CHICKEN FARMERS OF CANADA

# FREE RANGE ON-FARM FOOD SAFETY ASSURANCE PROGRAM AND ANIMAL CARE PROGRAM

# MANUAL

Chicken Farmers of Canada
Les Producteurs de poulet du Canada

# THE REVISED 2015 EDITION OF CFC'S FREE RANGE ON-FARM FOOD SAFETY ASSURANCE PROGRAM AND ANIMAL CARE PROGRAM

## Introduction

In 2013, Chicken Farmers of Canada's Free Range On-Farm Food Safety Assurance Program (OFFSAP) was granted full federal, provincial and territorial (FPT) government recognition by the Honourable Gerry Ritz, Minister of Agriculture and Agri-Food Canada. The Free Range OFFSAP was found to meet federal, provincial and territorial regulatory requirements and the definition of "technical soundness" in that it promotes the production of safe food at the farm level and adheres to the Hazard Analysis Critical Control Point (HACCP) principles as defined by Codex Alimentarius.

As part of this review, several minor edits and clarifications were required to be added to the Free Range OFFSAP manual to achieve technical recognition. These clarifications and edits will not have a significant impact on the implementation of the program and the majority are clarifications on current requirements.

This document provides a list of the Mandatory (MD) and Highly Recommended (HR) requirements of the program. In addition, a friendly reminder of the three Critical Control Points (CCP) identified in the generic model of the HACCP plan have been included. A new list of definitions has also been included in the Introduction.

By March 1st 2015, all of the new requirements of this edition are expected to be implemented on farms and will be evaluated during your next audit. Continued certification will be dependent on the implementation of the requirements in this new edition.

## Modification Overview of Free Range OFFSAP and ACP

### Personnel Training

> Clarification that 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 (e.g. feed reps, hatchery crew, catching crew) are not required to sign the SOPs.

### Controlling Access to the Farm

> Information on additional biosecurity measures that could be implemented in the CAZ include:

- providing service personnel with the farm diagram prior to their farm visit
- asking that service providers drive slowly while near the barn to minimize dust
- requesting that hatcheries and catching crews provide a documented biosecurity protocol prior entering the RA

> (MD) If the guardian animals are ruminants, farmers must ensure that access to chicken feed that contains prohibited material is restricted.

- (MD) All visitors must sanitize their hands prior to entry and upon exit from the RA, or wear barn-specific gloves when inside the RA.
- (MD) Domestic waterfowl must not be permitted in the CAZ and must be fenced in so they cannot access the CAZ.
- Additional information on the Pest control:
  - 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.
- (HR) New barns constructions and /or premises should have:
  - A designated parking area outside the CAZ for visitors
  - A physical barrier to separate the CAZ and the RA
  - Concrete floor (i.e. no dirt floors)
  - Two feed bin system
  - Gravel around the barns

**Feed**

- Clarification the On-Farm Mixing Critical Control Points:
  - (MD) Prevention of cross contamination can be done by flushing, sequencing or other means.
- (MD) When mixing complete feed on-farm, a feed mixing record must be kept and a sample of the finished product must be kept for at least two weeks after the birds have been shipped.
- For farm to farm transfer:
  - (MD) Delivery slips for each feed delivery must be kept.
  - (MD) Complete traceability of feed must occur (e.g. feed slip, feed transfer log, feed samples).

**Water**

- Clarification on method to test free chlorine:
  - (MD) When using these strips, the test results must indicate that free chlorine remains at the furthest point from the water source, thereby indicating that active product is still available.
- (MD) The water sample must be taken inside the grow-out area at the nipples/outlet pipe.
- A description of the water sampling method has been provided.
- (MD) For new farmers or new facilities, a water test with acceptable results must be available at the first audit.
- Information has been included about the importance of performing a chemical water analysis.
- Information has been included about the benefit of using minerals and organic acids (e.g. lactic acid) in the drinking water during feed withdrawal to greatly reduce post-harvest crop contamination.

### Cleaning and Disinfecting

> (HR) 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.

### Medications and chemicals

> (MD) All medication must be kept in its original packaging with the label information or the information must be transferred onto a record.

> (MD) Category I antibiotics are not permitted to be used in a preventive manner.

> (HR) 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.

> (HR) Farmers should not use over-the-counter water medications without a veterinary prescription.

> (MD) All antimicrobial prescriptions are to be obtained within the confines of a valid Veterinary-Client-Patient relationship (VCPR).

> (MD) All medication use must be recorded on the Flock Specific Record Form or other similar document.

### HACCP and Your Farm

> Clarification on the three Critical Control Points (CCPs) monitoring procedures, deviation procedures and verification procedures.

### Record Keeping

> Each time a deviation occurs during the flock cycle, the deviation and the reason for the deviation must be recorded on the deviation table on the Flock Specific Records form or similar form.

> Modification of the flock Specific Records Form to include a medication table where all the medication (i.e. medication name and medication source) administered during the flock cycle must be recorded.

> The SOPs have been modified to include the new requirements and clarifications.

# TABLE OF CONTENTS

# INTRODUCTION

Chicken Farmers of Canada (CFC) is a leader in the area of food safety and animal care, and has developed a comprehensive Free Range On-Farm Food Safety Assurance Program (OFFSAP) and a Free Range Animal Care Program (ACP). The Free Range OFFSAP and Animal Care Program manual recommends the most modern methods and techniques for on-farm food safety, biosecurity and animal care, emphasizing health, cleanliness and safety through every step of the production cycle.

Food safety and animal care can no longer be the responsibility and concern of a single group: all partners in the chicken supply chain need to participate. At the farmer level, CFC has gone ahead and implemented this program because we feel that raising clean, wholesome birds with the utmost care is not an option, it's a must. It's our bread and butter!

CFC believes its members will benefit from being forthcoming and proactive by putting an effective system in place before it becomes mandatory. In this fashion, CFC will have control over the direction and content of both the Free Range OFFSAP and Animal Care manuals. In addition, Canadian chicken farmers will be ensuring a strong market in this new era of traceability, food safety and animal care by proving that the safety of the supply is excellent and that chickens are raised to appropriate animal care standards. CFC is therefore implementing these programs with the full and active support of its Board of Directors and encouraging all farmer members to adopt it.

By following the Free Range OFFSAP and Animal Care Program manual and using its record-keeping forms, chicken farmers will be able to demonstrate that they are doing their part to ensure the safety of the food supply and the care of birds on the farm.

CFC is confident that by controlling the practices and potential hazards identified in this manual, consumers will be given extra assurance that farmers are continuing to help improve Canada's high quality food safety standards and the welfare of the chickens.

## How to Use this Manual

This manual includes both the Free Range OFFSAP (chapters 2-8) and the Animal Care program (chapter 9). The requirements listed in chapters 1 and 10 (Record Keeping) are applicable to both programs.

In each section, production practices have been designated with either a MD or an HR.

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

This manual is designed to be used as a reference tool throughout the production cycle.

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 Free Range OFFSAP and the Animal Care 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.

## Free Range Production Types

This Free Range OFFSAP and Animal Care Program manual has been developed for a free range production system. The term "free range" includes any operation that allows birds to access the outdoors at any point during the grow-out.

Dependent on your production site, the way that you manage your range area and the production practices you use will vary. For example, the range area could be attached to a brooder house and the birds are free to come and go at their will. In other situations, the farm could use moveable pens that are used to move birds to a different part of pasture each day.

In both of these situations, the types of production practices will be very different. The requirements in this manual have been developed to capture all different types of production methods. As such, certain requirements may not pertain to your production style. If certain production methods or requirements do not pertain to your operation, then they do not need to be considered. The manual has been developed with the intent that it can be applied to many different production styles.

## On-Farm Audit and Certification Process

The on-farm audit and certification procedures are being performed by each provincial board office. While the program will be applied consistently across the country, farmers should contact their respective offices for more information. The following represents an outline of the audit and certification process:

### A) Roles and Responsibilities

This section provides an overview of the roles and responsibilities for players involved in the audit and certification process.

(1) Chicken Farmers of Canada Responsibilities

- The design and delivery of the Free Range OFFSAP and Animal Care Programs on a national basis and the maintenance of the technical standards and producer manual.
- The development, maintenance and delivery of on-farm auditor training programs for the Free Range OFFSAP and Animal Care Program.
- The ongoing monitoring of an effective program and ensuring consistency in application and certification across all provinces.

(2) Provincial Board Responsibilities

- The delivery of the Free Range OFFSAP and Animal Care 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, making certification decisions.
- The management of the complaints and appeals procedures.

(3) Farmer's Responsibilities

- Implementing and maintaining compliance with the Free Range OFFSAP and Animal Care Program.
- Keeping documents demonstrating compliance to the Free Range OFFSAP and Animal Care Program.
- Continuing to implement the program, as well as to undergo on-going audits as per the 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 which 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 with the programs 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 of the programs 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 of the programs 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 of the programs 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 of the programs 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 to 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.

The audits of the Free Range OFFSAP and the Animal Care Program will be combined.

(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 filled out, farmers should have a fairly good idea if they are complying with the Free Range OFFSAP and Animal Care Program requirements. A sample audit checklist for the Free Range OFFSAP and Animal Care Program can be found at the end of this chapter.

(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.

During the initial full audit:

- A trained auditor will review the mandatory and highly recommended elements of the Free Range OFFSAP and the Animal Care Program. Special attention will be paid to the records (Standard Operating Procedures and Flock-Specific records).
- The auditor will also visit barns/brooder houses, range areas and related production facilities to evaluate whether the Good Production Practices and Critical Control Points 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 Free Range OFFSAP and Animal Care Program manuals 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).

A separate, individually numbered, certificate will be granted for each program. 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 or Animal Care Program with their provincial board. Farmers should check with their provincial board for specific procedures.

Certification with these programs indicates that the on-farm food safety system of a farmer meets the CFC Free Range OFFSAP and Animal Care Program standards. Certification does not guarantee the product from these facilities, nor does it guarantee the level of food safety or animal care provided on these farms.

### 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 Free Range OFFSAP or Animal Care 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 complete a full audit to become certified.

## 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 (VVD) 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 has 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 the numbers of disease causing micro-organisms within the barn. Cleaning of the barn is to occur as soon as possible after the flock has been shipped, therefore allowing for the longest possible for the longest possible downtime after the flock has been 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.

**Free Range Chicken Production:** Method of farming husbandry where the chickens are allowed to access an outside Range Area.

**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.

**On-Farm Feed Mixing Ingredients:** All ingredients that are part of the formula for any feed prepared and mixed on the farm. Ingredients can include, but are not limited to, premixed protein and mineral supplements, medications, minerals, vitamins and any other added elements to the feed (e.g. wheat, corn, soyabean meal, vegetable oil, animal fats, flavours, colours, etc.).

**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.

**Prohibited material:** Anything that is, or that contains any protein that originated from a mammal, other than: porcine or equine, milk or products of milk, gelatin derived exclusively from hides or skins or product of gelatin derived exclusively from hides or skins, blood or product of blood and rendered fats, derived from ruminants, that contains more than 0.15% insoluble impurities or their products.

**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 where the birds are housed raised 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 – OFFSAP & ACP

## 1.1 Planning for Change

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 basic 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, animal care 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 Free Range OFFSAP and Animal Care Program 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 read and understood the program or in the training log indicating that they have been trained on the SOPs. Service personnel are not required to sign the SOPs.

MD

The best way to ensure that staff (including family members if applicable) is 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
- Suppliers/visitors biosecurity protocols
- Access procedures for the CAZ and RA
- Pest control program
- Barn cleaning and disinfection procedures
- Manure management
- Mortality management
- Farm emergency/quarantine procedures
- Litter and air quality management

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 staff member.

MD

Personnel involved in the care and handling of the birds must be competent in the following areas:

- Understanding basic bird behaviour (normal and abnormal behaviour)
  - including signs of fear, distress and thermal discomfort
- Identifying signs of disease or poor health
  - including evaluation of lameness and foot pad lesions
- Correct bird handling techniques
- Procedures for euthanasia
- Litter and air quality management
- Emergency procedures for fire and disaster

MD

A training record must be kept for each staff member. 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 Free Range On-Farm Food Safety Assurance and Animal Care Program manual outlines the minimum mandatory requirements necessary for certification on the programs.

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.

