

Farm Biosecurity Manual for the Duck Meat Industry

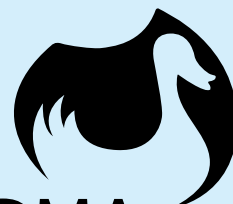
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ADMA

australian duck meat association incorporated

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Table of Contents

Contents	1
Background, Purpose and Status	2
Duck Production Biosecurity	4
Major Routes For Disease And Pathogen Transmission	7
Definition Of The Concept Of Production Area And Property	9
Levels Of Biosecurity	10
Level 1 - Routine Biosecurity Procedures	12
1. Movements of Birds and Other Livestock/Animals	12
2. People, Equipment and Vehicle Movements	13
3. Water, Feed, Shavings and Waste Litter	16
4. Pest and Vermin Control	19
5. Management	20
6. Facility Standards	22
Level 2 - High Risk Biosecurity Procedures	24
7. Action Plan for a Suspected Emergency Animal Disease	24
8. Facilities	24
9. Personnel/Visitors	24
10. Operational	24
11. Standard Operating Procedures (Sops)	25
Production Site Area Audit Checklist	26
Appendix 1 - Action Plan	41
Appendix 2 - Dead Bird Composting	43
Appendix 3 - Dead Bird Collection	44
Appendix 4 - Biosecurity Movement Flow Chart	45
Appendix 5 - Personnel Quarantine Declaration	46
Appendix 6 - Contractors Quarantine Declaration Form	47
Appendix 7 - Visitors Log	48
Appendix 8 - Water Quality Guidelines	49
Appendix 9 - Surface Water Treatment	50
Appendix 10 - Water Sanitation Record	51
Appendix 11 - Rodent Control Record	52

Background, Purpose & Status

2

In a broad sense, biosecurity is a set of measures designed to protect a population from transmissible infectious agents at a national, regional and individual farm level. At the farm level, it involves the systematic approach by duck owners, on an industry-wide basis, to protect their flocks from the entry and spread of diseases. This means biosecurity is about better managing risks, to prevent the introduction of diseases to an enterprise, and to prevent the spread of diseases between farms or disease-free areas.

Farmers practising biosecurity measures will be much better prepared if faced with an emergency disease outbreak. The use of these measures will help limit the impact of endemic diseases, making sense from economic, social and animal welfare perspectives.

The ability of the duck industry to withstand an outbreak of a disease, and the total cost of its control, will be directly influenced by each individual farmer's biosecurity plan, and its effective operation.

The *Emergency Animal Disease Response Agreement (EADRA)* is a cost sharing deed between governments and livestock industries, and includes an obligation by each industry party to develop a program that minimises the risk of disease introduction and spread.

The Australian Duck Meat Association (ADMA) has developed this biosecurity manual, as part of its ongoing

commitment to the EADRA, for its members to implement. The ADMA has utilised the *Manual for Poultry Production*¹ as the base level of the standards set out in the *ADMA Farm Biosecurity Manual*. As such, when modifications to the *National Biosecurity Manual for Poultry Production* are made, the *ADMA Farm Biosecurity Manual* will be reviewed as well.

This manual also complies with the legislation of Food Standards Australia & New Zealand (FSANZ), which is the governing body for production and processing of all foods within Australia. It is emphasised that this includes farmers, e.g. farm to fork, and each company must meet these standards as a condition of trading.

The Australian duck industry is generally healthy and requires minimal veterinary attention.

1. The National Biosecurity Manual for Poultry Production was produced by the Biosecurity Consultative Group, established as a resolution of the 2007 Government-Industry Avian Influenza Forum. The group was structured with representatives from all sections of the poultry industry, together with Animal Health Australia and the Commonwealth Department of Agriculture, Fisheries & Forestry.

The purpose of this group was to establish a working document setting minimum standards so individual industry sectors could develop specific company and industry programs. The National Minimum Standards document was presented to a forum of industry and jurisdictional representatives in Canberra on 11 June, 2008, and was accepted with a direction to be adapted by industry sectors.

The Biosecurity Consultative Group is directed to develop further measures to cover breeder sites, hatcheries, live bird pick-up and transport, in addition to animal welfare and environmental provisions.





Duck Production Biosecurity

4 OBJECTIVES

- > To prevent the introduction of infectious disease agents to duck production facilities.
- > To prevent the spread of disease agents from an infected area to an uninfected area.
- > To minimise the incidence and spread of microorganisms of public health significance.

Biosecurity is an integral part of any successful duck production system. It refers to the measures taken to prevent, or control, the introduction and spread of infectious agents to a flock. Such infectious agents, whether they cause clinical or subclinical disease, significantly reduce the productivity, profitability and long-term financial viability of a duck production facility.

Biosecurity is about managing risks to meet the objectives stated above. It is essential that each enterprise conducts a risk assessment to establish the existing level of risk in each phase of its operations, to identify and implement appropriate control measures to these risks.

This manual identifies areas of risk common to all duck enterprises, along with appropriate measures to minimise these risks. When undertaking the risk assessment, it is important to consider

all factors that could impact on the biosecurity of the production area. These considerations should include the location and layout of the property and production area, water supply source, disease status of the district, proximity to other production areas with other avian species, presence and type of wildlife, and interface with the organisations and/or individual clients being supplied. These interactions include pick-ups, service people, industry personnel, contractors feed, and deliveries of new ducks and ducklings.

The purpose of the manual is to establish a minimum set of biosecurity guidelines for the duck industry, applicable to all duck farmers - from hatcheries to the point of delivery at the processor. Commercial enterprises raising ducks for egg production, human consumption, or breeding fall within the scope of this manual.





As the Australian duck industry develops, new innovations and husbandry methods will occur; change is anticipated. The industry will evolve and adopt these practices over time. Some of the guidelines currently set out will change, and the Australian Duck Meat Association will, from time to time, update this manual to reflect these changes.

A biosecurity self-audit/auditable checklist, designed for continuous improvement, is attached as Appendix 9. This document may also form the basis for second or third party audits, as required.

Biosecurity is like any other insurance policy - it is a prudent investment.

5



6



Major Routes for Disease and Pathogen Transmission

Ducks

- Transfer of birds from production area to production area
- Dead bird disposal

Other Animals

- Other poultry species
- All wild birds
- Feral animals
- Domestic animals - including other livestock and pets
- Insects
- Rodents – including rats and mice
- Domestic birds

People

- Production personnel and family members living on-site
- Contractors, maintenance personnel, neighbours, service people and visitors
- Transmission on hands, boots, clothing and dirty hair

Vehicles and Equipment

- Dirt/manure/contaminants carried on cars, trucks, tractors, shed cleaning equipment, husbandry equipment (scales, clippers, vaccination guns etc)

Air

- Transmission through aerosols or dust

Water Supply

- Water supplies could become contaminated with faeces from contact with avian or other animal species

Feed

- Feed could become contaminated by the raw materials used post-production and during transport, or by exposure to rodents and wild birds on the property. All feed should be stored in vermin proof silos
- Bacteria and mould found in poor quality or damaged feed is a concern

Litter

- Storing old litter on farms is not allowed
- Old litter piles stored on farms can allow disease to be tracked back to sheds
- The transport of used litter material on and off-site is a risk, as vehicles may have been to other high-risk operations



Definition of the Concept of Production Area and Property

In this document, **production area** includes duck sheds, shavings sheds and areas used for feed storage and handling, and the area immediately surrounding sheds - including pickup areas.

