

## EGG PRODUCTION INDUSTRY-AGREED STANDARD OPERATING PROCEDURES FOR THE PREVENTION OF *SALMONELLA* ENTERITIDIS

**Title:** Food Safety Management Review

**Standard:** Food Standards Code Chapter 4.2.5 Section 3 General Food Safety Management

**Prepared by:** QLD Industry *Salmonella* Enteritidis Working Group

**Approved by:** Australian Eggs, Biosecurity Queensland, Safe Food, Queensland Health

**Revision history:**

Version	Date of approval	Comments
1.0	4/11/2019	
<p><b>Outcome:</b> The Holder of Accreditation shall implement the industry agreed standard operating procedures for the prevention of <i>Salmonella</i> Enteritidis, by systematically reviewing current egg production and on farm activities to determine compliance.</p>		
<p><b>Procedure:</b> The Holder of Accreditation will achieve this outcome by:</p> <ol style="list-style-type: none"> <li>a) Using the <b>Food Safety Management Checklist</b> on the Safe Food Hub to conduct a management review of their current on-farm biosecurity and hygiene controls for each site that is subject of a Safe Food accreditation under their management and control.</li> <li>b) Noting the implementation status (i.e. in place, in progress, not in place) and making any necessary amendments or changes required to existing controls to address areas identified as non-compliant.</li> <li>c) Submitting the checklist to Safe Food for each site that is subject of a Safe Food accreditation once completed, which contains any additional information to support action to remedy, if necessary</li> <li>d) Submitting a <b>biosecurity map</b> to Safe Food for each site subject of a Safe Food accreditation. The biosecurity map should contain details outlined in Appendix C.</li> <li>e) Registering with Biosecurity QLD as a <b>Biosecurity Entity</b> and obtain a <b>Property Identification Code (PIC)</b> for each site where poultry are kept. Click <a href="#">HERE</a> for information on Biosecurity Entity registration.</li> <li>f) Completing a business profile located in the Safe Food Hub</li> </ol>		
<p><b>Monitoring:</b> Review implementation of the biosecurity and hygiene controls prior to 31 December 2019 and continue to review implementation of SOPs during each accreditation period.</p>		
<p><b>Recording:</b> Maintain a copy of the above documentation submitted to Safe Food as part of your records management system.</p>		

**Title: Inputs**

**Standard:** Food Standards Code Chapter 4.2.5 – Section 4

**Prepared by:** QLD Industry *Salmonella* Enteritidis Working Group

**Approved by:** Australian Eggs, Biosecurity Queensland, Safe Food, Queensland Health

**Revision history:**

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1.0	4/11/2019	
<b>Outcome:</b> An egg producer must take all reasonable measures to ensure inputs do not make the eggs unsafe or unsuitable.		
<b>Procedure:</b> The Holder of Accreditation will achieve this outcome through: <b>1. The management of <u>feed</u> by:</b> a) Sourcing feed from approved suppliers that is supported by vendor declarations that state feed has been produced, stored and maintained under conditions that minimise the presence and exposure to <i>Salmonella</i> Enteritidis. b) If self-producing feed (mixing ingredients), implementing a hygiene and monitoring program c) If self-producing feed, adding a pathogen inhibitor (anti-microbial) d) Protecting feed storage and delivery systems from access and contamination by wild birds and pests by ensuring they are closed (sealed containers / bins) e) Restricting access to feed from wild birds and not placing feeders outside poultry houses f) Cleaning spilled feed (e.g. silos, delivery bins) promptly to prevent attraction of pests <b>2. The management of <u>water</u> by:</b> a) Providing potable water for poultry b) Treating surface water (e.g. dam, pond, creek) to remove sediments and pathogens before use for poultry drinking water. c) Keeping treated water in an enclosed system. d) Protecting drinker systems in sheds from fouling with faeces, pests. e) Restricting access to drinkers from wild birds by not placing drinkers outside poultry houses. <b>3. The management of <u>replacement poultry</u> by:</b> a) Sourcing poultry from health-monitored flocks in accordance with Bird Health SOP. <b>4. The management of <u>litter and nesting box material</u> by:</b> a) Sourcing litter and nesting box material from approved suppliers.		

- b) Receiving information regarding the composition (e.g. where is straw or saw dust material sourced from and any treatments that are applied).
- c) Ensuring storage areas are not a source/attraction for pests.
- d) Protecting storage areas from environmental contaminants.

