



*Chicken Farmers of Canada*  
**ON-FARM FOOD SAFETY  
ASSURANCE PROGRAM**

**MANUAL**





# **REVISED 2014 EDITION OF *SAFE, SAFER, SAFEST***

## **Chicken Farmers of Canada's On-Farm Food Safety Assurance Program**

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Enclosed you will find a new edition of *Safe, Safer, Safest* – CFC's On-Farm Food Safety Assurance Program. *Safe, Safer, Safest* is a comprehensive food safety and biosecurity program.

In this edition, the CFC Board of Directors has incorporated amendments based on feedback from farmers, provincial boards, national biosecurity guidelines, and subject specialists.

Please take the time to read over the list of amendments and to understand how these amendments affect your farm.

To help identify amendments to the manual, they have been marked with a star; in addition, a pamphlet has been provided which outlines the significant amendments to the program.

### **Record Keeping**

A set of Standard Operating Procedures (SOPs) and Flock-Specific Record Forms have been provided with this manual. Farmers can use these forms, or an alternative can be used that incorporates all of the same information.

The forms provided in this manual include both the OFFSAP and Animal Care record keeping requirements in order to streamline implementation at the farm level.

### **Implementation & Auditing**

All of the new requirements of this edition are to be implemented on farm by May 15<sup>th</sup> 2014 and will be evaluated during your next audit. Continued certification will be dependent on the implementation of the requirements in this new edition.

### **Continued Recognition**

CFC was granted full federal, provincial and territorial (FPT) government recognition for its OFFSAP by the Honourable Gerry Ritz, Minister of Agriculture and Agri-Food Canada in March 2013. This new edition follows the premise of continual improvement while maintaining the foundation of the FPT government recognition.

The success of the *Safe, Safer, Safest* program has been in large part due to the efforts of each and every chicken farmer across the country. Thank you for participating in this national effort!

If you require additional copies of the manual please contact your provincial board office.

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# TABLE OF CONTENTS

---

|   |            |
|---|------------|
| <b>INTRODUCTION .....</b>   | <b>I</b>   |
| Full Government OFFSAP Recognition!.....  | i          |
| What is HACCP?.....   | ii         |
| Developing the <i>Safe, Safer, Safest</i> Manual.....   | iii        |
| How to Use this Manual.....   | iv         |
| On-Farm Audit and Certification Process.....  | iv         |
| Federal-Provincial-Territorial Recognition Process of On-Farm Food Safety Assurance Programs..... | viii       |
| List of Definitions.....  | ix         |
| <b>1. PERSONNEL TRAINING .....</b>  | <b>1.1</b> |
| 1.1 Planning for Change.....  | 1.1        |
| 1.2 Hiring and Training Staff.....  | 1.1        |
| 1.3 Provincial and Federal Government Regulations.....  | 1.2        |
| 1.4 Sample Audit Checklist.....   | 1.3        |
| <b>2. CONTROLLING ACCESS TO THE FARM .....</b>  | <b>2.1</b> |
| 2.1 Creating a Controlled Access Zone (CAZ).....  | 2.1        |
| <b>A) People Accessing the CAZ .....</b>  | <b>2.2</b> |
| <b>B) Vehicles Accessing the CAZ .....</b>  | <b>2.2</b> |
| 2.2 Setting Up the Restricted Area (RA) Inside the Barn .....                                     | 2.3        |
| <b>A) People Accessing the RA.....</b>  | <b>2.4</b> |
| <b>B) Farm Equipment and the RA.....</b>  | <b>2.6</b> |
| <b>C) Flock Movement .....</b>  | <b>2.6</b> |
| 2.3 Pest Control .....  | 2.7        |
| 2.4 New Barn Construction .....   | 2.8        |
| <b>3. FEED &amp; WATER .....</b>  | <b>3.1</b> |
| 3.1 Feed and Feeding Systems .....  | 3.1        |
| <b>A) If You Buy from Feed Mills.....</b>   | <b>3.1</b> |
| <b>B) If You Mix Feed On-Farm (Critical Control Point 2C).....</b>                                | <b>3.1</b> |
| <b>C) Farm to Farm Transfer .....</b>   | <b>3.2</b> |
| <b>D) Feed Handling .....</b>   | <b>3.3</b> |
| <b>E) Feed Receiving (Critical Control Point 1C) .....</b>  | <b>3.3</b> |
| <b>F) Feed Sampling.....</b>  | <b>3.5</b> |

---

|           |  |            |
|-----------|--|------------|
| 3.2       | Water and Watering Systems.....  | 3.5        |
|           | <b>A) Cleaning and Disinfecting Water Lines</b> .....                              | <b>3.6</b> |
|           | <b>B) Bacteriological and Chemical Analysis</b> .....                              | <b>3.8</b> |
| <b>4.</b> | <b>CLEANING &amp; DISINFECTING</b> .....   | <b>4.1</b> |
| 4.1       | Barn Exteriors and Equipment.....  | 4.1        |
| 4.2       | Barn Interiors and Equipment.....  | 4.2        |
|           | <b>A) Cleaning</b> .....   | <b>4.2</b> |
|           | <b>B) Disinfecting</b> .....   | <b>4.3</b> |
|           | <b>C) Equipment</b> .....  | <b>4.3</b> |
|           | <b>D) Downtime</b> .....   | <b>4.3</b> |
|           | <b>E) Manure Storage</b> .....   | <b>4.4</b> |
| <b>5.</b> | <b>CHICKS</b> .....  | <b>5.1</b> |
| 5.1       | Purchasing.....  | 5.1        |
|           | <b>A) Vaccines Received at the Hatchery or Administered at the Farm</b> .....      | <b>5.1</b> |
|           | <b>B) Treatment Received Including the Withdrawal Period When Applicable</b> ..... | <b>5.1</b> |
|           | <b>C) The Age Group of the Breeding Flock(s)</b> .....                             | <b>5.2</b> |
|           | <b>D) Lot Identification</b> .....   | <b>5.2</b> |
|           | <b>E) Date of Hatching</b> .....   | <b>5.2</b> |
| 5.2       | Barn Preparation and Delivery.....   | 5.3        |
|           | <b>A) Bedding Materials</b> .....  | <b>5.3</b> |
|           | <b>B) Barn Preparation</b> .....   | <b>5.3</b> |
|           | <b>C) Delivery</b> .....   | <b>5.4</b> |
| <b>6.</b> | <b>MEDICATIONS &amp; CHEMICALS</b> .....   | <b>6.1</b> |
| 6.1       | Chemical Products: Purchase, Receiving, Storage and Usage.....                     | 6.1        |
| 6.2       | Use of Medications During the Grow-Out Period (Critical Control Point 3C) .....    | 6.2        |
|           | <b>A) Medicators</b> .....   | <b>6.4</b> |
|           | <b>B) Extra Label and Off-Label Medication Use</b> .....                           | <b>6.4</b> |
|           | <b>C) Medication Withdrawal (Critical Control Point 3C)</b> .....                  | <b>6.5</b> |
|           | <b>D) Recording of Medication Use</b> .....  | <b>6.5</b> |
| <b>7.</b> | <b>THE GROW-OUT PERIOD</b> .....   | <b>7.2</b> |
| 7.1       | Back-Up Systems .....  | 7.2        |
| 7.2       | Flock Monitoring/Bird Weighing .....   | 7.2        |
| 7.3       | Loading Protocol.....  | 7.2        |
|           | <b>A) Feed Withdrawal</b> .....  | <b>7.2</b> |
|           | <b>B) Catching</b> .....   | <b>7.2</b> |

---

|   |             |
|---|-------------|
| <b>8. DISEASE MANAGEMENT</b> .....  | <b>8.2</b>  |
| 8.1 Bird Supervision.....   | 8.2         |
| <b>A) Dead Bird Removal and Disposal</b> .....                                      | <b>8.2</b>  |
| 8.2 Disease Management.....   | 8.3         |
| <b>A) Disease Recognition</b> .....   | <b>8.4</b>  |
| <b>B) Disease Response Protocols</b> .....  | <b>8.4</b>  |
| <b>9. HACCP AND YOUR FARM</b> .....   | <b>9.2</b>  |
| 9.1 Using HACCP on your Farm.....   | 9.2         |
| 9.2 The Seven HACCP Principles .....  | 9.3         |
| 9.3 The HACCP Decision Tree .....   | 9.3         |
| 9.4 Control Measures and Corrective Actions.....                                    | 9.4         |
| <b>A) Feed Receiving (CCP 1C)</b> .....   | <b>9.4</b>  |
| <b>B) Feed Ingredients Mixing (medicated and non medicated feed) (CCP 2C)</b> ..... | <b>9.5</b>  |
| <b>C) Treatment with Medication (CCP 3C)</b> .....                                  | <b>9.5</b>  |
| <b>10. RECORD KEEPING</b> .....   | <b>10.2</b> |
| 10.1 Types of Records.....  | 10.2        |
| <b>A) Standard Operating Procedures (SOP)</b> .....                                 | <b>10.2</b> |
| <b>B) Flock-Specific Record Forms (to be completed during each cycle)</b> .....     | <b>10.2</b> |
| 10.2 How to Fill Out the Record Forms.....  | 10.2        |
| <b>A) Standard Operating Procedures</b> .....                                       | <b>10.3</b> |
| <b>B) Flock-Specific Record Forms</b> .....   | <b>10.3</b> |
| <b>C) Flock Information Reporting Form (Flock Sheet)</b> .....                      | <b>10.3</b> |
| 10.3 Corrective Actions .....   | 10.3        |

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# INTRODUCTION

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## Full Government OFFSAP Recognition!

Chicken Farmers of Canada (CFC) is a leader in the area of food safety, and has developed a comprehensive on-farm food safety assurance program. The *Safe, Safer, Safest* manual recommends the most modern methods and techniques for on-farm food safety, emphasizing health, cleanliness and safety through every step of the production cycle.

Chicken Farmers of Canada (CFC) was granted full federal, provincial and territorial government recognition for its On-Farm Food Safety Assurance Program (OFFSAP) by the Honourable Gerry Ritz, Minister of Agriculture and Agri-food Canada in March 2013.

CFC is the first commodity organization in Canada to achieve this level of government recognition for the effective and consistent implementation of its OFFSAP that promotes the production of safe food at the farm level.

The federal, provincial and territorial government On-Farm Food Safety Recognition Program is a process to review, assess, recognize and monitor the technical soundness and administrative effectiveness of on-farm food safety systems developed and implemented by Canada's national producer organizations.

First developed in 1998, CFC's OFFSAP was the first commodity program in Canada to receive Phase I technical recognition of the producer manual in 2002 and the second commodity program to receive Phase 2 technical recognition of its management system in 2006.

**I would like to congratulate the Chicken Farmers of Canada for the successful implementation of this food safety program. By working together to improve the management of food safety risks at the farm level, we are strengthening Canada's food safety system.**

– Honourable Gerry Ritz, Minister of Agriculture and Agri-Food

This achievement reflects the commitment of all chicken farmers to implement and maintain a comprehensive national on-farm food safety assurance program. Without the buy-in from farmers across the country, this government recognition would not have been possible. Everyone should be congratulated for their efforts!

The OFFSAP is a comprehensive program involving a producer manual that promotes the production of safe food at the farm level and adheres to Hazard Analysis Critical Control Point (HACCP) principles as defined by *Codex Alimentarius* and a management manual based on ISO (International Organization for Standardization) standards.

As part of the OFFSAP, farmers demonstrate that they have identified, considered, controlled and/or prevented the chemical and biological food safety hazards present in growing and transporting live birds. All of these hazards are described in this manual.

The OFFSAP provides Canadian chicken farmers a strong market tool in an era of expected traceability and food safety by being able to demonstrate industries' commitment to consumers.

In addition, *Safe, Safer, Safest* has been designed to include biosecurity measures from an animal health perspective. National and global events have demonstrated the significant negative effect of animal disease outbreaks on farmers, the health of the industry and the economy as a whole. Prevention is a key tool that needs to be appropriately implemented in order to reduce the risk of a disease outbreak in Canada.

CFC is implementing the OFFSAP with the full and active support of CFC Directors and encourages all farmers to continue full implementation of the program.

## **What is HACCP?**

HACCP is short for Hazard Analysis Critical Control Points. It is an internationally recognized approach to food safety. The Pillsbury Company created the concept for NASA in the late 1950's. Their goal was to be able to guarantee safe food to the space program.

HACCP:

- > Is a systematic approach to make sure that food is safe.
- > Targets preventing initial food safety hazards instead of detecting problems in the finished product.

- > Gives more control during manufacturing to make sure that each and every product is safe, wholesome and of high quality.
- > Uses sound, well-known principles of science and technology to choose and take corrective actions when a problem is found.

The *Safe, Safer, Safest* manual, its record keeping forms and the critical control points that have been identified were developed using HACCP principles. For more information on HACCP, refer to Chapter 9.

## **Developing the *Safe, Safer, Safest* Manual**

Food safety is a first priority. Consumers, government, food processors, farmers and farm suppliers all have a stake and a role to play. Canadian farmers are continuously working to meet the challenge of providing consumers with the best food possible.

In 1996, CFC set up its food safety assurance design team. The food safety committee was designed with representatives from the West, Central and Maritime regions and a representative from the Canadian Poultry and Egg Processors Council (CPEPC). The team's task was to create a food safety assurance program for use on the farm. Since then CFC has:

- > Reviewed the Recommended Codes of Practice for Care and Handling of Poultry as well as flock health and biosecurity codes. CFC kept the main parts of this Code in the recommended Good Production Practices (GPP) of this manual.
- > Reviewed different production practices used across Canada.
- > Studied the seven principles of HACCP in detail, and identified three Critical Control Points (CCPs) in chicken production.
- > Created record keeping forms for the GPPs and the CCPs that were identified.
- > Pilot tested the program on farms to make sure that the *Safe, Safer, Safest* manual is practical.
- > Identified those farm practices for which there is not enough data or for which no control measures are available.
- > Obtained recognition from the Canadian Food Inspection Agency for the technical soundness of the *Safe, Safer, Safest* manual (Phase 1) in 2002 and of the Management Manual (Phase 2) in 2006, underwent a third party audit (Phase 3) and obtained full federal, provincial and territorial government recognition for the OFFSAP in March 2013 (Phase 4).
- > Conducted detailed reviews in 2005, 2008, 2009 and 2012 based on implementation lessons and scientific evidence – resulting in new editions of the manual.

*Safe, Safer, Safest* is the result of CFC's work. It describes how potential hazards found in chicken production can be controlled and who can control them. The record keeping forms give the information needed to show that farmers are doing what they say they do. All farmers must ensure this level of control of their operations.

This manual is a living document. In the future, it will change. Research studies may prove that we can change the level of emphasis of a particular practice. On the other hand, we may find that a means by which we can control a hazard becomes known.

By following this manual and using its record keeping forms, chicken farmers will be able to demonstrate that they are doing their part to ensure the ongoing safety of the Canadian food supply.

## How to Use this Manual

The *Safe, Safer, Safest* manual has been developed to cover issues regarding the entire farm.

In each section, production practices have been designated with either an MD or an HR. These designations have resulted from the scientific HACCP-based approach Decision Tree.

MD represents a “MUST DO” production practice. These are mandatory to protect your flock against food safety and animal health hazards throughout the production cycle. HR represents a “HIGHLY RECOMMENDED” production practice which indicates its high importance in the on-farm food safety program. HR production practices are not mandatory, but they are strongly recommended to ensure biosecurity, health and food safety of flocks.

This manual is designed to be used as a reference tool throughout the production cycle. At any time, the index at the back of the manual can be quickly used to locate information.

To begin, read through the manual and understand the concepts and practices described in each section. Each section fully describes all of the requirements that need to be performed to be in compliance with the on-farm food safety program.

Next, go ahead and implement the requirements of the program – you’ll find you’re already implementing most of them. To prove the implementation, use the record forms to record each activity. See Chapter 10: “Record Keeping” for more information.

## On-Farm Audit and Certification Process

There are two components to the OFFSAP. The first component is the *Safe, Safer, Safest* producer manual that has been granted technical recognition by the Canadian Food Inspection Agency (CFIA) for promoting the production of safe food at the farm level and adhering to the Hazard Analysis Critical Control Point (HACCP) principles.

The second component is the Management Manual that describes the maintenance of the program, the training requirements of auditors, and the guidelines and rules concerning farm certification. This manual is implemented at the national and provincial board levels.

### A) Roles and Responsibilities

An overview of the roles and responsibilities for players involved in the audit and certification process are presented below:

#### (1) Chicken Farmers of Canada Responsibilities

- > The design and delivery of the *Safe, Safer, Safest* program on a national basis and the maintenance of the technical standard and producer manual.
- > The development, maintenance and delivery of training programs for the *Safe, Safer, Safest* on-farm auditors.
- > The ongoing monitoring of an effective program and ensuring consistency in application and certification among all provinces.
- > The maintenance and future development of the OFFSAP to ensure compliance with government recognition standards.

## (2) Provincial Board Responsibilities

- > The delivery of the *Safe, Safer, Safest* program and certification services to farmers in the province.
- > The implementation of certification procedures, which include performing on-farm audits, reviewing audit reports and recommendations, and making certification decisions.
- > The management of the complaints and appeals procedures.
- > The implementation of an effective program and to follow the OFFSAP Management Manual to ensure consistency.

## (3) Farmer's Responsibilities

- > Implementing and maintaining compliance with the OFFSAP.
- > Keeping documents demonstrating conformance to the OFFSAP.
- > Continuing to implement the program, as well as to undergo on-going audits as per the scheduled frequency and for taking corrective actions to resolve any deficiencies identified in the audit report.
- > Informing the provincial board of any large management change on the farm (e.g. operating a new barn that has not been previously audited or changing ownership).

## **B) Audit Frequency**

A combination of full audits (F), partial audits (P), record assessments (R) and farmer self-declarations (S) will be used to assess compliance to the program on an annual basis.

- > *Full audit* – An on-farm/on-site evaluation of records, statements of fact or other relevant information to determine the extent to which all the specified requirements – Good Production Practices (GPPs) and Critical Control Points (CCPs) – of the program are met.
- > *Partial audit* – An on-farm/on-site evaluation of records, statements of fact or other relevant information to determine the extent to which a subset of the specified requirements (GPPs and CCPs) of the program are met.
- > *Records assessment* – Off-farm evaluation of a subset of records or other relevant information to determine the extent to which all or a subset of the specified requirements (GPPs and CCPs) of the program are met. This evaluation includes direct communication with the farm representative and can be performed on-farm.
- > *Self Declaration* – An attestation by the farm operation that all the specified requirements (GPPs and CCPs) of the program are met. In filing the declaration, the farm operation shall include the completed self-evaluation checklist and any other required documents or records.

The audit cycle will occur as follows:

An initial seven year cycle of:

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 |
|--------|--------|--------|--------|--------|--------|--------|
| F      | P      | R      | S      | P      | R      | S      |

Followed continuously with a six year cycle of:

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|--------|--------|--------|--------|--------|--------|
| F      | R      | S      | P      | R      | S      |

Your provincial board will decide where you fit in the audit cycle. In addition, a minimum 7% of those farms undergoing a records assessment or a self-declaration in any given year will be subject to a random on-farm partial audit.

Triggered audits can also occur at any time. An on-farm audit can be triggered by laboratory reports, audit reports, by complaints of non-conformances by stakeholders or by changes made by farmers.

### **C) Biosecurity during an Audit**

During an on-farm audit, auditors will follow strict biosecurity guidelines to prevent contamination. Auditors must take preventive measures to ensure that they do not present a biosecurity risk to the farm by parking in a designated area, preventing cross-contamination, wearing clean coveralls and boots, disposing of the clothing and footwear in an acceptable location, and by following any additional biosecurity measures requested by the farmer.

