Newspaper Content Analysis Bi-Annual Summary

May 2007 - October 2007

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INTRODUCTION

The intent of this analysis is to measure the exposure that a wide range of agri-food issues have gained in the media in Nova Scotia. Tracking this information over time will help to inform decision makers about which agri-food topics the public is exposed to. While the analysis does not measure public opinion, it does measure an important information component that will guide public opinion.

The analysis of the information gathered will provide additional quantitative insights not currently monitored.

SAMPLE FRAME

Agri-food newspaper articles printed in the Chronicle Herald newspaper are collected and analyzed.

Limiting the analysis to this newspaper was based on a decision to limit the resources necessary to gather this information but to still provide a representative picture of news that Nova Scotians are exposed to.

The Chronicle Herald’s average daily circulation of 105,000 is 80,000 higher than the second ranked Nova Scotian newspaper. It also caters to the increasing demand for electronic media with a full online edition.

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Figure 1 shows the total number of agri-food articles by month. On average, the coverage of agri-food topics was greater from May until the end of August (average 4.4 articles per day) than in September and October (3.2 articles per day).

The topics with the largest number of articles were: agri-food business (118 articles), food safety (78) and local food (68). Table 1 displays the top 5 issues (sub-topics) during each month of the analysis.

**May**

In May, the closure of the Moirs chocolate factory, TrentonWorks, and concerns over the fate of the Canso SeaFreeze plant ignited a large debate on the state of the Nova Scotian economy. Concerns over jobs moving to lower wage areas, foreign ownership and the ultimate effect on the economy resulted in 21 stories (articles, editorials, letters, columns and even a cartoon).

The proposed sale of Newfoundland-based Fishery Products International (FPI) Ltd assets also received attention in May, as did the Sobey Empire, with a
lengthy feature describing the company’s rise from a small, neighborhood grocery store to a major retail grocery power.

May saw the kick-off of the food safety concerns that would be a major topic in the news for months to come. In May, the mildly toxic chemical melamine was found in pet food imported from China. Since this scare, a large number of products, countries, and companies have been under increased scrutiny based on food safety concerns.

Table 1. Top 5 agri-food sub-topics by month

<table>
<thead>
<tr>
<th>Sub-topic and number of articles</th>
<th>May</th>
<th>June</th>
<th>July</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business closures</td>
<td>21</td>
<td>Digby neck quarry</td>
<td>6</td>
</tr>
<tr>
<td>Business sales</td>
<td>9</td>
<td>Business closures</td>
<td>4</td>
</tr>
<tr>
<td>Business spotlight</td>
<td>8</td>
<td>Agri-chemicals</td>
<td>4</td>
</tr>
<tr>
<td>Melamine</td>
<td>8</td>
<td>4 tied at*</td>
<td>3</td>
</tr>
<tr>
<td>Bluenose IV</td>
<td>4</td>
<td>Lobster stocks</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sub-topic and number of articles</th>
<th>August</th>
<th>September</th>
<th>October</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agri-chemicals</td>
<td>7</td>
<td>Chinese food safety</td>
<td>4</td>
</tr>
<tr>
<td>UK food safety</td>
<td>6</td>
<td>Trust agreement elimination (fish policy)</td>
<td>4</td>
</tr>
<tr>
<td>Chinese food safety</td>
<td>6</td>
<td>6 tied at**</td>
<td>3</td>
</tr>
<tr>
<td>Provincial exhibitions</td>
<td>5</td>
<td>Food spotlight</td>
<td></td>
</tr>
<tr>
<td>Business performance</td>
<td>4</td>
<td>2 tied at***</td>
<td></td>
</tr>
</tbody>
</table>

Notes
*Business sales, business performance, globalization, Nappan beef station
**Harvest, business closures, layoffs, NAFO reforms, agri-chemicals, infrastructure
***Business closures, bio-fuel

June

A major debate surrounding resource conflicts began in June, prompted by arguments over the pros and cons of a proposed rock quarry on Digby Neck. The jobs created would be a boon to the local economy, however concerns over lost tourism dollars and the potential adverse affects on the fishery complicated the overall economic impact.

The concern over business closures that occurred in May, received the second most attention of all agri-food topics in June.
The pesticide diazinon was identified as the likely cause of bird deaths in Digby County. Non-point source agricultural pollution was the likely cause.

**July**

Concerns over food imported from China continued in July and was the main agri-food topic covered during the month.

Second quarter performance of a variety of agri-food businesses were covered. The balance sheets of the two major food retailers in Nova Scotia were negatively affected by restructuring and increased debt levels.