Property is the land where the production area is located, and typically includes the facility manager's home. It also includes other production land used for livestock or cultivation. The boundary of the production area, and the boundary of the property, can be the same.

Any reference to **sheds** refers to roofed buildings capable of, and used for, holding ducks securely within their perimeter.

Access should always be made through 'least risk' areas, for example, production areas of younger or healthy birds. In an emergency, access can be made through a 'high-risk' area, after a shower and complete change of clothing. The term 'high-risk' area includes production areas with minimum standards of biosecurity, multi-age flocks or endemic disease problems.

9

**EMERGENCY ANIMAL
DISEASE WATCH HOTLINE**

1800 675 888

www.farmbiosecurity.com.au



Levels of Biosecurity

10

LEVEL 1 – Routine Biosecurity Procedures

These procedures should be implemented and followed on a daily basis. They give a high degree of assurance that diseases and pathogens will not be carried into the duck production areas, and reduce the risk of transmission between production areas. Level 1 procedures are the minimum requirements.

Action Plan for Suspected Emergency Animal Disease

Each production facility must establish and document clear guidelines for circumstances when an emergency animal disease alert should be raised, and who must be informed (e.g. in the event of an unusual increase in mortality, or a drop in production). The action plan must also clearly state that, if an alert is raised movements on and off the production area, and the property, must be limited to an absolute minimum, and special precautions outlined in 'Level 2 – High Risk Biosecurity Procedures' must be followed. Appendix 1 provides a template for an Emergency Animal Disease Action Plan.

LEVEL 2 – High-Risk Biosecurity Procedures

In the event of an outbreak of an emergency disease or serious endemic disease, High-Risk Biosecurity Procedures will be implemented.

In the case of an emergency animal disease, where applicable, standard operating procedures (SOPs) will be implemented in line with the relevant disease AUSVETPLAN manual. The relevant government department will inform you of these procedures.

Guidelines to an Emergency Animal Disease (EAD) Alert

A clear and precise action plan should be activated if an EAD is evident or suspected. Examples of evident points that may trigger an alert are where there is a:

1. rapid increase in mortality
2. physical evidence of visual discomfort in the flock
3. sudden change to the characteristics of faecal matter
4. rapid reduction in feed and water consumption
5. change in movement patterns within the shed
6. drop in egg production by 10 percent.

A farmer following a daily routine of movement through a shed will quickly note any of the points above.

Should observations of a flock trigger an alert, a response must be immediate. Do not wait for possibilities or situations to unfold.

This is to take place regardless of the day of the week or hour of the day.

If the possibility of an EAD is suspected, the following procedures should be implemented:

A farmer must:

1. make immediate contact with their company livestock manager who will notify the local veterinary advisor, or phone the Emergency Animal Disease Watch Hotline (1800 675 888)
2. lock the main gate to the production site
3. restrict entry to the site, other than essential services
4. restrict entry to the suspect shed, other than essential tasks
5. limit discussion of potential disease outbreak to the immediate sectional manager
6. wait for further direction and remain on the site.



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Level 1 – Routine Biosecurity Procedures

12

1. MOVEMENTS OF BIRDS AND OTHER LIVESTOCK/ ANIMALS

1.1 BIRD MOVEMENTS

Objective: To manage the introduction and movement of ducks and their products in a way that minimises the risk of introducing or spreading diseases.

- 1.1.1 Inspect newly hatched ducklings and assess health status prior to unloading from delivery tubs.
- 1.1.2 Segregate, observe and treat as necessary newly introduced ducks.
- 1.1.3 Maintain a record of bird movements (all birds/eggs in, throughout the production area and all birds out) to facilitate tracing in case of an animal health or food safety concern.
- 1.1.4 Bird mortality and egg production (in breeder flocks) must be recorded on a daily basis to highlight unusual health problems.
- 1.1.5 Dead bird disposal methods must conform to environmental compliance requirements. E.g., incineration with after burner and collection procedures as listed in Appendices 2 and 3.

1.2 LIVESTOCK AND OTHER ANIMAL MOVEMENTS

Objective: To manage the introduction and movement of other livestock and animals (e.g. sheep, dogs, cats) in a way that minimises the risk of introducing or spreading infectious disease.

- 1.2.1 If livestock graze the property, the production area must have a stock-proof fence. Grazing near sheds, defined in this manual as part of the production area, is only permitted where the grazing area is separated by a stock-proof barrier from the area used by ducks, and where the grazing area is not used for access to other parts of the production area.
- 1.2.2 Drainage from livestock pastures or holding areas must not enter duck sheds and production areas.
- 1.2.3 Dogs, cats and wild birds must not enter sheds at any time.
- 1.2.4 Only commercially produced and authorised ducks are to be kept in the production area. No other avian species, including aviary birds and pet birds, or pigs are to be kept on the property.



2. PEOPLE, EQUIPMENT AND VEHICLE MOVEMENTS

2.1 PRODUCTION PERSONNEL

Objective: To minimise the risk of introducing diseases or contaminants by production personnel.

- 2.1.1 Employees, or any person residing on the property, must not have contact with any other non company avian species or livestock, especially pigs.
- 2.1.2 Employees must wear clean clothes at the beginning of each work day.
- 2.1.3 Employees must ensure they do not become contaminated through contact with any avian species or livestock, especially pigs, on their way to work.
- 2.1.4 Boots worn in the sheds must not be worn, or taken, outside the production area, as they are the most likely method for spreading disease.
- 2.1.5 Protective clothing and footwear must be worn in the production area at all times. Company service personnel could visit numerous production sites each day.
- 2.1.6 Hands must also be sanitised before entering sheds and on leaving the production site.

- 2.1.7 Company service personnel must work from the youngest to oldest flocks, healthy flocks, to those in either quarantine or with any disease risk. Access should always be made through 'least risk' areas, for example, the home of younger or healthy birds. In an emergency, access can be made through a 'high-risk' area, after a shower and complete change of clothing. The term 'high-risk' area includes production areas with minimum standards of biosecurity, multi-age flocks or endemic disease problems. See Appendix 4 for the hierarchy of risk.

- 2.1.8 All production personnel must agree to comply with the entry conditions as stipulated in the Personnel Quarantine Declaration (Appendix 5).

2.2 CONTRACTORS, SUPPLIERS, OTHER SERVICE PERSONNEL AND VISITORS

Objective: To minimise the risk of introducing diseases or contaminants by contractors, suppliers, service personnel and visitors.

- 2.2.1 All contractors, suppliers, service personnel and visitors must agree to comply with the entry conditions, as stipulated in the Contractor's Biosecurity Declaration If entering the production area/s (Appendix 6).

