

The Canadian Centre for Food Integrity's

Insight Report



EXECUTIVE SUMMARY

HIGHLIGHTS FROM THE YEAR

- Editorial mentions decreased 13%
- Potential reach decreased 40%
- Antibiotics net tonality did not change

Editorial Mentions

The number of appearances in articles

2.5k ▼18%

Potential Reach

Approximate number of article views you appeared in

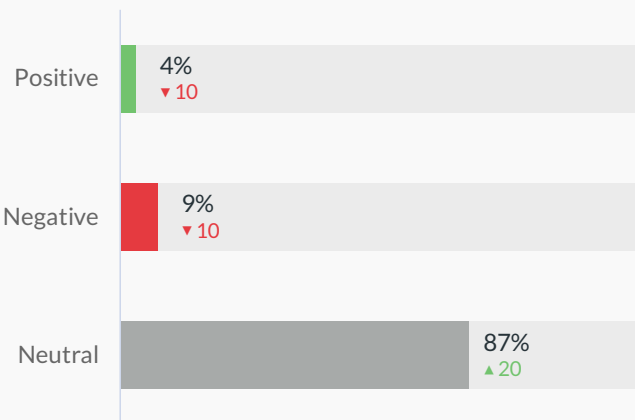
766M ▼60%

Net Tonality Score

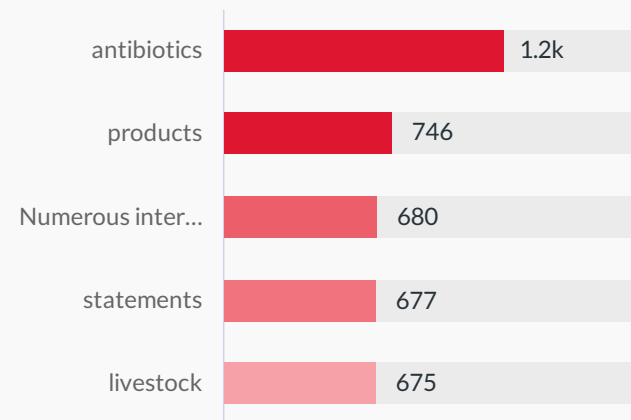
The net change (up or down) in sentiment over the time period