### **D) Audit Process**

Under normal circumstances, farmers will be informed when an audit will be occurring, and the date will be decided based on the auditors' and the farmer's availability; however, provincial board offices reserve the right to operate based on their rules and regulations.

#### **(1) Farmer Pre-Audit Checklist**

Prior to undergoing an on-farm audit, each farmer should complete the pre-audit checklist to assess their preparedness for a real audit. Farmers should ensure they can answer each question.

Once completed, farmers should have a fairly good idea if they are complying with the *Safe, Safer, Safest* requirements. This pre-audit checklist can be found in Chapter 1.

#### **(2) On-Farm Audit Process**

Once farmers feel they are ready for an on-farm audit, they should contact their respective provincial board office to schedule an audit.

Prior to undergoing an initial audit, each farmer will be required to accumulate three flocks worth of records.

(3) During the initial full audit:

- > A trained auditor will review the mandatory and highly recommended elements of the *Safe, Safer, Safest* program. Special attention will be paid to the records (Standard Operating Procedures and flock records).
- > The auditor will also visit barns and related production facilities to evaluate whether the GPPs and CCP's described in the manual are being implemented.
- > A standard audit checklist has been developed and will be used by the auditor during the audit. This checklist encompasses all of the "Must Do" and "Highly Recommended" requirements in each chapter. Each requirement will be rated as "Acceptable" (A), "Unacceptable" (U), "Needs Improvement" (NI) or "Non-Applicable" (NA).
- > Whenever a "Must Do" item is rated U or NI, the auditor will identify the deficiency through a "Corrective Action Request" (CAR). Should the auditor identify a CAR during the audit, this will be recorded on the audit report. In this case, the farmer will have to document how this deficiency will be corrected and by when; a follow-up visit may be necessary to assess the implementation of the corrective actions.
- > Prior to leaving the farm, the auditor will complete the audit report, which will be discussed with the farmer and a copy of the report will be left with the farmer.
- > If needed, a follow-up audit will be scheduled, where the auditor will judge the implementation and effectiveness of the corrective actions.
- > Once all CARs have been completed, the audit report will be sent to the Certification Agent so that the certification process can proceed. Prior to certification, each farmer must sign a declaration indicating that they will continue implementing the GPPs and CCPs of the program.
- > Only the items listed under the "mandatory" section (i.e. the Must Do's) will be taken into consideration for certification purposes.
- > The "Highly Recommended" items will be rated A-U-NI-NA, however they will not be taken into consideration in the overall certification of the farm. Over time however, they can be a good indication of how a production facility is improving.
- > The auditor does not grant certification; rather, the auditor makes a recommendation and the audit reports will be sent to the Certification Agent.

Farmers will be required to retain at least one year's worth of records at all times.

## E) Certification

Once the audit report is received, the Certification Agent will make a decision on granting certification.

Before granting certification, the Certification Agent must ensure that all mandatory items in the *Safe, Safer, Safest* manual have been successfully completed, that the farmer is a registered quota holder or licensed producer, that the farmer has signed the Farmer Declaration indicating that they will continue to implement the program requirements and undergo audits as per the prescribed frequency and that the farmer has successfully completed the audit (i.e. has completed any possible corrective actions).

An individually numbered certificate will be granted. A certificate will only be issued after the first full audit.



Based on the certification process, farmers can register complaints or file appeals about the OFFSAP with their provincial board. Farmers should check with their provincial board for specific procedures.

Certification with the CFC program indicates that the on-farm food safety system of a farmer meets the CFC OFFSAP standards. Certification does not guarantee the product from these facilities, nor does it guarantee the safety of any products.

## **F) Certificate Withdrawal**

The Certification Agent has the authority to suspend or terminate certification.

The reasons for suspension or terminating a previously granted certification include:

- > A farmer stops raising chickens for a period longer than one year.
- > A farmer declines an audit.
- > A farmer does not complete the required corrective actions.
- > A farmer no longer maintains the *Safe, Safer, Safest* program.
- > A farmer sells his/her quota or is no longer licensed.
- > A farmer is not cooperative or access to documentation, facilities and personnel are not provided to auditors during audits.
- > A farmer uses the certificate, certification or other program materials in ways that conflict with stated guidelines.

Once suspended or terminated, the certificate or certified sign cannot be displayed or otherwise used to indicate that the farm is certified under the program. If a farmer intends to become certified after having had the certification suspended or terminated, they must participate in a full audit to become certified.

## **Federal-Provincial-Territorial Recognition Process of On-Farm Food Safety Assurance Programs**

The CFIA has been assigned the lead role by the Federal, Provincial and Territorial (FPT) governments to assess and recognize commodity-specific on-farm food safety assurance programs. All agricultural commodities in Canada (e.g. turkey, dairy, swine, horticulture, beef, etc) have developed on-farm food safety programs.

The FPT governments have developed a comprehensive set of requirements for on-farm food safety programs that guides commodities towards full recognition of their programs. CFC has been an industry leader in obtaining recognition from the government for its on-farm food safety assurance program.

The following phases are a representation of the FPT approach to recognition:

**Phase 1:** Commodities develop a HACCP-based producer manual and government performs a Technical Review of the manual to determine conformance with the HACCP principles as defined by *Codex Alimentarius*.

- > CFC was the first farm organization to receive Phase 1 technical recognition of the *Safe, Safer, Safest* producer manual in July 2002.



**Phase 2:** Commodities develop an ISO-based management manual that includes the operation of the farm certification program, auditor training and program maintenance. Governments then perform a Technical Review of the management manual to determine conformance with government requirements.

- CFC was the second farm organization to receive Phase 2 technical recognition of the management system in July 2006.

**Phase 3:** Commodities fully implement the requirements of the producer manual and the management manual.

- Farmers have been implementing the producer manual and are being audited and certified on the program.
- CFC and the provincial boards are implementing the management manual requirements.

**Phase 4:** CFC and the provincial boards underwent a 3<sup>rd</sup> party audit of the on-farm food safety assurance program in 2012.

**Phase 5:** Once full recognition is received, maintaining government recognition will involve on-going oversight and audits to ensure compliance with the FPT standards.

- In March 2013, CFC was the first commodity in Canada to receive full recognition for its On-Farm Food Safety Program by the FPT governments. This achievement demonstrates the safe, quality production practices of Canadian chicken farmers.

## List of Definitions



**Antibiotic:** A substance produced by a microorganism and/or by chemical synthesis that possesses the following characteristics: (1) It has the capacity, in dilute solutions, to inhibit the growth of or to kill the microorganisms that harm another organism (e.g. an animal) but has no toxic effect on the latter; (2) It is used with the purpose of selectively eliminating the microorganisms in close contact with the harmed organism (this process is named “antibiosis”).



**Antimicrobial agent:** A substance that kills or suppresses the multiplication of any kind of microscopic organism (i.e. bacteria, virus, fungi, protozoan, mange, etc.). As there is no specification of harmlessness for the host, this term includes all antibiotics, ionophores and arsenicals, disinfectants and antiseptic agents. This term is used preferably with respect to resistance genes, some of which may act on different classes of substances.

**Approved Medications:** All approved drugs are issued a Drug Identification Number (DIN). Approved drugs are veterinary drugs which have been evaluated by the Veterinary Drugs Directorate (VDD) of Health Canada prior to approval of a label indicating the conditions of use including: (1) Species (e.g. chicken); (2) Indications for use (e.g. to prevent coccidiosis); (3) Route of administration (e.g. water, feed or injection); (4) Maximum dosage and frequency or length of treatment; (5) Precautions which may include a withdrawal time.

**Complete Cleaning:** A complete cleaning must occur at least once a year and includes the following: (1) the removal of manure from inside the barn and removal of all organic matter, through blowing or brushing, from all of the floors, walls, ceilings, fans and equipment; (2) a thorough washing of all floors, walls, ceilings and equipment with water under high pressure and (3) either a disinfection or a fumigation.

**Controlled Access Zone (CAZ):** An area designated by the farmer around the outside of the barn to limit what comes into contact with your flock. It is highly recommended that the zone be at least 15 metres around each barn.

**Corrective Action Request:** A formal request to the farmer for actions to be taken to correct non-conformities, in order to achieve or maintain certification, that have been identified through the audit process.

**Critical Control Point:** A step in the production cycle at which control can be applied and is essential to prevent or eliminate a food safety hazard to reduce it to an acceptable level.



**Downtime:** The period of time between flocks which allows for the reduction in numbers of disease causing micro-organisms within the barn. Cleaning of the barn is to occur as soon as possible for the longest possible downtime between the flock being shipped and the placement of chicks.

**Dry Cleaning:** This is the minimum cleaning that must be performed after each flock. This includes the removal of manure from inside the barn and removal of all organic matter, through blowing or brushing, from all of the floors, walls, ceilings, fans and equipment. All rooms within the barn (electrical/office) must be cleaned as thoroughly as possible.

**Extra Label Drug Use (ELDU):** The use of a drug product in a manner that is not consistent with what is indicated on the label, package insert or product monograph of any drug product approved by Health Canada. For example, ELDU can include use with an alternate species (e.g. chickens versus cattle) or using an increased dosage. A veterinary prescription must be obtained for any ELDU.

**Feed Transfer:** This process occurs when feed in a feed bin is moved to another location – either to another feed bin on the same farm or off the farm.

**Full Audit:** An on-farm/on-site evaluation of records, statements of fact or other relevant information to determine the extent to which all the specified requirements (GPPs and CCPs) of the program are met.

**Hazard Analysis Critical Control Points (HACCP):** A method of using sound, well-known principles of science and technology to identify initial food safety hazards during production so they can be prevented instead of detecting problems in the finished product.

**Off-Label Use:** Use of an unapproved drug product (a drug product which does not have a DIN). Use of a drug which was never approved for use by a Canadian regulatory authority. A veterinary prescription must be obtained for any off-label use.

**Partial Audit:** An on-farm/on-site evaluation of records, statements of fact or other relevant information to determine the extent to which a subset of the specified requirements (GPPs and CCPs) of the program are met.

**Random Audit:** A minimum 7% of farms undergoing a records assessment or a self-declaration in any given year will be selected to undergo an on-farm partial audit.

**Records Assessment:** An off-farm evaluation of a subset of records or other relevant information to determine the extent to which all or a subset of the specified requirements (GPPs and CCPs) of the program are met. This evaluation includes direct communication with the farm representative and can be performed on-farm.

**Restricted Area (RA):** This is the area inside the barn where the birds are housed along with any other part of the barn that the farmer has included in the RA. This zone is established to restrict access and thus reduce the chance that any potential carrier of infectious agents will come into contact with your flock. Biosecurity measures should be at their highest when entering the RA.

**Self Declaration:** An attestation by the farm operation that all the specified requirements (GPPs and CCPs) of the program are met. In filing the declaration, the farm operation shall include the completed self-evaluation checklist and any other required documents or records.

**Triggered Audit:** An audit in response to a pre-defined incident as the result of a concern or complaint.



**Veterinary-Client-Patient Relationship (VCPR):** A VCPR exists when all of the following conditions have been met: (1) The veterinarian has assumed the responsibility for making clinical judgments regarding the health of the animal(s) and the need for medical treatment, and the client has agreed to follow the veterinarian's instructions; (2) The veterinarian has sufficient knowledge of the animal(s) to initiate at least a general or preliminary diagnosis of the medical condition of the animal(s). This means that the veterinarian has recently seen and is personally acquainted with the keeping and care of the animal(s) by virtue of an examination of the animal(s) or by medically appropriate and timely visits to the premises where the animal(s) are kept; (3) The veterinarian is readily available for follow-up evaluation, or has arranged for emergency coverage, in the event of adverse reactions or failure of the treatment regimen.

**Water Analysis:** All water sources used for chicken production must be tested annually by an accredited laboratory. This testing includes a bacteriological analysis (enumeration of total coliforms per 100 mL and faecal coliforms (*E. coli*)) and if you are using well water, the local health authorities must be contacted to check if there is a mandatory requirement for chemical testing in your area.



# 1

## PERSONNEL TRAINING

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### 1.1 Planning for Change

This *Safe, Safer, Safest* manual has been revised from the previous version. Every farmer will probably have to make a few changes to their operation to follow the manual. Plan for the change.

- > First, read the manual carefully. Make sure you understand it thoroughly.
- > Then make an action plan for the changes you will need on your farm. Make sure that you meet all of the mandatory requirements of the manual. These are the things you must do to comply. Then start planning to incorporate the extra things that you need to into your regular practices as soon as possible.
- > Finally, schedule a regular review of your action plan. This will let you check your progress. Regular reviews give you the chance to revise your plan. This will also give you a good chance to reinforce the need for good animal husbandry practices with your employees.

### 1.2 Hiring and Training Staff

Good animal husbandry and good management practices go hand in hand with good results. Start with your staff. You will never get top results unless you have top employees.

Hire and promote people who know and care about good animal husbandry practices, cleanliness and disease prevention.

Train and retrain every employee. Make sure each one is an expert in good husbandry, disease prevention and worker safety. Staff who understand the purpose of biosecurity and food safety measures are more likely to adopt the practice as part of their daily routine and ensure that any contractors or visitors coming onto the premises abide by these measures as well.

**MD**



All staff must be trained and have an understanding of the *Safe, Safer, Safest* manual, its objectives and the Standard Operating Procedures that relate to their role on the farm.

All farm personnel/staff involved with the care and handling of the birds must sign off indicating that they have read and understood the program either on the front page indicating that they have developed and reviewed the SOPs or in the training log indicating that they have been trained on the SOPs. Service personnel are not required to sign the SOPs.

The best way to ensure that staff (including family members if applicable) are clear on how to complete their assigned tasks is to have written Standard Operating Procedures (SOPs).

**MD**

The list of SOPs must include, but is not limited to:

- > Farm staff biosecurity protocols
- > Supplier/visitor biosecurity protocols
- > Access procedures for the CAZ and RAZ
- > Pest control program
- > Barn cleaning and disinfection procedures
- > Manure management
- > Mortality management
- > Farm emergency/quarantine procedures

All staff are to be informed whenever SOPs are updated, and an SOP review should be conducted with all staff on an annual basis. In cases where temporary workers are used, the SOPs for the job they are performing should be communicated and they should be supervised by a trained farm employee.

**MD**

A training record must be kept for each employee. This record can simply be a sign off that they have been provided and understood the SOPs.

Examples of records can include:

- > A signed confirmation from each staff that the SOPs have been read and understood
- > A list of seminars/workshops (with dates and type of training) that have been attended
- > Supervised working
- > Formal qualifications

Provide checklists or other aids that will help them do their jobs. Finally, keep track of their success and reward them for it.

Set a good example. If you want your staff to practice good husbandry, give them a model to follow. Show them what is right, and expect them to follow your lead.

Keep current. Research and technology are leading to improvements all the time. Procedures, equipment, pharmaceuticals, nutrition and breeding stock are always changing. If you are going to get the best possible results, you need to stay up on the trends and share your knowledge with your employees.

### **1.3 Provincial and Federal Government Regulations**

CFC's *Safe, Safer, Safest* On-Farm Food Safety Assurance manual outlines the minimum mandatory requirements necessary for certification on the program.

There exists legislation and regulations at both the provincial and federal government levels that also impact the production of chicken. For example, there are provincial regulations on mortality management, biosecurity, manure management and medication usage.

*Safe, Safer, Safest* does not supersede these requirements – they also need to be adhered to but only the stipulated requirements in this manual impact OFFSAP certification.

## 1.4 Sample Audit Checklist

The following checklist covers all of the mandatory and highly recommended items in the *Safe, Safer, Safest* manual. This is not the exact checklist that an auditor will use, but it should be used as a guide to indicate if your farm is ready for an audit and can point to items that need to be addressed.

Check off the items that are currently being performed and focus on those that remain.

Ensure that a record keeping system is kept that can be used to demonstrate your implementation during the audit.

| ✓               | Manual Reference (page) | Requirement   |
|-----------------|-------------------------|---|
| Mandatory Items |                         |   |
|                 | 1.1                     | All staff have been trained and understand the objectives and SOPs of the <i>Safe, Safer, Safest</i> manual   |
|                 | 1.2 / 10.1              | Each farm has a written set of SOPs   |
|                 | 1.2                     | A training record is kept for each employee   |
|                 | 2.1                     | Each barn has a designated Controlled Access Zone (CAZ) and Restricted Area (RA)  |
|                 | 2.1                     | A diagram has been drawn depicting the CAZ, RA and farm layout  |
|                 | 2.1                     | Manure is stored outside of the CAZ   |
|                 | 2.1                     | Entry points to the CAZ (i.e. roadways) are identified by a sign or physical barrier  |
|                 | 2.2                     | Suppliers only enter the barn if necessary  |
|                 | 2.3                     | Signs are posted at the barn entrance to indicate the RA  |
|                 | 2.3                     | Barn entrances to the RA are kept locked after the barn is cleaned and during the production cycle  |
|                 | 2.3                     | A barrier exists to separate the CAZ from the RA  |
|                 | 2.3                     | Where chickens are being raised in the same barn with livestock other than poultry, the area being used to raise chickens is designated as its own RA |
|                 | 2.4                     | No common contact (i.e. feet) is allowed between the CAZ and the RA   |
|                 | 2.4                     | Visitors log book is maintained for the RA or the whole farm  |
|                 | 2.4                     | Visitors and workers follow your boot biosecurity protocol when entering the barn   |
|                 | 2.4                     | Dedicated boots, or similar, are available for each barn  |
|                 | 2.4                     | Any clothing used by farm workers in the RA worn off the premise is only worn on agricultural premises under common management                        |

| ✓               | Manual Reference (page) | Requirement   |
|-----------------|-------------------------|---|
| Mandatory Items |                         |   |
|                 | 2.5                     | Anyone other than farm employees who are accessing the RA must wear premise-specific coveralls when entering the farm premises or when crossing the barrier from the CAZ to the RA  |
|                 | 2.5                     | Each farm has coveralls/clothing and boots/disposable boot covers available for visitors or service personnel   |
|                 | 2.5                     | Visitors must wash or sanitize their hands prior to entry and upon exit the RA or wear specific gloves  |
|                 | 2.5/8.1                 | Farm personnel wash their hands or use a hand sanitizer following contact with mortalities  |
|                 | 2.5                     | The farm manager accompanies visitors accessing the barn  |
|                 | 2.5                     | Farm employees wash hands and change boots and clothes/coveralls prior to accessing the RA when they've come into contact with another poultry operation which is not under common management   |
|                 | 2.6                     | Equipment is free of visible organic material when it is brought into the RA after the barn has been cleaned or during the grow-out period. Any equipment from another premise not under common management must be cleaned and disinfected before entering the RA |
|                 | 2.6                     | Proper procedures are used for flow-through barns   |
|                 | 2.7                     | Pests are prevented from entering the barn and the pest control program is documented   |
|                 | 2.7                     | Pets are not allowed in the RA  |
|                 | 2.7                     | Barn electrical room/office kept clean/free of debris   |
|                 | 2.7                     | Gaps in the eaves are patched   |
|                 | 2.7                     | Air inlets are screened and damaged air inlet screens are repaired  |
|                 | 2.7                     | Weeds and grass are cut regularly within the CAZ  |
|                 | 2.7                     | Area around the barn is kept free of debris   |
|                 | 2.7                     | Potholes/depressions filled where water can stagnate  |
|                 | 2.7                     | Feed spills below augers and bins removed   |
|                 | 2.7                     | Barn walls, roofs and doors are maintained in good condition  |
|                 | 2.7                     | Domestic waterfowl are not be permitted within the CAZ and must be fenced in  |
|                 | 3.1                     | Control program used for on-farm feed mixing/addition of feed ingredients   |



