

# CHAPTER 3

## Status of Animal Health in Thailand

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A range of surveillance activities, together with specific disease control programmes has been implemented to maintain the good health status of animal population in Thailand. This chapter provides information of animal health status in Thailand for significant diseases.

### National notifiable animal diseases

In Thailand, a national list of notifiable animal diseases was agreed by DLD based on the OIE listed diseases and the Animal Epidemics Act 1956 and its revision 1999. The list of notifiable animal diseases in Thailand includes 55 terrestrial animal diseases (Table 3-1) and 36 aquatic animal diseases (Table 3-2). The national list of notifiable animal disease has been regularly reviewed, according to the OIE listed diseases and national concerns. After its revision, the list will be announced in the Ministry proclamation as required by law. The diseases are included for surveillance purposes, so that unusual incidence of animal morbidity or mortality of animal diseases and diseases of public health significance can be detected quickly. This requirement to report notifiable diseases is enforced by law. Based on the Animal Epidemics Act, if an animal is sick or dies from an epidemic disease where it is known, or if an animal becomes sick or dies suddenly from unknown cause, the owner shall notify to the local official, inspector, or veterinarian within twenty-four hours. After that, veterinarians have to investigate on the premise immediately.

### National reporting system for animal diseases

The Animal Disease Reporting System (ADRS) in Thailand can be showed in the diagram (Figure 3-1). The national reporting system for animal disease is a joint effort of Department of Livestock Development (DLD), Department of Fisheries (for aquatic animal diseases), Ministry of Public Health (for zoonotic diseases) and veterinary diagnostic laboratories. It is an important component of the national animal health surveillance system. By providing timely summary-level information on animal health status to our trading partners and international organizations, it helps Thailand protect and share the global market for animals and animal products.

**Table 3-1. Classification of notifiable diseases of terrestrial animals in Thailand**

Group/Definition	Notifiable terrestrial animal diseases	Response
<b>Group 1</b> Contagious diseases that cause huge damage and take them as the emergency cases when the diseases occur	<ul style="list-style-type: none"> <li>- Foot-and-mouth disease</li> <li>- Haemorrhagic septicaemia</li> <li>- Anthrax</li> <li>- Blackleg</li> <li>- Classical swine fever</li> <li>- Newcastle disease</li> <li>- Avian influenza</li> </ul>	Immediate notification and response (with laboratory confirmation)
<b>Group 2</b> Exotic diseases	<ul style="list-style-type: none"> <li>- Nipah viral encephalitis</li> <li>- Bovine Spongiform Encephalopathy (BSE)</li> <li>- Rinderpest</li> </ul>	Immediate notification and response (with laboratory confirmation)
<b>Group 3</b> Zoonotic diseases	<ul style="list-style-type: none"> <li>- Rabies</li> <li>- Leptospirosis</li> </ul>	Coordinate with Ministry of Public Health for further investigation and response (with laboratory confirmation)
<b>Group 4</b> Reportable diseases based on laboratory surveillance	<p><b>MULTIPLE SPECIES DISEASES</b></p> <ul style="list-style-type: none"> <li>- Brucellosis</li> <li>- Japanese Encephalitis</li> <li>- Aujeszky's disease</li> <li>- Trichinosis</li> <li>- Vesicular Stomatitis</li> <li>- Melioidosis</li> <li>- Salmonellosis</li> </ul> <p><b>CATTLE DISEASES</b></p> <ul style="list-style-type: none"> <li>- Contagious Bovine Pleuro Pneumonia (CBPP)</li> <li>- Paratuberculosis</li> <li>- Tuberculosis</li> </ul> <p><b>SHEEP AND GOAT DISEASES</b></p> <ul style="list-style-type: none"> <li>- Caprine arthritis encephalitis</li> </ul> <p><b>EQUINE DISEASES</b></p> <ul style="list-style-type: none"> <li>- Surra</li> <li>- Epizootic Lymphangitis</li> <li>- Equine Infectious Anaemia</li> <li>- Glanders</li> <li>- Dourine</li> <li>- Venezuelan equine encephalomyelitis</li> <li>- African Horse Sickness</li> <li>- Equine Piroplasmiasis</li> <li>- Horse Pox</li> <li>- Equine Rhinopneumonitis</li> <li>- Contagious Equine Metritis</li> <li>- Horse Mange</li> <li>- Equine Encephalomyelitis</li> <li>- Infectious arteritis of horse</li> <li>- Equine influenza (Type A virus)</li> </ul>	<p>Notification on monthly basis and response</p> <p><i>(Remark: Immediate notification and response must be also carried out if the disease spread quickly and cause huge impacts)</i></p>

