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ASEAN GOOD ANIMAL HUSBANDRY PRACTICES FOR PIGS

**ASEAN SECTORAL WORKING GROUP ON LIVESTOCK
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Introduction and background

The ASEAN Good Animal Husbandry Practices (ASEAN GAHP) for pigs prescribes the principles and guidances of good animal husbandry practices for the production of pig for slaughter and breeding in the ASEAN region.

This ASEAN GAHP was established by the Expert Working Group on ASEAN Good Animal Husbandry Practices (EWG-ASEAN GAHP) under ASEAN Sectoral Working Group on Livestock (ASWGL) to promote the awareness of ASEAN GAHP among the stakeholders and ASEAN Member States (AMS), as well as to facilitate and support the development and implementation of national GAHP programme in ASEAN.

The ASEAN GAHP is intended to enhance the harmonisation of GAHP programs within ASEAN region. This will facilitate intra- and extra-trade and long competitiveness of ASEAN's pig production between AMS and to global markets, improve viability for farmers, enhance animal health and welfare and help sustain a safe food supply, animal welfare, and the environment. Nevertheless, countries wishing to export pig and pig products will still have to comply with the sanitary and phytosanitary requirements and other conditions imposed by the importing countries.

The ASEAN GAHP is a tool for combatting antimicrobial resistance (AMR) in the livestock sector through the prevention of infection and promotion of prudent use of antimicrobial. The ASEAN GAHP should be read in conjunction with ASEAN Guidelines for The Prudent Use of Antimicrobial in Livestock.

Where appropriate, the choice of measures to be implemented under the ASEAN GAHP could be varied in accordance with national conditions, including disease status, the risk of introduction and dissemination of infectious agents and the cost effectiveness of control measures; the various measures may be used to achieve the effective good animal husbandry practices.

Purpose and Scope of ASEAN GAHP for pigs

The purpose of the ASEAN GAHP is to help AMS in assisting farmers to fully assume their responsibilities at the animal production stage of the food chain to produce safe food, as well as to provide recommendations for the competent authorities in developing on-farm quality assurance systems for animal product food safety.

The ASEAN GAHP addresses the good animal husbandry practices of commercial pig production for slaughter and breeding. However, the scope does not include a standard for certification of organic products and Genetically Modified Organism (GMO) free products.

Definition of terms

Commercial pig production system

A system of production, includes some or all of the following; breeding, rearing, and management of pigs, aimed at producing commercial quantities of animal products.

Competent/local authority)ies(

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

Conventional house/opened house

The pig house where its condition is varied according to outer surrounding atmosphere.

Enclosed house/environmentally controlled house

The pig house that its conditions, such as temperature, humidity, ventilation, and light are appropriately controlled for pig raising.

Personnel

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

Pig

Animals in the family of Suidae with the scientific name of *Sus domesticus*.

Pig farm

An establishment that pigs are raised covering pig house, feed storage and preparation area, carcass disposing area, area for wastewater and waste treatment and other relevant constructions.

Pig house

A building or roofed construction which may provide with pens for pig raising.

Requirements of the GAHP for pigs

1- Farm components

1.1- Farm location

- 1.1.1 The establishment of farm shall be complied with related laws and regulations of competent/local authority.
- 1.1.2 Farm shall be located in appropriate areas for pig raising and, clean water source shall be sufficiently provided.
- 1.1.3 Farm shall be located in the areas where there is no risk of contamination with physical, chemical, and biological hazards.

- 1.1.4 Farm shall have areas corresponding to the number of pigs, not to cause any problem to environment and pig health as well as animal welfare concerns.
- 1.1.5 Farm shall have fences or natural barriers that are able to control entry of man and animals into farm.

1.2- Farm layout

- 1.2.1 Farm shall be well designed by locating and arranging areas, such as areas for pig raising, feed storage, isolation and treatment of sick pigs, carcasses destruction, and pig selling.
- 1.2.2 Farm shall have necessary measures to separate the production and non production areas to prevent cross contamination and to prevent entry of stray animals into the production areas, and control the entry and exit of personnel through designated entry/exit points.

