown support for the hemp movement. For example, in the late 1990’s he engaged in an act of civil disobedience in Kentucky protesting U.S. hemp policy.

<http://www.globalhemp.com/2000/06/woody-harrelson-puts-trusts-in-jurors-for-kentucky-hemp-challenge.html>

<sup>90</sup> The long, outer hemp fibres (bast fibre) will be shipped to China for processing into textiles for the president/investor’s clothing company. The remaining fibre can be made into other products within Canada. The short, inner fibers will likely be available for goods such as matting, pellets for stoves and biocomposites.

portion...Now instead of burning the stuff they can bale it and make money on it. This opens up a whole new industry related to hemp” (Kotak 2010). Multiple government officials are supporting this project, including a previous reeve in the region. In an interview, he announced, “we finally have some economic development happening within our region, it means growth, it means prosperity, it means jobs...”(Kotak 2010). This quote demonstrates local motivation supporting a facility that could bring employment and rural economic development. According to a local official this region is “the 5<sup>th</sup> poorest per capita...out of 308 federal ridings in Canada. They don’t have a manufacturing base. It’s pressing for them, to turn to alternative means to make a living” (R26). Politicians see potential in this processing facility to support local economies.

In order for this facility to be built, it required the collaboration of numerous stakeholders such as farmers, government officials and a local cooperative representing nine municipalities. Arguably, this project was successfully implemented because all three levels of government were involved – municipal, provincial and Federal.

### Political Opportunity

To acquire the necessary support and resources for this project, there were two government officials with ties to the community, who politically backed this process. An official (R24), who believes his ancestors grew hemp in the prairies, described his motivations for supporting this industry:



... We have some of the best land and weather conditions for hemp. It seemed to me kind of a natural that our area became a leader in terms of producing industrial hemp... So I was interested... from a historical perspective but very quickly I've come to realize there is a real economic advantage to it as well - diversification for farmers, the value added side to this in terms of processing hemp into various products (R24).

Another politician from this region voiced his encouragement of the hemp industry because "hemp is a green product... economically it's another crop for farmers to benefit from" (R26). This enthusiasm shows his support behind the hemp fibre processing plant.

After interviewing the above officials, it was apparent that they had a comfortable political relationship with each other. This collaboration helped to move the funding process along which one official described as "...[it] took a lot of work. In politics it's all about lobbying... [R24] put his foot down trying to keep the thing on the rail and not be left in the cold. Otherwise it would have never happened" (R26). Accessing funding for this sort of project was challenging. This is partly because, in the past investments were made in failed manufacturing projects in the region, such as the Rancher's Choice Beef Co-op. Politically, the two officials were necessary to convince the government to fund this project. In addition, their support coincided with promoting development in their home community. One politician stated his enjoyment in backing provincial projects where he is "really proud of them when they are in my backyard" (R24).

In addition to provincial and Federal support, local government was critical to this project. Motivated by rural economic development, the host town of this company generously contributed 50 acres of land and infrastructure, including water, sewer, electricity and roads. A local municipality co-op was a big player in this project. A

regional newspaper described the role of the co-op as, "...[they offered] their time, experience and equipment to ensure any challenges and constraints were met" (Kotak 2010).

### Coalitional Power

The combined support from politicians and local government generated a *coalitional power frame* to advocate for this project. Since there was an alignment between all levels of government supporting this project, political power was generated. As a result, nearly half of the cost to build the plant was covered through provincial and Federal loans/grants. Local government and taxpayers helped to build the infrastructure for this hemp fibre processing plant. According to the co-op's executive administrator, the community was a valuable *human resource*. Local people donated their time to unload freight, and they loaned equipment such as trucks and tractors. Clearly, local government and community support would not have been available to this company without local allies, specifically the co-op and leaders such as (R3).

### Municipality Collaboration

A key *social-organizational resource* that made this project possible is the local, Parkland Agricultural Resource Co-op (PARC). This organization represents the interests of nine municipalities whose political backing was instrumental to this project. Also, the executive administrator (R27) was a key *human resource*. She had the expertise and knowledge to work through the bureaucratic process for this project. For example, she

networked the experts such as engineers, and she oversaw provincial permits and regulations. Moreover, (R27) can be considered a *cultural resource* because she helped the company's president successfully complete Canada's rigorous Immigrant Nominee Program. Assistance from PARC helped him navigate Canada's cultural and political system. Additionally, PARC has provided a social networking role for the company as they researched hemp fibre producers and organized hemp grower contracts for the company.

#### Movement Leadership

When interviewed, both government officials (R24) and (R26) referred to a farmer and local reeve who has grown hemp for years. This individual (R3) was central to bringing stakeholders together to facilitate this project. He has dedicated and volunteered his time to make this project a reality. According to (R26), this farmer invested four years working closely with the company's president because (R3) "had personal interest; otherwise...[the company] would have packed up and left a long time ago" (R26). The farmer (R3), has dedicated years working with the hemp industry and pushed for this crop in his community.

An interview was held with the farmer, reeve and member of the hemp growers co-op (R3). It seemed apparent that his motivation for working with the above company is to maintain their region as leaders in hemp production. He explained, "my fear is that, if we don't keep it up here, we may lose the status of being the biggest producer of hemp in North America" (R3). According to the farmer, he wants to see their region excel in

hemp production because, “community creates wealth, exporting something... money flowing in and out. Agriculture is the economic engine” (R3). The farmer also described the ecological benefits of this crop where, “it’s a resource with many benefits that need to be exploited for the benefit, for not only producers but for everyone interested in a green Earth” (R3). He considers hemp as an option for canola farmers because the “emphasis today is on canola oil and we need to incorporate hemp as a rotational crop if we want to ward off disease and insect infestations” (R3). There are obstacles to this vision of rural development and sustainability. For example, fibre processing is vital for the hemp industry to manage the “straw problem”. Stakeholders have been working to process hemp fibre.

#### Background on Hemp Fibre Processing: Technological Knowledge Interests and Innovation

An interview was held with stakeholder (R17). He owns a hemp company that markets animal bedding. In a conversation, he explained that his concept of processing hemp differs from the European model of production. He describes his work with hemp as, “I started researching fibre, ways to process it outside of the norm. European equipment was too expensive and the markets were nowhere near bringing in that equipment” (R17). His *technological knowledge interest* differs from the production model, of the hemp growers co-op’s biofibre project. His innovative style was to adapt farm equipment and have a process to make materials for products like insulation. His motivation is to one day market his process. He also wants to promote alternative

materials to help displace toxic formaldehyde and fibreglass from building materials. He has experienced market challenges where, “although I can sell every ounce of hurd [inner, short fibre]...the [outer] fibre needs to be sold in order to make a profit. You accumulate a lot of fibre as you’re making the hurd” (R17). He also described the challenges and associated costs of product certification. In order to be marketable, each building product such as batt insulation has to be certified (e.g. fire, mold etc.). Another stakeholder echoed this point when he stated if “you want to take the fibre and produce insulation, the certification process is very expensive and very long. Often the requirements are so stringent it is discouraging to be the first to get something certified” (R18). Despite the obstacles, such as markets and certification processes, (R17) described his years of hemp related work as,

I am motivated by my stubbornness; I think hemp is phenomenal plant. It can accomplish many things. I don’t think there is another plant on Earth that can do what hemp does. If I am still around and, if people can agree with my economic philosophy, then the industry will take off (R17).

