

### THAI AGRICULTURAL STANDARD

TAS 6403-2009

# GOOD AGRICULTURAL PRACTICES FOR PIG FARM

National Bureau of Agricultural Commodity and Food Standards
Ministry of Agriculture and Cooperatives
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#### **UNOFFICAL TRANSLATION**



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# GOOD AGRICULTURAL PRACTICES FOR PIG FARM

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

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Currently, commercial pig production has been greatly improved. The pig production has been supported by knowledge and technology know-how to the market requirements. However, there are persistent of disease problems resulted in the burden of higher production cost to the pig farmers. The Agricultural Standard Committee deems it necessary to establish the Standard for Good Agricultural Practices for Pig Farm to be used as guidance for pig farmers to raise healthy pigs in a hygienic manner. This is therefore to produce safe and quality fresh pork and products to be accepted in the market place. This standard could also be used as a reference to obtain farm certification.

This standard is based on the following documents:

Department of Livestock Development. 1999. Regulations on Pig Farming of Thailand.

Department of Livestock Development. 2001. Regulations on the Protection and Welfare of Pig at the Farm.

Bureau of Livestock Standards and Certification. Department of Livestock Development. 2003. Manual on the Practical Operations: the Regulations on Pig farming for Farmers.

Bureau of Livestock Standards and Certification. Department of Livestock Development. 2003. Manual on the Practical Operations: the Regulations on Pig Farming for Farm Veterinary Supervisor.

OIE Animal Production Food Safety Working Group. 2006. Guide to Good Farming Practices for Animal Production Food Safety. Rev. Sci. Tech. Off. Int. Epiz. 25(2): 823-836.



#### NOTIFICATION OF THE NATIONAL COMMITTEE ON AGRICULTURAL COMMODITY AND FOOD STANDARDS SUBJECT: THAI AGRICULTURAL COMMODITY AND FOOD STANDARD: GOOD AGRICULTURAL PRACTICE FOR PIG FARM B.E.2551 (2008)

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Whereas the Agricultural Standards Committee deemed necessary to establish an agricultural standard on Good Agricultural Practices for Pig Farm as voluntary standard in accordance with the Agricultural Standards Act B.E. 2551 (2008) to promote such agricultural commodity standard to meet its quality standard and safety.

By virtue of Section 5, Section 15 and 16 of the Agricultural Standards Act B.E. 2551 (2008), the Minister of Agriculture and Cooperatives hereby issued this Notification of Thai Agricultural Standards: Good Agricultural Practices for Pig Farm (TAS 6403-2009) to be a voluntary standard, details of which are attached herewith

Notified on 30 September B.E.2552 (2009)

(Mr. Theera Wongsamut) Minister of Agriculture and Cooperatives

# THAI AGRICULTURAL STANDARD GOOD AGRICULTURAL PRACTICES FOR PIG FARM

#### 1 SCOPE

This Thai agricultural standard establishes good agricultural practices for pig farm management for the production of healthy pig, resulting in good quality pork and thus safe for consumers.

#### 2 DEFINITIONS

For the purpose of this standard:

- 2.1 **Pig** means animal in the family of Suidae with the scientific name of "Sus domesticus" and is used for consumption.
- 2.2 **Pig farm** means an establishment that pigs are raised for commercial purpose covering raising area, place for feed storage and preparation, area for carcass destruction and area for water and animal waste management.
- 2.3 **House** means a building or roofed construction which may provide with pens for pig raising.
- 2.4 **Open house system** means the house where its condition and temperature are varied according to the outer atmosphere.
- 2.5 **Close house system** means the house that the environment, such as temperature, humidity, ventilation and light appropriately controlled for pig raising.
- 2.6 **Vector** means animal, avian or insect that can transmit pathogenic diseases to pigs.

#### 3 TYPE OF PIG RAISING

The types of pig raising are described as in Appendix B.

#### 4 REQUIREMENTS AND INSPECTION METHODS

Requirements and inspection methods shall be as in Table 1.