-5 ▶0

TONALITY



KEY MESSAGES



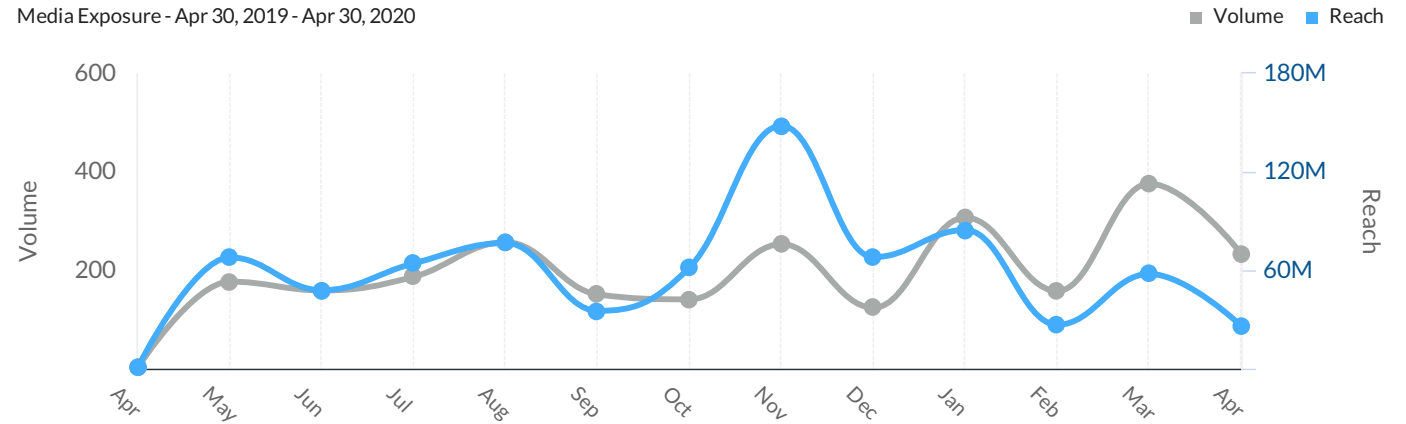
MEDIA EXPOSURE

HIGHLIGHTS FROM THE YEAR

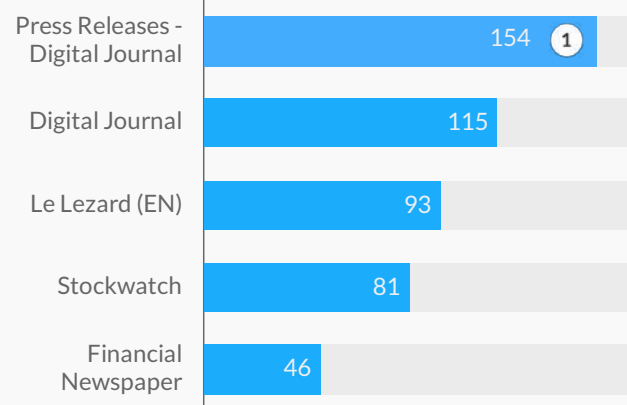
- **1** "Press Releases - Digital Journal" overtook "Digital Journal" as Top Publisher in this period
- Overall reach decreased 60%
- "Press Releases - Digital Journal" accounted for 31% of volume, followed by "Digital Journal" with 24% share

Antibiotics exposure increased 77%

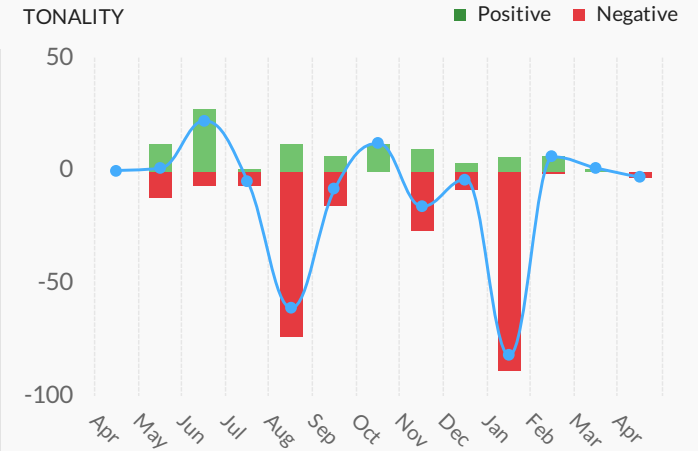
Media Exposure - Apr 30, 2019 - Apr 30, 2020



TOP PUBLICATIONS



TONALITY



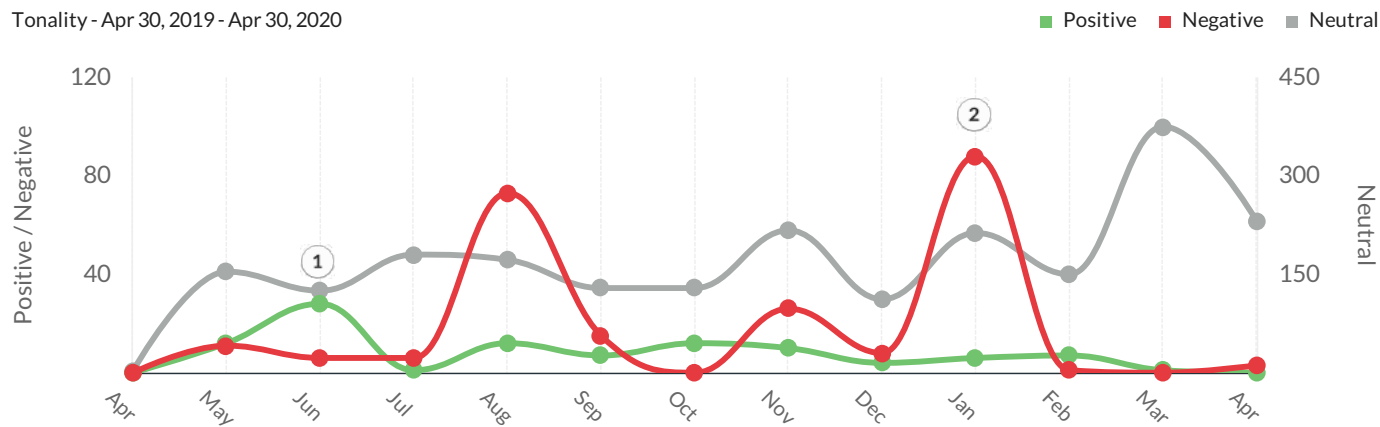
TONALITY

HIGHLIGHTS FROM THE YEAR

- **1** June had the highest volume of 28 positive articles, rising 133%
- **2** January had the highest volume of 88 negative articles, spiking by a factor of 10
- "CBC.CA News", with 9.4M reach, drove positive sentiment in an article titled "[Guelph students win international award for antibiotics biosensor for animal pro...](#)"