| ✓               | Manual Reference (page) | Requirement   |
|-----------------|-------------------------|---|
| Mandatory Items |                         |   |
|                 | 3.2                     | The final mixed feed is sampled for all on-farm feed mixing (this includes adding an ingredient (e.g. wheat) to a finished feed)  |
|                 | 3.2                     | Feed transfer protocol used for all feed transfers to other farms and for transfers of medicated feed with a withdrawal period on the same farm   |
|                 | 3.2                     | Must have complete traceability of feed   |
|                 | 3.3                     | Feed and feed ingredients are stored in closed and clearly identified bins  |
|                 | 3.3                     | All delivered feed is inspected and bill of lading checked for any medications  |
|                 | 3.4                     | Control measures are used to prevent cross-contamination between medicated feed with a withdrawal period and the next feed that is used   |
|                 | 3.5                     | A sample of feed must be maintained, either at the feed mill or on the farm, for each load of feed that is delivered during the grow-out. A letter of assurance is provided from mills that store feed samples that are not certified on the FeedAssure program |
|                 | 3.5                     | Surface water is only used with an on-going water treatment program   |
|                 | 3.5                     | A visual check (e.g. cloudiness and rust) of the water quality is performed on a minimum weekly basis   |
|                 | 3.5                     | Open drinkers are checked for the presence of slime and mold on a daily basis   |
|                 | 3.6                     | Water lines are flushed at full pressure between flocks   |
|                 | 3.6                     | Water lines are cleaned or disinfected during and/or in between flocks  |
|                 | 3.6                     | When using a water disinfectant, a cleaner is used as per manufacturers' recommendations  |
|                 | 3.6                     | The product level of chemical water treatments used during the grow-out must be verified twice during the grow-out period   |
|                 | 3.6                     | Chlorine test strips must measure free chlorine (not total chlorine)  |
|                 | 3.8                     | Water analysis tests is performed inside the grow-out area yearly   |
|                 | 3.8                     | Water test is available at first audit for new farmers or new facilities  |
|                 | 4.1                     | The barn is cleaned and disinfected after a suspected or confirmed disease outbreak   |
|                 | 4.1                     | Fans are cleaned, washed and disinfected regularly  |
|                 | 4.1                     | Dust build-up is removed from barn exteriors and equipment  |
|                 | 4.1                     | Feed bin boots and lines are emptied between flocks   |
|                 | 4.1                     | Feed bins are inspected for leaks after each flock  |

| ✓               | Manual Reference (page) | Requirement   |
|-----------------|-------------------------|---|
| Mandatory Items |                         |   |
|                 | 4.1                     | Feed bins are inspected for rust and feed caking at least once per year and cleaned if necessary                    |
|                 | 4.2                     | Barn and all equipment are cleaned after each flock   |
|                 | 4.2                     | Electrical/office rooms in barns are cleaned as thoroughly as possible  |
|                 | 4.2                     | Open drinkers are disinfected and dried before use  |
|                 | 4.2                     | Mortality pails are cleaned in between flocks   |
|                 | 4.2 / 4.3               | Barn is completely washed with water and disinfected at least once a year   |
|                 | 4.3                     | Equipment used for barn clean-out are included in the barn clean-out procedure                                      |
|                 | 4.3                     | Equipment moved to a premise not under common management is first cleaned and disinfected                           |
|                 | 4.4                     | Manure is stored so as not to allow for contamination back into the RA  |
|                 | 4.4                     | Manure is not spread within the CAZ   |
|                 | 5.1                     | Written assurance regarding vaccinations (type administered) must appear on the hatchery invoice                    |
|                 | 5.1                     | Written assurance regarding medications with dosage level given at the hatchery must appear on the hatchery invoice |
|                 | 5.1/10.2                | Vaccines used are noted on the flock sheet  |
|                 | 5.3                     | Litter is checked for mold, feathers and bird droppings upon placement in the barn                                  |
|                 | 5.3                     | Rodenticides used in the storage area must not be put in with the bedding   |
|                 | 5.3                     | Adequate litter provided; temperature and drinking lines adjusted before chick delivery                             |
|                 | 5.4                     | Chicks are observed at arrival and 3-4 days into grow-out; observations are recorded                                |
|                 | 6.1                     | Chemicals used must be approved for use in food animal premises   |
|                 | 6.1                     | Chemicals used during the grow-out are recorded   |
|                 | 6.1                     | Only use products according to instructions from the manufacturer or your veterinarian                              |
|                 | 6.1                     | Staff are properly educated to use chemical products  |
|                 | 6.1                     | Supplies are verified at arrival with the label and order   |
|                 | 6.1                     | Medication is kept in original packaging or label information transferred to a record                               |
|                 | 6.2                     | Only use medication approved by the Veterinary Drugs Directorate of Health Canada                                   |

| ✓               | Manual Reference (page) | Requirement   |
|-----------------|-------------------------|---|
| Mandatory Items |                         |   |
|                 | 6.2                     | Medication must comply with the Compendium of Medicating Ingredients Brochures (CMIB)   |
|                 | 6.2                     | No active pharmaceutical ingredients or antibiotics obtained under the Own-Use Provision are used   |
|                 | 6.2                     | Category I antibiotics are not permitted to be used in a preventive manner  |
|                 | 6.3                     | Antimicrobial prescriptions are to be obtained within a valid client-patient relationship (VCPR)  |
|                 | 6.4                     | Water medicator is tested for accuracy before each use  |
|                 | 6.4                     | Extra/off-label medications used only with a veterinary prescription  |
|                 | 6.5/5.1/10.2            | Medication withdrawal time must be adhered to   |
|                 | 6.5/5.1/10.2            | All feed and water treatments must be noted on the flock sheet  |
|                 | 6.5                     | All medications (name, route of administration) must be recorded on the flock specific record form  |
|                 | 6.6                     | Flock sheet sent to processor 3-4 days before processing and fully completed on day of processing   |
|                 | 6.5                     | Feed in lines is minimized and water lines flushed when a medication with a withdrawal period is used during the finishing period   |
|                 | 6.6                     | Information on the Flock Sheet is maintained even for farmers shipping to provincially-inspected plants   |
|                 | 6.6                     | For extra or off label drug use, the withdrawal time must be recorded on the flock sheet  |
|                 | 6.6                     | A copy of the veterinarian prescription must be provided with flock sheet when an extra label/off label medication was prescribed   |
|                 | 7.1                     | A monitoring system for power failures and temperature variations is functional   |
|                 | 7.1                     | Information from processor must be used to determine feed withdrawal times  |
|                 | 7.2                     | Information regarding access to feed, catching and loading and shipping must be recorded on the flock sheet   |
|                 | 8.1                     | Chickens are checked at least twice a day during grow-out   |
|                 | 8.1                     | Sick/injured birds are treated/culled on a daily basis  |
|                 | 8.1                     | Dead birds are removed daily and a mortality log is maintained  |
|                 | 8.1                     | Mortalities are disposed of outside of the RA and anteroom (freezers are allowed in the anteroom); the disposal area must be located to prevent contamination of feed and water sources and must be maintained to prevent rodents/scavengers from accessing the mortality |

| ✓                  | Manual Reference (page) | Requirement   |
|--------------------|-------------------------|---|
| Mandatory Items    |                         |   |
|                    | 8.2                     | Mortalities that are stored or moved off the farm when a disease is suspected or confirmed within the vicinity of your farm must be in covered containers                                   |
|                    | 8.3                     | Producers must contact a veterinarian in cases of unexplained elevated mortality or morbidity   |
|                    | 8.3                     | Farm staff must know what actions to take when there are deviations from normal circumstances   |
|                    | 8.3                     | Each farm has a written emergency/quarantine plan   |
|                    | 8.4                     | You must inform the CFIA and your provincial board if a reportable disease is suspected or confirmed on your farm   |
|                    | 9.1                     | Farmers must address any additional food safety or animal health risks on their farm  |
|                    | 9.3/9.4/9.5             | Monitoring, deviation and verification procedures are implemented for the CCPs of the program – Feed receiving, feed ingredients mixing and treatment with medications                      |
|                    | 1.1 / 10.1              | Standard Operating Procedures or similar have been completed and updated on a minimum yearly basis  |
|                    | 10.1                    | Individual Flock Records are completed each cycle. Records from at least 3 flocks are completed prior to the first audit and at least one year's worth of records are retained at all times |
|                    | 10.3                    | Corrective actions with deviation are recorded on the deviation record sheet or other form  |
| ✓                  | Manual Reference (page) | Requirement   |
| Highly Recommended |                         |   |
|                    | 2.1                     | CAZ is 15 m around each barn  |
|                    | 2.2                     | A visitor's parking area for non-essential visitors should exist outside the CAZ  |
|                    | 2.2                     | Insist that all supplier vehicles entering the farm meet your biosecurity codes   |
|                    | 2.3                     | A physical barrier separates the CAZ from the RA  |
|                    | 2.4                     | Farm workers wear either: (1) barn-specific clothing/ coveralls when crossing the barrier from the CAZ to the RA, or (2) premise-specific clothing that is not be worn off of that premise  |
|                    | 2.5                     | When bedding is delivered to the barn, and workers have to be in and out of the barn, the employees should disinfect their footwear prior to starting the job                               |
|                    | 2.5                     | Catchers should wear premise-specific coveralls when a flock is being thinned and the barn being thinned should be first on the schedule that day   |
|                    | 2.5                     | Farm workers should wash or sanitize their hands prior to entry and exit from the RA, or wear barn-specific gloves when inside the RA   |

| ✓                  | Manual Reference (page) | Requirement   |
|--------------------|-------------------------|---|
| Highly Recommended |                         |   |
|                    | 2.5                     | Garbage bins/bags should be on the farm and should be removed, at minimum, between flocks   |
|                    | 2.6                     | Equipment is cleaned and disinfected prior to bringing it into the RA to reduce the chance of contamination   |
|                    | 2.6                     | Flow through barns should have a separate biosecurity for each production area  |
|                    | 2.7                     | There should be no domestic waterfowl on the farm premises. You should not raise other poultry or keep birds as pets  |
|                    | 2.8                     | New barn constructions should have a physical barrier to separate the CAZ and RA, have concrete floors, two feed bins and gravel around the barn areas (for new premises) |
|                    | 3.1                     | Feed should be pelletized at feed mill  |
|                    | 3.1                     | Feed mill has given written assurance that a quality and food safety control program with 3 <sup>rd</sup> party audits is used  |
|                    | 4.1                     | Inside and outside of the feed bin inspected after each flock for feed caking and rust  |
|                    | 4.3                     | The barn is washed with water and disinfected after each flock  |
|                    | 4.3                     | Proper procedures used when cleaning dirt floors  |
|                    | 4.4                     | All manure is targeted to be removed within 48 hours of birds being shipped   |
|                    | 4.4                     | Barn cleaning should take place as soon as the flock is shipped to maximize the rest period   |
|                    | 4.4                     | Washing and disinfection should be performed if the rest period is less than 14 days  |
|                    | 5.1                     | Chicks should only be purchased from federally-registered hatcheries operating under HACCP  |
|                    | 5.1                     | Written assurance regarding the dosage level of vaccinations is provided by the hatchery, if applicable   |
|                    | 5.3                     | Bedding materials are purchased from a supplier with a control program  |
|                    | 5.3                     | Bedding material is stored in a dry, covered location and managed by a pest control program   |
|                    | 5.4                     | A separate crew than the hatchery places the chicks   |
|                    | 6.2                     | Medications and feed additives are purchased from companies with control programs   |
|                    | 6.2                     | A plan has been developed as to how to deal with products delivered to the farm that do not meet specifications   |
|                    | 6.3                     | Veterinarians should be consulted due to disease or clinical signs in the flock   |

| ✓                  | Manual Reference (page) | Requirement   |
|--------------------|-------------------------|---|
| Highly Recommended |                         |   |
|                    | 6.3                     | Farmers should not use over-the-counter water medications without a veterinary prescription |
|                    | 6.4                     | Extra label medication should only be used when no other treatments are available           |
|                    | 7.1                     | Barns are equipped with a stand-by power system   |
|                    | 7.2                     | Before thinning a flock, the catching crew should provide a documented biosecurity protocol |

# 2

## CONTROLLING ACCESS TO THE FARM

---

Infectious agents (viruses, bacteria, fungi and parasites) can attack your chickens. They can reduce your returns and they can threaten consumer confidence in your product. People, pets, birds, rodents, and other animals can all be carriers. The first line of defense for your flocks is to limit what comes into contact with them.

**MD**

You must create two zones of protection on your farm:

- > A Controlled Access Zone (CAZ) around the outside of the barns.
- > A Restricted Area (RA) that includes the inside of the barn where the birds are actually located along with any other part of the barn that the farmer has included as part of the RA.

This doubles the safety of your flock: once the zones are in place, make sure people respect them. Insist that they follow your rules to the letter.

**MD**

Each farm must design/draw a diagram to indicate the location of the CAZ and the RA. This diagram needs to include the barn and entry room, the layout of the property including roadways, feed bins, etc, and a clear distinction of where the two control zones are located. This diagram will help to educate workers and visitors about the different zones on the farm.

### 2.1 Creating a Controlled Access Zone (CAZ)

A Controlled Access Zone (CAZ) will help you break the cycle of contact between the outside environment and your birds. This reduces the risk of bacterial and disease transfer to your flock.

Limit access to the facilities inside this zone. You should only let people enter who are essential for an effective operation. Discourage visitors and keep them to a minimum. No livestock should be permitted inside the CAZ.

**MD**

The perimeter of the CAZ must include the barn and feed tanks as well as any utilities (e.g. propane, fuel, hydro meters) that are in close proximity to the barn. Manure storage areas must be outside the CAZ.

While there may be a larger area on the farm surrounding the barns where people and vehicle access is limited, the CAZ is the designated area around the barn that must be kept maintained (e.g. grass cut, etc) and free of rodent attractants (e.g. firewood piles).

**HR**

The layout of your farm site and the location of your barns will have a big influence on how you design your CAZ. Within the limits your site sets, it is highly recommended that the zone be at least 15 metres (15 m) around each barn, (manure storage areas must be outside of the zone).

**MD**

On the farm, you must clearly identify the access/entry points (i.e. roadways) to the CAZ by a sign or physical barrier so that people entering the farm know where they are not allowed to have access.

If possible, put up a physical barrier such as a fence or gate. If a sign is used, it should read “Biosecurity in Effect”, “Visitors report to house”, a phone number to call, or wording to that effect to warn people that only necessary entry is permitted.

Visitors who are going to visit the domestic residence and have no connection with chicken production on the farm still represent a risk, however limited. It would be ideal to design the CAZ so that they could reach the domestic residence without the need to pass through the CAZ.

### A) People Accessing the CAZ

Everyone who enters the CAZ (staff and any necessary visitors) should all follow the same rules.



Suppliers (e.g. feed truck drivers) must not enter the barn or barn workroom unless access is absolutely necessary. If it is necessary, the strictest biosecurity measures must be followed to ensure the cycle of disease is broken.

To reduce the need for suppliers to enter the barn, producers can use a mailbox placed outside of the barn entrance for suppliers to leave product samples or paperwork.

### B) Vehicles Accessing the CAZ

Only allow essential vehicles to enter the CAZ. All unnecessary traffic into the CAZ should be restricted. Clearly, vehicles delivering essential supplies such as fuel, litter, feed, chicks or other materials have to enter the CAZ. Similarly, those transporting birds or manure from the barn(s) may enter. You should not allow any other vehicles inside the CAZ.



To help with this restriction, a visitor’s parking area for non-essential visitors should exist outside the CAZ and be included on the farm diagram.

You should insist that vehicles coming from suppliers (i.e. fuel, electrical, bedding) that do not have a HACCP program that covers on-farm biosecurity follow your biosecurity codes of operation. For suppliers with a HACCP program (i.e. feed mills and hatcheries), you should insist that they follow their own codes of practice. Ask your suppliers and processor what practices their employees have been told to follow to ensure they meet your biosecurity codes.

Ideally, vehicles will be cleaned and disinfected prior to entering the CAZ at the access point. The high risk areas are wheels and wheel-wells and any part of the vehicle which has been exposed to a poultry operation. In addition, the inside foot rest area should also be included within the cleaning program when the driver or passengers have been to other sites with poultry.

Additional biosecurity measures that can be implemented in the CAZ include:

- > provide service personnel with the farm diagram prior to their farm visit to make them aware of where the CAZ and RA are located
- > ask that service providers drive slowly while near the barns to minimize dust
- > request that hatcheries and catching crews provide a documented biosecurity protocol prior to entering the RA





- > a facility at the access point(s) that provides for the cleaning and disinfection of equipment and personnel (e.g. vehicle wheels)
- > only allowing access/exit through a visually defined access point
- > wearing CAZ-specific boots and clothing or the use of disposable coveralls and booties
- > requiring suppliers (e.g. hatchery, feed mill, bedding, etc) to sign off that they understand and are willing to comply with your farm's biosecurity measures

## 2.2 Setting Up the Restricted Area (RA) Inside the Barn

The goal of the Restricted Area (RA) inside the barn is the same as for the CAZ. You want to reduce the chance that any potential carrier of infectious agents will come into contact with your flock. This includes people, animals and birds.

**MD**

Producers must post signs at the farm to warn people that entrance to the barn area is restricted. The signs should be easy to read and must be posted at the barn entrance.

The signs should read “No Entry, Biosecurity in Effect”, “Do Not Enter, Permission Required Past This Point”, or have wording with a similar meaning.

Barn doors and other entrances to the Restricted Area must be kept locked when the barn is unsupervised in order to restrict access into the barn. In between flocks, the doors must be kept locked after the barn has been cleaned.

Inside the buildings' workroom or entry, establish a barrier that people must cross to enter the RA. A step-over or some other physical barrier must be used to maintain separation between the CAZ and the RA by establishing a designated area for staff and visitors to change footwear and/or coveralls, etc. At the very least, it should be a clearly identified line. This barrier must be effective to ensure that there is no cross-contamination by way of footwear or feet between the CAZ and the RA.

When designing this barrier, remember that the space where the barrier is must allow enough room on the one side for people to take off their outside gear (boots, etc) and enough room on the other side for people to put on their gear for the RA (e.g. boots, coveralls, etc).

For direct access barns (i.e. where there is no anteroom or workroom), producers must either have a physical barrier when entering the barn to separate the flock from the footwear change area (this area must still allow for appropriate footwear change that prevents contamination between inside and outside footwear) or have a sealable container (e.g. plastic bin) outside the barn entrance either affixed to the barn or on the ground for outdoor footwear.

In situations where chickens are being raised in the same barn with livestock other than poultry, the area being used to raise chickens must be designated as its own RA. As such, designated boots are required for this RA.

A physical barrier (e.g. bench, 2'x 4' stepover attached to the wall or on blocks) should be in place to separate the CAZ and the RA. The barrier should be placed in a way that it fully separates the RA from the CAZ (i.e. no space around the barrier to be able to bypass it).



**HR**

## A) People Accessing the RA

MD

All visitors (e.g. veterinarians and suppliers) accessing the RA inside the barn must complete the visitors' log book containing date, name and previous poultry contact in the last 24 hours. For the previous poultry contact, a yes or no answer is sufficient. A farm may have a log book in each barn or they may have a central log book at the entrance to the CAZ (if it is a central log book then the barn(s) entered must be listed). Catching crews do not need to sign the logbook, however there must be an accessible document indicating the name of the lead catcher, whether that be on the live haul sheets or elsewhere.

Each farmer is responsible for maintaining records to be able to track movements on and off the farm in case of an emergency.

Visitors and workers must follow the farmers' shoe or boot biosecurity procedure before entering the barn.

You must only allow people (workers and visitors) who have followed the procedures outlined below to enter the barn. The following procedures should be adhered to once the barn is cleaned and/or disinfected and during the grow-out period:

### (1) Footwear

MD

> Farmers and all people entering the RA, after the barn has been cleaned and/or disinfected and during the grow-out period up to the point the entire flock is shipped from the barn must take precautions not to carry pathogens from outside the barn into the barn by way of their boots. This can be accomplished by having a dedicated pair of boots at each barn or by another acceptable means (e.g. plastic/disposable boots). This footwear change is to occur at the barrier between the CAZ and the RA. A footbath is not an acceptable method of decreasing the risk of contamination.

