THAI AGRICULTURAL STANDARD

TAS 9033-2010

PRINCIPLES FOR ESTABLISHMENT OF COMPARTMENTALISATION FOR LIVESTOCK

National Bureau of Agricultural Commodity and Food Standards
Ministry of Agriculture and Cooperatives

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Technical Committee on the Elaboration of Thai Agricultural Standard for Principles for establishment of compartmentalisation for livestock

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Poultry and livestock production in Thailand have been continuously developed. The current situation of the disease emergence such as avian influenza and swine influenza has substantial effects on the economy and public health. Consequently, the World Organization for Animal Health (OIE) has established the application of compartmentalisation as one of disease control programme based on farm management, sanitation and biosecurity measures, together with surveillance and disease control. The implementation of compartmentalization is to promote animal health and facilitate trade in animals and their products, notably in the event of outbreaks, which will benefit international trade and consumer’s safety.

This standard is based on the following documents:


NOTIFICATION OF THE MINISTRY OF AGRICULTURE AND COOPERATIVES
SUBJECT: THAI AGRICULTURAL STANDARD:
PRINCIPLES FOR ESTABLISHMENT OF COMPARTMENTALISATION
FOR LIVESTOCK
UNDER THE AGRICULTURAL STANDARDS ACT B.E. 2551 (2008)

Whereas the Agricultural Standards Committee deems it necessary to establish
an agricultural standard on Principles for establishment of compartmentalisation for livestock
as a voluntary standard in accordance with the Agricultural Standards Act B.E. 2551 (2008)
to promote such agricultural commodity to meet its quality and safety standards.

By virtue of Section 5, 15 and 16 of the Agricultural Standards Act B.E. 2551 (2008),
the Minister of Agriculture and Cooperatives hereby issues this Notification on Establishment
of Thai Agricultural Standard for Principles for establishment of compartmentalisation for
livestock (TAS 9033-2010), as voluntary standard, details of which are attached herewith.

Notified on 7 September B.E. 2553 (2010)

(Mr. Theera Wongsamut)
Minister of Agriculture and Cooperatives
1. **SCOPE**

This standard provides principles for establishment of compartmentalisation for livestock comprised of general condition, risk assessment, biosecurity measures, biosecurity plan based on the principles of Hazard Analysis and Critical Control Points (HACCP), traceability, documentation, disease surveillance and action plans in case of emergency response and notification, in order to enhance and support animal health, consumer safety as well as international trade.

2. **DEFINITIONS**

For the purpose of this standard:

2.1 Compartment means an animal subpopulation contained in one or more establishments under a common biosecurity management system with a distinct health status with respect to a specific disease for which required surveillance, control and biosecurity measures have been applied for the purpose of international trade.

2.2 Livestock means land animals raising as draft animals or as food.

2.3 Biosecurity management means the preventive management system applied for mitigation of risks posed by infectious diseases into or out of the production units.

2.4 Surveillance means the systematic monitoring of animal population for pathogen(s) or disease(s). The frequency and type of surveillance is based on the epidemiology of the specific pathogen(s) or disease(s).

2.5 Traceability means the ability to follow the movement of a food through specified stage(s) of production, processing and distribution.

2.6 Disease free status means the recognition of farm/compartment where the surveillance plan has been applied. The evidences of clinical and laboratory results demonstrate no incident of specific disease infection in the specified timeframe.

3. **INTRODUCTION**

The Office International des Epizooties (OIE) or World Organisation for Animal Health has issued the application of compartmentalisation as one of disease control program based on farm management, sanitation and biosecurity measures, together with surveillance and disease control, to enhance animal health and facilitate international trade.

Compartmentalisation has increased the role in international trade for animals and their products due to the fact that it can be carried out regardless of the geographical conditions. In addition, in case of
outbreaks in the surrounding areas, the disease free status of compartment can still be maintained by stringent application of measures on disease control, biosecurity, disease surveillance and traceability.

4. PRINCIPLES

To establish the compartment being disease free status either a specific disease or diseases, the compartment shall be clearly defined for its operations, indicating the location of all its components and related function units, e.g. feed mills, slaughterhouses, rendering plants, their interrelationships amongst farms within compartment and the ability to an epidemiological separation between the animals in a compartment and subpopulations with a different health status.

4.1 SEPARATION OF A COMPARTMENT FROM POTENTIAL SOURCES OF INFECTION

4.1.1 Physical or spatial factors that affect the status of biosecurity in a compartment

Compartment shall be primarily based on management and biosecurity measures. Consideration of geographical factors and surrounding areas prone to impact the disease free status are essential to ensure an adequate separation between the animals in a compartment and subpopulations with a different health status. The achievement of compartmentalisation shall take the following factors into account:

4.1.1.1 Disease status in adjacent areas and related function units for epidemiologically linkage to the compartment

4.1.1.2 Location, disease status and biosecurity measures of the surrounding compartment or adjacent areas which the distance and physical separation from:

(1) Animals outside a compartment that may have different health status, including wildlife and migratory routes

(2) Slaughterhouses, rendering plants or feed mills;

(3) Markets, animal fairs, agricultural shows, sporting events, zoos and other areas of animal concentration.