- 2.2.2 A visitors log should record all persons entering a production site (Appendix 7).
- 2.2.3 Any authorised visitor, other producers or equipment suppliers, likely to have been exposed that day to poultry, other birds or pigs, must not enter the sheds unless they have had a thorough shower and change of clothing and boots. If not, they must limit their visit to the property's residence while wearing clean clothes.
- 2.2.4 Repair and maintenance contractors who have had contact with poultry or other birds that day, must not enter sheds populated, or ready to be populated, with birds unless, (a) it is an emergency, and (b) they have showered thoroughly and changed clothing and boots, and covered their hair.
- 2.2.5 Where a batch system is practiced, routine maintenance should be conducted, between batches, prior to final disinfection.
- 2.2.6 Drivers from other deliveries, such as gas and feed carriers, must not enter sheds. Please note, this restriction does not apply to drivers delivering young birds.
- 2.2.7 A system for tracing the movement of all personnel entering a

production site should be implemented by using the Visitors Log. (Appendix 7)

- 2.2.8 Drivers must wear protective clothing, such as dust coats, and sanitise their hands and boots before and after each entry to a production area.
- 2.2.9 Pick-up crew members must be company trained in biosecurity and bird handling techniques (as set out in relevant welfare standards), and should enter the farm only after meeting premises entry conditions.

2.3 ENTRY PROCEDURES FOR DUCK SHEDS

Objective: To prevent the introduction of disease agents and contaminants into duck sheds through the movements of people.

- 2.3.1 Entry to the duck sheds must only be made through entrances where a footbath exists, containing a suitable disinfectant used in accordance with the company or manufacturer's instructions. This is to be changed on a regular basis. There must be provision for scraping boot soles before dipping, to ensure the sanitiser is making complete contact with the soles. Facilities for hand sanitation must also be placed at the entry of each shed.





2.3.2 Any person entering and leaving sheds must sanitise their hands and use footbaths before entering and leaving each shed, unless separate shed boots are being used.

2.3.3 Boot soles must be scraped before disinfecting in the footbaths to ensure the sanitiser is making complete contact with the soles.

2.3.4 A hand sanitiser must be available at approved entrances to production areas and must be used before entering.

2.4 EQUIPMENT

Objective: To prevent the introduction of disease agents and contaminants into duck sheds through the movement of equipment.

2.4.1 Footbaths must be inspected daily for excessive organic matter. The disinfectant should be replaced regularly to ensure adequate concentration according to company or manufacturer's recommendations.

2.4.2 Company service personnel can use their own tools and equipment (i.e. laptops, cameras or phones). Before being taken into the production area, the equipment must be cleaned, ensuring it is free of dust and organic matter.

2.4.4 Duckling delivery tubs must be cleaned and disinfected after each use, preferably each day.

2.4.5 Crates used for pick-up must be checked and disinfected prior to leaving the processing plant.

2.5 VEHICLES

Objective: To prevent the introduction of disease agents and contaminants into duck sheds through the movement of vehicles.

2.5.1 Pick-up vehicles must be checked and disinfected prior to leaving the processing plant.

2.5.2 All visitors should park their vehicles outside the production area, unless it is essential the vehicle be taken on site, for example, some maintenance contractors.

2.5.3 Trucks carting new or old litter, feed and gas must be cleaned and disinfected between production areas.

2.5.4 Duckling delivery trucks must be cleaned and disinfected after each use, preferably each day.

2.5.5 All vehicles taken into the production area/s need to be washed and disinfected prior to entry.

16


3. WATER, FEED, SHAVINGS AND WASTE LITTER

3.1 WATER

Objective: To ensure water used in duck sheds for drinking, cooling and cleaning, is suitable for livestock.

- 3.1.1 The national water biosecurity manual poultry production is the Australian reference for safe water for duck production. All water supplies must be tested every six months to ensure that each facility meets the required standards (Appendix 8). Records of these tests must also be retained.
- 3.1.2 The use of suitably treated water is critical to achieving good biosecurity. In general, chlorination alone is unsuitable for water with a high-level of organic matter, while ultraviolet treatment is of little use for turbid water. It may be necessary to seek expert advice to ensure a safe water supply. Effective treatment of surface water to reduce contamination is complex, but essential. Any water treatment process should be monitored regularly (Appendix 9).
- 3.1.3 Water from reticulated domestic supply or secure and clean underground bore water is ideally kept in a closed system from supply point to the ducks with no open exposure to the air.
- 3.1.4 For a chlorinated water supply, the treatment must achieve a level of 1.0 – 2.0 ppm free available chlorine (FAC) at the point of use.
- 3.1.5 When chlorinating water, there must be a minimum of two hours contact time prior to use.
- 3.1.6 If the water tests have failed the six monthly testing, monitoring must be conducted and recorded daily (Appendix 10) and a maintenance program needs to be in place.
- 3.1.7 The effectiveness of alternative systems, i.e., ultraviolet treatment, must be validated before use, and will require maintenance and monitoring program to ensure effectiveness.
- 3.1.8 Production area records demonstrating the effectiveness of water treatment must be kept. Microbiological validation of the treatment system's effectiveness must be carried out annually, or as approved by the processor.
- 3.1.9 Drinking water quality must be maintained at a standard suitable for use in duck production (Appendix 8).
- 3.1.10 Water that does not meet the standard must be treated through either: chlorination, ultra-violet, iodine or reverse osmosis, to ensure the standard is met.
- 3.1.11 Guidelines for chlorinating surface water are available in Appendix 9.



- 
- 3.1.12 All surface water, such as dam and river water must be treated in accordance with the national water biosecurity manual before being used as duck drinking water.
- 3.1.13 Ensure the quantity and quality of water and delivery system provided is suitable for the type and age of the ducks

3.2 FEED

Objective: To manage the introduction and movement of duck feed stuffs in a way that minimises the risk of introducing or spreading infectious disease.

- 3.2.1 Feeding systems must be managed to ensure feed in silos and feed delivery systems are protected from contamination by unwanted feral animals and wild birds and rodents.
- 3.2.2 Feed spills should be cleaned up immediately to prevent the attraction of feral birds and rodents to the production area.
- 3.2.3 Inspect duck feed on delivery for evidence of pests, damage and contaminants.
- 3.2.4 Store duck feed in a manner that prevents contamination by livestock, vermin, insects, wildlife, feral and domestic animals and other feed types.

3.3 SHAVINGS STORAGE FACILITIES

Objective: To keep unused shavings or bedding materials free from wild birds, pests & vermin as well as weather damage until it is used in the sheds.

- 3.3.1 Shavings storage facilities must be in the production area.
- 3.3.2 Shavings storage facilities must be wild bird proof.
- 3.3.3 Shavings facilities must be weather proof.
- 3.3.4 Shavings facilities must be managed to minimise contamination from pests, vermin and other livestock or domestic animals.

3.4 USED LITTER

Objective: To manage the movement and removal of litter in a way that minimises the risk of introducing or spreading infectious disease within the production area.

- 3.4.1 Used litter and manure must not be stockpiled in the shed area, ie. the production zone. Litter and manure must be stored in an appropriately designed storage area, with a sufficient buffering zone from the duck sheds and enclosures. The storage area must be located in a position that will not compromise biosecurity.



18

- 3.4.2 Removal of all litter must be completed before the introduction of the next batch of breeder ducks.
- 3.4.3 A full or partial cleanout must be done for growers.
- 3.4.4 All brooder litter is to be completely removed before the introduction of new birds.
- 3.4.5 Accredited composted/heat sterilised or re-used litter can be used in the grow-out areas.