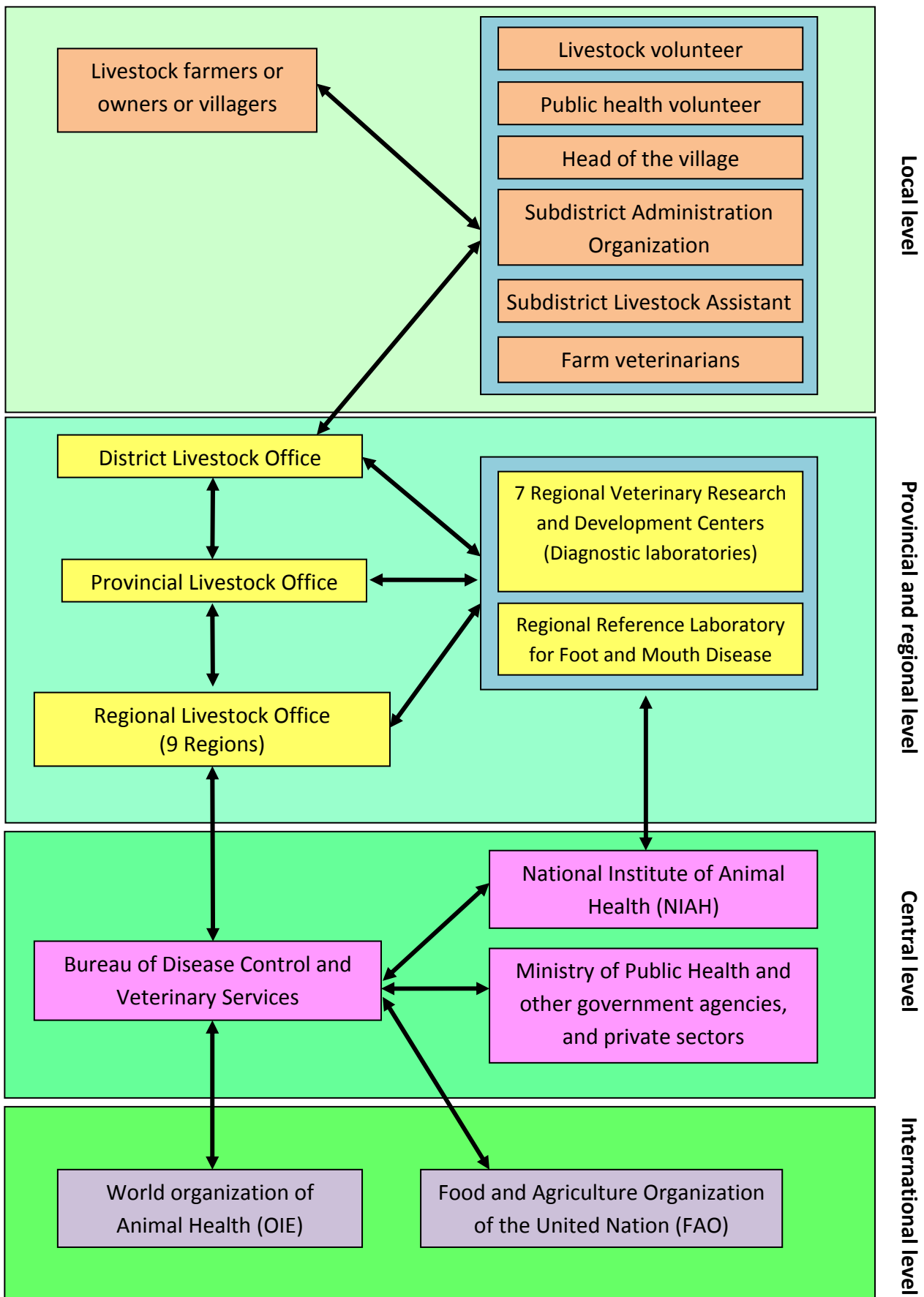
Group/Definition	Notifiable terrestrial animal diseases	Response
	<p><b>SWINE DISEASES</b></p> <ul style="list-style-type: none"> <li>- Atrophic Rhinitis</li> <li>- Swine influenza</li> <li>- Porcine reproductive and respiratory syndrome (PRRS)</li> </ul> <p><b>AVIAN DISEASES</b></p> <ul style="list-style-type: none"> <li>- Duck plague (Duck virus enteritis)</li> <li>- Fowl cholera</li> <li>- Pullorum</li> <li>- Infectious Laryngotracheitis</li> </ul> <p><b>BEE DISEASES</b></p> <ul style="list-style-type: none"> <li>- American Foulbrood Disease</li> <li>- European Foulbrood Disease</li> <li>- Nosema Disease</li> <li>- Chalkbrood Disease</li> <li>- Sacbrood Disease</li> <li>- Black Disease</li> <li>- Varroa Disease</li> <li>- Tropilaelaps Disease</li> <li>- Acarine Disease</li> <li>- Braula Disease</li> </ul>	

