A generic program for egg farmers
to adapt for their specific needs

(Not all of the points in this suggested
QA and Food Safety Program
may be appropriate for your farm)

Quality Assurance
Free Range Egg Production
&
Food Safety Program

A HACCP – based program to ensure the quality of eggs
produced by member farms

June 2013

Contents

INTRODUCTION

This Quality Assurance program covering egg production and food safety can be adapted for use on any free range egg farm.

It is designed for low-density production meeting all requirements of relevant State and Federal regulations and the Model Code of Practice for the Welfare of Animals – Domestic Poultry Version 4.

The combination of this program and State and Federal requirements ensures that best practice is maintained on participating farms – particularly regarding food safety for consumers, farm sustainability, animal husbandry practices and animal welfare.

The maximum outdoor stocking density permitted is 1500 birds per hectare, but lower densities are encouraged to maintain pasture growth. It is recommended that the maximum number of birds within each shed is limited to 1000.

Stocking density must allow pasture cover to be maintained in the paddocks where the hens range, and needs to be monitored having regard to local climatic conditions.

In line with the Model Code, hens should be fully beaked. The Code does allow beak trimming in some instances if other measures to control cannibalism have been tried and failed.

Feed and water must be available each day to all birds in each flock. Adequate feed and water points must be checked daily.

Water must be potable quality – either a reticulated town water supply or, if a dam or tank supply is used, it must be sanitised and records kept.

If all feed is not grown on farm, feed should be from a Feed Safe accredited supplier.

This Food Safety Program is based on the HACCP (Hazard Analysis Critical Control Point) system designed to identify potential hazards and allow the development of control processes at every step in the production cycle.

HACCP has been developed as more than a food safety system., it is applied to areas such as bird welfare, environmental sustainability, on-farm biosecurity and occupational health and safety issues.

It allows a farm operator to monitor the quality of the eggs produced, farm sustainability and helps to maintain consumer confidence in the industry.

Each farm needs to show evidence that procedures are in place to ensure:

- adequate availability of water for all birds
- adequate availability of food (at least once every 24 hours)
- stocking densities are within approved limits
- feed and replacement birds are from an approved source
- records are maintained for mortalities and any remedial action taken (if required)
- birds are checked at least daily
- birds are protected from predators
- a vermin control program is in place
- the farm has a biosecurity plan in place, laying hens are kept away from other poultry species and a visitor log is maintained
- eggs do not pose a health risk to consumers
- eggs are graded and packed in new packaging with labelling that meets legislated requirements

Farm practices reflect the **"five freedoms"** identified by
The Farm Animal Welfare Council.

1. **Freedom from hunger and thirst** - by ready access to fresh water and a diet to maintain full health and vigour.

2. **Freedom from discomfort** - by providing an appropriate environment including shelter and a comfortable resting area.

3. **Freedom from pain, injury or disease** - by prevention or rapid diagnosis and treatment.

4. **Freedom to express normal behaviour** - by providing sufficient space, proper facilities and company of the animal's own kind.

5. **Freedom from fear and distress** - by ensuring condition and treatment which avoid mental suffering.

Natural behaviours for laying hens requires the ability to roam widely in search of insects, dust bathe, wing flap and socialise with other hens, following their natural instincts.

The free range system incorporates natural poultry keeping methods. It is land based to ensure that the hens are happy, healthy and free with a limited stocking density to provide both land and environmental sustainability.

Collecting and Processing Eggs

Goal: To ensure food remains safe with appropriate collection and processing methods.

Keep collection equipment clean
Clean processing area and equipment at least daily
Keep processing area uncluttered
Use potable water when washing
Ensure appropriate hygiene practices are being carried out by staff
Visually inspect equipment during preparation operations
Discard eggs that are flawed or seriously contaminated
Non-potable water needs to be chlorinated or made safe by an alternate process

What is the risk?

Eggs, as raw food, may contain bacteria and viruses, so it's important that all of the steps needed to prevent food poisoning are followed. Serious food poisoning may also result when foods are contaminated with chemicals or when chemicals are found at inappropriate levels in foods.

Tips
✓ collection must be undertaken at least once a day
✓ nest boxes should be kept clean
✓ areas around laying sheds should be kept clean to limit contamination from mud/manure etc.
✓ Keep clean and unclean eggs separate in the grading room and storage area.
✓ Ensure grading/packing areas and contact surfaces are cleaned before use.