1.3- Housing

- 1.3.1 Pig houses shall be structurally strong, hygienic, well-ventilated and easy for maintenance and cleaning.
- 1.3.2 Pig houses shall have sufficient space for pig raising and shall have good condition of environment inside the houses, corresponding to pig breed, size and age.
- 1.3.3 In the case of the enclosed house/environmentally controlled, an appropriate measure for dealing with electrical failure or automatic appliances disorder shall be installed. The alarm system should be also installed in case of power failure and/or significant temperature variance.
- 1.3.4 Pig manure shall be removed and pig house shall be thoroughly cleaned to prevent accumulation of manure inside and outside of the house.

2- Feed and water

2.1- Feed supply

- 2.1.1 Feed shall be of good quality, in accordance with related law and requirements of competent authority.
- 2.1.2 Prohibited substances under national legislation shall not be used.
- 2.1.3 The use of medicated feed shall be under supervision of a farm veterinarian registered or licensed by competent authority and medicated feed shall be kept separately from other general feed with clearly indicated sign.

- 2.1.4 The preliminary examination on physical appearance of feed quality shall be conducted.
- 2.1.5 Feed and raw materials for feed shall be kept in the way to prevent contamination and deterioration.
- 2.1.6 Feed equipment and containers shall be appropriate for age, number and size of pigs and shall be placed properly, where all pigs can access to feed.

2.2- Storage

- 2.2.1 Feed storage facilities should be kept clean at all times.
- 2.2.2 Feed storage should have adequate ventilation, adequate protection from moisture to prevent development of molds, and should be vermin-proof.
- 2.2.3 If applicable, first in – first out rule should be practiced.
- 2.2.4 Machinery, equipment and other toxic chemicals should be stored separately from feeds to prevent contamination.

2.3- Water quality

- 2.3.1 Source of water used on farm shall be located in the areas where contamination from hazardous substances can be prevented.
- 2.3.2 Water used on farm shall be clean, free from physical hazards, safe and sufficient for using in the farm at all production time.
- 2.3.3 Water for drinking shall be potable with an appropriate quality and adequate for all pigs to drink.

3- Farm management

3.1- Farm manual

- 3.1.1 Availability of farm management manual illustrated details of important farm operations, e.g. farm management, pig raising system, feed and water for pigs, pig-health and welfare, environment, and recording system.
- 3.1.2 All important procedures and work instructions shall be documented.

3.2- Personnel

- 3.2.1 The farm should have sufficient number of workers and personnel to perform the required work load including the services of a farm supervisor and veterinarian.

3.2.2 Task of personnel shall be appointed in accordance with their abilities and knowledge.

3.3- Competency

3.3.1 Workers must be competent in the tasks that they are required to do and the competency must be reviewed on a regular basis.

3.3.2 Animal health in the farm should be oversight by a veterinarian who has a license from competent authority.

3.4- Hygiene and sanitation

Personal Hygiene

3.4.1 Farm personnel shall have good personal hygiene to prevent contamination.

3.4.2 If applicable, shower /changing facilities should be provided, all persons entering the production areas should take a shower, have hair washed and wear protective clothing supplied by the farm. The procedure for shower-cloth changing should be shown.

3.4.3 The farm owner/operator should provide farm workers with appropriate attire and footwear for protective measures.

3.4.4 Appropriate working uniform/attire and footwear should be provided to visitors who need to be at the production areas, as may be deemed necessary.

3.4.5 Farm workers/personnel should undergo annual routine health check-up/medical examination.

3.4.6 Personnel who have been sick such as fever, respiratory or gastrointestinal infection should not be allowed to enter the farm unless they have been recorded.

General Farm Hygiene

3.4.7 Pig houses and its equipment shall be hygienic and well maintained in good condition for the safety of both pigs and personnel.

3.4.8 After removing pigs, the house and its equipment shall be thoroughly cleaned and disinfected. The house shall be closed for a certain period of time in accordance with related national requirements.

3.4.9 Good hygienic practices inside the pig house shall be in place to prevent accumulation of pathogens.

Waste management

3.4.10 Garbage and trash should be collected and stored in closed containers and disposed of using appropriate methods for each type of garbage. Hazardous or infected waste should be kept and disposed separately from general garbage to avoid contamination.