The Free Range OFFSAP and Animal Care Program does not supersede these requirements – they also need to be adhered to but only the stipulated requirements in this manual impact Free Range OFFSAP or Animal Care Program certification.

## 1.4 Sample Audit Checklist

The following checklist covers all of the mandatory and highly recommended items in the food safety and animal care programs. This is not the exact checklist that an auditor will use, but it can 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.

### A) Free Range OFFSAP Checklist

| ✓ | Manual Reference | Requirement |
|---|---|---|
| Mandatory Items | | |
| | 1.1 | All staff must be trained and have an understanding of the OFFSAP Free Range program manual |
| | 1.1/10.1 | 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 | The CAZ must include the barn/brooder house, feed tanks, the range area and any utilities close to the barn or range area |
| | 2.1 | The manure is stored outside the CAZ |
| | 2.1 | The CAZ is maintained (grass cut, etc) and free of rodent attractants |
| | 2.2 | Entry point to the CAZ (i.e. roadways) are identified by a sign or physical barrier |
| | 2.2 | Suppliers must not enter the CAZ inside the barn unless it is necessary |

| ✓ | Manual Reference | Requirement |
|---|---|---|
| Mandatory Items | | |
| | 2.3 | The RA includes the inside of the barn and range area |
| | 2.3 | There must be limited contact between free range birds and other livestock on the farm |
| | 2.4 | The range area or movable pen must have, at minimum, a single fence or fencing system to prevent predators from entering the range area |
| | 2.4 | The range area must be kept free of debris that may shelter pests |
| | 2.4 | Feed and water sources must be designed to limit access by wild birds |
| | 2.4 | Signs are posted at the barn entrance and free range area to indicate the RA |
| | 2.4 | Barn entrances to the RA are kept locked after the barn is cleaned and during the production cycle; for ranges, gates are to be locked or signs used to deter access |
| | 2.4 | A barrier/line exists to separate the CAZ from the RA |
| | 2.4 | For direct access to the barn/brooder house (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 or have a sealable container |
| | 2.4 | 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 designed as its own RA |
| | 2.5 | Each free range operation must design/draw a diagram to indicate the location of the CAZ and the RA |
| | 2.5 | All visitors accessing the Restricted Area must sign the visitors' log book containing date, name and previous poultry contact in the last 24 hours (yes/no). A farm must have a log book in each barn or they may have a central log book at the entrance to the CAZ |
| | 2.5 | All people entering the RA must follow the biosecurity procedure |
| | 2.5 | Farmers and all people entering the RA, after the barn has been cleaned and/or disinfected and during the grow-out period, must change boots before entering the RA |
| | 2.6 | If any clothing used by farm workers in the RA will also be worn off the premise, then they can only be worn on agricultural premises under common management. |
| | 2.6 | Anyone other than the 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 crossing from the CAZ to the RA |
| | 2.6 | Each farm must have coveralls and boots/disposable boots available for visitors |

| ✓ | Manual Reference | Requirement |
|---|---|---|
| Mandatory Items | | |
| | 2.6 | All visitors must sanitize their hands prior to entry and upon exit from the RA, or wear barn-specific gloves inside the RA |
| | 2.6 | Farm personnel must wash their hands or use a hand sanitizer following contact with mortalities, unless gloves have been used to collect mortalities |
| | 2.6 | The farm manager or employee must accompany visitors when accessing barns or the range areas to ensure that biosecurity is respected |
| | 2.7 | 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 accessing the RA |
| | 2.7 | 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. Equipment brought into the RA from another premise not under common management, must be cleaned and disinfected before entering the RA |
| | 2.8 | In flow-through barn, all the cleaning, disinfecting procedures and downtime must be respected for each section |
| | 2.8 | Pets do not have contact with the flocks or access to the RA |
| | 2.8 | If the guardian animals are ruminants, farmers must ensure that access to chicken feed that contains prohibited material is restricted |
| | 2.8 | Where applicable, gaps in the eaves are patched |
| | 2.8 | Wild birds must be deterred form entering the barn/brooder house |
| | 2.8 | Wild birds, rodents and insects must be deterred from entering the RA. Producers must have a pest control program in place and documented |
| | 2.8 | Barn walls, roofs and doors are maintained in good condition |
| | 2.9 | Weeds and grass are cut regularly in the CAZ |
| | 2.9 | The work areas and outside storage areas are kept neat and tidy to help eliminate breeding areas for insects and rodents |
| | 2.9 | Feed spills below augers and bins are removed |
| | 2.9 | Range area is free from nails, staples, binder twine etc that could be consumed by the flock |
| | 2.9 | The CAZ and the range area must not have any stagnant water. Potholes/depressions are filled |
| | 2.9 | The grow-out area must be kept free of all attractants for rodents |
| | 2.9 | Domestic waterfowl are not permitted within the CAZ and must be fenced in |

| ✓ | Manual Reference | Requirement |
|---|---|---|
| Mandatory Items | | |
| | 2.9 | The outdoor range must be sited and managed to avoid muddy or unsuitable conditions |
| | 2.9 | The range area must be free of debris that may shelter pests |
| | 2.9 | Birds on the range must not be exposed to spray drift of cropping chemicals |
| | 3.1 | Control program used for on-farm feed mixing/addition of feed ingredients |
| | 3.2 | A feed mixing record is kept |
| | 3.2 | The final mixed feed is sampled for all on-farm feed mixing (this includes adding an ingredient (i.e. wheat) to finish 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 a complete traceability of feed |
| | 3.3 | Each load of feed or feed ingredient must be stored in a clearly-identified closed bins, feed bags or in a tank |
| | 3.3 | Inspect bin for leaks of feed and rain after each flock |
| | 3.3 | Inspect inside and outside of the feed bin at least once a year for feed caking and rust |
| | 3.4 | Empty feed bins and thoroughly clean the feed bin boots and feeding systems between flocks |
| | 3.4 | When feeders are located outside, they must be rain-tight and equipped with a roof or overhang to avoid rain from entering the feeder. |
| | 3.4 | Feeders must be designed to prevent access by wild birds |
| | 3.4 | An inspection of all feed delivered to the farm and verification of each bill of lading for medications with a withdrawal period must occur |
| | 3.5 | Control measures are used to prevent cross-contamination between medicated feed with a withdrawal period and the next type of feed |
| | 3.5 | If a sample is kept at the feed mill and the feed mill is not certified on the FeedAssure program, then the fact that they keep the sample at the feed mill must be indicted on the letter of assurance |
| | 3.6 | You must check with your processor for instructions on feed withdrawal |
| | 3.7 | Surface water systems must be used with an ongoing water treatment program |
| | 3.7 | The flock must not be able to access ponds or dugouts in the range area |
| | 3. | Waterers must be designed to prevent access by wild birds |
| | 3.7 | A visual check (cloudiness and rust) of the water quality needs to be performed on a minimum weekly basis |

| ✓ | Manual Reference | Requirement |
|---|---|---|
| Mandatory Items | | |
| | 3.7 | If using an open drinker system, they must be inspected daily and cleaned (i.e. brushed) each day and water examined for slime and mould |
| | 3.7 | You must flush waterlines under full pressure in between flocks |
| | 3.7 | Water line must be (1) cleaned or disinfected during the grow-out or (2) cleaned and disinfected between flocks |
| | 3.7 | All water treatment systems must be used and adjusted as per the manufacturers' recommendations |
| | 3.7 | If a chemical product is being used to treat the water during the grow-out period, then the product level must be verified twice during the grow-out period |
| | 3.8 | Chlorine test strips must measure free chlorine at the end of waterline |
| | 3.9 | Water analysis tests performed yearly |
| | 3.9 | Water sample must be taken inside the grow-out area |
| | 3.10 | Water test is available at first audit for new farmers or new facility |
| | 4.1 | Clean and disinfect your production area thoroughly (complete washing) after a disease outbreak that required a depopulation (i.e. Avian Influenza, Newcastle disease) |
| | 4.1 | You must clean, wash and disinfect the fans regularly |
| | 4.1 | Keep the barn/brooder house exterior and equipment clean.<br>In a free range area, the feed delivery system must be kept clean |
| | 4.1 | Empty and thoroughly clean the feed bin boots and feeding systems (augers and lines) between flocks |
| | 4.1 | Inspect the feed bin for leaks after each flock |
| | 4.2 | Clean each barn/brooder house thoroughly after each flock |
| | 4.2 | Manure must be removed from the inside the barn/brooder house after shipping in a way to not be re-introduced in the RA |
| | 4.2 | 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, buckets and other equipment (including any catching equipment) |
| | 4.2 | You must disinfect open drinker systems and let them dry before using them again |
| | 4.3 | A complete washing (cleaning and disinfection/downtime) of the barn/brooder house and all the equipment and machinery must occur at least once per year |
| | 4.3 | Water lines must be cleaned or disinfected between flock if a cleaning or disinfection program has not been used during the flock |

| ✓ | Manual Reference | Requirement |
|---|---|---|
| Mandatory Items | | |
| | 4.4 | The feed delivery mechanism (i.e. pipes/tractor feed bin) must be kept clean (no build-up) and appropriately cleaned in between flocks to prevent build-up |
| | 4.4 | In the range area, the feeders and waterers must be dry-cleaned in between flocks |
| | 4.4 | In the range area, shelters must be dry-cleaned in between flocks |
| | 4.4 | Prior to allowing chickens access to a range area, the range area must have had a rest period of at least 21 days after the last poultry |
| | 4.4 | 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 |
| | 4.4 | Equipment being removed from the premises and taken to another operation which is not under common management must first be cleaned and disinfected |
| | 4.5 | Manure 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 |
| | 4.5 | Transport of manure through the Free Range is to be minimized |
| | 4.5 | Manure must not be spread in the CAZ |
| | 5.1 | When vaccines are given, written assurance regarding the vaccination history must be provided and recorded on the flock sheet or other document |
| | 5.1 | Any vaccines administered at the farm must also be recorded on the flock sheet or other document and all withdrawal time adhered to |
| | 5.1 | All medications given at the hatchery level must appear on the invoice slip |
| | 5.1 | For Cornish chickens, they must not be sent for processing prior to the pre-scribed withdrawal period |
| | 5.3 | Rodenticides being used in the bedding storage area must not be put in the bedding where they can contaminate the bedding prior to placement |
| | 5.3 | The litter is checked for mould, feather and bird droppings upon placement in the barn |
| | 5.4 | 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 |
| | 5.5 | In free range operations, a record must be kept of the dates that birds are moved from the brooder barn to the range, or the date on which the range was made available for the birds to access |

| ✓ | Manual Reference | Requirement |
|---|---|---|
| Mandatory Items | | |
| | 5.5 | A functional monitoring and alarm system to inform you of any power failure and temperature variations outside of the critical limits inside the barn/brooder house |
| | 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 transfered to a record |
| | 6.2 | Only use medication approved by the Veterinary Drugs Directorate of Health Canada |
| | 6.2 | Medication must comply with the Compedium 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 |

| ✓ | Manual Reference | Requirement |
|---|---|---|
| Mandatory Items | | |
| | 7.1 | Chicken must be checked at least twice a day during the entire grow-out period |
| | 7.1 | In a range operation, the farmer must be very receptive to the warning signs of disease |
| | 7.1 | Sick/injured birds are treated/culled on a daily basis |
| | 7.1 | In a range, the farmer must check for spilled feed, feed quality, water leaks, excessive manure build-up around waterers and feeders, monitor pooling water, activities from predators/rodents, inspect open water and monitor the bedding material |
| | 7.2 | New birds must be kept separate from the existing flock for a period of at least 30 days |
| | 7.2 | Dead birds are removed daily and mortality logs are maintained |
| | 7.2 | Farm personnel must wash their hands or use a hand sanitizer following contact with mortalities, unless gloves have been used to collect mortalities |
| | 7.2 | 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 |
| | 7.3 | In heightened biosecurity, mortalities are moved in closed containers and carcasses that are moved off the farm must be transported in covered containers |
| | 7.4 | 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 |
| | 7.4 | 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 |
| | 7.4 | You must inform the CFIA and your provincial board if a reportable disease is suspected or confirmed on your farm |
| | 8.1 | Farmers must address any additional food safety or animal health risks on their farm |
| | 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 | The Flock Information reporting form or other document must contain all the information in regards to vaccines and medications administered for treatment or prevention |