**Table 1 Requirements and Inspection Methods** 

Items	Requirements	Inspection Methods
1. Composition of farm 1.1 Location	1.1.1 The farm shall not be located in the risky area exposed to physical, chemical and biological contamination.	1.1.1 Inspection the environmental setting of farm location
	1.1.2 The farm shall be away from abattoir and live animal market for prevention of transmission of diseases.	1.1.2 Inspection the environmental setting of farm location
1.2 Farm layout	1.2.1 Farm layout shall be segregated into areas for raising, feed storage, sick animals, carcass destruction, and distribution.	1.2.1 Check farm layout and operating area
	1.2.2 Layout shall be designed with disease preventive measures.	1.2.2 Check farm layout
1.3 Housing	1.3.1 House shall have adequate space for hygienic pig raising.	1.3.1 Check the size of area for pig raising
	1.3.2 House shall be strong, and easy to clean and maintain.	1.3.2 Visual inspection of the structure
	1.3.3 House shall be safe for pigs and workers such as floor not too rough or slippery.	1.3.3 Visual inspection of housing and equipment
	1.3.4 Close house system shall have measures to operate in case of electrical outage or failure.	1.3.4 Visual inspection of housing and operations
2. Feed	2.1 Feed shall have quality and standard in accordance with the Feed Quality Control Act.	2.1 Visual inspection and check the records of feed analysis or source
	2.2 In case of self mixed feed, banned substances shall not be used according to Feed Quality Control Act.	2.2. Check farm records
	2.3 All pigs can access to feed. Adequate containers and feeding tools shall be provided.	2.3 Visual inspection of number and size of feed container and check the record of feeding
	2.4 Feed and raw materials shall be kept to prevent contamination or deterioration.	2.4 Visual inspection of storage area and method of the storage of feed and raw materials

Items	Requirements	Inspection Methods
	2.5 Medicated feed shall be under supervision of farm veterinarian.	2.5 Check the prescription of drugs used in feed
	2.6 Storage area for medicated feed shall be separated from typical feed shall with tag identification.	2.6 Check the storage area of
3. Water	3. Water shall be clean, safe and adequate to be used on farm.	3.Visual inspection of water supply management
4. Farm management 4.1 Manual for farm management	4.1.1 Availability of farm management manual illustrate the details of the important farm operations e.g. raising, farm management, recording, animal welfare, animal hygiene and carcass destruction and animal waste disposal.	
4.2 Personnel	4.2.1 Availability of licensed veterinarian to supervise pig health.	4.2.1 Check licenses of veterinarian and pig farm veterinary supervisor
	4.2.2 Number of personnel shall be corresponded to the number of pigs.	4.2.2 Check personnel record
4.3 Housing management, cleaning and maintenance	4.3 Cleaning and maintenance of house and equipment shall be in a good and hygienic condition.	4.3 Check the cleanliness of housing and equipment and check the record of cleaning
5. Animal Health 5.1 Disease prevention and control	5.1.1 Availability of preventive and control measures of diseases introducing into farm by persons and vehicles, including records of such activities for inspection.	5.1.1 Check the preventive and control measures and the records of farm entry and exit
	5.1.2 Availability of preventive measures of animal disease carrier and good hygienic practices on farm to prevent the harbouring of disease.	5.1.2 Visual inspection of practices and check record on the control of animal disease carrier
	5.1.3 Availability of preventive and control measures on the disease transmission between houses.	5.1.3 Inspection of preventive and control measures of disease transmission

Items	Requirements	Inspection Methods
	5.1.4 Availability of the immunisation program and control programme of ecto- and endoparasites.	5.1.4 Visual inspection and check the records of animal health care
	5.1.5 If there is an outbreak or suspicion of epidemic disease, follow the requirements of the laws and regulations on animal epidemic disease and the recommendation of the Department of Livestock Development.	5.1.5 Check the record of the compliance to the laws and regulations
6. Animal welfare	6. Pig shall be treated in comfortable conditions. In case of injury, sickness or deformity, pig shall be appropriately treated to avoid from suffering.	6. Visual inspection and check the records
7. Environment	7. There shall be proper disposal of refuse, manure, and discarded carcasses. Water treatment shall be in accordance with the relevant laws and regulations.	
8. Record keeping	8.1 Important operations on farm management that affect animal health and disease control shall be recorded.	8.1 Check the records
	8.2 Records shall be kept for inspection for at least 3 years.	8.2 Check the records

#### 5. GUIDANCE ON GOOD AGRICULTURAL PRACTICES FOR PIG FARM

Recommendations for good agricultural practices for pig farm are aimed to provide pig farmers to use as guidance on pig farming practices. The details of such recommendations are explained in Appendix A.