The focus on the health effects of trans fats negatively affected a major operator of fast food chains.

The Select Nova Scotia campaign entered the public spotlight in July, and garnered mostly positive feedback.

**August**

The media coverage related to agri-chemicals was the main agri-food topic in August. The PEI river fish kills and concerns over forestry spraying and the effect on bees were the main issues.

Food safety concerns partially shifted away from China and onto the United Kingdom. This was due to a foot and mouth disease outbreak on a farm near a government laboratory researching vaccines for the disease. Exports of meat, livestock and milk from the UK were banned in response.

Concerns over China-produced food continued with the Chinese assuring the safety of their exports. The North American response was skeptical.

**September**

China’s product safety was again the top agri-food newsmaker in September. The country did make some positive steps during the month, setting up an agency to oversee export quality and signing a product safety agreement with the United States.

The proposed elimination of fishery trust agreements (in which fishermen were allowing individuals and companies to consolidate control of their licenses) was hotly debated during September. One group contended that the elimination of the agreements would lead to devalued licenses and an un-economical fishery,
while others argued the federal government’s position: that elimination of consolidation ultimately helped independent fishermen and coastal communities.

October

The Digby Neck quarry debate surged back into the public spotlight in October. An environmental review panel stated that the government should reject the project, which was a precedent-setting, all-out rejection of a project. The panel sited potential environmental and economic damage to fisheries and tourism outweighing the development benefits of the proposal.

The continued fisheries trust agreement elimination debate and the Valley pumpkin festival tied for the second most attention of agri-food topics.

A scoring system was devised to objectively rank the exposure of various agri-food topics between May and October, 2007 (see appendix). The score is based on the following components: # of articles, average images per article, size of article (measure by # of characters), and the average page number where the articles were printed.

The score is intended to measure the media exposure given to each agri-food topic. A high score indicates high exposure while a low score indicates less exposure. It is a more sophisticated measure of exposure than number of articles alone.

The sum of the monthly scores allowed the exposure between May and October to be calculated. All agri-food topics with aggregate scores above 15 are listed in Table 2.
Table 2. Media exposure of agri-food topics, May to October 2007

<table>
<thead>
<tr>
<th>Topic</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local food</td>
<td>41.58</td>
</tr>
<tr>
<td>Business</td>
<td>38.89</td>
</tr>
<tr>
<td>Food safety</td>
<td>34.84</td>
</tr>
<tr>
<td>Resource conflicts</td>
<td>29.69</td>
</tr>
<tr>
<td>Events</td>
<td>29.23</td>
</tr>
<tr>
<td>Healthy eating</td>
<td>27.12</td>
</tr>
<tr>
<td>Fisheries policy</td>
<td>24.99</td>
</tr>
<tr>
<td>Historic</td>
<td>21.15</td>
</tr>
<tr>
<td>Pollution</td>
<td>21.15</td>
</tr>
<tr>
<td>Environment</td>
<td>19.00</td>
</tr>
<tr>
<td>Food spotlight</td>
<td>18.41</td>
</tr>
<tr>
<td>Fish stocks</td>
<td>17.01</td>
</tr>
<tr>
<td>Food prices</td>
<td>16.24</td>
</tr>
<tr>
<td>Travel</td>
<td>15.28</td>
</tr>
<tr>
<td>Climate change</td>
<td>15.14</td>
</tr>
</tbody>
</table>

Local Food

As seen in Table 2, local food gained the highest score over the 6 months. Based on this scoring, local food had the most media exposure of all agri-food topics.

Local food ranked in the top 5 each month, but had the highest score in both August and September. The Select NS campaign, released in August pushed local food to the top of the rankings and was looked upon favourably by articles, columns, and reader letters during August. Questions surrounding the benefits of buying local, access issues and predictions that the program would actually hurt the economy, contributed to Select NS having a negative media slant in September.

Business

Of all major topics, agri-food business articles had the largest number of sub-topics and thus ranked high every month. Agri-food business had the highest score in both May and October and never ranked lower than 4th.

In May, the closure of the Moirs chocolate plant in Dartmouth, the recent closure of the Maple Leaf poultry plant in Canard, and the announcement that the SeaFreeze fish plant in Canso would not operate during the coming season were the agri-food contributions that, along with the closure of the Trenton Works rail
car plant, motivated an involved debate on Nova Scotia’s place within the global economy.