| ✓ | Manual Reference | Requirement |
|---|---|---|
| Highly Recommended | | |
| | 2.2 | CAZ is 15 m around the barn |
| | 2.2 | A visitor's parking area for non-essential visitors should exist outside the CAZ and be included on the farm diagram |
| | 2.2 | Vehicles coming from suppliers that do not have an HACCP program follow the farm biosecurity codes of operation |
| | 2.4 | A physical barrier separates the CAZ from the RA |
| | 2.6 | 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 |
| | 2.6 | Farm workers wear either (1) barn specific clothing/coveralls when crossing from the CAZ to the RA or (2) premise-specific clothing that is not worn off the premise |
| | 2.6 | During partial catching at flock thinning, the catchers wear premise-specific coveralls or clothes and the schedule is organized so barn being thinned is the first of the shift |
| | 2.6 | Farm workers sanitize their hands prior to entry and exit from the RA, or wear barn-specific gloves inside the RA |
| | 2.7 | Garbage bins/bags are located in the barns or on the farm for visitors to dispose of coveralls and boots covering. The garbage is disposed off at a minimum once between flock |
| | 2.7 | All equipment is cleaned and disinfected before taking them in the RA |
| | 2.8 | In a flow-through barn, staff moves from the youngest bird to the oldest |
| | 2.9 | No domestic waterfowls on the farm premises |
| | 2.9 | The perimeter of the grow-out area is drained in a manner that does not allow water to drain |
| | 2.10 | 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 (fro new premises) |
| | 3.1 | Feed mill has given written assurance that quality and food safety control program with a third party audits is used |
| | 4.1 | Inside and outside of the feed bin are inspected after each flock and inspect for feed caking and rust once a year |
| | 4.3 | A complete washing of the barn/brooder house with water under high pressure followed by a disinfection is done between each flock |

| ✓ | Manual Reference | Requirement |
|---|---|---|
| Highly Recommended Items | | |
| | 4.3 | In barns with dirt floors, the top centimetre of dirt should be removed at each clean out |
| | 4.4 | A range area has not been used by any other commodity during the same annual season prior to being used by the chickens |
| | 4.4 | Barn cleaning takes place as soon as the flock is shipped to maximize the rest period |
| | 4.5 | All manure should be removed from the barn/brooder house and barnyard within 48 hours after the birds being shipped |
| | 4.5 | A rest period of at least 14 days in between shipment and placement, if washing and disinfecting is not performed |
| | 5.1 | Chicks are only purchased from federally-registered hatcheries operating under HACCP |
| | 5.1 | Obtain written assurance regarding the dosage level of vaccines |
| | 5.3 | Bedding materials are purchased from a supplier with a control program |
| | 5.3 | Bedding is stored in a dry, covered location and managed by a pest control program |
| | 5.3 | Measures in place to not re-contaminate the barn when spreading bedding |
| | 5.5 | Incoming chick boxes should be unloaded outside the RA |
| | 5.5 | The barns/brooder houses should have a standby power system |
| | 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 |
| | 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 |

## B) Free Range Animal Care Program Checklist

| ✓ | Manual Reference | Requirement |
|---|---|---|
| Mandatory Items | | |
| | 1.1 | All staff must be trained and have an understanding of the Free Range Animal Care Program manual |
| | 1.1 / 10.1 | Each farm has a written set of SOPs |
| | 1.2 | Personnel competent in bird behaviour, disease recognition, correct bird handling techniques, humane euthanasia techniques, litter and air quality management and emergency procedures for fire and disaster |
| | 1.2 | A training record is kept for each employee |
| | 9.2 | Birds have adequate space to feed without restriction |
| | 9.2 | Appropriate number of feeders are provided and recorded in your SOP |
| | 9.2 | Feed satisfies dietary requirements |
| | 9.2 | OFFSAP requirements on feed quality are followed |
| | 9.2 | Birds have continuous access to water |
| | 9.2 | OFFSAP requirements on water quality are followed |
| | 9.2 | Appropriate number of drinkers provided and recorded in your SOP |
| | 9.3 | Where applicable, temperature alarms and corrective actions recorded |
| | 9.4 | Where temperature alarms aren't used, record corrective actions when birds show signs of thermal discomfort |
| | 9.4 | Air quality (ammonia, humidity, air exchange rate) monitored daily when housed indoors |
| | 9.5 | Appropriate illumination for normal feed and water intake provided |
| | 9.5 | Lighting program documented in your SOP |
| | 9.6 | Birds have access to shade and shelter |
| | 9.6 | The range area is fenced |
| | 9.6 | The range area is kept free of debris |
| | 9.6 | Feed and water sources must be designed to prevent access by wild birds |
| | 9.6 | Range sited and managed to avoid unsuitable conditions |
| | 9.6 | Majority of range covered in vegetation |
| | 9.6 | All birds have easy access to and from range |
| | 9.6 | Monitoring system tested and recorded once per production cycle |

| ✓ | Manual Reference | Requirement |
|---|---|---|
| Mandatory Items | | |
| | 9.6 | Standby power system or alternate system of maintaining ventilation, feeding, watering and lighting programs available and tested once/ production cycle |
| | 9.7 | Contact information of farm employees available |
| | 9.7 | Stocking density targeted for no more than 31 kg/$m^2$ (6.35 lb/$ft^2$) at its highest point unless the requirements outlined below are met |
| | 9.7 | Inside floor area of the barn recorded on your SOP |
| | 9.7 | Outside range area recorded on your SOP |
| | 9.7 | If stocking between 31 kg/$m^2$ and 38 kg/$m^2$ the following requirements are met:<br>• Appropriate number of feeders/drinkers available<br>• Birds travel no farther than 3-4 m (10-13 ft) to reach feed and water<br>• Water meters available<br>• Minimum and maximum daily temperatures recorded<br>• Minimum and maximum levels of humidity or ammonia measured daily.<br><br>Mortality, euthanasia and condemn records maintained per flock |
| | 9.8 | Good quality bedding provided to each flock |
| | 9.8 | Corrective measures taken if litter is too wet or too dry |
| | 9.9 | Litter cleaned out after each flock |
| | 9.9 | OFFSAP requirements followed to ensure barn ready for receiving new chicks |
| | 9.9 | Farmer or representative present during chick delivery and placement |
| | 9.9 | New chicks inspected and observations recorded |
| | 9.9 | Flock is monitored twice daily |
| | 9.10 | Feed, water and ventilation systems checked twice daily |
| | 9.10 | Name of veterinarian and alternate recorded on your SOP |
| | 9.10 | Flock observed for signs of disease and high mortality |
| | 9.10 | Birds checked for parasites and treated as necessary |
| | 9.10 | OFFSAP requirements followed to ensure maintenance of medicators |
| | 9.11 | Overall flock mortality monitored daily |
| | 9.11 | Notified veterinarian if mortality exceeded 2% in 24 hrs |
| | 9.11 | Culled sick and injured birds daily |
| | 9.12 | Farmers available and barn prepared to facilitate catching |

| ✓ | Manual Reference | Requirement |
|---|---|---|
| Mandatory Items | | |
| | 9.13 | Effective pest control program utilized |
| | 9.13 | Biosecurity, cleaning, disinfection, pest and predator requirements of OFFSAP program are followed |
| | 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 | Deviations and corrective actions are recorded |
| ✓ | Manual Reference | Requirement |
| Highly Recommended Items | | |
| | 9.2 | Water temperature does not exceed 30°C (86 °F) |
| | 9.2 | A 24-hour emergency supply of water is available |
| | 9.2 | Water meters used for monitoring water intake |
| | 9.4 | Steps taken to reduce ammonia when it exceeds 15 ppm |
| | 9.4 | Monitoring devices used to measure ammonia |
| | 9.5 | Birds exposed to no less than 1 hr of darkness in a 24 hr period except during brooding |
| | 9.6 | Windbreaks are provided in exposed areas on the range |
| | 9.8 | Stocking density should not exceed capacity of range to maintain forage |
| | 9.10 | Steps taken to minimize bird excitement |
| | 2.9/9.10 | Chickens kept inside during periods of migration |

# 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.

In a free range production environment, it is crucial to be aware of the hazards associated with raising birds outdoors. A free range environment includes an increased number of vectors for disease and pathogenic bacteria transmission. It is important to put in place effective measures to reduce the risks of these hazards as much as possible.

Dependent on your production site, the way that you manage your range area will vary. For example, the range area could be attached to a brooder house where the birds are free to come and go at their will. In other situations, the farm could use moveable pens that are used to move birds to a different part of pasture each day.

In any situation, appropriate actions must be taken to establish zones of protection around the production area (including the range) in order to limit what comes into contact with your birds. The requirements in this chapter have been developed to capture all different types of production methods.

You must create two zones of protection.

MD

- A Controlled Access Zone (CAZ) around the outside of the barns/brooder barn and the range area (this includes the feed and fuel tanks if applicable).
- A Restricted Area (RA) that includes the inside of the barn/brooder barn and the inside of the range area where the birds are actually located.

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.

## 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/brooder house, feed storage (e.g wooden bins, feed bags), the range area as well as any utilities (e.g. propane, fuel, hydro meters) that are in close proximity to the barn, brooder house or range area. Manure storage areas must be outside of the CAZ.

MD

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, brooder house or range area that must be kept maintained (e.g. grass cut, etc) and free of rodent attractants (e.g. firewood piles). In some cases, it might be necessary to setup more than one CAZ (e.g. multi-species farm with feed storage away from poultry barn).

HR

The layout of your farm site and the location of your barns and range area 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 meters (15 m) around each barn and/or range area (manure storage areas must be outside of the zone).

MD

On the farm, you must also 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 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.

MD

Suppliers (e.g. feed truck drivers) must not enter the CAZ inside the barn/brooder house unless access is absolutely necessary. If it is necessary to enter the RA, the strictest of 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. Clearly, vehicles delivering essential supplies such as fuel, litter, feed, chicks or other materials have to enter the Controlled-Access Zone. Similarly, those transporting birds or manure from the barn(s) may enter. You should not allow any other vehicles inside the Controlled-Access Zone.

HR

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:

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

The goal of the Restricted Area (RA) on the farm 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

In a free range production where birds are allowed access to the outdoors, the RA is to include the buildings and range areas to which the birds have access. Dependent on the design of the free range farm, the RA may be designated as the area within one barn/ brooder house and the attached range area, or the RA may be designed to include multiple pens, brooder houses or range areas. Independent of the design, each RA is a contained area with distinct entry and exit protocols.

The establishment of a RA on the range is very important to ensure that the risk associated with contact with wild birds, predators, and other animals is minimized or is limited. These are not only vectors for disease, but also for bacteriological pathogens.

To set up the RA on the range, the following requirements must be met:

Appropriate precautions must be taken to minimize the risk of direct and indirect contact of the flock with wild birds or other avian species (poultry, ducks, geese, emus, ostriches, aviary birds, pet birds).

- There must be no contact between free range flocks and other livestock on the farm.
- Due to shared bacteriological species, there must be complete separation from other species on the farm.

MD

To achieve this:

- The range area or moveable pen must have, at minimum, a single fence or fencing system to prevent predators from entering.
- The range area must be kept free of debris that may shelter pests.
- Feed and water sources must be designed, located and maintained to minimize the potential risk of access by wild birds to the flock.

In the event that there is a disease risk in your flock, or within the surrounding area of your flock, appropriate steps will need to be taken to ensure biosecurity and to prevent your flock from becoming ill, or to prevent transmission of the disease from your flock.

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

The sign should read "No entry, biosecurity in Effect', "Do Not Enter, Permission Required Past This Point", or have wording with a similar meaning.

Where possible, barn doors and other entrances (e.g. gates) to the RA must be kept locked when the barn is unsupervised in order to restrict access into the RA. In between flocks, the door must be kept locked after the RA has been cleaned. For range areas, farmers are to deter people from entering the RA by using locks on gates and/or signage.

At the line between the CAZ and the RA, establish a barrier that people must cross to enter the RA. A step-over, a door 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, 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 to the barn/brooder house (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 RA 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.

★ HR

A physical barrier (e.g. bench or 2'x4' stop over attached to the wall or on block) should be in place to separate the CAZ and the RA. The barrier should be in place in a way that it fully encloses the RA from the CAZ (i.e. no space around the barrier to be able to bypass it).

MD

Each free range operation 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 range area, the layout of the property including roadways, feed bins, etc, and clear distinctions of where the two control zones are located. This diagram will help to educate workers and visitors about the different zones on the farm.