#### APPENDIX A

# GUIDANCE ON GOOD AGRICULTURAL PRACTICES FOR PIG FARM

(Item 5)

#### A.1 COMPOSITIONS OF FARM

#### A.1.1 Location

- A.1.1.1 Farm shall be located in appropriate area, away from community and public water resource, convenient transportation and not flooding.
- A.1.1.2 Farm shall not be located in the risky area exposed to physical, chemical and biological contamination and pollution that may be harmful to human and animal health.
- A1.1.3 Farm shall be located away from abattoir and live animal market for at least 5 km for prevention of disease transmission. Otherwise the farm shall have disease control measures.

#### A.1.2 Farm layout

- A.1.2.1 Farm shall have areas corresponding to the number of houses, not too crowded, to facilitate the hygienic practices and not cause any problem to health and environment.
- A.1.2.2 Farm layout shall be well designed by locating and arranging areas for pig raising, feed storage, equipment storage, sick animals, carcass destruction, waste water and waste disposal management, and loading area for sale for the convenient of practices, prevention and disease control. Farm area shall be separated from accommodation and other areas.
- A.1.2.3 Road inside the farm for transportation of equipment, feed and products shall be clean; have appropriate width, and no obstruction for the convenient of practice.
- A.1.2.4 Farm shall be designed to prevent transmission of diseases from outside, such as fence, disinfection system at the inlet and outlet for vehicle and individuals.

#### A.1.3 Housing

A.1.3.1 Housing shall have sufficient space for the purpose of pig raising, such as

Boar	at least	$4.40 \text{ m}^2/\text{animal}$
Sow	at least	1.32 m <sup>2</sup> /animal
Farrowing pen	at least	$3.60 \text{ m}^2/\text{animal}$
Farrowing stall	at least	1.32 m <sup>2</sup> /animal
Box with supplemental heat	at least	$0.04 \text{ m}^2/\text{animal}$
Nursery pig	at least	$0.30 \text{ m}^2/\text{animal}$
Growing - finishing pig	at least	$1.00 \text{ m}^2/\text{animal}$

- A.1.3.2 House shall be strong, easy to clean and maintain. Roof of the building shall be provided to protect sunlight and rain and well ventilated.
- A.1.3.3 Retention wall of the pen shall be strong with the appropriate height of 1 m. for growing and finishing pigs, 1.2 m. for boar and 40-50 cm for nursery pig.

- A.1.3.4 Inside of house, there shall be no object that may cause accident.
- A.1.3.5 Pen floor shall be concrete or slat that is not too rough or slippery and shall have appropriate slope to facilitate cleaning.
- A.1.3.6 House shall be equipped with lighting for night work or whenever necessary.
- A.1.3.7 Open house system shall be built along the direction of East to West and the distance between houses shall not be less than 25 m.
- A.1.3.8 Close house system shall be totally walled, able to control air flow with good ventilation. The structure, such as plastic curtain or window, shall also be installed to be able to open or close when electrical failure, and equipped with detection or alarm system.

#### A.2 FEED

- A.2.1 Feed shall be of good quality, appropriate nutrition value meeting the nutritional requirements of age and behavior. The feed for feeding shall be adequate.
- A.2.2 Formulated feed shall be produced from the authorized source in accordance with the Animal Feed Quality Control Act B.E.2525 (1982) and its amendments.
- A.2.3 In case of self mixed feed, raw materials shall be clean, no contaminant that may harm pig and consumer, and quality of raw materials for animal feed should be in accordance with the Animal Feed Quality Control Act B.E.2525 (1982) and its amendments.
- A.2.4 Specific place for animal feed and raw material storage shall be provided with clean, dry, free from animal reservoir as well as good ventilation, and be able to prevent contamination and deterioration of feed .A.2.5 Feed container shall be clean, dry and moisture proof, and made of non-hazardous materials. Feed in bags or sacks shall be supported with pallet to prevent moisture as well as regularly inspected.
- A.2.6 Feed and water container and equipment shall be adequate to the number of pigs, usable, and regularly cleaned.
- A.2.7 Specific container for mixing veterinary drugs and water for pigs shall be provided when necessary.
- A.2.8 Prohibited substances under the Animal Feed Quality Control Act B.E.2525 (1982) and its amendments and related laws shall not be used.
- A.2.9 Medicated feed used shall be under supervision of farm veterinary supervisor.
- A.2.10 Medicated feed shall be kept separately from general feed with clearly indicated sign.