The stakeholder is referring to economies of scale, whereby hemp processing can occur at smaller capacities before investing into large-scale, multi-million dollar equipment.

Often, it depends on the market-line and one’s business model.

### Company Incorporation

Currently, an internationally renowned company that processes large quantities of flax fibre for markets such as cigarette paper is expanding their production. This company has decided to branch out and work with the emerging biofibre industry. The

company's model is to provide the link in the value chain that processes materials for other companies to manufacture into products. Recently, they have become interested in incorporating hemp into their processing. For example, they have been working with a leading research center to incorporate biocomposites into the transportation industry. They are also supplying fibre for research designs such as a motorcycle made with hemp fibre parts versus fibreglass. Hence, this company is a potential *material resource* for the hemp industry to process hemp fibre. The businessman explained that in order to promote the development of this emerging industry, you have to be active because "the issue of biomaterials is gaining momentum. People want to shift into sustainability. It's a business that never existed – it's all being developed now" (R18). Since this is an emerging industry, he suggests that people need to actively promote it because, "it's hard to get change to begin with, but you have to be an advocate.... We feel we can develop our hemp industry as well as our flax. I would certainly like to grow our business with hemp" (R18). Similar to the need for hemp food and oil research, this sector of the hemp industry needs extensive research in order to grow.

## Hemp Fibre Research

### Biofibre Consortium

Manitoba is the center of the Canadian National Biofibres Initiative<sup>91</sup>. A leading research organization, along with industry stakeholders are working to grow the natural

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<sup>91</sup> Canadian National Biofibres Initiative: "In September 2006, Agriculture and Agri-Food Canada (AAFC) provided financial support to the CIC [Composites Innovation Centre] to coordinate a national biofibres research and commercialization project under its Agricultural Policy Framework (APF), Science, and Technology Broker Program.

fibre sector. Together this network contributed to: *Growing Green, The Manitoba Bioproducts Strategy*<sup>92</sup>. This came from a *political opportunity* that coincided with provincial mandates to address climate change in the province<sup>93</sup>. A provincial goal is to lower green house gas emissions, while capitalizing on the millions of tons of agricultural biomass produced annually.

The strategy is comprised of the following: “Biomass Production and Supply, Biofuels and Bioenergy, Biofibres and Biomaterials and Biochemicals” (Bioproducts Strategy 2011). According to a leading biocomposite specialist (R31), hemp can contribute to all dimensions of the Bioproducts Strategy. When considering cognitive theory, the BioProducts Strategy can be viewed as an *organizational knowledge interest*. With the support of thirty provincial companies, this document communicates a stakeholder strategy to grow the bio-economy in Manitoba. This provincial strategy through MAFRI, serves as a *coalitional power frame*. Through stakeholder input, this document conveys the goals of this emerging industry to the Federal government and the world. Similar to the National Industrial Hemp Strategy, this strategy is instrumental in connecting with policy makers and attracting funding sources. In addition to this strategy,

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The project’s main aim is to develop and commercialize biofibre mats from flax and hemp feed stock as a replacement for fiberglass reinforcements in composite parts”. <http://plastics.tamu.edu/node/183>

<sup>92</sup> The vision statement of *Growing Green, The Manitoba Bioproducts Strategy* is to create “A sustainable and competitive bioproducts industry to diversify rural and northern Manitoba and strengthen the growth of Manitoba’s bioeconomy. By 2020, Manitoba’s bioproducts industry will generate \$2 billion in revenue, at least 80% of which comes from rural and northern Manitoba. [http://www.gov.mb.ca/agriculture/pdf/the\\_manitoba\\_bioproducts\\_strategy.pdf](http://www.gov.mb.ca/agriculture/pdf/the_manitoba_bioproducts_strategy.pdf) (Note: copy/paste into web browser)

<sup>93</sup> The Climate Change and Emissions Reductions Act, 2008: <http://web2.gov.mb.ca/laws/statutes/ccsm/c135e.php>

stakeholders such as the Composites Innovation Centre and Life Sciences Association of Manitoba organize an annual event called the Biofib conference<sup>94</sup>. This event networks stakeholders in this field throughout Canada and abroad.

### Biocomposites

In an interview with a representative from a leading research group, the *technological knowledge interest* behind hemp research was further explored. This group works to develop innovative technologies to bridge research and industry with biocomposite materials. According to a specialist:

The reason why we're interested in biofibres is they can offer a replacement to things like fibreglass and aluminum. Our vision is to really move towards a future where you're looking at biomass in the same way you currently look at crude oil, in that there are multiple products you can produce from it; so instead of a refinery - a bio-refinery. Fibre has its place in the bio-refinery (R38).

As of 2011, the research group is researching biomaterials for a large transportation company. To get better gas mileage on their vehicles, the company is considering biocomposites for their designs. This can potentially lower carbon emissions and fuel costs by using lightweight materials. However, this research institution must prove that natural fibres will deliver consistent results. This alternative also has to be economically compatible for big business to invest.

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<sup>94</sup> Biofib 2011:  
<http://biofibe.com/>



Once there is a demand through big industry, then a value chain will be created where hemp acreage could potentially increase.

Challenges behind working with natural fibres were addressed in an interview with a leading biocomposite researcher. An issue about the perceived legitimacy of natural fibres was addressed by (R38). In order to legitimize fibres like hemp and flax, a standardized natural fibre “grading system” is required. Similar to researching hemp foods, *new knowledge* is needed for hemp fibre. Unlike synthetic materials, there is a lot of variability with natural fibre and big business demands uniformity. In addition to lab research, agronomic research will be needed to supply dependable biomaterials. The researcher also pointed to a lack of processing infrastructure in Manitoba. Major infrastructure is needed, such as a matting facility to produce fibre into matting materials. Currently, the research institute has to ship fibre abroad to have it matted. Apparently, biofibre research faces logistical challenges. In addition to biocomposites, research is needed on hemp building materials and construction, while fibre processing technologies need refining.

#### Research on Green Building and Hemp Processing Technology

Green building is another dimension to the hemp fibre sector. Manitoba has a green building mandate promoting organizations such as the Green Building Council to

consider hemp materials in their projects<sup>95</sup>. This transfers into provincial research institutions such as the University of Manitoba.

Both students and faculty, are contributing to research on hemp fibre. For example, a leading professor (PHD) in biosystems engineering has performed studies on processing and harvesting hemp. The professor's current research team is a group of graduate and doctorate students with expertise in bioengineering and fibre technologies. This research body is comprised of international students who moved to Manitoba from India, China, Latin America and other countries. They are now conducting studies on various hemp processing technologies. Another professor in engineering is facilitating a study looking at hemp insulation. One of his graduate students is basing his thesis on the potential for hemp to perform as infill in wall insulation. Natural fibre research continues to compile new knowledge and contributes to the hemp industry in Manitoba.