Footbaths can be used to disinfect outside footwear prior to entering the CAZ inside the barn, but footbaths cannot replace a change of footwear when moving from the CAZ to the RA. If not changed daily, or when contaminated with organic material, foot baths are not an effective barrier to bacteria or disease. With repeated use, foot baths have been proven to provide a perfect breeding environment for bacteria. Dirty foot baths ensure that bacteria will spread from the environment outside to inside the barn.

HR

When bedding is delivered to the barn, and workers have to be in and out of the barn, the employees should disinfect their footwear prior to starting the job.

### (2) Clothing:

MD

> If any clothing used by farm workers in the RA will also be worn off of the premise, then they can only be worn on agricultural premises under common management.

HR

Farm workers are recommended to wear either: (1) barn-specific clothing/coveralls when crossing the barrier from the CAZ to the RA, or (2) premise-specific clothing that is not be worn off of that premise.

Clothing worn in the RA can act as a vector of disease. RA clothing is not to be worn in public places (e.g. grocery/hardware stores) or on other poultry farms as diseases can be spread from your farm to other farms or from other farms to your farm.

MD

HR

- > Anyone other than farm employees who are accessing the RA when birds are in the barn and prior to the shipment of birds must wear premise-specific coveralls when entering the farm premises or when crossing the barrier from the CAZ to the RA.
- > Each farm must have coveralls/clothing and boots/disposable boot covers available as a back-up for visitors that do not bring their own, or for emergency situations.
- > During partial catching at flock thinning, the catchers should wear premise-specific coveralls or clothes and, if possible, the catching schedule should be organized so that the barn being thinned is the first barn of the catching shift.

### (3) Hand-washing:



MD

HR

MD

- > Visitors must wash or sanitize their hands prior to entry and upon exit from the RA, or wear barn-specific gloves when inside the RA.
- > Farmers/farm workers should wash or sanitize their hands prior to entry and exit from the RA, or wear barn specific gloves when inside the RA.
- > Farm personnel must wash their hands or use a hand sanitizer following contact with mortalities, unless gloves have been used to collect mortalities. Hand washing or sanitizer use can occur at any location on the premises and is to be performed as soon as possible after handling mortalities.

Adequate hand sanitization is best accomplished by hand washing with soap and water, or if hands are suitably clean, a hand sanitizer or a pre-packaged alcohol hand wipe.

MD

The farm manager or employee must accompany visitors when accessing barns to ensure that biosecurity is respected; alternatively, the farm manager must be confident that the visitor has been educated on the farm's biosecurity protocol.

Visitors or service personnel should not be allowed into the RA if they have recently been in contact with a diseased flock, after the barn has been cleaned and disinfected or when there are birds in the barn, unless emergency situations require that service personnel access the RA.

MD

If a farmer or farm employee is involved in, or comes in contact with, another poultry operation which is not under common management, the individual must have washed their hands, changed into barn-specific boots and changed into clean clothes/coveralls prior to accessing the RA.

- > Additional biosecurity measures to consider include: (1) showering in between operations, (2) changing footwear and clothing before entering the CAZ, (3) washing hands before entering the CAZ and (4) requiring a specific amount of downtime between farms.

You should avoid storing unnecessary materials within the work area. Try to keep storage areas outside of the barn(s) to keep the risk of contamination as low as possible.

HR

Garbage bins/bags should be located on the farm for visitors or on the farm for visitors to dispose of coveralls and boot coverings, rather than having the visitors transport used clothing to another location for disposal. Garbage should be effectively disposed of to limit attracting pests and predators. Garbage should be removed, at minimum, between flocks.

## B) Farm Equipment and the RA

Dirty equipment can cross-contaminate or re-contaminate the barn.

**MD**

When equipment is brought into the RA after the barn has been cleaned or during the grow-out period, it must be free of visible organic matter. Any equipment brought from another premise not under common management must be cleaned and disinfected before entering the RA.

**HR**

Producers should consider cleaning and disinfecting any equipment prior to bringing it into the RA to reduce the chance of contamination.

## C) Flock Movement

All-in/all-out scheduling is the ideal situation, keeping the completion time of poultry arrival and shipment as short as possible. To qualify as an “all-in/all-out” flock, all birds should be placed within 7 days and all birds should be shipped within 7 days.

When “all-in/all-out” scheduling is not used, the risk of introducing pathogens to a specific barn or to other barns on the same premise can be increased. In these cases, there are biosecurity measures that should be implemented at both the barn and premise levels:

- > additional biosecurity measures can be applied between barns to enhance barn segregation
- > traffic flow can be regulated in direction and/or timing to provide the best order of operation, reduce possible cross contamination and proximity to live poultry (this traffic flow applies to both pedestrian and vehicular traffic)
- > particular attention can be given to manure handling and route of travel to avoid cross contamination to other barns still in production
- > limiting movement of equipment between barns and cleaning and disinfecting all equipment between barns if used in more than one barn

**HR**

Some farms will have a flow-through barn or have a multi-stage grow-out operation within the same RA. Flow-through barns with different aged birds need to be managed effectively to ensure disease outbreaks are controlled. In this case, you should either insist that the staff move from the youngest to the oldest birds as part of their normal routine or treat the different grow-out areas as if they were different barns on the same property and use separate biosecurity protocols for each production area.

**MD**

In a flow through barn you must ensure that:

- > All cleaning and disinfecting procedures and rest periods are adhered to in each section, as they are described in this manual
- > Biosecurity measures are in place to avoid contamination between different aged birds
- > In-barn procedures limit the spread and ability for cross-contamination of pathogens

## 2.3 Pest Control



Wild birds, rodents and insects must be prevented from entering the barn. You must have a documented and effective pest control program and never allow pets in the barns.

An integrated pest control program makes the most effective use of the environment, management practices, facilities and direct control methods to prevent introduction and spread of contagious disease organisms by pests.

Keep the work areas neat and tidy to help eliminate breeding areas for insects and rodents.

As a minimum standard, you must follow these maintenance routines:

- > Patch gaps under the eaves to prevent birds from nesting or entering the barn.
- > Air inlets for the barn and/or attic require a barrier such as screens to prevent wild birds from accessing the barn. Screens must deny access into the barn but still allow for normal function of the inlets in winter weather conditions (snow, ice, frost etc). All damaged barriers must be repaired immediately.
- > Cut weeds and grass regularly within the CAZ. This makes the area around the barn less attractive to rodents, as would a strip of gravel or crushed rock.
- > Keep the area around the barn clean, tidy and free of general rubbish.
- > Fill or level any low areas where water could stagnate. This removes breeding areas for insects that could carry bacteria.
- > Clean up feed spilled below bins or augers immediately.
- > Maintain barn walls, roofs and doors in good condition. Producers are responsible to ensure an effective barrier against rodents. Any holes where rodents can gain entry into the barn need to be repaired.

When using rodent traps, position the bait stations and traps close to barn walls, at entry points around the barn perimeter and inside the service area. Rodent bait should be renewed or replaced regularly according to the manufacturer's instructions.



If there is evidence of pest presence around or inside the work area in the CAZ, a pest control measure must be used and renewed/replaced regularly to be in good working order.



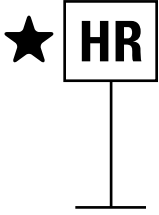
There should be no domestic waterfowl on the farm premises. Staff or owners should never keep birds as pets.



Domestic waterfowl must not be permitted within the CAZ and must be fenced in so they cannot access the CAZ.

## 2.4 New Barn Construction

Building a new barn is an excellent opportunity to ensure high levels of biosecurity, protecting both your birds and your investment. Farmers should include the following barn design elements when building a new barn:



- > A designated parking area outside the CAZ (with a sign) for visitors
- > The installation of a physical barrier inside the anteroom with sufficient space to change when crossing from the CAZ to the RA
- > Installing concrete pad floors (i.e. no dirt floors) for sanitation and ease of cleaning
- > Installing a two feed bin system to more easily manage medicated feed

In addition, if the barn is on a new premises, farmers should:



- > Surround the barn with gravel to minimize rodent entry

# 3

## FEED & WATER

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### 3.1 Feed and Feeding Systems

HR

It is very important to keep feed free from contamination. When pelletized feed is processed properly, the heat treatment helps eliminate certain bacteria such as Salmonella. It is preferred that producers use feed of this standard. If you are mixing your own feed, you should take steps to minimize the risk of contamination.

#### A) If You Buy from Feed Mills

Buy your feed from a mill that has a quality and food safety control program in place similar to the FeedAssure program, the Animal Nutrition Association of Canada (ANAC) HACCP program. Ask the mill to provide you with written confirmation on the invoice or in a separate letter. If the FeedAssure national program is not used, feed mills should be able to demonstrate an equivalent HACCP program which includes 3<sup>rd</sup> party audits.

A list of FeedAssure certified facilities can be found on the following website: [www.feedassure.com](http://www.feedassure.com).

If you add an ingredient to complete or supplement your commercial feed, follow the procedures suggested in B) below.

MD

#### B) If You Mix Feed On-Farm (Critical Control Point 2C)

Develop a control program for your feed mixing operation. Special measures are needed to prevent bacterial contamination and to control the risk associated with handling medicated products (i.e. contamination of non-medicated feed with medicated feed) and in proper mixing of medicated products. In your control program, you must address the critical control points recommended by the ANAC and the CFIA. The focus must primarily be on the following four critical control points:

- (1) weighing the correct quantity of the appropriate medication
- (2) proper mixing of medications in the feed
- (3) prevention of cross contamination (e.g. flushing, sequencing, etc.)
- (4) adherence to withdrawal times if required

The feed section of the Standard Operating Procedures can be used to describe the program used on your farm and the critical points listed above.

**Note:** Information regarding federal requirements for feed mixing regulations is available from the Canadian Food Inspection Agency.

★ MD

If you mix complete feed on-farm, you must keep a feed mixing record (for example to demonstrate the sequential order of feed preparation).

**MD**

If you mix complete feed on-farm, you must take a sample of the finished product. The sample must be stored in a closed container and be kept for 2 weeks after the flock has been marketed.

**MD**

If you add an ingredient to complete your feed (e.g. wheat), you must take a sample for potential contamination (e.g. toxins) before each load is used. The sample must be kept for 2 weeks after the flock has been marketed. Samples need only be tested if necessary; otherwise they are to be discarded. Record the addition of the ingredient on your feed mixing record.

### C) Farm to Farm Transfer

Leftover feed can either be sent back to the feed mill for reprocessing, stored until the next time this type of feed is required or transferred to another farmer. A food safety risk associated with leftover feed is that there may unknowingly be antibiotics with a withdrawal period in the feed – therefore there is the potential for antibiotic residues.

**MD**

Feed transfers can occur on the same farm or between two farmers when a control program is used to ensure the feed does not present a food safety risk. All feed transfers between two different farmers must follow the protocol listed below. For transfers on the same farm or between farms under common management, only transfers of feed containing a medication with a withdrawal period need to follow the protocol below.

- > Producers must keep the delivery slip for each feed delivery
- > Keep a log of transferred feed that includes the items listed in the example record below.
- > Take a sample of the feed before it is transferred to the receiving bin. This sample must be kept until at least 14 days after the flock has been shipped.
- > Only transfer feed from the feed bin; no feed from either inside the barn or outside of the feed bin can be transferred.
- > Be able to provide documentation that cleaning of the original feed bin and the method of transportation followed the protocol listed in this manual.

Producers need to have complete traceability of their feed and be able to demonstrate what was fed to the flock (e.g. feed slip, feed transfer log, feed samples).

#### Example of record:

|  |  |
|--|--|
| Date Feed Moved  | Jan. 23/2014   |
| Original Farm Name and Bin #   | Bob's Poultry Farm, Bin #3   |
| Destination Farm Name and Bin #  | Smith Farms, Bin #1  |
| List any medications with withdrawal periods used in the flock (list withdrawal times) | none   |
| Method of Transport  | Truck #1   |
| Sample Taken   | ✓  |
| Cross-contamination prevention measures used at the original bin                       | *Inspected after the last flock,<br>*Two-bin system: emptied before new feed delivered |



To minimize the quantity of leftover feed, it is suggested that:

- > the feed inventory be closely monitored
- > the amount of feed ordered be calculated based on the flocks' expected consumption

By minimizing the amount of leftover feed, the remaining feed can either be bagged or be stored on-farm in separate bins.

The other alternative, which is increasingly popular, is the installation of a second bin. This has not only the advantage of solving the problem of leftover feed, and maintaining a certain quantity of feed on-farm to avoid shortages but also simplifies the transition from one type of feed to another. The latter approach constitutes, in the HACCP environment, an additional control to ensure adequate withdrawal periods are respected when certain medicated feeds are used.

#### D) Feed Handling



Each load of feed or feed ingredient must be stored in clearly-identified closed bins or in tanks to prevent microbial contamination. This prevents moisture build-up and keeps rodents and wild birds away from your chickens' ration.

Store feeding trays and the paper you use with new flocks away from the production facilities. The storage area should be clean, dry and secure. Again, this prevents microbial contamination from previous flocks, as well as moisture build-up and also prevents contamination by rodents, wild birds, or insects.

Construct feed bins of materials that do not let feed build up on the inside or outside surfaces.

Under normal circumstances, you should present feed to all chickens on a regular, daily basis. When you use feeding restrictions, do not interrupt feeding for more than 24 hours.

#### E) Feed Receiving (Critical Control Point 1C)



From a food safety perspective, the feed you receive is very important. The feed handling protocol is intended to reduce the potential for cross-contamination between medicated and non-medicated feeds as well as to reduce the use of contaminated feeds.

An inspection of all feed delivered to the farm must occur to check if the proper feed has been delivered and that there are no visible signs of mold or contamination. The "Feed" section of the Flock-Specific Form or similar, must be completed for each flock.

Each bill of lading must be checked for medications with withdrawal periods.

See Table 3.1 for withdrawal periods for some of the most common medications found in poultry feed.

**Table 3.1: Withdrawal Periods for Common Medications in Poultry Feed**

| <b>Feed Medication</b>     | <b>Minimum Withdrawal (Days)</b> |
|----------------------------|----------------------------------|
| Avatec                     | 0                                |
| BMD                        | 0                                |
| Clinacox                   | 0                                |
| Coban/Monensin             | 0                                |
| Coxistac 12%/Sacox 120     | 0                                |
| <b>Cygro</b>               | <b>5</b>                         |
| Flavomycin                 | 0                                |
| Lincomix                   | 0                                |
| <b>Maxiban</b>             | <b>4</b>                         |
| Monteban                   | 0                                |
| <b>Nicarb</b>              | <b>4</b>                         |
| Salinomycin 60/Coxistac 6% | 0                                |
| Stafac/Virginiamycin 44    | 0                                |
| <b>Stenorol</b>            | <b>5</b>                         |
| Tylan/Tylosin              | 0                                |
| <b>3-Nitro 20%</b>         | <b>5</b>                         |

**MD**

When a medicated feed with a withdrawal period is used at any time throughout the grow-out, control methods must be used to ensure that there is no cross-contamination between the medicated feed with a withdrawal period and the next feed that is used (i.e. either a non-medicated feed or a medicated feed that does not have a withdrawal period).

To reduce cross-contamination, the following control measures must be used:

- > For single feed bin systems, the medicated feed with a withdrawal period must be knocked down to the bottom of the bin prior to the next delivery of feed. This can be done by using a rubber mallet or similar to knock the sides of the feed bin.
- > Double bin systems offer the ability for greater control. Having two bins provides the ability to empty the feed bin containing the medicated feed with a withdrawal period (i.e. nothing sitting in the bottom/cone) and the auger before switching to the next type of feed. Examples of how this can be done include not blending the two bins, by running the auger and the feed bin containing medicated feed with a withdrawal period empty prior to starting the next feed bin or by ensuring the bin containing medicated feed with a withdrawal period is closed off.

For either system, a record must be kept (on the Flock-Specific Record Form or similar) of when the sides of the feed bin were knocked down or when the switch in a double feed bin system was made between the medicated feed and the feed without a withdrawal period.

**MD**

## F) Feed Sampling

- > A sample of feed must be kept, either at the feed mill or at the farm, for each load of feed that is delivered during the grow-out.
- > If samples are being kept at the feed mill and the feed mill is not certified on the FeedAssure program, then the fact that the feed mill maintains feed samples must be indicated in a letter of assurance from the feed mill (feed mills certified on the FeedAssure program are required to maintain feed samples for a minimum of six weeks).
- > For producers that add an ingredient to a finished feed, remember that a sample of the added ingredient must also be maintained at the farm.
- > Samples that are maintained on the farm (~500g is sufficient) need to be inspected, a record needs to be kept that the sample was taken (the “Feed” section on the Flock-Specific Record Form) and the sample must be stored in a closed container in a cool and dry location until 14 days after the birds have been shipped to the processing plant. The sample must be identified with, at minimum, the date, feed description and barn number.

Over and above the requirements of this program, feed samples can be maintained from each load delivered to the farm for farmers who want to ensure the quality of their feed for their own quality assurance program.

Farmers should be aware that, depending on the type of ingredients contained in their feed, feed samples may discolour over time because of oxidation. This discolouration is not indicative of a sub-standard quality level of the feed delivered.

## 3.2 Water and Watering Systems

The water system (water source, storage, delivery and treatment systems) can be a source of infectious pathogens. Prevention and control measures can minimize, if not eliminate, this risk.

Sources of water that are susceptible to pathogen contamination include bodies of surface water (e.g. reservoirs, ponds, lakes and rivers) and rainwater collection systems.

**MD**

Surface water systems pose a significantly higher risk for the introduction of infectious organisms and substances and must be used with an ongoing water treatment program.

A closed watering system (e.g. nipple drinkers) is preferable to an open system (e.g. bell type or trough). Closed systems provide an environment that is less hospitable to bacterial growth.

**MD**

A visual check (e.g. cloudiness and rust) of the water quality needs to be performed on a minimum weekly basis to ensure a continuous supply of quality water.

Water supplied through open drinkers must be checked for the presence of slime and mold on a daily basis.

These activities are to be recorded on the Flock-Specific Record Form, or similar.

Chickens should have access to water from an uncontaminated and fresh source at all times. Nipple-type drinkers give better control than fountains, cups or open troughs. The temperature of the water should not exceed 30°C (86°F).

### A) Cleaning and Disinfecting Water Lines

**MD**

You must flush your water lines under full water pressure in between flocks.

Water lines should be flushed under full pressure on a minimum weekly basis to inhibit bacteria growth and to prevent build-up. In addition, flushing is recommended after any addition to the lines (medication, etc) to prevent residues and bio-film buildup.

**MD**

Water lines must either be (1) cleaned or disinfected during the grow-out or (2) cleaned or disinfected in between flocks. All water treatment methods and the verifications must be recorded on the Flock-Specific Record Form.

All water treatment systems (e.g. chlorination, iodine, ozone, UV light, reverse osmosis, etc) must be used and adjusted as per the manufacturer recommendations. For example, when using a disinfectant, check the manufacturers' recommendation to determine if a cleaner needs to be used prior to the disinfectant.

There are numerous methods that can be used to treat water; examples include chemical products (e.g. chlorine, acids, iodine, peroxide, etc.) or other methods including UV light and reverse osmosis.

**MD**

If chemical products are being used to treat the water during the grow-out, then the product level in the water must be verified at the end of the drinking line twice during the grow-out period. Verification of the product concentration can be performed by using chemical test strips, ORP (oxygen-reduction potential) meters or other recommended test methods.

