

CARIBBEAN POULTRY ASSOCIATION

Caribbean Poultry Industry Integrated Improvement Program

ON FARM FOOD SAFETY PROGRAM FOR BROILER PRODUCERS

**FOR THE CONSIDERATION OF THE CARICOM
CHIEF VET OFFICERS/ CHIEF ENVIRONMENTAL HEALTH OFFICERS**
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ON FARM FOOD SAFETY PROGRAM FOR BROILER PRODUCERS

INTRODUCTION	iv
What is HACCP anyway	v
Developing this manual	vi
GOOD PRODUCTION PRACTICES OVERVIEW	
viii	
Planning for change	viii
Hiring and training staff	viii
1. CONTROLLING ACCESS TO THE FARM	1.1
a. Creating a Controlled-Access Zone	1.1
b. Setting up the Restricted Area Inside the Barn	
1.2	
c. Access by Vehicles	1.4
d. Farm Layout and Barn Design	1.5
2. ACCESS TO SPACE, FEED AND WATER	2.1
a. Floor Space and Density	
2.1	
b. Emergency Situations	2.2
c. Feed and Feeding Systems	2.2
d. Water and Watering Systems	2.4
3. CLEANING AND DISINFECTING	
3.1	
a. Barn Exteriors	3.1
b. Barn Interiors	3.1
4. BEDDING MATERIALS [LITTER]	
4.1	
5. CHICKS	
5.1	
a. Purchasing	
5.1	
b. Barn Preparation	5.3
c. Delivery	5.4
d. Placement	
5.5.	
e. Brooding	5.6

6. OTHER INPUT MATERIALS	6.1
a. Medications, Vitamins and other Feed Additives	6.1
b. Other Chemicals	6.2
7. THE GROW-OUT PERIOD	7.1
a. Lighting	7.1
b. Heating and Ventilation	7.1
c. Back-up Systems	
8. HANDLING BIRDS DURING THE GROW-OUT PERIOD	
a. Bird Supervision	8.1
b. Dead Bird Removal and Disposal	8.2
c. Medications	8.2
9. LOADING PROTOCOL	9.1
a. Feed and Water Withdrawal	9.1
b. Catching	9.1
10. VIEWING YOUR PRODUCTION CYCLE FROM A BASED HACCP PERSPECTIVE	10.1
a. Using HACCP on Your Farm	10.1
b. The Seven HACCP Principles	10.2
c. The HACCP Decision Tree	
d. What About Pathogens	10.4
11. RECORD KEEPING – FILLING OUT THE FORMS	
a. Good Production Practices Forms	11.1
b. Critical Control Points	11.3
c. Flock Information Sheet	11.7
d. Control Measures and Corrective Actions	11.7
12. CONCLUSION	11.9
FORMS	

What is HACCP anyway?

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

HACCP:

- Is a systematic approach to make sure that food is safe.
- Targets preventing damage from food safety hazards instead of detecting problems in the finished product.
- Gives more control during manufacturing to make sure that each and every product is safe, wholesome and of high quality.
- Uses sound, well-known principles of science and technology to choose and take corrective actions when a problem is found.

The 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.

This Code, its record keeping forms, and the critical control points, which have been identified, were developed using HACCP principles.

Developing this Manual

Food safety is a first priority. Consumers, government, food processors, farmers and farm supplies all have a stake and a role to play. Canadian farmers are always working to meet the challenge of providing consumers with the best food possible. So too the Chicken Farmers of Canada (CFC).

In 1996 the CFC set up its food safety assurance design team. The team's task was to create food safety assurance program for use on the farm. Since then....

- They have reviewed an existing Code for poultry care and handling, flock health and biosecurity. They kept the main parts of this Code in the recommended Good Production Practices (GPP) of this Manual.
- They studied the seven principles of HACCP in detail. They have identified two Critical Control Points (CCPs) in chicken production.
- They have created record keeping forms for the GPPs and the CCPs they found.
- They have pilot tested the program on some farms to make sure that the Code is practical.
- They have identified those farm practices for which there is not enough data or no control measure is available.
- This Manual is the result of their work. It describes how potential hazards found in chicken production can be controlled and who can control them. The record keeping forms give the information needed to show that you are doing what you say you will do. All producers should ensure this level of control of their operations.

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

RECORD KEEPING FORMS

The record keeping forms are designed to:

- a) prove that you have control of your operations,
- b) provide a record of what you have done,
- c) provide reminders to the producers of what needs to be done and to ensure that farm food safety production practices are followed.

If you already have your own record-keeping system or an individual quality and food safety control program with forms meeting the objectives of the code, you do not have to change provided they can be referred to when the time comes for the validation of the implementation of the program on your farm and that they meet the level of information required by this manual.

In order to minimize the amount of paperwork as much as possible, the information to be gathered has been divided in two types:

- a) basic farm information to be recorded initially and be reviewed once a year; this type of information is found at the end of each chapter.
- b) information pertinent to each cycle: this information is found on a series of forms found in the "Forms" section. This means that for each growth period and for each barn, these forms along with other pertinent information regarding that particular flock should be completed and kept in a file. Some of these checklists of forms can be replaced by any type of auditable record such as bills of lading from the feed or chick suppliers, etc. You must verify which best fits your needs.

INTRODUCTION

Chicken Farmers of Canada (CFC) is taking the initiative in the area of food safety, and has developed a comprehensive on-farm food safety program. The program rests on CFC's Good Production Practices Code and recommends the most modern methods and techniques for on-farm safety, emphasizing health, cleanliness and safety at every step of the way.