### Concluding Remarks

This chapter began with background on the hemp fibre sector in Manitoba. The hemp foods and oil industry has supplied a critical mass of hemp fibre with which the industrial sector can experiment. Building the hemp fibre industry is essential in managing the "straw problem". Until demand increases solely for hemp fibre, farmers are mainly growing hemp for seed. Meanwhile, they have to deal with tons of hemp fibre. If farmers can make money off the fibre, hemp would be a truly value added crop. To

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<sup>95</sup> Green Building policy in Manitoba:  
<http://www.gov.mb.ca/mit/greenbuilding/>

build an industrial economy with hemp, research and development are imperative. Organizations are researching hemp fibre to replace materials such as fibreglass. Biocomposites for the transportation industry and building materials are being explored. Processing infrastructure is needed to make this bioeconomy a reality. Over the years, groups have worked to bring a hemp fibre industry to Manitoba. Stakeholders have researched and experimented with different processing technologies and looked into markets. A flax company is exploring hemp/flax processing to supply materials for the biomaterials industry. Government has supported the construction of a hemp fibre processing company. This could open a political opportunity for future growth and investors in the industrial hemp sector. This process involved years of work and collaboration between the three levels of government. There were two main political allies that convinced the government to fund the project. Local government and regional support helped this project by building infrastructure. The Parkland Agricultural Resource Co-op, representing nine municipalities, spearheaded the management of this project. A movement leader (R3) contributed through social entrepreneurship to enable the successful completion of this facility. The following chapter provides a final discussion and analysis of this thesis.

## CHAPTER NINE CONCLUDING DISCUSSION

*This one crop has united urban people as well. A lot of times the urban people would be up there fighting with the farmers about GMOs, or pesticides... But with hemp, they have sort of united behind it. Now, is that because of urban idealistic lifestyle desires? I don't know, but all of a sudden they're working towards one crop. It's something that goes on with this crop that you don't see with other crops (R20).*

Through social movement theory and concepts of framing, this study explored the hemp movement and industry in Manitoba. The primary research question asked:

*In what ways do social movement theory and framing inform our understanding of how a hemp industry was developed in Manitoba?*

Looking at the development of an industry through social movement theory is a unique way to understand it. This is a case study where the hemp industry in Manitoba is the study, and the North American hemp movement and industry is the larger picture. Due to years of Cannabis stigma, this research sought to learn how this industry became legitimized. Stakeholder strategies and motivations are central to the development of this movement and industry. Additionally, this work looked at how stakeholders gained public and government support to advance.

Hemp as a social movement encompasses numerous interpretations and motivations. For this study, the larger “sustainability” movement informs the hemp movement. The sustainability movement is a vague and often general concept that organizations and interest groups have embraced. For example, various companies, governments, international bodies, non-profits, and media circuits embrace green and sustainable rhetoric.

The following chapter will review major research findings. This begins with a discussion of legitimacy and Cannabis stigma. The impact of *transformative framing* and *political opportunity* in ending hemp prohibition is brought forward. The consequences of Company X are revisited. Research has and continues to be imperative for this industry. From here, stakeholder organization, networking and collaboration are emphasized. The strategies of the pioneering hemp food companies are re-examined. Research findings from the farm sector are shared, including the importance of “bringing the stakeholders to the table”. Overall, timing in Manitoba favored hemp, which facilitated numerous *political opportunities* and funding channels. Stakeholder typologies and cosmologies have significantly shaped this industry and movement. Suggestions for future research and a brief discussion of the Hemp Movement in the United States conclude this thesis.

## Legitimacy Re-visited

### Cannabis Stigma

In the mid-twentieth century, *Cannabis* became a controversial issue in North America due to years of misinformation. During interviews, hemp industry stakeholders unanimously stated that the marijuana connection was always a challenge. Frequently, people do not recognize the differences between these sub-species of *Cannabis*. For instance, “the hardest thing to give us traction is because the leaf looks the same and everyone thinks that a person who smokes a joint is...crazy. They think it’s the same commodity. I’d say stigma has been the biggest downfall” (R14). As a result,

stakeholders who advocated for hemp were faced with decades of stigma. They needed to strategize to gain allies and support to legitimize hemp.

### Managing the Marijuana Connection

A common strategy was discovered among stakeholders. To simultaneously, advocate for both industrial hemp and medical *Cannabis* is not an effective strategy. While numerous people support all forms of *Cannabis*, there are others who do not. Politically and socially the two causes and industries are best pursued separately. This was important since the beginning. For example, a government official described the pre-legalization climate as:

A number of us were making recommendations to the Federal government to help Health Canada to move forward, and not worry about the connotations of hemp. Put in place some strategies to insure that we weren't providing a safe haven for criminals and people growing marijuana... We had to do a lot of work to make sure we separated ourselves out from all that... Luckily there was a vast majority of people that understood that industrial hemp was an economic opportunity (R24).

This distinction has been a focus from the onset of re-introducing this crop. This protocol has built allies and relationships with government. The hemp industry has earned a legitimate and professional reputation. Mediating the “hippie” image was a successful tactic that brought a credible face to the hemp industry. Stakeholders in Manitoba discovered this early on, and this is one reason behind their success.

### Hemp: Social Change and New Institutional Forms

Legitimizing hemp began with the work of hemp advocates, farmers, and entrepreneurs throughout Canada. This led to a change in Federal policy that reclassified hemp as an agricultural crop and a rescheduled Controlled Substance. New institutional forms were created to regulate this crop. Unlike other crops, hemp has unique regulations operating through different jurisdictions. Shifting attitudes and understandings pertaining to hemp has been an evolutionary process.

*Transformative framing* remains central to efforts to overcome the “snicker factor”. Overall, the jokes and puns associated with this crop have dissipated in Manitoba. For example, a government employee who works closely with the industrial hemp sector explained that people hold “positive perceptions of the utility - there's a real understanding of the value of the whole total utilization of the crop” (R13). Presently, it is safe to say that the Canadian government accepts the hemp industry as a credible and professional sector. Largely, this is a result of stakeholder strategies.

### Educational Beginnings

It began with education and public outreach. Hemp advocates in the Canadian prairies believed in this crop. They used *transformative framing* to change perceptions of *Cannabis*. They educated their communities about what hemp is and what hemp is not. From the onset, Companies “A” and “B” were actively involved in hemp education and *transformative framing*. Decades of stigma does not resolve itself, people have to be active. Education continues to be a prime strategy for the two companies to gain new clientele, investors, and new markets. Companies “A” and “B” both have managed the legitimacy issue.

### Pioneer Hemp Food Companies

Original hemp food companies “A” and “B” are the first commercial hemp food and oil companies in the world. The success behind these companies is a mix of entrepreneurship, business skills, risk taking, and serendipity. Timing of political opportunities led to government funding for rural development and agriculture based industries.

