What’s trending on Twitter? – A look at Canadian Agriculture and Social Media

Sheila Kerry – MBA Signature Project 2014–15

ABSTRACT

A content analysis of the current use of Twitter by influencers in the Canadian agriculture industry.
Title of Signature Project: What’s trending on Twitter? A content analysis of the current use of Twitter by influencers in the Canadian agriculture industry.

Name of Author: Sheila Kerry

Department: School of Business

Degree: Master of Business Administration Year: 2015

Name of Supervisor(s): Susan Graham

In presenting this signature project report in partial fulfilment of the requirements for a Master of Business Administration degree from the University of Prince Edward Island, the author has agreed that the Robertson Library, University of Prince Edward Island, may make this signature project freely available for inspection and gives permission to add an electronic version of the signature project to the Digital Repository at the University of Prince Edward Island. Moreover the author further agrees that permission for extensive copying of this signature project report for scholarly purposes may be granted by the professor or professors who supervised the author’s project work, or, in their absence, by the Dean of the School of Business. It is understood that any copying or publication or use of this signature project report or parts thereof for financial gain shall not be allowed without the author’s written permission. It is also understood that due recognition shall be given to the author and to the University of Prince Edward Island in any scholarly use which may be made of any material in the author’s report.

Address: UPEI School of Business
550 University Avenue
Charlottetown, PE C1A 4P3
Acknowledgments

I’d like to take this time to thank my advisor, or as I often called her, my drill sergeant, Dr. Susan Graham who was relentless in motivating me to finish my project. Her constant emails “just to check in” and tough love were enough to kick me into high gear and make me feel guilty if I were not committing adequate time on my signature project. Without her, I don’t know that this project would be complete.

I’d like to thank my family, friends, and coworkers who were wonderful supporters of mine throughout the entire MBA process, from my classes to my final signature project. A special thank you to my parents, Shawn and Cheryl, my sister Rachel, and my partner Mike.

And finally, a big thanks to my MBA classmates, professors, and staff who made this program such an enjoyable experience. I look forward to staying connected to each and every one of you.
Table of Contents

Acknowledgments........................................................................................................3

Chapter 1: Introduction................................................................................................6
  Background ................................................................................................................7
  Problem ..................................................................................................................... 9
  Purpose .................................................................................................................... 10
  Research Questions ................................................................................................10
  Nature of the Study ..................................................................................................11
  Assumptions and Limitations ..................................................................................13
    Assumptions ..........................................................................................................13
    Limitations ...........................................................................................................14
  Conclusion ..............................................................................................................16

Chapter 2: Literature Review....................................................................................... 17
  Literature Review .....................................................................................................17
  Canadian Agriculture ................................................................................................18
  History of the Canadian Agriculture Industry .........................................................19
  Trends in the Canadian Agriculture Industry ..........................................................20
  Social Media ...........................................................................................................22
  History of Social Media ..........................................................................................22
  Social Media and Business ......................................................................................24
  Social Media and the Agriculture Industry ..............................................................27
  Gaps in the Literature ..............................................................................................29
  Conclusion ..............................................................................................................29

Chapter 3: Methodology .............................................................................................31
  Content Analysis at a Glance ..................................................................................31
  Population and Sample ...........................................................................................32
  Data Collection/Analysis ........................................................................................33

Chapter 4: The Results .................................................................................................35
  Demographics .........................................................................................................36
  Survey Results .........................................................................................................37
    What was the theme of the tweet? .........................................................................37
    When was the tweet issued? ..................................................................................39
    Was there a hashtag? .............................................................................................41
    What kind of interaction did the tweet receive? .....................................................42
  Observations ..........................................................................................................43
  Limitations in the Data Studied .............................................................................44

Chapter 5: Conclusion ................................................................................................46
  Recommendations for the Canadian Agriculture Industry .....................................46
  Areas of Future Study ..............................................................................................48
  Conclusion ..............................................................................................................48

Appendix A – Search results chart ........................................................................... 50
Appendix B – Regional roundup chart .......................................................................51
Appendix C – Original search tweet and responses ..................................................52
Appendix D – Selected sample ..................................................................................54
Appendix E – Tweet breakdown by tweeter ................................................................. 58
Appendix F – Template questions ........................................................................... 59
Appendix G – Tweet breakdown by theme ................................................................. 61
Works Cited .............................................................................................................. 62
Chapter 1: Introduction

The year is 2014; traditional marketing begins to fall by the wayside, but it continues to make room for the ever-growing social media marketing. Since 2009, businesses have become more aware of the importance of social connectivity and marketing, and its place in the business world (Geho & Dangelo, 2012). Broadly speaking, social media is all about Web tools that enable multiple users to interact with one another through multi-way conversations (Bagdasarian & Tamehiro, 2010). In particular, Twitter, which was established in 2006, reaches vaster audiences, more so than does traditional forms of marketing (McCoy, n.d.).

While not all businesses are interested in reaching global audiences, Twitter still provides the opportunity to do so for individuals and businesses who wish to take advantage of the medium’s reach (McCoy, n.d.). Twitter’s website claims that its short 140-character messages, known as tweets, takes social media to a new level as it focuses on quick access to information through micro-blogging (“About Twitter,” 2015). Effective participation on Twitter and other social media platforms often requires a major change in organizational cultures and mindsets, as well as the integration of new skills and expertise (Schroeder, 2013). Twitter, the micro-blogging phenomenon has grown rapidly since its creation. In 2009, statistics website Quantcast.com reported an average of 23.5 million monthly Twitter users, and in 2012, reported 87.4 million monthly users (Geho & Dangelo, 2012). In 2014, Twitter.com stated that there were 271 million monthly active users, and 500 million tweets sent each day.
While Twitter is a great tool for individuals and organizations, it is not meant to eliminate the ever-important face-to-face conversations, but instead, act as another way to reach out to networks both near and far. Unfortunately, organizational buy-in of social media is not always instantaneous as organizations differ by uses and needs for social media, which can also vary amongst industries. This paper will focus on the Canadian agriculture industry and its use of the social media platform, Twitter, in particular in promoting businesses and the Canadian agriculture industry as a whole.

Background

The Canadian agriculture and agri-food sector is described as a modern, highly complex, integrated, internationally competitive, and growing sector of the country’s economy (“An overview of,” 2014). In 2012, the Canadian agriculture and agri-food system (AAFS) generated $103.5 billion for the economy, accounting for 6.7 per cent of Canada’s GDP (“An overview of,” 2014). As Canada as a country continues to remain relatively competitive in both its domestic and global agricultural markets, its performance depends on its ability to keep up with trends (“An overview of,” 2014), which may be heightened through the use of social media.

Twitter has become increasingly popular among businesses for the purposes of reporting updates and new developments (Schroeder, 2013). The main potential though, is for the Canadian agriculture industry to build company and industry visibility, as well as brand recognition (Schroeder, 2013) through the effective use of social media platforms. While businesses are aware of social media’s importance in the changing
In a technological world, the number one deterrent of social media for smaller businesses is the time commitment required to keep profiles active, and the near impossible task of calculating social media’s return on investment (Geho & Dangelo, 2012). However, with continuous improvements to social media, such as Hootsuite or TweetDeck, which are social media dashboards that allow scheduling and posting content capabilities (Geho & Dangelo, 2012), social media is becoming more manageable.

Although it may seem difficult to measure a business’s return on investment when it comes to social media, Gangemi (2011) of Fox Business claimed social media’s impact is actually more measurable than most marketing techniques, as businesses can count and analyze the number of re-tweets, clicks, and mentions (replies) that its content is receiving on social media (as cited in Geho & Dangelo, 2012). Twitter.com has information on using the social media platform for business use, also backing the notion of the various metrics for success on Twitter, which include follower growth, tweet impressions (how many users are viewing your tweet), and engagement (who is replying and how many users are replying). With social media constantly evolving and changing, and the popularity shift between the various social media platforms, the emphasis is thus rather on educating individuals and organizations within the Canadian agriculture industry to help them understand that they require some skills and expertise in the basic principles and techniques of effective social media use (Schroeder, 2013).
Problem

Baumgarten claimed that when individuals think of social media and agriculture together, it likely conjures up images of the Facebook application Farmville; but agribusinesses are proving that their social media usage runs deeper than surface level (2012). A 2011 study conducted by the American Farm Bureau Foundation provided further evidence of this claim as it stated that of the 98 per cent of American farmers and ranchers ages 18 to 25 with Internet access, 76 per cent of them were using social media for either business and/or personal use (Baumgarten, 2012). Although agricultural influencers may be using social media, we do not understand how Canadian agriculture influencers are using social media platforms to advance their business and the agriculture industry.