- Chlorine test strips must measure free chlorine (not total chlorine) in order to provide an accurate effectiveness reading. When using these strips, the test result must indicate that there remains free chlorine at the furthest point from the water source, thereby indicating that active product is still available.
- Farmers using a chlorinated municipal water source do not need to perform verification tests, unless additional chemical product is added at the farm level during the grow-out. Even when using municipal water sources, the water lines must be cleaned/disinfected either in between flocks or during the grow-out.

The effectiveness of disinfectants is severely reduced in the presence of organic matter. In addition, farmers need to consider the pH level of the water when using several cleaning products. For example, the effectiveness of chlorine is directly related to water pH; a pH of approximately 6.5 to 7 is optimal as the effectiveness of chlorine is reduced significantly at higher pH levels.

One way to verify chemical product effectiveness is by using an ORP (Oxygen-Reduction Potential) meter; these meters measure the oxidizing activity in the water. ORP meters should be used according to manufacturer instructions (literature reports indicate an ORP reading in poultry barns should be between 700-750 mV) and should be calibrated as per manufacturer guidelines using free chlorine test strips.



The recommended cleaning procedure is as follows:

- (1) flush water lines under full pressure
- (2) fill the lines with cleaning solution and let sit as per label recommendations
- (3) flush the lines with clean water
- (4) apply a disinfectant and let sit as per label recommendations
- (5) flush lines with clean water

The following tables can be used as guidelines for cleaning and disinfecting water lines. Always use products according to label instructions.

**Table 3.2 Cleaning and Disinfecting between Flocks**

|                      | Proportioner (1 oz per gallon)                       | Bulk Tank  |
|----------------------|--|--|
| <b>Cleaners</b>      |  |  |
| Citric Acid          | 4-5 packs* per gallon of water or per 3.8 L of water | 4-5 packs* in 128 gal of water or per 485 L of water   |
| Vinegar              | No dilution needed                                   | 1 gal in 128 gal or 3.8 L in 485 L of water            |
| <b>Disinfectants</b> |  |  |
| Chlorine 5%          | 12 oz per gallon of water or 940 mL in 10 L of water | 12 oz in 128 gal of water or 880 mL in 1200 L of water |

\* 205 g/pack; do not use when birds are present.

**Table 3.3 Cleaning and Sanitizing when Birds are Present\*\***

|                   | Proportioner (1 oz per gallon)                              | Bulk Tank   |
|-------------------|---|---|
| <b>Cleaners</b>   |   |   |
| Citric Acid       | 200 g per gal of water or 500 g in 9 L of water             | 200 g in 128 gal of water or 500 g in 1200 L of water             |
| Vinegar           | 0.5 gal per gal of water or 500 mL per L of water           | 0.5 gal in 128 gal of water or 5 L in 1250 L of water             |
| <b>Sanitizers</b> |   |   |
| Peroxide 35%      | 0.5-1.0 oz per gallon of water or 40-80 mL in 10 L of water | 0.5-1.0 oz per 128 gallon of water or 37-73 mL in 1200 L of water |
| Chlorine 12%      | 0.5 oz per gallon of water or 40 mL in 10 L of water        | 0.5 oz per 128 gallon of water or 30 mL in 1000 L of water        |
| Iodine 18.5%      | 12 oz per gallon of water or .95 L per 10 L of water        | 12 oz per 128 gallon of water or .915 L in 1250 L of water        |
| Chlorine 5%       | 1.5-5 oz per gallon of water or 117-390 mL in 10 L of water | 1.5-5 oz per 128 gallon of water or 110-366 mL in 1200 L of water |

\*\*These concentrations are safe for birds to consume but continue to monitor flock performance when using these recommendations.

These products are only examples and do not limit the use of the other products.

## B) Bacteriological and Chemical Analysis

As a minimum standard you must:

- > Test all water sources used for chicken production annually. Analysis must be performed at provincial or municipal public health laboratories or at private laboratories recognized by provincial health authorities.
- > The water sample must be taken inside the grow-out area at the nipples/outlet pipe.

One sample is required for each water source. In cases where a water source supplies more than one barn, water samples should be taken in different barns in subsequent years.

The following is a suggested method for sampling:

- (1) Wear disposable gloves.
- (2) Label the plastic vessel and do not remove the lid.
- (3) Clean the nipple/pipe/outlet with an alcohol wipe.
- (4) Remove the nipple/outlet and let the water run into a bucket for 1-2 minutes. This will remove any stagnant water and debris that might contaminate the sample.
- (5) Wearing the disposable gloves, remove the lid of the vessel and let the stream of water run inside the sample and completely fill it.

Caution: Do not touch the inside of the lid, the open of the vessel or put the lid down. If you do so, discard and take another sample.

- (6) Seal the vessel and send to the laboratory as soon as possible. The most accurate results are obtained within 6 hours of sampling. Refrigerate overnight if necessary.

The intent of this requirement is to evaluate the water quality supplied to the birds. There are several opportunities for contamination once water enters the barns and water lines. The water temperature in the water lines is usually the same as the barn temperature, which contributes to bacterial growth. Farmers should take into account the possibility that the water supply might contain biofilm made up of pathogens which can cause health problems in chickens.

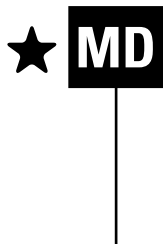
Bacteriological analysis:

- > A bacteriological analysis must be performed on an annual basis. The analysis must include an enumeration of total coliforms per 100 mL and faecal coliforms (*E. coli*).

Minimum acceptable bacteriological standards:

- > The objective is no coliforms per 100 mL of water and less than 500 organisms per mL. However, water may be considered bacteriologically acceptable provided the following tolerances are not exceeded:
  - i) no sample contains more than 10 total coliforms per 100 mL of water
  - ii) none of the coliform organisms detected are faecal coliforms

For new farmers or new facilities, a water test with acceptable standards must be available at the first audit.



Chemical analysis:

- > The local health authorities must be contacted to check if there is a mandatory requirement for chemical analysis in your area. If you are using a municipal water source, this check does not have to be performed since chemical analysis is carried out at the source.



If you find contamination or bacteria, take immediate actions to resolve the problem. Consult with a competent authority or a regulator about what you must do to correct the problem. Water tests demonstrating acceptable bacteriological levels need to be taken to prove the corrective actions have solved the problem.



Farmers should consider performing a chemical analysis for water that is not from a municipal source as the chemical components of the water can counteract with the cleaning/disinfecting solutions or medication in the waterlines.





# 4

## CLEANING & DISINFECTING

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To raise clean, quality chickens, you have to have a clean environment. Cleaning, disinfecting and downtime are the keys to breaking the cycle of contamination.

Disinfectants do not work well unless the barn is clean first. You should have effective cleaning procedures. You should follow cleaning with your disinfecting program. If you do not, you will not break the contamination cycle.

You must:

**MD**

- > Clean and disinfect your barn thoroughly (complete washing) after a disease outbreak (e.g. ILT) or a disease outbreak that required depopulation (e.g. Avian Influenza or Newcastle Disease).

If you suspect a disease has infected your flock, for example a problem that required veterinary consultation, you should clean and disinfect your barn thoroughly.

### 4.1 Barn Exteriors and Equipment

**MD**

You must clean (remove build-up), wash and disinfect the fans regularly, when this is practical. Plan for the ease of cleaning when you are thinking about replacing fans or about beginning new construction.

You must:

- > Keep the barn exterior and equipment clean; use any method suitable to remove dust build-up as necessary. Pay attention around the windows, doors, feed bin areas and air intakes.
- > Empty and thoroughly clean the feed bin boots and feeding systems (augers and lines) between flocks. To prevent freezing during inclement weather, run starter feed through the system right after the first delivery of feed before the chicks are placed.
- > Inspect the feed bin for leaks after each flock. The inside and outside of the feed bin and parts of the feeding system outside the barn must be inspected at least once a year for feed caking and rust. If feed caking or rust exists, the proper personnel must be contacted to clean or fix the system. Cleaning can be performed using either high-pressured air, sweeping the inside of the bin or by another suitable method.
- > The inside and outside of the feed bin and parts of the feeding system outside the barn should be inspected for feed caking and rust after each flock when circumstances permit. The feed bin is a critical part in reducing feed contamination and must be kept free of caked feed and/or medicated feed residues.

**HR**

You should not enter the feed bin at any time. For personal safety, use a safety harness when inspecting the inside of the feed bins and take all safety precautions necessary to avoid an accident.

## 4.2 Barn Interiors and Equipment

You should routinely clean (remove dust/debris, etc) workrooms and entryways. This reduces the risk of contamination and gives staff a safe working environment.

At a minimum, you must:

- > Clean each barn thoroughly after each flock. Do this as soon as possible after the flock is shipped. You must plan to have the barn empty, but ready for the new flock for the longest possible time.

Although not requested at present, be aware that eventually, you will have to prove that you are contributing to the industry pathogen reduction effort. In order to do so, the scientific approach suggests that you should have each barn tested for bacterial pathogens during the growth period and after cleaning and disinfecting. This will provide you with your flock microbial status, allow you to assess the validity of any corrective actions taken and to assess the effectiveness of your cleaning and disinfecting.

### A) Cleaning

You should finish all repairs to the interior and exterior of the barn before you clean and disinfect inside. This will keep animals and birds out and lower the risk of recontamination after clean out.

You must clean inside the barn after each flock. There are two stages in a thorough interior cleaning.

#### (1) Dry-Cleaning

- > Manure removal: You must remove the manure from inside the barn immediately after shipping. Store far enough away so that no possible contamination to water sources, feed or barns can occur.

The further you keep your stockpile from the barn, the better. Ensure that the area between the barn and the storage area after you finish cleaning out the barn is free of manure.

- > Cleaning requires that all organic material be removed (i.e. blown or brushed) from the floors, walls, ceilings, fans, feeders and drinkers, dedicated barn footwear, and other equipment (including any catching equipment).
- > All rooms in the barn (i.e. electrical/office) must be cleaned (remove dust/debris, etc) as thoroughly as possible.
- > All pails and buckets that have been used to collect and/or transport mortalities must undergo the same cleaning and disinfection procedures as the barn at the end of the flock.
- > You must disinfect open drinker systems and let them dry before using them again.

#### (2) Complete washing

- > A complete washing must include, season permitting, a thorough washing of the floors, feeders and drinkers, walls, ceilings, fans, any other equipment (including any catching equipment) and barn boots with water under high pressure. Washing of barn and equipment must take place at least once a year.

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**HR**

- > A complete washing of the barn with water under high pressure (as described in the previous section), followed by a disinfection (as described in the following section) is highly recommended to be performed after each flock.

Dirt floors are virtually impossible to clean or disinfect. You should replace them if at all possible. If you cannot, you should remove the first centimeter of dirt each time you clean out. Replace it with new material. Dirt floors should not be incorporated into the design of a new barn.

**MD**

## **B) Disinfecting**

- > You must disinfect the barn at least once per year and this must be after the barn has been washed with water. This includes all walls, feeders, drinkers, walls, ceilings and all other equipment (e.g. hoppers, feeding chains, etc). You can do this either with a disinfectant wash or by fumigating.
- > Water lines must be cleaned or disinfected with a cleaning or disinfecting product between flocks if a cleaning or disinfection program has not been used during the cycle of the flock. It is recommended to use the cleaning and disinfecting procedures as listed in the previous chapter. Use an adequate flush period to protect your watering system.

Avoid recontamination. Dry equipment and barn interiors as quickly as possible.

A common practice in some regions of the country is to leave open a door or other opening to help dry out the barn after it has been washed. In these situations, the opening to the barn should not be left open if the barn is unattended (i.e. someone on the farm premises). As this practice presents an elevated contamination risk, the barn should be disinfected after the doors have been closed.

## **C) Equipment**

Farmers need to take action to ensure that equipment used during the clean-out does not re-contaminate the barn, nor do they cross-contaminate another building or area on or off the farm premise.

**MD**

All of the equipment (e.g. shovels, pails, bobcats, etc) used in the barn clean-out must undergo the same cleaning and disinfection procedures that are performed on the barn. This procedure can be performed after the equipment has been used in multiple barns if they are being cleaned at the same time.

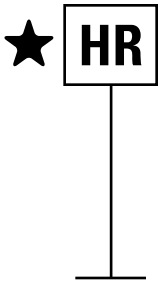
If this equipment is to be removed from the premises and taken to another operation which is not under common management, it must first be cleaned and disinfected.



## **D) Downtime**

A rest period optimizes the cleaning and disinfection protocol. The rest period allows for the destruction of micro-organisms which could have survived the disinfection/fumigation process, but are susceptible to natural dehydration/desiccation.

The best practice is to allow for a minimum of 14 days between when the flock has been shipped and prior to placement of the new chicks. To be effective, cleaning (and disinfection) of the barn needs to take place as soon as the birds are shipped to break the cycle of contamination.



- > All manure should be targeted to be removed from the barn within 48 hours of the birds being shipped to maximize the effectiveness of the downtime period.
- > Barn cleaning (and disinfecting) should take place as soon as the flock has been shipped in order to maximize the rest period.
- > All access to the barn should be minimized after cleaning to avoid recontamination.
- > If a period less than 14 days in between shipping and placement is unavoidable, washing and disinfection should be performed.

## E) Manure Storage

You should dispose of manure safely. Good environmental citizenship builds a good public image for chicken farmers and for chicken. You should establish a manure management plan. Review it regularly. Get to know the provincial and municipal codes (Agriculture, Environment, etc) that apply in your area. Follow them carefully.

Composted manure is more environmentally friendly and more easily stored. It may also be a valuable by-product. You should explore this alternative when you create and review your manure management plan.



Where manure is stored and spread on the premises it must be stored and managed in a manner that does not allow for its accidental re-introduction into the RA by people, equipment, vehicles or weather.

Manure must not be spread in the CAZ.

Ideally, manure should be stored at least 15 m away from the barn and when possible, all new barns should be built to incorporate a 15 m CAZ.

If manure is currently stored in the 15 m zone:

- > Manure should be moved as soon as possible; however the duration of storage depends on the time of year. Storage should be for the least amount of time possible; manure should be moved right away in the summer but can sit longer in the winter, if needed.
- > Manure should be moved immediately if there was a disease outbreak in the previous flock.
- > Manure should be stored on a cement pad that slopes away from the barn.
- > The space between the barn and the manure pad should be clear of manure.

**Note:** Manure should not be completely covered because it is a combustible material. If manure is kept covered, ensure there is adequate ventilation.

Many provincial governments have regulations concerning manure storage and management. Farmers should ensure that they are knowledgeable and are in compliance with these regulations.

# 5

## CHICKS

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### 5.1 Purchasing

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You should only buy chicks from federally-registered hatcheries recognized by the Canadian Food Inspection Agency (CFIA). Furthermore, it is recommended that you buy from hatcheries recognized by the CFIA as operating under HACCP. When available, the CFIA hatchery license or the HACCP Recognition Certificate should be presented upon request when dealing with your hatchery operator.

A list of HACCP recognized hatcheries can be found on the Canadian Food Inspection Agency's website at [www.inspection.gc.ca](http://www.inspection.gc.ca).

Further to your discussions with your chick supplier, the following information must accompany each lot delivered to your farm.

#### A) Vaccines Received at the Hatchery or Administered at the Farm

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Written assurance regarding the vaccination history (type of vaccines administered) must be provided on the invoice slip, or attached to the invoice slip, by the hatchery operator. This information is required on the flock sheet, which will be forwarded to the processing plant.

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Obtaining written assurance from the hatchery operator regarding the dosage level of vaccines is highly recommended. This information can be helpful to allow you to adequately manage your flock during the grow-out period.

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All vaccines administered at the farm must also be recorded on the flock sheet, and all withdrawal times must be adhered to.

#### B) Treatment Received Including the Withdrawal Period When Applicable

Day-old chicks may be injected with antibiotics at the hatchery level and for some of these drugs, a withdrawal period applies. For instance, if an antibiotic has a withdrawal period of thirty (30) days, this means that chicks treated with that antibiotic cannot be marketed for 30 days after the latest treatment with that antibiotic.

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All medications given at the hatchery level (including the dosage) must appear on the invoice slip.

Farmers that produce Cornish chickens (sent to market in less than 30 days) must not send birds for processing prior to the prescribed withdrawal period for any medications that have been administered to the flock.

### **C) The Age Group of the Breeding Flock(s)**

From the beginning of the laying period (approximately 25 weeks of age) to the end of the laying period (approximately 60 weeks of age), a hatching egg supply flock will produce increasingly larger eggs resulting in larger day-old chicks with varying immunity levels depending on the age of the flock of origin.

Since hatchery operators must have supply flocks of different ages to meet a constant demand, they must contend with different sizes of eggs and consequently different sizes of chicks. In order to deliver a large number of chicks of as uniform weight ranges as possible, the general practice in the hatchery industry is to group production by age groups or sizes of birds. For instance, they may group together the eggs/chicks of:

- > the 24 - 30 week-old breeding flocks (small)
- > the 31 - 45 week-old breeding flocks (medium)
- > the 46 - 60 week-old breeding flocks (large)

Knowing from which age groups the incoming lot(s) are from may, in cases, influence where the lot(s) would be placed for brooding. For example, the smaller chicks may be placed on the upper floors where it is generally warmer. The age group of the supply flocks must be disclosed to the farmer on the invoice, provided that information is not to be used to require future lots from specified age ranges of the breeder flocks. Pressure by producers to get particular size ranges of chicks would push for a different pricing structure and would most likely result in greater waste at the hatchery level.

### **D) Lot Identification**

The Canadian hatching egg production structure does not allow for the assembly of a large quantity of chicks of one production unit in order to fill the average Canadian chicken barn. To meet market demands and ship uniform lots, the Canadian hatchery operators must gather chicks from various supply flocks. For trace-back purposes, flock identification information should appear on the bill of sale (or the bill of lading) to inform the producer of the origin of the chicks.

Chicken farmers do not need to know the name of the exact breeder flock or the name of the farm of origin. A coding system that could provide a traceable indication of the origin of the flock is sufficient. This system must be verifiable in such a way that a producer could present any investigating parties, for example the CFIA hatchery inspector in case of health problems or an auditor of this program for audit purposes, with a traceable indication of the origin of the product that came into the barn.

### **E) Date of Hatching**

Operators of modern hatcheries are scheduling their production to ensure that chicks are delivered within working hours on the day they hatch. However, some lots may be rolled over to the next day and/or some chicks may be transported for an increased period of time. Whenever a producer is to receive chicks that have been pulled from the hatchery for more than 12 hours, hatchery operators must inform the producer of the particular status of the incoming chicks. This will allow producers to take appropriate measures to ensure an optimal environment for the incoming flock.

When a problem occurs after placing or during the growing period, additional information must be provided on request. Hatchery operators must keep complete records and pertinent data on all transactions and health-monitored issues for investigations/trace-back purposes and for CFIA inspectors.

## 5.2 Barn Preparation and Delivery

### A) Bedding Materials

Be careful not to bring contamination into the barn in bedding materials. These include shavings, straw, shredded paper and the like. Take steps to make sure that these are as free from impurities as possible. The risk varies, depending on the type of material.

If you buy bedding materials, check that the supplier has a control program to keep the material clean. The program should apply both during storage and during delivery. You should insist that the suppliers' delivery trucks follow your procedures for service vehicles.

It is highly recommended that bedding material be stored in a dry and covered location with the intent of keeping domestic and wild animals away. The storage premises should be included on your rodent control program.

Rodenticides being used in the bedding storage area must not be put in the bedding where they can contaminate the bedding prior to placement.

Upon placement in the barn, the bedding must be checked for mold, feathers and bird droppings and this activity must be recorded on the Flock-Specific Record Form or similar.

When spreading bedding materials in the barn, take great care not to re-contaminate the barn.

