# RESPONSIBLE ANTIMICROBIAL USE

VERSION 2.0



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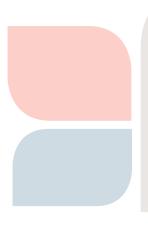
ANIMAL NUTRITION ASSOCIATION OF CANADA CANADIAN HATCHERY FEDERATION CANADIAN HATCHING EGG PRODUCERS CANADIAN POULTRY AND EGG PROCESSORS COUNCIL CHICKEN FARMERS OF CANADA CANADIAN ASSOCIATION OF POULTRY VETERINARIANS TURKEY FARMERS OF CANADA

#### EXECUTIVE SUMMARY

THE USE OF ANTIMICROBIALS IN BOTH HUMAN MEDICINE AND AGRICULTURE AND THEIR IMPACT ON ANTIMICROBIAL RESISTANCE HAS RECEIVED SIGNIFICANT ATTENTION AND IS NOW A KEY GLOBAL ISSUE.

Antimicrobial resistance is a complex issue, as demonstrated by ongoing research on its causes. The Canadian poultry industry is implementing a sector-wide strategy to control, monitor and reduce antimicrobial use where possible to preserve effective treatment options. The continued availability of antimicrobials is important to safeguard poultry health and welfare.

RESPONSIBLE ANTIMICROBIAL USE IN THE CANADIAN CHICKEN AND TURKEY SECTORS



#### THE POULTRY INDUSTRY IS PROACTIVELY MANAGING ANTIMICROBIAL USE BY IMPLEMENTING A SECTOR-WIDE STRATEGY TO PROVIDE CONTINUED CONFIDENCE TO CONSUMERS AND GOVERNMENT.

The intent is to demonstrate that antimicrobial use in the poultry industry is responsible and is being managed appropriately and safely. In fact, using antimicrobials in a responsible manner is the responsibility of all individuals that use them – both within human medicine and within agriculture.

The sector-wide strategy includes:

- 1. Defining antimicrobial use and analyzing antimicrobial resistance trends,
- 2. Reviewing best management practices,
- 3. Ensuring effective controls of antimicrobial use in Canada,
- 4. Researching and determining the availability of alternative products and
- 5. Educating stakeholders on the issues of antimicrobial use and resistance.

These components are described in greater detail within this document.

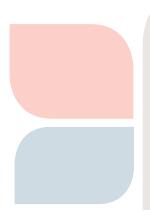
The poultry industry's strategy reflects the objectives of the Antimicrobial Resistance and Use in Canada: A Federal Framework for Action that was released by the federal government in October 2014.

## DEFINING ANTIMICROBIAL USE AND ANALYZING ANTIMICROBIAL RESISTANCE TRENDS

WHILE LEVELS OF ANTIMICROBIAL RESISTANCE ARE MONITORED THROUGH THE CANADIAN INTEGRATED PROGRAM FOR ANTIMICROBIAL RESISTANCE SURVEILLANCE (CIPARS), THE EXACT SOURCES OF THAT ANTIMICROBIAL RESISTANCE ARE MORE COMPLICATED TO DETERMINE.

In order to properly understand and interpret antimicrobial resistance, appropriate information on potential sources of antimicrobial resistance is needed.

RESPONSIBLE ANTIMICROBIAL USE IN THE CANADIAN CHICKEN AND TURKEY SECTORS



TO THIS END, THE CANADIAN CHICKEN, TURKEY, BREEDER AND HATCHERY SECTORS HAVE WORKED IN CONJUNCTION WITH CIPARS OF THE PUBLIC HEALTH AGENCY OF CANADA TO DEVELOP AND IMPLEMENT AN ON-FARM SURVEILLANCE PROGRAM TO MONITOR ANTIMICROBIAL USE AND RESISTANCE.

Additionally, the Canadian Hatchery Federation collects usage information from their hatchery members who voluntarily submit information quarterly.

These surveillance programs, along with a collaborative information-sharing group between government and industry, will provide further insight into antimicrobial use and resistance in the Canadian poultry industry. In turn, this will help the poultry industry determine future antimicrobial policies.