## A) People Accessing the RA

MD

All visitors accessing the RA must sign 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)/range entered should 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 RA.

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

### (1) Footwear

> Farmers and all people entering the RA, after the RA has been cleaned and/or disinfected and during the grow-out period up to the point the entire flock is shipped, must take precautions not to carry pathogens from outside the production area into the RA by way of their boots. This can be accomplished by having a dedicated pair of boots in the RA 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, but footbaths cannot replace footwear when moving from the CAZ to the RA. If not changed daily or when contaminated with organic material, footbaths are not an effective barrier to bacteria or disease. With repeated use, footbaths have been proven to provide a perfect breeding environment for bacteria. Dirty footbaths ensure that bacteria will spread from the environment outside to inside the RA.

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 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 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

> Anyone other than farm employees who are accessing the RA when birds are in the barn or in the production area on the range 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.

HR

> 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 production area being thinned is the first of the catching shift.

**(3) Hand-washing:**

★ MD

> All visitors must sanitize their hands prior to entry and upon exit from the RA, or wear barn-specific gloves inside the RA.

HR

> Farm workers should sanitize their hands prior to entry and exit from the RA, or wear RA-specific gloves.

MD

> 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 or the range areas 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/production area has been cleaned and disinfected or when there are birds in the barn/production area, 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.


Garbage bins/bags should be located 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 RA.


When equipment is brought into the RA after the barn/production area 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.


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/production area or to other barns/production areas on the same premise can be increased. In these cases, there are biosecurity measures that should be implemented at both the barn/production area and premise levels:

- additional biosecurity measures can be applied between barns/production areas to enhance barn/production area 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/production areas still in production
- limiting movement of equipment between barns/production areas and cleaning and disinfecting all equipment between barns/production areas if used in more than one barn

HR

Some farms will have a flow-through barn/production area or have a multi-stage grow-out operation within the same RA. Flow-through barns/production areas 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/production area on the same property and use separate biosecurity protocols for each production area.

MD

In a flow through barn/production area 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

MD

Precautions must be taken to minimize the risk of wild birds, rodents and insects accessing the production area. You must have a documented pest control program. Pets must never be allowed in contact with the flock or have access to the RA including the barn, brooder house or range area.

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. A maximum of two larger animals can be used on the range for predator control.

Note: Free range farms commonly use larger animals to cohabitate with the chickens to act as predator control. One or two animals, depending on the size of the range, are allowed to cohabitate with the chickens if the reason is for predator control.

★ If the guardian animals are ruminants, farmers must ensure that access to chicken feed that contains prohibited material is restricted.

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

### A) Barn/Brooder House

MD

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

- Where applicable, patch gaps under the eaves to prevent birds from nesting or entering the barn.
- Precaution must be taken to minimize the risk of wild birds accessing the barn/brooder house
- Maintain barn walls, roofs and doors in good condition. Precautions must be taken to minimize the risk of rodents accessing barns and standard operating procedure must be implemented to ensure barn structure maintenance and rodent control measures.

MD

- Cut weeds and grass regularly within the CAZ. This makes the area around the barn/production areas less attractive to rodents, as would a strip of gravel or crushed rock.
- Keep the area around the barn and range area clean, tidy and free of general rubbish.
- Clean up feed spilled below bins, augers or in the range area immediately.

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.

For certified organic operations, several pest management tools are approved as part of the Canadian General Standards Board Organic Agriculture national standard.

### B) On the Range

MD

The environment of the range must meet the following requirements:

- Ensure that the range area is free from nails, staples, binder twine etc. that could be consumed by the flock.
- The range area must not have any stagnant water. Fill or level any low areas where water could stagnate. This removes breeding areas for insects that could carry bacteria.
- The grow-out area must be kept free of all attractants for rodents (for example fallen trees and branches should be removed).
- The outdoor range must be sited and managed to avoid muddy or unsuitable conditions.
- Keep the range area free of debris that may shelter pests.

HR

- The perimeter of the range area should be drained in a manner that does not allow water to accumulate within the grow-out area.
- Due to the increased risk associated with wild birds, it is recommended that chickens should not be allowed outside on the range during periods of migration (in the spring and fall).

MD

- When birds are on the range, they must not be exposed to spray drift of cropping chemicals. If cropping chemicals are used, farmers must have a plan to prevent any possible contamination.

Several different tools are available to keep wild birds away from the range. These can include scaring devices or putting reflectors on fence posts to deter wild birds from entering the range.

HR

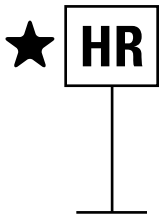
There should be no domestic waterfowl on the farm premises. Staff or owners should never keep birds as pets.

★ MD

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 AND WATER

## 3.1 Feed and Feeding Systems

Your operation may have feed delivered directly to feed bins, or you may use bagged feed. In either scenario, this chapter outlines good production practices to ensure risk is minimized.

### A) Feed Supply

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.

### B) 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 of 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 program is not used, feed mills should be able to demonstrate an equivalent HACCP program which includes third party audit.

A list of FeedAssure certified facilities can be found on the following website: **www.feedassure.com.**

MD

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

### C) If You Mix Feed on Farm (Critical Control Point 2C)

MD

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 Canadian Food Inspection Agency. 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 prepared).

MD If you mix complete feed on farm, you must take a sample of the finished product. The sample must be kept for two weeks after the flock has been marketed.

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.

### D) 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 between two farmers where feed bins are under common management protocols and where 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. As a minimum standard, you must:

- 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. If it is bagged feed, take a sample from the bag. This sample must be kept until at least 14 days after the flock has been shipped.
- Only transfer feed from the feed bin or feed bag; no feed from either inside the barn or outside of the feed bin can be transferred.
- When a feed bin is used, be able to provide documentation that cleaning of the original feed bin 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, feed samples).

**Example of record:**

| | |
|---|---|
| Date Feed Moved | Jan. 23/15 |
| 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 | Yes |
| 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 stored in bags or can 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 shortage 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.

## E) Feed Handling


Each load of feed or feed ingredient must be stored in clearly-identified closed bins, feed bags 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.


As a minimum standard where feed bins are used, you must:

> Inspect bin for leaks of feed and rain after each flock.
> Inspect the inside and outside of the feed bin at least once a year for feed caking and rust.

MD

> 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.

Feeders are recommended to be situated under a roof. When feeders are located outside, they must be rain-tight and equipped with a roof or overhang to avoid rain from entering the feeder.

Feeders must be designed to prevent access by wild birds.

Farmers should move the feeders on a regular basis to ensure that there is not excessive manure build-up. In production units where the feeders are not moved, measures should be taken (i.e. scraping around feeders/limiting bird density) to ensure there is not excessive manure build-up around the feeders.

## F) 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.

While you may not use medicated feed on your farm, it is important to note that some farmers do, and that this manual has been designed to meet the needs of all free range farmers. Irrespective of medicated feed use, you will still be required to maintain feed samples either at the feed mill or at the farm.

MD

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.

When using bagged feed, this inspection must also occur upon opening each new feed bag. 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**

| Feed Medication | Minimum Withdrawal (Days) |
|---|---|
| Avatec | 0 |
| BMD | 0 |
| Clinacox | 0 |
| Coban/Monensin | 0 |
| Coxistac 12%/Sacox 120 | 0 |
| **Cygro** | **5** |
| Flavomycin | 0 |
| Lincomix | 0 |

| | |
|---|---|
| **Maxiban** | **0** |
| Monteban | 0 |
| **Nicarb** | **4** |
| Salinomycin 60/Coxistac 6% | 0 |
| Stafac/Virginiamycin 44 | 0 |
| **Stenorol** | **5** |
| Tylan/Tylosin | 0 |
| **3-Nitro 20%** | **5** |

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.

### G) 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 Feed Assure 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.

MD

- 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.
- For feed that is delivered in bags, only one sample from the same production lot (i.e. with the same production coding) is required. In this case, be sure to record the lot # with the identification information.

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.

### H) 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 during processing. Both increase the risk that contaminated chicken products will reach the consumer.

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

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 due to improper feed withdrawal using this data.

★

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

## 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

The flock must not be able to access ponds or dugouts in the range area.

Waterers must be designed to limit access by wild birds.

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.

Farmers should move the waterers on a regular basis to ensure that there is not excessive manure build-up or puddling of water around the waterers. In range areas where the waterers are not moved, the area around the waterers should be scraped to remove any excess build-up of manure and any puddling should be kept to a minimum.

### A) Cleaning and Disinfecting Water Lines

A cleaning and/or disinfection program is required for the farm's water delivery system. A variety of different products can be used, several of which have been approved for use as part of the Canadian General Standards Board's Organic Production Systems standard.

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 |
|---|---|---|
| Cleaners | | |
| 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 |
| Disinfectants | | |
| 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 |
|---|---|---|
| Cleaners | | |
| 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 |
| Sanitizers | | |
| 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 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 at the end of the water source (e.g. outlet pipe, hose, etc.).

One sample is required for each water source. In case where a water source supplies more than one bar/brooder house and/or range area, water samples should be taken from different barn/brooder house in subsequent years.

★ The following is a suggested method for sampling:

(1) Wear disposable gloves.

(2) Label the plastic vessel and do not remove lid.

(3) Clean the nipple/outlet pipe with an alcohol wipe.

(4) Remove the nipple/outlet pipe and let 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 opening 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 given to the birds. There are several opportunities for contamination once the water enters the barns/brooder house 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:

MD

> 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:

MD

> 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

★ MD

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

Chemical analysis:

MD

> 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 AND DOWNTIME

To raise clean, quality chickens, you have to have a clean environment. Ensuring that the production area is kept clean is the key to breaking the cycle of contamination.

You must have effective cleaning and disinfecting procedures. For free range farms, a key component to achieving these goals will be sufficient downtime. You should always follow cleaning with a disinfecting cycle. If you do not, you will not break the contamination cycle. For certified organic operations, several sanitation agents are approved as part of the Canadian General Standards Board's Organic Production System standard.

You must:

MD

> Clean and disinfect your barn/brooder house thoroughly (complete washing) after a disease outbreak that required depopulation (e.g. Avian Influenza or Newcastle Disease). For range areas in this situation, they must undergo a downtime of at least one growing season.

## 4.1 Barn/Brooder House Exteriors and Equipment

MD

Where barns, brooder houses and/or feed bins are used in the operation, the following requirements must be met:

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/brooder house 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.

> If used, 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.

If using feed bins:

> 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/brooder house 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.

HR

> The inside and outside of the feed bin and parts of the feeding system outside the barn/brooder house 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.

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/Brooder House Interiors and Equipment

Where barns, brooder houses and/or feed bins are used in the operation, the following requirements must be met:

> 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:

MD

> Clean each barn/brooder house thoroughly after each flock. Do this as soon as possible after the flock is loaded out. You must plan to have the barn/brooder house 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/brooder house 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.

MD

You must clean inside the barn/brooder house 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/brooder house after shipping. Store far enough away so that no possible contamination to water sources, feed or barn/brooder houses can occur.

> The further you keep your stockpile from the barn/brooder house, the better. Ensure that the area between the barn/brooder house and the storage area after you finish cleaning out the barn/brooder house 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.

MD

(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/brooder house and equipment must take place at least once a year.

HR

> A complete washing of the barn/brooder house 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/brooder house.

### B) Disinfecting

You must disinfect:

MD

> The barn/brooder house at least once per year and this must be after the barn/brooder house has been washed with water. This includes all walls, feeders, drinkers, floors, ceilings and all other equipment (e.g. hoppers, feeding chains, etc). You can do this either with a disinfectant wash or by fumigating.

> Alternatively, the disinfection process can be performed by allowing the barn/brooder house to undergo a significant down time by allowing the barn/brooder house to remain empty for a minimum of 120 days.

> Water lines must be cleaned or disinfected 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 chapter 3. Use an adequate flush period to protect your watering system.

Avoid recontamination. Dry equipment and barn/brooder house 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/brooder house after it has been cleaned. In these situations, the opening to the barn/brooder house should not be left open if the barn/brooder house is unattended (i.e. someone on the farm premises). As this practice presents an elevated contamination risk, the barn/brooder house should be disinfected after the doors have been closed.