### Innovation and Growth Strategy

Technological innovation was required for the research and development phases of this industry. For years, both companies “A” and “B” had a *technological knowledge interest* in refining hemp food processes through trial and error. Both companies had to be adaptive and carefully grow their companies as the market gradually grew. Each



company worked to gain allies. For example, a local Food Development Centre was a key ally for Company “B” that provided them with their first commercial space and professional advice. Company “A” stressed the importance of strategic growth and maintaining good relationships with government.

### The Impact of Company X on the Hemp Industry

Stakeholders have referred to CX as both a blessing and a curse. Two primary *social-organizational* resources for the hemp industry and movement came out of the CX experience. Farmers were assembled because of this company and they organized into the Parkland Industrial Hemp Growers Co-op. Secondly, an original hemp food company developed. Some of the pioneer hemp farmers from the CX era continue to grow hemp today.

### The Hemp Industry and the Drug Enforcement Administration: A Defense Strategy

To develop a hemp industry, stakeholders had to overcome significant challenges. When faced with the potential collapse of this industry, stakeholders pursued a strategy to approach the DEA issue. Movement leadership from a body-care company spearheaded this strategy to pursue litigation.

This was needed to defend the hemp industry because both Canadian and U.S. stakeholders relied on cross-border business. *Coalitional power framing* united various stakeholders to confront the conflict. As an organization representing the North American

Hemp Industry, the Hemp Industries Association organized this coalition. *Fact finding* was a *conflict management frame* that industry stakeholders used. Later, hemp activists mobilized in response to a *collective action frame* from the hemp industry calling for support to protest the DEA ruling.

In addition to a successful litigation strategy and activism, research was central. Developing the TestPledge program assured that trace THC will not bio-accumulate or interrupt drug screenings. All major hemp food companies have signed onto the TestPledge. Credible research found in the TestPledge further legitimizes hemp foods and demonstrates the hemp industry's standard for safety.

### Research Continues to be Imperative

#### Hemp Foods and Oil Research: A Need for New Knowledge

From the onset of this industry, research has been a focus. The founding hemp companies have endorsed research and donated products. *New knowledge* regarding the health benefits of hemp is needed to legitimize hemp in the health and medical fields. This is also needed to broaden the market for hemp foods and gain public support. Peer-reviewed research and clinical studies are required to grow this industry. Funding is a challenge because research is very expensive. The Canadian Hemp Trade Alliance actively works with industry and government to line up research projects.

## Research in the Hemp Fibre Sector

Developing *new knowledge* on hemp fibre is required to further legitimate its use in commercial applications. Due to the surge in popularity of “green” and “sustainable” marketing, companies are becoming interested in incorporating hemp into their production lines. Overall, it is a small group of stakeholders working in the biofibre sector in Manitoba. In order to synthesize their efforts to build an industry, research and processing capabilities are essential.

### Stakeholder Organization: Networking and Collaboration

The extent to which stakeholders have organized around this crop is impressive. The Canadian Hemp Trade Alliance and the Parkland Industrial Hemp Growers Co-op have each networked with government, organized research, and provided the “go to” places for seekers of hemp information. *Social entrepreneurship* and *movement leadership* are evident in both the Canadian Hemp Trade Alliance and the Parkland Industrial Hemp Growers Co-op. Representatives gave their time and assets beyond profit motives to grow the hemp industry. Developing stakeholder strategies and industry reports has been instrumental in communicating industry goals and obtaining governmental allies and funding. Through strategic networking, both organizations have legitimized the hemp industry.

The rise of the Canadian Hemp Trade Alliance was a prime strategy to promote the hemp industry. This non-profit organization has served as a *social organizational*

*resource* representing the hemp industry and movement. Their main focus is spreading knowledge, promoting hemp and organizing research. Strategic communication such as annual conventions, newsletters and stakeholder networking has been central to gaining political allies.

Similar to the trade alliance, the Parkland Industrial Hemp Growers Co-op is also a *social-organizational resource*. The co-op helped to develop the hemp industry as an umbrella group representing hemp farmers. An alliance with the Parkland Crop Diversification Foundation has propelled a world-renowned hemp-breeding program and agronomic research. The provincially employed, crop diversification specialist working with the hemp growers co-op can be considered a key ally for the hemp industry. The *technological knowledge interest* behind farmers' willingness to experiment made harvesting hemp possible. Lobbying has been another focus of the co-op. This has benefited the industry where for example, the co-op helped to make the regulatory processes for hemp more manageable for farmers.

### Strategic Communication

An *organizational knowledge interest* is apparent when looking at stakeholder reports. The primary strategies supporting the hemp industry include: The National Industrial Hemp Strategy (NIHS), the Canadian Hemp Industry Review Project (CHIRP), and the Long Term International Hemp Strategy (LTIS). The NIHS can be thought of as a *voice power frame* to connect with government and gain industry funding. CHIRP has raised issues about the regulatory system governing this crop. This report has generated

political allies from mainstream agriculture advocating for the hemp industry. The LTIS positions the Canadian hemp industry internationally and opens up funding opportunities.

### Making Hemp Fibre Processing a Reality

Movement leadership and social entrepreneurship has been central to facilitating one of the first hemp fibre processing plants in North America. Collaboration among farmers, government, and the Parkland Agricultural Resource Cooperative made this project a reality. A *coalitional power frame* advocated for this project. Political power was generated with representation and support from all three levels of government. Collaboration through PARC, representing nine municipalities, spearheaded this project. Now that industrial hemp processing is underway in Manitoba, it is “the model people will be looking at” (R22). It is likely that this company will impact future investments in this region, and potential hemp markets.

### The Farming Sector

In order to maintain hemp as a legitimate crop for farmers, stakeholder collaboration is a necessity. Farmer experiences vary with this crop, and there are many factors behind farmer adoption or rejection of hemp. Knowledge is shared between farmers, and they influence one another. Although hemp is now an insurable crop due to years of agronomic research, it can be riskier to grow in Manitoba for climatic reasons. Also, there is a learning curve that comes with hemp. While the hemp industry is growing stronger, farmer relations remain central to its growth.

Networking between farmers has been a driving force since the beginning. The Parkland Industrial Hemp Growers Co-op and their partnership with the Parkland Crop Diversification Centre continue to advise farmers. For example, they “talk to producers all the time about - what their going to need in the future; how they’re going to get it...What do you need from us as plant breeders to improve your yields?” (R2). The co-op’s knowledge is central to helping and influencing farmers.

Hemp businesses know the importance of maintaining a core group of farmers while gaining new farmers. Companies are aware of the extra costs to produce hemp. Farmers will not grow a crop unless it is competitive with other crops. Because commodity prices fluctuate, this can be a challenge. Therefore, companies have built-in strategies to work with farmers; and both companies “A” and “B” have agriculture and farm gate specialists on staff. “grower days” and “farmer roundtables” are strategies to network farmers together with industry. Sustainable farmer and company relationships are necessary to maintain working relationships throughout the industry.