Now food safety cannot be the responsibility and concern of a singly group: all partners in the chicken supply chain need to participate. At the producer level, we have gone ahead and put this program in place because we feel that growing clean, wholesome birds is not an option. It's a must. It's our bread and butter!

And we are not the only ones to feel that way. In fact, the entire poultry industry is adopting a proactive approach to production and inspection.

The poultry processing industry has a new program called the Modernized Poultry Inspection Program (MPIP). Under MPIP, federal inspectors will do their work using new quality control systems. These systems will be based on Hazard Analysis Critical Control Point (HACCP) principles. Information from the farm will become an integral part of MPIP to ensure adequate control of the evisceration process.

Traditionally chicken farmers made their decisions based on what they could see or smell. Now, CFC is moving its members towards a system based on scientific principles.

In the very near future, processors will start asking for more data from the producer. For example, it is a known fact that there are some chemical and biological food safety hazards present in growing and transporting live birds. Processors will have to be able to show that the farmers they buy from have identified, considered, controlled, or prevented these hazards.

CFC feels its members will benefit from being forthcoming and proactive and by putting a sound system in place before it becomes mandatory. It is therefore implementing the program with the full and active support of Chicken Farmers of Canada's Board of Directors, and encouraging all of its farmer-members to adopt it.

With every producer on board giving strong support to this on-farm food safety program, our chicken will be well positioned in a new era of “safer” food.

Good Production Practices For Growing Chickens

Planning for Change

This Code of Good Production Practices is new. Every grower will probably have to make a few changes to follow the Code. Plan for change.

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

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 retain every employee. Make sure each one is an expert in good husbandry, disease prevention and worker safety. Give them the information that they need to do the job right. Provide checklists or other aids that will help them do their job. Finally, keep track of their success and reward them for it.

Set a good example, yourself. 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 to share you knowledge with your employees.

Finally, make sure that everyone has suitable clothing, equipment and masks for all of the work they have to do in the barns.

1

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 defence for your flocks is to limit, as much as possible, what comes into contact with them.

You should have two zones of protection.

- A Controlled-Access Zone outside, around the barns and feed and fuel tanks.
- A Restricted Area inside the barn.

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

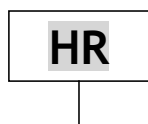
a. Creating a Controlled-Access Zone (See Form GPP 1)

A controlled-access zone 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.

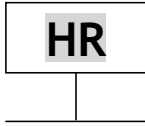
Limit access to the facilities inside this zone. You should only let people who are essential to the effective operation enter. Discourage visitors and keep them to a minimum.



Decide what part of your farm is to be included with your controlled-access zone. The perimeter should include the barn as well as the fuel and feed tanks. Manure storage areas should be outside of the zone.



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



Producers should post signs at the farm to warn people that entrance to the barn area is restricted. The signs should be easy to read. All visitors must report to a location outside the zone for permission to enter.

Inside the farm, you should also clearly mark the boundaries of the controlled-access zone with signs. If at all possible, put up a physical barrier such as a fence or gate, as well.

Everyone who enters the controlled-access zone (staff and any necessary visitors) should all follow the same rules. At the very least, anyone who has recently been in contact with other poultry or livestock should wash their hands thoroughly and change into clean clothes and footwear before they enter the zone.

b. Setting Up the Restricted Area Inside the Barn

The goal of the restricted area is the same as for the controlled-access zone. 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.

Inside the building's workroom or entry, establish a barrier that people must cross to enter the barn. Where practical, you should have a door or a low physical barrier that people can easily step over. Otherwise, it should be a clearly identified line.



i) People

You should only allow people who have followed the procedures outlined below to enter the barn.

- Wash hands with soap and water. Dry them with disposable paper towels. If this is not possible, people may wash with an alcohol-based sanitizer, pre-packaged towelette, etc.
- Change into clean boots, coveralls or lab-type coats and put on a hat or bonnet before crossing the barrier to enter the restricted part of the barn. These should be stored in the Controlled-Access Zone, i.e., they should not be worn outside the controlled zone.

HR

You should not allow common contact such as stocking feet or dirty hands between the restricted and unrestricted zones inside the barn.

MD

These procedures must be adhered to once the barn is cleaned and disinfected and during the growth period.

HR

Some farms will have a flow-through barn or have a multi-stage grow-out operation within the same restricted area. In this case, you should insist that all staff move from the youngest to the oldest birds as part of their normal routine – never from oldest to youngest. When moving from one section to another, they should wash their hands and change clothing at each stage as outlined above.

Foot baths are not an effective barrier to bacteria or disease. With repeated use, foot baths have been proven to provide a perfect breeding medium for bacteria. Dirty foot baths ensure that bacteria will spread from the environment outside to inside the barn.

You should keep spare clothing, footwear, hats, masks, etc. on hand for visitors. When they need them, you should also make dust masks available.

To avoid exciting the birds, you should make sure that people wear similar clothing in the barn at all times during the production cycle.

MD

ii) **Non Humans (See Form GPP 1)**

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

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

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

- Patch gaps under the eaves to prevent birds from nesting or entering the barn.

MD

- Repair damaged screens promptly.
- Cut weeds and grass within 15 meters of the barn regularly. This makes the area around the barn less attractive to rodents, as would a strip of gravel or crushed rock.
- Keep the area around the barn clean, tidy and free of general rubbish.
- Fill or level any low areas where water could stagnate. This removes breeding areas for insects that could carry bacteria.
- Clean up feed spilled below bins or augers immediately.

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

You are strongly encouraged not to raise other poultry or birds, especially waterfowl, on the same farm site as chickens.

Staff or owners should never keep birds as pets.