Antibiotics net tonality decreased 14 points

Tonality - Apr 30, 2019 - Apr 30, 2020



ARTICLES WITH MOST IMPACT

CBC.CA News | Nov 13

Guelph students win international award for antibiotics biosensor for animal pro...

Students at the University of Guelph have won gold at the International Genetic Engineering Competition (iGEM) for creating an biosensor that can detect antibiotics in animal products like milk and ho...

Reach 9.4M ● Positive



Global News | Nov 14

CDC estimates antibiotic-resistant infections kill 35,000 Americans per year

Nearly twice as many people are dying in the United States from antibiotic-resistant infections than previously believed, U.S. health officials said on Wednesday, as so-called "superbugs" alarm expert...

Reach 11.5M ● Negative

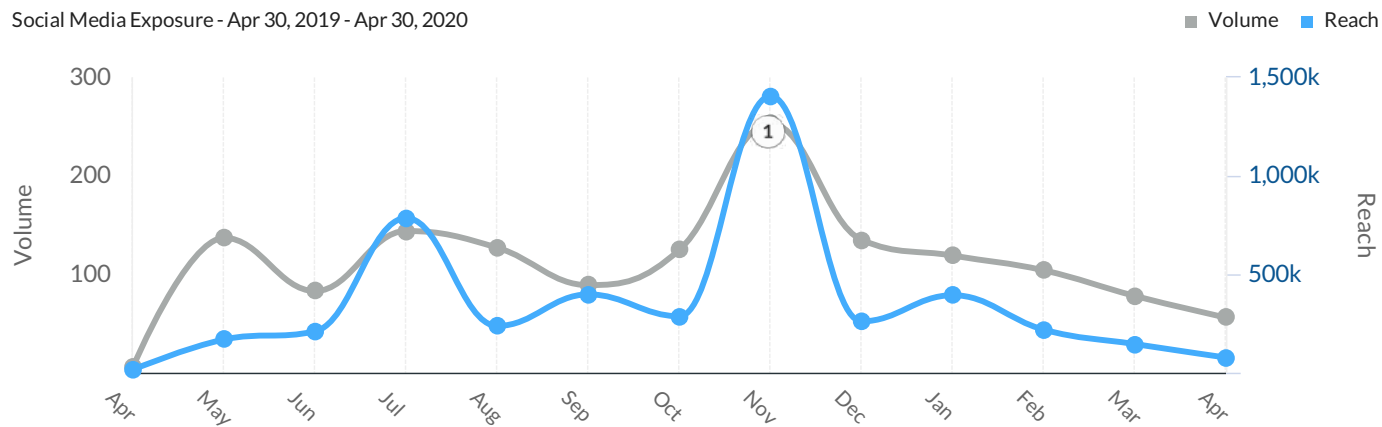
SOCIAL MEDIA EXPOSURE

HIGHLIGHTS FROM THE YEAR

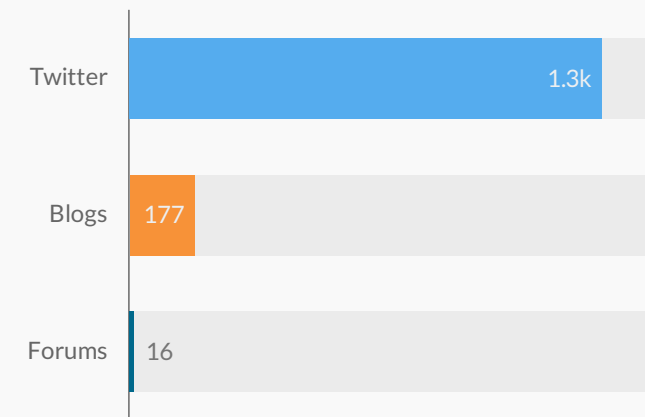
- 1 Social volume peaked in November at 253
- Twitter accounted for 87% of social volume, followed by Blogs with 12% share