4.1.2 Infrastructure factors

For effectiveness of biosecurity measures within a compartment, consideration should be given to:

(1) Fencing or other effective means of physical separation

(2) Facilities for people entry including access control, changing area and showers

(3) Vehicle access including washing and disinfection procedures

(4) Animal transportation system

(5) Isolation facilities for introduced animals

(6) Facilities for tools and equipment storages

(7) Facilities for feed and veterinary products storages

(8) Facilities for carcasses, manure and waste disposal
4.1.3 Biosecurity plan

The management of the compartment shall be designed and monitored for the effectiveness of biosecurity plan of the specified disease.

Biosecurity plan consists of:

4.1.3.1 Risk factors with high potential associated with disease introduction and spread into a compartment, e.g. animal movement, pest and carriers, spreading of disease through air, accessibility of people, biological products, tools and equipment, vehicles, feed, water sources and drainage. Survivability of the agent in the environment should also be taken into consideration.

4.1.3.2 Critical control points of each risk factor, as specified in Section 4.1.3.1

4.1.3.3 Measures to mitigate exposure for each critical control point

4.1.3.4 Standard operating procedures for biosecurity plan including implementation, maintenance, monitoring of the measures, corrective actions, verification of the process and record keeping

4.1.3.5 Contingency plan addressing potential changes of the disease status

4.1.3.6 Reporting procedures and changing of operation as specified by Department of Livestock Development (DLD)

4.1.3.7 Educating and training programs for all personnel, responsible for biosecurity measures and their evaluations

4.1.3.8 Availability of continuous disease surveillance plan by providing the evidence of risk mitigation in all possible pathways in accordance with the principles of HACCP system and sufficient to assess the efficacy of biosecurity plan. Re-assess the biosecurity risks of all operations of the compartment regularly or at least once a year in order to properly adjust the biosecurity plan.

4.1.4 Traceability system

All animals within a compartment shall be marked and registered in such a way that their history and movements can be documented and audited. In case where individual identification may not be feasible, traceability should be under the supervision of the DLD.

All animal movements into and out of the compartment shall be recorded at the compartment level, to be used as database for risk assessment and certification by the DLD.

4.2 DOCUMENTATION

Documents and records shall provide clear evidence showing the efficacy of biosecurity measures, surveillance, traceability and management operations which are under the supervision of the DLD. Evaluation of a compartment shall base on animal health records, notably the surveillance of the OIE listed diseases. Document shall be provided as follows:
(1) Animal movement  
(2) Records of production, including birth and death  
(3) Source of feed  
(4) Laboratory test results  
(5) Access log  
(6) Records of illness and treatment  
(7) Vaccination records consist of vaccination programs, types of vaccine for a purpose of disease prevention under supervision of licensed veterinarian  
(8) Use of animal drugs or hazard substances, under supervision of licensed veterinarian  
(9) Biosecurity plans and operation records  
(10) Personnel training records  
(11) Other records related to disease control as specified by the DLD  

These documents shall be kept for the time period as specified by the DLD.

**4.3 DISEASE SURVEILLANCE**

Surveillance plan should be suitable for the level and risk that are assessed and identified. Surveillance plan shall consist of:  
(1) Internal surveillance: samples are collected from farms within a compartment to determine disease prevalence or to perform initial disease diagnosis  
(2) External surveillance: samples are collected from the area outside a farm in order to ensure the effective outcome of biosecurity plan

**4.4 DIAGNOSIS CAPABILITIES AND PROCEDURES**

Diagnostic laboratory of the compartment:  
(1) Shall be laboratory of the DLD or officially recognised by the DLD;  
(2) Shall follow the OIE Manual of Diagnostic Tests and Vaccines for Terrestrial Animals and the Thai Agricultural Standard related to animal disease diagnosis;  
(3) Shall have quality assurance system of the diagnostic test result;  
(4) Shall have rapid reporting system of the disease test result to the DLD’s officer;  
(5) If necessary, samples may be sent to OIE reference laboratory for re-confirmation.

**4.5 EMERGENCY RESPONSE AND NOTIFICATION**

In the event of suspicious case or disease outbreak found, the contingency plans for the compartment shall be followed and the DLD shall be informed. If the case is confirmed, DLD shall notify the trading partners.
Appendix A

Guidance for Risk Analysis and Biosecurity Plan in accordance with the Principles of Hazard Analysis and Critical Control Point (HACCP) System

A.1 Risk Analysis

Components of risk analysis are as follows:

A.1.1 Risk Identification
A.1.2 Risk Assessment
A.1.3 Risk Management
A.1.4 Risk Communication.

A.2 Biosecurity Plan in accordance with the HACCP principle

HACCP is a management system for quality control of livestock industry through the analysis and control of hazards. The principles of HACCP are:

A.2.1 Conduct a hazard analysis
A.2.2 Determine the Critical Control Points (CCPs)
A.2.3 Establish critical limit (s)
A.2.4 Establish a system to monitor control of the CCP
A.2.5 Establish corrective actions and actions to be taken when the monitoring indicates that a particular CCP is not under control
A.2.6 Establish procedures for verification to confirm that the HACCP system is working effectively
A.2.7 Establish documentation concerning all procedures and records appropriate to these principles and their applications.