4. PEST AND VERMIN CONTROL

4.1 PESTS

Objective: To minimise the potential for introducing infectious agents and pathogens by pests (wildlife, feral, domestic and livestock animals) through their presence in the production area.

- 4.1.1 It is the responsibility of the manager of each production site to implement and maintain a pest control programme for wildlife, ferals and domestic species.
- 4.1.2 All duck housing must be designed and maintained to prevent the entry of wild birds, feral animals and other pests.
- 4.1.3 Trees and shrubs should be set back from the immediate shed area to deter wildlife. This will also help to disperse air. Vegetation should be carefully selected to minimise wild bird attraction. Vegetation buffers for environmental compliance should not be compromised.
- 4.1.4 Monitor and manage feral animal, weeds and wildlife populations to prevent an impact on the ducks.

4.2 VERMIN

Objective: To minimise the potential for introducing infectious agents and pathogens by vermin, in particular rodents, through their presence in the production area.

- 4.2.1 A baiting program for vermin must be implemented. The program must include the following features:
 - a. Bait stations must be checked weekly and replenished as needed. It is recommended to rotate bait types every six months to avoid resistance.
 - b. A record should be kept of each inspection, noting all activity (see Appendix 11).
 - c. Monitor and manage vermin populations to prevent an impact on the ducks.
- 4.2.2 All duck housing must be designed and maintained to limit the entry of vermin.
- 4.2.3 Bait stations must be included on the production site map, and defined by number, and placed a minimum of 20 metres apart. The number of bait stations should be increased in areas where there are signs of increased rodent activity.
- 4.2.4 Bait stations must be designed to minimise the opportunity for other animals and birds to access the bait.

5. MANAGEMENT

5.1 DOCUMENTATION AND TRAINING

Objective: To ensure awareness by, and training of, all production area employees in all relevant biosecurity requirements.

- 5.1.1 Each production facility must keep a copy of the Farm Biosecurity Manual readily accessible to staff.
- 5.1.2 Staff and service providers must be provided with training in all aspects of the manual, and such training is to be recorded.
- 5.1.3 A register must be maintained recording training and compliance of contractors and other service personnel.

5.2 END OF BATCH PROCEDURES

Objective: To minimise the risk of introducing or spreading diseases or contaminants by delivery and pick-up operations.

- 5.2.1 The farm and shed must be accredited as 'biosecurity compliant' after examination of the flock records by the referring company representative prior to pick-up.
- 5.2.2 The person in charge of pick-up will need to accept the flock following observations and consultation with the farmer.

5.2.3 The welfare and condition of livestock is the responsibility of the pick-up supervisor, or the appointed responsible driver, until vehicles reach the processing plant and are accepted by the site supervisor or person responsible.

5.2.4 After final pick-up, the shed doors must be kept closed when not in use, except during litter removal. After washing and disinfecting, shed doors must be kept closed. If drying is a problem, ventilate using fans or bird wire screens in shed doorways. Wild birds must be kept out of sheds at all times.

5.2.5 All aspects of catching and transporting must be followed as outlined in training. It must also be in accordance with animal welfare, and provisions of the standards and guidelines for the land transport of livestock.

5.2.6 A map drawn to scale of the property layout, showing the production area sheds, access roads and gates, must be created, maintained and kept in the site's Farm Biosecurity Manual.

5.3 CHEMICALS AND USAGE

Objective: To ensure employee awareness of, and training in, the safe usage and storages of all relevant chemicals used on site.

- 5.3.1 All chemicals used in the production zone must be stored in a safe protective unit as required by state law.
- 5.3.2 Material Data Safety sheets for all chemicals held on site must be on hand at all times.
- 5.3.3 All staff must be competent in the usage and application of all farm disinfectants and herbicides.
- 5.3.4 Chemicals must be used as per the manufacturer's instructions with with-holding periods and export slaughter intervals observed to ensure chemical contamination does not occur.

5.4 MEDICATIONS AND VACCINES

Objective: To ensure than any medications are dispensed under veterinary supervision.

- 5.4.1 Medications and vaccines must never be administered without veterinary and/or grow-out manager supervision.
- 5.4.2 All medication withholding periods must be observed.
- 5.4.3 Vaccines and medications must always be used as per the manufacturer recommendations unless directed by a veterinarian.





22

6. FACILITY STANDARDS

Objective: To design, maintain and operate duck production areas (including sheds) that will assist in providing a biosecure area.

- 6.1 All duck houses, shavings sheds and water storages must remain wild bird, rodent and feral animal proof.
- 6.2 The production area requires a perimeter fence, or well defined boundary fence, marked with clear signage. This is to establish a clearly defined biosecurity zone.
- 6.3 The main entrance to the production area must be closed off to vehicle traffic with a lockable gate, which should be kept locked at all times, when possible.
- 6.4 The entrance must display appropriate signage, such as '*Biosecure Area - No Entry Unless Authorised*'. In addition, signage must direct visitors to contact the farmer before proceeding, including telephone numbers and/or enquires to the house.
- 6.5 Facilities should be available for the cleaning and disinfecting of equipment and vehicles before entry to the production site.
- 6.6 All duck sheds must be lockable, and kept locked when unattended.
- 6.7 Dust creation should be kept to a minimum.
- 6.8 The production area must remain neat and tidy free from rubbish and clutter.
- 6.9 Grass in and around the production area must be kept short to avoid rodents and the survival of viruses and bacteria. Vegetation should be poisoned in the immediate area of the outer shed wall with approved herbicide.
- 6.10 Drainage from livestock pastures or holding areas must not enter duck sheds and production areas.
- 6.11 Entry to the duck sheds must only be made through entrances where a footbath exists, containing a suitable disinfectant used in accordance with the company or manufacturer's instructions. This is to be changed on a regular basis. There must be provision for scraping boot soles before dipping, to ensure the sanitiser is making complete contact with the soles. Facilities for hand sanitation must also be placed at the entry of each shed.
- 6.12 Footbaths must be inspected daily and excessive organic matter removed. The disinfectant should be replaced regularly to ensure adequate concentration according to company or manufacturer's recommendations.



- 6.13 All visitors should be directed to park their vehicles outside the production area, unless it is essential the vehicle be taken on site, for example, some maintenance contractors.
- 6.14 Trees and shrubs should be set back from the immediate shed area. This will help to disperse air. Vegetation should be carefully selected to minimise wild bird attraction. Vegetation buffers for environmental compliance should not be compromised.



Level 2 – High Risk Biosecurity Procedures

24

7. ACTION PLAN FOR A SUSPECTED EMERGENCY ANIMAL DISEASE

Objective: To increase biosecurity protection, by minimising movements to protect the property, as much as possible, from the increased threat of a disease being introduced from the outside, in the face of a suspected outbreak of an emergency disease or a serious endemic disease.

- 7.1 Each processing company must establish and document clear guidelines regarding the circumstances when an emergency animal disease alert should be raised, and who should be informed. For example, when experiencing an unusual increase in mortality or drop in production. The action plan must also clearly state that, if an alert is raised, the movement of birds must cease immediately. All other movements, on and off the production area and the property, must be limited to a minimum, and special precautions must be taken as outlined below.