Antibiotics Social Media Exposure

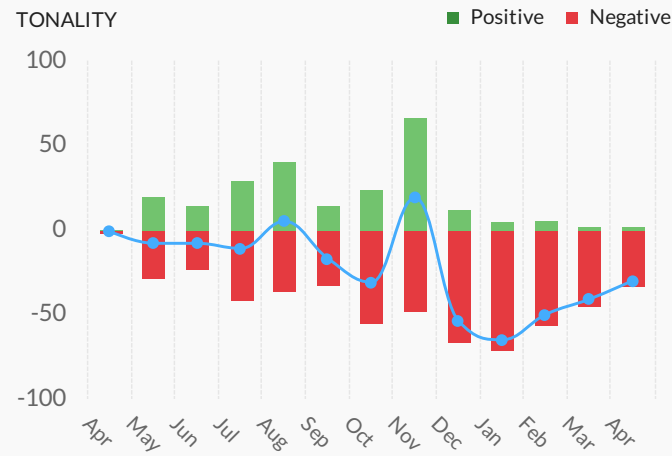
Social Media Exposure - Apr 30, 2019 - Apr 30, 2020



SOCIAL CHANNELS



TONALITY



TOP ARTICLES

HIGHLIGHTS FROM THE YEAR

- The top 25 articles combined for a total reach of 202M
- The sentiment was predominantly negative in the top articles with high reach

Canada.ca had the largest reach of 22.8M

Top Articles - Apr 30, 2019 - Apr 30, 2020

Canada.ca | May 24

Government of Canada invests in the poultry sector to drive innovation and growth

May 24, 2019 - Montreal, Quebec - Agriculture and Agri-Food Canada Today, Minister of Agriculture and Agri-Food Marie-Claude Bibeau toured ...

Reach 22.8M ● Neutral



Global News | Nov 14

CDC estimates antibiotic-resistant infections kill 35,000 Americans per year

Nearly twice as many people are dying in the United States from antibiotic-resistant infections than previously believed, U.S. health offici...

Reach 11.5M ● Negative



Global News | Oct 23

Not washing hands after pooping is spreading E. coli 'superbug': study

Not washing your hands after going to the bathroom helps the transmission of an E. coli superbug, even more than consuming undercooked meat ...

Reach 11.1M ● Neutral



The Conversation Canada | Mar 25

Lab-grown meat could leave marginalized people in need

In the climate crisis era, one of the most revolutionary options to create more sustainable foods is lab-grown meats. These are meat product...

Reach 10.9M ● Neutral

GEO PRESENCE

HIGHLIGHTS FROM THE YEAR

Ontario and Alberta had the most coverage



TOP STATES/REGIONS

Ontario	31%	▲ 18	Nova Scotia	0%	▶ 0
Alberta	10%	▲ 5	Prince Edward Island	0%	▶ 0
British Columbia	7%	▼ 9	Quebec	0%	▼ 1
Manitoba	2%	▶ 0	New Brunswick	0%	▶ 0
Saskatchewan	2%	▼ 1			