Cleaning and Sanitising

Goal:
Ensure eggs and equipment are clean

Eggs may be contaminated if premises, equipment, and containers are not cleaned properly.
Ensure appropriate cleaning products and equipment are used.
Nest boxes must be maintained in a clean condition with suitable nesting materials. Every effort should be made to maintain pasture around shedding to prevent muddy conditions from contaminating eggs with mud or faeces
Dirty eggs should be cleaned on a daily basis to limit contamination
Any eggs which are grossly contaminated must be discarded
It is preferable that eggs which have minor marks are dry cleaned with abrasive pads
If washing of eggs is undertaken, ensure an effective cleaning schedule is implemented
Ensure staff have the required cleaning knowledge and skills to undertake their tasks
Ensure the correct water temperature is maintained during the washing process. Wash water should be in the temperature range of 40 - 45°C
Ensure that only approved cleaning and sanitising products are used in the wash water

Eggs should be air dried as rapidly as possibly and placed in cool room
Observe staff cleaning practices
Conduct staff training

What are the risks?

Food might be contaminated and become unsafe to eat if the packing premises, equipment and food transport vehicles and containers are not cleaned properly.
Dirty equipment used in cleaning and packing eggs could transfer bacteria and cause food poisoning.

Cleaning tips
✓ Create a cleaning schedule to keep track of what must be cleaned and when. The schedule sets out the cleaning tasks so that staff members know how often each job must be done.
✓ Operate a clean-as-you-go policy and clean up as required. Provide cleaning materials, equipment and cleaning agents in order to clean effectively.
✓ Use clean or disposable cloths – single-use paper towels are better than cloths. Wash cloths in hot water and detergent after every use.
✓ Ensure staff members wash their hands after cleaning equipment and eggs
.
Sanitising and chemical usage tips
✓ Know what your cleaning products are designed for and how to get the best from them before you use them. If you use cleaning products that are not chlorine-based, read the information from the manufacturer to check the effectiveness of the product.
✓ Check with your chemical supplier for advice about what cleaning agents are suitable for your premises, equipment and as an egg sanitiser
✓ Follow the manufacturer's instructions when using a sanitiser. Some sanitisers work as a detergent and a sanitiser and some might need to be applied more than once when used for heavy cleaning work.
✓ Clean surfaces regularly. Sanitising small equipment may be done with heat or steam.
✓ Make up any bleach-and-water solutions every 24 hours because the chemical breaks down and becomes ineffective after time. Prepare solutions away from the egg packing area. Old batches or out-of-date chemicals should be disposed of safely.
✓ Use appropriate bleach and water solution ratios – 2.5 ml (1 teaspoon) of bleach to 1 litre of water for household bleaches or 1ml of bleach to 1 litre of water for commercial bleaches (Check ratios on product label)
✓ Store chemicals in clearly labelled containers that are free from damage or leaks and away from food in a designated area separate from food preparation and food storage areas.
Never store chemicals in food or drink containers.

Packaging and Transporting Eggs

Goal: Ensure that food remains safe

Ensure there is no contamination of food from inappropriate or damaged packaging. Store and package food in food-grade containers.
Assign a designated area for storing packaging material and for food packing
Ensure packaging area is uncluttered and clean
Check that label and product information are accurate.
Do not pack any eggs that have been contaminated.
Package and label eggs appropriately.
Eliminate the potential growth of food poisoning bacteria in your eggs by ensuring that eggs are stored and transported at a temperature of less than 20ºC.
Use vehicles and equipment capable of maintaining required temperatures.
Ensure staff are skilled in transporting food appropriately and safely.
Measure the temperature and quality of eggs at dispatch and delivery..
Inspect the quality and function of vehicles and equipment.
Eggs may be exposed to temperatures higher than 20ºC for a period of up to two hours,without action being taken as long as the core temperature of the eggs remains under 20ºC. But for a total of more than two hours and less than eight hours, the eggs must be brought down to temperature as quickly as possible. After being exposed to temperatures higher than 20ºC for eight hours or more, the eggs must not be offered for sale.(The times are cumulative, so the total time the eggs are held outside the temperature range of less than 20ºC must be recorded)
Use appropriate containers and equipment.
Minimise the time food is in transit and ensure transportation vehicles are cleaned regularly (this should be included in a cleaning schedule).