Agribusinesses have embraced social media and its role in business-to-business (B2B) and business-to-consumer communications (B2C), rather than being thought of as “behind the times” (Baumgarten, 2012). For those in the agriculture industry that are not on social media, it is not necessarily due to resistance to technology, which is often assumed, but rather a lack of knowledge of how social media can be of benefit to an individual’s business (Baumgarten, 2012). Getting the agriculture industry on social media sites like Twitter begins with educational outreach. The AGChat Foundation is a great example of an educational resource designed to equip global agricultural influencers with the tools necessary to engage with other businesses and consumers on social media networks (Baumgarten, 2012). Continued education on the benefits of
social media within the agriculture industry is needed to rid uncertainties and prove just how useful these platforms can be within the industry and beyond (American Farm Bureau, 2011). Helping consumers understand modern agriculture through personal stories and experiences shared through Twitter will shape the future of agriculture for the generations to come (American Farm Bureau Federation, 2011).

Purpose

The purpose of this paper is to provide an understanding of how social media, specifically Twitter, is being used by Canadian agriculture influencers. This paper also aims to identify ways in which organizations and individuals can utilize social media platforms to prosper and survive within their industries. From this paper’s content analysis, the study findings may be useful for other individuals and/or organizations within the agriculture industry that are considering implementing Twitter to promote themselves and their brands. The findings may also help industry influencers to develop their own social media strategies, be it for Twitter, and/or to branch off and join other social media platforms.

Research Questions

Pinpointing a precise research question(s) is crucial as it reduces the inquiry to a workable size, and research methods can focus on, and be congruent to, the research questions (Tarozzi, 2013). When a topic or problem is created into workable research questions, the focus is then limited and relevant to specific parameters. Broadly speaking, this paper will look at how Canadian agriculture influencers are utilizing
Twitter to enhance their brand and engage with their followers. These specific research questions guided this paper and its specific study:

- What types of content are the top Canadian agriculture influencers producing on Twitter?
- Are the Canadian agriculture influencers or tweeters (also known as Twitter users) using Twitter mostly for business, industry, or personal use?
- How frequently are Canadian agriculture influencers tweeting, and what (if any) days and times of day are most popular?
- How frequently do Canadian agriculture influencers interact with their followers, and in what ways? How many people do they follow, and how many followers do they have?

**Nature of the Study**

A content analysis will be conducted using the social media platform, Twitter to determine its business use within the Canadian agriculture industry in 2014. More specifically, a group of 25 Canadian agriculture influencers’ tweets will be reviewed to identify how they are utilizing the social media platform as a marketing and communications tool. Influencers include, but are not limited to the following: farmers, agriculture professors, scientists, veterinarians, journalists, business professionals, and government and nongovernment organizations and their employees.

The top influencers were selected through an informal Twitter callout tweet using various linking hashtags (subject tags) to get a particular audience’s attention. Due to
the large volume of tweets and specific focal months of the agriculture’s cyclical nature, weeks during the planting months of May and June, and a harvesting month of October were studied. While the agriculture industry never sleeps, specific timeframes were chosen under the assumption that agriculture representatives may tweet more frequently during these months to interact with their followers during busy work periods. Each tweet during the first full week of May, June, and October, 2014 was recorded and assessed for content, responses, time of day, day of the week, inclusion of photos, and the general reason (business, personal, or industry related) of the tweet. The data was examined to identify potential trends and patterns in Twitter practices amongst leading Canadian agriculture influencers.

The data was recorded through Google Forms, an open source survey application offered free-of-charge through Google. There, an unpublished template was created to house the tweet information and track trends. The information collected was then graphed and analyzed in each of the above-mentioned areas. Although some of the information pulled from the tweets was subjective in nature, the template created was a way to standardize the data collection.
Assumptions and Limitations

Assumptions

An assumption provides a basis to develop research theories that will influence the development and implementation of a research process (Patidar, 2013). While assumptions in any study are somewhat out of an individual’s control, without them, the study would become irrelevant (Simon, 2011). The following assumptions are stated and justified in that each assumption is “probably” true, otherwise the study cannot progress (Simon, 2011).

- First, the sample population is subjective in that the way in which these Canadian agriculture influencers on Twitter were selected was through an informal conversation online. The study thus relies on the responses and interactions from those willing to participate and share their thoughts on who they believed to be the top industry influencers on Twitter. It is assumed that the Canadian agriculture influencers chosen are a good representation of Canadian agriculture leaders.

- The first full weeks of the months studied (May, June, and October, 2014) were selected strategically as they are planting and harvesting seasons. It was assumed that these particular months would be busier for many of the tweeters being studied, and the most appropriate for monitoring purposes. However, the opposite could be true as agriculture industry influencers may be too busy to
tweet during eventful seasons. For the purpose of this study, the former assumption was deemed to be true.

• It was assumed that the fast-paced lifestyles of those individuals in the Canadian agriculture industry would find Twitter most useful and appropriate for their social media strategies, instead of other mediums including Facebook, LinkedIn, Flickr, Instagram, etc. For this particular reason, only Twitter was studied, rather than other platforms.

• The selection criteria focused on individuals who were already Twitter savvy and assumed that these Canadian agriculture industry influencers were among the industry leaders on social media.

• The information captured through the content analysis is assumed to be relevant information about the Twitter activity of the Canadian agriculture influencers. The accurate interpretation of the meaning and purpose of the Canadian agriculture influencers tweets is also assumed.

Limitations

Limitations are considered to be restrictions to a study due to theoretical or methodological reasons, which may decrease the credibility and the generalizability of the research findings (Patidar, 2013). Limitations in a study point out potential
weaknesses, and, like assumptions, are out of an individual’s control (Simon, 2011). The following limitations are found within this study:

- The top Canadian agriculture influencers were chosen out of convenience, as opposed to a purely random sample, and not all Canadian agriculture influencers are currently using Twitter. The list of potential Canadian agriculture influencers was however narrowed down randomly to a smaller sample of 25 tweeters and will be explained in further detail in Chapter 3.

- The sample size (25) is not very large considering the number of Canadian agriculture industry professionals who may or may not be on Twitter, and is thus small relative to the size of the industry as a whole.

- Solely analyzing Twitter instead of studying a variety of social media platforms and marketing tactics is a limitation to the study. Social media is only one form of marketing and communications, whereas companies may utilize marketing and promotional tools that are most appropriate for their individual needs and goals.

- The Twitter users monitored were only Canadian agriculture leaders, whereas other agricultural influencers around the globe were not studied, and therefore, this study is limited to Canada.
• Due to social media’s very nature, it is ever-changing and limits another individual hoping to mimic this exact study if the Twitter data is not accessible to them due to social media sites’ bandwidth at the time of a future study.

• Lack of access to a more advanced research instrument was also a limitation.

Collection of data and analysis was done manually, whereas access to an advanced research instrument would have been able to provide a larger amount of data to analyze, in a more efficient and timely manner.

**Conclusion**

Social media can be so much more for agriculture professionals than simply a way to connect with current and potential consumers (Davison, 2011). Social media can be a key business tool, a way to stay connected with others in the industry, and to keep up-to-date with commodity prices, crop information (Davison, 2011), and can also be used as a sounding board to hash out relevant problems within the industry. Going forward, open dialogue between the general public and the agricultural community will be crucial, and any fear or ignorance of technologies will have a potentially devastating effect on the industry and its ability to compete at home and in world markets (Allen, 1993). Social media is an opportunity for agricultural professionals to reach out, listen to, educate, and learn from the general public (Allen, 1993). The goal of this research is to garner a better understanding of how Twitter is being utilized by Canadian agriculture
influencers, how they can improve their online presence, and change the attitudes of the agricultural naysayers.