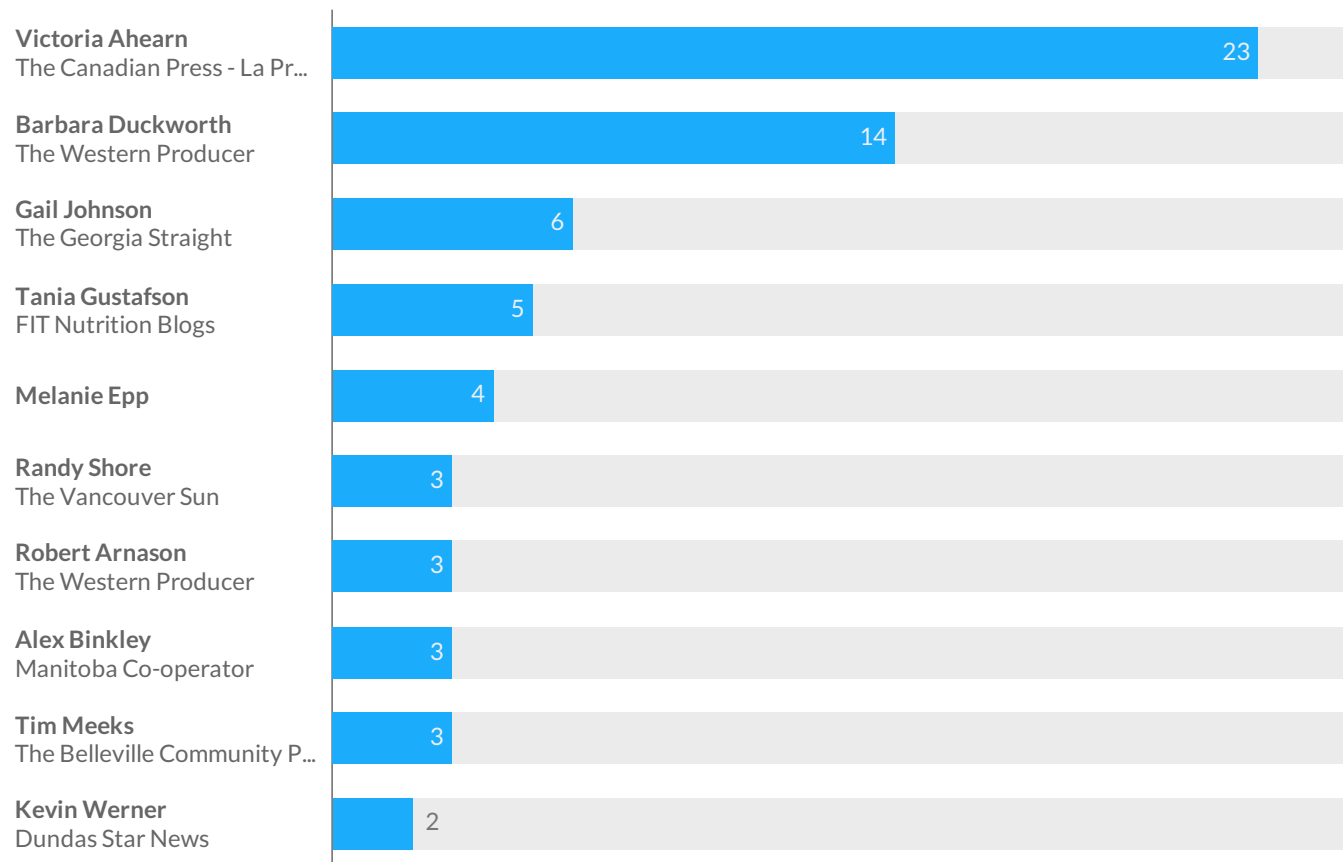
TOP INFLUENCERS

HIGHLIGHTS FROM THE YEAR

- The Western Producer, Farmtario, and The Georgia Straight had the most representation among the top 25 Influencers
- The 3 most popular beats among the Influencers are Agricultural policy, Agricultural economics, and Wellness
- The top 3 Influencers accounted for 51% of the volume among the 25 highest Influencers

Top News Influencers

Top Editorial Influencers by Volume - Apr 30, 2019 - Apr 30, 2020



WORD CLOUD

HIGHLIGHTS FROM THE YEAR

- "antibiotics" (1.2k)
"products" (746)
"Numerous international livestock trials" (680)
- The above 3 keywords covered 20% of the mentions across the top 25

Popular Key Words in the News

Word Cloud - Apr 30, 2019 - Apr 30, 2020

life sciences corporation growth promoters public corporation
beta™ Livestock Avivagen discoveries
Numerous international livestock trials
TSX Venture Exchange antibiotics Avivagen Inc.
health and growth feed antibiotics
"Corporation" statements products animals
business livestock Avivagen
Canada livestock, companion animal and human applications

WORD CLOUD

HIGHLIGHTS FROM THE YEAR

- "food" (145)
"animal" (130)
"humans" (75)
- The above 3 keywords covered 33% of the mentions across the top 22

Popular Key Words on Social Media

Word Cloud - Apr 30, 2019 - Apr 30, 2020



ANTIBIOTICS

INSIGHT REPORT Backgrounder

To effectively communicate and connect with Canadians on tough topics in agriculture and food, the individuals and organizations disseminating the message need to be well-informed and viewed as credible. The following backgrounder will provide accurate, shareable information about antimicrobial resistance and antibiotic use in Canada. Whether you need to explain antibiotics in a 30-second elevator speech, develop a marketing strategy for campaigns in 2020 or want to be up to date about this topic yourself – this report is for you. We can all work to share a unified, trustworthy message and enable Canadians to make their own educated choices.