### 4.3 Range Area - Cleaning and Downtime

The following procedures must also be followed for the range area:

MD

- The feed delivery mechanism (i.e. pipes/tractor feed bin) must be kept clean (no build-up) and appropriately cleaned in between flocks to prevent build-up.
- Any feeders and waterers on the range must be dry-cleaned in between flocks.
- All shelters on the range need to be dry-cleaned in between flocks.
- Where feasible, as much manure as possible must be removed the range area. For example, manure is to be removed from concrete or dirt/gravel areas. For range areas covered in vegetation, the rest period timelines listed below are to be adhered to.

To reduce the possibility of disease or bacteria transmission, the range area needs to undergo an appropriate amount of downtime before it is used for a subsequent flock. It is very important to incorporate a prolonged down time between flocks to allow sufficient exposure to light and therefore eliminate pathogens.

MD ★

The timelines for the rest period are as follows:

- Prior to allowing chickens access to a range area, the range area must have had a rest period of at least 21 days since the last access by poultry.
- If moving birds onto a range that has been used by a herd of cattle, sheep or hogs within the growing season, a limited downtime of two weeks is acceptable.
- In cases where only one or two animals have used the pasture the same season (e.g. for pest control), the birds can be moved onto the range area without a downtime.

HR

In order to reduce the build-up of pathogens, it is recommended that subsequent flocks be rotated to different range areas.

A range area should not have been used by any other commodity during the same annual growing season prior to being used for chickens.

### 4.4 Equipment Used During the C&D

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 clean-out must undergo the same cleaning and disinfection procedures that are performed on the barn/brooder house. This procedure can be performed after the equipment has been used in multiple barns/brooder houses 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.

### 4.5 Barn/Brooder House Downtime

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

HR

The period after disinfection and before the next flock is placed needs to be as long as possible:

- All manure should be targeted to be removed from the barn/brooder house within 48 hours of the birds being shipped to maximize the effectiveness of the downtime period.
- 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/brooder house should be minimized after disinfection to avoid re-contamination.
- If a period less than 14 days in between shipping and placement is unavoidable, washing and disinfection should be performed.

## 4.6 Manure Storage

You must 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.

MD

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.

Transport of manure through the range is to be minimized when transporting manure from the barn/brooder area to the storage area.

Manure must not be spread in the CAZ.

Ideally, manure should be stored at least 15 m away from the barn/brooder house and when possible, all new barns/brooder houses 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

## 5.1 Purchasing

HR

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.

Independent of where you purchase your chicks (hatcheries or otherwise) your chick supplier must be able to supply the following information A & B with each chick purchase.

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

Chicks may be given vaccines at the hatchery level or at the farm; in other cases no vaccines may be given.

MD

When vaccines are given, 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 or other document, which will be forwarded to the processing plant or kept at the farm.

HR

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.

MD

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

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

In many cases, day-old chicks are injected with antibiotics at the hatchery level and for some of these drugs, a withdrawal period applies. For instance, in the case of gentamycin, the withdrawal period is thirty (30) days. In other words, this means that chicks treated with that drug cannot be marketed for 30 days.

MD

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

If farmers produce cornish chickens (sent to market in less than 30 days) they 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. 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 average size Canadian chicken barns. To meet market demands and ship uniformed 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 Canadian Food Inspection Agency 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 was delivered to the farm.

### 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/Brooder House Preparation

### A) Bedding Materials

Depending on the production system used on your farm, bedding may be used only in the brooder house or for prolonged periods of time in shelters on the range.

Be careful not to bring contamination into the production area 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.

HR

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.

MD

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.

HR

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

### B) Barn Preparation

MD

Once the date and time of delivery is obtained from the hatchery, make sure that the barn/brooder house is ready before the chicks are delivered. The Flock-Specific Record Form must be reviewed and used to ensure that the barn/brooder house 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:

MD

- Where used, 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.
- When placed in a barn or brooder house, 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 or the water delivery system used on the farm must be ready to be adjusted. Whenever a producer is notified that they are receiving chicks from the previous day's hatch, he must ensure that an adequate water supply is immediately available for the birds.

### C) Delivery

The chicken farmer or one of his/her representatives must 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 a wide-open bright eye 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 well-conditioned chick 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.
- *Normalcy*: 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.

MD

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 people entering the RA inside the barn/brooder house and for those accessing the range area are outlined in chapter 2, "Controlling Access to the Farm", and must be respected.

In order to minimize the risk of introducing contamination inside your clean and disinfected barn/brooder house, 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 rubbish 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.

HR

> In the case that the hatchery employees are used, the incoming boxes of chicks should be unloaded outside the Restricted Area by hatchery employees (truck driver and/or employees). A producer crew would then take over placing the chicks in the barn/brooder house. If the hatchery crew takes part in the placement process within the barn/brooder house, additional care should be taken to prevent the introduction of foreign contamination.

### 5.3 Bird Movement

MD

In free range operations, a record must be kept of the dates that birds are moved from the brooder barn to the range, or the date on which the range was made available for the birds to access.

This record is to include the date, the age of the birds at initial access, the location of the range used throughout the grow-out if the birds are moved and the date the range was last used by other animals, along with the type of animal that used the range. Use the Flock-Specific Record Form or similar.

### 5.4 Emergency Situations

HR

Where power is used in your operation, your barns/brooder houses 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.

> Alternatively, operations must be able to demonstrate that they can provide feed, water and ventilation without automation.

MD

Where power is used to maintain temperature or provide feed and water, you must have a functional monitoring and alarm system to inform you of any power failure and temperature variations outside of the critical limits inside the barn/brooder house.

> Alternatively, operations must be able to demonstrate that their monitoring of the flock is frequent enough to ensure that a failure of feed and water delivery would be noticed in enough time to correct the problem prior to it becoming serious.

# 6

# MEDICATIONS & CHEMICALS

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:

MD

- Only purchase and use chemicals that are 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.
- Record any chemicals 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 transfered to a record.

MD

> All chemical containers must be labeled (with the product name and concentration if different from original) and stored separately from medications and/or feedstuffs.

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** (click on "vet compendium")
- **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 though 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) 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.) |

★ HR

> 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.

★ MD

> 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).

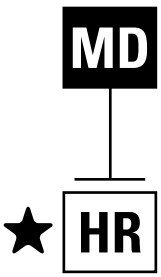
(2) Use a measuring cup that measures mL and fill with water.

(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).

★ HR

> 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)

★ MD

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

★ MD

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) | |
| *Monteban* | ☑ feed ❑ water | | | | |
| *BMD* | ☑ feed ❑ water | | | | |
| | ❑ feed ❑ water | | | | |
| | ❑ feed ❑ water | | | | |
| | ❑ feed ❑ water | | | | |
| | ❑ feed ❑ 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:

MD

- 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

MD

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.

# 7

# DISEASE MANAGEMENT

## 7.1 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.

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Farmers should be perceptive and observe the flock for evidence of parasites. If present, effective measures must be taken to treat the birds and/or a veterinarian must be contacted. These checks and measures must be recorded. Use the Flock-Specific Record Form or similar.

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.

MD

During the minimum twice daily check on the flock during the grow-out period, farmers must check the range area for the following:

- Spilled feed
- Feed quality (i.e. no water leaks or mould)
- Water leaks from the waterers
- Excessive manure build-up around waterers and feeders
- To monitor any puddling or pooling of water
- Any activity from predators/rodents
- Open waterers, they are to be inspected and cleaned as required
- To monitor any mould or excessive moisture in any bedding material

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

After having checked the feed, water and ventilation systems, any defective mechanical systems should be repaired at once.

## 7.2 Bird Segregation

MD

If it is a practice on your farm to introduce new birds to an existing flock, then specific quarantine measures must be taken to ensure that the new birds do not present a risk to the health of the flock.

Specifically, new birds must be kept separate from the existing flock (i.e. kept in a separate pen and not allowed contact) for a period of at least 30 days. Biosecurity measures between the new birds and the existing flock must ensure that cross-contamination does not occur (i.e. changing footwear between pens, etc.). After 30 days, if no signs of disease or abnormalities have been detected, the new birds can be placed with the original flock.

Use the Flock-Specific Record Form or similar to record these actions.

## 7.3 Dead Bird Removal and Disposal

MD

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.

Mortalities must be removed at minimum daily from the Restricted Area/Range Area 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 the range area and 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.


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.

## 7.4 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.

In a range operation, farmers must be very perceptive to the warning signs of disease. In particular, farmers must be aware and observe birds for the symptoms of Avian Influenza or Newcastle disease.

MD

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

MD

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/production areas 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


If a reportable disease (e.g. 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.

# 8

# HACCP AND YOUR FARM

MD

The Free Range OFFSAP manual has been developed using a HACCP-based process and the requirements have been developed based on the production practices used on free range 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.

## 8.1 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 for 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.

## 8.2 Using HACCP on your Farm

The basic principles of HACCP will work in chicken production. However, before farmers 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 or herbicides.

#### 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.

## 8.3 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.

## 8.4 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 Critical Control Points. 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 Good Production Practices. If you can, say so. Describe how your Good Production Practices control the hazard. Specify how and what corrective action(s) you will take.

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

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

- Can a control measure be used at any production step in production?
- How likely is it that the hazard will be present above an acceptable level?
- Is there a control measure that will eliminate or minimize the hazard?
- 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 Critical Control Point.

The CFC Production Committee identified three Critical Control Points related to the avoidance of chemical residues:

- Receiving contaminated feed where there is the risk that it will be fed to the chickens.
- 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.
- Treatment with medications, through feed or water, where improper control may lead to residues that are too high.

For each of these CCPs, the CFC Production Committee identified appropriate control measures and corrective actions.

## 8.5 What About Pathogens?

As the food safety team worked on this program and the CCPs, they realized that one specific potential hazard needed special consideration. The hazard? It is the risk that some incoming materials may contain pathogens or that pathogens may be introduced to the chickens in two steps of production.

The incoming materials that could be contaminated include day-old chicks, feed, water, antibiotics and bedding. The two production steps of receiving and storing feed and ineffective disinfecting could create the chance for contamination.

In either case, there is little scientific evidence to confirm that contamination leads to a higher risk to food safety. More importantly, there does not appear to be any control measure that growers can take to fully address the hazard, i.e., to eliminate all pathogens.

Clearly, more research is needed. Once we can identify an effective control measure, it will be incorporated into the food safety manual.

## 8.6 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. Here are some ideas about what these activities might be.

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)

★ MD

**Monitoring Procedures:**

- When feed bins are used on the farm, check them for proper identification (yearly basis).
- When feed is delivered to the farm into bins, keep a record of the bin into which each feed delivery is unloaded (yearly basis).
- When feed is delivered to the farm, 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 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.

**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:**

- Producer 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 a record of the medication, date and time and bin identification number where the feed is stored.
- The equipment 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:**

- 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(s) 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.

**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.

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

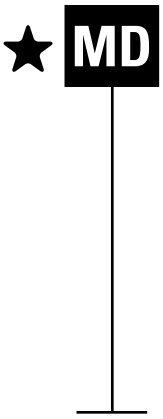
**Monitoring Procedures:**

- 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 lines must be run empty and/or water lines must be flushed when a medication involving a withdrawal period is used during the finishing period.

**Deviation Procedures:**

For medication that is delivered through 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.

# 9

# FREE RANGE ANIMAL CARE PROGRAM

## Introduction

Chicken Farmers of Canada (CFC) has developed a comprehensive Free Range Animal Care Program designed to demonstrate the level of care given to Canadian chickens. The program has been designed to complement CFC's Free Range On-Farm Food Safety Assurance Program and to provide assurance through documentation that farmers are meeting appropriate animal care standards.

The Free Range Animal Care Program is based on the nationally-developed *Recommended Code of Practice for the Care and Handling of Farm Animals: Chickens, Turkeys and Breeders from Hatchery to Processing Plant.* This Code of Practice was first published in 1983 to provide a voluntary guideline to promote sound animal care practices for poultry. CFC worked in conjunction with the animal agriculture industry, government, the Canadian Veterinary Medical Association, the Canadian Federation of Humane Societies, the Canadian Council on Animal Care and academics specializing in animal behaviour to ensure the appropriate standards for the care and handling of chickens were outlined in the code. The most recent edition was developed in 2003. The Code of Practice is currently being renewed and a new Code is anticipated in 2015; CFC's Animal Care Program will incorporate any new requirements at that time.