**Chapter 2: Literature Review**

A literature review is a thorough, objective, and critical summary and analysis of the current literature—both research and non-research—related to the studied topic (Coughlan, Cronin & Ryan, 2008). Literature reviews are useful to elicit evidence-based information, bring readers up-to-date with current literature on a topic, and point out justifiable areas for future research (Coughlan et al., 2008). This literature review will provide an overview of the current literature related to the Canadian agriculture industry, and more specifically, the history of the industry; the trends in the industry, including demographic and regional trends; the history and use of social media for business; the connection of the agriculture industry and social media, and more specifically, its use of Twitter for promotion and marketing; and any glaring gaps where research was not found.

**Literature Review**

For this project, the majority of the academic research was found through UPEI Robertson Library’s search database, including “One Search,” and “Advanced Search” functions. In addition, Google Scholar and Google News were utilized as search tools, as social media is a newer topic and is often described in the news, outside of academic research. Initial searches included “Canadian agriculture;” “marketing;” “social media;”
“social media marketing;” “social media and business;” “Twitter;” “social media and agriculture,” etc. Depending on the results, some searches were narrowed down by words and/or by dates throughout the process to ensure the most relevant and up-to-date information was being collected and reviewed. Academic papers were used, as often as were applicable, however, because of the recent introduction of social media, many of the findings were from news and industry sources. In addition, a couple of sources came from universities, for example, one paper where a master’s student was also conducting research on social media and agriculture was found through “One Search.” There is not an overwhelming amount of research currently available on the topic. A full chart that tracked the key word searches, databases, refined searches, and number of research findings can be found in Appendix A.

**Canadian Agriculture**

Agriculture and Agri-Food Canada (AAFS) is considered a complex and integrated supply chain which includes input and service suppliers; primary producers; food and beverage processors; food retailers and wholesalers; and food service providers (“An overview of,” 2014). The industry is described as a modern, highly complex, integrated, internationally competitive, and growing part of the Canadian economy (“An overview of,” 2014). The Canadian agriculture and agri-food industry is resilient and rigorous as it is constantly responding to both the challenges and opportunities it faces, to adapt to changing consumer demands, advancing technology, and globalization (“An overview of,” 2014).
History of the Canadian Agriculture Industry

A hundred years ago, more than half of Canada’s entire population farmed; in 2014, less than 2 per cent of the country’s population was made up of farmers (Farm & Food Care Foundation, 2014). Back in 1931, one in three Canadians lived on a farm, while in 2014, only one in 50 people resided on a farm (Farm & Food Care Foundation, 2014). While the agriculture industry is seeing fewer farmers and farms, the size of the farms that do exist are actually increasing in size, resulting in higher valued farmland that can successfully feed more people in Canada’s growing population (Farm & Food Care Foundation, 2014). Canadian farms are entirely unique, and there is really no such thing as a typical farm – no two farms are truly the same, as farmers from various provinces raise many different types of livestock and grow a wide variety of crops (Farm & Food Care Foundation, 2014).

Canadian agriculture is a business, and a way of life; agriculture and food provided one in eight jobs, employed 2.1 million people and contributed $103.5 billion to Canada’s economy in 2012 (Farm & Food Care Foundation, 2014), which accounted for 6.7 per cent of Canada’s GDP (“An overview of,” 2014). Since 2007, the industry’s contribution to the nation’s GDP has increased annually, with the exception of 2009 due to the economic recession (“An overview of,” 2014). The state of Canadian agriculture in 2014 was defined by its growth opportunities, with an expanding demand for its commodities, that according to Statistics Canada, increased farming cash receipts from $36 to $49 billion between 2001 and 2012 (Gervais, 2014).
Trends in the Canadian Agriculture Industry

In 2014, the average age of a Canadian farmer was 54 years old; almost half of farmers are over the age of 55 years, with only 8.2 per cent of farmers under the age of 35 (Farm & Food Care Foundation, 2014). With that being said, however, an increasing percentage of farms are being operated solely by young farmers between the ages of 18 and 39 years (Farm & Food Care Foundation, 2014). In terms of gender, 72.5 per cent of Canadian farmers are male and 27.5 per cent are female (Farm & Food Care Foundation, 2014). Most of these Canadian farms, 97 per cent of them, are family-owned and operated (Farm & Food Care Foundation, 2014).

With Canada as the fifth largest agricultural exporter in the world, the country is the world’s largest grower and exporter of flax seed, canola, pulses (peas, beans, and lentils), and durum wheat which is used to make pasta (Farm & Food Care Foundation, 2014). Depending on the climate within the various regions in Canada, the country grows and raises a variety of animals and crops from bison, alpacas and rabbits, to lavender, grapes, greenhouse vegetables and hazelnuts (Farm & Food Care Foundation, 2014). To view a regional roundup of Canada’s diverse farming sectors and the number of farms per region, see Appendix B.

In terms of past drought trends in Canadian agriculture, in the mid-1980s, the industry suffered a global supply/demand imbalance, especially in the grain sector as the country faced falling prices and years of drought (MacKenzie, 1987). Although most of Canada
does continue to experience droughts, the Canadian Prairies are the most susceptible (Hill, 2010). Droughts of shorter durations have occurred in more recent years, in various parts of Canada, but especially in the Prairies from 1999-2005, and in 2001-02, which stretched across the southern part of the country from British Columbia to the Maritimes (Hill, 2010). Based on recorded evidence of Canadian droughts, they are a recurring phenomenon, and with climate change and warmer temperatures, there is a concern that droughts will increase in frequency (Hill, 2010). The development of contingency plans and frequent studying and planning could help to alleviate future hardships caused by droughts (Hill, 2010). There is always the possibility of a severe drought in Canada, which would cause a serious disturbance to the Canadian agriculture industry and its economy (Hill, 2010).

Since the 1982 recession, farm real estate values have continued to decline sharply (MacKenzie, 1987), and while farm debt is a serious issue, prudent financial plans are still recommended for all farmers based on prices and net income (MacKenzie, 1987). Compared to other countries, the Canadian agriculture industry is relatively competitive in both its domestic and international markets, with its export sales growing by 8.1 per cent in 2012 (“An overview of,” 2014). While the United States is Canada’s most important agriculture and agri-food export destination, China recently surpassed Japan in 2012 to become Canada’s second largest agriculture and agri-food export destination. In 2012, of Canada’s total value of agriculture and agri-food exports, the United States accounted for 48.4 per cent, and China, 11.4 per cent (“An overview of,” 2014). It is
estimated that approximately half of Canada’s value of primary agriculture production is exported, either as primary commodities or as processed food and beverage products (“An overview of,” 2014).

Social Media

‘Social media’ refers to Internet-based tools used for sharing and deciphering information amongst individuals (Andres & Woodard, 2013). In addition, ‘social media’ also refers to the actual content itself, including: user-generated information, opinion, audio and video, and multimedia that is shared and discussed over digital networks (Andres & Woodard, 2013). Social media tools include, but are not limited to: social networking sites (ex: Facebook and LinkedIn); video and photo sharing sites (ex: YouTube); blogs; microblogs (ex: Twitter); forums, discussion boards, and groups (ex: Google Groups); wikis (ex: Wikipedia); video on demand and podcasts; video and web conferences; and email, instant messaging, and SMS messaging (Andres & Woodard, 2013).

History of Social Media

Globally, in 2013, nearly one in four people connected to social media platforms and used them on a regular basis (Andres & Woodard, 2013). In 2003, two of the most successful social service platforms – Skype and LinkedIn – were formed; in more recent years, social media tools have helped to democratize and disseminate information (Andres & Woodard, 2013). Because of social media, for the first time in human history, everyday individuals are able to personally publish their own content, regardless of
where they are physically located around the world. However, economic and social barriers still play a role in developing countries that are aiming to first obtain basic technological tools (Andres & Woodard, 2013). Thankfully, increased populations around the world are coming online quicker than ever before, and the need and want for social media engagement is a primary driver to that process (Andres & Woodard, 2013).