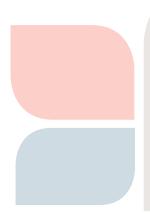
These studies are important as there are many variables that may influence antimicrobial resistance. These include the stage at which antimicrobials are used (e.g. by farmers or by hatcheries), the degree of vertical transmission, and the impact of importation (i.e., a significant amount of poultry breeding stock, and 21% of broiler hatching eggs, day-old chicks, as well as turkey poults are imported from the United States). Other variables include cross-contamination from environmental sources, humans, inputs to the growing process or crossresistance from other antimicrobial or non-antimicrobial products. Research may uncover other variables as well.

#### **REVIEWING BEST MANAGEMENT PRACTICES**

THE CANADIAN POULTRY INDUSTRY HAS IMPLEMENTED HAZARD ANALYSIS CRITICAL CONTROL POINT (HACCP) AND HACCP-BASED PROGRAMS. HACCP IS MANDATORY AT ALL FEDERAL PROCESSING PLANTS AND HAS BEEN IMPLEMENTED AT A SIGNIFICANT NUMBER OF COMMERCIAL FEED MILLS AND HATCHERIES.

On the farm, the poultry industry has implemented HACCP-based On-Farm Food Safety Assurance Programs. Each of the national poultry associations' On-Farm Food Safety Programs are at various stages – from Technical Recognition (Part I) through to Full Recognition - of the federal, provincial and territorial governments' recognition program, as led by the Canadian Food Inspection Agency (CFIA).





These HACCP and HACCP-based programs, which outline best management practices, involve regular reviews resulting in continuous improvement.

Antimicrobial availability and use is an important tool in protecting the health and welfare of flocks and these programs help support responsible on-farm use in consultation with veterinarians. Among other benefits, these food safety programs support improved flock health and reduce disease pressures.

The chicken sector also worked collaboratively with the federal, provincial and territorial governments' Pathogen Reduction Initiative, which included baseline pathogen surveys through the supply chain from farm to retail and industry interventions.

AS A MEANINGFUL STEP TO REDUCING THE USE OF ANTIBIOTICS OF CRITICAL IMPORTANCE TO HUMANS, THE CANADIAN POULTRY INDUSTRY PROACTIVELY DECIDED TO WITHDRAW THE PREVENTIVE USE OF CATEGORY 1 ANTIBIOTICS IN COMMERCIAL MEAT BIRDS (CHICKEN AND TURKEY), LAYERS AND BREEDERS AS OF MAY 2014 AND IN PARENT BREEDER CHICKS AND POULTS AS OF MAY 2015.

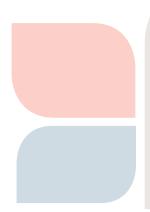
This policy is a mandatory element of the national on-farm food safety programs and demonstrates the poultry industry's commitment to reducing antibiotic use.

Preparing for this goal and garnering industry support required a substantial education effort of farmers, hatcheries, feed mills and veterinarians across the country. Good production practices and biosecurity are regularly reinforced to ensure birds stay healthy.

## ENSURING EFFECTIVE CONTROLS OF ANTIMICROBIAL USE IN CANADA

INDUSTRY SUPPORTS THE FEDERAL OVERSIGHT OF ALL ANTIMICROBIAL APPROVALS. THE FEDERAL GOVERNMENT HAS REGULATORY AUTHORITY FOR APPROVING ANTIMICROBIAL PRODUCTS, USE INDICATIONS AND FOR MONITORING ANTIMICROBIAL USE IN THE POULTRY SECTOR.

Health Canada, through the Veterinary Drugs Directorate (VDD), is responsible for the evaluation, approvals and oversight of veterinary antimicrobials. The CFIA is responsible for monitoring antimicrobial residues in food and antimicrobial use, while the Public Health Agency of Canada (PHAC), through CIPARS, performs surveillance to assess antimicrobial resistance trends. The poultry industry reports antimicrobial use to CFIA veterinarians at processing as required by CFIA regulations.



These coordinated government networks provide for integrated oversight throughout the entire food stream, from approval through to use. As with any system, the antimicrobial control system in Canada is under continuous improvement to ensure that the best system is in place. To this end, the Canadian poultry industry developed a set of responsible use guidelines. These guidelines complement the pre-exisiting protocols of the poultry sectors' On-Farm Food Safety Programs and of the Canadian Veterinary Medical Association's responsible use guidelines.