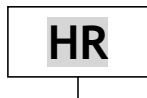
c. Access by Vehicles

i) Service Vehicles

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

You should insist that trucks coming from fuel or litter suppliers, hatcheries, feed mills or processing plants follow their own codes of operation. Ask your suppliers and processor what practices their employees have been told to follow.

ii) Farm Vehicle, Equipment



Once your barn has been disinfected, you should clean and disinfect all vehicles and equipment before you take them inside the controlled-access area. Dirty vehicles can cross-contaminate or re-contaminate the barn.

d. Farm Layout and Barn Design

i) Site Design

When laying out a new poultry farmstead, you should allow for a controlled-access zone. You should also consider easy access for vehicles in your layout.

ii) Barn Design

You can improve the humane handling of your birds through proper building design and easy accessibility for load outs. You should include the following features:

- Easy access to loading and unloading areas of the barns.
- 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.
- A floor opening through which people can pass birds safely. There should be no obstructions, such as floor joists, to interfere with bird transfers.

All work areas should be designed to have a specific, limited function serving the needs of your grow out operation. You should include an area for washing up. The design should also make it easy for your staff to set up and maintain a controlled-access zone.

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

GPP



To be reviewed annually or whenever necessary (To be signed and dated every time)

CONTROLLING FARM ACCESS

1. Do you keep the poultry house locked?
Yes _____ **No** _____
2. Security of poultry premises : buildings and facilities (signs included) visually inspected for good repair
Date _____ **m/yr**
3. Farm Access:
- Do you document farm visitors in the restricted area in a log book in each barn or in a master book in multiple-barn operations?
Yes _____ **No** _____
- Do you have protective clothing available for visitors?
Yes _____ **No** _____
- Do you require your visitors to indicate their previous farm contact?
Yes _____ **No** _____

PEST CONTROL

Pest Situation Analysis:

Rate pest problems in previous flocks: (none, some, lots)

Rodents _____ **Wild Birds** _____ **Flies** _____ **Beetles** _____ **Other**

Pests _____

Pest Control on the Farm:

1. Do you have a pest control program in operation?
Yes _____ **No** _____

2. Are weeds and debris kept a minimum of 15 m. away from growing facility

Yes _____ No _____

Signature _____ Date _____
_____m/yr

Signature _____ Date _____
_____m/yr

Signature _____ Date _____
_____m/yr

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

MD

As a minimum standard, you must:

- Inspect bin for leaks of feed and rain after each flock.
- Clean your feed bins inside and out at least every two years and whenever necessary.
- Empty and thoroughly clean the feed bin boats and feeding systems (augers and lines) between flocks.

d. Water and Watering Systems (See Form GPP 2)

You should make sure that your potable water source is kept clean. You should not use untreated surface water from ponds, lakes, streams, rivers or dugouts. You should not allow wild birds or waterfowl access to the water source.

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

As a minimum standard, you must:

- Test all water sources used for chicken production annually. If you find contamination or bacteria, consult with a competent authority or a regulator on what you must do to correct the problem.

- Clean and disinfect your watering system thoroughly between flocks. You must let open systems dry before you use them again.

GPP

2

To be reviewed annually or whenever necessary (To be signed and dated every time)

FEED AND WATER ACCESS

Equipment specifications on file (feed-drinkers-ventilation)

Location of files:

Type of feed used

- Pelleted
- Mashed

Record bin identification

Water Quality

Date of water analysis _____

(results to be inserted in the flock in which the samples were taken)

Corrective maintenance (if necessary)

Signature _____ **Date**
_____m/yr

Signature _____ **Date**
_____m/yr

Signature _____ **Date**
_____m/yr

2

Access to Space, Feed and Water (See Form 2)

a. Floor Space and Density

Throughout the full production cycle, chickens should have freedom of movement. They should have enough room to stand normally, turn around and stretch their wings without difficulty.

i) Feeders:

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

Follow your manufacturer's recommendations to access feeder space.

ii) Drinkers:

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

Remember to consider the temperature inside the barn when the water supply is interrupted. The guidelines are as follows:

Barn temperature	Maximum allowable interruption
26°C (80°F)	12 hours
28°C (84°F)	6 hours
30°C (86°F)	2 hours

Establish and maintain a proper ratio of birds to drinkers. In general, the ratio of birds to drinkers should get smaller as the birds grow.

Be sure to follow the manufacturer's guidelines when you set your bird to drinker ratios and when you install a drinker system.

b. Emergency Situations



Emergency breakdown on the farm or external power failures can cause emergencies. You must have emergency equipment to prevent deaths by

starvation, dehydration or suffocation whenever normal supplies of feed, water or air are interrupted.

c. Feed and Feeding Systems

i) Feed Supply:



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.

ii) 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 Good Manufacturing Practices (GMP) of the Animal Nutrition Association of Canada. Ask the mill to provide you with written confirmation on the invoice or in a separate letter.

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

iii) If You Mix Feed on Farm:

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 should address the critical control points recommended by the Animal Nutrition Association of Canada and the Canadian Food Inspection Agency. The focus should primarily be on the following three critical control points:

- a) weighing the correct quantity of the appropriate medication
- b) proper mixing of medications in the feed
- c) prevention of cross contamination
- d) adherence to withdrawal times if required

If you add an ingredient to complete your feed (e.g., wheat), you should take a sample for potential contamination (e.g., toxins) before you use it. The

sample should be kept for 2 weeks after the flock has been marketed. Samples should only be tested if necessary, otherwise they are to be discarded. Record the addition of the ingredient.

iv) Farm to Farm Transfer:

MD

You must not accept any farm to farm transfers of leftover feed. Leftover feed must be either sent back to the feed mill for reprocessing when the supplier has acknowledged that it has the procedures/processes in place to manage this or stored until the next time this type of feed is required.