In 2006, a group of employees from the already existing podcasting company Odeo created Twitter, a new social network where users were limited to 140-character public messages, known as ‘tweets’ (Jenkins, 2014). To some individuals, Twitter was viewed as simply a fad that would lose people’s interests. However, this was not the case. In 2008, then United States presidential candidates Barack Obama and John McCain joined the Twitter bandwagon and changed the perception of the social media platform, in particular its use by politicians (Jenkins, 2014).

Eight years after its establishment, Twitter saw more than 200 million users and continued to see an uphill trend (Jenkins, 2014). Twitter’s character-limiting tweets are actually considered one of the social network’s greatest strengths, as it challenges its users to be more concise and clever with messaging, and thus, aids users to become better communicators (Jenkins, 2014). In 2010, users began to see trending hashtags (which are depicted by the # sign on Twitter) when they logged on to the social network, as well as promoted tweets which are tweets that companies or individuals can pay to
have promoted to focal points on users’ pages just like an advertisement (Jenkins, 2014).

In 2011, Twitter unveiled a new design, and at that point, reached a milestone of 100 million users (Jenkins, 2014). At the beginning of 2013, Twitter, available in 25 different languages, was considered to be the fastest growing social network in the world (Andres & Woodard, 2013). In 2013, Twitter expanded by launching a six-second video sharing service called VINE and also announced an IPO, becoming a publicly traded stock (Jenkins, 2014).

**Social Media and Business**

Social media has changed the nature of business, in the sense that companies, whether they are B2B or B2C, cannot afford to ignore social media sites if they want to remain competitive and grow in their markets (Schroeder, 2013). Effective participation in social media often requires new skillsets, or new employees with the skills necessary to adequately maintain and aid the organization in reaping the benefits, and manage the risks associated with social media (Schroeder, 2013). Social media is often considered to be revolutionary for businesses, requiring a major mindset change to keep up with consumer and business demands, as traditional marketing and communication tactics are becoming outdated (Schroeder, 2013).

While online company presences are already out there on the Internet, businesses need to get involved with social media to ensure they have some ability to manage their
online reputation. Although complete control over a business reputation and brand cannot be achieved, much can be done through social media. Social media can aid to build and maintain good relationships with consumers and company stakeholders; convey an attractive brand image; and develop innovative strategies going forward (Schroeder, 2013).

Businesses around the world have been affected by the global recession, and continue to search for new tactics to mitigate this global challenge. Because the recession affected so many individuals, businesses needed to stay connected to their consumers (Karahan & Kirtis, 2011). Understanding changing behaviors became vital, and so, social media became a useful platform (Karahan & Kirtis, 2011). Because of social media’s cost reducing effects, it has become the most preferred marketing driver for businesses who have experienced the economic recession (Karahan & Kirtis, 2011). Both small and large businesses are allocating more resources to social media as they can reach global audiences and garner valuable feedback (Karahan & Kirtis, 2011).

Twitter is the most corporately used social media platform, however Facebook corporate pages tend to have more “likes,” than Twitter corporate accounts have “followers” (Karahan & Kirtis, 2011). Yet, these platforms are used for different purposes and goals in mind – Twitter is an excellent venue for businesses to connect instantly with consumers, stakeholders, and other company supporters, and its traffic has increased by over 1,500 per cent from 2008 to 2009 (Karahan & Kirtis, 2011).
Facebook is more commonly used for building communities among business stakeholders (Karahan & Kirtis, 2011). It is imperative that businesses strategically align their goals and use the appropriate social media platforms to meet those goals (Karahan & Kirtis, 2011).

Twitter has become very popular among businesses who are interested in reporting company news, including product launches, promoting events, and interacting with followers by soliciting feedback through questions and open discussions (Schroeder, 2013). In addition, Twitter is valuable to businesses as the platform provides valuable market research, allowing businesses to “follow” the moves of their competitors, find out current consumer interests, or find experts who are tweeting about issues of interest to their business (Schroeder, 2013).

Recent survey evidence stated that 90 per cent of individuals pay attention and trust what their friends are saying about brands (word of mouth marketing), and 70 per cent trust online consumer reviews. Only 14 per cent listen and trust messages coming directly from the company (Schroeder, 2013). Because of this, it is crucial for organizations to make use of social media to ensure they are involved in the conversations happening online about them and their brands. With or without the online presence of these businesses, the virtual conversations are still happening, and it is an opportunity for businesses to interact and use transparency and dialogue to their advantage.
Social Media and the Agriculture Industry

While the exchange of agriculture information has been historically dominated by traditional mass media, in recent years, the adoption of social media has increased around the world, including within the agriculture industries (White, 2013). In particular in the United States, organizations such as the AgChat Foundation and the American Farm Bureau Federation have encouraged individuals within the agricultural community to become involved in social media (White, 2013). The nonprofit organization, AgChat Foundation’s mission statement is “empowering farmers and ranchers to connect communities through social media platforms,” (AgChatFoundation, 2014). The American Farm Bureau Federation (2011) explained that farmers have taken to the Internet to speak with consumers about agriculture misconceptions and fears, including the Swine Flu.

Baumgarten (2012) explained that farmers are using social media on a personal level to share their farming stories, provide product updates, answer consumer questions, and promote their products. White (2013) found several studies in the United States that looked into the US agriculture industry and their use of social media. She also found a content analysis of agricultural blogs in North America that were studied and reported to have information on agriculture topics and news (White, 2013). Similar research on agricultural blogs and the study of agriculture individuals and their use of Facebook was found, with one study concluding that industry members are currently not using social media to its full potential (White, 2013).
Dr. Ataharul Chowdhury, a federally funded post-doctoral research fellow at the University of Guelph in Ontario, Canada, found that the most popular social media platforms used within the Canadian agriculture industry were Twitter and Facebook, after studying 300 cases (Hein, 2013). While Facebook was one of the most popular amongst agriculturalists in Canada, it was more so used for personal reasons, whereas Twitter was reserved mostly for business purposes (Hein, 2013). While Dr. Chowdhury is among many who agree that social media is important to the Canadian agriculture industry, he explained that people need to feel confident about using the social media tools, or they will avoid using them altogether (Hein, 2013).

The younger generations within the agriculture industry and those studying agriculture now will need to learn how to utilize social media tools to keep up with the ways in which people are receiving and sharing information (Carter, 2013). To sustain competitiveness with other industries, the agriculture industry must keep abreast on growing technologies (Carter, 2013). Social media and the agriculture industry have the potential to build strong connections between consumers, stakeholders, employees, and the general public through sharing technical, engaging, and relevant information (Carter, 2013).
Gaps in the Literature

There is a plethora of information on social media and its business use, in particular for business marketing efforts, but there is a great lack of information on the use of social media within the agriculture industry. The bulk of the literature on social media and the agriculture industry can be found through popular media sources, as well as industry specific magazines or publications. While the information available is useful, it is important to note that most is not academically reviewed, meaning that academics did not delve deeper into the methodologies, content, and data available. Both academic and non-academic works are useful and pair well together to balance out a paper (Coughlan et al., 2008).

Much of the literature available through both academic and non-academic work focused on the agriculture industry, social media, or social media for marketing/business, as separate topics. The research lacked the connection between the Canadian agriculture industry and its uses of social media. Further research is still required in this area to determine the uses and gratifications of user-generated content in agriculture through social media.

Conclusion

The Canadian agriculture industry is beginning to make use of the social media platforms available, but there is still much room for improvement. As Canada exports
approximately half of its primary agriculture production ("An overview of,” 2014), it is necessary that the industry as a whole gets onboard with social media and starts the agriculture conversations through two-way dialogue.