**Table 3.2. Classification of notifiable diseases of aquatic animals in Thailand**

Type of aquatic animals	Notifiable aquatic animal diseases
<b>FINFISH DISEASES</b>	Epizootic haematopoietic necrosis
	Epizootic ulcerative syndrome
	Gyrodactylosis ( <i>Gyrodactylus salaris</i> )
	Infectious haematopoietic necrosis
	Infectious salmon anaemia
	Koi herpesvirus disease
	Red sea bream iridoviral disease
	Spring viraemia of carp
	Viral haemorrhagic septicaemia
	iridovirus disease
	<i>Oncorhynchus masou</i> virus disease (OMV)
	Bacterial kidney disease (BKD)
	Streptococcosis in aquatic animal
	<b>MOLLUSC DISEASES</b>
Bonamia disease	
Mikrocytosis	
Infection with <i>Marteilia refringens</i>	
Perkissosis disease	
Multinucleate sphere x disease (MSX)	
<b>CRUSTACEAN DISEASES</b>	Infection with <i>Xenohalictis californiensis</i>
	Crayfish plague ( <i>Aphanomyces astaci</i> )
	Hepatopancreatic parvovirus disease
	Infectious hypodermal and haematopoietic necrosis
	Infectious myonecrosis

Type of aquatic animals	Notifiable aquatic animal diseases
	Spherical baculovirus ( <i>Penaeus monodon</i> -type baculovirus)
	Taura syndrome
	Tetrahedral baculovirus ( <i>Baculovirus penaei</i> )
	White spot disease
	White tail disease
	Septicaemia cutaneous ulcerative disease
	Yellow head disease
	Necrotising hepatopancreatitis bacterium disease (NHPB)
	Nodavirus disease
<b>AMPHIBIAN DISEASES</b>	Infection with <i>Batrachochytrium dendrobatidis</i>
	Infection with ranavirus
	Poxvirus in crocodile

**Figure 3-1. Animal Disease Reporting System in Thailand**



## Reporting to the World Organisation for Animal Health (OIE)

As a member country of the OIE, Thailand provides information on Thailand's status for terrestrial and aquatic animal diseases listed through six-monthly reports and information about the occurrence of these diseases. In addition, DLD also assembles information on animal population, veterinary personnel and infrastructure through an annual questionnaire. Table 3.3 and 3.4 describe the Status of OIE-listed terrestrial and aquatic animal diseases in Thailand, 2011