3.4.11 The measure for disposing infected and hazardous waste shall be in place.

3.4.12 The disposal and destruction of pig carcasses shall be under consideration and responsibility of farm veterinarian with appropriate methods.

3.4.13 The waste water treatment system shall be in place to improve quality of waste water. The quality of treated waste water shall be complied with related laws and regulations issued by competent authority.

3.4.14 The farm should take appropriate measures to minimize excessive odor coming from the farm which may be associated with waste decomposition.

3.4.15 Measures should be in place to keep noise from houses to acceptable levels.

Pest control

3.4.16 Farm shall have preventive measure for pests.

4- Animal health management

4.1- Disease prevention and control

4.1.1 The biosecurity measures should be in place, taking into consideration the relevant diseases identified by national regulations/authority.

4.1.2 Disease prevention and control measures shall be documented and be under supervision of a farm veterinarian or a person appointed by the farm veterinarian.

4.1.3 Preventive measure and disease control measure for vehicles, equipment and person prior to entry and exit farm shall be implemented and continuously monitored to prevent introduction of disease into the farm and/or to control its spread within the farm. If applicable, measures may include:

- Vehicle sprays and wheel dips should be presented at the farm entrance, and before entrance to production areas.

- Footbaths should be placed at the front of every pig house, with suitable disinfectants. Footbaths should be replaced regularly to ensure effectiveness of disinfection.

- 4.1.4 All incoming animals should undergo the appropriate quarantine measures.
- 4.1.5 The vaccination program should be adopted against the diseases as required by competent authorities and should be in a written form. Only vaccines approved by a competent authority in the country must be used.
- 4.1.6 The farm should have a written deworming programme if deworming is required.
- 4.1.7 In the case of outbreak of disease or suspicion of epidemic disease, farm shall strictly follow the related laws or regulations by competent authority.

Treatment

- 4.1.8 Disease therapy and antimicrobial use shall be under supervision of farm veterinarian or person authorised by farm veterinarian, taking into consideration the relevant international standards or ASEAN standards such as ASEAN Guidelines for The Prudent Use of Antimicrobial in Livestock.
- 4.1.9 The use of needle during injection shall be done in such a way that no part of broken needle remains in pig body and the corrective action for remained needle in pig body shall be in place.

Animal welfare

- 4.1.10 Pig shall be raised in appropriate practices with good sanitary condition. An adequate living space, feed and water shall be provided.
- 4.1.8 For the management of sick, injured, or disable pigs and considered not to be treated, euthanasia shall be done humanely by veterinarian or trained personnel under supervision of veterinarian.

5- Transportation

- 5.1 Transportation should be done according to the OIE guidelines of animal welfare.
- 5.2 Vehicle and transportation equipment must be cleaned and disinfected before transporting animals.
- 5.3 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.

6- Record keeping

All records of important practices especially in animal health and disease control shall be kept for traceability purpose. This includes but not limited to records on farm management, production management, disease control prevention and medication, and environmental management:

- 6.1 Pig card such as sex, breed, date of birth, marking number, birth weight, weaning weight, identification numbers of boar and sow;
- 6.2 In case of boar and sow, breeding information is needed to be recorded such as age, weight at the beginning of mating age, heat testing, mating, parturition and weaning;
- 6.3 Data of entry and exit of pigs;
- 6.4 Data of vehicles and visitors entry and exit;
- 6.5 Data of health examination, disease therapy, and animal health care such as medication, medical supply, order for medicated feed, recommendation for authorised person from veterinarian, information on antimicrobial use, medical supplies, vaccination, deworming, and other chemical usage;
- 6.6 Feed management such as feed receiving, mixing and feeding;
- 6.7 Water management such as water testing report, schedule maintenance of drinking water system;
- 6.8 Health examination and training record of farm personnel.

7- References

- 7.1 Codex Alimentarius standards available from <http://www.codexalimentarius.org/>
- 7.2 OIE Terrestrial Animal Health Codes available from <http://www.oie.int>
- 7.3 TAS 6403-2015, Good Agricultural Practices for Pig Farm, Ministry of Agriculture and Cooperatives, Thailand, 2015.
- 7.4 ASEAN Guidelines for The Prudent Use Antimicrobial In Livestock available from <http://www.asean.org>