

PHILIPPINE NATIONAL STANDARD

PNS/BAFS

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Code of Good Animal Husbandry Practice for Swine



BUREAU OF AGRICULTURE AND FISHERIES STANDARDS

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Code of Good Animal Husbandry Practice for Swine

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Foreword

This Philippine National Standard on Code of Good Animal Husbandry Practices for Swine was developed by the Bureau of Agriculture and Fisheries Standards (BAFS) in collaboration with the Bureau of Animal Industry and a multi-stakeholder Technical Working Group created as per Department of Agriculture Special Orders No. 776 and 942 series of 2016.

The objective of this PNS was to revise the generic, multi-species PNS 60:2008 Code of Good Animal Husbandry Practices (GAHP) to species-specific GAHP in consideration of the directional thrust of the ASEAN towards species-specific GAHP. This revision is in accordance with the BAFS mandate to harmonize local standards with that of international and regional standards.

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1 Scope

1 This code sets out the general principles of good practice and minimum requirements in
2 breeding, commercial and backyard rearing/farming of swine for breeding and food use.

2 References

4 The titles of the standard publication and other references of this Code are listed on the
5 inside back cover.

3 Objectives

7 This Code shall ensure that the farms' farming practices shall provide consumers with
8 products that are safe and fit for distribution and/or human consumption. It shall also
9 ensure safety and comfort to farm workers and animals without any degradation to the
10 environment.

12 Any development of industry's specific requirements for swine production system should
13 satisfy the minimum requirements set out in this Code.

4 Definition of terms

15 For the purpose of this document, the following terms and definitions apply:

4.1**Abnormal behavior**

19 refers to any changes developed as a response to poor or wrong management practice
20 causing stress to the animal.

4.2**Backyard farm**

24 refers to any farm or household raising any of the following conditions: a) 1 – 20 heads of
25 adult and zero young; b) 1 – 40 heads of young animals; c) 1 – 9 heads of adult and 1 – 21
26 heads of young animals

4.3**Commercial livestock farm/operator**

30 refers to any livestock operator or farm which operation satisfies at least one of the
31 following conditions: a) at least 21 head of adults and zero young; b) at least 41 head of
32 young animals; c) at least 10 head of adults and 22 head of young animals.

4.4**Competent authority**

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

4.5**Conventional house
opened house**

41 refers to a pig house where conditions varies according to its surrounding

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Enclosed house

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environmentally controlled house

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refers to a pig house where conditions such as temperature, humidity, ventilation, and light

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are appropriately controlled.

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Fomites

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refers to any nonliving object or substance capable of carrying infectious organisms or

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parasites which may be transferred from one individual to another.

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Pig

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swine

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refers to animals in the family of Suidae with the scientific name *Sus domesticus*.

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4.9

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Pig farm

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refers to any establishment where pigs are raised. This covers pig house, feed storage and

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preparation area, carcass disposal area, waste water and waste treatment, and other

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relevant structures.

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Vector

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refers to animal and/or insect that can transmit pathogenic agents to pigs.

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5 Farm Location and Facilities

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5.1 Location

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5.1.1

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The establishment of the farm should be compliant with related laws and

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regulations of competent authority. This covers the management of environmental issues,

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farm location, animal welfare requirements, disease control, production of wholesome food

75

and occupational hazards in animal farming.

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5.1.2

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The farm should be located in an appropriate area for pig raising.

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a.

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The farm should be strategically located within the approved land use of the local

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government and compliant with the DENR regulations and other regulations as

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prescribed by law (e.g. Laguna Lake Development Authority).

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b.

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The farm should have a continuous supply of adequate electrical power.

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5.1.3

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The farm should be located in an area away from physical, chemical and biological

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hazards.

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a.

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The farm should be located in areas away from physical, chemical and biological hazards

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that may pose threat to both farm workers and pigs.

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b. The farm should be located at least 5 km away from slaughterhouse and animal holding facilities. Otherwise the farm should have proper disease control measures in place.

c. The farm must not be prone to flooding. Perimeter canals connected to a closed lagoon may be constructed to prevent runoff from contaminating bodies of water and/or adjacent farms.

d. If there is available data/information from relevant government agencies or organizations on the prior land use, then they should be used as references to ensure that the site is not a possible source of physical, chemical and microbiological hazards. However, when these data are not available and uncertainty exists as to the suitability of the land for agricultural use, it is recommended to have the soil analyzed for heavy metal contamination, etc.

100 5.2 Layout and infrastructure of farm

101 5.2.1 The farm should be well designed by locating and arranging areas, such as areas for
102 pig raising, feed storage, isolation and treatment of sick pigs, carcass disposal, and pig
103 selling.

104 a. The farm should have enough area to facilitate the design of farm layout, such as the
105 distance between pig houses and the arrangement of working areas. The appropriate
106 farm layout shall provide good ventilation; serve as a preventive measure for disease
107 spread between pig houses and other areas; and promote farm sanitation as well as the
108 control, prevention and eradication of diseases within the farm.