**5. The management of egg packaging materials by:**

- a) Sourcing packaging (e.g. retail cartons and catering boxes) from approved suppliers.
- b) Inspecting packaging for signs of pest infestation, visible contamination and suitability.
- c) Prohibiting re-use of packaging.
- d) Not re-using cardboard slips / keys if they have been used to carry eggs sourced from outside farms.

**Monitoring:**

- a) Certificate of Analysis or Vendor Declaration for feed, replacement poultry, litter or nesting box material and packaging deliveries.
- b) Inspect deliveries of feed, replacement poultry, litter or nesting box material and packaging deliveries to determine if it achieves the correct specification.
- c) Minimum annual verification of feed for presense of SE if self-producing feed.
- d) Annual microbiological testing of water for faecal coliforms (e.g. *Escherichia coli*).
- e) Water treatment results (e.g. chlorine levels) at defined intervals.

**Recording:**

- a) Maintain a copy of Certificate of Analysis or Vendor Declaration for feed, replacement poultry and litter
- b) Maintain a copy of the water testing laboratory results

**Title: Waste Disposal**

**Standard:** Food Standards Code Chapter 4.2.5 Section 5

**Prepared by:** QLD Industry *Salmonella* Enteritidis Working Group

**Approved by:** Australian Eggs, Biosecurity Queensland, Safe Food, Queensland Health

**Revision history:**

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1.0	4/11/2019	
<p><b>Outcome:</b> The Holder of Accreditation must store, handle or dispose of waste in a manner that will not make the egg unsafe or unsuitable.</p>		
<p><b>Procedure:</b> The Holder of Accreditation will achieve this outcome by:</p> <ul style="list-style-type: none"><li>a) Maintaining a system of controls for the hygienic disposal of all solid and liquid waste, including litter, nesting material, unacceptable eggs, dead birds and disposable Personal Protective Equipment (PPE) worn on farm</li><li>b) Disposing of dead birds daily in a way that prevents access to wild birds, rodents, insects and other animals</li><li>c) Disposing of dead birds on site (if approved), by composting or burial, to exclude pests and vermin</li><li>d) Inspecting waste storage containers to ensure they are enclosed and leak proof</li><li>e) Cleaning and sanitising all inedible / waste containers prior to entry to farms, poultry housing, processing / grading floor areas</li><li>f) Emptying waste bins daily (and when full) in a way that does not provide access to wild birds, insects, vermin or pests.</li><li>g) Preventing litter, poultry manure or any other waste materials from accumulating around poultry houses, ranges and grading floors.</li><li>h) Preventing the accumulation of feed waste by adjusting feeding systems to meet the requirements of the birds.</li><li>i) Removing old / contaminated feed from feeders at defined intervals.</li><li>j) Inspecting feed lines daily to ensure they are clean and do not become clogged resulting in spillage.</li><li>k) Preventing ponding of effluent / waste water on farm by directing all effluent to a controlled drainage system.</li><li>l) Cleaning and sanitising containers used for collection of dead bird before re-use.</li></ul>		
<p><b>Monitoring:</b></p> <ul style="list-style-type: none"><li>a) Check waste controls at a minimum weekly frequency.</li></ul>		

**Recording:**

- a) Maintain a copy of waste disposal invoices from contractors (if applicable).
- b) Record unacceptable eggs discarded at strategic points along the production line.