By October, coverage of agri-food business topics had become more positive, focusing on showcasing businesses such as the Masstown Market, Deli Green, Saraj Bakery, and Isle Madame Confections. The expansion of Cider House Co Ltd in Nova Scotia, as well as critique on Taco Bell’s attempt to re-enter the Mexican market also made headlines.

Food Safety

Food safety ranked 7th in both May and June before moving to 2nd in July and remaining in the top 5 through October.

The topic of food safety was introduced to public debate in May by Chinese manufactured pet food that contained melamine, a chemical used in the manufacture of plastics. Over the next six months, China would receive the bulk of media attention related to product safety of not only-agri food, but other consumer products as well. China was not alone however, as operations in the US, UK, Mexico, Thailand and Canada came under scrutiny.

Figure 2 shows the number of food safety articles, by month, between May and October. It is clear that coverage increased rapidly after the initial shock, and then subsided once the issue was perceived to have been dealt with.
The major sub topics that led to high exposure scores for the remaining agri-food issues in Table 2 are as follows:

- **Resource conflicts**
  - Effects of a proposed Digby Neck rock quarry on the local fishery, tourism and way of life.

- **Events**
  - Coverage of provincial exhibitions and the Valley Pumpkin Festival

- **Healthy eating**
  - Trans fat bans and removal from fast food menus.

- **Fisheries policy**
  - Northwest Atlantic Fisheries Organization reform meetings in Portugal
    - From July to September, there was considerable concern and criticism that competing nations would be able to cross into Canadian waters and decimate fish stocks on the Grand Banks. By October, however, the NAFO meetings were praised for pledging to reduce cod by-catch, freezing the environmental footprint of trawlers and getting tough on illegal fishing. The language was also cleaned up to ensure that the Canadian 200 mile limit would remain intact.

- **Historic**
  - Debate over whether a new Bluenose replica could be named the Bluenose III

- **Pollution**
  - Run-off of agricultural chemicals was blamed on a large fish kill in PEI's Dunk and Tryon rivers.
  - Concerns of bee-keepers and residents over the forestry herbicide Vision, which some woodlot owners had received approval to spray.

- **Environment**
  - No dominant sub-topic

- **Food spotlight**
  - No dominant sub-topic

- **Fish stocks**
  - Concerns over lobster stocks
• Food prices
  o Demand for corn for ethanol production elevated food prices, sparking debate.
  o High regional milk prices, and RiverBreeze Farm Market's decision to sell milk at the government price floor gained media attention.

• Travel
  o Wine region travel in British Columbia and Austria were featured.

• Climate change
  o The varied affects that climate change is having and could have on agriculture and the fisheries were discussed, from agricultural gains in Greenland, to famine in Africa

The slant or angle that the author gave to an article was captured during data collection. The slant could range from -100 (purely negative) to 0 (neutral) to 100 (purely positive).

The slant of the agri-food topics which received that highest exposure scores are displayed in Figure 3. Food prices and food safety received the most negative coverage, while food travel, agri-food events and local food received the most positive coverage.
Between May and October, unique and interesting agri-food articles were identified during data collection. Some of these articles are mentioned below.

*Food Crawl- El Puerto de Santa Maria, Spain*

Instead of moving from bar to bar, tourists move from restaurant to restaurant, sampling an abundance of small seafood dishes.

*Bio-medical company locates in Mabou, Cape Breton*

Chad Munro, president of Halifax Biomedical chose the village of Mabou as base for a “think-tank for intellectual property development.” He chose Mabou because he wanted a location that would “appeal to a certain subset of medical development professionals.” This is an excellent example of the economic benefits of preserving natural amenities.
Diet as a cultural treasure

Spain began a push to have the Mediterranean diet of olive oil, fish and vegetables recognized by UNESCO on a list of aspects of cultural heritage. If successful, it would be the first diet to be listed.

Hook and line marketing

In July, Nova Scotia fish processor Alyssa Foods began to market fish caught solely by hook and line. This marketing targets “conscious consumers” and differentiates fish caught in this manner from those caught using more environmentally damaging methods such as trawling. The fish are sold through Home Grown Organic Foods in Halifax and command a six to seven dollar per pound premium. There is demand for sustainable, high-quality seafood in export markets such as the US.

Green weddings

Environmentally friendly weddings, featuring local and organic vegetables, sustainably caught fish, and other eco-friendly initiatives are catching on. This is turning into a lucrative business opportunity, riding the trend of environmental consciousness

www.organicweddings.com   www.organiccaterers.com

Travelocity attention

The Pictou Lobster Carnival received attention from online trip booking company Travelocity. It was named as one of 25 Local Secret Big Finds in Canada.