### Bringing the Stakeholders to the Table

Stakeholder networking is a central reason why the hemp industry has persevered through challenges and implemented projects. Organized communication has circulated knowledge and brought people to the table. For example, a government official shared what he believed to be a key factor in introducing hemp fibre processing in the prairies. He described this as:

We have tried to do a lot of work breaking down all of those silos you find yourself in...so everyone can communicate. We've been trying to get all of those stakeholders at the same table, and if you can do that...it speeds things up. It improves the decision making of the project (R24).

Bringing all relevant stakeholders to the table has helped this project proceed efficiently. Another official echoed this point and stated “no one should be alienated from the process...all the stakeholders should be involved. It’s all about people and how they relate to each other” (R26). Stakeholder networking and communication between the hemp industry, government, and research has facilitated successful working relationships.

### A Political Opportunity for Hemp in Manitoba

The timing was right for hemp in this province. Various government mandates and initiatives coincided with support for the hemp industry. When hemp was reintroduced, Manitoba had a crop diversification mandate. Once hemp was proven manageable, this crop was considered an opportunity to add a value-added crop to farmer

rotations. Manitoba Food and Rural Initiatives (MAFRI) has provided funding opportunities for hemp. Rural development initiatives, such as Rural Economic Development Initiative (REDI), support economic development in communities. The Growing Forward program is another example of provincial funding that has supported hemp agronomic research. MAFRI also funds work on functional foods and nutraceuticals. Since hemp food is considered both, this is another potential opportunity. Federally, the Agri-Food and Marketing Initiative has been a resource for funding to pursue needs like research.

#### Manitoba Bioproducts Strategy and Political Opportunity

Manitoba has a climate change mandate, which has led to the Manitoba Bioproducts Strategy. This is a mutual effort of government, industry and research to promote sustainable development. This document is an *organizational knowledge interest* because it strategically communicates industry and research goals. The strategy is also a *coalitional power frame* for the industrial hemp sector because a comprehensive strategy empowers this niche industry and attracts support. In Manitoba, a biofibre consortium is operating under the Canadian National Biofibres Initiative. This stakeholder network is focusing on biomaterials such as hemp and flax. Clearly, the hemp industry has coincided with *political opportunities* in Manitoba while it continues to depend on government support.



### The Role of Stakeholder Typologies and Cosmologies

In addition to government support, this industry and movement has depended on a core group of people. Some refer to them as “industry champions”. For this research, “stakeholder typologies” were incorporated. A *social entrepreneur* is an individual with a sustained focus for a vision. They spearhead projects, network, and obtain resources. They can be a rather “obsessive individuals”, who refuse to give up their vision. (Bornstein 2004). *Movement leadership* is the other typology in this story. These individuals have brought the hemp industry to where it is today. Each of them contributed their time, resources, and finances above self-interest. This willingness to push the industry originates from stakeholder motivations or cosmologies. For example, the consultant and hemp agronomist (R19), has built her life and aspirations around working with this crop. She expressed her motivations behind her work as:

This is a sacred crop we’re dealing with. This is a crop that has been giving for thousands of years and we are now the caretakers of this crop. I want to go and help people farm hemp. That’s my whole thing I want to do - put it in the ground, on their back and in their belly...and that will be my life. It goes way beyond me personally (R19).

She described hemp as part of her “final vocabulary”; meaning, this is something that defines who she is. In Canada she has been called an “industry champion”. Considering the volunteer hours she gives to industry outsiders and students, she is also a movement leader. Other leaders have been present in this story, such as the innovative farmers who stubbornly worked on hemp harvesting and pushed for a fibre industry. Another stakeholder and businesswoman described her hemp motivations. She shared a vision of

working for First Nation people to make hemp nutrition accessible and build localized economies. She stated, “I’d love to see that feed the people. A lot of the First Nation people are very sick. Hemp can help with diabetes - create an economy” (R15). People are attracted to hemp for diverse reasons. For some it’s a desire to promote a vision of sustainability in their community. In many ways, hemp has been pursued for more than just profit.

### Recommendations for Future Studies

Designing a provincial mandate to address climate change has led Manitoba to focus on sustainability. They are working towards a “green” bioeconomy. Future research should look into the implications of hemp within this proposed framework. This involves addressing the ecological limitations of agriculture replacing petroleum. Possible questions include: can a land base sustain the demands of agriculture in order to supply industry, such as bioenergy and biofuels? Issues like biodiversity and habitat destruction should also be assessed. Manitoba has a short growing season and problems of flooding. How will stakeholders adapt to these challenges? Will responsible manufacturing and waste management be incorporated into this bioeconomy? What needs to be done to ensure that communities locally benefit from rural development such as hemp manufacturing?

Research in the United States should look deeper into the connection between the drug war and the hemp industry. Feral hemp or “ditchweed” is a prime example of this connection. Millions of taxpayer dollars are spent annually on “marijuana” removal in

numerous states such as Vermont. Statistics have shown that a large majority of marijuana eradication is actually feral, non-drug hemp. For example, in 1999 The Vermont State Auditor's Report on the *Domestic Cannabis Eradication/Suppression Program (DCE/SP)* showed, “that the national average for ditchweed seized under the DCE/SP in all 50 states was 99% as of 1996. The study notes that [the same year] over 9 million was spent on this program”. Later in “2001 statistics show that more than \$13 million in taxpayer funds was allocated to ditchweed removal” (votehemp.com)<sup>96</sup>. This data presents an opportunity to further explore the connection between hemp prohibition and U.S. drug policy. Current studies are needed regarding feral hemp.

#### Industrial and Nutritional Hemp in the U.S.

In Manitoba, companies expressed support for the U.S. to end hemp-farming prohibition. For example, a representative from Company “B” stated, “we can’t wait to plant our first hemp field in the U.S.” (R9). Some view the prospect of U.S. hemp farming as an opportunity to grow the hemp industry. Having U.S. farmland available for hemp would also buffer climatic challenges in Manitoba such as flooding. Moreover, some Canadian hemp food companies are well positioned due to their ownership of hemp knowledge from seed to manufacturing.

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<sup>96</sup> Ditchweed refers to feral, non-drug hemp. It grows wild throughout the U.S. in states such as Indiana, and South Dakota. Wild hemp is the remaining genetics from the “Hemp for Victory” campaign (World War II). U.S.-bred hemp genetics are valuable for future hemp research and development. Information on ditchweed statistics: <http://www.votehemp.com/overview.html#Eradicating> Vermont ditchweed data: <http://auditor.vermont.gov/sites/auditor/files/cannabis.pdf> (Note: copy/paste into web browser)

Currently, the United States is left out of the multi-million dollar hemp market<sup>97</sup>. Sharing a border with Manitoba, North Dakota farmers see their Canadian neighbors growing hemp. This state was one of the first to legalize hemp farming. Out of the seventeen states with hemp legislation, North Dakota, Vermont, Maine and Oregon are nearly ready to plant hemp.<sup>98</sup> States such as Hawaii and, recently, Colorado have state approval to conduct hemp research. However, state policy often stipulates permission from the U.S. Drug Enforcement Administration in order to cultivate hemp, including research.<sup>99</sup>