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

- a) the feed inventory be closely monitored
- b) the amount of feed ordered be calculated based on the flock's expected consumption.

By minimizing the amount of leftover feed, the remaining feed could be either bagged or 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 as an additional control to ensure adequate withdrawal periods are respected when certain medicated feeds are used.

v) Feed Handling:

MD

Store feed and feed ingredients in clearly identified closed bins or tanks. Do not store them in open piles or containers. 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 moisture build up and contamination by rodents, wild birds, or insects.

3

Cleaning and Disinfecting (See Form GPP 3)

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

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

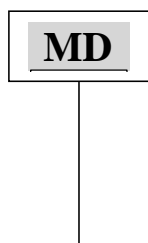


You must:

- Clean and disinfect your barn thoroughly after a disease outbreak that required depopulation.

a. Barn Exteriors:

You should clean, wash and disinfect the fans regularly, where this is practical. Plan for the ease of cleaning when you are thinking about replacing fans or new construction.

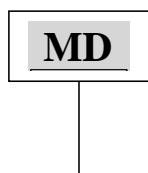


You must:

- Clean the barn exteriors once a year to prevent dust build up.
- Clean the outside of feed bins and the parts of the feeding system outside of the barn at least once every 2 years and as regularly as you are able, give seasonal weather conditions.

b. Barn Interiors:

You should routinely clean workrooms and entryways. This reduces the risk of contamination and gives your staff a clean, safe working environment.



At the minimum, you must:

- Clean and disinfect each barn thoroughly after each flock. Do this as soon as possible after the flock is loaded out. You should plan to have the barn empty but ready for the new flock for the longest possible time.

Although not requested at present, be aware that eventually you will have to prove that you are contributing to the industry pathogens reduction effort. In order to do so, the scientific approach suggests that you should have each barn tested for bacterial pathogens during the growth period and after your 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.

i) Cleaning

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

MD

1. You must remove the manure from inside the barn immediately after shipping. Store according to your provincial environmental regulations or far enough away so that no possible contamination to water sources, feed or barns can occur.

The further you keep your stockpile from the barn, the better. Clean up the area between the barn and the storage area after you finish cleaning out the barn.

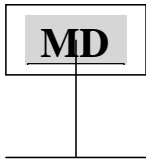
2. All organic material must be removed from the floors, walls, ceilings and equipment.

HR

3. A complete clean-up should include, when season permitting, a thorough washing of the floors, walls, ceilings and equipment with water under high pressure. Washing of barn and equipment must take place at least once a year.

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

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



At the very least, you must:

- Ensure manure storage sites meet provincial or municipal codes. When practical, place them downwind of the barns. Take steps to minimize the dust intake to the barns from the storage site.
- Not spread manure on land immediately adjacent to the barns.



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 centimetre of dirt each time you clean out. Replace it with new material.

ii) Disinfecting

You must disinfect:



- All walls, ceilings, rafters, fans, air intakes, and equipment and machinery such as feeders, hoppers, feeding chains, etc. You can do this either with a disinfectant was or by fumigating after each flock.



- Water lines. You should flush the lines with hyper-chlorinated water or with water and some other equally effective agent (such as citric acid, peroxide, etc.) after each flock.

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



You must clean and disinfect all equipment used in the clean out after the clean out is completed.

Dispose of any residues according to environmental regulations.

GPP
3

To be reviewed annually or whenever necessary (To be signed and dated every time)

MANURE MANAGEMENT

- Describe your manure management plan

CLEANING AND DISINFECTION PROCEDURES

- Describe how you clean and then disinfect your barn.

- If the clean and/or disinfection is contracted out: insert the contract at the end of this section or inscribe.

Cleaning _____ **firm** _____ **name** _____

Address _____

Telephone number _____

- and describe the procedures followed by the cleaning crew.

Signature _____ **Date**
_____m/yr

Signature _____ **Date**
_____m/yr

Signature _____ **Date**
_____m/yr

NOTE:

Description of procedures may be made on separate pages.

4

Bedding Materials [Litter]

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

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

It is highly recommended that bedding material be stored in a dry covered place with limited access to wild birds. The storage premises should be under your rodent control program.

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

Chicks (See Form GPP 5)**5****a. Purchasing**

You should only buy chicks from federally registered hatcheries by the Canadian Food Inspection Agency (CFIA). Furthermore, it is recommended that you buy from hatcheries recognized by the CFIA as operating under HACCP. A list of CFIA-accredited and HACCP-recognized hatcheries will be made available to your provincial marketing board office once an agreement has been reached between the CFIA and the Canadian Hatchery Federation. This regional list will be updated whenever a new list is released by the CFIA. When available, the CFIA Accreditation Certificate or the HACCP Recognition Certificate should be presented upon request when dealing with your hatchery operator.