Evolving technologies, including social media, can revolutionize the agricultural industry by allowing marketers and producers to identify certain product characteristics desired by consumers and cater to those needs and wants (Allen, 1993). In addition, information on many agricultural companies’ social, ethical, and environmental stances can be shared via social media to create open and transparent dialogue amongst company stakeholders and consumers. Not only will the agriculture industry benefit by sharing this information with its consumers, but industry members can also gain insight by working together online to solve various agriculture problems, whereby becoming exposed to the latest knowledge, skills, and technologies available.

Social media is becoming a way of life for many; it is where individuals go in search of daily information, news, product reviews, and more. The Canadian agriculture industry should also jump on the social media bandwagon and embrace the various platforms that are at their disposal. By not involving oneself in social media, there is much more at risk than simply the fear of missing out. There is a greater potential of missing conversations that directly involve the Canadian agriculture industry, its influencers, and its brands.
Chapter 3: Methodology

While the literature review informs readers that it is wise for organizations and individuals to join social media for the good of their corporate and personal brands, it is important to take a look at the activity that is currently on these social media platforms, to decide whether the platforms are being used to their full business potential. Through a thorough analysis of Twitter content from Canadian agriculture influencers, their use of social media will be examined and described to get a better understanding of how these industry individuals and organizations are using this particular social media platform. A quick Twitter search will find Canadian agriculture individuals and organizations that are already using this particular social media platform, however, it is important in this content analysis to decipher whether Twitter is being used as a tool to promote their brands, to promote themselves, or both.

Content Analysis at a Glance

A content analysis is used to analyze and interpret qualitative data by identifying themes and patterns through a rigorous data coding process (Cho & Lee, 2014). Qualitative research was not as well known or respected until recent years due to the dominance of quantitative content analysis, as well as the subjectivity of qualitative analyses (Cho & Lee, 2014). However, qualitative content analysis is considered a strategy for qualitative descriptive studies (Cho & Lee, 2014).
A content analysis is defined as a method to classify written or spoken material into categories of similar meanings and can be used to examine virtually any kind of communication (Cho & Lee, 2014). Because content analyses can use public data, such as tweets on Twitter, it is often an unobtrusive way to collect information without having direct contact with persons being studied (Cho & Lee, 2014). For the purpose of this paper, a content analysis was deemed appropriate to evaluate the practices on Twitter by users from the Canadian agriculture industry to determine areas of strength, weaknesses, and areas that need improvement on the social media platform.

**Population and Sample**

As it is not possible to count the entire population of individuals and organizations within the Canadian agriculture industry on Twitter, for the purpose of this study, 25 of Canada’s agriculture influencers were further examined. To select the potential sample, a tweet was sent out (see Appendix C) to solicit suggestions of the “best Canadian agriculture leaders on Twitter.”

From the original tweet, approximately 65 discussion reply tweets were shared back and forth between individual tweeters on the subject, as Twitter handles were being suggested. The discussion tweets generated a list of 115 members on Twitter. Any user that had less than 100 tweets was removed from the list for data relevance to the study. The list of potential tweeters of the sample then remained with 114 members.
To narrow down this list of potential tweeters even further, to 25 tweeters, a random selection process was done through Microsoft Excel. If a tweeter was selected and their account was not activated during the months/year of data collection, the tweeter was deemed ineligible and a new tweeter was randomly selected. The 25 tweeters randomly selected included ten farmers, two agriculture media, two agriculture/veterinary students, seven industry representatives, and four organizational Twitter handles. For a full description and more information on the tweeters studied, see Appendix D.

Data Collection/Analysis

After randomly selecting the sample of 25 tweeters, specific data was collected on these Canadian agriculture influencers to get a better understanding of them, including location, number of followers, number of tweeters they followed, and their relevance to this study (ex: dairy farmer). Public information available on Twitter was accessed, as well as specific Twitter account activation dates were accessed through Twitonomy, a Twitter analytics web tool. Twitonomy also provided a full list of tweets for these users in an easy to use format, as Twitter cannot always provide a user’s data/tweets in its entirety due to the platform’s bandwidth.

The first full weeks of the months of May, June, and October, 2014 were assessed, as it was assumed that they would be busier times for many of the tweeters being studied due to planting and harvesting seasons. And because of this, those potential tweets issued in the busier months would be interesting to analyze. May and June are months that fall into the planting season, while October falls into harvest season for many
within the Canadian agriculture industry. During these weeks, the tweets were counted for each of the 25 tweeters, as well as the days and times of day that the tweets were issued. The theme of the tweets, in particular, whether Twitter was being used for business, industry, or personal use was studied, as well as the type of interaction that the tweet received from followers and other tweeters. This information was collected to see the current patterns in the ways in which these tweeters are using the social media platform.

After collecting and coding the data, of which 1,292 individual tweets were studied, various observations could be realized from the data including popular hashtags, times of day and days of the week, themes, and more. Chapter four will get into the detailed results of the seven template questions. The template results demonstrated how many tweets each of the 25 tweeters sent out; what day the tweet was sent out; what time of day the tweet was sent out; what observation week the tweet was sent out on; the theme of the tweet; whether or not the tweet had a hashtag to connect trends and topics; and what kind of interaction the tweet received from other tweeters.
Chapter 4: The Results

The purpose of this paper is to provide an understanding of how social media, specifically Twitter, is being used by Canadian agriculture influencers. This study collected data from Canadian agriculture influencers on Twitter through a content analysis of 25 of the ‘top tweeters’ within the industry. The analysis of tweets throughout the first full weeks of May, June, and October, 2014 were to provide a better understanding of how social media is being used as a communication tool amongst members of the agriculture industry in Canada. Once again, the sub-research questions included:

1) What types of content are the top Canadian agriculture influencers producing on Twitter?

2) Are the Canadian agriculture influencers or tweeters (also known as Twitter users) using Twitter mostly for business, industry, or personal use?

3) How frequently are Canadian agriculture influencers tweeting, and what (if any) days and times of day are most popular?

4) How frequently do Canadian agriculture influencers interact with their followers, and in what ways? How many people do they follow, and how many followers do they have?

Of the 1,292 tweets studied throughout the data analysis process, the amount of tweets per user varied among the 25 tweeters in the sample. The least amount of tweets from
one tweeter was five tweets, while the most tweets from one tweeter in the studied timeframe was 232 tweets (18% of total tweets analyzed). The average amount of tweets per tweeter was approximately 52 tweets during the studied timeframe (first full week of May, first full week of June, and first full week of October, 2014). For a full chart that shows a breakdown of the total amount of tweets per Canadian agriculture influencer, see Appendix E.

A template (see Appendix F) was used to standardize the data collection and ensure consistency when reporting information on each of the 1,292 tweets collected during the timeframe. Information was collected on the themes of the tweets, interaction of tweets, whether or not a hashtag was used, time of day, day of week, and week issued. This chapter will go into greater detail on each of the template question’s results, as well as observations noted throughout the data collection process. First, a high-level description of the tweeters can be found in the next section.

**Demographics**

Of the 25 randomly selected Canadian agriculture influencers, close to half (12 tweeters) were from Ontario; four from Alberta; three from Prince Edward Island (PEI); two from Saskatchewan; two from Manitoba; and two listed as Canada as they were national organizations. The tweeters studied had a wide range of professions within the agriculture industry, including farming (dairy, beef, grain, oilseed, egg, soy, and vegetables); agriculture breeders and veterinarians; industry representatives including
field researchers, agronomists, communications officers, and provincial specialists; national industry organizations, and an agriculture news source.

The exact dates that each tweeter created their Twitter account was tracked via Twitonomy, with one tweeter creating an account in 2008, while many others joined from 2009 to 2013. The newest profile was created on November 19, 2013. The tweeters’ followers and following (number of users one follows) were also tracked and as previously mentioned can be found in the chart in Appendix D. The tweeter with the least amount of followers was 160, and this same tweeter was following the lowest amount of tweeters—69 people. The tweeter with the most followers was 6,269. This particular tweeter was also the individual that had the oldest account, which was activated in 2008. This same tweeter was following the largest amount of individuals at 4,785.