Hemp advocates and congressional leaders are working to end hemp farming prohibition. On June 7, 2012, Senator Ron Wyden (Democrat Oregon) introduced an Industrial Hemp Amendment S.A. 2220 to the Farm Bill, S. 3240<sup>100</sup>. This was a bipartisan effort with Senator Rand Paul as a co-sponsor. In August 2012, Senator Ron Wyden with co-sponsors - Senator Rand Paul (Republican Kentucky), Senator Jeff Merkley (Democrat Oregon), and Senator Bernie Sanders (Independent Vermont), introduced Senate Bill 3501, the Senate companion bill to H.R. 1831, the Industrial

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<sup>97</sup> According to Canadian sources in “2009, exports of hemp seed and hemp products were valued at more than \$8 million with most exports going to the U.S.” (Market Wire, Agriculture and Agri-Food Canada:2010). Data from the marketing firm SPINS, show that “retail sales of hemp food and body care products in the U.S. continued to set records in 2010 reaching \$40.5 million.” [http://www.thehia.org/PR/2011-06-28-Steady\\_Growth\\_in\\_Hemp\\_Food.html](http://www.thehia.org/PR/2011-06-28-Steady_Growth_in_Hemp_Food.html)

<sup>98</sup> Seventeen states passed hemp legislation, and ten states removed barriers to its production, or allow hemp research. These are: Montana, Hawaii, Kentucky, Maine, Maryland, N. Dakota, Oregon, Vermont, Colorado and West Virginia. <http://www.votehemp.com/legislation.html>

<sup>99</sup> DEA issued hemp research permits are cost-intensive, require security measures and researchers have experienced licensing delays. See David P. West, Ph.D. (Final Status Report, Hawai'i Industrial Hemp Research Project:2003)

<sup>100</sup> Hemp Amendment to Farm Bill, 2012  
[http://www.votehemp.com/PR/2012-06-07-vh\\_wyden\\_hemp\\_amendment.html](http://www.votehemp.com/PR/2012-06-07-vh_wyden_hemp_amendment.html)  
 Video of Senator Ron Wyden introducing the hemp amendment (S.A.2220)  
<http://www.youtube.com/watch?v=rC3OoMc3V3c> (Accessed August, 2012)

Hemp Farming Act of 2011<sup>101</sup>. The goal is to amend the Controlled Substances Act to re-legalize non-drug, industrial hemp<sup>102</sup>. Moreover, there is a need to shift hemp policy from a “drug” centered issue into the appropriate domain – agriculture. Carving out a space for hemp in American politics has been a long and difficult process requiring persistence and dedication.

At times, communicating with upper levels of government to discuss Federal hemp policy has been met with disappointment. Recently, a White House petition regarding strictly industrial hemp earned the required signatures for a formal response. Over, 5000 signatures were generated in just over 24 hours. After seven months, the Office of National Drug Control Policy (ONDCP) responded with a statement titled, "What We Have to Say About Marijuana and Hemp Production." Gil Kerlikowske, the nation’s “drug czar”, dismissed the petition and basically asserted that hemp’s natural trace levels of THC equal marijuana.

Nationally, farmers, hemp organizations and politicians understand the hemp issue and the lost economic and agricultural opportunities of hemp prohibition. Likewise, farmers are losing a crop that can mediate aggressive crop diseases, while hemp farming lends itself to lower pesticide use.

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<sup>101</sup> Senate Bill S. 3501, the Senate companion bill to The Industrial Hemp Farming Act, HR1831: <http://hdl.loc.gov/loc.uscongress/legislation.112s3501>

<sup>102</sup> Beginning in 2005, several hemp acts were introduced to congress. The Industrial Hemp Farming Act of 2011 was introduced by Representative Ron Paul (Republican, Texas): <http://hdl.loc.gov/loc.uscongress/legislation.112hr1831> With 33 U.S. Representatives supporting as co-sponsors, it was eventually placed in House Subcommittee on Crime, Terrorism and Homeland Security. Background on Federal hemp legislation: <http://www.votehemp.com/federal.html>

The above issues span the ecological, social and economic pillars of society.

### The Three Pillars of Sustainability

In the literature review under social movements, I asserted that the hemp movement is informed and shaped by the “sustainability movement”. Within this larger movement exists the concept of the “three pillars of sustainability”. This model depicts situations where economic prosperity is both compatible and attainable, while also nourishing functioning eco-systems and healthy populations. Ideas pertaining to the three pillars of sustainability are found throughout the North American hemp movement. For example, members of the hemp growers co-op described goals for economic and regional prosperity through sustainable crop rotations. Numerous hemp supporters are working towards localized economies to produce regional wealth through hemp-centered markets. In 2012, a statement from Kentucky’s Agriculture Commissioner, James Comer, illustrated the three pillars of the sustainability. In an interview, Agriculture Commissioner Comer stated:

I really think industrial hemp has a lot of potential in Kentucky. I don’t think it’s *the* answer to Kentucky’s agriculture’s future but I think it’s a viable option...It’s a product native to Kentucky...It’s a green crop - good for the environment...Not only would it help farmers in Kentucky, I believe it would lead to a manufacturing revolution in Kentucky... You’d purchase industrial hemp in Kentucky and manufacture it in Kentucky. So, it would create jobs in rural communities. Now there's been a lot of misconceptions and false stereotypes about this product...comparing industrial hemp to marijuana is like comparing Johnsongrass to corn - totally different<sup>103</sup>.

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<sup>103</sup> Morgantown Kentucky. February 29, 2012 022912 Ky. Ag Commissioner Comer discusses industrial hemp. Jobe Publishing News. <http://www.youtube.com/watch?v=BXiA0ko1x1g> (Accessed June, 2012)

### Legitimacy and Education Remain Central

The work to legitimize hemp continues. Hemp legitimacy within public and media spheres is better established. However, despite this surge of mainstream recognition, education and outreach remain central. Hemp companies in North America support educational events, such as Hemp History Week<sup>104</sup>. This is a dual strategy for the North American hemp movement and industry. In the U.S., it is largely a campaign that promotes re-legalizing hemp cultivation. For hemp companies and Canadian stakeholders, it is an outlet for people to sample their products and to learn about hemp nutrition. Here you find a combination of market strategies, educational outreach, and advocacy. Continuing to focus on education is critical for the North American hemp movement and industry.

### Final Remarks: Farmer Outreach and the U.S. Hemp Movement

I have been writing this thesis while simultaneously reaching out to U.S. farmer organizations for Hemp History Week. The goal is to strengthen partnerships and foster positive communication with American farmers. Similar to Canada, farmers are central allies within the hemp movement. In the documentary film, “Hemp and the Rule of Law”, Andy Graves from the Kentucky Hemp Growers Co-op, suggests that farmer coalitions are essential to “move the giant machine...the political machine” (Balling 2004). Farmer support is critical to this movement, and their voices need to be amplified

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<sup>104</sup> Hemp History Week, 2012: <http://www.hemphistoryweek.com/index.php>

to demand this crop. What will it take to generate such a demand? Do farmers deserve the right to choose whether they farm hemp? Overall, efforts for farmer outreach involve multiple challenges – enough to build another thesis.