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

i) Vaccines Received at the Hatchery

You must ensure that the vaccination history and dosage level (#Plate Forming Units, i.e., # PFU administered to each chick) be provided on the invoice slip. This information is essential to allow you to adequately manage your flock during the grow-out period. Furthermore, this information is required on the flock sheet, which will be forwarded to the processing plant.

ii) Treatment Received Including the Withdrawal Period When Applicable

In many cases, day-old chicks are injected with antibodies 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. All treatment given at the hatchery level (including the dosage) must appear on the invoice slip.

iii) The Age Group of the Breeding Flock(s)

From the beginning of the laying period (approximately 25 weeks of age) to the time of disposal (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 their production by age groups or sizes of birds. For instance, they may group together the eggs/chicks of

- The 24 – 30 week-old breeding flock (small)
- The 31 – 45 week-old breeding flock (medium)
- The 46 – 60 week-old breeding flock (large)

Knowing from which age group 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.

iv) 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 must 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 a validator of this program for audit purposes, with a traceable indication of the origin of the product that came into the barn.

v) 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 increase 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, or in cases where the relationship between the buyer and the seller dictates, additional information may become necessary. 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.

b. Barn Preparation

Once the date and time of delivery is obtained from the hatchery, make sure the barn is ready before the chicks are delivered. The checklists (GPP 2 & 3) must be reviewed and used to ensure that the house and all the equipment (including the brooders, the feeders and the waterers) have been properly cleaned and disinfected to ensure that the house is ready for placement upon arrival of the chicks.

The following procedures apply:

- i) The litter must be clean, soft and dry. An adequate layer is required to absorb the dropping of the chick. The thickness depends on the type of bedding used.
- ii) The temperature must be adjusted in advance to ensure that the body temperature of the chick remains the same from hatchery transfer time until such time when they can regulate their body temperature.
- iii) Drinking lines must be ready to be adjusted. Whenever a producer is notified that he is receiving chicks from a previous day's hatch, he should ensure that an adequate water supply is immediately available for the birds.

c. **Delivery**

The chicken farmer or one of its 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 this chicks:

- i) **Alertness:** an alert chick has a wide-open bright eye and appears to be curious.
- ii) **Vigor:** a vigorous chick is instantly active when disturbed and shows no signs of weakness.
- iii) **Condition:** the condition of the chick is evaluated by handling. A good 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.
- iv) **Normalcy:** a normal chick has no apparent deformity showing no signs of abnormality such as twisted beaks, or twisted toes, crippled or straddled legs, etc. There should not be noticeably undersized birds within the lot.

Bio-security procedures for those penetrating the restricted area inside the barn outlined in section 1, "Controlling Access to the Farm, must be respected.

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

- i) The delivery area must be dry, clean, and free of rubbish and organic material.
- ii) Hatchery delivery staff must wear appropriate clean clothing and impervious footwear, which can be cleaned and sanitized upon arrival on the farm.
- iii) Ideally, 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. If the hatchery crew take part in the placement

process within the barn, additional care must be taken to prevent the introduction of foreign contamination.

d. **Placement**

After the arrival of the chicks,

- i) Carefully take the chicks' boxes directly inside the barn and spread them uniformly throughout the area used for brooding. Keep the boxes level and release the chicks in a humane manner.
- ii) Check the initial temperature of the brooding area, it should be 32°C at the floor level.
- iii) Due to transport, chicks are under stress at arrival; clean drinking water and feed must be readily available. Make sure that nipples have been triggered.

e. **Brooding**

The temperature should be maintained at 30-32°C for the first week and then reduced gradually until 18-21°C at 6-7 weeks of age. The temperature should be recorded daily at chick level.

Ensure manufacturers' specifications are followed for the feeders and/or feeding pans. The proper feeding of chicks contributes to uniform growth.

You should observe your new flock as soon as you get the chicks. Record your observations. You should also check and record the flock condition three to four days into the grow-out period. Make note of any corrective actions you take. These observations and notes must be inscribed directly onto the incoming bill containing the required information. It is also recommended that you observe your flock at least twice every day that the flock is in the barn: your observations should also be recorded.



Annual Review Record (Record to be updated as necessary)

CHICKS

- Hatchery Name and Address

Hatchery

Name

Address

—

HATCHERY

- Hatchery Federal register number

Number _____

- Is a day-old chick supplier recognized by the Canadian Food Inspection Agency as operating under HACCP? (To check with list provided to the Provincial Board)

Yes _____ No _____

6

Other Input Materials

You should also 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 – chickens?

Some growers may store chemicals such as herbicides, some 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.

a. Medications, Vitamins, and Other Feed Additives

HR

During the grow-out, you may treat your birds with medications such as vaccines or antibiotics; vitamins or other feed additives. You should:

- Buy these from manufacturers who have a quality control program. They should be willing to give you a letter of assurance. It should cover their quality control program and certify product quality.
- Check the supplies when they come to the farm. They should come in unopened containers. Each should have a label saying what it is, its concentration and strength. There should be instructions for use. Keep this information for your records. Verify that the label on the bag coincides with what was ordered.
- Develop a plan for how you will handle products that do not meet these conditions. Record any corrective actions you take.
- Store these inputs properly. Follow the label recommendations.
- Use these products according to instructions from the manufacturer of your veterinarian. Make sure that your staff is properly trained before you let them give any medication.

MD

- All medications used during the grow-out period must be noted on the flock sheet.

b. Other Chemicals

HR

These same considerations apply to rodent and pest control chemicals. They also may apply to chemicals to be used in other farming operations.

- Buy from manufacturers who will give you a letter of assurance.
- Check the supplies when they come to the farm. Are the containers unopened? Is there a label that says what it is, concentration, strength, etc.? Are there instructions for use? Keep this information for your records.
- Have a plan for how you will handle products that do not meet these conditions. Record when you take corrective actions.
- Always handle, transport and store these products carefully.
- Use these products according to the manufacturer's instructions. Make sure that your staff have proper training and, if necessary, are certified before you let them use any of these products.
- Keep a record of what you use during the grow-out period.

The Grow-Out Period

7

a. Lighting

Chickens react easily to the length of the day and differences in light intensity when they are growing quickly. This is why choosing your lighting program is a critical farm management decision. There are many programs to choose from. You should consider the type and sex of the birds you are raising. Your lighting program should also coordinate with your feed and water systems.