### B) Barn Preparation

Once the date and time of delivery is obtained from the hatchery, make sure that the barn is ready before the chicks are delivered. The Flock-Specific Record Form must be reviewed and used to ensure that the barn and all the equipment (including the brooders, the feeders and waterers) have been properly cleaned and disinfected to ensure that the barn is ready for placement upon arrival of the chicks.

The following procedures apply:

- > The bedding must be clean, soft and dry. An adequate layer is required to absorb the droppings of the chick, except in operations with heated floors. The thickness depends on the type of bedding used.
- > The temperature must be adjusted in advance to ensure that the body temperature of the chick remains the same from hatchery transfer time, until they can regulate their body temperature.
- > Drinking lines must be ready to be adjusted. Whenever a producer is notified that they are receiving chicks from the previous day's hatch, they must ensure that an adequate water supply is immediately available for the birds.

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## C) Delivery

The chicken farmer or one of his/her representatives should always be present at the time of delivery and placement, to make sure that the chicks delivered are in good physical condition. The following quality assessment criteria are used at the hatchery level and are suggested to the producer to be used at the reception of their chicks:

- > *Alertness*: an alert chick has wide-open bright eyes and appears to be curious.
- > *Vigour*: a vigorous chick is instantly active when disturbed and shows no signs of weakness.
- > *Condition*: the condition of the chick is evaluated by handling. A chick in good condition is firm, not mushy. The navel is healed, the fluff is not matted and the chick presents no signs of dehydration. Unhealed navels provide an early access route for bacterial infections, resulting in chick losses.
- > *Normality*: a normal chick has no apparent deformity and shows no signs of abnormality such as twisted beaks, twisted toes, crippled or straddled legs, etc. There should not be noticeably undersized birds within the lot.



You must inspect your new flock as soon as you get the chicks. You must also check and record the flock condition three to four days into the grow-out period. Record your observations and make note of any corrective actions you take. You must also inspect your flock at least twice every day that the flock is in the barn.

Biosecurity procedures for those entering the RA inside the barn outlined in Chapter 2, “Controlling Access to the Farm”, must be respected.

In order to minimize the risk of introducing contamination inside your clean (and disinfected) barn, chicken farmers and hatchery employees should adhere to the following procedures at the time of placement:

- > The delivery area should be dry, clean, and free of debris and organic material.
- > Hatchery delivery staff should wear appropriate clean clothing and impervious footwear, which can be cleaned and sanitized upon arrival on the farm.
- > Ideally, the incoming boxes of chicks should be unloaded outside the RA by hatchery employees (truck driver and/or employees). A producer crew would then take over placing the chicks in the barn. If the hatchery crew takes part in the placement process within the barn, additional care should be taken to prevent the introduction of foreign contamination.





# 6

## MEDICATIONS & CHEMICALS

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You should consider the other inputs you use in the course of growing a flock. Think about medications, vitamins, pesticides and rodent poisons. Consider the quality of each one that you use. How will using them affect your production efficiency? How will they affect the safety of the final product, the chickens?

Some growers may store chemicals such as herbicides, insecticides and fertilizers, not used in the poultry operation, in or near their poultry barns. If so, they should take care when storing and using them. Farm personnel should be adequately trained in receiving, handling and storing these products.

When using or in the vicinity of chemical products (e.g. disinfectants, rodenticides, etc.) ensure that adequate safety precautions are taken to avoid adverse health effects; follow label directions.

### 6.1 Chemical Products: Purchase, Receiving, Storage and Usage

During the grow-out, you may need to treat your birds with vaccines or antibiotics, vitamins or other feed additives. Considerations also apply to rodent and pest control chemicals and/or chemicals to be used in other farming operations.

The federal government and many provincial governments have regulations concerning the purchasing, use and storage of medications and/or chemicals. Farmers should ensure that they are knowledgeable and are in compliance with these regulations.

You must:

- > Chemicals purchased and used must be approved for use in food animal premises. You must only use these products according to manufacturer's instructions (for example pool cleaners as water disinfectants and motor oil as a wood preservative are not permitted for use) or your veterinarian.
- > Make sure that your staff is properly educated before you let them use any chemical products.
- > If chemicals are used, with or without a withdrawal period, in the RA during the grow-out period, they must be recorded using the Flock-Specific Record Form or similar.
- > Check the supplies when they come to the farm. They must come in unopened containers. Each must have a label saying what it is, its concentration and strength. There must be instructions for use. You must keep this information for your records. Verify that the label on the bag matches what was ordered.
- > Store medications, vitamins and other feed additives in closed containers, according to manufacturer recommendations (follow the label recommendations) and only with compatible products. Medication must remain in its original packaging or the label information must be transferred to a record.
- > All chemical containers must be labeled (with the product name and concentration if different from original) and stored separately from medications and/or feedstuffs.

**MD**



You should:

**HR**

- > Buy medications, vitamins, feed additives and chemicals from reputable companies or manufacturers who have a quality control program. This should be indicated by a quality assurance mark/logo or traceability number (DIN or PC#) on the label, or through a letter of assurance from the manufacturer.
- > Develop a plan for how you will handle products that do not meet these conditions. Record any corrective actions you take.



## 6.2 Use of Medications During the Grow-Out Period (Critical Control Point 3C)

Medications (including antibiotics) may be administered to the flock during the grow-out period. However, strict adherence to laws, regulations and product instructions must be observed in order to ensure the food safety of the final product.



**MD**

Only medications approved for use by the Veterinary Drugs Directorate of Health Canada which have a valid DIN can be used to treat chicken flocks. All medication use must follow either the directions as contained on the product label/monograph or the directions of a veterinary prescription (see extra-label use below).

- > All medication use via feed must comply with the Compendium of Medicating Ingredient Brochures (CMIB) as published by the Canadian Food Inspection Agency or have a veterinary prescription in order to be compliant with the Feeds Regulations.
- > Active pharmaceutical ingredients (a substance that is intended to be used in the manufacture of a medicinal product) and products obtained under the Own-Use Provision of the Food and Drugs Act (drug products imported from another country) are not permitted for use in chicken production as part of the CFC's On-Farm Food Safety Assurance Program.

All Health Canada approved drugs are issued a Drug Identification Number (DIN). To confirm if a drug has been approved by Health Canada, and to find the specific conditions of use, check the following websites:

- [www.poultryindustrycouncil.ca](http://www.poultryindustrycouncil.ca) (click on “vet compendium”)
- [www.inspection.gc.ca](http://www.inspection.gc.ca) (search Compendium of Medicating Ingredient Brochures)



**MD**

- > Category I antibiotics are not permitted to be used in a preventive manner.
  - Antibiotics are ranked (Categories I through IV) by Health Canada based on their importance to human medicine. Category I antibiotics are considered to be of the highest importance to humans, and include third and fourth generation cephalosporins (e.g. Ceftiofur®) and fluoroquinolones (e.g. Baytril®).

The categorization of antimicrobials of importance to humans should be considered prior to any use, in conjunction with a veterinarian, to ensure those of importance to humans are only used after careful review and justification. Below is an example of the categorization chart and common medications.

| Category | Importance to Humans | Category Criteria   | Medications   |
|----------|----------------------|---|---|
| I        | Very High Importance | Essential for serious human infections and limited or no alternatives available | Cephalosporins (e.g. Ceftiofur)<br>Fluoroquinolones (e.g. Baytril™) |
| II       | High Importance      | Essential for treating serious human infections and few alternatives available  | Aminoglycosides, Virginiamycin (Stafac™), Lincomycin, Penicillins   |
| III      | Medium Importance    | Important for treating human infections and alternatives generally available    | Bacitracins, Sulphonamides, Tetracyclines                           |
| IV       | Low Importance       | Not used for humans   | Ionophores (e.g. Rumensin™, Monteban™, Maxiban™, Sacox™ etc.)       |



- > Veterinarians should be consulted due to disease or clinical signs based on their expertise in the area of disease diagnosis and their use of pharmacological information and principles.
  - Veterinarians are guided by the Canadian Veterinary Medical Association prudent use guidelines which indicate that veterinarians should use history, clinical signs, previous on-farm experience, diagnostic tools including gross pathology, microbiology and other diagnostic tests with culture and sensitivity results where indicated, to aid in the selection of antimicrobials and thereby improve the opportunity for successful treatment.
- > Farmers should not use over-the-counter water medications without a veterinary prescription.
  - **Note:** The objective is that over-the-counter water medications only be used in conjunction with a veterinary prescription. Issues of veterinary capacity and assuring animal welfare present significant hurdles resulting in a longer implementation timeline. In the meantime, farmers and industry stakeholders should work together to establish the processes to reach this objective.



- > All antimicrobial prescriptions are to be obtained within the confines of a valid Veterinary–Client–Patient Relationship (VCPR).  
Farm personnel administering medication must understand how to handle and administer the medication.

A few drug-related definitions are listed below:

**Approved Medications:** Approved drugs are veterinary drugs which have been evaluated by the Veterinary Drugs Directorate (VDD) of Health Canada prior to approval of a label indicating the conditions of use including the:

- i) species, e.g. chicken
- ii) indications for use, e.g. to prevent coccidiosis or to treat respiratory disease
- iii) route of administration, e.g. water, feed or injection
- iv) maximum dosage and frequency or length of treatment
- v) precautions which may include a withdrawal time

**Extra Label Drug Use (ELDU):** The use of a drug product in a manner that is not consistent with what is indicated on the label, package insert or product monograph of any drug product approved by Health Canada. For example, ELDU can include use with an alternate species (e.g. chickens versus cattle) or using an increased dosage.

**Off-Label Use:** Use of an unapproved drug product (a drug product which does not have a DIN). Use of a drug which was never approved for use by a Canadian regulatory authority.

## A) Medicators



Water medicators must be tested before each time a medication is administered. The results of the tests, the method of testing, any deviations and subsequent repairs must be recorded on the Flock-Specific Record Form or equivalent.

The following calibration is one method to perform these tests; other calibration protocols (i.e. manufacturers' recommendations) can also be used to test accuracy.

- (1) Disconnect the outflow side of the medicator from the water line (usually connected by a union or a “quick connect” coupler).
- (2) Use a measuring cup that measures mL and fill with water.
- (3) Place the end of the medicator intake tube into the measuring cup, place a pail under the outflow of the medicator, and turn on the water supply through the medicator.
- (4) If the correct amounts are disappearing out of the measuring cup, then the water medicator is working properly. If not, your medicator needs servicing.

## B) Extra Label and Off-Label Medication Use

The use of extra label and off-label medications in poultry must follow the protocol described in the CFIA's Meat Hygiene Manual of Procedures entitled “Prevention of Violative Drug Residues”. This protocol has been summarized in the following sections:

- > Extra label use of veterinary drugs by farmers is restricted to the directions based on a veterinary prescription. Extra use for medicated feeds is also restricted to a veterinary prescription under the Feeds Act.
- > Under no circumstances should a farmer use medications that are extra or off-label without a veterinarian prescription.
- > Extra label medications should only be used where no other treatments are available.

If any detectable residue is found in products treated with extra-label medication, or if any detectable residue is found over the maximum residue limit as determined by Health Canada in products treated with extra label medications, the product cannot be used for human consumption and will be condemned.

Since veterinarians face liability if residues are found in products treated with extra label medication, they must obtain accurate information concerning withdrawal times. This is a highly scientific process that includes taking into account factors such as age, sex, disease status and health status of the flock and then contacting professionals at pharmaceutical companies, veterinary schools and/or the global Food Animal Residue Avoidance Database (gFARAD).





- > Farmers should, in consultation with the veterinarian, consider all alternatives that may be used to treat an outbreak and to prevent further outbreaks from occurring without having to use extra label medications.



### C) Medication Withdrawal (Critical Control Point 3C)

You must withdraw medication from feed and water before you ship your birds for processing. The withdrawal period must be according to the label directions or the veterinary prescription. This will give enough time for the medication to clear from the birds' systems and prevent any residues in the final product. Otherwise, provisions listed in Chapter 9 "Control measures and corrective actions" must prevail.

Labels for approved drugs may not indicate a withdrawal time (some coccidiostats are not readily absorbed in the intestine). When no withdrawal time is specifically included in the Health Canada approved label, none is required.

All feed and/or water treatments must be noted on the flock sheet with the appropriate information (including date, disease, medications, withdrawal period (if applicable), length of treatment and whether or not the treatment was successful).

Feed in lines must be minimized and/or water lines must be flushed when a treatment involving a withdrawal period is used during the finishing period (the last two weeks). Dates of these actions need to be recorded on the Flock-Specific Record Form.

### D) Recording of Medication Use

#### (1) Recording medication use on the Flock-Specific Record



All medication use must be recorded on the Flock Specific Record Form or other similar document. All medications (Category I-IV as described above) are to be recorded.

The name of the medications can be found on feed tags, medication labels and veterinarian prescriptions. Below is an example of medication record in the Flock-Specific Record form:

| Name of Medication | Route of Administration   | Water Medicator Tested |         |                             | Record any control measures used* |
|--------------------|---|------------------------|---------|-----------------------------|-----------------------------------|
|                    |   | Date                   | Results | Corrective Actions (if any) |                                   |
| <i>Monteban</i>    | <input checked="" type="checkbox"/> feed <input type="checkbox"/> water |                        |         |                             |                                   |
| <i>BMD</i>         | <input checked="" type="checkbox"/> feed <input type="checkbox"/> water |                        |         |                             |                                   |
|                    | <input type="checkbox"/> feed <input type="checkbox"/> water            |                        |         |                             |                                   |
|                    | <input type="checkbox"/> feed <input type="checkbox"/> water            |                        |         |                             |                                   |
|                    | <input type="checkbox"/> feed <input type="checkbox"/> water            |                        |         |                             |                                   |
|                    | <input type="checkbox"/> feed <input type="checkbox"/> water            |                        |         |                             |                                   |

\*For medications with a withdrawal period used in the finishing period: Record the date the feed was minimized or the water lines flushed

## (2) Recording use on the Flock Information Reporting form (flock sheet)

This form contains all the information you need to fulfill the requirements of the CFIA for birds to be processed.

Copies of the flock sheet must be sent twice to the processing plants to which your birds are shipped:

- > A first, partially completed copy, must be sent 3-4 days prior to catching to inform the processing plant of the nature of the birds they will be receiving (including diseases/treatment and mortality rate). Individual arrangements for the transmission must be made by each farmer and his/her processing plant.
- > A completed second copy must accompany the birds at the time of shipment.

The information on the flock sheet must be maintained even for farmers that ship to provincial processing plants. The flock sheet is the record form to maintain information on vaccines, medications and diseases as well as information on feed withdrawal and catching. The information can be recorded on the flock sheet, or on another record form.

Further information can be found in Chapter 10 “Flock Information Reporting Form”. A complete set of instructions for filling out the flock sheet can be found on the back of the flock sheet.

## (3) Recording extra label use on the flock sheet

In the case of extra or off-label drug use, the withdrawal time must be recorded on the flock sheet, together with the name of the veterinarian who prescribed the drug, the date of the prescription and the source of the withdrawal period. All use of extra-label medication needs to be recorded on the flock sheet, regardless if it is for preventive or curative purposes.

- > If the withdrawal period was obtained from gFARAD or another source, the name and telephone number (or e-mail address) of the person who provided the information must be included on the prescription.
- > If the reference is from gFARAD, veterinarians can also include the gFARAD reference number on prescriptions to indicate where the withdrawal information was obtained.

A copy of the veterinary prescription, including a withdrawal time indicating the basis for compliance with the applicable Canadian Maximum Residue Limit (MRL) or assurance of a non-detection level of residues, must be submitted with the advance copy of the flock sheet.

Processors have been instructed by CFIA not to pick up loads of live poultry unless they have received a copy of the prescription whenever the flock has been treated with extra and off-label drugs.

**MD**

**MD**

# 7

## THE GROW-OUT PERIOD

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### 7.1 Back-Up Systems

**MD**

A monitoring and alarm system must be functional to inform you of any power failure and temperature variations outside of the critical limits.

**HR**

Your barns should have a standby power system. You should test the standby system regularly to be sure that you can give your birds a proper environment if there is a power failure. In many cases, the testing frequency will be dictated by the farm insurance policy.

### 7.2 Flock Monitoring/Bird Weighing

Birds should be weighed throughout the grow-out period. Weighing should be done either on a continuous basis (electronic in-barn scales) or manually at 28 days of age and 3-4 days prior to shipment.

### 7.3 Loading Protocol

#### A) Feed Withdrawal

To ensure that the bird's gut is completely empty by the time it is processed, you will need to withdraw feed for a time of fasting.

Timing is important. Current data indicates that access to feed should optimally be cut off between 6 and 10 hours prior to evisceration. Cutting access to feed too late or too early can each cause serious problems at the processing plant.

The right feed withdrawal time depends on several factors, including:

- > your feeding program
- > the size of the bird
- > the scheduled time for catching
- > how long the birds will be transported
- > how long the birds will wait at the plant before processing



Studies show that providing minerals and organic acids (e.g. lactic acid) in the drinking water during the withdrawal time greatly reduces post-harvest crop contamination.

**MD**

You must check with your processor for instructions on feed withdrawal.

The instructions you receive may differ, depending on the management of the processor. In some instances, processors will provide you with a precise withdrawal time. Others will provide the planned processing time and your feed withdrawal contamination data from previous flocks. You will be able to reduce contaminations and better manage feed withdrawal using this data.



## B) Catching

The producer or a representative should supervise the loading of all shipments.

Proper catching is humane. It is efficient and considerate of the birds' welfare. It reduces stress and injury to a minimum. It protects the quality of the product for processing and marketing.

Catching crews should:

- > Change into clean clothes and footwear when they enter the RA
- > Be properly trained in the basics of animal welfare (by their employers)
- > Be skillful in handling birds

Before thinning a flock, the catching crew should provide the farmer with a documented biosecurity protocol (e.g. letter).

Partial depopulation of a flock or thinning is a reported risk factor for bacterial contamination such as *Campylobacter* colonization of residual birds due to a lack in maintaining biosecurity during this process. Possible options to reduce the risks associated with thinning are:

- > Schedule flock as the first catch of the night
- > Have the catching crew change into clean clothes (barn specific clothes or disposable coveralls) and footwear (barn specific boots or disposable boots) when entering the RA
- > Have the catching crew disinfect their hands with an hand sanitizer before and after the flock thinning process
- > Catching crews should remove clothing and footwear and dispose them at the farm

During loading, you should do everything possible to protect the birds from being exposed to a sudden change in temperature. Gradually bring the temperature inside the barn towards par with the outside temperature. Guard against getting the birds wet. Protect them from sources of heat and steam.

It is best if crates with live birds are moved in a horizontal position. If you use a conveyor to load crates of live birds, set the conveyor angle to prevent excessive tilting as this causes the birds to pile up. Move all loaded crates smoothly during loading, transport and unloading.

All pertinent information regarding access to feed, catching/loading and shipping must be recorded on the flock sheet.



**MD**



# 8

## DISEASE MANAGEMENT

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### 8.1 Bird Supervision

**MD**

You must check your chickens at least twice a day during the entire grow-out period; more often during the first week after their arrival.

Set up the grow-out area so that you or your staff can inspect the flock easily. This is particularly important when one person is in charge of a large number of chickens.

**MD**

You must treat sick or injured chickens promptly. If you must dispose of them, do so in a humane manner. You must cull sick or injured chickens on a daily basis.

Watch for clinical signs of disease. Look out for unusually high mortality. If you find a problem, send samples to a veterinarian or diagnostic lab. They will give you a diagnosis and treatment recommendations. Keep these and any other reports of written recommendations from veterinarians.

Protect your chickens from contact with other animals. This will prevent contamination, disease and stress.

#### A) Dead Bird Removal and Disposal

Take care when you are moving dead birds anywhere on your farm. An infectious disease may be present in your flock without any clinical signs becoming apparent during its early incubation period. Make sure that you keep the chance of bacterial or disease transfer to a minimum.