Hemp politics shift and are often contentious. This occurs at Federal and state levels, within farm organizations and individual understandings of *Cannabis*. To talk effectively about hemp and build allies, one must navigate specific political, cultural, and economic situations. For example, several states such as Colorado and Michigan are experiencing a surge of medical marijuana activities. While numerous farmer groups have pro-hemp policies, they are faced with managing the marijuana connection. Hence, there is a need for consistent and streamlined messaging within the hemp movement. This is to assure farmer groups that hemp advocacy does not equate to the medical marijuana movement. While the majority of hemp advocates understand this, convincing some can be tricky.

Building legitimacy to dismantle decades of *Cannabis* stigma requires collaboration. Parallel to other social movements, factions exist within the U.S. hemp movement. One can ask: when is a hemp activist empowering the movement? When is the opposite occurring? Those who cannot distinguish the hemp movement from the marijuana movement are likely adhering to the Federal discourse that opposes this crop – such as: “re-legalizing hemp is a stalking horse for legalizing marijuana” (NCDSR 2001:51). While many see this accusation as false, social attitudes often reflect this connection. Is it wise to interweave these two movements? To avoid alienating potential allies and build coalitions, this distinction is a must. All factions must unite, spanning the



liberals in California to the social conservatives in Kentucky. In order to accomplish the primary goal -- re-legalize hemp farming in the United States, cultural and ideological divisions must be set aside.

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## APPENDIX A

## HEMP PRODUCTION IN CANADA

Source: Government of Alberta Agriculture and Rural Development

Table 1: Hemp Production in by Province Canada, 1998 - 2010 (Acres)

Year	BC	Alberta	Sask.	Man.	Ontario	Quebec	NB	NS	PEI	Yukon	Canada
1998	178	94	650	1,497	2,873	59	529	47	0	0	5,927
1999	556	1,862	7,640	21,950	2,523	212	10	312	10	0	35,075
2000	719	756	3,522	7,179	535	590	2	252	4	0	13,559
2001	237	279	968	1,165	516	74	0	0	0	10	3,239
2002	495	304	1,110	1,474	351	47	0	0	0	0	3,781
2003	18	379	1,661	3,625	981	32	10	44	0	0	6,750
2004	44	1,577	2,480	4,089	451	26	10	44	0	0	8,721
2005	0	2,263	8,469	12,395	620	182	47	44	0	0	24,021
2006	273	5,194	14,882	26,442	982	224	20	44	0	0	48,060
2007	173	3,593	5,663	5,157	99	450	10	0	0	0	15,145
2008	12	1,437	3,798	2,453	20	331	0	0	0	0	8,050
2009	207	1,932	5,090	6,015	325	228	0	0	39	0	13,837
2010	158	5,152	10,409	9,384	919	793	0	0	0	0	26,815

[http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/econ9631](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/econ9631)



## APPENDIX B DATA CODES

### Initial Coding

Key allies  
Motivations  
Sources of legitimacy  
Accomplishments  
Challenges (past, present)  
Company X  
Marijuana connection  
Government funding  
Public support  
Snicker Factor  
DEA struggle  
Research  
Stakeholder organization  
Stakeholder typologies – movement leaders, social entrepreneurs

### Focused Coding

**Modes of strategy:**  
business entrepreneurship  
social entrepreneurship  
movement leadership  
adapting to the ‘snicker factor’  
building legitimacy  
framing  
political allies  
research  
education/outreach/advocacy  
communication strategies

*Framing*

- collective action
- transformative
- conflict management – fact-finding and adjudication (third party-intervention)

power frames – expertise, coalitional, and voice  
identity

*Political opportunities*

- gaining political allies
- government support (funding, allies etc.)
- government initiatives and mandates

*Resources*

- cultural resources
- socio-organizational (e.g. Hemp Growers Co-op, Hemp Trade Alliance)
- material
- human (specific people, and “people power”)
- moral resources

**Cognitive processes: strategic communication and “knowledge interests”***Communication*

- stakeholder reports – legitimacy, allies, industry funding
- marketing hemp
- hemp education

*Research*

- importance for industry
- formation of legitimacy
- funding issues
- responsibility of industry
- role of Hemp Trade Organization and Hemp Growers Co-op
- hemp safety and health claims

*Technological*

- breeding and harvesting methods developed by farmers/stakeholders
- farmer strategies / innovation
- hemp food processing innovation

*Cosmological*

- individual perceptions from stakeholders - motivations/aspirations/concerns

APPENDIX C  
FOUNDATIONAL RESEARCH QUESTIONS  
(asked of everyone)

1. Share your story, how did you come to work with the hemp industry?
2. In your opinion what are the successful strategies that legitimize and grow the hemp industry in Manitoba?
3. What do you consider to be the prime accomplishments of this industry?
4. Describe the primary challenges you have encountered while working in the Canadian hemp industry.
5. What do you consider remain to be the biggest challenges in this industry?
6. How did you organize around hems controversial nature?
7. Have you pooled resources with organizations in Manitoba on behalf of the hemp industry? How and why?
8. Describe you and your colleagues' relationship to hemp industry stakeholders.
9. Describe your critical allies in your work.

APPENDIX D  
INTERVIEWEE LABELING

Research participant = R

R1 - farmer

R2 - farmer

R3 - farmer

R4 - farmer

R5 - farmer

R6 - crop insurance representative

R7 – farm specialist

R8 - CEO original hemp-food company “A”

R9 - co-founder original hemp-food company “B”

R10 - co-founder original hemp-food company “B”

R11 - co-founder original hemp-food company “B”

R12 - hemp business employee company “A”

R13 - hemp business (food)

R14 - hemp business (food)

R15 - hemp business (distributer/nutrition outreach)

R16 - hemp business (pet)

R17 - hemp business (fibre)

R18 - business (fibre)

R19 - agrologist/ consultant / hemp entrepreneur

- R20 - crop diversification specialist/ hemp researcher
- R21 - research/business development/agriculture
- R22 - hemp alliance representative
- R23 - previous hemp alliance representative
- R24 - government official (provincial/agriculture department)
- R25 - government official (municipal)
- R26 - government official (retired, federal)
- R27 - government position (municipal)
- R28 - government position (trade commissioner)
- R29 - government position (agriculture/marketing and trade)
- R30 - government position (agriculture/ marketing and trade)
- R31 - government position (fibre and composites specialist)
- R32 - researcher (health)
- R33 - researcher (health)
- R34 - researcher (health)
- R35 - researcher (health)
- R36 - researcher (fibre)
- R37 - researcher (fibre)
- R38 - researcher (fibre)
- R39 - researcher (food)
- R40 - researcher group (food)
- R41- hemp company owner

APPENDIX E  
OVERVIEW OF INTERNATIONAL INDUSTRIAL HEMP CULTIVATION

Adapted from: National Industrial Hemp Strategy, (Table 2) 2008, The Agricola Group<sup>105</sup>