During the first 3 days of the chicks' life, you should give evenly distributed high intensity light. This will help them to start drinking and eating normally. Afterward, you should make sure they have enough illumination for normal feed and water intake and normal activity.

b. Heating and Ventilation

Your heating and ventilation systems should be able to maintain temperatures with reasonable accuracy. This will prevent overheating or chilling of the chicks. No matter what type of housing you use, you should:

- Keep brooding temperatures on Day 1 between 30 – 32 [C] 86 – 90 [F], at the eye level of the chicks.
- For the next six weeks, lower the temperature by 2-3 [C] 4-6[F] each week until it reaches about 21[C] 70[F].

The optimum temperature can be different for different strains of chickens. Your best guide to their comfort is usually how the chickens are behaving.

Temperatures that are too high cause:

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

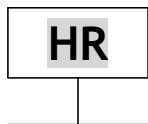
Temperatures that are too low cause:

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

When the temperature is close to optimum, you will see the chickens spread evenly over the whole brooder area or barn floor.

Always protect chickens, no matter what their age, against drafts or cold areas in the pen.

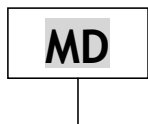
Your facilities should be designed to give you control over the air quality inside the barn during normal weather changes. This includes levels of relative humidity, dust, ammonia and carbon dioxide. A good ventilation system will bring in enough fresh air for a growing, healthy flock. You should be 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 your system is working well and adjusted properly you can keep the litter dry, keep temperatures uniform and prevent drafts.



Although it is recognized that there are wide regional differences, where outside climate dictates, there should be a humidity gauge in each barn. The relative humidity should be kept 70%. Humidity levels above 70% contribute to excess moisture and ammonia levels.

You should consult with the equipment manufacturer. They can help you choose the right design, ventilation rate, number of fans, etc. for your specific operation.

c. Back-Up Systems



Your barns must have a standby power system. You must 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

8

Handling Chickens during the Grow-Out Period

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.

Remember:

- Hold chickens in a 'comfortable' body position
- Avoid holding or carrying them in a vertical position with the head down
- Carry roasters by both legs, and
- Make sure all movements with chickens are smooth.

When you release a bird in a way that forces it to fly, this can cause stress. It can also excite or even panic the other birds in the pen. Set the bird down on the floor, preferably on its feet.

a. Bird Supervision

MD

You should 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 pen so that you or your staff can inspect the flock easily. This is particularly important when one person is in charge of a large number of chickens.

MD

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

Watch for clinical signs of a 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. If a reportable disease is confirmed or suspected, you must inform a veterinarian from the Canadian Food Inspection Agency.

You should check your feed, water and ventilation systems daily. Repair defective mechanical system at once. You should have an emergency plan for you farm. Every member of the staff should know and understand the plan.

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

b. Dead Bird Removal and Disposal (See Form GPP 8)

MD

Remove dead chickens from the pen at once. Store them, or dispose of them in an approved method

Take care when you are moving the dead birds anywhere inside your controlled-access zone. Make sure that you keep the chance of bacterial or disease transfer to a minimum. Do not store dead birds near a water source or feed bins.

Follow the regulations in your province when you dispose of dead birds. You may be able to incinerate, compost or ship dead birds off the farm for rendering. Do not dispose of dead birds by burying them because of concerns about the danger of ground water contamination.

c. Medications (Critical Control Points)

MD

You must withdraw medication from feed and water before you ship your birds for processing. The withdrawal period must be according to prescription. This will give enough time for the medication to clean from the birds' systems and prevent any residues in the final product. All feed and/or water treatment 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).

9

Loading Protocol

a. Feed and Water Withdrawal

Every effort must be made to ensure that the bird's gut is completely empty by the time it is processed. This means that you need to withdraw feed for a time of fasting.

Timing is important. Withdrawing feed too late or too early can cause serious problems at the processing plant. 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, and
- How long the birds will wait at the plant before processing.

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

b. Catching

The CFC and the Caribbean Poultry & Eggs Processors Council will be agreeing to a protocol on catching, handling and transporting live birds. This protocol covers both "thinning out" and total clearance of the barn. All catching crews should follow this protocol.

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

Proper catching is humane. It is efficient and considerate of the bird's welfare.

It cuts stress and injury to a minimum. It protects the quality of the product for processing and marketing.

Catching crews should:

- change into clean clothes and footwear when they enter the restricted area
- be properly trained in the basics of animal welfare by their employers, and
- be skilful in handling birds.

MD

During catching, birds can be killed or injured if they pile up in the corners of the barn. Producers and catchers must and can prevent this by:

- lowering the intensity of light in the pen
- using blue bulbs to give enough light for the catchers but not for the birds, and
- corralling the birds with a net or screen to prevent suffocation
- checking corners and back walls during load-out

When loading birds into bins or crates, catchers must take care to place them so as to avoid smothering.

HR

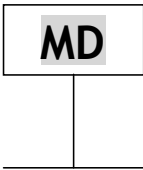
As the loading progresses, the further the birds are carried, the greater the risk of the birds struggling and injuring themselves. To prevent suffering and to minimize subsequent bruising and fractures (wing tips and legs), crates or modules should be brought as close as possible to the birds remaining to be caught.

Do not over-crowd the birds. The number of birds per crate or bin depends on:

- the available floor space
- the body size of the bird, and

- the weather conditions at the time of shipping.

The maximum density per crate or bin should be low enough to let all of the birds rest on the floor at the same time if they were spread out evenly. They should be able to move their heads freely when sitting on the floor.