These guidelines incorporate disease diagnosis, veterinary recommendation, support from the Canadian Global Food Animal Residue Avoidance Database (CgFARAD) and focus on eliminating inappropriate use of antibiotics. CgFARAD is the national body that reviews all extra-label drug use in poultry and other livestock and provides recommendations for sufficient drug withdrawal times before meat is available for human consumption.

The VDD of Health Canada is leading several initiatives to increase the oversight of antibiotics and the manner in which antibiotics are used in Canada, with an implementation timeline of December 2016.

THE CANADIAN POULTRY INDUSTRY SUPPORTS THE EFFORTS OF THE VDD TO REMOVE ALL GROWTH PROMOTION CLAIMS FROM MEDICALLY IMPORTANT ANTIBIOTICS, AS WELL AS THEIR EFFORTS TO STOP THE "OWN-USE" IMPORTATION OF MEDICALLY IMPORTANT ANTIBIOTICS AND ACTIVE PHARMACEUTICALS. IN ADDITION, THE CANADIAN POULTRY INDUSTRY IS WORKING WITH THE VDD ON THE DIRECTORATE'S INITIATIVE TO INCREASE THE VETERINARY OVERSIGHT OF ANTIBIOTICS DELIVERED VIA FEED AND WATER.

### RESEARCH AND AVAILABILITY OF ALTERNATIVE PRODUCTS

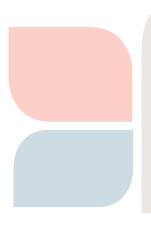
#### THE INDUSTRY CONTINUES TO SEARCH FOR INNOVATIVE ALTERNATIVES TO ANTIBIOTICS SUCH AS PROBIOTICS, PREBIOTICS, BROODING MANAGEMENT AND VACCINATIONS.

The Canadian poultry industry understands the value of research and has invested over \$3.2 million through the Canadian Poultry Research Council (CPRC), which has been matched by government and other agencies at a ratio of 5:1 to a level of over \$16 million. Nearly half of this research funding has been directed towards gut health, development of vaccines, understanding the impact of pathogens and antibiotic alternatives. Research, innovation and the use of new products are integral to the poultry sector.

USING INTERNATIONAL EXPERIENCE, CANADA NEEDS TO HARMONIZE AVAILABILITY OF VACCINES AND FEED ADDITIVES THAT HAVE BEEN APPROVED INTERNATIONALLY. IT IS IMPORTANT TO ENSURE THAT CANADIAN FARMERS HAVE ACCESS TO SIMILAR PRODUCTS REGISTERED IN OTHER JURISDICTIONS. THIS IS A MATTER OF COMPETITIVENESS AND OF HARMONIZATION, WHICH FURTHER ENABLES RESPONSIBLE USE OF ANTIMICROBIALS.

To this end, the poultry sector is participating in the modernization of the Canadian Feeds Regulations, led by the CFIA, with the objective of developing a risk-based approval process that would allow for easier registration of feed additives. Alternately, Canada could examine facilitating the approval of products that have already been approved in other jurisdictions.

These actions will help ensure Canada is at the forefront of research and product availability.



## EDUCATING CONSUMERS AND STAKEHOLDERS ON THE ISSUES OF ANTIMICROBIAL USE AND RESISTANCE

#### THE POULTRY INDUSTRY COMMUNICATES WITH CONSUMERS AND INDUSTRY STAKEHOLDERS THROUGH A VARIETY OF METHODS TO DELIVER MESSAGES REGARDING ANTIMICROBIAL USE AND RESISTANCE.

For instance, the poultry sector has developed user-friendly resources to help consumers understand the issues of antibiotic use and resistance and key steps that can be taken to mitigate any potential issues (e.g. www.chicken.ca, www.turkeyfarmersofcanada.ca, and www.befoodsafe.ca).

The poultry sectors have also provided training and education to industry stakeholders to keep them informed of on-going initiatives and the role that they can play in using antibiotics responsibly.



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