Records

The temperature of food when leaving the premises
Maintain an activity log to record temperatures and deliveries.
Transportation vehicles are clean as per schedule.

What are the risks?

Sound and reliable packaging is important because:
• damaged or faulty packaging can allow eggs to be damaged.
• some foods adversely react with and can be contaminated by certain types of packaging material.
Transportation exposes food to handling and time away from controlled storage. Risks include:
• Packaging might be damaged during transportation, allowing food to become contaminated.
• Transporting high-risk food from a supplier to your premises or to another site without proper temperature control can allow bacteria to multiply during transit.
• The customer might not accept delivery unless you can demonstrate the time the eggs have been in the temperature danger zone above 20°C.

Tips on packaging

✓ Use only clean and uncontaminated packaging materials that are suitable for eggs.
✓ Store packaging materials, in original containers if possible, in an area set aside for the purpose, away from chemicals, allergens and other possible contaminants.
✓ Clean the food packaging area and machinery before starting work and make sure the packaging area is free from things that could contaminate food (for example, dirt, dust, insects, glass, metal and plastic). Maintain food packaging machinery with food-grade lubricants and make sure these products do not contaminate food.
✓ Label food appropriately at the time of packaging to meet the requirements of FSANZ Food Standards Code Part 1.2,
✓ Food is to be labelled with the following information:

- Type of production system (free range)
- Net Weight
- Best Before Date (batch marking may also be applicable)
- Business name and address
- Product of Australia
- Nutrition table
- Warning Statements (ie Keep Cool)

Tips on transportation

✓ Use insulated boxes to maintain food at safe temperatures if the food transport vehicle does not have a refrigeration system. Don't pack eggs into the food transport vehicle until it is time to deliver them, and ensure that the eggs are delivered as quickly as possible.
✓ If using remote monitoring equipment you will need to discuss with your environmental health officer how you will check and monitor the operation of this system.
✓ Make sure the food transport vehicle and food containers are kept clean.

Off-premises Activities and Events

Goal: Sales at markets and other off-premises activities and events are safe.

There is potential for the growth of food poisoning bacteria in eggs being in a temperature range above 20ºC during transport and at an event or market awaiting sale.
Use vehicles and equipment capable of maintaining food within required temperatures.
Minimise the time food is in transit.

Throw out any eggs that might have been contaminated or where safe temperatures have not been maintained.
Repair or replace equipment that breaks down.
Use appropriate containers and equipment.

Records

Temperature of food transported to customers
Storage units temperature log. Check and record at least twice a day.

Tips – during the event
✓ Check that all eggs transported to the event has arrived intact and that no, breakages or contamination have occurred in the transport vehicles or packages.
✓ Check that all equipment is clean and working properly.
✓ Set up your stall in a way that maximises protection of your eggs and operations from contamination by the public, the environment, dust, pests etc.
✓ Label packaging according to the Food Standards Code, to provide customers accurate information about the product.

Food Safety Supervisors' Responsibilities

Goal: Ensure that everyone who handles your eggs has the skills and knowledge for the farm to meet all food safety requirements

Food safety might be at risk if staff are not supervised and managed appropriately.
Ensure the business has at least one food safety supervisor

Modify policies, procedures, staff training and operational systems as appropriate.
Food safety might be at risk if staff are ill and/or do not use good personal hygiene practices.
Make sure food is handled safely by
• informing staff of the importance of personal hygiene in preventing food from becoming contaminated
• making sure no one in the workplace has an illness that could make food unsafe to eat
• making sure people take additional precautions not to contaminate eggs when they return to work after an illness.
Provide equipment and facilities that support hygiene, such as hand washing basins and sanitising products. Observe the personal hygiene and food handling practices of all staff.
Be alert for symptoms of any food poisoning or gastroenteritis-type illness (gastro) or food borne disease.

What are the risks?
Inadequate supervision and leadership within a business might result in poor food handling practices and standards.
Members of the public might consume contaminated or unsafe eggs and become unwell.

Tips
✓ Ensure the food safety supervisor understands and carries out his or her roles and responsibilities. Give a copy of the food safety supervisor's qualification to your council for registration.