KEY MESSAGES:

1. Just like humans and family pets, **farm animals need antibiotics when they become sick** and show symptoms of an illness or disease.
2. Canadian **farmers work diligently to provide farm animals with the resources for optimal health** such as proper nutrition, clean water, vaccinations, and biosecurity.
3. People involved in various aspects of animal health are working to execute a **whole systems approach to slow antimicrobial resistance and decrease the need for antibiotics**.
4. In Canada, the CFIA **analyzes thousands of food samples annually, including monitoring for drug residues, to ensure that all safety regulations are strictly upheld**, and our food supply is safe.
5. **Antimicrobial resistance is when a medication no longer works** because the microorganism that is supposed to be killed – develops resistance, and the ability to survive the antibiotic treatment.

Tweets to Share

Include eye-catching graphics or funny video clips to engage your social audience.

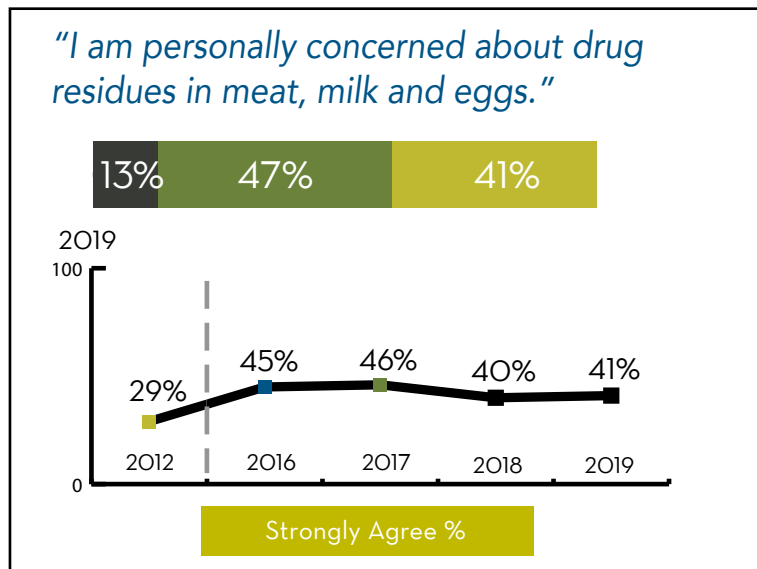
Did you know the @CFIA_Animals tests thousands of samples annually to ensure your food is safe?

What is antimicrobial resistance? Simply - it is when a medication no longer works for that specific microorganism. For more, visit @Health4Animals.

Just like you, your significant other and your family – animals need antibiotics when they get sick. Check out @cahi_icsa for more information.

PUBLIC TRUST RESEARCH

In 2019, we asked Canadians to evaluate how concerned they were with drug residues in meat, milk and eggs. Over 40% of consumers voted to say they were strongly concerned.



Stay tuned!

Our 2020 research will do a deeper dive into this topic.

WHY DO WE NEED ANTIBIOTICS?

Canadian farmers work diligently to provide farm animals with the resources for optimal health such as proper nutrition, clean water, vaccinations, and biosecurity. Even with health protocols in place, and adherence to recommended management practices and regulations, farm animals can get sick and require antibiotics for treatment and recovery.

Antibiotics are part of a larger group of medicines called antimicrobials which are used to slow the growth of or kill bacteria that cause infections and illnesses in humans and animals.² These health products aid in the treatment, control and prevention of bacterial diseases.³

Simply put - just like humans and family pets, farm animals need antibiotics when they become sick and show symptoms of an infection or illness. Without antibiotics, an animal suffering from a bacterial infection will experience a decline in quality of life until these important medications are used to return them to a healthy state.