8. FACILITIES

- 8.1 Gates must be kept locked.
8.2 Shed doors must be locked at night.
8.3 Facilities for the cleaning and disinfection of equipment coming on and off the production area must be in place.

9. PERSONNEL/VISITORS

- 9.1 No visitors are to enter the production area unless absolutely essential. Company personnel will discontinue all non-critical visits.
9.2 Routine repairs and maintenance must be restricted, apart from any authorised emergency work.
9.3 All visitor and vehicle movements onto and off the production property must be recorded.

10. OPERATIONAL

- 10.1 Essential visitors must shower thoroughly before and after visits. A complete change of clothing, footwear, hair covering and breathing protection is required. Used clothing, and all used personal protection equipment, must remain on the property for disposal.

- 10.2 Any vehicle entering the production area must be washed and disinfected before and after property access, such as feed and gas carriers. Vehicle driver cabins must also be sanitised inside with an approved spray disinfectant.
- 10.3 No birds or litter should be moved on or off properties until disease status is clarified.
- 10.4 If a major outbreak should occur, further measures will be stipulated by the processor and/or the state's chief veterinary officer.

11. STANDARD OPERATING PROCEDURES (SOPs)

- 11.1 SOPs for any specific outbreak of an emergency animal disease will be available from the Department of Primary Industries, in accordance with AUSVETPLAN.



Production Site Area Internal Audit Checklist

Level 1 Audit

Audit Date:		Property Name:	
Auditor's Name		Auditor's Signature	
Auditee's Name		Auditee's Signature	

1.1	Bird Movements	YES	NO	N/A	CORRECTIVE ACTION
1.1.1	Are all ducklings inspected for their health status and assessed prior to unloading from delivery tubs?				
1.1.2	Are all newly introduced ducks segregated, observed and provided treatment as necessary?				
1.1.3	Are records of bird movements (all birds/eggs in, throughout the production area and all birds/eggs out) maintained to facilitate tracing in case of an animal health or food safety concern?				
1.1.4	Is bird mortality and egg production (in breeder flocks) recorded on a daily basis to highlight unusual health problems?				
1.1.5	Do dead bird disposal methods conform to environmental compliance requirements? For example, incineration with after burner and collection procedures as listed in Appendices 2 and 3.				

NOTES:

1.2 Livestock and Other Animal Movements		YES	NO	N/A	CORRECTIVE ACTION
1.2.1	If livestock graze the property, does the production area have a stock-proof fence?				
1.2.2	Does drainage from the livestock pastures or holding areas enter the duck sheds or production areas?				
1.2.3	Do dogs, cats and wild birds enter the duck sheds at any time?				
1.2.4	Are there avian species other than the commercially produced and authorised ducks or pigs kept in the production area?				
NOTES:					
2.1 Production Personnel		YES	NO	N/A	CORRECTIVE ACTION
2.1.1	Do employees, or any person residing on the property, have contact with any other non company avian species or livestock, especially pigs?				
2.1.2	Do employees wear clean clothes at the beginning of each work day?				
2.1.3	Do employees ensure they do not become contaminated through contact with any avian species or livestock (especially pigs), on their way to work?				
2.1.4	Are boots worn in the sheds or the production area taken outside this area/s?				
2.1.5	Do company service personnel wear protective clothing and footwear at all times when in the production area?				
2.1.6	Do all people entering/exiting the sheds and the production site sanitise their hands?				

2.1 Production Personnel (Continued)

2.1.7	Do company service personnel work from the youngest to the oldest flocks or healthy flocks to those in either quarantine or with any disease risk? Access should always be made through 'least risk' areas, i.e. the home of younger or healthy birds.				
2.1.8	Has each employee signed a <i>Personnel Quarantine Declaration</i> (Appendix 5)?				

NOTES:

2.2	Contractors, Suppliers, Other Service Personnel and Visitors	YES	NO	N/A	CORRECTIVE ACTION
2.2.1	Has each contractor and visitor signed a <i>Contractor's Biosecurity Declaration</i> (Appendix 6)?				
2.2.2	Is there a Visitors Log available to all visitors accessing the production area?				
	Have all visitors signed the Visitors Log?				
2.2.3	Are all visitors (e.g. other producers or equipment suppliers) that are likely to have been exposed that day to poultry, other birds or pigs, had a thorough shower and changed their clothing and boots before entering the production area?				
2.2.4	Are repair and maintenance contractors who have had contact with poultry or other birds that day, allowed to enter sheds populated, or ready to be populated, with ducks unless, (a) it is an emergency, or (b) they have showered thoroughly, changed clothing and boots, and covered their hair?				
2.2.5	For batch systems, is routine maintenance conducted between batches and prior to final disinfection?				
2.2.6	Are drivers from deliveries, other than young birds, allowed to enter the sheds?				

2.2.7	Is a system for tracing the movement of all personnel entering a production site implemented through the use of a Visitors Log (Appendix 7)?				
2.2.8	Are drivers made to wear protective clothing, such as dust coats, and sanitise their hands and boots before and after each entry to a production area?				
2.2.9	Are pick-up crew members trained in company biosecurity and bird handling techniques (as set out in relevant welfare standards), and do they only enter the farm after meeting premise entry conditions?				

NOTES:

Entry Procedures For Duck Sheds		YES	NO	N/A	CORRECTIVE ACTION
2.3					
2.3.1	Do all entry points to the duck sheds have a footbath containing a suitable disinfectant used in accordance with the company or manufacturer's instructions?				
	Is the footbath disinfectant changed on a regular basis?				
2.3.2	Do all people entering and leaving the duck sheds sanitise their hands and use footbaths unless separate shed boots are being used?				
2.3.3	Are there provisions for scraping/brushing boot soles before dipping, to ensure the sanitiser is making complete contact with the soles?				
2.3.4	Is a hand sanitiser available at all entrances to duck sheds and production areas and used before entering these areas?				

NOTES:

2.4	Equipment	YES	NO	N/A	CORRECTIVE ACTION
2.4.1	Are all footbaths inspected daily for excessive organic matter?				
2.4.2	If company service personnel use their own tools and equipment (e.g. laptops, cameras or phones) are they cleaned prior to being taken into the production area and cleaned before entering the duck sheds?				
2.4.3	Are all duckling delivery tubs cleaned and disinfected after each use or as a minimum at the end of each days use?				
2.4.4	Are all crates used for duck pick up checked and disinfected prior to leaving the processing plant?				
NOTES:					
2.5	Vehicles	YES	NO	N/A	CORRECTIVE ACTION
2.2.1	Are all pick up vehicles checked and disinfected prior to leaving the processing plant?				
2.2.2	Do all visitors park their vehicles outside the production area, unless it is essential that the vehicle is taken on site?				
2.2.3	Are all trucks carting new or old litter, feed or gas cleaned and disinfected between production areas?				
2.2.4	Are all duckling delivery trucks cleaned and disinfected after each use preferably each day?				
2.2.5	Are all vehicles taken into the production area/s washed and disinfected prior to entry?				