**Title: Health and Hygiene Requirements**

**Standard:** Food Standards Code Chapter 4.2.5 Section 6

**Prepared by:** QLD Industry *Salmonella* Enteritidis Working Group

**Approved by:** Australian Eggs, Biosecurity Queensland, Safe Food, Queensland Health

**Revision history:**

Version	Date of approval	Comments
1.0	4/11/2019	<p data-bbox="130 622 1541 779"><b>Outcome:</b> A person involved in egg production must exercise personal hygiene and health practices that do not make the eggs unsafe or unsuitable. Additionally, an egg producer must take all reasonable measures to ensure that personnel and visitors exercise personal hygiene and health practices that do not make the eggs unsafe or unsuitable.</p> <p data-bbox="130 813 1541 846"><b>Procedure:</b> The Holder of Accreditation will achieve this outcome through</p> <p data-bbox="130 864 1541 898"><b>1. The management of staff, visitors and contractors on site by:</b></p> <ul data-bbox="188 913 1541 1955" style="list-style-type: none"><li>a) Implementing a system for restricting access to your birds only to people who are authorised to care for the flock.</li><li>b) Implementing effective hygiene control measures at entry to birds, poultry houses and grading floor areas through the provision of:<ul style="list-style-type: none"><li>- boot wash (at entry) and / or boot-changing / protection options at entry to birds and poultry houses and egg grading floor</li><li>- hand washing and sanitisation facilities at entry points to grading floors</li><li>- hand sanitation facilities at entry to birds and poultry houses</li><li>- disposable protective clothing (PPE) or laundered clothing for people entering or coming in close contact with birds.</li></ul></li><li>c) Checking visitors, contractors and staff strictly follow all biosecurity and hygiene procedures when entering poultry houses, bird range and grading floor areas</li><li>d) Maintaining a record of all visitors, including the following information:<ul style="list-style-type: none"><li>- date of visit</li><li>- name and organisation / company</li><li>- name of poultry (production or processing) sites previously visited, with date of visit (minimum last 7 days, 30 days if previously visited a known SE infected property).</li><li>- vehicle registration.</li></ul></li><li>e) Demonstrating through signed declarations all employees and visitors have been instructed not to:<ul style="list-style-type: none"><li>- keep or have contact with any other live poultry / poultry facilities / pigs</li><li>- come in contact with birds for at least seven days if they have been overseas</li></ul></li></ul>

- enter the site if they are suffering from illness, especially gastroenteritis until cleared by a doctor or at least 7 days after symptoms have ceased.

f) Separation of staff functions between egg grading/packing and farm operations.

## **2. The implementation of a cleaning program to ensure:**

- a) all poultry houses and ancillary buildings and surrounds are maintained in a clean and tidy state.
- b) cleaning and disinfection of poultry houses and equipment after each flock has been removed.
- c) only clean litter material is used after cleaning the shed and litter is not reused.

## **3. Restricting access from unauthorised vehicles, equipment and eggs by:**

- a) Preventing entry of unauthorised personnel and vehicles through the provision of clear biosecurity signage at all farm entry points and egg grading floors
- b) Checking equipment that moves between sites (plastic egg trays, pulp bins, egg collection buckets etc) are isolated in a designated area well away from birds and thoroughly cleaned and disinfected before entry. In the case of wooden pallets, they are inspected and free of visible contamination before use. Wooden pallets are identified and dedicated for the specific operation or disinfected if returned to farm.
- c) Implementing control measures that minimise transfer of pathogens between poultry houses, bird ranges and grading floors by having dedicated equipment and documented work instructions for staff applicable to the respective farm.

## **4. Preventing eggs from other sites that may be a source of contamination / disease by:**

### **For an Egg Processor**

- a) Receiving only ungraded eggs that require further onsite processing from QLD producers who hold a current accreditation as a producer Preferred Supply Arrangement (PSA).
- b) Evaluating (internal audit) during each accreditation period that egg producers under PSA arrangements have suitable biosecurity provisions in place in accordance with the conditions of accreditation.
- c) Recording the movement of all ungraded eggs received through receipt logs containing the following information:
  - Name of producer PSA
  - Date received
  - Quantity of eggs Supplied
  - Type of eggs (Free range, Organic, Caged etc.)
  - Unique ID for the producer
  - Property biosecurity registration and PIC number.

**For an Egg Producer or Egg Processor**

- a) Receiving graded and packed eggs for direct wholesale sale only from producers who have supplied a Declaration of Compliance with food safety and biosecurity requirements for their home state.
- b) Recording the movement of all graded and packed eggs on to the farm through receival logs containing the following information:
  - Name of egg producer PSA
  - Date received
  - Quantity of eggs Supplied
  - Type of eggs (Free range, Barn, Organic, Caged etc.)
  - Brand name
  - Unique ID for the producer
  - property biosecurity registration and PIC number.

**Monitoring:**

- a) Check hygiene controls at a minimum weekly frequency.
- b) Conduct internal audits of supply arrangements during each accreditation period.