#### A.3 WATER

- A.3.1 Water sources used on farm shall be provided with good water management, hygiene and maintenance to provide clean water which is safe for using in the farm at all times.
- A.3.2 Water for pigs and usage in the farm shall be clean, adequate and meet the quality requirement of the standard of underground water used for consumption in accordance with the Notification of the Ministry of Natural Resources and Environment on the Criteria and Technical Measures for the Protection of Public Health and Pollution Prevention B.E. 2551 (2008), details of which are in Annex C. Mineral contents and toxic substances shall be analyzed at least once a year including regular check for microbial.

A.3.3 Watering containers and equipment shall be adequate for the number of pigs.

#### A.4 FARM MANAGEMENT

#### A.4.1 Manual for farm management

Manual shall demonstrate the details of major operations affecting the animal health and disease control in the farm such as methods of raising, feeding, watering, house and equipment cleaning as well as methods of prevention and control of important diseases such as quarantine, prevention of disease before entering the farm including disease outbreak management and method of carcass and waste disposal.

#### A.4.2 Personnel management

- A.4.2.1 worker numbers shall be corresponding to number of pigs with clearly assigned jobs and responsibility for each position as follows:
- A.4.2.1.1 Licensed veterinarian with farm veterinarian supervisor license responsible for disease prevention and treatment including usage of medicine and medical supplies shall be assigned as the followings:
  - (1) In case of responsibility for Boars, Sows and nursery to growing pigs, 10,000 Boars and sows and 100,000 nursery to growing pigs per veterinarian.
  - (2) In case of responsibility for Boars and Sows or nursery to growing pigs, 20,000 Boars and Sows per veterinarian, or 200,000 nursery to growing pigs per veterinarian.
- A.4.2.1.2 Animal husbandry graduated in the area of animal husbandry or animal sciences responsible for:
  - 3,000 mated sows-pregnant sows-labored sows per animal husbandry, or
  - 25,000 nursery pigs per animal husbandry, or
  - 10,000 growing pigs per animal husbandry.
- A.4.2.1.3 Trained workers responsible for raising pig:
  - 200 sows per worker, or
  - 2,000 growing to finishing pigs per worker.
- A.4.2.2 Farm operators shall be trained on pig farm management in the field of farm management control, pig raising, feed management, and farm sanitation, organized by authorized agencies.A.4.2.3 Worker in the farm shall have health examination at least once a year.
- A.4.2.4 Farm personnel shall be continuously trained on new advance technologies in farm practices and keep training records.

- A.4.3 House management, cleaning and maintenance
- A.4.3.1 Houses and equipment shall be corresponding to number of pigs for the convenient of practice and cleaning.
- A.4.3.2 Working space in the house shall be appropriate for farm practices and number of pigs.
- A.4.3.3 Space for raising pigs in each lot in the house shall be clearly allocated.
- A.4.3.4 Nursery and finishing pigs shall be an all in-all out system.
- A.4.3.5 Equipment inside the house shall be safe and not harmful to pigs.
- A.4.3.6 Storage area for tools and equipment shall be provided for convenient usage.
- A.4.3.7 House and its relevant equipment shall be hygienic, such as regular floor cleaning without animal waste accumulation.
- A.4.3.8 After removing pig, pen shall be cleaned, disinfected and rested for at least 5 days before restocking new lot of pigs or in accordance with the official notification in case of disease outbreak.
- A4.3.9 There shall be drains for sewage from the house to the treatment pond, which shall be separated from the rain drained from the house to the rain collecting pond.
- A.4.3.10 House and equipment shall be maintained in a good condition.