**Australia**

- Tasmania research trials started in 1995
- Commercial production in Victoria, began in 1998
- Research done in New South Wales
- Queensland produces hemp
- Western Australia gave out hemp licenses
- Hemp grown for seed/oil is prohibited

**Austria**

- Produces hemp seed oil, has domestic production
- Hemp in automotive industry

**Chile**

- Recent seed/oil production

**China**

- Globally they are the largest exporter of hemp textiles
- For 6000 years China has traded hemp

**Denmark**

- 1997, they pioneered research trials. Focus on organic production

**Finland**

- 1995 hemp test plots
- Hemp was never outlawed in Finland
- Developed Finola, a hemp cultivar. In 2003, Finola was accepted to the EU list of subsidized hemp cultivars

<sup>105</sup> Adapted from the NIHS, their data is from: Hemp Industries Association website: <http://www.thehia.org/facts.html>

**France**

- Never outlawed industrial hemp
- Exports hemp seed and premium hemp oil

**Germany**

- In 1982, hemp was banned.
- Research re-started in 1992
- Growing hemp was legal again in 1995
- Research and development is occurring
- Hemp used in automotive industry

**Great Britain**

- 1993 hemp re-legalized
- Animal bedding, paper and textiles
- Hemp building technologies (see Adnams Brewery in Suffolk, UK)

**Hungary**

- Rebuilding their hemp industry
- Exports rugs, cordage, and fabrics
- Hemp seed, paper, and fibreboard is exported

**India**

- Feral Cannabis
- Cordage, textiles and seed

**Italy**

- Textile production

**Japan**

- Religious tradition that uses hemp. Emperor and Shinto priests wear hemp garments for ceremonies
- Spice mixes include hemp seed
- Retail market for hemp products

**Nepal**

- Domestic and export hemp production
- Hemp paper stationary, textiles

**Netherlands**

- Researching hemp for paper applications
- Research and development for specialized processing equipment
- Hemp breeding

**New Zealand**

- 2001, hemp research began
- Different cultivars are being planted in the north and south islands

**Poland**

- Growing hemp for fabric, cordage, and particle board
- Phytoremediation studies (heavy metals)

**Romania**

- Largest commercial producer of industrial hemp in Europe.
- Export to U.S., Hungary, and Western Europe

**Russia**

- World leader in having the biggest hemp germplasm archive at the N.I. Vavilov Scientific Research Institute of Plant Industry (VIR) in St. Petersburg.
- Monetary support is needed to maintain the hemp genetics for future use.

**Slovenia**

- Domestic production
- Currency paper

**South Africa**

- Commercial research trails

**Spain**

- Industrial hemp farming was never banned
- Rope and textiles
- Exports hemp pulp for paper

**Switzerland**

- Producer of hemp

**Turkey**

- For 2800 years they have grown hemp
- Rope, caulking, food and feed, paper, and fuel

**Thailand**

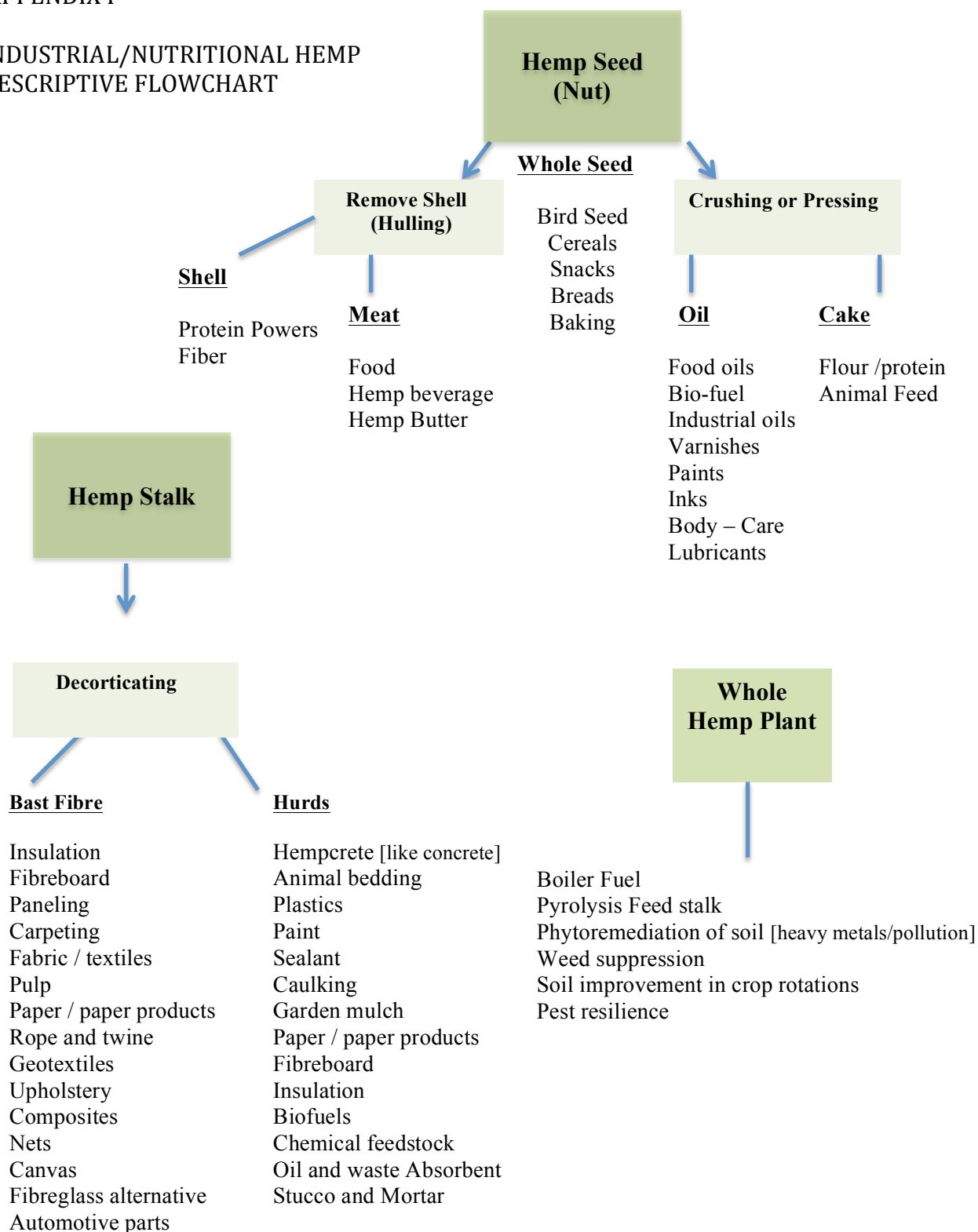
- Previous domestic production (e.g. Textile production in Hmong communities)

**Ukraine, Egypt, Korea, Portugal**

- Have produced hemp



## APPENDIX F

INDUSTRIAL/NUTRITIONAL HEMP  
DESCRIPTIVE FLOWCHART

\* Adapted from the National Industrial Hemp Strategy (2008:10). Note: there are hemp applications and materials not listed here. There is usage crossover between the bast (long outer fibre) and the hurds, (short, inner fibre).