**Survey Results**

**What was the theme of the tweet?**

One of the main research questions that the study intended to seek an answer to was the theme of the issued tweets, in particular, whether or not it was a business, industry, or personal tweet, public reply, or retweet. Of the 1,292 tweets, one tweet was not coded due to unintentional human error, so a total of 1,291 tweets were themed. Most of the tweets issued, 44 per cent (or 563 tweets), were industry-related about agriculture and were retweeted information, meaning that they were not original
tweets created by the specific tweeter themselves. The majority of original tweets were also industry-related, only 14 per cent of total tweets, but 37 per cent of the total number of original tweets were industry specific. In terms of public replies, only 20 tweets were issued as public replies (a reply to a specific user that you wish to make public by placing a “.” before the user’s Twitter handle). The “other” category had a total of three tweets, which were links or photos with no content/text.

In total, of the original tweets, public replies, and retweets, 1,288 tweets were coded as either personal, business, or industry-related. The three tweets from the “other” category were not coded in one of these three categories. Only 18 per cent of the tweets were considered personal, 22 per cent were business related (had to do with one’s own job or business), and 60 per cent of the tweets coded were industry-related (had to do with the agriculture industry as a whole vs. specific to an individual’s personal work).

Based on this content analysis, it was clear that the tweets studied from the 25 Canadian agriculture influencers were used to share industry-related agriculture information. The results are charted in Appendix G. Specific patterns and observations are noted in the observation section of this chapter.
When was the tweet issued?

Another important factor to determine throughout the data coding/analysis process was what week the tweet was issued, what day of the week, and what time of day, to determine whether or not any patterns existed amongst the agriculture Twitter leaders. Close to half of the tweets, 48 per cent (or 617 tweets) were issued during the first week of October (October 5-11, 2014), which was harvest season for many within the agriculture industry, while 28 per cent of tweets were issued in June (June 1-7, 2014), and 24 per cent were issued in May (May 4-10, 2014). May and June were planting months for many within the Canadian agriculture industry. The following graph depicts what week the tweet was issued out of the studied timeframe.
Most often, the tweets were issued between 6:00 am–1:59 pm, with a slight decline in tweets issued between 2:00–5:59 pm, and then a slight increase between 6:00–9:59 pm. Very few tweets, only 4 per cent of tweets (or 56 total tweets) were sent out between the hours of 10:00 pm–5:59 am. The most popular time was 10:00 am–1:59 pm, with 27 per cent of tweets issued during that timeframe. The following chart breaks down the entire data compilation.

The most popular day of the week for Twitter activity for these agriculture influencers was in the middle of the week on Wednesdays, with 24 per cent (or 311 tweets). The least popular days on Twitter for these tweeters were Saturdays and Sundays, with 9
per cent and 8 per cent respectively. The following chart breaks down the number of tweets sent out during each day of the weeks studied.

Was there a hashtag?

As Twitter users come from various backgrounds and languages, to group or theme tweets together on the same topic, a hashtag is used in a tweet. A hashtag is a particular feature specific to Twitter, and is a shorthand convention adopted by the microblog’s users to manually assign their posts to a wider corpus of messages on the same topic (Carter, Tsagkias & Weerkamp, 2011). Hashtags are a simple way to make a wide variety of published microblog material searchable, and they serve to give accurate and timely statistics about trending topics of posts on Twitter (Carter, Tsagkias & Weerkamp, 2011).
The following chart identified which of the 1,291 tweets studied (one was not coded again due to human error) had used a hashtag to group their tweet with tweets on the same topic from other users. More than half, 66 per cent used a hashtag, while 34 per cent did not.

![Pie chart showing percentage of tweets with and without hashtags]

**What kind of interaction did the tweet receive?**

The final question studied was the kind of interaction each tweet, public reply, or RT received. Some tweets garnered plenty of attention, and thus, there was a lot of interaction amongst tweeters. It was possible to have multiple interactions, replies, RTs, and favorites per tweet. Of the 1,292 tweets studied, 2,463 interactions resulted.
There were only 136 tweets that received no interaction at all. The most common interaction per tweet was more than one retweet, with 737 tweets receiving multiple retweets. The second most common interaction was multiple favorites by various users (both followers and non-followers), with 603 tweets receiving multiple favorites. The following chart breaks down the interaction that the tweets received.

**Observations**

Throughout the data coding process, observations were collected to see if any themes and/or commonalities were apparent amongst the tweeters being studied. One common element was that followers tended to appreciate tweets more when photos were attached, and/or when hashtags were used. Some common hashtags used frequently by many of the tweeters were #plant14; #ags; #harvest14; #ontag; #fromthefield; #Dekalb; #GrowingConfidence (Dekalb motto); #Westcdnag; #cdnag;
#corn; #soybeans; #agbugchat; #BacktoAg; #ag; #PEIag; #PEIpotatoes; and #Prideseeds.

Many of the tweeters, regardless of where they lived in the country, were tweeting and retweeting similar tweets in May for Mother’s Day, D-Day, as well as “pray for Moncton” tweets in June to pay respect to the fallen officers in New Brunswick.

Preferences were apparent based on how tweeters were using Twitter, for example, if a tweeter was constantly retweeting industry information vs. sending personal tweets. A lower number of followers may have contributed to low response rates for some users, but that cannot be proven. Some users were clearly away on vacation or busy with work as gaps appeared in tweeting patterns. Some tweeters for example did not tweet for a week at a time, which would lead one to believe that something was throwing off their regular tweeting routine such as a vacation, work, or personal choices.

**Limitations in the Data Studied**

There were apparent limitations to the study; one such limitation was that only public replies were studied, instead of public and private replies due to the scope of the project. Public replies are easily accessible, while private replies are more difficult to scope out on a tweeter’s page. As to not be overly intrusive as well, only public replies were collected as these tweets are intended to be public and viewed by all.

While timeframes were set, the amount of tweets per tweeter during the timeframes depended on user habits, as some tweeters for example may have had Twitter since
2012 but did not begin tweeting until June of 2014. Only studying one week per month (May, June, and October, 2014) was another limitation to the study. Time zones also played a role, the study’s template results were consistently coded in using times listed on Twitonomy analytics, but it was unclear as to whether these times were collected based on the appropriate users’ time zone, or a universal time zone. Regardless of the study’s limitations, overall, the study proved to be quite helpful in analyzing the 25 agriculture tweeters, as well as the themes, interactions, and timing of their issued tweets.
Chapter 5: Conclusion

As a direct result of this research, it was found that the top agriculture tweeters studied, for the most part, shared industry-related information with their followers. The tweeters limited the amount of personal tweets issued from their accounts. It made no difference as to whether these Canadian agriculture influencers were tweeting from a personal named account, or a professional/business named account, the majority of their tweets were industry information that was pertinent and/or could be of interest to their followers. The majority of the tweets were issued in the first full week of October, followed by June, and May, 2014, respectively.

The majority of tweets were issued between the hours of 10:00 am-1:59 pm, while the least amount of tweets were issued between the hours of 10:00 pm-1:59 am. The majority of tweets were issued mid-week on Wednesdays, with the weekends being the least popular days of the week. Most of the tweeters used hashtags to link their tweets with other tweeters interested in a particular topic. Only a limited amount of tweets received no interaction, while most received more than one type of interaction. The most common type of interactions included more than one retweet and more than one favorite per tweet.

Recommendations for the Canadian Agriculture Industry

While it was refreshing to see that the Canadian agriculture industry tweeters primarily used Twitter for sharing industry information, in the future they could share more
business information that relates directly to their work to show their personal
connection to the industry. Sharing photos was also something that seemed to garner
more attention from followers and created more space for open dialogue. For example,
followers enjoyed seeing farm animals from those that they are following and tended to
comment more on users’ tweets when photos were included.

It is also interesting to note that Canadian agriculture industry influencers did not speak
about industry issues within their tweets. There was only one instance where tweeters
were chatting throughout the medium about ‘the truths of farming’ and wanting
individuals outside of the industry to be more aware of what farming is all about.
However, Twitter would be an ideal platform for industry tweeters to discuss any
pesticide issues, plant infestations, and misconceptions within, and outside of the
industry. Using Twitter, as a platform to brainstorm and seek advice on agriculture
issues is a no-brainer, however there is room for improvement in this area, as the use
for that particular reason seems limited.

