Responsible Antimicrobial Use
AND THE CANADIAN CHICKEN SECTOR

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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
Executive Summary

THE USE OF ANTIMICROBIALS IN BOTH HUMAN MEDICINE AND AGRICULTURE AND THEIR IMPACT ON ANTIMICROBIAL RESISTANCE HAS RECEIVED SIGNIFICANT ATTENTION OVER THE PAST SEVERAL DECADES.

While there remains significant debate within the scientific community as to the effect and impact of antimicrobial use within agriculture, the chicken sector is committed to controlling, monitoring and reducing antimicrobial use to preserve effective treatment options.

The chicken sector is proactively managing antimicrobial use to provide continued confidence to consumers and government. The intent is to demonstrate that antimicrobial use in the chicken sector 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.

While the continued availability of antimicrobials, and their subsequent responsible use, is important to safeguard poultry health and welfare, the chicken sector is implementing a sector wide strategy to control, monitor and reduce antimicrobial use where possible.

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) Educating stakeholders on the issues of antimicrobial use and resistance, and 5) Research and availability of alternative products. These components are described in greater detail within this document.
Defining Antimicrobial Use and Analyzing Antimicrobial Resistance Trends

WHILE THE LEVELS OF ANTIMICROBIAL RESISTANCE ARE KNOWN, THE EXACT SOURCES OF THAT ANTIMICROBIAL RESISTANCE ARE MORE COMPLICATED TO DETERMINE.

In order to properly understand and interpret antimicrobial resistance data, the appropriate data on potential sources of antimicrobial resistance is needed. There are many variables that influence antimicrobial resistance, including the location of antimicrobial use (e.g. primary breeder, broiler breeder, hatchery or broiler level), degree of vertical transmission, the impact of importation (i.e. a significant amount of broiler breeding stock, broiler hatching eggs and chicks are imported from the United States), environmental sources, inputs to the growing process, or cross resistance from another antimicrobial or product. All of these factors need to be assessed to effectively analyze antimicrobial trends.

To this end, the Canadian chicken sector has worked in conjunction with the Canadian Integrated Program for Antimicrobial Resistance Surveillance (CIPARS) of the Public Health Agency of Canada to develop and implement an on-farm surveillance program to monitor antimicrobial use and resistance. A pilot project of this surveillance has already been funded by industry.

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 chicken sector. In turn, this will help the chicken industry determine future antimicrobial policies.
Reviewing Best Management Practices

THE CANADIAN CHICKEN SECTOR HAS IMPLEMENTED HACCP (HAZARD ANALYSIS CRITICAL CONTROL POINT) AND HACCP-BASED PROGRAMS. HACCP HAS BEEN IMPLEMENTED AT ALL FEDERAL PROCESSING PLANTS, AND AT A SIGNIFICANT NUMBER OF COMMERCIAL FEED MILLS AND HATCHORIES.

On the farm, both chicken farmers and broiler hatching egg producers have implemented HACCP-based On-Farm Food Safety Assurance Programs. These programs have received Technical Recognition (Part I) from the federal, provincial and territorial governments’ recognition program, led by the Canadian Food Inspection Agency.

Antimicrobial availability and use is an important tool in protecting the health and welfare of flocks, and these programs help support responsible use. Among other things, these food safety programs support improved animal health and reduce disease pressures.

The chicken sector is also working collaboratively with the federal, provincial and territorial governments’ Pathogen Reduction Initiative. This initiative includes performing baseline pathogen surveys and industry interventions.

These HACCP and HACCP-based programs, which already outline best management practices, involve regular reviews resulting in continuous improvement.
INDUSTRY SUPPORTS THE FEDERAL OVERSIGHT OF ALL ANTIMICROBIAL APPROVALS. THE FEDERAL GOVERNMENT HAS STRICT CONTROL MEASURES ON ALL ANTIMICROBIAL APPROVALS, USE INDICATIONS AND MONITORING OF ANTIMICROBIAL USE IN THE CHICKEN 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 and antimicrobial use while the Public Health Agency of Canada, 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 an 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 chicken sector is working on developing a more complete set of responsible use guidelines and is examining antimicrobial availability. These guidelines will complement the pre-existing 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.
Research and Availability of Alternative Products

Research, innovation and the use of new products are integral to the chicken sector. Just as important is to ensure that Canadian farmers have access to similar products registered in other jurisdictions.

The Canadian poultry industry understands the value of research, and has invested over $1.4 million through the Canadian Poultry Research Council (CPRC) which has been matched to a level of over $5.1 million. This represents nearly half of all CPRC poultry research funding.

Research has the potential to provide the Canadian poultry industry with an increased number of viable alternatives to antimicrobials. These include the development of vaccines, understanding the impact of pathogens and testing alternative feed products to antimicrobials.

Using international experience, Canada can harmonize availability of vaccines and feed additives that have been approved internationally. To this end, the chicken sector is participating in the renewal of the Canadian Feeds Regulations led by the Canadian Food Inspection Agency 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 Stakeholders on the Issues of Antimicrobial Use and Resistance

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

For consumers, the chicken 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 and www.canfightbac.org).

For industry stakeholders, the chicken sector is providing information sessions to producers, hatcheries, feed mills and veterinarians to communicate the issues of antimicrobial use and antimicrobial resistance and the responsibilities of each player.