109 b. The farm should be well designed and all working areas should be clearly located in
110 order to facilitate the efficiency of farm managements on pig raising, transportation and
111 pig selling and to prevent cross-contamination between working areas.

112 c. The farm should have proper routes to transport equipment, feed, and pig products
113 within farm; with appropriate width, and without any obstruction for the convenience of
114 practice.

115 d. The following working areas should be included but not limited to:

- 116
- 117 • Office building, parking area, and dormitory
 - 118 • Water resource
 - 119 • Pig houses
 - 120 • Feed storage, feed mixing
 - 121 • Pig quarantine pen
 - 122 • Area for sick pigs
 - 123 • Area for destruction and disposal of pig carcasses
 - 124 • Area for waste and trash collection
 - 125 • Area for waste water and solid waste treatment
 - 126 • Area for selling pigs
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130 5.2.2 The farm should have perimeter fences or natural barrier to prevent entry of stray
131 animals.

132 The fence, including its posts and gates, should be effectively designed to prevent entry of
133 stray animals (e.g. cattle, buffaloes, dogs, cats, etc.), and escape or injury of the farm animals.
134 If electric fence is used, it should be operated as per manufacturer's instructions.

135 5.3 Pig Houses

136 5.3.1 The farm building should be designed and constructed appropriately for the
137 intended purpose, and should provide proper ventilation, easy maintenance and cleaning.

138 a. The building intended for keeping animals should be constructed in the orientation that
139 minimizes the adverse effects on animal performance and eliminates possible hazards to
140 its surroundings.

141 b. The building should be designed and constructed using materials that:
142 • should not cause any injury or impart hazard to the welfare of the animal;
143 • provide comfort;
144 • can be easily cleaned and disinfected;
145 • can be easily replaced when damaged;
146 • create efficient stock management; and
147 • enhance biosecurity.

148 c. Painting materials used for the building and facilities should not be hazardous to the
149 animals.

150 d. There should be an effective drainage system in place at the building.

151 e. Pens and pathways should:
152 • be designed and constructed to prevent animals from escaping;
153 • be free from protruding objects or structures (e.g. nails and bolts) that may cause
154 injury to the animals and farm operators and farm workers.

155 f. Housing design (particularly roof height and sides) should provide proper ventilation
156 (whether natural or artificial) to maintain a comfortable environment.

157 g. Animal buildings should have adequate lighting to ensure that animals can be
158 thoroughly inspected as required.

159 h. Electrical installations and wirings should be protected and should not be accessible to
160 the animals.

161 i. Floors and pathway used by the animals should be made from non-slippery materials,
162 safe, stable and well-lighted to prevent injury or abnormal gait to the animals.

163 j. The design of alleys and chutes should allow effective management of the animals
164 • Floors of alleys and chutes should be properly built to provide good footing,
165 preventing slippage and injuries.

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- 175 • Alleys and chutes should have sides of sufficient height to prevent animals from
176 jumping off or falling.

177
178 k. The farm should provide effective and appropriate facilities to restrain or handle
179 animals without causing undue stress and injury to both animals and farm workers.

180
181 l. The premises should be kept clean at all times to prevent disease occurrence,
182 establishment of breeding ground for pests and avoid environmental degradation.

183 5.3.2 Pig house should have sufficient space for pig raising and should have good
184 condition of environment inside the houses, and should correspond to pig breed, size and
185 age.

186 a. Animals should be provided with sufficient floor space suitable for their age, body
187 weight and size to allow animals to feed and drink comfortably.

188
189 b. The feeding and drinking equipment and facilities should conform with the
190 standards/requirements for each species and should be constructed and conspicuously
191 placed such that:

- 192 • animals are allowed to eat and drink freely, allowing them to behave normally; and
193 • contamination with animal feces and urine is prevented.

194 5.3.3 Controlled environment housing must have an alarm system in case of power
195 failure and/or significant temperature variance. An alternative ventilation system must be
196 available.

197 6 Feeds and Nutrition

198 6.1 The farm operator should:

199 a. Ensure that animals are provided with optimum level of nutrition at all times, as
200 required for their respective functions and well-being.

201
202 b. Provide the animals with safe, clean, and adequate rations or feeding materials suited
203 for pigs.

204
205 c. If animals are provided with commercial feed, ensure that the source or feedmill has
206 been officially registered with the Animal Feeds, Veterinary Drugs and Biologicals
207 Control Division (AFVDBCD) of the Bureau of Animal Industry (BAI).

208
209 d. Keep feed mixing equipment clean at all times and with regular preventive maintenance
210 schedule.

211
212 e. Provide a daily feeding management or schedule..