**MD**

Dead birds must be collected and removed from the floor of the barn daily and a daily mortality log must be maintained for each flock.

Farm personnel must wash their hands or use a hand sanitizer following contact with mortalities, unless gloves have been used to collect mortalities. Hand washing or sanitizer use can occur at any location on the premises and is to be performed as soon as possible after handling mortalities.

Many provincial governments have regulations concerning mortality management. Farmers should ensure that they are knowledgeable and are in compliance with these regulations. You may be able to incinerate, compost or ship dead birds off the farm for rendering.

**MD**

Mortalities must be disposed of in a location outside of the Restricted Area (commonly referred to as the Production Area) including any anterooms that are designated as the RA. Freezers are allowed in the anterooms as a disposal method. The disposal area must be located to prevent contamination of feed and water sources and must be maintained to prevent rodents/scavengers from accessing the mortality. Any disposal method must be permitted by provincial disposal regulations.

The following are guidelines for different types of mortality disposal:

(1) Off-Farm Rendering

- > Carcasses are to be stored in a manner that does not allow for escape of any organic material or allow for access by pests or rodents and be moved to the access point or outside the CAZ when the rendering truck arrives.
- > All pails and buckets that have been used to collect and/or transport mortalities are to undergo the same cleaning and disinfection procedures as the barn at the end of the flock.

(2) On-Farm Incineration

- > Incinerators are to be clean and well maintained.
- > Complete incineration is to occur at every run.
- > Maximum capacity should not be exceeded when running the incinerator.
- > When incinerators are newly installed, they should not be located on the same side of the barn as the air inlets.

(3) Burial

- > Carcasses are to be covered with enough soil or other material to prevent access from scavengers.
- > Burial site is to be located appropriate to soil type and water table.

(4) Composting

- > Composters are to be designed and operated in a manner consistent with science-based composting methods such that proper temperatures for composting are maintained.
- > It is recommended that temperatures are monitored to ensure that composting is working effectively.
- > Composters are to be maintained to minimize the attraction of flies, rodents and other animals.

(5) Deadstock Removal Off-Farm (e.g. zoos)

- > Protocol and location of disposal are to be recorded.
- > Disposal method must not present a food safety or animal health risk.

**MD**

In times of heightened biosecurity when a disease is suspected or confirmed in the vicinity of your farm:

- > Mortalities that are not moved to the disposal area immediately (e.g. they are kept in containers for a period of time) must be kept in covered containers, and
- > Carcasses that are moved off the farm must be transported in covered containers.

If birds that have been accidentally exposed to insecticides or other chemicals resulting in mortality are being sent to rendering facilities, the rendering facility operators should be informed of the cause of the mortality to prevent the re-introduction of harmful residues into the food chain.

## 8.2 Disease Management

### A) Disease Recognition

It is not expected that producers be able to diagnose diseases; however, it is important that personnel are suitably experienced or educated in order to be able to identify any changes in behaviour, appearance, mortality patterns or productivity within the flock which may indicate that an infectious disease is present.

If deviations from the normal patterns are identified, staff must know what actions to take.

Producers must contact a veterinarian in cases of unexplained elevated mortality or morbidity.

The following is an example list of clinical signs that should trigger consultation with a veterinarian:

- > Decreased feed or water intake
- > Nervous behaviour (trembling, shaking, paralysis etc.)
- > Coughing or sneezing (respiratory distress)
- > Elevated mortalities
- > Diarrhea
- > Lack of energy (depressed behaviour)
- > Swelling of tissues around eyes and neck
- > Purple wattles and combs
- > Muscular tremors, depression, drooping wings, twisting of heads and necks, lack of coordination or complete paralysis

### B) Disease Response Protocols

Each farm must have an emergency response/farm quarantine plan that is to be initiated whenever a contagious disease is suspected, or after confirmation has been received from a veterinarian.

The written emergency response/farm quarantine must include, at minimum, the following items:

- > Contacting a veterinarian in cases where a disease is suspected
- > Discussing the situation with family members and farm staff
- > Blocking the entranceway to the CAZ (using a gate, rope/chain, wagon or other means) to prevent unwanted traffic or access
- > Limiting movement between barns and off of the premises
- > Limiting any equipment movement on and off the farm
- > Enhanced cleaning and disinfection process for vehicles entering and exiting the CAZ
- > Enhanced barn cleaning and disinfection and mortality management
- > Notifying the provincial board office and other industry personnel that a disease is suspected or confirmed

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If a reportable disease (Avian Influenza, Newcastle Disease or Fowl Typhoid) is suspected or confirmed, you must immediately inform a veterinarian from the CFIA and your provincial board office.

Each producer should be aware of their role in the Provincial Emergency Response Plan. This can be accomplished by contacting your Provincial Board Office.

# 9

## HACCP AND YOUR FARM

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**MD**

The *Safe, Safer, Safest* manual has been developed using a HACCP-based process and the requirements have been developed based on the production practices used on chicken farms in Canada. If there are additional hazards on your farm that present a food safety or animal health risk, these hazards need to be addressed and minimized, even if they are not mentioned in this manual.

The information presented below provides additional information on the process that was used.

### 9.1 Using HACCP on your Farm

The basic principles of HACCP will work in chicken production. However, before producers can start a HACCP program, they must be doing the basics. This is true for food processing and it is true on the farm.

- > Good Production Practices (GPPs) must be in place
- > These GPPs must be monitored to make sure people are following them
- > Producers must be able to show that they take effective action to correct a problem whenever there is a hazard or a deviation from a GPP

Once producers meet these conditions, they are ready for HACCP. There are three steps in the HACCP process.

- (1) The first step is to fully understand the hazards that could be present. There are three different types of food safety hazards – biological, chemical and physical.

#### *Biological Hazards*

In general, the main biological hazards found in livestock operations come from human pathogens. E. Coli, Campylobacter jejuni and Salmonella are examples.

There are good ways to control biological hazards in food processing. However, we know much less about how to control them at the farm level.

#### *Chemical Hazards*

Chemical hazards in chicken production could come from a number of sources. For example, chickens could have unacceptable levels of an antibiotic or vaccine, or mycotoxin from mouldy feed. Bedding materials might have been made from raw materials with excessive levels of pesticides.

#### *Physical Hazards*

Physical hazards are more often found in food processing plants where foreign materials such as metal, plastic or glass can get into the finished products. Although there may be some physical hazards in livestock operations, physical hazards are unlikely to occur in live chickens going to the processing plant.

- (2) The second step is to find ways to minimize or eliminate each hazard. Some can and must be controlled before the chicks come to the farm. You can also control some during the grow-out period. A few cannot be controlled on the farm. This could happen because we do not know enough about how the hazards might affect food safety. Or it could be because there are no actions that you could take, given our present knowledge, to prevent the hazard at the farm level.
- (3) The third step is to plan the specific actions that you will take to correct or control the hazards if you find them.

## 9.2 The Seven HACCP Principles

The World Health Organization (WHO) has set out seven principles to follow when developing a HACCP plan. These are:

- (1) Identify the biological, chemical and physical hazards for each raw material and production step.
- (2) Apply the HACCP Decision Tree to find which of these are Critical Control Points (CCPs). The Decision Tree is described later in more detail.
- (3) Set critical limits to ensure that each of the CCPs is under control.
- (4) Set up monitoring procedures for each CCP.
- (5) State what corrective actions will be followed whenever a problem is found.
- (6) Set out verification procedures to prove that the control program is working.
- (7) Set up records and documentation to prove that you are actually doing what you say you will do.

## 9.3 The HACCP Decision Tree

Producers can control many food safety hazards effectively by having and following Good Production Practices. Some, however, need detailed monitoring and control. These are called Critical Control Points (CCPs).

One of the hardest steps in looking at your operations from a HACCP perspective is choosing your CCPs. A CCP can be either a raw material or a production step. Fortunately, there is international agreement on the approach to take. This is called the HACCP Decision Tree.

Here is how it works:

Once you have identified a potential hazard, decide if you can control it fully by following your GPPs. If you can, say so. Describe how your GPPs control the hazard. Specify how and what corrective action(s) you will take.

If you cannot control the hazard by following your GPPs, you must start to use the Decision Tree.

The Decision Tree is made up of four questions. It asks:

- (1) Can a control measure be used at any production step in production?
- (2) How likely is it that the hazard will be present above an acceptable level?

- (3) Is there a control measure that will eliminate or minimize the hazard?
- (4) Are there any steps that can be taken later in the process to eliminate the hazard or reduce its probable occurrence to an acceptable level?

The answers to these questions tell you whether a raw material or production step is a CCP.

Chicken Farmers of Canada identified three CCPs related to the avoidance of chemical residues:

- (1) Receiving contaminated feed where there is the risk that it will be fed to the chickens
- (2) Mixing feed on-farm where improper mixing can lead to cross-contamination of feed with no withdrawal period with a feed with a withdrawal period.
- (3) Treatment with medications, through feed or water, where improper control may lead to residues that are too high

For each of these CCPs, the food safety committee identified appropriate control measures and corrective actions.

## 9.4 Control Measures and Corrective Actions

Monitoring, deviation and verification procedures are the heart of an on-farm, food safety assurance system based on HACCP principles. These do not have to be complicated. They are easy activities – and a way of thinking – that need to become a habit.

The following describes what measures should be taken to reduce the potential for a food safety hazard for each of the CCPs in this program:

### A) Feed Receiving (CCP 1C)

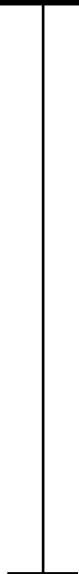
Monitoring Procedures:

- > Check bins for proper identification (yearly basis).
- > Keep a record of the bin into which each feed delivery is unloaded.
- > The driver must leave a feed slip at the time of unloading.
- > Keep a record of the medication, date and time for every load.
- > Inspect the feed for mould, etc.
- > Take feed samples as described in Chapter 3. Store the samples for future analysis, if necessary.

Deviation Procedures:

If corrective actions are needed, these could include:

- > Removing the feed from the feeders. Record the date the feed was removed.
- > Contacting the catching crew and/or processor to reschedule their activities. Record the contact.
- > Rededicating the feed to an appropriate barn. Discuss the deviation with the supplier.





Verification Procedures:

- > An auditor must review the producer's food safety assurance program implementation procedures and monitoring. The verification must include a records review, on-farm observations and/or interview of the producer/employee. This verification must occur every year as per the CFC audit frequency requirements.

**B) Feed Ingredients Mixing (medicated and non medicated feed) (CCP 2C)**

Monitoring Procedures:

- > Producers can either clean, flush or sequence after producing medicated feed to prevent cross contamination.
- > Keep production, feed mixing sequence protocol & usage record.
- > For every batch, take a sample & keep record of the medication, date and time and bin identification number where the feed is stored.
- > The equipment (scales and mixers) needs to be calibrated before use.
- > For medicated feed production: The correct quantity of medication needs to be weighed, there needs to be proper mixing of the medication in the feed, cross contamination needs to be prevented and the withdrawal time for the medication needs to be adhered to. In addition, the scale and weighing devices need to be validated and suitable for the intended purpose and mixer efficiency testing performed.

Deviation Procedures:

For medicated feed:

- > Producer/employee removes feed (flush or clean) from the feeding system and records date and time of removal on the Flock Specific Record Form.
- > Contact the catching crew and / or processor to reschedule kill and record this activity.
- > Discuss deviation with employee regarding source of problem and take appropriate corrective measures to prevent re-occurrence. The producer completes the Deviation chart table in the flock Specific Record form.

For medication that is delivered through water:

- > Stop the use of medication in the water. Record the date of the change.
- > Contact the catching crew and/or processor to reschedule their activities. Record the contact.

Verifications procedures:

- > An auditor must review the producer's food safety assurance program implementation procedures and monitoring. The verification must include a records review, on-farm observations and/or interview of the producer/employee. This verification must occur every year as per the CFC audit frequency requirements.





### C) Treatment with Medication (CCP 3C)

#### Monitoring procedures:

- > Make sure that the correct medication is being used at the proper time during grow-out.
- > Follow the manufacturer's instructions or the veterinary prescription.
- > Keep a record of the medication(s) you use, when the treatment began and when it stopped.
- > Make sure the water is being metered properly, according to the equipment specifications. Water medicators must be tested before each usage. Record this.
- > Feed in lines must be minimized and/or water lines must be flushed when a medication involving a withdrawal period is used during the finishing period.

#### Deviation Procedures:

##### For medicated feed:

- > Follow the same procedures as those described for feed receiving.
- > Remove the feed from the feeders. Record the date and time of removal.
- > Contact the catching crew and/or processor to reschedule their activities. Record the contact.
- > Rededicate the feed to an appropriate flock. Discuss the deviation with the supplier.

##### For medication that is delivered through water:

- > Stop the use of medication in the water. Record the date of the change.
- > Contact the catching crew and/or processor to reschedule their activities. Record the contact.

#### Verification Procedures:

- > An auditor must review the producer's food safety assurance program implementation procedures and monitoring. The verification must include a records review, on-farm observations and/or interview of the producer/employee. This verification must occur every year as per the CFC audit frequency requirements.



# 10

## RECORD KEEPING

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The record keeping forms are designed to help you prove that you have control of your operations. The information on these forms will be required during your on-farm audit – they will play a major role in demonstrating that you have properly implemented the good production practices and critical control points of this program.

Record keeping is the key to a strong HACCP-based program. Records allow for farmers to prove that they are doing what they say they do. The record keeping forms are designed to:

- > Prove that you have control of your operations.
- > Provide a record of what you have done.
- > Provide reminders to farmers of what needs to be done and to ensure that farm food safety production practices are followed.

Record keeping forms have been provided with this manual; however, if you already have your own record system or an individual quality and food safety control program with forms meeting the objectives of this program, you do not have to change from the forms you are currently using. You will, however, want to ensure that the information on your forms meets the level of information required by this manual.

### 10.1 Types of Records

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#### A) Standard Operating Procedures (SOP)

- > An SOP booklet has been provided under the “Record Keeping” tab of this manual. The SOP forms allow you to describe the procedures you would normally use on your farm. These forms must be completed in order to demonstrate what practices are used on your farm on an ongoing basis.
- > These forms must be completed prior to initial implementation on the farm. They must also be reviewed annually or updated as necessary.

#### B) Flock-Specific Record Forms (to be completed during each cycle)

- > These records contain information that is pertinent to each cycle. The purpose of these records is to demonstrate what procedures were used during each individual grow-out.
- > A full set of these records must be completed for each flock you raise. Some of these records also require that you keep bills of lading from the feed or from the chick supplier.
- > Other formats have also been developed to record this individual flock information. Some may be provided to you by your provincial board or through suppliers. Just remember to check that all the information required by this program is included on the record forms that you are using.
- > Farmers will be required to retain at least one year’s worth of records at all times.

## 10.2 How to Fill Out the Record Forms

### A) Standard Operating Procedures

- > The SOP forms in the manual ask specific questions as to the procedures used on your farm – answer each question by placing a check in the box beside each question if it pertains to your farm, by providing a longer answer where required and by using an “N/A” or a stroke for any question that does not relate to your operation.
- > If the information being requested can already be found elsewhere, simply indicate where the information can be found – and be sure that it is available during the on-farm audit.
- > Be sure to sign and date these forms each time a change has been made.
- > These forms must be reviewed, at minimum, annually.

### B) Flock-Specific Record Forms

Here are some general guidelines for filling out the forms specific to each flock:

- > When you complete an activity, check the box beside it on the form
- > Write in the date you finished on the line provided
- > Record the name of the chemical, feed additive or medication that you used
- > For any space that does not apply to your operations, indicate this with a stroke or write “N/A”

Combined Food Safety and Animal Care Flock-Specific Record Forms:

- > Barn preparation checklist
  - Record the date for each activity. A description of the activity, chemical product and/or concentration is required where a “\*” is indicated.

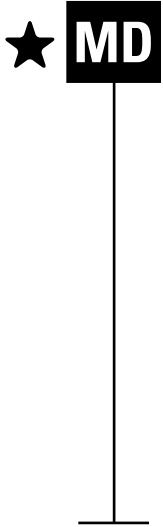
### C) Flock Information Reporting Form (Flock Sheet)

The instructions on how to use the flock sheet can be found on the reverse side of the flock sheet. These instructions must be followed.

- > A few important instructions are listed below:
  - List the name of all vaccines and medications administered at the hatchery (as per hatchery invoice) in Section A.
  - Include all vaccines administered at the farm level in Section A as well.
  - In Section B, list all diseases or syndromes that were diagnosed, including those for which no medications were administered.
  - Also in Section B, list all medications given to the flock throughout the entire grow-out that were administered as a result of a disease or a syndrome.
  - For preventive medications provided in the feed, only those with a withdrawal period given to the flock in the last 14 days need to be listed in Section C.

**MD**

### 10.3 Corrective Actions



Each time a deviation occurs during a flock cycle, the deviation, and the reason behind it (for example: chlorine not detected at the end of the water lines etc.) must be recorded on the deviation record sheet, the Flock Specific record forms, or a similar form. A single deviation does not directly affect certification. Based on the reason for the deviation a change in management practice may need to take place in order to prevent the deviation from re-occurring. Farmers should evaluate the deviation, make a decision on how to correct the deviation in the future and document any changes that have been made.

If a particular deviation becomes an ongoing occurrence (e.g. re-occurs within the next three flocks), the farmer must take corrective actions in order to receive/maintain certification. Preventive measures must be taken to prevent those deviations to re-occur (for example, employee re-training may be an option).

The Deviation Record Sheet (or similar) may be used to record the above required information.



# OFFSAP STANDARD OPERATING PROCEDURES

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## Version 5.0

These Standard Operating Procedures (SOPs) are to be updated whenever a change is made and at minimum on an annual basis. The space below is to be signed and dated whenever the SOPs are reviewed or when a change is made. The farm personnel (e.g. farmer, farm manager) who was involved with the development or the review of the SOPs is required to sign and date below.

Signature \_\_\_\_\_ Date \_\_\_\_\_ m/yr

Signature \_\_\_\_\_ Date \_\_\_\_\_ m/yr

Signature \_\_\_\_\_ Date \_\_\_\_\_ m/yr

Signature \_\_\_\_\_ Date \_\_\_\_\_ m/yr

Signature \_\_\_\_\_ Date \_\_\_\_\_ m/yr

Record any deviations from these SOPs in the Deviation Chart, along with the reasons of the deviation and any corrective actions taken to correct the deviation on the Flock Record Form or similar.

# CHAPTER 1: PERSONNEL TRAINING

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## A) Training Record

- (1) Have each employee/farm staff on the farm involved with the care and handling of the birds sign and date that they have been provided with and have understood the *Safe, Safer, Safest* program and the Standard Operating Procedures. This should be updated whenever the SOPs are updated. Service personnel (e.g. feed reps, hatchery crew, catching crew) and farm personnel responsible for developing the SOPs (e.g. farmer or farm manager who signed on the first page of the SOPs) are not required to sign the training log.

| Name | Signature | Date |
|------|-----------|------|
|      |           |      |
|      |           |      |
|      |           |      |
|      |           |      |

- (2) List any other training that employees of the farm have received with respect to biosecurity and/or food safety:

| Name | Training | Date |
|------|----------|------|
|      |          |      |
|      |          |      |
|      |          |      |



# CHAPTER 2: CONTROLLING ACCESS TO THE FARM

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## A) Controlling Access to the Controlled Access Zone (CAZ)

(1)  A farm diagram is available which indicates the layout of the property, barns and the location of the CAZ and the RA

(2) Indicate to whom you have provided your farm diagram (if applicable):

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(3)  A sign or a  physical barrier is used to identify the entrance to the CAZ

(4) Indicate the location of the designated parking area for visitors (if applicable)

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(5) List any specific biosecurity measures required for supplier vehicles that enter the CAZ:

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## B) Controlling Access to the Restricted Area (RA)

(1)  A sign is posted at the entrance to the RA to indicate the area is restricted

(2)  Barn doors and other entrances to the barn are kept locked (during the grow-out and in between flocks after the barn has been cleaned)

(3)  Indicate the type of barrier or demarcation used to separate the CAZ and the RA in each barn:

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(4) Indicate the biosecurity measures taken for farm employees entering the RA:

Barn-specific boots or disposable boots

Barn-specific clothing/coveralls

Premise-specific clothing (e.g. clothing worn in the barn is not worn off of the premise)

Clothing is only worn on farm operations under common management

Hats/bonnets

Masks

Hand sanitization (using either  soap & water or  hand sanitizer)

List any other biosecurity measures taken:

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- (5) Indicate the biosecurity measures taken for suppliers/visitors entering the RA:
- Barn-specific boots or disposable boots
  - Barn-specific or premise specific coveralls
  - Hats/bonnets
  - Masks
  - Hand sanitization (using either  soap and water or  hand sanitizer)
  - Suppliers/visitors are required to sign a logbook
  - Farm manager/employee accompanies visitors to ensure biosecurity is respected
  - List any other biosecurity measures taken:

---

Are there any exceptions to the list of suppliers/visitors that must follow the above protocols?