HEALTH AND SAFETY OF CANADIAN FOOD

Regulatory bodies such as the Canadian Food Inspection Agency (CFIA), Health Canada and the Government of Canada work to develop, support and enforce regulations that keep food healthy and safe for all Canadians. In order to get an animal medication on the market, the product must meet a long list of stringent requirements set by the federal government.⁷ For example - experts assess that the product is effective, does not harm the environment, and is safe for the animal and the administrator.⁷

An important component of this process is understanding the withdrawal time needed for each specific medication and farm animal. Withdrawal time is the minimum time lapse between the treatment of an animal using antibiotics and when it can safely enter the food chain.⁶

Part of keeping food safe is setting limits at which drug residues in food derived from animals do not have an impact on consumer's health, these are known as Maximum Residue Levels, or MRLs.⁶ The determination of an MRL utilizes a precautionary approach and is often thousands of times lower than the level at which a medicine would have an impact on human health.⁶ All products that are available to farmers and veterinarians must undergo this regulatory approval process which can take up to 10 years.⁶

In Canada, the CFIA analyzes thousands of random samples annually to ensure that all regulations are being strictly upheld.⁵ If there are residues in the food product that exceed the MRLs, the food does not enter the food chain and an investigation is conducted into the cause of the event.⁶

WHAT IS ANTIMICROBIAL RESISTANCE?

One of the concerns with using antibiotics for farm animals is the potential to build antimicrobial resistance and reduce effectiveness when treating infections in humans. Antimicrobial resistance is when a medication no longer works because the microorganism that it is supposed to kill - develops resistance, the ability to survive and continues to replicate in the presence of the antibiotic.¹

There are several processes put in place by industry experts with government support to mitigate the development of antimicrobial resistance. In 2018, Canada implemented a system that sorts each antimicrobial into a category depending on their importance to the human health care system.³ There are four categories, each with a different level of importance and usage regulations. The animal health care system uses these categories to define restrictions and develop protocols for antibiotic use with farm animals.

People involved in various aspects of animal health are working to execute a whole systems approach to slow antimicrobial resistance. The 5 Principles developed by [Health for Animals](#) encourages the use of the full spectrum of animal health tools with the goal of reducing the need for antibiotic use. For more information, check out [Roadmap to Reducing the Need for Antibiotics](#).






	Principle 1:	Protect animal health and welfare in a unified One Health approach
	Principle 2:	Use antibiotics judiciously and responsibly
	Principle 3:	Promote disease prevention and increased access to products and expertise
	Principle 4:	Invest in development of products for prevention and treatment
	Principle 5:	Increase knowledge, transparency and communication

Figure 1. Roadmap to Reducing the Need for Antibiotics (2019). *Health for Animals*.

WHAT'S NEXT?

You have learned about antibiotics and antimicrobial resistance – now what? It's time to share the information with your friends, family and all Canadian consumers.

This is a complicated topic with acronyms and technical language that even people involved in animal agriculture can struggle to remember. When you are trying to connect with the people around you, start with shared values. "Remember when you had that painful tooth ache or when your mom had pneumonia – antibiotics were critical. It's the same thing when an animal on the farm gets a severe cut on their leg – they need antibiotics to ensure animal welfare and get them back to optimal health". Antibiotics help animals stay healthy, allow the industry to be more sustainable and with the strict protocols in place – keep food safe and affordable.

By using personal stories, concrete examples and simple language – the chances of connecting with your audience significantly increases. The goal is not to leave out information or 'dumb-it-down' so that it loses its integrity – it is about providing resources and creating an open dialogue with the people that keep our food system in business.

DID YOU KNOW?

For one antibiotic used for pigs – if a consumer ate the equivalent of 5 whole pigs per day for everyday of their life, the residue levels would still be below the observable adverse effect level.⁶

A consumer would need to drink 7500L of milk everyday for their entire life to approach the 'no observable adverse effect level' for a veterinary medicine used to treat an illness in a cow.⁶

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3. Categorization of Antimicrobial Drugs Based on Importance in Human Medicine (2009). *Government of Canada*. Retrieved from <https://www.canada.ca/en/health-canada/services/drugs-health-products/veterinary-drugs/antimicrobial-resistance/categorization-antimicrobial-drugs-based-importance-human-medicine.html>
4. Roadmap to Reducing the Need for Antibiotics (2019). *Health for Animals*. Retrieved from <https://cahi-icsa.ca/uploads/userfiles/files/Roadmap%20to%20Reducing%20the%20Need%20for%20Antibiotics%20July%202019.pdf>
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7. We Are Strictly Regulated (2020). *Canadian Animal Health Institute*. Retrieved from <https://cahi-icsa.ca/we-are-strictly-regulated>