**Table 3.3. Status of OIE-listed terrestrial animal diseases in Thailand, 2011**

Disease	Status	Date of last occurrence or remarks
<b>MULTIPLE SPECIES DISEASES</b>		
Anthrax	Absent	2000
Aujeszky's disease	Absent	2004; Surveillance and control programme
Bluetongue	Serological evidence	No clinical disease reported
Brucellosis ( <i>Brucella abortus</i> )	Present	National control and eradication programme (Brucellosis, Tuberculosis, Paratuberculosis free farm project)
Brucellosis ( <i>Brucella melitensis</i> )	Present	National control and eradication programme (BTP free farm project)
Brucellosis ( <i>Brucella suis</i> )	Present	Laboratory surveillance
Crimean Congo haemorrhagic fever	Free	Never occurred
Echinococcosis/hydatidosis	Not reported	2006 in wild species
Foot and mouth disease	Present	National FMD control and eradication plan, 2008-2015
Heartwater	Absent	
Japanese encephalitis	Absent	Laboratory surveillance
Leptospirosis	Present	August 2011; Laboratory surveillance
New world screwworm ( <i>Cochliomyia hominivorax</i> )	Free	Never occurred
Old world screwworm ( <i>Chrysomya bezziana</i> )	Free	Never occurred
Paratuberculosis	Present	November 2011, Limited distribution; National control and eradication programme
Q fever	Free	Never occurred
Rabies	Present	Control and eradication programme; expect to be eradicated by 2020
Rift Valley fever	Free	Never occurred
Rinderpest	Free	1956; officially recognised by the OIE as free from infection in 2004
Trichinellosis	Present	Limited distribution in backyard pigs; Targeted surveillance program
Tularemia	Absent	
Vesicular stomatitis	Free	Never occurred
West Nile fever	Free	Never occurred
<b>CATTLE DISEASES</b>		
Bovine anaplasmosis	Present	November 2011

Disease	Status	Date of last occurrence or remarks
Bovine babesiosis	Present	October 2011
Bovine genital campylobacteriosis	Absent	Laboratory surveillance
Bovine spongiform encephalopathy	Free	Never occurred; National risk-based surveillance programme
Bovine tuberculosis	Present	August 2011, National control and eradication programme
Bovine viral diarrhoea	Absent	Laboratory surveillance
Contagious bovine pleuropneumonia	Free	Never occurred
Enzootic bovine leukosis	Absent	Laboratory surveillance
Haemorrhagic septicaemia	Present	December 2011, Sporadic/limited distribution, vaccination campaign
Infectious bovine rhinotracheitis/ infectious pustular vulvovaginitis	Absent	Laboratory surveillance
Lumpy skin disease	Free	Never occurred
Theileriosis	Present	Laboratory surveillance
Trichomonosis	Absent	Laboratory surveillance
Trypanosomosis (tsetse-transmitted)	Free	Never occurred
<b>SHEEP AND GOAT DISEASES</b>		
Caprine arthritis/encephalitis	Absent	2009; Laboratory surveillance programme
Contagious agalactia	Absent	
Contagious caprine pleuropneumonia	Free	Never occurred
Enzootic abortion of ewes (ovine chlamydiosis)	Free	Never occurred
Maedi-visna	Free	Never occurred
Nairobi sheep disease	Free	Never occurred
Ovine epididymitis ( <i>Brucella ovis</i> )	Absent	
Peste des petits ruminants	Free	Never occurred; recognized as free, published in OIE bulletin in 2006
Salmonellosis ( <i>S. abortusovis</i> )	Absent	
Scrapie	Free	Never occurred
Sheep pox and goat pox	Free	Never occurred
<b>EQUINE DISEASES</b>		
African horse sickness	Free	Never occurred
Contagious equine metritis	Free	Never occurred
Dourine	Absent	
Equine encephalomyelitis (Eastern)	Free	Never occurred
Equine encephalomyelitis (Western)	Free	Never occurred
Equine infectious anaemia	Absent	Laboratory surveillance
Equine influenza	Absent	Laboratory surveillance
Equine piroplasmosis	Absent	Laboratory surveillance
Equine rhinopneumonitis	Free	Never occurred
Equine viral arteritis	Free	Never occurred
Glanders	Absent	
Surra ( <i>Trypanosoma evansi</i> )	Present	2010
Venezuelan equine encephalomyelitis	Free	Never occurred
<b>SWINE DISEASES</b>		
African swine fever	Free	Never occurred