**Recording:**

- a) Record and maintain a copy of weekly hygiene checks
- b) Maintain copies of all declarations (e.g. vendors, visitors, staff) and internal audits
- c) Record and maintain copies of receival logs
- d) Maintain a visitors log



**Title: Skills and Knowledge**

**Standard:** Food Standards Code Chapter 4.2.5 Section 7

**Prepared by:** QLD Industry *Salmonella* Enteritidis Working Group

**Approved by:** Australian Eggs, Biosecurity Queensland, Safe Food, Queensland Health

**Revision history:**

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1.0	4/11/2019	<p data-bbox="130 645 1540 712"><b>Outcome:</b> An egg producer must ensure that a person who engages in or supervises the primary production of eggs has:</p> <ul data-bbox="164 712 1540 790" style="list-style-type: none"><li data-bbox="164 712 1540 750">• skills in food safety and food hygiene; and</li><li data-bbox="164 750 1540 790">• knowledge of food safety and food hygiene matters; commensurate with their work.</li></ul> <p data-bbox="130 808 1540 846"><b>Procedure:</b> The Holder of Accreditation will achieve this by</p> <ol data-bbox="188 864 1540 1771" style="list-style-type: none"><li data-bbox="188 864 1540 954">a) Training all staff working on the farm or in the egg grading area to ensure they have suitable skills and knowledge so they are not a source of infection to birds or the farming environment.</li><li data-bbox="188 965 1540 1099">b) Implementing training guidelines for new staff to ensure they are aware of the biosecurity controls in place and are effectively trained and competent to carry out the activities they are employed to do.</li><li data-bbox="188 1111 1540 1149">c) Maintaining a system for training that ensures no one starts work without an induction.</li><li data-bbox="188 1160 1540 1249">d) Supervising new staff whilst performing their specific work tasks until they have demonstrated a high level of competency.</li><li data-bbox="188 1261 1540 1350">e) Reviewing the training needs of staff during each accreditation period and providing refresher training when there is evidence of a variation from expected work performance.</li><li data-bbox="188 1361 1540 1771">f) Providing specific training to key staff members who are authorised to access your birds in the following areas:<ul data-bbox="272 1469 1540 1771" style="list-style-type: none"><li data-bbox="272 1469 1540 1507">• food safety and hygiene</li><li data-bbox="272 1518 1540 1556">• recognising healthy and sick birds</li><li data-bbox="272 1568 1540 1606">• principles of good stockmanship</li><li data-bbox="272 1617 1540 1655">• animal welfare standards for poultry</li><li data-bbox="272 1666 1540 1704">• use of ag vet chemicals</li><li data-bbox="272 1715 1540 1771">• biosecurity standards for poultry farms.</li></ul></li></ol> <p data-bbox="130 1805 1540 1843"><b>Monitoring:</b> Weekly GMP checks to verify staff are carrying out tasks competently.</p> <p data-bbox="130 1854 1540 1944"><b>Recording:</b> A training record is available for all employees, including name, start date, training provided, date of training and who provided the training.</p>

**Title: Design, Construction, Maintenance of Premises, Equipment & Transportation Vehicles**

**Standard:** Food Standards Code Chapter 4.2.5 Section 8

**Prepared by:** QLD Industry *Salmonella* Enteritidis Working Group

**Approved by:** Australian Eggs, Biosecurity Queensland, Safe Food, Queensland Health

**Revision history:**

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1.0	4/11/2019	
<p><b>Outcome:</b> An egg producer must ensure that premises, equipment and transportation vehicles are designed and constructed in a way that minimises the contamination of the eggs, allows for effective cleaning and sanitisation, and minimises the harbourage of pests and vermin. Additionally, premises, equipment and transportation vehicles are kept effectively cleaned, sanitised and in good repair to ensure the eggs are not made unsafe or unsuitable.</p>		
<p><b>Procedure:</b> The Holder of Accreditation will achieve this outcome by:</p> <ol style="list-style-type: none"><li><b>1. Premises</b><ol style="list-style-type: none"><li>a) Providing effective security structures on site (i.e. gates, fences, blockades) to only allow access to authorised persons.</li><li>b) Providing appropriate biosecurity signage at farm entry and egg grading floors.</li><li>c) Maintaining immediate areas surrounding sheds, grading floors, feed silos and any other structure so that they are tidy and uncluttered.</li><li>d) Maintaining surrounding areas so there is adequate drainage to prevent water pooling</li><li>e) Maintaining an effective shed and grading floor cleaning and hygiene program.</li><li>f) Establishing a line of separation between poultry houses, ranges and grading floors.</li></ol></li><li><b>2. Equipment</b><ol style="list-style-type: none"><li>a) Maintaining egg collection systems (e.g. cages, egg belts, conveyors, collection tables and buckets) that are designed and constructed to allow for easy and effective cleaning.</li><li>b) Implementing a preventative maintenance program for automated equipment (feed, egg, and litter belts) to ensure all equipment is in good working condition and suitable for use.</li><li>c) Storing equipment that moves between sites (e.g. wooden pallets, plastic egg trays, pulp bins etc) in an isolated and designated area well away from birds.</li><li>d) Implementing lines or separation and control measures that minimise transfer of pathogens between poultry houses, bird ranges and grading floors by having dedicated equipment applicable to the farm operations.</li></ol></li></ol>		