3.1	Water	YES	NO	N/A	CORRECTIVE ACTION
3.1.1	Are all water supplies tested every six months to ensure that each facility meets the required standards?				
	Are records of these tests retained?				
3.1.2	Is an effective treatment/s of surface water implemented to reduce physical contamination? Is this process monitored regularly?				
3.1.3	Is water from a reticulated domestic supply or secure and clean underground bore water kept in a closed system from supply point to the ducks with no open exposure to the air?				
3.1.4	Is the level of 1.0 – 2.0ppm free available chlorine (FAC) achieved for chlorinated water at the point of use?				
3.1.5	When chlorinating water, is the minimum two hours contact time prior to use achieved?				
3.1.6	If the water tests have failed the six monthly testing, is monitoring conducted and recorded daily and a maintenance program in place?				
3.1.7	Is the effectiveness of alternative systems, for example, ultraviolet treatment, validated before use, and monitored to ensure ongoing effectiveness?				
3.1.8	Are production area records demonstrating the effectiveness of water treatment kept? Is a microbiological validation of the treatment system's effectiveness carried out annually, or as approved by the processor?				
3.1.9	Is the drinking water quality maintained at a standard suitable for use in duck production (Appendix 8)?				

3.1 Water (Continued)

3.1.10	When water does not meet the standard is it treated through: chlorination, ultra-violet, iodine or reverse osmosis, to ensure the standard is met?				
3.1.11	Is all surface water (such as dam and river water) treated in accordance with the national water biosecurity manual before being used as duck drinking water?				
3.1.12	Is the quantity and quality of water and the delivery system suitable for the type and age of the ducks?				

NOTES:

3.2	Feed	YES	NO	N/A	CORRECTIVE ACTION
3.2.1	Are the feeding systems managed to ensure feed in silos and feed delivery systems are protected from contamination by unwanted feral animals and wild birds and rodents?				
3.2.2	Are feed spills cleaned up immediately to prevent the attraction of feral birds and rodents to the production area?				
3.2.3	Is all duck feed inspected on delivery for evidence of pests, damage and contaminants?				
3.2.4	Is all duck feed stored in a manner that prevents contamination by livestock, vermin, insects, wildlife, feral and domestic animals and other feed types?				

NOTES:

3.3	Shaving Storages Facilities	YES	NO	N/A	CORRECTIVE ACTION
3.3.1	Are the shavings storage facilities located in the production area?				
3.3.2	Are the shavings storage facilities wild-bird proof?				
3.3.3	Are the shavings storage facilities weather proof				
3.3.4	Are the shavings facilities managed to minimise contamination from pests, vermin and other livestock or domestic animals?				

NOTES:

3.4	Used Litter	YES	NO	N/A	CORRECTIVE ACTION
3.4.1	Is used litter and manure stockpiled in the shed area (i.e. the production zone)?				
	Is litter and manure stored in an appropriately designed storage area, with a sufficient buffering zone from the duck sheds and enclosures?				
	Is the storage area located in a position that will not compromise biosecurity?				
3.4.2	Is all litter removed before the introduction of the next batch of breeder ducks?				
3.4.3	Is a full or partial cleanout done between batches of grower ducks?				
3.4.4	Is all brooder litter completely removed before the introduction of new birds?				
3.4.5	Is accredited composted/heat sterilised or re-used litter used only in the grow-out areas?				

NOTES:

4.1	Pests	YES	NO	N/A	CORRECTIVE ACTION
4.1.1	Is an appropriate pest control strategy documented?				
4.1.2	Is all duck housing designed and maintained to prevent the entry of wild birds, feral animals and other pests?				
4.1.3	Are trees and shrubs set back from the immediate shed area to deter wildlife? Vegetation should be carefully selected to minimise wild bird attraction. Vegetation buffers for environmental compliance should not be compromised.				
4.1.4	Are feral animals, weeds and wildlife populations monitored and managed to prevent any impact on the ducks?				
NOTES:					
4.2	Vermin	YES	NO	N/A	CORRECTIVE ACTION
4.2.1	Is an appropriate vermin control strategy documented?				
	Are the bait stations checked weekly and replenished when necessary?				
	Is a record kept of each inspection, noting all activities?				
	Is the vermin monitored and managed to prevent an impact on the ducks?				
4.2.2	Are the duck sheds designed and maintained to limit the entry of vermin?				
4.2.3	Is there a plan showing the location of bait stations?				
4.2.4	Are bait stations designed to minimise the opportunity for other animals and birds to access the bait?				
NOTES:					

5.1	Documentation and Training	YES	NO	N/A	CORRECTIVE ACTION
5.1.1	Is there a copy of the Farm Biosecurity Manual readily accessible to staff at each production facility?				
5.1.2	Are staff and contractors provided with training in all aspects of the biosecurity manual?				
5.1.3	Is a register maintained of the training provided to contractors and employees?				

NOTES:

5.2	End of Batch Procedures	YES	NO	N/A	CORRECTIVE ACTION
5.2.1	Is the farm and shed accredited as 'biosecurity compliant' after examination of the flock records by the referring company representative prior to pickup?				
5.2.2	Will the person in charge of pickup accept the flock following observations and consultation with the farmer?				
5.2.3	Does the pickup supervisor or the appointed responsible driver understand they are responsible for the welfare and condition of the ducks until the vehicles reach the processing plant and are accepted by the site supervisor or person responsible?				
5.2.4	Are the shed doors kept closed when not in use, except during litter removal? After washing and disinfecting, shed doors must be kept closed.				
5.2.5	Are all aspects of catching and transporting maintained as outlined during training?				

5.2 End of Batch Procedures (Continued)

5.2.6	Is a map (drawn to scale) of the property layout, showing the production area sheds, access roads and gates, maintained and kept in the site's Farm Biosecurity Manual?					
NOTES:						
5.3	Chemicals and Usage	YES	NO	N/A	CORRECTIVE ACTION	
5.3.1	Are the chemicals used on site stored in a safe protective unit as per relevant state legislation?					
5.3.2	Are the material data safety sheets for all chemicals used on farm kept on site?					
5.3.3	Have farm staff been trained in the correct method and application of chemicals used on farm?					
5.3.4	Are the chemicals held on site used as per manufacturer's instructions with all withholding periods and export slaughter intervals observed?					
NOTES:						
5.4	Medications and Vaccines	YES	NO	N/A	CORRECTIVE ACTION	
5.4.1	Are medications or vaccines in use?					
5.4.2	If medications have been used have the withholding periods been observed and documented.					
5.4.3	If medications and vaccinations are used are they used as per the manufacturer's directions?					
NOTES:						

6.0	Facility Standards	YES	NO	N/A	CORRECTIVE ACTION
6.1	Are all duck houses, shavings sheds and water storages maintained to be wild bird, rodent and feral animal proof?				
6.2	Does the production area have a perimeter fence, or well defined boundary fence, marked with clear signage?				
6.3	Is the main entrance to the production area closed to vehicle traffic with a lockable gate, which is kept locked at all times?				
6.4	Does the entrance display appropriate signage, such as 'Biosecure Area - No Entry Unless Authorised'? Is there signage to direct visitors to contact the farmer before proceeding, including telephone numbers and/or enquires to the house?				
6.5	Are there facilities made available for the cleaning and disinfecting of equipment and vehicles before entry to the production site?				
6.6	Are all duck sheds lockable, and kept locked when unattended?				
6.7	Is dust creation kept to a minimum?				
6.8	Is the production area maintained in a neat and tidy state?				
6.9	Is the grass on and around the production area kept short to avoid rodents and the survival of viruses and bacteria? Is the vegetation poisoned in the immediate area of the outer shed wall with an approved herbicide?				
6.10	Is the drainage from livestock pastures or holding areas prevented from entering the duck sheds and production areas?				