Disease	Status	Date of last occurrence or remarks
Classical swine fever	Present	December 2011, Surveillance and control programme
Nipah virus encephalitis	Free	Never occurred in pigs; Surveillance programme in bats and pigs
Porcine cysticercosis	Absent	Laboratory surveillance
Porcine reproductive and respiratory syndrome	Present	Surveillance and control programme
Swine vesicular disease	Free	Never occurred
Transmissible gastroenteritis	Absent	Laboratory surveillance
<b>AVIAN DISEASES</b>		
Avian chlamydiosis	Absent	
Avian infectious bronchitis	Present	Surveillance and control programme
Avian infectious laryngotracheitis	Absent	2004; Surveillance and control programme
Avian mycoplasmosis ( <i>M. gallisepticum</i> )	Absent	Laboratory surveillance
Avian mycoplasmosis ( <i>M. synoviae</i> )	Absent	Laboratory surveillance
Duck virus hepatitis	Absent	Laboratory surveillance
Fowl cholera	Present	Laboratory surveillance
Fowl typhoid	Absent	Laboratory surveillance
Highly pathogenic avian influenza	Free	12 Nov 2008; Surveillance and control programme
Infectious bursal disease (Gumboro disease)	Present	Surveillance and control programme
Low pathogenic notifiable avian influenza (poultry)	Absent	Laboratory surveillance
Marek's disease	Absent	2009; Surveillance and control programme
Newcastle disease	Absent	2004; Surveillance and control programme
Pullorum disease	Absent	2004; Surveillance programme
Turkey rhinotracheitis	Free	Never occurred
<b>LAGOMORPH DISEASES</b>		
Myxomatosis	Free	Never occurred
Rabbit haemorrhagic disease	Free	Never occurred
<b>BEE DISEASES</b>		
Acaripisosis of honey bees	Free	Never occurred ; Laboratory surveillance
American foulbrood of honey bees	Free	Never occurred
European foulbrood of honey bees	Free	Never occurred
Small hive beetle infestation ( <i>Aethina tumida</i> )	Free	Never occurred ; Laboratory surveillance
<i>Tropilaelaps</i> infestation of honey bees	Free	Never occurred ; Laboratory surveillance
Varroosis of honey bees	Free	Never occurred ; Laboratory surveillance
<b>OTHER DISEASES</b>		
Camel pox	Free	Never occurred
Leishmaniosis	Not reported	Laboratory surveillance



**Table 3.4. Status of OIE-listed aquatic animal diseases in Thailand, 2011**

Disease	Status	Date of last occurrence or remark
<b>FINFISH DISEASES</b>		
Epizootic haematopoietic necrosis	Free	Never occurred
Epizootic ulcerative syndrome	Absent	
Gyrodactylosis ( <i>Gyrodactylus salaris</i> )	Free	Never occurred
Infectious haematopoietic necrosis	Free	Never occurred
Infectious salmon anaemia	Free	Never occurred
Koi herpesvirus disease	Locally present	Limited distribution
Red sea bream iridoviral disease	Free	Never occurred
Spring viraemia of carp	Free	Never occurred
Viral haemorrhagic septicaemia	Free	Never occurred
<b>MOLLUSC DISEASES</b>		
Abalone viral mortality	Free	Never reported; Precaution at the border
Infection with <i>Bonamia exitiosa</i>	Free	Never occurred
Infection with <i>Bonamia ostreae</i>	Free	Never occurred
Infection with <i>Marteilia refringens</i>	Free	Never occurred
Infection with <i>Perkinsus marinus</i>	Free	Never occurred
Infection with <i>Perkinsus olseni</i>	Free	Never occurred
Infection with <i>Xenohalotis californiensis</i>	Free	Never occurred
<b>CRUSTACEAN DISEASES</b>		
Crayfish plague ( <i>Aphanomyces astaci</i> )	Free	Never occurred
Hepatopancreatic parvo virus disease	Free	Never reported
Infectious hypodermal and haematopoietic necrosis	Locally present	Targeted surveillance
Infectious myonecrosis	Free	Never occurred
Spherical baculovirusis ( <i>Penaeus monodon</i> -type baculovirus)	Absent	Precautions at the border
Taura syndrome	Locally present	Targeted surveillance
Tetrahedral baculovirusis ( <i>Baculovirus penaei</i> )	Not reported in 2009	Precautions at the border
White spot disease	Locally present	Targeted surveillance
White tail disease	Locally present	Targeted surveillance
Yellow head disease	Locally present	Targeted surveillance
<b>AMPHIBIAN DISEASES</b>		
Infection with <i>Batrachochytrium dendrobatidis</i>	Free	Never occurred
Infection with ranavirus	Locally present	2007; Targeted surveillance