In addition, the Canadian General Standards Board (CGSB) *Organic Production Systems General Principles and Management Standards* (amended 2008) was reviewed when developing the Free Range Animal Care Program. Under the Canadian Organic Standards animals are raised in free range environments.

In recent years, the awareness about animal care issues by stakeholders and consumers, both in Canada and abroad, has increased at a remarkable rate. Every three years CFC conducts a Usage & Attitudes survey as part of an ongoing program to monitor consumption of, and consumer attitudes toward, chicken and competitive meats across Canada. In CFC's most recent Usage and Attitudes survey (2010), chickens and cows were the animals most associated with animal care concerns among our everyday consumers. At the meat counter, major food retailers are indicating a need to demonstrate to consumers how the chicken industry is providing appropriate animal care.

Several national and international animal care programs have been, or are in the process of being, developed. In Canada, Egg Farmers of Canada and Turkey Farmers of Canada have developed auditable animal care programs for their sector of the Canadian poultry industry. Similar programs have also been developed and are being implemented in the United States, Britain, Australia and the European Union.

Animal care is an important issue for Canadian chicken farmers. CFC and the Canadian poultry industry have always been proud of our excellent animal care record. Canadian chicken farmers have supported the Code of Practice for the care and handling of chickens since its inception. The development of this program continues to demonstrate chicken farmers' commitment to animal care and will be key to the future success of the broiler industry.

## 9.1 Feed and Water

An elevated level of aggression can occur when chickens are forced to compete for inadequate resources. To avoid this make sure that chickens are provided with enough space for feeding and watering as well as an adequate and predictable supply of feed and water.

### A) Feed

MD

Chickens must be provided with adequate space to feed without restriction in the growing areas. The quantity and style of feeders must be appropriate to the number and size of the birds in the growing area and they must be set at the appropriate height. Follow the recommendations of the manufacturer and/or the primary breeder for your particular breed of bird.

The total number of feeders or linear feeder space and the manufacturers' recommendations must be recorded on your Standard Operating Procedures.

The feed must be capable of satisfying dietary requirements and maintaining good health.

Feed may be temporarily withdrawn when required by a flock veterinarian, when heat stress is a concern or prior to processing as part of the feed withdrawal program. Withdrawal times should be developed in consultation with the processor and veterinarian.

MD

The requirements of CFC's Free Range On-Farm Food Safety Assurance Program must be followed to ensure the quality and supply of feed is adequate.

### B) Water

MD

Chickens must have continuous access to potable water, except when required by a veterinarian, as part of vaccination procedures or during the catching process.

The requirements of CFC's Free Range On-Farm Food Safety Program must be followed to ensure water quality is appropriate.

HR

The temperature of the water should not exceed 30°C (86°F).

It is recommended that a 24-hour emergency supply of water be accessible in case of water interruption. The source of water may be located either on farm or at an identified location off-farm.

MD

The number and style of waterers must be appropriate to the number and size of the birds. Follow the recommendations of the manufacturer and the primary breeder for your particular breed of bird to determine an appropriate watering system.

The total number of drinkers or nipples and manufacturers' recommendations must be recorded in your Standard Operating Procedures.

HR

Water meters are useful tools for monitoring water intake by the flock.

## 9.2 Environment

Depending on your management system, your requirements for lighting, ventilation, heating and standby power systems will vary. Even when birds are on the range, sufficient protection must be provided to protect against inclement weather.

### A) Temperature

The environmental temperature represents the combined effects of several variables including air temperature, humidity, air speed, surrounding surface temperatures, stocking density, the age and state of production.

In general, the thermal comfort zone of chickens lies between 20 and 30°C (68-86°F). Day old chicks are unable to maintain their body temperature if the temperature falls below 26°C (78.8°F). The temperature of the growing area should be maintained at 30-32°C (86-90ºF) for the first week following placement. In general, the temperature should be lowered by 2-3ºC (4-6ºF) per week following placement down to approximately 21-23ºC (70-75ºF) at the age of 6 weeks. Thereafter, the temperature should be maintained within the range of 10-27ºC (50-80ºF). Temperature should be measured at the bird level. Efforts must be made to avoid temperature extremes in the growing area. The effect of hot weather can be moderated by providing additional air movement or evaporative cooling opportunities. Always protect chickens, no matter what their age, against drafts or cold areas within the growing area.

Optimum temperature requirements vary with different strains of chickens. For this reason, the behaviour of chickens can be used as a reliable indicator of thermal comfort.

Temperatures that are too high cause:

- Crowding of the chickens away from heat source
- Pasty vents
- Frequent spreading and flapping of wings
- Panting

Temperatures that are too low cause:

- Crowding around the heat source
- Huddling or piling
- Feather ruffling
- Rigid posture or trembling
- Distress calls

When the temperature is close to optimum, chickens spread evenly over the entire growing area.

MD

When housing birds indoors and alarm systems are utilized, record all temperature alarms and the corrective actions taken (see Flock-Specific Record Forms). Alarms are to be set for temperature changes outside of the optimal temperature range (thermal comfort zone) for the age and breed of bird.

MD

In instances where alarm systems are not feasible, observe the behaviour of the birds during daily checks to ensure they do not display signs of thermal discomfort as outlined above. If the birds show signs that the temperatures are outside of their optimum temperature range (thermal comfort zone) record it along with the corrective actions taken.

### B) Air Quality

Whatever operations system you use (fixed brooder barn location, range area or moveable pens), you need a properly functioning system to keep the litter/ground dry and the environment around the birds acceptable so that humidity and ammonia levels are not excessive.

When housing birds indoors, design your facilities to give you control over the air quality inside the growing area during normal weather changes. This includes:

- The removal of water vapour
- The removal of ammonia
- The removal of carbon dioxide

A good ventilation system will bring in enough fresh air for a growing, healthy flock; this could be a mechanical ventilation system or a natural ventilation system. Adequate air movement should occur at bird level. You should be able to set the rate of air changes to the right level for the age and weight of the birds, given the outside weather conditions. When ventilation systems are working well and adjusted properly, the litter stays dry, temperatures are uniform and drafts are prevented.

Humidity should be maintained at a level that prevents the excessive build up of moisture in the litter and/or the formation of condensation on the walls. In addition, too little moisture in the litter will cause the litter to become dry and dusty. The humidity range is typically between 50-70% relative humidity. Humidity levels above 70% contribute to excessive moisture and ammonia levels. Humidity levels are generally lower at placement. This range may be exceeded due to outside weather conditions for short periods of time.

The concentration of ammonia in the air should not exceed 25 ppm. At this level, discomfort to the workers is noticeable (i.e. eye and nasal irritation). At 10 to 15 ppm, ammonia can be detected by smell.

HR

If ammonia levels exceed 15 ppm, steps should be taken to try to address it to avoid any risk of respiratory damage to the birds.

MD

Farmers and/or farm representatives must monitor the quality of the air in the growing area daily. If the air quality parameters are out of range (ammonia (25 ppm), humidity, air exchange rate) immediate steps must be taken to improve it.

HR

Ammonia monitoring devices (eg. strips and tubes) are useful tools for monitoring ammonia levels in the growing area.

Air quality may be monitored by:

- Watching for litter that is too wet or too dry. This will provide an estimate of the level of humidity in the growing area.
- Watching for eye or nasal irritation. This will occur if ammonia is too high.
- Observing the behaviour of the birds. Are the birds huddling or spread out evenly throughout the growing area? Birds will huddle if the temperature is uneven or if there are drafts.

Some steps that may be taken to lower ammonia levels in the growing area include:

- Increasing the ventilation rate – the capacity of the ventilation system must be adequate for the stocking density.
- Feeding diets that reduce the level of urea and proteins excreted in the feces.
- Reducing water spillage at the drinkers – nipple drinkers tend to spill less water than bell drinkers.
- Using litter that has a high capacity for holding water.
- Removing wet litter and replacing it with dry bedding.
- Reducing stocking density.

### C) Lighting

Chickens are sensitive to the length of the day and differences in light intensity during the grow-out period. This is why choosing your lighting program is a critical farm management decision. There are many programs to choose from. Natural daylight cycles can also be used.

MD

During the first three days of the chicks' life you must provide enough illumination for normal feed and water intake and normal activity. Daytime lighting levels must allow chickens to be visually inspected without difficulty.

During the first three days, an average illumination of 20 lux at chick height should be present to encourage chicks to start eating normally.

**20 Lux:** the use of one standard 60W/120V incandescent bulb for every 18.5 $m^2$ (200 $ft.^2$) of barn area will maintain a light level of 20 lux for bulbs mounted approximately 3 m (10 ft.) above the floor. A 13 – 15W compact fluorescent lamp may be used as an energy saving alternative.

MD

The lighting program must be documented in your Standard Operating Procedures. If natural light is provided this must be noted.

Birds should be exposed to a period of darkness (illumination at bird level that does not exceed 50 percent of the light level in the remaining hours). The period of darkness should be no less than 1 hour in each 24 hour period except during the brooding period (placement to 5 days of age) where light may be provided continuously.

### Free Range Environment

There are a number of factors that will influence the use of the range by the flock. In addition to season and temperature (birds prefer warm, overcast days), the use of the range tends to increase with age and birds prefer to range after sunrise and before sunset. Other factors that encourage birds to range are:

- access to shelter from wind and rain
- access to shade
- cover from predators

MD

All birds must have access to protective facilities; adequate housing conditions must be available to keep the birds protected during inclement weather. Birds must have access to sufficient shaded areas and shelter in the range area to accommodate the size of the flock.

The range area or moveable pen must have, at minimum, a single fence or fencing system to prevent predators from entering.

The range area must be kept free of debris that may shelter pests.

Feed and water sources must be designed to limit access by wild birds.

The outdoor range must be sited and managed to avoid muddy or unsuitable conditions; this includes the areas under the feeders and waterers.

The majority of the range area must be covered in vegetation.

When birds have access to the range from a barn, barns must be designed to allow easy access to and from the range area for all birds.

HR

Windbreaks should be provided in open fields where there is a history of strong winds.

### D) Back-Up Systems

MD

Where monitoring and alarm systems are used to inform you of any power failure and temperature variations outside of the critical limits, the monitoring and alarm system must be functional. You must test the monitoring system and record when it was tested at least once per production cycle to ensure it is functioning appropriately.

- Alternatively, operations must be able to demonstrate that their monitoring of the flock is frequent enough to ensure that a failure of feed and water delivery would be noticed in enough time to correct the problem prior to it becoming serious.

Growing areas that require power must have a standby power system or an alternate method of providing and maintaining adequate ventilation, feeding and watering systems at all stages of grow-out. This may include the use of a back-up generator or providing natural ventilation and feeding and watering the flock by hand etc. If a standby power system is used, you must test it at least once per production cycle to be sure that a proper environment can be maintained if there is a power failure.

> Alternatively, operations must be able to demonstrate that they can provide feed, water and ventilation without automation.

MD

Contact information for key farm staff must be available to farm employees in the event of a fire or other disaster.

## 9.3 Stocking Density and Bedding Management

### A) Stocking Density

Sufficient space must be provided for all birds to have the freedom to walk, turn, sit, preen, flap and stretch their wings, and dustbathe.

MD

Stocking density must be targeted for no more than 31 kg/m$^2$ (6.35 lb/ft$^2$) at its highest point before the birds are shipped **unless you meet the requirements outlined below.** Where provincial regulations stipulate a specific stocking density (at or below 31 kg/m$^2$ (6.35 lb/ft$^2$)), then those regulations preside over the stocking density requirements of this program.

| Density Conversions | | |
|---|---|---|
| kg/m$^2$ | kg/ft.$^2$ | lb/ft.$^2$ |
| 31 | 2.88 | 6.35 |
| 38 | 3.53 | 7.78 |

The total inside floor area in the barn/brooder house or other indoor area and the total outside range area available to the birds and the total number of birds needed to meet target density at market weight must be recorded on your Standard Operating Procedures form.

Facilities that demonstrate an ability to operate under higher densities can adopt a density up to 38 kg/m$^2$. These criteria are determined by flock mortality, air quality, husbandry programs, feeding and watering equipment, ventilation systems, and litter control. Farmers raising birds above 31 kg/m$^2$ must be vigilant to observe for signs of stress and overcrowding. These indicators include elevated mortality, elevated lameness, poor litter quality, poor growth and poor ventilation. The parameters below are designed as tools for monitoring and preventing these conditions in flocks with a density of over 31 kg/m$^2$.