✓ Ensure staff members understand the circumstances that might lead to food being unsafe and what action they can take to avoid it by:
− inducting all staff into the business Food Safety Program
− providing information about good basic food hygiene and personal hygiene techniques
− developing and implementing a training plan for staff. See the Department of Health's free online training program 'Do Food Safely' at <http://dofoodsafely.health.vic.gov.au>
− making sure staff understand and can implement cleaning schedules, record keeping and recall procedures
− making sure staff understand the operating and cleaning requirements of equipment, including how to use and clean thermometers.
✓ Ensure that conditions such as infected skin sores, boils, severe acne, cuts and abrasions are covered with a waterproof dressing and that discharge from ears, nose or eyes from an infection or allergy are carefully managed.
✓ Ensure that staff members understand their responsibilities if they have food poisoning, a gastroenteritis-type illness (gastro) or food-borne disease symptoms.
✓ Ensure that staff members inform the food safety supervisor or manager if they suspect that the eggs might be contaminated and if they have any illnesses that might contaminate eggs.
✓ Keep up to date with food safety requirements. Check the Food Safety website <www.health.vic.gov.au/foodsafety>.
✓ Prohibit smoking in all egg packing and storage areas.
✓ Ensure hand-washing facilities are available – with warm running water, soap and single-use towels. If non-disposable towels are used, they must be washed and dried after each use. A container for used towels must be supplied near the hand washing facility. For further information ask your local environmental health officer.
✓ Put up posters near sink areas to remind staff to wash their hands.
✓ Lead by example – wash your hands frequently.

Food Handlers' Responsibilities

Goal:
Ensure that everyone who handles eggs practices good personal hygene

Food safety might be at risk if staff are ill and/or do not use good personal hygiene practices.
Inform staff of their responsibilities when handling food.
Inform staff of the importance of personal hygiene in preventing eggs from becoming contaminated.
Inform staff that they must report any food-related illness, and ensure they understand the risks of continuing to work when ill.
Inform staff that they must take additional precautions not to contaminate eggs when they return to work after an illness.
Inform staff about the importance of hand washing in preventing food from being contaminated.
Observe the personal hygene and food handling practices of all staff.
Improve staff supervision and training.
Address non-compliant staff behaviour.
Develop and implement a training plan for staff.

What are the risks?
• Food handlers with poor personal hygiene practices or who may be sick might risk the safety of the eggs they handle.
• Food handlers with poor hand-washing knowledge or practice may contaminate eggs and may cause the eggs to be unsafe and result in food poisoning of customers.

Four steps for effective hand-washing
1 Use soap to work up a lather.
2 Wash palms, fingers, thumbs, nails and wrists. (Use a clean nail brush if necessary.)
3 Rinse off soap by washing hands under running warm water for at least 20 seconds.
4 Dry with paper towel then air dry. Never wipe wet hands on clothes, uniform or apron to dry them.

Tips

✓ Ensure that all staff members handle food safely and follow the Food Safety Program.
✓ Ensure that all staff who handle food use the following personal hygiene practices:
− prevent coughing, spitting or sneezing directly onto eggs
− tie back long hair and wear head gear (such as hats and disposable hair nets) to prevent hair getting into food
− ensure personal hygiene rules are observed at all times while in a food preparation area.
✓ Ensure that all staff wash their hands frequently, including when they have been:
− to the toilet
− handling any product that might potentially contaminate eggs
− eating or drinking
− smoking, licking fingers, biting nails, touching pimples or sores
− coughing, sneezing, using a handkerchief or disposable tissue
− disposing of or handling waste
− handling animals
− handling anything other than eggs (e.g. money, cleaning cloths, cleaning equipment)
− away from the workplace (starting a shift or returning from a break).

Thermometer Use, calibration and equipment maintenance

Goal: Ensure that all thermometers and temperature measuring equipment are accurate

Maintain accurate temperature control

If thermometers are not accurate, eggs may be above the critical temperature of 20°C and allow food poisoning bacteria to grow.
Check temperature of eggs in storage at least twice daily.
Calibrate thermometers annually or as per manufacturer's specifications (e.g. thermometers should measure potentially hazardous food to +/- 1ºC).
If using an automated system ensure that calibration is included in any service agreements.
Have faulty thermometers repaired or replaced.
Inspect thermometers to see they are clean

Records

Accuracy of equipment : Equipment calibration log yearly

What are the risks?

