



ASEAN Good Animal Husbandry Practices

For Layers and Broilers

Food Safety Module

Acknowledgements

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Introduction and background

Good Animal Husbandry (GAHP) Practices are becoming important through out the world. As ASEAN progresses to a single economy it is essential that uniform standards are introduced across the ASEAN member States (AMS). There is an element of confusion when it comes to the term GAHP, with a number of issues covered by existing world standards and guidelines. The AMS are interested in introducing a GAHP in modular form starting with food safety. The reality is that many GAHP guidelines and standards cover much more than this. They tend to cover animal cruelty, animal welfare, biosecurity issues, husbandry practices that affect quality of animal product, environmental issues and even nutritional issues. Whilst all customers demand food safety as a mandatory requirement of the food they buy, only some customers demand other standards related to environment, animal cruelty and workers health and safety. It makes a lot of sense then to make sure that at least the food safety module is covered in a GAHP in all the ASEAN member States. This approach leaves the door open for other modules such as animal welfare and environment sustainability to be included at a later date based on market requirements. Biosecurity has also been covered in the ASEAN biosecurity management manual for commercial poultry farming. This food safety GAHP module will refer to this document where appropriate.

In addition many GAHP guidelines and standards often cover all animals including bovines, equine, ovines, caprine, porcine and poultry simultaneously. Treatment of such diverse groups of food animals simultaneously often leads to confusion and dilutes out the essential components of a GAHP. The AMS have decided to tackle the ASEAN broiler and layer industry first as this is seen to be a very important industry across all Member States. This document describes a GAHP for food safety in the chicken meat and egg industry which will be common across the ten Member States and will be known as ASEAN GAHP for Layers and Broilers.

Purpose and Scope of ASEAN GAHP for Layers and Broilers

ASEAN GAHP for Layers and Broilers is a standard for good animal husbandry practices for broiler and layer production in the ASEAN region. The standards in ASEAN GAHP for Layers and Broilers are mainly aimed at preventing or minimising occurring food safety incidents. It also covers elements of biosecurity, workers' health and safety, animal welfare and measures to reduce environmental impact.

Global trade of chicken and chicken products is increasing as trade becomes freer. Changes in consumer lifestyles in the ASEAN region and throughout the world are driving the demand for assurance that chicken products are safe to eat and are produced and handled in a manner that, does not compromise the health, safety and welfare of farm workers and not cause harm to the environment. The impact of these trends resulted to the increased requirements from retailers for compliance with GAP programs, and government introduction of legal requirements for food safety, worker health, safety and welfare and environmental protection

The ASEAN Member States (AMS) have common farming practices, infrastructures, and weather patterns. However, the implementation of GAHP programs currently within the region varies, with some member states due to differences in country's certification and or accreditation systems and the variations in the level of awareness.

The purpose of ASEAN GAHP for Layers and Broilers is to enhance the harmonisation of GAHP programs within the ASEAN region. This will facilitate intra- and extra-trade and long competitiveness of ASEAN's chicken products between AMS and to global markets, improve viability for farmers, and help sustain a safe food supply and the environment.

Nonetheless, countries wishing to export poultry and poultry products will still have to comply with the Sanitary and Phytosanitary (SPS) requirements and other conditions imposed by the importing countries.

The scope of ASEAN GAHP for Layers and Broilers covers the production, handling, transportation and storage of chicken and its products within the farm which are intended to be used for commercial productions systems. However, it is not a standard for certification of organic products or Genetically Modified Organism (GMO) free products.

How ASEAN GAHP was developed

ASEAN GAHP for Layers and Broilers was developed by the AMS representatives shown in the acknowledgment section.

Acronyms

AMS	ASEAN Member States
ASEAN	Association of South East Asian Nations
CODEX	Codex Alimentarius
GAP	Good Agricultural Practices
GAHP	Good Animal Husbandry Practices
GMP	Good Manufacturing Practices
ILO	International Labour Organisation
OIE	World Organization for Animal Health
ppm	parts per million

Definition of terms

Commercial production system

a system of production aimed at producing commercial quantities of animal products.

Competent authority

an entity/agency who has the knowledge, expertise and authority as designated by law.

Protective clothing

Clothing especially designed, fabricated, or treated to protect personnel against contamination and dangerous working conditions.

Farm owner



Person or entity legally responsible for the activities of running a business.

Personnel

Workers engaged by the business on a full time basis, part time basis or casual basis.