### **3. Transportation Vehicles**

- a) Providing suitable provisions for all vehicles entering the farm to ensure compliance with the designated biosecurity requirements.
- b) Separating vehicle movements for those outside the property perimeter and entering the biosecurity area perimeter (e.g. dedicated parking zones, feed deliveries, dead bird removal)

#### **Monitoring:**

- f) Conduct GMP checks at defined intervals.
- g) Review the effectiveness of the preventative maintenance program during internal audits.

#### **Recording:**

- c) Maintain GMP checklists.
- d) Record maintenance checks and issues.

**Title: Bird Health**

**Standard:** Food Standards Code Chapter 4.2.5 Section 9

**Prepared by:** QLD Industry *Salmonella* Enteritidis Working Group

**Approved by:** Australian Eggs, Biosecurity Queensland, Safe Food, Queensland Health

**Revision history:**

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1.0	4/11/2019	
<b>Outcome:</b> An egg producer must not obtain eggs for human consumption from birds if the proprietor, supervisor or employee of the egg producer knows, or ought to reasonably know, or to reasonably suspect, the bird is affected by disease or condition that makes the eggs unsafe or unsuitable.		
<b>Procedure:</b> The Holder of Accreditation will achieve this outcome by: <ul style="list-style-type: none"><li>a) Sourcing fertile eggs, chicks and pullets from breeding flocks where evidence (vendor declarations, Certificate of Analysis etc) is available to show that <i>Salmonella</i> Enteritidis infection is not present.</li><li>b) Inspecting all replacement birds upon arrival for visible signs of illness.</li><li>c) Implementing a bird health &amp; Biosecurity monitoring program that monitors and prevents the spread of SE from one poultry shed to another or from outside farms.</li><li>d) Recording bird morbidity &amp; mortalities numbers on a daily basis across each flock.</li><li>e) Notifying Safe Food and/or Biosecurity Queensland if morbidity / mortality rates are outside of the business standard and the cause is not known, or the cause is a suspected emergency or notifiable disease, including SE.</li><li>f) Notifying Safe Food and/or Biosecurity Queensland if <i>Salmonella</i> Enteritidis is detected during routine sampling.</li><li>g) Participating in a <i>Salmonella</i> Monitoring Program i.e. faeces, boot or drag swabs during each accreditation period.</li><li>h) Cleaning and decontaminating of poultry houses and disposal of waste between flocks.</li><li>i) Maintaining poultry housing to minimise the entry and harbourage of pests.</li><li>j) Implementing a pest control program to prevent the harbourage and breeding of pests.</li><li>k) Tracing eggs produced and packed from each site of accreditation by stamping individual eggs with a Unique Identifier and maintaining distribution logs for all eggs offered or supplied for sale.</li></ul>		
<b>Monitoring:</b> <ul style="list-style-type: none"><li>a) Conduct internal audits of bird health, biosecurity and pest control program to ensure they are being implemented and followed during each accreditation period</li></ul>		

- b) Review morbidity and mortality rates at defined intervals
- c) Conduct inspections for decontamination and sanitation of poultry houses at defined intervals
- d) Verify and review *Salmonella* Monitoring Program during each accreditation period
- e) Testing of faecal material from birds at sexual maturity (16-22 weeks) and at moulting for SE
- f) Annual testing of the farm environment for SE

**Recording:**

- a) Maintain a copy of all vendor declarations
- b) Record flock morbidity and mortality
- c) Record vet visits and any advice / consultancy provided
- d) If treatment required, record specific drug treatments, treatment date, dosage and withholding periods (if applicable)
- e) Maintain a copy of all pest control conducted and any advice given (if applicable)
- f) Record pest sightings and corrective action taken
- g) Records in associations with *Salmonella* Monitoring Program