#### A.5 ANIMAL HEALTH

- A.5.1 Disease prevention and control
- A.5.1.1 Disease control measures on entering and exit farm, gate for person and vehicle shall be provided with appropriate disinfection such as dipping bath or disinfectant spraying, bathroom for cleaning and disinfecting, and record keeping for those entering person and vehicle.
- A.5.1.2 Preventive measures for vectors on farm and keeping surrounding area clean not to harbor such vectors.
- A.5.1.3 Good hygienic practices inside the farm shall be in place to prevent accumulation of pathogens by spraying disinfectants and cleaning house, equipment and surrounding area.
- A.5.1.4 Preventive measures and control of transmission of disease among the houses such as dipping baths with effective disinfectants at the entry and exit of the house.
- A.5.1.5 Immunization program by vaccination such as Food-and-mouth disease, Hog cholera and other related vaccines in accordance with the suggestion of farm veterinary supervisor, including elimination program of external and internal parasites.
- A.5.1.6 Pig health shall be regularly checked. In case of abnormal morbidity or mortality rates, diagnosis shall be done under the supervision of the farm veterinary supervisor. In case of disease or suspected outbreak, it shall be done in accordance with the Animal Epidemic Act, B.E 2499 (1956) and its amendments and the recommendation of the Department of Livestock Development.
- A.5.1.7 Specific area for carcass disposal shall be designated away from house and water source.

#### A.5.2 Treatment

- A.5.2.1 Sick pigs shall be separated from herd for the treatment and prevention of transmitting disease to other pigs.
- A.5.2.2 Treatment shall be under supervision of farm veterinary supervisor or person authorized by farm veterinary supervisor.
- A.5.2.3 Farm veterinary supervisor shall practice in accordance with the Veterinary Profession Act, B.E. 2545 (2002) and its amendments and the Thai Agricultural Standard on Good Practices for Control of the Use of Veterinary Drugs (TAS 9032).
- A.5.2.4 Determining practices for the control of broken needle remained in the animal body.

#### A.6 ANIMAL WELFARE

- A.6.1 Pigs shall be in good health with adequate feed and growing according to their typical breed and natural behavior.
- A.6.2 Space for raising pig shall be corresponding to the number of pigs and not causing stress due to over density.
- A.6.3 For the management of injured, sick or disabled pigs, such pigs shall be treated immediately. In case they are considered not to be treated, euthanasia shall be done humanely.
- A.6.4 Regularly check for animal welfare at least once a day.

#### A.7 ENVIRONMENT

- A.7.1 Waste shall be collected in a covered bin, disposed by appropriate methods to prevent pollution, whereas specific measures for infected or dangerous waste shall be provided.
- A.7.2 carcass disposal should be under supervision of farm veterinary supervisor by the following methods:
  - (1) Bury: There shall be enough space, non-flooding, and away from water sources. Carcass shall be buried at least 50 cm in depth, pouring with lime stone or disinfectants, and adding soil over burial area for at least 50 cm in height for prevention of animal digging.
  - (2) Incineration: Completely incinerated carcass in a proper place.
  - (3) Carcass pit: Carcass shall be dropped in a specific carcass pit with good hygienic practices.
  - (4) Others mean permitted by the Department of Livestock Development.
- A.7.3 Cleaning of animal waste to avoid accumulation(or may be used to produce fertilizer or biogas) which will cause bad smell disturbing neighbourhood.
- A.7.4 Farm shall have sewage management system for improving quality of waste water. The standard of which shall be in accordance with the Notification of the Ministry of Natural Resources and Environment entitled the control standard of sewage from the pollution source in the category of pig farm B.E. 2548 (2005).

#### A.8 RECORD KEEPING

- A.8.1 Record keeping system shall be easily retrievable as shown in sample record form in ANNEX D. Data shall be recorded as follows:
  - (1) Pig card such as sex, breed, date of birth, birth weight, weaning weight, marking, identification number, identification number of Boar and Sow, etc
  - (2) In case of boar and sow, breeding information is needed to be record such as age and weight at the beginning of mating age, heating, breeding, parturition and weaning
  - (3) Entry and exit of pig
  - (4) Vehicle and visitor entry and exit
  - (5) Health examination, treatment, and health care such as medication, medical supplies, vaccination, deworm and other chemical usage
  - (6) Feed management such as feed receiving, mixing and feeding
  - (7) Health examination of farm personnel
- A.8.2 Records shall be kept for at least 3 years.