Foot wear

Outer coverings for the feet, such as shoes or boots that protect the wearer and can be disinfected to prevent the spread of infection.

Good health status

Free from illness, injury or pain.

Vehicle

Any means of transporting animals, trains, ferries, ships and aircrafts.

Potable water

Water that is free from diseases producing organisms and chemical substances deleterious to health.

Requirements of the GAHP for Layer and Broiler

1- Farm components

1.1- Farm location

- 1.1.1 Be within the approved land use plan of the local government and should be compliant with the national regulations.
- 1.1.2 Have a supply of adequate electrical power, potable water and good access road.
- 1.1.3 Not be near bodies of water and wetlands that are frequented by migratory water fowl.
- 1.1.4 Not be prone to flooding.
- 1.1.5 Not be near slaughter house facilities and other animal facilities.
- 1.1.6 Not be on a site that could be a possible source of physical, chemical and microbiological hazards*.

**existing farms should have full control of the risks and ensure that there are mitigation measures in place.*

1.2- Farm layout

- 1.2.1 Have suitable area set aside for storage of feed, carcass destruction, waste management, workers area including toilets and washrooms.
- 1.2.2 Have a design that incorporates ventilation and ease of cleaning.
- 1.2.3 Have buildings and perimeter fences constructed to prevent contact between livestock and stray and wild animals including potential disease carriers and pets.
- 1.2.4 Electrical conduits should be properly installed and covered to prevent possible electrocution.
- 1.2.5 Layout and emergency procedures shall be placed in the most conspicuous place.

1.3- Housing

- 1.3.1 The animals must be housed in a suitable for the intended use of rearing and housing chickens with sufficient shelter and ventilation to protect chickens.
- 1.3.2 Have a logical layout for the animal husbandry activities with sanitation as a guide making it easy for staff to move from clean areas into dirty areas following biosecurity protocols (refer to ASEAN Biosecurity Management Manual for Commercial Poultry Farming ¹)

2- Feed and water

2.1- Feed supply

- 2.1.1 Owners or managers of chickens should acquire feed from suppliers who follow recognised good manufacturing practices and/or good hygiene practices and that meet quality and standards set by the country regulations act or Government directives.
- 2.1.2 Where on-farm manufacture of feeds is practised, follow procedures designed to minimise contamination and prevent the inclusion of undesirable feed components. Where necessary, an expert assistance should be sought.
- 2.1.3 The feed chain (transport, storage, and feeding) should be managed in such a way as to protect feed from contamination (biological, chemical, and physical hazards) and minimise deterioration.
- 2.1.4 Feeds should be used in accordance with label instructions and kept in a designated area under good ventilation.

2.2-List of veterinary products and banned chemicals

- 2.2.1 The farm should have a list of veterinary products registered/approved/banned by the country available for viewing.
- 2.2.2 The farm must have a list of chemicals that are regulated and banned by the country available for viewing.
- 2.2.3 Feeds must not contain banned ingredients, chemicals and veterinary drugs.

2.3- Water quality and treatment of water

- 2.3.1 Potable water should be used.
- 2.3.2 Ensure that only water of known and acceptable biological and mineralogical quality (i.e. fit for animal consumption) is used for watering stock.
- 2.3.3 Non-potable water must be treated to comply with standards.
- 2.3.4 The water sanitizing system is checked regularly and at least once for every batch of chickens.
- 2.3.5 Water treatment systems are checked daily and the appropriate parameters are recorded. Record sheet is retained with batch records at end of batch.
- 2.3.6 Treated water may be used for drinking water for chickens cooling systems and shed wash downs.
- 2.3.7 Pathogen levels must be checked regularly (*E.coli* and faecal coliforms as indicators of efficacy of sanitation).
- 2.3.8 ASEAN Biosecurity Management Manual for Commercial Poultry Farming may be used when it is applicable.



3- Farm management

3.1- Farm manual

- 3.1.1 The farm must have a policy statement which covers commitment and emergency procedures.
- 3.1.2 A farm management system must be documented and available for inspection.
- 3.1.3 The farm must have an organisational chart.