Agriculture industry tweeters are surprisingly using Twitter in a proactive way. It
appears as though many of the tweeters studied were trying to provide a clear depiction
of both the realities and myths within the industry. Demonstrating their personal ties to
the industry can only further demonstrate their credibility and passion for the industry.
Areas of Future Study

As was previously noted, there is a lack of academically reviewed research available on social media and its use within the agriculture industry. While individuals can study the tweets issued through a similar content analysis as this study has done, it would be most effective to have discussions with the agriculture industry influencers themselves. This way, researchers can attempt to get a good sense of what industry members are using social media for, what they think seems to be working, and what areas need improvement. By doing so, researchers may even be able to decipher which social media platforms would be most useful for specific agriculture industry influencers. As social media is relatively new, and the agriculture industry was initially slower to adopt its use, more research is needed on all aspects of the industry and the social media platforms available.

Conclusion

Although social media is new to the agriculture industry, the industry itself is deeply rooted, and has a great history with a passion for its land, people, and animals. The time has come for the industry to share its knowledge and passions with the general public. Social media provides an excellent platform, through a variety of mediums to share information and create a safe place for open dialogue.
There is no better time than now to start breaking down communication barriers amongst the agriculture industry and its consumers, competitors, and the general public. With the emergence and growing popularity of social media, there is no excuse for the agriculture industry to keep quiet. Rather, Canadian agriculture industry influencers should be bold and share their voices and beliefs with the world, to better their industry, making Canadian agriculture a more respected and understood industry.
# Appendix A – Search results chart

<table>
<thead>
<tr>
<th>Source</th>
<th>Search function</th>
<th>Key words</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Search</td>
<td>Regular search</td>
<td>“Literature Review”</td>
<td>1,667,937</td>
</tr>
<tr>
<td>One Search</td>
<td>Refined search</td>
<td>“Literature Review”</td>
<td>2,693</td>
</tr>
<tr>
<td>One Search</td>
<td>Academic journals</td>
<td>“Literature Review”</td>
<td>1,651</td>
</tr>
<tr>
<td>One Search</td>
<td>Regular search</td>
<td>“social media marketing”</td>
<td>55,378</td>
</tr>
<tr>
<td>One Search</td>
<td>Refined search</td>
<td>“social media marketing”</td>
<td>1,880</td>
</tr>
<tr>
<td>One Search</td>
<td>Refined search</td>
<td>“Social media marketing” and “agriculture”</td>
<td>1,386</td>
</tr>
<tr>
<td>One Search</td>
<td>search/advanced search</td>
<td>“Social media” and “agriculture”</td>
<td>52,466</td>
</tr>
<tr>
<td>One Search</td>
<td>Regular Search</td>
<td>“History of Canadian Agriculture”</td>
<td>181</td>
</tr>
<tr>
<td>One Search</td>
<td>Advanced Search</td>
<td>“History of Canadian Agriculture”</td>
<td>13</td>
</tr>
<tr>
<td>One Search</td>
<td>Regular Search</td>
<td>“Twitter”</td>
<td>77,180</td>
</tr>
<tr>
<td>Google Scholar</td>
<td>Refined Search</td>
<td>“History of Twitter”</td>
<td>34</td>
</tr>
<tr>
<td>One Search</td>
<td>Refined Search</td>
<td>“History of Twitter”</td>
<td>239</td>
</tr>
<tr>
<td>One Search</td>
<td>Refined search</td>
<td>“Trends in Canadian Agriculture”</td>
<td>17</td>
</tr>
<tr>
<td>One Search</td>
<td>Refined_search/academic journals</td>
<td>“Trends” and “Canadian Agriculture”</td>
<td>12,931</td>
</tr>
<tr>
<td>One Search</td>
<td>Refined_search/academic journals</td>
<td>“Trends” and “Canadian Agriculture”</td>
<td>7,202</td>
</tr>
<tr>
<td>One Search</td>
<td>Regular Search</td>
<td>“Social media and agriculture”</td>
<td>4</td>
</tr>
<tr>
<td>Google Scholar</td>
<td>Regular Search</td>
<td>“Social media and agriculture”</td>
<td>4</td>
</tr>
<tr>
<td>Google Scholar</td>
<td>Regular Search</td>
<td>“Use of hashtags”</td>
<td>848</td>
</tr>
</tbody>
</table>
## Appendix B – Regional roundup chart

<table>
<thead>
<tr>
<th>Prov./Region</th>
<th>Farms</th>
<th>Dominant Farm Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prince Edward Island</td>
<td>1,495</td>
<td>Horticulture, dairy</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>3,905</td>
<td>Horticulture, dairy</td>
</tr>
<tr>
<td>Newfoundland and Labrador</td>
<td>510</td>
<td>Dairy, poultry</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>2,611</td>
<td>Horticulture, dairy</td>
</tr>
<tr>
<td>Quebec</td>
<td>29,437</td>
<td>Dairy, pork</td>
</tr>
<tr>
<td>Ontario</td>
<td>51,950</td>
<td>Grains and oilseeds, dairy</td>
</tr>
<tr>
<td>Manitoba</td>
<td>15,877</td>
<td>Grains and oilseeds, pork</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>36,952</td>
<td>Grains and oilseeds, beef</td>
</tr>
<tr>
<td>Alberta</td>
<td>43,234</td>
<td>Beef, grains and oilseeds</td>
</tr>
<tr>
<td>British Columbia</td>
<td>19,759</td>
<td>Horticulture, dairy</td>
</tr>
</tbody>
</table>

*Table from Farm & Food Care Foundation, 2014*
Appendix C – Original search tweet and responses

*The following is a screenshot image of the original search tweet and some of the responses that were generated to solicit the sample of 25 Canadian agriculture influencers on Twitter.

Sheila Kerry
@SheKerry

Hey tweeps! Who are the best #Canadian #agriculture leaders on Twitter? Let me know your thoughts! CC: @FarmersOfCanada @DEKALB_Canada

10:55 AM - 4 Aug 2014

Amanda Brodhagen @AmandaBrodhagen · Aug 4
@Pasztor79 Thank you Mike. I’d have to agree with @amy_oxfordag very flattered to see my Twitter handle on your list. :)

Mike Pasztor @Pasztor79 · Aug 4
@brettmeyers73 if you were a Leaf fan you wouldn’t have been added to that list, haha.
John Guelly @WheatGeerJJ · Aug 4
@savvyfarmgirl @shekerry @farmshigawake @freshairfarmer @sweigum @wheatlanderjay @rgstone1 @southpawmegan Thx Peep! Quite the team! #tweetup

Mallory @cuzilikechocolat · Aug 4
@shekerry @southpawmegan @farmsofcanada @DEKALB_Canada definitely @highwoodc

Jay Schultz @wheatlanderjay · Aug 4
@wheatgeerjj @shekerry so many great people to name in all aspects of Ag

John Guelly @wheatlanderjay · Aug 4
@wheatlanderjay @shekerry there r a lot of gr8 folks in Ag. Not fair to only name a few. Follow us, read and follow more. #agisatightgroup

Rick Taillieu @ricklu · Aug 4
@wheatlanderjay @shekerry @savvyfarmgirl I played a small part at @farmstechevent on behalf of @albertacanoia ... I learned from @shaunhaney

Lonesome Dove Ranch @tara_m_davidson · Aug 5
@shekerry @savvyfarmgirl @agdebra & @farmerjim79 are great. For org's, check out @saskpcap @beefresearch @cdncattlemen @sk_stockgrowers

Lonesome Dove Ranch @tara_m_davidson · Aug 5
@shekerry @savvyfarmgirl @cdnag @westcdnag @ranchlife @farnm #lovednbeef all good tags to search!
Appendix D – Selected sample

*All information as of February 16, 2015

Tweeter #1
Twitter handle: @DairyFarmher
Date joined Twitter: November 19, 2013
Location: Ontario
# of Followers: 1,967
# Following: 1,669
Relevance to study: Dairy farmer