6.0 Facility Standards (Continued)

6.11	<p>Do the entry points to the duck sheds have footbaths in place? Do they contain a suitable disinfectant used in accordance with the company or manufacturer's instructions?</p> <p>Is the disinfectant changed on a regular basis?</p> <p>Is there provision for scraping boot soles before dipping?</p> <p>Are there facilities for hand sanitation at the entry of each shed?</p>				
6.12	<p>Are the footbaths inspected daily for excessive organic matter?</p> <p>Is the disinfectant replaced regularly to ensure an adequate concentration in line with company or manufacturer's recommendations?</p>				
6.13	<p>Are all visitors directed to park their vehicles outside the production area, unless it is essential for the vehicle to be taken on site?</p>				
6.14	<p>Are trees and shrubs set back from the immediate shed area?</p>				
NOTES:					

Level 2 Audit

Audit Date:		Property Name:	
Auditor's Name		Auditor's Signature	
Auditee's Name		Auditee's Signature	

		Yes	No	Date to Implement / Comments
1	Is signage on display? (This includes biosecurity, production site entry details, shed and parking area signs etc.)			
2	Is a visitors' book and entry permit book in use, kept in good condition and located at production site entry? As per Appendix 7			
3	Are employee or contractor personnel quarantine declarations used as per Appendices 5 and 6? and up to date			
4	Is a vehicle sprayer available at the production site entry, in working order and a suitable chemical used?			
5	Is protective clothing and equipment available at the production site?			
6	Is the keeping of restricted animals and avian species observed on the production site and home site?			
7	Are permitted animals managed and kept out of the duck sheds and shavings storage facility?			
8	Are footbaths maintained at the entry to the production site and main entries to sheds, and scrapers/brushes available?			

Level 2 Audit (Continued)

9	Are sheds bird-proof?			
10	Are bait stations serviced, spaced 20 metres apart at sheds, and recorded as per Appendix 11?			
11	Is incoming water within the guidelines? If not is the water chlorinated and recorded as per Appendix 8 and Appendix 10?			
12	Are dead birds disposed of in an approved manner? (Preferred methods include freezing and off-site disposal.)			
13	Is the production site clean and tidy free of clutter and rubbish? (For example, cut grass, no litter and feed spillages, adequate drainage etc.)			
14	Are rubbish bin containers located at the production site entry and on the production site and regularly emptied?			
15	Are approved hand wash (and washing facility) available on the production site?			
16	Are shavings, sawdust or other approved litter material kept undercover in a rodent and wild bird proof facility?			
17	Are the production site entry gates and duck sheds lockable?			
18	Are sheds cleaned and sanitised between batches? (For example, litter removed, walls and ceilings washed etc.)			
19	Are records kept for each batch, and located on the production site?			

APPENDIX 1

Action Plan

41

Emergency Animal Disease (EAD) Action Plan

This document details the actions (and responsibilities) that are to be undertaken in the event that an emergency disease outbreak is suspected on-farm.

[A] Important Contact Details

	Name	Contact Number
Property name or PIC number		
Manager		
Person responsible for the EAD Action Plan		
Consultant veterinarian		
District veterinary officer		
Emergency Animal Disease Watch Hotline		1800 675 888

[B] Management Commitment

Management undertakes that unfamiliar signs of disease will be investigated, and the following actions undertaken, without delay, if an emergency disease is suspected.

[C] Action Plan

Develop an action plan allocating responsibilities to relevant personnel.

1. Contact the relevant authority through the district veterinary officer or the Emergency Animal Disease Watch Hotline 1800 675 888.

Responsibility:

2. Follow all instructions as directed by the relevant authority.

Responsibility:

3. **Do not dispatch any livestock** from the farm until authorised by the relevant authority.

Responsibility:

APPENDIX 1

Action Plan (cont.)

42

4. Ensure suspect livestock are **isolated** within the farm.
Responsibility:
5. Ensure companion animals of the suspect livestock are **segregated** from other livestock.
Responsibility:
6. Ensure movement of all other livestock within the farm, and surrounds, is **restricted**.
Responsibility:
7. Delay or halt the shipment of livestock onto the farm.
Responsibility:
8. Delay or halt the delivery of all non-essential commodities.
Responsibility:
9. Secure the farm perimeter, limiting access to the farm and ensuring all vehicles and visitors only enter the farm under controlled conditions.
Responsibility:
10. Remove unnecessary personnel and machinery from livestock feeding and holding areas.
Responsibility:
11. Ensure that any personnel, equipment or machinery do not leave the farm until authorised by the relevant authority.
Responsibility:
12. Compile a list of all livestock (number of head, identification and location), personnel and machinery movements over the past seven days. Prepare a site plan that details current allocations of livestock.
Responsibility:
13. Ensure all staff are made aware of the actions being taken and their individual responsibilities towards the action plan.
Responsibility:
14. Ensure that customers are advised if they are immediately affected by the delay in the supply of livestock.
Responsibility:
15. If an emergency disease is identified, the farm will follow the requirements of the AUSVETPLAN, and directions from the relevant authority.
Responsibility:

APPENDIX 2

Dead Bird Composting

43

Composting is the aerobic microbial breakdown of organic matter, usually incorporating a thermophilic (heat loving) phase. The adoption of composting systems for poultry waste has received attention due to its ability to reduce litter volume, dispose of carcasses, stabilise nutrients and trace elements and **reduce pathogens**.

1. Rodents, cats, dogs, feral animals and scavenging birds must be kept away from composting carcasses.
2. Composting containers must be away from sheds and boundary fences (outside of the production area).
3. Composting containers must be kept neat and clean at all times.
4. Cleaning and disinfection of equipment, such as bins, buckets and wheelbarrows, must be done before being returned to the production areas, and when moving between sheds.
5. Composted material is not to be spread in the production area.
6. Adequate instructions/guidelines for safe composting must be in place and followed by all staff/contractors.
7. Dead birds must not be buried within the production site.