MD

If stocking between **31 kg/m$^2$ and 38 kg/m$^2$** (6.35 lb/ft$^2$ and 7.78 lb/ft$^2$):

The following requirements must be met in the barn and/or on the range:

> The number of feeders and drinkers available must be appropriate for the number of birds. You cannot place more chicks than your feeders and drinkers can accommodate.

> Mortality, euthanasia and condemn records must be maintained for each flock. Mortalities and condemns must not be higher than what would be expected for birds raised at a density of up to 31 kg/m$^2$ (6.35 lb/ft$^2$).

> Water meters must be available and intake recorded daily to monitor for changes in water intake.

> Chickens must not have to travel any farther than 3 to 4 m (10 to 13 ft.) to reach feed or water when raised at target densities from 31 kg/$m^2$ to 38 kg/$m^2$ (6.35 lb/$ft^2$ to 7.78 lb/$ft^2$).

MD

The following requirements must be met in the barn:

> Minimum and maximum temperatures must be recorded daily.

> Humidity or ammonia meters must be available to ensure that air quality is sufficient. Humidity or ammonia must be measured on each floor of the barn/brooding area and the minimum and maximum levels over each 24-hour period must be recorded. Corrective actions must be taken if levels are outside of the acceptable range. Relative humidity is acceptable between 50-70% and ammonia is unacceptable when it exceeds 25 ppm.

HR

Stocking density on range should not exceed the capacity to maintain vegetation on the range.

The maximum number of chicks that can be placed will be influenced by the number and capacity of the feeders and drinkers available. The number of chicks that the feeders and drinkers can accommodate should be taken into account when placing chicks. Refer to the sample calculation at the end of this chapter.

Thinning of flocks is considered to be an acceptable practice provided that, at its highest point, stocking density does not exceed 31 kg/$m^2$ (6.35 lb/$ft^2$) or up to 38 kg/$m^2$ (7.78 lb/$ft^2$) with the above requirements met. Be aware that the practice of thinning represents a biosecurity risk to your flock. Refer to the Free Range On-Farm Food Safety Program for recommended procedures during catching.

### B) Bedding Management

Depending on the production system used on your farm, bedding may be used only in the brooder house or for prolonged periods of time in shelters on the range.

MD

Good quality (clean, dry and absorbent) fresh bedding of suitable material, particle size, and depth must be used in the indoor growing area. Wood shavings and chopped straw are examples of suitable litter.

Where bedding is used, bedding quality must be monitored daily.

Good bedding management is important for producing healthy birds. Ammonia levels will increase if the bedding becomes too wet and may cause the birds to develop problems such as foot pad lesions, hockburn and breast blisters. Bedding that becomes too dry may contribute to respiratory infections.

MD

If the bedding quality is inadequate (that is, too wet or too dry) immediate measures must be taken to improve it.

The following is a guide for determining the moisture level in the bedding:

- When the moisture content is appropriate the bedding should be loosely compacted when squeezed; when squeezed into a ball the ball should easily fall apart.
- When the moisture content in the bedding is too high the bedding should be tightly compacted when squeezed; when squeezed into a ball the ball remains intact.
- When the moisture content in the bedding is too low the bedding should not compact when squeezed; it cannot be squeezed into a ball.

MD

Litter must be cleaned out after each flock and replaced with clean bedding material once cleaning of the growing area has been completed.

It is recommended that ground level barn/brooder house floors be made of concrete to facilitate cleaning and disinfecting. Cleaning and disinfecting is the key to breaking the cycle of contamination when it occurs. The use of earth floors in the barn/brooder house is discouraged as they cannot be properly cleaned and disinfected.

## 9.4 Bird Monitoring and Handling

Once the date and time of delivery is obtained from the hatchery, make sure that the brooding area is ready for placement of the chicks before the chicks are delivered.

MD

Follow the requirements in CFC's Free Range On-Farm Food Safety Assurance Program to ensure appropriate brooding area readiness at chick delivery.

MD

The chicken farmer or one of his/her representatives must always be present at the time of delivery and placement, to make sure that the chicks delivered are in good physical condition and to ensure that the environment is appropriate for the chicks.

When placing the chicks, carefully take the chicks' boxes directly inside the barn/brooder house and spread them uniformly throughout the area used for brooding. Release the chicks in a humane manner. Important points for placing are:

- Boxes of live chicks should be always handled in a level position and never thrown or dropped.
- The chicks should be removed by inclining the box and then withdrawing it from under them with a smooth, swift movement.
- If removing by hand (with the hands forming a scoop), the chicks must not be squeezed.
- Chicks should not be dropped from a distance that would cause harm.

MD

You must inspect your new flock as soon as you get the chicks. Record your observations. Make note of any corrective actions you take. Refer to Chapter 5 for the quality assessment criteria.

Sometimes, you will have to handle some of your birds for closer examination. For example, this could happen when you see the early clinical signs of a disease. Handling can be stressful to the birds if it is not done properly.

MD

You must inspect your chickens at least twice a day and more often during adverse weather. The flock must be observed for:

- Sick or injured birds
- Abnormal respiratory sounds/mouth breathing
- Dead birds
- Lameness and inability to rise
- Body condition
- Feather condition and cover
- Normal bird behaviour

HR

To minimize excitement and to avoid startling the chickens when attending to them it is recommended that:

- Personnel wear clothing of uniform appearance
- Routine procedures be performed consistently and according to a schedule
- A signal be given consistently when entering the growing area to alert birds that someone is approaching

MD

You must check your feed, water and ventilation systems at least twice daily. Any defective systems must be repaired.

## 9.5 Health Care Practices

MD

The name and contact information of a poultry veterinarian familiar with your farm operation and an alternate must be recorded on your Standard Operating Procedures.

In a range operation, the farmer must be very perceptive to the warning signs of disease. A veterinarian should be consulted for advice on the health and welfare of each poultry flock as needed.

MD

Watch for clinical signs of a disease and unusually high mortality. If you find a problem, consult a veterinarian. They will give you a diagnosis and treatment recommendations. Keep these reports. If a reportable disease is confirmed or suspected, you must inform a veterinarian from the Canadian Food Inspection Agency. The Provincial Veterinarian or a Provincial laboratory and your Provincial Board should be contacted if a provincially reportable disease is detected.

Signs of illness include:

- Increased mortality.
- Reduced food and water intake.
- Changes in activity or behaviour.
- Abnormal feather condition.
- Abnormal droppings.
- Respiratory changes.

Precautions must be taken to prevent recurring injuries in the flock. Prompt action must be taken to find the cause of recurring injuries and corrective measures must be taken.

MD

Farmers must be observant for external parasites that could compromise bird welfare, and use treatments when necessary.

HR

Due to the increased risk associated with wild birds, it is recommended that chickens should not be allowed outside on the range during periods of migration (in the spring and fall).

MD

Medicators are useful tools for treating sick birds. If medicators are used, follow the requirements outlined in CFC's Free Range On-Farm Food Safety Program for the maintenance of medicators.

Leg disorders can cause pain and discomfort. Lameness in birds must be monitored closely. Birds experiencing lameness that inhibits or prevents them from walking and/or reaching food and water must be euthanized. A method for evaluating lameness can be found in Kestin[1] et al. (1992).

Foot pad lesions should also be monitored closely. Lesions may vary from discolouration of the skin to ulcerations and inflammation of the foot pad. Foot pad lesions are associated with poor litter conditions (wet litter and high ammonia). Steps should be taken to improve litter quality if lesions are observed in the flock.

MD

Overall flock mortality rates for mixed sex flocks must not exceed the values outlined in the table below. Mortality due to variables outside of the farmer's control, vertically transmitted disease (eg. hepatitis) or euthanasia (culling) due to variable chick size/stunted growth would fall outside of these parameters and would not result in corrective actions for the farmer. Mortality rates over those listed below (i.e. due to significant predation) will be reviewed on a case by case basis to determine if there were any actions that could have been taken by the producer to prevent the excessive mortalities and to ensure that all necessary Free Range OFFSAP and Animal Care Program procedures were followed.

Due to sex differences in mortality, overall mortality rates for single-sex male flocks may exceed the mortality rates for mixed-sex flocks by 2%.

**Parameters for mixed-sex flock mortality using the equation 2 + (0.06 x slaughter age in days)**

| Slaughter Age (weeks) | Slaughter Age (days) | Theoretical Flock Mortality (%) |
|---|---|---|
| 4 | 28 | 3.68 |
| 5 | 35 | 4.10 |
| 6 | 42 | 4.52 |
| 7 | 49 | 4.94 |
| 8 | 56 | 5.36 |

MD

Mortality levels must be recorded daily. If unexplained mortality exceeds 2% in 24 hours, a veterinarian must be notified. If high mortality occurs immediately after placement, hatchery personnel may be contacted in place of a veterinarian. The problem, corrective action and outcome must be recorded.

1 Kestin, S.C., Knowles, T.G., Tinch, A.E. & N.G. Gregory. 1992. Prevalence of leg weakness in broiler chickens and its relationship with genotype. Veterinary Record, 131: 190-194.

Sick or injured chickens must be culled on a daily basis. When it is necessary to cull chickens, they must be euthanized in a humane manner by skilled personnel.

A euthanasia technique is considered humane when death is rapid and pain, fear and distress is minimized. Every effort must be made to reduce pain, fear and distress. Cervical dislocation is considered a humane method for euthanizing chickens when carried out correctly.

Birds should be disposed of in accordance with provincial environmental and waste management guidelines and regulations.

## 9.6 Catching and Loading

The responsibility of catching and loading is shared between farmers and processors. On the farm, you can improve the humane handling of your birds through proper planning, facility design and easy accessibility for load outs. Facilities should be designed to discourage needless transfer of birds between handlers.

If catching birds in a barn, it is recommended that the following features be included in your barn design:

- Easy access to the loading and unloading areas of the barns.
- Eaves troughs located over loading doors.
- Loading and unloading areas and ramps that allow the shipping crew to handle the birds properly. Your design should minimize the needless transfer of the birds between handlers.
- Adequate lighting should be provided to facilitate working at night.
- A floor opening (if applicable) through which people can pass birds safely. There should be no obstructions, such as floor joists, to interfere with bird transfers.
- Buildings should have a sufficient number of (and size of) doors or openings for the type of catching that is occurring.
  - When birds are loaded into crates, buildings should have a door located every 15 m (49 ft.) along the length of the barn. It is recommended that doors be large enough to enable the workers and equipment to pass through easily.
  - When modular catching is utilized, a door large enough to enable the equipment and modules to pass through easily should be available.
- Structures must be constructed and maintained so that there are no sharp edges which could cause injury to the birds.

If catching birds on the range, it is recommended that the following features be included in your design:

- Vehicles should have suitable access to the range area. Where no suitable access is available, an alternative means of transporting the birds/crates to the truck should be provided to ensure loading times are not prolonged.
- Adequate lighting should be provided to facilitate working at night.

Automatic catching machines and modular transport systems may help alleviate catching and loading problems and may reduce injury to the birds. Only humane catching machines should be considered for use.


Farmers or a farm representative must be available (on site or by phone) to assist the catching crews should a problem arise.

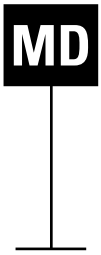
If catching birds inside a pen or in a barn, feeders and drinkers must be lifted or removed, and the light intensity lowered to facilitate easier catching of the birds.

It is recommended that ventilation be increased during catching to improve the working conditions for the catching crews. Birds should be acclimated to the cooler temperatures prior to the arrival of the catching crews.

Refer to Section 5 of the *Recommended Code of Practice for the Care and Handling of Farm Animals: Chickens, Turkeys and Breeders from Hatchery to Processing Plant and/or the Recommended Code of Practice for the Care and Handling of Farm Animals: Transportation* for further information on the humane transportation of poultry.

## 9.7 Pest Control, Predator Control, Biosecurity and Sanitation

Wild birds, rodents and insects may be carriers of infectious diseases and must be prevented from entering the growing area. In addition, direct and visual contact with other animals may cause fear in chickens and must be minimized.




You must have an effective pest control program and never allow pets to have contact with the flock either in the barn/brooder house or on the range. Your pest control program must be documented.

**Note:** Free range farms commonly use larger animals to cohabitate with the chickens to act as predator control. One or two animals, depending on the size of the range, are allowed to cohabitate with the chickens if the reason is for predator control.