3.2- Personnel

- 3.2.1 The farm owner should ensure that all farm operators and farm workers are in good health and undergo annual routine health check up.
- 3.2.2 The farm owner should always promote a safe and healthy working condition in the farm. Accident and emergency management procedures should be available with clear instructions for all workers. First aid kits and fire extinguishers should be easily available and accessible at all times.
- 3.2.3 The farm owner should report to relevant authorities any occurrence of accident in the farm which may result to serious physical injuries of workers.
- 3.2.4 The farm owner must observe the ILO Conventions and Recommendations on Child Labour².
- 3.2.5 The farm owner must encourage the promotion of gender equality in the work place.

3.3- Competency

- 3.3.1 Workers must be trained for the tasks that they are required to do. In addition workers must be trained in the following procedures: farm sanitation, personal hygiene, animal handling and welfare, breeding program, medicine dispensing and quarantine.
- 3.3.2 Workers must be competent in the tasks that they are required to do and the competency must be reviewed on a regular basis.
- 3.3.3 The farm should have sufficient workers/personnel/staff to perform the required work load including the services of a farm supervisor and veterinarian.

3.4- Hygiene and sanitation

Personal Hygiene

- 3.4.1 Workers must wear appropriate protective clothing and foot wear at all times that can be sanitised and if necessary with masks.
- 3.4.2 Workers' movement in the farm should be controlled to avoid cross contamination between different age groups of chicken. Workers must enter clean areas first then move to dirty areas. Workers must not move from dirty areas to clean areas.
- 3.4.3 Workers must ensure that no unnecessary accessories and personal effects that may pose hazards may be brought in the production area.
- 3.4.4 Downtime/quarantine must be observed before entering the production area for workers coming from outside the farm.

General Farm Hygiene

- 3.4.5 Only approved chemicals by competent authorities in the country must be used for cleaning and sanitation (refer to Codex Alimentarius³ for list of approved chemicals).

- 3.4.6 The farm should have appropriate equipment and tools for effective and functional hygiene and sanitation operation.
- 3.4.7 The farm shall have cleaning and disinfection procedure in place.

Waste management

- 3.4.8 Litter, solid (including biohazard waste) and liquid waste should be managed and disposed according to the country's regulations.
- 3.4.9 The farm operator should maintain and display clear instructions on procedure for disposal of farm solid wastes and farm chemical wastes (e.g. expired pesticide/herbicide and containers, paint, etc.).
- 3.4.10 Dead chickens should be buried properly, incinerated or disposed in a manner that complies with country regulations.
- 3.4.11 Compost stations must be positioned away from the activities of the farm, waterways and also be protected from rain to avoid leaching.
- 3.4.12 Toilet septic tanks must be maintained so that potential overflows will be avoided.
- 3.4.13 Effluent ponds must be located away from farming operations and must not overflow.
- 3.4.14 Any waste water treatment process must be properly functional.
- 3.4.15 Waste water from farms shall be treated before discharging into public water resources.

Pest control

- 3.4.16 Farm premises should be maintained in a good condition to prevent possible vermin infestation.
- 3.4.17 The farm must have pest control programs to reduce or eliminate pests including rodents and insects.
- 3.4.18 Only approved chemicals and baits must be used in pest control programs.

4-Chicken health management

4.1- Introduction of new stock

- 4.1.1 Acquire chickens only from sources with known good health status, certified by a qualified veterinarian and/or competent authority.
- 4.1.2 Keep newly arrived chickens separate from resident stock for an appropriate period, to prevent possible disease transmission.
- 4.1.3 Each batch of chickens purchased or hatched must have batch identification for traceability purposes.

4.2-Surveillance and control of diseases

- 4.2.1 The vaccination programme should be adopted against the diseases as required by competent authorities and it should be in a written form. Only vaccines approved by a competent authority in the country must be used.
- 4.2.2 The farm should have a written deworming programme if deworming is required.
- 4.2.3 The health status of chickens should be monitored and recorded regularly.
- 4.2.4 Separate diseased from healthy chickens such that transmission of infection does not occur, and where necessary, cull diseased chickens humanely.
- 4.2.5 Identified isolation area/pen for "suspected diseased birds" must be provided.



- 4.2.6 The use of antibiotics or medicated feeds for disease control must be in accordance with the instructions of a veterinarian following country regulations.
- 4.2.7 Keep all treated chickens on the farm and ensure that these animals and/or their products are not used for human consumption until the drug withdrawal period is completed and certified fit for human consumption by veterinarians.

Laboratory testing

- 4.2.8 Routine testing should be carried out by accredited laboratories for surveillance and/or monitoring.
- 4.2.9 In case of reportable disease outbreak, testing must be conducted in an approved/accredited laboratory and must continue until it can be shown that the disease has been controlled.