APPENDIX 3

Dead Bird Collection

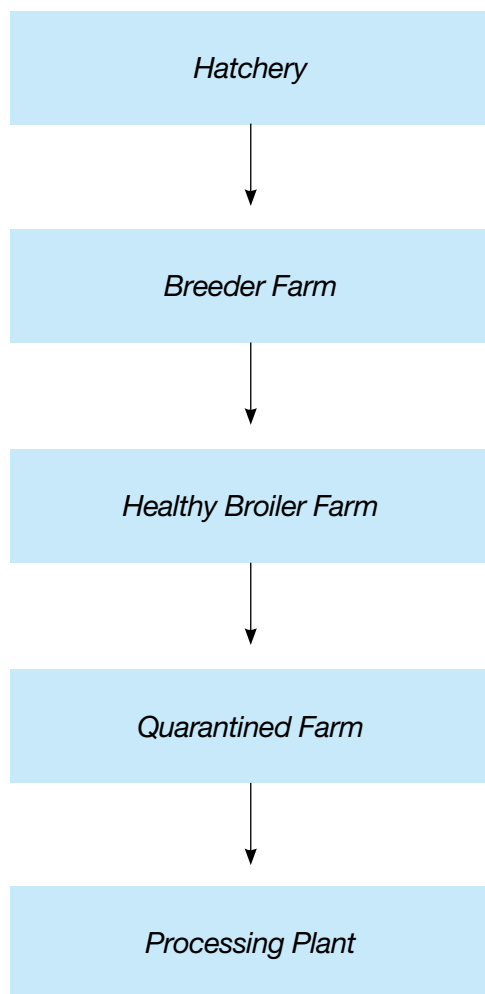
44

Objective: To eliminate, as much as possible, infection or contamination spreading between sheds and between batches during the collection of dead birds.

1. Freezing and off-site disposal is the recommended method for dead bird disposal. Dead birds must either be collected from the production area daily, or stored in a freezer if collection is less frequent.
2. If used, the freezer must have sufficient capacity to adequately handle carcasses between collections, and must be cleaned and sanitised regularly. Freezing within a sealed plastic bag is recommended.
3. Dead birds should be bagged and sealed within the shed area, and then moved to the freezer point.
4. The collection area must be as far away from the production area as possible, so that collection vehicles do not enter the site. Birds must not be left in the public view.
5. All containers used for collecting dead birds must be washed and disinfected before being returned to the production area.
6. Dead birds must not be buried within the production site.

APPENDIX 4

Biosecurity Movement Flow Chart



Same day movement with the arrows is approved.

Any movement against the arrows requires a minimum break of 12 hours, except for movement from a "Quarantined Farm" and "Processing Plant", which requires a minimum break of 36 hours to any site.

APPENDIX 5

Personnel Quarantine Declaration

(Production Area Employee)

46

I, _____ hereby agree to abide by MY EMPLOYER'S BIOSECURITY rules and standards.

I understand that the following quarantine rules/standards apply at all times:

1. No avian species, poultry or birds of any type are or will be kept at my place of residence.
2. No pigs are or will be kept at my place of residence.
3. No untreated poultry manure from other properties is to be used at my place of residence.
4. No member of my household is to work in any area where contact can be made with poultry or pigs. E.g., on other properties or hatcheries, processing plants, by-product plants, laboratories or pick-up crews.
5. I will not visit poultry abattoirs, pig production areas or poultry shows or poultry farms unless approved by my employer, and appropriate quarantine measures have been taken.
6. I will not allow dogs to enter duck sheds at any time.
7. I agree to the terms and conditions of entry, and understand that any information gained during my employment will remain confidential to the company.
8. I will inform the farm manager of my previous and daily movements prior to entering the Production Site (i.e. company or associated staff such as pick-up crews).
9. I will adhere to the minimum personal hygiene and sanitation standard.

Signature _____ Date _____

Residential Address _____

APPENDIX 6

Contractors Quarantine Declaration Form

I, _____ of (address) _____

47

_____ understand the following rules apply and I warrant to you that:

1. No avian species, poultry or birds of any type are or will be kept at my place of residence for the duration of this contract.
2. No pigs are, or will be, kept at my place of residence.
3. No member of my household works in areas where contact is, or will be, made with poultry, pigs, or any abattoir or slaughterhouse.
4. I will inform the production manager/grower of my previous movements on the day prior to entering the production site.
5. I will follow all instructions regarding protective clothing/boots given to me by the production manager/grower or company representative.
6. I agree to the terms and conditions, and understand that any information gained during this visit will remain confidential to the company.

Signature _____ Date _____

APPENDIX 8

Water Quality Guidelines

Drinking Water Standards

49

Microbiological Analysis - Maximum Permissible Levels

Bacterial Standards (Organisms / 100ml)			
Bacteria	Potable Water	Poultry (maximum)	Poultry (desirable)
Total colony count	1000	1,000	Nil
E. Coli (Faecal coliforms)	Nil	Nil	Nil
Coliforms	Less than 100Nil	Less than 100	Nil

APPENDIX 9

Surface Water Treatment

50

Objective: To eliminate, as much as possible, infection or contamination spreading between sheds and between batches, due to dead bird disposal.

WATER TREATMENT CHECKLIST

Reminder – Untreated drinking water should not be supplied to farmed birds. All water that comes from sources other than the mains (e.g. from dams, rivers, bores*) should be treated on the farm before being used in sheds.

*Bore water should be tested, and if not of potable standard, must be treated.

The objective of water treatment is to minimize bacteria, viruses, algae and other organisms that birds consume in their drinking water and that they are exposed to through shed cooling systems. Water provided to birds for drinking and that used for cooling must be treated. Wash down water should also be treated.

CHLORINATION

Chlorination is an excellent way to effectively treat your farm water. However, chlorination will only be effective if the water is already relatively free of organic matter and solids. Filtration of the water supply prior to chlorination will nearly always be necessary. There are a number of different chlorination systems available to poultry farmers. These can be obtained from a range of specialist water treatment companies, pumping companies or swimming pool suppliers. Assistance with the installation, operation and maintenance of these systems is usually offered by the supplier, as are kits for monitoring chlorination levels.

To effectively treat a poultry water supply, the water with chlorine at a concentration of 5 ppm (or equivalent) must be held for a minimum of 1-2 hours in a holding tank. This may require

the use of a two-tank system, where water is being consumed by birds from one tank, while the other tank is refilled and stored with freshly chlorinated water until the required contact time of 1-2 hours has elapsed. Chlorine is more effective if the pH of the water is between 6 and 7 i.e. slightly acidic.

The chlorine concentration of the drinker must be between 1 and 2 ppm (or equivalent) to ensure any contamination that might have occurred in the lines between the holding tank and the drinker has been effectively treated.

Water chlorination levels from drinkers in the shed should be monitored at least twice weekly to ensure the system is effectively treating the incoming water supply.

AS A GUIDE:

Fill the test tube with water from the drinkers in the shed.

Insert test strips (provided in the test kit) into the tube.

Compare the colour of the chlorine square on the test strip with the chlorine colour squares on the standard colour chart (provided).

Record the concentration level of the colour on the standard colour chart with that which most closely matches the test strip colour.

If the chlorine concentration is less than 2 ppm or greater than 5 ppm the concentration should be rechecked in one hour. If the concentration remains outside these limits, the unit should be adjusted and the concentration checked again in 1 hour.

Alternative chlorination monitoring systems are available from companies that supply chlorination equipment.

APPENDIX 10

Water Sanitation Record

Date	Time	Test Result	Corrective Action	Name or Initials

Test method: _____

APPENDIX 11

Rodent Control Record

52

RODENT CONTROL RECORD					
Bait Type: _____					
Date	Time	Bait Station Number	Activity Level	Corrective Action	Name or Initials

Note: For activity level
0 = no activity. 1 = slight activity. 2 = half baits consumed. 3 = all baits consumed



AnimalHealth
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