---

If thinning occurs, what measures are taken by the catching crew to reduce the risks associated with this activity? (if applicable)

- 
- (6) For farm workers that have contact with another poultry operation which is not under common management, list the steps taken to avoid cross-contamination:
- Hands are sanitized prior to accessing the RA
  - Clothes are changed before entering the RA or o Coveralls are worn in your RA
  - Boots are changed prior to entering your CAZ
  - A shower is required in between farms
  - There is a downtime of \_\_\_\_ hours or \_\_\_\_ days before entering your RA
  - Other:

- 
- (7) Define your protocol for bringing equipment inside the RA after the barn has been cleaned and disinfected or when there are birds in the RA:
- Equipment is visually inspected to ensure no organic matter is visible; any equipment with visible organic matter is cleaned (and disinfected)
  - All equipment is cleaned and disinfected
  - Equipment from another premise is cleaned and disinfected
  - Other:

- 
- (8) If you have a flow-through barn, list your protocols to limit cross-contamination between differed aged birds:
- Movement from youngest birds to the oldest birds
  - Separate biosecurity protocols used for each RA
  - List any other biosecurity measures that are taken:

- (9) List any other biosecurity measures used on your farm for humans or equipment when entering the RA:
- 

**C) Pest Control**

- (1) Pest Situation Analysis: Rate your farms' pest problems in the previous year (none, some, lots):

|             | None | Some | Lots |
|-------------|------|------|------|
| Rodents     |      |      |      |
| Wild Birds  |      |      |      |
| Flies       |      |      |      |
| Beetles     |      |      |      |
| Other Pests |      |      |      |

- (2) Check the boxes that reflect the pest control program used on the farm:
- Vegetation, equipment and debris kept away from the exterior of the barn(s)
  - Feed spills are cleaned up immediately
  - The barn is kept in good repair to reduce rodent activity
  - Wild birds are prevented from entering the barn
  - Domestic pets (e.g. cats and dogs) are prevented from entering the RA
  - Areas where water can stagnate are filled

- (3) Indicate the control measures used for wild birds:

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- (4) Indicate the control measures used for flies:

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- (5) Indicate the control measures used for rodents:

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- (6) Indicate the control measures used for darkling beetles:

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(7) Indicate any other pest control measures that are used on the farm:

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- (8)  There are no domestic waterfowl on the premises, or  
 Any domestic waterfowl are not permitted in the CAZ and are fenced in.

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## CHAPTER 3: FEED & WATER

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### A) Purchased Feed

- (1)  Your feed mill has provided written confirmation that they are following a food safety program
- (2) A sample of feed from each delivery is maintained  on farm or  at the feed mill
- (3)  A sample of any ingredient (e.g. wheat) added to a purchased feed is maintained on-farm
- (4) Feed delivery slips are kept in the producer's files for each feed delivery

### B) On-Farm Feed Mixing

- (1) Describe your on-farm feed mixing control program that includes: Regular mixer efficiency tests to ensure proper feed mixing (indicate frequency, e.g. once every 6 months, and method used, test results are kept on file):

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Procedures to ensure the addition of correct quantity of feed ingredients, which include:

- Regular calibration of metering system (if volumetric mixer such as a proportioner mill is used)
- Regular mixer scale verification (if gravimetric mixer is used)
- Regular medication scale verification
- Describe frequency/Other:

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---

Procedures for mixer equipment clean-out, which include:

- vacuuming  sweeping  washing  flushing
  - sequential production of feed
  - describe process/other:
- 
- 

- feed samples are tested regularly for content (test results are kept on file)
- a feed mixing record is maintained
- a record of feed ingredients used (inventory list) is kept on file
- a sample of the finished feed is kept for 14 days after processing

### **C) Feed Handling**

- (1)  All feed bins on the farm are identified
  - (2) Indicate how often the feed bins are inspected for feed build-up and/or rust:
- 
- 

- (3) Indicate the control measures used for dealing with a medication with a withdrawal period:

- Two feed bin system
  - Using a rubber mallet to knock the sides of the feed bin
  - Other:
- 
- 

- (4) What do you do with left-over feed?

- Kept in a feed bin until the next flock; Indicate feed bin #: \_\_\_\_\_
- Stored in bags until the next flock
- Transferred to another barn on the same premise
- Transferred to another farm premise
- Returned to the feed mill

### **D) Water Source**

- (1) Indicate your water source:

- Municipal water supply
  - Well
  - Surface water (e.g. lake)
  - Other:
-

(2) List the type of treatment used on the farm (list the type of chemicals and frequency of use)

During the grow-out: \_\_\_\_\_

In between flocks: \_\_\_\_\_

Water pH: \_\_\_\_\_

(3) If the water is treated during the grow-out, indicate how, at what location, and at what frequency the concentration of water treatment is verified:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(4)  Indicate where the annual water test sample is taken:

\_\_\_\_\_  
\_\_\_\_\_

(5)  Results of the annual water test are maintained on file and corrective actions are taken as necessary \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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## CHAPTER 4: CLEANING & DISINFECTION

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### A) Cleaning and Disinfection Procedures

(1) Describe how you, or the cleaning crew, clean and disinfect your barn

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(2) If the cleaning and/or disinfection is contracted out, insert the contract at the end of this section or inscribe:

Cleaning firm name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone number: \_\_\_\_\_

## B) Manure Management

(1) Describe your manure management plan:

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(2) When do you target to remove the manure from the barn after the birds have been shipped (days)? \_\_\_\_\_

## C) Equipment

(1) Equipment used in the cleanout process is:

Only used on the one farm premise, or

Used on multiple farm premises. If yes, indicate the control measures used to prevent cross-contamination between premises:

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# CHAPTER 5: CHICKS

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## A) Hatchery

(1) Indicate the hatchery federal register number: \_\_\_\_\_

(2)  Your hatchery has provided written confirmation that they are recognized by the CFIA as operating under HACCP

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# CHAPTER 6: MEDICATIONS & CHEMICALS

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## A) Medications

(1) Describe your procedures for selecting medications to be used on your flock:

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(2)  All medications are recorded on the Flock Specific Records Forms

(3) Describe the method you use to test the accuracy of the medicator:

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- (4)  All medications used to treat a disease or symptom are noted on the flock sheet
- (5)  All medication is kept in the original labeled packaging or  label information is transfer onto a record

**B) Cleaners, Disinfectants and Other Chemicals**

- (1)  Chemicals used on the farm are approved for farm animal premises and used according to instructions
- (2)  Chemicals are stored separately from medications and/or feedstuffs
- (3)  All chemical containers are labeled with the product name and concentration (if different from the original)

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## **CHAPTER 7: THE GROW-OUT PERIOD**

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**A) Describe your monitoring and back-up systems:**

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(1) Describe the measure(s) taken to reduce post-harvest crop contamination during feed withdrawal:

- Communicate with processor for instructions on feed withdrawal
- Feed withdrawal occurs 6-10 hours pre-slaughter
- Organic acid is administered in the drinking water during feed withdrawal
- Other: \_\_\_\_\_

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# CHAPTER 8: DISEASE MANAGEMENT

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## A) Disease Recognition

- (1) Indicate how many times the flock is checked each day: \_\_\_\_\_
- (2) Indicate when the veterinarian is contacted:
  - in cases of unexplained elevated mortality or morbidity. Indicate if there is a specific mortality trigger:
  - other: \_\_\_\_\_

## B) Mortalities

- (1)  A daily mortality log is maintained for each flock
- (2) Indicate your protocol for disposing of mortalities:  
\_\_\_\_\_  
\_\_\_\_\_
- (3)  Employees wash hands following contact with mortalities

## C) Disease Response Protocols

When a contagious disease is suspected, or after a confirmation has been received from a veterinarian, the following emergency response/farm quarantine is put in place. This protocol is for a suspect or confirmed case on your farm or within the vicinity of your farm.

- Keep the barns locked and use a visitor's log to record all movement on and off the farm, not just within the RA.
- Block the laneway to the CAZ (using a gate, rope/chain, wagon, etc) to prevent unwanted traffic or access.
- Inform your provincial board office.
- Reduce movement on and off the farm (CAZ and RA) to a minimum, including family members.
- Whenever possible, conduct activities through non-contact methods, such as telephone, fax or e-mail.
- Eliminate or delay all activities that if undertaken, could act as a vector to spread disease. Avoid direct contact with off-farm poultry operations or poultry personnel.
- No other farms should be visited and avoid visiting common gathering places, such as local coffee shops or town meetings.
- Delay or reduce all service and other visits to the farm. Refer to your emergency contact list and exercise extreme caution when allowing necessary visits from input suppliers or service providers
- People entering the CAZ must wear disposable boot covers (or use of foot spray) and

disposable coveralls while on farm. Used disposable supplies must remain on the farm. Hand disinfecting or vigorous washing with warm water and soap prior to entering and leaving is recommended.

- Vehicles accessing the CAZ should be run through a truck wash prior to visiting the farm. Disinfectant should be spray applied to tires, wheel wells and undercarriage (upon entry and exit). The interior truck cab including areas such as the floor, pedals, steering wheel, and door handles should also be disinfected.
- Family members attending activities away from the farm such as work or school should limit access to the barn. They should avoid contact with other feathered species (including pets). Strict biosecurity protocols must be followed to minimize risks.
- Limit flock management to specific individuals. Clean laundered clothing and dedicated footwear should be utilized for each barn. Ensure that no equipment enters or leaves the area unless thoroughly cleaned and disinfected. Hand disinfecting or vigorous washing with warm water and soap is also recommended prior to leaving the barn.
- Barn entrances should be cleaned and sanitized on a daily basis.
- Dead bird disposal should be confined on farm until the situation is clear. Practice proper composting or freezing and ensure no wild or domestic animals have access the dead birds.
- Mortalities are kept in covered containers before being moved to the disposal area and, if they are being transported off farm, are transported in covered containers.
- Garbage disposal should be well thought out, so that care and control of material generated on the farm is maintained until the situation is clear.
- If the disease is in your vicinity, review your flock health records for feed/water consumption and for signs of abnormalities. Watch your flock and report any unusual illness or mortality to your veterinarian, your provincial board office and industry personnel.
- Make every effort to heighten your biosecurity protocols.
- Indicate any other measures that would be taken on your farm:

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# ANIMAL CARE PROGRAM

## STANDARD OPERATING PROCEDURES

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### A) Temperature

Outline the temperature schedule that you use during the cycle of your flock, including the temperature set points, and what procedures you use if the temperature moves out of range (for both high and low temperature extremes).

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### B) Lighting

Outline the lighting schedule used during the cycle of your flock.

Do you provide a minimum of one hour of reduced light intensity (by 50%) on a daily basis?

Yes  No

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### C) Flock Health

Indicate the number of times the flock is checked per day. Does this vary throughout the cycle for your flock?  Yes  No

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Indicate what elements are observed during the daily checks:

- |  |  |
|--|--|
| <input type="checkbox"/> Reduced food and water intake | <input type="checkbox"/> Behavioural changes                             |
| <input type="checkbox"/> Changes in activity           | <input type="checkbox"/> Abnormal respiratory sounds/<br>mouth breathing |
| <input type="checkbox"/> Abnormal feather condition    | <input type="checkbox"/> Lameness and inability to rise                  |
| <input type="checkbox"/> Abnormal droppings            | <input type="checkbox"/> Body condition                                  |
| <input type="checkbox"/> Feather condition and cover   | <input type="checkbox"/> Dead, Sick and injured birds                    |

Indicate any other checks that are performed:

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#### D) Air Quality

Describe your daily procedures for monitoring humidity and ammonia (include the methods used, the frequency of monitoring and set points (if applicable) for humidity and ammonia).

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#### E) Litter Quality

Describe your daily procedures for monitoring the quality of the litter (include the method used and the frequency of monitoring).

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#### F) Density

The following static information must be available for each barn. This form or a similar form can be used.

Step 1 & 2: Bird Capacity of the floor area based on maximum density and target weight

|         | Floor Area <sup>1</sup> | Maximum Density | Target Weight <sup>2</sup> | Bird Capacity of the Floor Area |
|---------|-------------------------|-----------------|----------------------------|---------------------------------|
| Floor 1 |                         |                 |                            |                                 |
| Floor 2 |                         |                 |                            |                                 |
| Floor 3 |                         |                 |                            |                                 |

<sup>1</sup> Measurements to be taken on the inside of the barn.

<sup>2</sup> If more than one target weight is used per floor (e.g. when thinning) additional forms may be used to calculate the bird capacity of the floor area.

**Step 3 & 4: Bird Capacity of the floor area based on the number of feeders and drinkers**

|         | Feeders                |   |                                 | Drinkers                |  |                                  |
|---------|------------------------|---|---------------------------------|-------------------------|--|----------------------------------|
|         | Total # of feeders (a) | Recom-mendations for # birds/feeder (b) | Capacity of the Feeders (a x b) | Total # of drinkers (c) | Recom-mendations for # birds/drinker (d) | Capacity of the Drinkers (c x d) |
| Floor 1 |                        |   |                                 |                         |  |                                  |
| Floor 2 |                        |   |                                 |                         |  |                                  |
| Floor 3 |                        |   |                                 |                         |  |                                  |

**Step 5: Maximum number of chicks that can be placed**

|         | Lowest Bird Capacity (from floor area, drinkers or feeders) | Expected Mortality* | Maximum number of chicks at placement |
|---------|---|---------------------|---------------------------------------|
| Floor 1 |   |                     |                                       |
| Floor 2 |   |                     |                                       |
| Floor 3 |   |                     |                                       |

\* based on the farm history

**G) Veterinarian Contact Information**

Name:

Telephone:

Fax #:

**H) Procedures during Catching**

Indicate your procedures during catching.

- Feeders raised
- Waterers raised
- Light intensity lowered

Farmer or farm representative available:  by phone  in person



# INDEX

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## A

antibiotics 3.2, 3.3, 3.4, 5.1, 6.1, 6.2, 6.4  
audit process v, vi  
audit questionnaire 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10

## B

barns (new construction) 2.8  
bedding 2.2, 2.4, 5.3  
biological hazards 9.1  
biosecurity 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 5.3, 5.4, 8.2, 2,  
3, 4, 5, 12  
bird disposal 8.1  
boots 2.3, 2.4, 2.5, 4.2

## C

certification process iv, ix  
chemical hazards 9.1  
chemicals  
    storage 6.1  
    use 3.6, 3.7  
chicks  
    delivery 5.3, 5.4  
    evaluation 5.4  
cleaning  
    after each flock 4.2  
    barn exteriors 4.1  
    barn interiors 4.2, 4.3  
    complete washing 4.2, 4.3  
    dry-cleaning 4.2  
    equipment 2.6, 4.1, 4.2, 4.3  
    fans 4.1, 4.2, 4.3  
    feed bins 4.1  
    water lines 3.6, 3.7, 4.3  
clothing/coveralls 2.4  
complete washing 4.1, 4.2  
Controlled Access Zone x, 2.1, 2.2, 2.3, 2.4, 2.5, 2.7,  
4.4  
control measures 9.3  
cornish 5.1  
critical control points iii, x, 3.1, 3.3, 9.3

## D

deviation 10.3  
dirt floors 4.3  
disease 8.3, 8.4, 10, 11, 12  
disinfecting 3.6, 3.7, 4.1, 4.2, 4.3, 4.4, 8.3, 12  
downtime 4.3, 4  
dry-cleaning 4.2

## E

equipment 2.6, 4.1, 4.2, 4.3  
extra-label medication 6.4, 6.6

## F

feed  
    feed bins 2.1, 2.7, 3.3, 3.4, 4.1, 9.4  
    feed mill 3.1  
    on-farm mixing 3.1, 3.2  
    receiving 3.3, 9.3  
    sampling 3.5  
    transfers 3.2  
    withdrawal period 3.2, 3.4, 6.6, 7.1, 7.2  
flock sheet 5.1, 6.5, 6.6, 7.2, 10.2, 10  
flow through barn 2.6  
foot baths 2.4

## G

garbage 2.5  
gravel 2.7, 2.8

## H

HACCP ii, iii, x, 2.2, 3.1, 5.1, 9.1, 9.2  
hand-washing 2.5, 8.1  
hatcheries 2.2, 5.1, 5.2, 5.3, 5.4  
HR (highly recommended) iv, vii

## I

insects 2.7

## L

litter 2.2  
locked barn doors 2.3  
log book 2.4

## M

manure 2.1, 2.2, 2.6, 4.2, 4.4  
MD represents a “MUST DO” iv, vii  
medication ix, 3.2, 3.3, 3.4, 5.1, 6.1, 6.4, 6.5, 9.3, 6, 7  
medicators 6.4  
mortality management 8.1, 8.2

## O

off-label medication 6.4  
over-the-counter medication 6.3

## P

parking area 2.2  
pest control 2.7  
pets 2.7  
physical hazards 9.1  
procedures  
  barn cleaning 4.1, 4.2  
  barn disinfection 4.3  
  chick placement 5.3, 5.4  
  equipment cleaning 2.6, 4.1, 4.3  
  feed receiving 3.3  
  feed transfers 3.2  
  mixing feed on-farm 3.1  
  service vehicles 2.2  
  testing medicators 6.4  
  visitors 2.4, 2.5  
  water analysis 3.8  
  water line cleaning 3.6  
processors 6.6, 7.1, 9.3

## R

record keeping vii, 1.1, 10.1, 10.2  
rendering 8.1, 8.2  
Restricted Area xi, 2.1, 2.3, 2.4, 5.4, 3  
rodents 2.7, 3.3, 8.2

## S

screens 2.7  
self-quarantine 8.3  
staff 1.1, 1.2  
Standard Operating Procedures (SOP) 1.2, 3.1, 10.1,  
  10.2  
storage  
  chemicals 6.1  
  feedstuffs 3.3  
  mortality 8.1  
suppliers 2.2, 2.3, 2.4, 6.1, 10.1

## T

thinning 2.5, 7.2  
treatment with medication 3.2, 3.3, 3.4, 5.1, 6.4, 6.5,  
  9.3

## V

vaccines 5.1, 6.1, 6.6, 10.2  
vehicle 2.1, 2.2, 2.3, 2.6  
veterinarians 2.4, 4.1, 6.1, 6.4, 6.5, 8.1, 8.3  
veterinary-client-patient relationship 6.3  
visitors 2.1, 2.2, 2.3, 2.4, 2.5  
visitors log book 2.4

## W

water  
  analysis 3.8  
  cleaning and disinfection 3.6, 3.7, 4.3  
withdrawal period 3.2, 3.3, 3.4, 5.1, 6.1, 6.5, 6.6, 7.1,  
  7.2, 10.2, 7