Transporters must consider weather conditions when determining load densities. In cold weather, the recommended maximum live weight loading densities for chickens in crates or bins is 63 kg/m² (139 lb/10 ft²). This should be reduced in summer. When temperatures are above 32°C (90°F), birds should not be loaded unless they will be processed the same day.

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

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

All pertinent information regarding feed withdrawal, catching/loading and shipping must be inscribed on the flock sheet.

GPP

9

obstacles?

Annual Record (Record to be reviewed once a year)

LOADING PROTOCOL

- 1. Are roadways, loading areas & loading platforms free of

Yes _____ No _____

- 2. If no: describe corrective measures

- 3. What is the catching method?

Birds chased during catching Birds not chased

Flock hand loaded Flock modularly

loaded

- 4. Was loading supervised?

Yes _____ No _____

Name

- 5. What do you do with birds that have been screened out and/or left being?

10

Viewing Your Production Cycle From a HACCP Based Perspective

a. Using HACCP on your Farm

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

- Good Production Practices (GPPs) must be in place.
- These production practices 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 good practice.

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

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

Biological hazards

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

b. 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.

c. 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 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.

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 hazards 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 food safety assurance design team identified two 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, and
- Treatment with medications, through feed or water, where improper control may lead to residues that are too high.

For each of these CCPs, the team identified appropriate control measures and corrective actions.

d. What About Pathogens?

As the team worked on this new Code 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 both 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 Good Production Practices Code or the Critical Control Point protocol.

11

Record Keeping – Filling Out the Forms

As mentioned in the introduction, the record-keeping forms are designed to help you prove that you have control of your operations. If you already have your own record system or an individual quality and food safety control programs with forms meeting the objectives of this program, you do not have to change as long as they can be referred to the pertinent sections of this manual when the time comes for the validation of the implementation on your farm.

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

- When you finish an activity, check the box beside it on the form.
- Write in the date you finished on the line provided. This will be important if you have to show that enough time has passed between certain activities.
- Record the name of the chemical, feed additive or medication that you used.
- Leave any space on line blank if it does not apply to your operations.

Here is a review of the various checklist:

a. Good Production Practices Forms

i) GPP 1: Farm Access

(See Section 1 – Controlling Access to Farm)

Farm Control Access (Human and Non-Human Access). The first line of defense in protecting your flock is to limit, as much as possible, what comes into contact with it. Identify whether or not a log book is maintained for all visitors.

The section on non-humans focuses on birds, rodents and insects. Identify and record the activities that apply to your farm.

ii) GPP 2 : Facility Preparation

(See Section 2 – Access to Feed and Water and Section 4 – Bedding Materials)

The activities for this GPP tend to be done on a daily basis, as well as before the chicks are placed.

Water Quality and Water System Sanitation

(See Section 2 (d) – Water and Watering Systems)

A clean water source and a clean delivery system are important to the health of your flock.

Not all operations will need to treat their watering system between flocks. You do not need to record this activity unless it applies to you.

iii) GPP 3 : Cleaning and Disinfecting

(See Section 3 – Cleaning and Disinfection)

Cleaning and disinfecting the barn is critical to break the cycle of contamination. You must clean and disinfect each barn after each flock. You should make every effort to maximize the time between flocks when a barn is empty but ready to receive a new flock.

Fill out this form based on the guidelines noted at the beginning of this section. Remember, not all operations will use a disinfectant, insecticide or fumigant. When you do, record it. Make sure that you visually inspect the building before you place your chickens.

iv) GPP 5 : Chicks

(See Section 5 – Chicks)

The section on chicks discusses the key practices for this GPP. Checking the condition of the chicks when they arrive and three to four days into the grow out period will get you ready for any problems that could arise. This is an area where the incoming bill from the hatchery usually contains much of the required information. Additional information could be handwritten right on the bill or on chick placement report as required by some Provincial Marketing Board (when applicable).

v) GPP 8 : Culling and Mortality Disposal

(See Section 8 (b) – Dead Bird Removal and Disposal)

Record your culling and mortality disposal on a daily basis and wrap it up on this checklist. End results should be transferred to the flock sheet.

vi) GPP 9 : Loading Protocol
(See Section 9 – Loading Protocol)

You will find the things you should consider for load out on this GPP 9, however other elements including feed and water withdrawal, catching and loading will have to be recorded on the flock sheet.

The flock sheet allows for the possibility of several shipments from a single flock to more than one processor or to the same processor at different times.

b. Critical Control Points – Avoiding Chemical Residues

i) Water

Water is critically important to your operations. First, it is essential for a healthy flock. Second, it can also serve as one way to administer medications to your birds. Information regarding this CCP will be recorded on two forms while reflecting the importance of our concern regarding water.

Form CCP – 1 : Water Quality Control

This first form lets you show that you are paying constant attention to the quality of the water. This is especially important if there is any risk of contamination with chemicals, molds, etc.

If you have done the action at the head of each column, place a check mark in the box beside “record” at the end of the week. If you had to take any corrective action, please record it in the box as well.

Flock Information Sheet : Section on Diseases and Treatments

The second chance to show control is when water is the means by which medication is administered to your birds. This should be recorded on the “Flock Information Sheet” where “Diseases and Treatments” appear. See the next section for more details. You should fill out this form each time the flock needs medications.

ii) Feed

Form CCP – 2 : Feed Samples at Delivery and In-barn.

From a food safety perspective, the feed you receive is your first concern. Although the most critical time for feed is during the last two weeks of the grow out period, you are provided with the choice of two different sampling approaches. The Manual provides three forms to record the activities related to feed.