Protocols when disease is suspected

- 4.2.10 If there is an outbreak or suspicion of epidemic disease, the farm must follow the requirements of the laws and regulations on animal epidemic disease control of the country and OIE guidelines.
- 4.2.11 Emergency biosecurity procedures must be followed (refer to ASEAN biosecurity management manual for commercial poultry farming and biosecurity protocols for poultry).

Treatment

- 4.2.12 The use of medicines must be under the supervision of veterinarian or competent authority.
- 4.2.13 The farm should maintain updated records of medicine purchase and administration that should be readily available for inspection.

Animal welfare

- 4.2.14 Care shall be taken to preserve the welfare of chickens. In case of injury, sickness or deformity, chickens shall be appropriately treated to avoid suffering.
- 4.2.15 All chickens must have access to and are sufficiently provided with feed, water and space (refer to OIE guidelines on Animal Welfare).

5-Transportation and storage

5.1 Transportation

- 5.1.1 The transport of chickens from point of origin to final destination should be in a manner that does not cause stress throughout the journey and does not pre dispose them to injury and disease.
- 5.1.2 Vehicles must be cleaned before using to transport chicken.
- 5.1.3 Vehicles used to transport chickens must be exclusively used for chicken transport only.
- 5.1.4 Transportation should be carried out at the coldest time of the day in order to avoid heat stress to animals.
- 5.1.5 Day old chick should be packed in appropriate packaging or restraining containers as required by the country regulations.
- 5.1.6 Where appropriate, chickens should be segregated according to species, size, sex, and age or according to customer requirements.

- 5.1.7 A transport or movement permit must be obtained prior to shipping animals as required by the country regulations with animal health certificate signed by a veterinarian.

5.2 Storage

- 5.2.1 The farm should have facilities for proper storage.
- 5.2.2 The storage shall be kept cleaned at all time.
- 5.2.3 The storage shall have adequate ventilation, adequate protection from moisture and should be vermin proof.
- 5.2.4 If applicable, First in First out (FIFO) shall be practiced.

6-Record keeping

When a problem arises, be it a disease, a chemical hazard issue or a physical safety matter, record keeping is central to any effort to trace the source of the problem and eliminate it. Hence, as far as is practicable, farmers should keep records of:

- 6.1 Transportation records;
- 6.2 Storage records;
- 6.3 Feed records;
- 6.4 Animal Health (Treatment and Vaccination) records;
- 6.5 Personnel Health records;
- 6.6 Visitor records;
- 6.7 Breed records;
- 6.8 Laboratory records;
- 6.9 Sanitation and Hygiene records;
- 6.10 Pest control records;
- 6.11 Training records;
- 6.12 Waste management records;
- 6.13 Production records;
- 6.14 Procurement records;
- 6.15 Traceability records (e.g. animal/lot/batch ID, customer record, etc.).

Records must be kept for a minimum of 3 years or a time specified by Government directives.

7-Egg management

Egg collection

- 7.1 Egg collection workers must sanitize their hands prior to handling eggs and between handling floor eggs and nest eggs.

Sorting and grading

- 7.2 All eggs found to be cracked, defective and/or dirty must be identified and rejected. All eggs collected from the floor must be placed in separate trays and labelled.

Storage

- 7.3 All eggs must be stored in a clean well ventilated cool area after sorting.



Transportation

7.4 Eggs must be transported in the coolest time of the day in appropriate transport vehicles and delivered to their destination as quickly as possible.

Notes: All issues related to the hygiene, sanitation and biosecurity will be referred to the ASEAN biosecurity management manual for commercial poultry farming.

References

- 1- ASEAN Biosecurity Management Manual for Commercial Poultry Farming produced by the ASEAN Sectoral Working Group on Livestock (ASWGL). Available from http://www.asean.org/images/archive/AMAF%2033%20Biosecurity%20Manual_Final%20Draft.pdf
- 2- Convention concerning Minimum Age for Admission to Employment (Entry into force: 19 Jun 1976) Number 138 and Convention concerning the Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labour (Entry into force: 19 Nov 2000) Number 182. Available from <http://www.ilo.org/ipec/facts/ILConventionsonchildlabour/lang--en/index.htm>
- 3- Codex Alimentarius standards available from <http://www.codexalimentarius.org/>
- 4- OIE Terrestrial Animal Health and Welfare Codes available from <http://www.oie.int>