#### ANNEX B

#### TYPES OF PIG RAISING

(Section 3)

#### **B.1 DEFINITIONS**

For the purpose of this annex:

- B1.1 Pig raising means raising of boar and sow or finishing pig or piglet or combination of different phases of age.
- B.1.2 1 unit of livestock weight means net weight of boar and sow or finishing pig or piglet or combination of different phases of age that have total weight equal to 500 kg by assigning 170 kg for the average weight of boar or sow, 60 kg for finishing pig and 12 kg for piglet.
- B.2 Type of pig raising

Type of pig raising can be divided into 3 categories as follows:

- B.2.1 Type A means raising of boar and sow or finishing pig or piglet or combination of different phases of age that has the livestock weight more than 600 units.
- B2.2 Type B means raising of boar and sow or finishing pig or piglet or combination of different phases of age that has the livestock weight between 60-600 units.
- B.2.3 Type C means raising of boar and sow or finishing pig or piglet or combination of different phases of age that has the livestock weight between 6-60 units.

Source: The Notification of the Ministry of Natural Resources and Environment entitled the control standard of sewage from the pollution source in the category of pig farm B.E. 2548 (2005).

# **ANNEX C**

# STANDARD OF UNDERGROUND WATER FOR CONSUMPTION

(Annex A Section A.3.2)

**Table C.1 Physical property** 

Item	Appropriate Level	Maximum Allowance
Color	5 (Platinum-Cobalt unit)	15 (Platinum-Cobalt unit)
Turbidity	5 ( turbidity unit)	20 (turbidity unit)
pН	7.0-8.5	6,5-9.2

**Table C.2 Chemical property** 

Item	Appropriate Level (mg/l)	Maximum Allowance (mg/l)
Iron (Fe)	not exceed 0.5	1.0
Manganese (Mn)	not exceed 0.3	0.5
Copper (Cu)	not exceed 1.0	1.5
Zince (Zn)	not exceed 5.0	15
Sulphate (SO <sub>4</sub> )	not exceed 200	250
Choride (Cl)	not exceed 250	600
Fluoride (F)	not exceed 0.7	1.0
Nitrate (NO <sub>3</sub> )	not exceed 45	45
Total hardness as CaCO <sub>3</sub>	not exceed 300	500
Non-carbonate hardness as CaCO <sub>3</sub>	not exceed 200	250
Total dissolved solids	not exceed 600	1,200

**Table C.3 Toxic property** 

Items	Appropriate Level (mg/l)	Maximum Allowance (mg/l)
Arsenic (As)	Not detected	0.05
Cyanide (CN)	Not detected	0.1
Lead (Pb)	Not detected	0.05
Mercury (Hg)	Not detected	0.001
Cadmium (Cd)	Not detected	0.01
Selenium (Se)	Not detected	0.01

**Table C.4 Microbiological property** 

Items	Appropriate Level
Standard plate count	Not exceed 500 colonies/cm <sup>3</sup> (cubic
	centrimeter)
Most probable number of Coliform organism	Less than 2.2/100 cm <sup>3</sup>
(MPN)	
E. coli	Not detected
Salmonella spp.	Not detected

Source: Standard underground water for consumption annexed to the Notification of the Ministry of Natural Resources and environment entitled the Criteria and Technical Measures for the Protection of Public Health and Pollution Prevention B.E. 2551 (2008)

# ANNEX D

# **SAMPLE OF RECORD FORM FOR PIG FARM**

(Annex A Section A.8.1)

### D.1 Boar card

Ear number			• • • • •		• • • • •	• • • • • •	•••••	E	Bree	d		• • • • • •			••••	• • • • •	D	ate o	of bir	rth	••••	• • • • •	••••	••••			•••••	•••••	••••		
Month/Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
January																															
February																															
March																															
April																															
May																															
June																															
July																															
August																															
September																															
October																															
November																															
December																															

Boar card 1/3

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**Semen quality** 

Semen quanty													
Date		Colo	r	Con	centra	tion	Motility						
	viscous	turbid	transparent	good	fair	poor	good	fair	poor				
	i e												

Vaccination/Deworm program

Number	FMD	SFV	 	
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

	Treatment record
□ Dead	Date:
<ul><li>□ Dead</li><li>□ Culling</li></ul>	Cause:

### D.2 Sow card

					Br	eeding										Partu	ıritio	n							Wea	an	
Num	]	Date	;	Во	ar	Bo	ar	Boa	ar	Ex	pect	ed	Pa	rturi	tio			Nu	mber of	pig			Date		Nu	mb	Weani
ber										pa	rturi	tio	n	date	e										er		ng
											n														pi		weight
	D	M	Y	Breed	Ear	Breed	Ear	Breed	Ear	D	M	Y	D	M	Y	at	liv		Dead	Mu	Dis	D	M	Y	M	F	Avg.
					num		num		num							birt	M	F		m	able						
					ber		ber		ber							h				my							
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Vaccination/deworm program