Form CCP – 2A : Feed Samples of either Each Delivery During the Cycle or Only Deliveries During the Last Two Weeks of Grow Out

Your control activities are to prevent the use of contamination feed. The first proposed approach to feed sampling would be as follows:

Alternative #1:

Sampling of Only the Feed Deliveries During the Last Two Weeks of Grow Out

Each load of feed delivered during the last two weeks of the cycle needs to be sampled and inspected. For either alternative, taking these samples does not have to be an onerous task! For example, the truck driver could take the sample for you. All you would need to provide is a plastic bag (e.g. Ziploc), a label, and a container near the tank/silo in which to store the sample. The driver could take the sample, record the needed information on the label, and place it in the container for you to retrieve later.

If you have done the action at the head of each column, place a check mark in the box beside “record” at the end of the week. If you had to take any corrective action, please record it in the box as well.

At the bottom of the page of Form CCP 2A, a short checklist provides a quick summary of the control activities you took for feed during the life of the flock.

Alternative #2:

Sampling of Each Feed Delivery of the Cycle

- When the feeding system, including all feeding bins and conveyors, is cleaned prior to the beginning of this sampling method, and
- When a producer only uses documented feed medication for which there are no withdrawal periods during all phases of the growth period, and

- When feed is only delivered in shipments exempt of drugs for which there is a withdrawal period (in cases of multi-load shipments the supplier will have to provide that guarantee), and
- When no feed treatment with a drug for which there is a withdrawal period is used during all phases of the growth period,

you may elect to only perform the sampling on all incoming feed shipments during all phases of the growth period instead of having to perform both the sampling at reception (each shipment during the last 14 days of the cycle) and the in-house sampling (every other day during the last 14 days of the cycle).

NOTE:

Under the alternate scenario, feed samples will be kept for the entire growth period and until 14 days after the shipment of the birds to the processing plant. Farmers should be aware that (depending on the type of ingredients contained in their feed) feed samples may discolour over time because of oxidization. This discoloration is not indicative of a sub-standard quality level of the feed delivered.

It is understood that whenever the presence of a drug (necessitating a withdrawal period) is suspected or when a treatment (necessitating a withdrawal period) becomes necessary, the 2nd level of sampling as per the OFFSAP manual will have to be initiated (Form CCP2B).

Form CCP 2B : Feed Fed During the Last Two Weeks of Grow Out

For those choosing the first option, you need a second set of feed samples during the last two weeks of the growth period. You need to sample the feed inside the barn that the chickens are actually eating. These samples give extra assurance that the proper feed was being fed at the proper time. You should start sampling fourteen (14) days before the scheduled processing date. You should then take a sample every other day (at 12, 10, 8, 6, 4 and 2 days before processing).

DIAGRAM OF THE TWO ALTERNATIVES FOR FEED SAMPLING

Alternative #1			Alternative #2
Feed receiving	In-barn feeders	Weeks	Feed receiving
		1	One sample per load of feed delivered to the barn
		2	One sample per load of feed delivered to the barn
		3	One sample per load of feed delivered to the barn
		4	One sample per load of feed delivered to the barn
		5	One sample per load of feed delivered to the barn
One sample of each load delivered in the last two weeks of the cycle	One sample should be taken every other day in the last two weeks of the cycle.	6 & 7	One sample per load of feed delivered to the barn

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Store both sets of feed samples in a cool, dry and secure location until two weeks after the birds have been processed.

Please record if you had to take any corrective actions.

c. Flock Information Sheet

This form reports all the information you need to fulfil the requirements of the Canadian Food Inspection Agency. As mentioned above, it also gives you a chance to record the use of medications (CCP 1 & CCP 2). Those are critical control points for food safety. Again, space has been provided to accommodate different shipping arrangements.

The flock sheet concept has been accepted and is supported by other primary production sectors and by the processing levels. Copies of the flock sheet should be sent twice to the processing plants where your birds are forwarded to:

- a) a first incomplete copy should be sent 3-4 days prior to catching to inform the processing plant of the nature of the birds they will get

(including disease & treatment and mortality rate). Individual arrangements for the transmission should be taken by each producer and its processing plant.

- b) a complete second copy should accompany the birds at the time of shipment. Instructions for filling out the flock sheet can be found on the back of the form.

d. 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 just easy activities – and a way of thinking – that need to become a habit. Here are some ideas about what these activities might be.

1) Feed Receiving

Monitoring Procedures:

- Check bins for proper identification (yearly basis).
- Keep a record of the bin into which each feed delivery is unloaded (yearly basis).
- The driver should 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 mold, etc.
- Take one sample per load. Store the samples for future analysis, if necessary.

Deviation procedures

If corrective actions are needed, these could include:

- 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 barn. Discuss the deviation with the supplier.

Verification Procedures

You should review your food safety assurance program every time a procedure or an operation has been changed. If you need to, you should revise your procedures. If you have found a problem, you may wish to send the stored sample for analysis.

2) Treatment with Medication

Monitoring Procedures

- Make sure that the correct medication is being used at the proper time during grow out.
- 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. Record this.

Deviation Procedures

For medicated feed:

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

In addition, for medication that is delivered through water:

- Stop the use of medication in the water. Record the date and time of the change.

CONCLUSION

Even when you look at your production cycle from a different perspective such as HACCP, many of the activities that ensure food safety are the same ones you are already doing. But it is very important to keep a record of what you are doing.

Controlling the hazards identified in this Manual will give extra assurance that chicken farmers will continue to help to improve Canada's high quality food safety standards. Furthermore, the implementation of this program will provide the chicken industry marketing advantages: increase food safety, strict adherence to recognized animal welfare practices and full respect of environmental protection.