Infectious agents – viruses, bacteria, fungi and parasites – can attack your chickens. They can reduce the welfare of the birds, reduce your returns and threaten consumer confidence in your product. People, pets, birds, rodents, and other animals can all be carriers. The first line of defence for your flocks is to limit, as much as possible, what comes into contact with them. The second line of defence is your cleaning and disinfection program. Cleaning and disinfection are the keys to breaking the cycle of contamination.


Follow the requirements in CFC's Free Range On-Farm Food Safety Program to ensure appropriate biosecurity, cleaning, disinfection and pest and predator management for your facility.

## 9.8 Sample Density Calculations

**Example 1: Barn with access to a range area with birds being periodically confined in the barn.**

The following are sample calculations to determine the maximum number of chicks that can be placed on a particular floor of the barn plus range area based on the following parameters. In this scenario birds may be confined to the barn:

- Barn floor size: 30 m x 15 m with a 3.05 m x 3.05 m workroom
- Range area: 60 m x 50 m
- Target weight: 2.0 kg or 4.41 lbs
- Maximum density: 31 kg/$m^2$ or 6.35 lb/$ft^2$
- Estimated mortality: 3%
- Total number of feeder pans (feeders are located in the barn): 124
- Total number of nipple drinkers (nipple drinkers are located in the barn): 569
- Manufacturers recommendation for # birds/feedpan: 55
- Manufacturers recommendation for # birds/nipple drinker: 12

### Step 1: Floor Area of Barn

The floor area should be based on measurements taken on the inside of the barn and only include the area accessible to the birds.

(floor length x floor width) – (workroom length x workroom width)

= (30 m x 15 m) – (3.05 m x 3.05 m)

= 450 $m^2$ – 9.30 $m^2$

= 440.07 $m^2$

### Step 2: Area of Range

The range area should be based on the total area on the range available to the birds

(range length x range width)

= 50 m x 60 m

= 3000 $m^2$

### Step 3: Bird Capacity based on the Floor Area

= (total floor area x maximum density) / target weight

= (440.07 $m^2$ x 31 kg/$m^2$) / 2.0 kg

= approx. **6,821 birds**

### Step 4: Bird Capacity based on the Range Area

= (total range area x maximum density) / target weight

= (3000 $m^2$ x 31 kg/$m^2$) / 2.0 kg

= approx. **46,500 birds**

### Step 5: Bird Capacity based on the Feeders

= (total number of feeder) x (# birds/feeder recommendations)

= 124 x 55

= **6,820 birds**

### Step 6: Bird Capacity based on the Drinkers

= (total number of drinker) x (# birds/drinker recommendations)

= 569 x 12

= **6,828 birds**

### Step 7: Maximum # of Chicks that can be Placed

Use the lowest bird capacity from step 3, 4, 5 or 6 to calculate the maximum # of chicks that can be placed.

= (lowest bird capacity from step 3, 4, 5 or 6) x (100) / (100 – estimated mortality)

= 6,820 x (100) / (100 - 3)

= 7,031 (this is the maximum number of birds that can be placed)

**Notes:** if birds are going to be confined in the barn or the range area, stocking density in either of those areas cannot exceed the stocking density requirements in this program. If birds are never confined exclusively to either the barn or the range then the total combined area for the barn and the range can be used to determine the maximum number of chicks that can be placed.

## Example 2: Mobile units.

The following are sample calculations to determine the maximum number of chicks that can be placed per mobile unit based on the following parameters:

- Mobile unit size: 4 m x 5 m
- Target weight: 2.0 kg or 4.41 lbs
- Maximum density: 31 kg/$m^2$ or 6.35 lb/$ft^2$
- Estimated mortality: 3%
- Total number of range feeders per unit: 5
- Total number of bell drinkers per unit: 5
- Manufacturers recommendation for # birds/range feeder: 66
- Manufacturers recommendation for # birds/nipple drinker: 60

### Step 1: Floor Area of the Mobile Unit

The floor area should be based on measurements taken on the inside of the mobile and only include the area accessible to the birds.

(floor length x floor width)

= (4 m x 5 m)

= 20 $m^2$

### Step 2: Bird Capacity based on the Area of the Mobile Unit

= (total area of the mobile unit x maximum density) / target weight

= (20 $m^2$ x 31 $kg/m^2$) / 2.0 kg

= approx. **310 birds**

### Step 3: Bird Capacity based on the Feeders

= (total number of feeder) x (# birds/feeder recommendations)

= 5 x 66

= **330 birds**

### Step 4: Bird Capacity based on the Drinkers

= (total number of drinker) x (# birds/drinker recommendations)

= 5 x 60

= **300 birds**

### Step 5: Maximum # of Chicks that can be Placed per Mobile Unit

Use the lowest bird capacity from step 2, 3 or 4 to calculate the maximum # of chicks that can be placed.

= (lowest bird capacity from step 2, 3, or 4) x (100) / (100 – estimated mortality)

= 300 x (100) / (100 - 3)

= **310** (this is the maximum number of birds that can be placed per mobile unit)

# 10

# RECORD KEEPING

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 on-farm food safety, biosecurity and animal care practices are followed.

Record keeping forms have been provided with this manual; however, if you already have your own record system with forms meeting the objectives of these programs, 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

MD

### A) Standard Operating Procedures (SOP)

- An SOP booklet for the Free Range OFFSAP and Animal Care Program 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. For the density calculation, a sample of how to perform the calculations has been provided at the end of Chapter 9.
- 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)

- The Flock-Specific Record forms that are to be completed each cycle combine the record keeping requirements for both the Free Range OFFSAP and the Animal Care Program.
- 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 mill 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:

- Requirements before Flock Placement
  - Record the date for each activity. A description of the activity, chemical product and/or concentration is required where an "*" is indicated.
  - In the Density section, complete the table with the information requested. For flocks that have been thinned, include a calculation for both the density when the flock was thinned and a calculation for the density at final catch.
- Requirements during Grow-Out
  - The dates and day of age can be customized to your operation. Each day that an activity occurs, a checkmark should be placed in that box.
  - At the bottom of the record form, fill in the information on the day of catch as it relates to your operation.
  - Depending on the length of your grow-out, additional pages have been added to allow for longer grow-out periods.
  - Record the chick placement information, any feed transfers, and any corrective actions taken during the flock.

## 10.3 Flock Information Reporting Form (Flock Sheet)

MD

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.

## 10.4 Corrective Actions for the Free Range ACP and OFFSAP programs

MD

Each time a deviation occurs during a flock cycle, the deviation, and the reason behind it (for example: target density may be exceeded due the processing date being moved 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.

# INDEX

# STANDARD OPERATING PROCEDURES

## Version 3.0

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

Please fill out all the sections of the SOPs. If an element doesn't apply to your farm, indicate that the procedure is not applicable (i.e. N/A).

# CHAPTER 1: PERSONNEL TRAINING

## A) Training Record

(1) Have each employee on the farm sign and date that they have been provided with and have understood the Free Range OFFSAP and ACP and your 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, food safety and/or animal care:

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

# CHAPTER 2: CONTROLLING ACCESS TO THE FARM

## A) Production Area Description

(1) Describe your production system including the barns/brooder houses, the location of range(s), if moveable pens are used, the number of birds placed per brooder house, the age birds are allowed access to the range and the frequency of placement:

_____

_____

_____

_____

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

(1) ☐ A farm diagram is available which indicates the layout of the property, barn/ brooder house, range area(s) and the location of the CAZ and the RA

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

_____

(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):

_____

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

_____

_____

## C) 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) ☐ Gates to ranges are locked where possible and entrance is restricted

(4) ☐ Indicate the type of barrier or demarcation used to separate the CAZ and the RA:

_____

_____

(5) Indicate the biosecurity measures taken by you and 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:

(6) Indicate the biosecurity measures taken for suppliers/visitors entering the RA:

☐ RA-specific boots or disposable boots

☐ RA-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)

(7) If you or farm workers 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 ☐ 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: _____

(8) 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: _____

(9) 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:

_____

_____

_____

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

_____

_____

_____

## D) 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/ brooder house

☐ Feed spills are cleaned up immediately

☐ The barn/brooder house and range area are kept in good repair to reduce rodent activity

☐ Wild birds are prevented from entering the barn/brooder house

☐ 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 to prevent direct or indirect contact from wild birds:

(4) Indicate the control measures used for flies:

(5) Indicate the control measures used for rodents:

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

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

(8) Are birds allowed on the range during the spring and/or fall migratory period?

☐ Yes ☐ No

(9) What measures are taken to avoid chemical spray drift from adjacent fields?

(10) ☐ There are no domestic waterfowl on the premises, or

☐ Any domestic waterfowl are not permitted in the CAZ and are fenced in.

# CHAPTER 3: FEED & WATER

## 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):

_____

_____

_____

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: _____

_____

_____

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 storage 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 with-drawal 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

(5) Describe the type of feeders used to prevent wild birds to access the feeders:

_____

_____

## D) Feed Withdrawal

(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: _____

## E) Water Source

(1) Indicate your water source:

☐ Municipal water supply ☐ Well

☐ Surface water (e.g. lake) ☐ Other: _____

☐ Does the flock have access to dugouts or ponds? ☐ Yes ☐ No

(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) How often are open waterers inspected and/or cleaned?

_____

_____

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

_____

_____

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

_____

_____

(6) ☐ Results of the annual water test are maintained on file and corrective actions are taken as necessary

_____

_____

_____

# CHAPTER 4: CLEANING & DISINFECTION

## A) Cleaning and Disinfection Procedures

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

_____

_____

_____

_____

(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: _____

(3) Do other poultry species or livestock have access to (before the chickens are allowed access) to the same range area? ☐ Yes ☐ No

If yes, describe the rest period and/or any additional measures for the range area prior to allowing chickens access to the range:

## B) Manure Management

(1) Describe your manure management plan:

(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:

# CHAPTER 5: CHICKS

## 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

## B) Alarm Systems

(1) Describe your alarm system: _____

_____

_____

# CHAPTER 6: OTHER INPUTS

## A) Medications

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

_____

_____

_____

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

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

_____

_____

(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)

# CHAPTER 7: DISEASE MANAGEMENT

## 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) ☐ You and the employees wash hands following contact with mortalities

## C) Bird Segragation

(1) Is it a practice on your farm to introduced new birds to an existing flock?

☐ Yes ☐ No

If yes, describe the quarantine measures that are used:

_____

_____

_____

## D) 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/gates 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:

# CHAPTER 9: FREE RANGE ANIMAL CARE PROGRAM

## A) Temperature

(1) 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).

(2) Describe the environmental protection provided to your birds when they are on the range (e.g. access to a barn or type of shelter)

## B) Lighting

(1) 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

## C) Flock Health

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

(2) Indicate what elements are observed during the daily checks:

- ☐ Reduced food and water intake
- ☐ Behavioural changes
- ☐ Changes in activity
- ☐ Abnormal respiratory sounds/ mouth breathing
- ☐ Abnormal feather condition
- ☐ Lameness and inability to rise
- ☐ Abnormal droppings
- ☐ Body condition
- ☐ Feather condition and cover
- ☐ Dead, Sick and injured birds

Indicate any other checks that are performed:

## D) Air Quality

(1) 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):

## E) Litter Quality

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

## F) Alarm Systems

(1) Describe your monitoring and back-up systems:

## G) Procedures During Catching

(1) Indicate your procedures during catching:

☐ feeders raised ☐ Waterers raised ☐ Light intensity lowered

☐ Farmer or farm representative available: ☐ by phone ☐ in person

## H) Veterinarian Contact Information

Name:

Telephone:

Fax #:

## I) Density

The following static information must be available for each barn/brooder house and range area. This form or a similar form can be used.

Step 1 & 2: Bird capacity based on the area, maximum density and target weight

| | Barn/Range Area[1] | Maximum Density | Target Weight[2] | Bird Capacity of the Area |
|---|---|---|---|---|
| Area 1 | | | | |
| Area 2 | | | | |
| Area 3 | | | | |

[1] Measurements are to be taken on the inside of the barn/brooder house and include the range/outdoor area.

[2] 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 area.

Step 3 & 4: Bird capacity 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) |
| Area 1 | | | | | | |
| Area 2 | | | | | | |
| Area 3 | | | | | | |

Step 5: Maximum Number of Chicks that can be Placed

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

* based on the farm history