Tweeter #2
Twitter handle: @firstgenfarmer
Date joined Twitter: June 1, 2013
Location: PEI
# of Followers: 197
# Following: 252
Relevance to study: Beef farmer

Tweeter #3
Twitter handle: @Maryjanedunc
Date joined Twitter: April 27, 2013
Location: Saskatchewan
# of Followers: 908
# Following: 927
Relevance to study: Farmer (type of farming not specified)

Tweeter #4
Twitter handle: @PrinzhavenFarms
Date joined Twitter: December 4, 2012
Location: PEI
# of Followers: 398
# Following: 358
Relevance to study: Dairy Farm

Tweeter #5
Twitter handle: @LaurenDalyce
Date joined Twitter: October 6, 2012
Location: Ontario
# of Followers: 1,007
# Following: 982
Relevance to study: Agriculture field research assistant

Tweeter #6
Twitter handle: @tara_m_davidson
Date joined Twitter: August 8, 2012
Location: Saskatchewan
# of Followers: 1,698
# Following: 1,790
Relevance to study: Gelbvieh cattle breeder
Tweeter #7
Twitter handle: @Tara_L_Mc
Date joined Twitter: July 26, 2012
Location: Ontario
# of Followers: 316
# Following: 284
Relevance to study: Farmer’s wife and agriculture industry employee

Tweeter #8
Twitter handle: @jennenzie
Date joined Twitter: June 4, 2012
Location: Alberta
# of Followers: 481
# Following: 408
Relevance to study: Large animal veterinary student

Tweeter #9
Twitter handle: @amy_oxfordag
Date joined Twitter: May 3, 2012
Location: Ontario
# of Followers: 1,904
# Following: 1,814
Relevance to study: Agriculture communications and events

Tweeter #10
Twitter handle: @AAmmeter
Date joined Twitter: February 25, 2012
Location: Alberta
# of Followers: 941
# Following: 789
Relevance to study: Grain farmer and promoter

Tweeter #11
Twitter handle: @TerryDaynard
Date joined Twitter: February 12, 2012
Location: Ontario
# of Followers: 1,809
# Following: 564
Relevance to study: Grain farmer

Tweeter #12
Twitter handle: @JakeandEggs
Date joined Twitter: October 19, 2011
Location: Ontario
# of Followers: 756
# Following: 847
Relevance to study: Egg farmer

Tweeter #13
Twitter handle: @CdnCattlemen
Date joined Twitter: October 7, 2011
Location: Canada
# of Followers: 2,781
# Following: 146
Relevance to study: National agriculture organization

Tweeter #14
Twitter handle: @WheatPete
Date joined Twitter: April 28, 2011
Location: Ontario
# of Followers: 4,830
# Following: 190
Relevance to study: Provincial Cereal Specialist (Field crop)

Tweeter #15
Twitter handle: @MrFarmerD
Date joined Twitter: November 29, 2010
Location: Ontario
# of Followers: 1,610
# Following: 1,999
Relevance to study: Farmer (soy)

Tweeter #16
Twitter handle: @Dekalb_Canada
Date joined Twitter: September 29, 2010
Location: Canada
# of Followers: 3,439
# Following: 743
Relevance to study: National agriculture organization

Tweeter #17
Twitter handle: @AlbertaCanola
Date joined Twitter: April 23, 2009
Location: Alberta
# of Followers: 3,947
# Following: 656
Relevance to study: Alberta Canola Producers Commission

Tweeter #18
Twitter handle: @MBFarmJournal
Date joined Twitter: April 22, 2009
Location: Manitoba
# of Followers: 4,043
# Following: 2,372
Relevance to study: Agriculture news source

Tweeter #19
Twitter handle: @eekfarms
Date joined Twitter: March 2, 2009
Location: Ontario
# of Followers: 3,340
# Following: 3,651
Relevance to study: A Holland Marsh/vegetable farmer
Tweeter #20
Twitter handle: @shaunhaney
Date joined Twitter: July 25, 2008
Location: Alberta
# of Followers: 6,269
# Following: 4,785
Relevance to study: Founder of RealAgriculture.com and seedsman

Tweeter #21
Twitter handle: @Riley_f350
Date joined Twitter: November 20, 2011
Location: Manitoba
# of Followers: 399
# Following: 810
Relevance to study: Grain and oilseeds farmer

Tweeter #22
Twitter handle: @PEIPotatoes
Date joined Twitter: September 5, 2011
Location: PEI
# of Followers: 3,842
# Following: 2,251
Relevance to study: Prince Edward Island Potato Board

Tweeter #23
Twitter handle: @SeanCochrane1
Date joined Twitter: June 15, 2011
Location: Ontario
# of Followers: 689
# Following: 873
Relevance to study: Agronomist

Tweeter #24
Twitter handle: @Ken_Currah
Date joined Twitter: February 15, 2011
Location: Ontario
# of Followers: 1,656
# Following: 1,418
Relevance to study: Agronomist

Tweeter #25
Twitter handle: @hollyloucas
Date joined Twitter: August 8, 2012
Location: Ontario
# of Followers: 160
# Following: 69
Relevance to study: Soybean agronomist
Appendix E – Tweet breakdown by tweeter

Which tweeter are you?
Appendix F – Template questions

Survey questions

1) Which tweeter are you?
1- @DairyFarmher
2- @firstgenfarmer
3- @Maryjanedunc
4- @Prinzhaven Farms
5- @LaurenDalyce
6- @tara_m_davidson
7- @Tara_L_Mc
8- @jennenzie
9- @amy_oxfordag
10- @AAmmeter
11- @TerryDaynard
12- @JakeandEggs
13- @CdnCattlemen
14- @WheatPete
15- @MrFarmerD
16- @Dekalb_Canada
17- @AlbertaCanola
18- @MBFarmJournal
19- @eekfarms
20- @shaunhaney
21- @Riley_f350
22- @PEIPotatoes
23- @SeanCochrane1
24- @Ken_Currah
25- @hollyloucas

2) What day was tweet sent out?
1-Sunday; 2-Monday; 3-Tuesday; 4-Wednesday; 5-Thurs; 6-Fri; 7-Sat

3) What time was it sent out?
1-6:00-9:59 am; 2-10:00 am-1:59 pm; 3-2:00-5:59 pm; 4-6:00-9:59 pm; 5-10:00 pm-1:59 am; 6-2:00-5:59 am

4) What week was tweet sent out?
1-first full week of May 2014 (May 4-10); 2-first full week of June 2014 (June 1-7); 3-first full week of October 2014 (October 5-11)
5) What is the theme of the tweet?
1-tweet (personal)
2-tweet (business)
3-tweet (industry related)
4-tweet + photo (personal)
5-tweet + photo (business)
6-tweet + photo (industry)
7-public reply (personal)
8-public reply (business)
9-public reply (industry)
10-RT (personal)
11- RT (business)
12- RT (industry)
13- Other
(The use of links within the tweets/RT are not coded within this data; public replies only were recorded vs. private replies)

6) Was there a hashtag or multiple hashtags used in the tweet?
1 – yes
2 – no

7) What kind of interaction did the tweet receive?
1-Retweeted
2-Retweeted by multiple tweeters
3-Favorited
4-Favorited by multiple tweeters
5-Reply
6-Reply by multiple tweeters
7-No RT, favorite, or reply
*(More than one option available)
(Business is referring to anything to do with their specific place of work ex: farm; organization, etc.; RTs can include photos but more interested in the nature of the tweet -- are they RT for personal or business use?)
Appendix G – Tweet breakdown by theme

[Bar chart showing the breakdown of tweets by theme]

What is the theme of the tweet?
Works Cited


Karahan, F., & Kirtis, A. K. (2011). To be or not be in social media arena as the most cost efficient marketing strategy after the global recession. Procedia social and behavioral sciences, 24, 260-268. Retrieved from http://ac.els-cdn.com/S1877042811016119/1-s2.0-S1877042811016119-main.pdf?_tid=c257f790-9ff0-11e4-a632-00000aacb35e&acdnat=1421681893_e179888400c190f90b67336244a4a862