Number	<b>FMD</b>	SFV	••••	••••	••••
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

	Treatment record
□ Dead	Date:
□ Culling	Cause:

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### **D.3** Treatment record

							•••••	••••							
Rec	eiving Date.														
					Montl										
□ŀ	Boar □	Sow	□ Repla	icement pig		Piglet	□ Nursery pig		irowing	pig	⊔F	inishir	ig pig		
Date	Number of pig/ear	Pen No.	Weight	Clinical Sign	Medicine	Dosage	Route		Day	of treati	ment		Result	_	nsibility rson
	number							1	2	3	4	5		Worker	Animal husbandr
				arm manag								Far	m veterina	ry supervis	or
		Da	(		./					Date	(	/		/	)

# D.4 Storage and in-out records of veterinary drugs and vaccines Farm ......

Veterina	ry Drug/Va	accine			Active ingred	dients				Month			
Registra	tion numbe	r		Packaging	size				Distri	butor compan	y		
Date	Total Storage number	Check in number	Warmed pen	Mating- Pregnant	Check out Farrowing	number Nursery	Growing	Etc.	Name	Remaining	Lot number	Expiration date	Authority/ Animal husbandry
		R	ecorder			Fari	n manager			Farm	n Veterinar	y supervisor	
		( Date		)		( Date	//	)		( Date	//.	)	

D.5 Vaccination report	
Farm	

		1 41 111	•	•	
House	□ Boar	□ Sow	☐ Replace	ement pig	☐ Piglet
	□ Nursery	☐ Growing pig	☐ Finishi	ng pig	
Date	Vaccine	Manufacturer date	Expiration date	Number of Pig	Authority/ Animal husbandry
				<u>I</u>	
supervisor	Farm	manager		Farm Veter	inary
	( Date/.	······)	 ( Da	te/	) /

# D.6 Authorize form of veterianary drug usage

	Date	Month	Year
I hereby (Name)	Farm Veterin	nary supervisor's	license number
Farm registration number	Issued Date	Month	Year
Expiration Date MonthYea	rhas author	ized the usage of	veterinary drug
according to the prescription from Date	Month	Year	. to
Date MonthYear			
for the farm owner (name)	Farm	name	
Address			
to the following responsible persons:  1	Position		
2	Position		
3	Position		
4	Position		
5	Position		
6	Position		
		(	)
			eterinary supervisor

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# **D.7 Prescription**

	terinary supervisor N								
License	number		Issued date						
Farm ow	ner name		Farm n	ame					
Address									
	nager name								
-	This prescription va		☐ Replacement pig month(s) Prescr						1
Order	Active ingredient	Trade name	Registered drug number	Dosage	Duration	Method of use	Purpose	Withdrawal time	Remark
							 ( Far	m Veterinary supervi	)

# D.8 Prescription for medicated feed

Farm owner name Address Farm manager name	supervisor name	Farm na	ame				
	icated feed   Boar					☐ Finishing pig	
Purpose of using 1	medicated feed	Prevention and con	trol of disease	☐ Treatment			
House	Number of pig	Average weigh	t Health	Problem	De	etail of health proble	m
For Ve	terinarian			For Anima	al feed plant		
Active ingredient	Dosage	Trade name	Registered drug	Amount of drug	Number of feed	Amount of feed	Withdrawal time
	(mg/kg)		number		for mixing with	(kg)	
					drug		
	feed	Duration of us	sing drug	🗆 Day	y □ Week Starting	date W	ithdrawal date
Prohibition and pr	recaution						
Farm own	er	Fa	rm Veterinary super		Pla	ant manager/Mixing	person
/	/		//				

# ANNEX E

# UNIT

Unit and symbol using in this standard and SI unit (International System of Units or Le Syste'me International d' Unite's) are allowed to use in this standard as follows:

Item	Unit	Symbol
	kilometer	km
Length	meter	m
	centimeter	cm
Area	square meter	$m^2$
Mass	kilogram	kg
Volume	cubic centimeter	cm <sup>3</sup>
Concentration	milligram per litter	mg/l
	milligram per kilogram	mg/kg