✓ Without an accurate thermometer or temperature measuring device, you might not know whether eggs have been sufficiently cooked and are being kept at the correct temperature
✓ Thermometers are sensitive pieces of equipment that may break or lose accuracy if they are dropped or roughly handled.
✓ You are required to keep eggs at under 20°C when being stored, displayed and transported.

Tips – using a thermometer
✓ Take the food's core temperature by checking within boxes
✓ Ensure thermometers are calibrated by the manufacturer, distributor or external contractor at least once per year (or as directed by the manufacturer).
✓ Simple calibration can be carried out by putting crushed ice to a container, adding a little cold water to form an ice slush, measure the temperature using your thermometer and record the reading on your calibration record. The reading should be within ±1°C .

Pest Control

Goal: Ensure that food is secure and protected from pests.

Prevent the contamination of eggs by pests

Prevent pests from entering premises.
Install door and window fittings to secure food areas.
Remove rubbish and store securely.
Protect eggs and packaging from pests.
Implement a pest control monitoring service or create your own plan to check for pest activity and take action as necessary.
Regularly inspect premises, food storage areas and rubbish storage areas for signs of activity by pests.
Read and act on pest controller reports if a contractor is used.
Repair premises and food and rubbish storage areas.
Increase pest controls by reviewing current control measures.
Set up more bait stations as required or seek professional help to reduce pest activity.

What are the risks?

Eggs might be contaminated by pests and become unsafe for eating. Pests include mice, rats, cockroaches, flies, ants and birds

Tips

Design and maintain the premises so that pests cannot access any place where eggs or packaging are stored. Eliminate any place where they can nest or breed. Install screens on doors and windows that can be opened. Install pest exclusion strips on all doors.

✓ Strategically and safely position ultraviolet insect killers. (These should not be located above packing benches.)
✓ Label bait stations with the date of service and secure to the ground.
✓ Use a diary or create a log sheet to record what bait was used, note any pest activity and areas that need to be cleaned or repaired to keep the premises secure from pests.
✓ Ensure regular pest inspections. Consider hiring a licensed pest controller to visit the premises regularly. Licensed pest controllers are responsible to ensure their service is in compliance with legislative requirements and best practice guidelines for use of pesticide. If you hire a licensed pest controller, ask them for an inspection report. This report should give written results of each visit to the food business premises.
✓ If you receive a pest controller's report, promptly treat any pest infestation, including maintenance work or cleaning.
✓ Protect eggs from possible contamination if chemicals are used for pest control.

Food Recalls

Goal:
Ensure your responses to food recalls are prompt

The health of the public might be at risk if food recalls are not managed quickly and appropriately.
Contaminated eggs may cause a public health risk to customers
Ensure that you have a system in place which allows you to recall your eggs in the event of a food poisoning or contamination alert which is traced to your farm
Act immediately and follow instructions given when a food recall occurs.
If contamination is identified, recall all potentially contaminated eggs from commercial outlets, and where possible from your private customers.
Do not sell any eggs until the source of the contamination is identified and the problem has be rectified
Ensure staff understand food recall procedures.
Take corrective action.

What are the risks?

The health of the public might be at risk if recalled food is not removed quickly and disposed of appropriately.
Pests can contaminate food and food preparation areas if waste is not removed frequently. If waste food is not disposed of appropriately it will attract pests into your premises.

Recall tips

✓ If you supply food to other businesses, obtain a copy of the FSANZ Food Industry Recall Protocol. website <www.foodstandards.gov.au/publications>.
✓ Know the name and address of all your outlets.
✓ Keep invoices or delivery dockets that contain batch numbers, date markers or other information.
✓ When a recall is necessary, take immediate action
✓ Follow all instructions given by the local council or health authorities.

Time Control

Goal: Ensure eggs do not remain at temperatures above 20°C for a long enough time to become unsafe.

The potential growth of food poisoning bacteria from eggs being held at temperatures above 20° C for 2 hours must be returned to temperature as quickly as possible. Any eggs which have been held at temperatures outside the required level for eight hours or more must be discarded.

Measure and record egg storage temperatures twice a day

Records

Record the time and temperature of eggs twice per day.
Keep completed records on site as they must be available if requested
by a council environmental health officer. The food safety supervisor of the business will also need to regularly review the records.