Pricey pork

Manuel Moldonado of Spain raises free range pigs, feeding them acorns and then curing the meat for 2 years after slaughter. Not the lowest cost pork production to be sure, but the inefficiencies are made up for on the revenue side: US $2,100 a leg or $0.32 per gram!

Wurstfest

New Braunfels, Texas wanted to increase business in town with a one day “Sausage Festival”. That was 1961, and now “Wurstfest”, a 10-day festival,
draws between 125,000 to 200,000 visitors to the region. A shining example of agri-tourism bringing dollars into the local economy.

*Restorative justice gardening*

Missouri’s Southeast Correctional Centre project has been running for five years. Prison inmates spend time tending to chemical-free gardens, the produce of which goes to schools, senior’s centres and non-profits. Offenders typically feel remorseful for their crimes and feel good about the opportunity to give something back to society, according to an official. The 40-hour program has a waiting list of 200 inmates.

**SUMMARY**

This report summarizes the exposure that agri-food related topics have received in the major newspaper of Nova Scotia between May and October, 2007. Opportunities and threats for existing and proposed agri-food ventures are alluded to in this analysis. An issue’s attainment of high media exposure, or lack thereof, over extended periods of time, as well as the slant that an issue is given, is important information to note by stakeholders.

Articles related to agri-food business were most common, followed by articles on food safety, local food, resource conflicts and fishery policy.

A scoring system was devised to rank exposure of agri-food topics based on total number of articles, number of images, size of article, and page number. Local food received the highest score, followed by business, food safety, resource conflicts and events.

Agri-food travel, events, and local food received very positive exposure in the media. Food safety, food prices, and resource conflicts received negative exposure.
### Scoring system

The following variables and their hypothesized impact on the probability of an agri-food topic being noticed by a reader were factored into the scoring system.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Hypothesized impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of articles</td>
<td>+</td>
</tr>
<tr>
<td>Number of images (pictures, tables etc.)</td>
<td>+</td>
</tr>
<tr>
<td>Number of characters</td>
<td>+</td>
</tr>
<tr>
<td>Page published</td>
<td>-</td>
</tr>
</tbody>
</table>

At the completion of each month, data for these four variables were tabulated for each agri-food topic. The topics were ranked in each variable. An example shows how rank scores are determined:

<table>
<thead>
<tr>
<th>Topic</th>
<th># articles</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local food</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>Environment</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Business</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Fish policy</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Food prices</td>
<td>6</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic</th>
<th># characters</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local food</td>
<td>3123</td>
<td>5</td>
</tr>
<tr>
<td>Environment</td>
<td>2789</td>
<td>4</td>
</tr>
<tr>
<td>Business</td>
<td>2321</td>
<td>3</td>
</tr>
<tr>
<td>Fish policy</td>
<td>1679</td>
<td>2</td>
</tr>
<tr>
<td>Food prices</td>
<td>789</td>
<td>1</td>
</tr>
</tbody>
</table>

Of course, there are more unique values for # of characters than for the other variables and therefore ranking first in a category with more unique scores would contribute more to the final score than ranking first in a variable with few unique values. To standardize the rank scores, the scores were weighted by the following formula (10/high rank). The standardized scores from above are converted to:
With standardized rank scores for all four variables the final exposure score was calculated. The equation used to derive an exposure score is shown below. Number of articles was hypothesized to be the most important component of an agri-food topic’s exposure during each month and received the highest weight in the equation (0.5). This was followed by average number of images (0.2 weight). Finally, the average size of articles in a topic area (measured by # characters) and the average page # that a topic’s articles were published received weights of 0.1.

\[
\text{Score}_{ij} = \text{Article}_{ij} \times \text{Standardized rank} \times 0.5 + \text{Images}_{ij} \times \text{Standardized rank} \times 0.2 + \text{Page}_{ij} \times \text{Standardized rank} \times 0.1 + \text{Characters}_{ij} \times \text{Standardized rank} \times 0.1
\]

Where,

Article\(_{ij}\) = total number of articles for agrifood topic i in month j
Images\(_{ij}\) = average number of images per article for agrifood topic i in month j
Page\(_{ij}\) = average page number\(^3\) for articles in agrifood topic i in month j
Characters\(_{ij}\) = average number of characters per article for agrifood topic i in month j

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\(^3\) Calculated as section + pg. So an article on section C, pg 5 would receive a score of 3+5=8.