213
214 f. Raw food waste of animal origin should not be present at the farm level and should not
215 be fed to pigs

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- 217 g. Procurement documents of feed concentrates should be kept and updated properly to
218 include:
- 219 • supplier or source of feed concentrate and its registration number;
 - 220 • type of feed and supplements;
 - 221 • quantity;
 - 222 • declaration of ingredients;
 - 223 • document of feed analysis;
 - 224 • date of delivery; and
 - 225 • date of manufacturing and batch number.
- 226
- 227 h. Record the type and quantity of ration being fed to the animals.

228 6.2 The use of medicated feed should be under the supervision of a licensed
229 veterinarian and should be stored separately from non-medicated feed with clear
230 label/signage.

- 231 a. In case of farm-mixed feed formulation, farm operators should only use ingredients
232 from reputable and traceable suppliers. Records of purchases should be kept.
- 233
- 234 b. Not use banned chemicals, feed additives, supplements and any form of medication in
235 the diet of the animals, including those disallowed by the authorities or importing
236 countries.
- 237
- 238 c. For medicated feed, strictly follow instructions of medication, paying special attention
239 to the withdrawal period of each specific drug being administered before the animals
240 are sent to market.

241 6.3 Feeds and raw materials should be kept in the way to prevent contamination and
242 deterioration.

- 243 a. Feed storage facilities should be kept clean at all times.
- 244
- 245 b. Feed storage should have adequate ventilation, adequate protection from moisture to
246 prevent development of molds, and should be vermin-proof.
- 247
- 248 c. "First in – first out" rule should be practiced.
- 249
- 250 d. Machinery, equipment and other toxic chemicals should be stored separately from feeds
251 to prevent contamination.

252 7 Water for pig

253 7.1 Water should be clean, potable, sufficient, and free from any hazardous substances.

- 254 a. The farm should have a continuous supply of clean and potable water.
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256 b. Water quality should be tested at least once at the beginning of production and during
257 the time when water quality is suspicious. Test results should be recorded and
258 maintained.

259 7.2 Water should be adequate for all pigs to drink.

260 a. The drinking equipment and facilities should be properly designed, constructed and
261 conspicuously placed to allow animals to drink freely, prevent contamination with
262 animal feces and urine and conform with the standards/requirements for each species.
263

264 b. The water pressure should be set at appropriate level and no sediment exist to cause
265 pipes obstruction.

266 8 Farm management

267
268 8.1 Manual for farm management

269 The farm manual should demonstrate the details of important farm operations such as pig
270 husbandry, feeding and watering, cleaning of houses and equipment.
271

272 Procedures for disease prevention and control like quarantine procedure for new pigs prior
273 to entry and contingency plans for disease outbreak should also be included in the manual.

274 8.2 Personnel

275 8.2.1 Farm operators and owners
276

277 a. The farm operator/owner should be responsible for the welfare of the pigs by giving
278 adequate provisions so that they are able to perform at their optimum levels.
279

280 b. In cases of housed staff, the farm owner/operator should provide adequate
281 accommodation for the workers.
282

283 c. The farm operator/owner should always promote a safe and healthy working condition
284 in the farm. Accident and emergency procedures should be available with clear
285 instructions for all workers. First aid kits and fire extinguishers should be easily
286 available at all times, and placed conspicuously in strategic locations.
287

288 8.2.2 Training
289

290 a. Farm personnel should be continuously trained on the necessary knowledge and skills
291 about basic procedures of farm management including the correct handling of animal,
292 routine management practices and usage of farm tools or equipment.
293

294 b. Training certificate of farm personnel should be kept and properly recorded.
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296 8.2.3 Farm personnel hygiene
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- 298 a. All persons entering the farm should take a shower, have hair washed and wear
299 protective clothing supplied by the farm. The procedure for shower- cloth changing
300 should be shown at the entrance of the farm.
301
- 302 b. The farm owner/operator should provide farm workers with appropriate attire and
303 footwear for protective measures.
304
- 305 c. Appropriate working uniform/attire and footwear should be provided to visitors who
306 need to be at the production area, as may be deemed necessary.
307
- 308 d. The owner/operator should ensure that all farm operators and farm workers undergo
309 annual routine health check-up/medical examination.
310
- 311 e. Personnel who have been sick such as fever, respiratory or gastrointestinal infection
312 should not be allowed to enter the farm unless they have been recovered.
- 313 8.3 Biosecurity and Farm Sanitation
- 314 8.3.1 Biosecurity measures
- 315 a. The farm should have a written protocol of biosecurity measures. Proper warning
316 signage should be provided.
317
- 318 b. Biosecurity procedures should be well implemented and continuously monitored to
319 prevent introduction of disease into the farm and/or to control its spread within the
320 farm.
321
- 322 c. The biosecurity measures should take into consideration the relevant diseases identified
323 by local regulations/authority.
324
- 325 d. The farm should have the appropriate and functional lay-out and infrastructure to
326 ensure effective implementation of the biosecurity measures. This should include
327 facilities for disinfection at entry/exit point of the farm and the building.
328
- 329 e. All incoming animals should undergo the appropriate quarantine measures.
330
- 331 f. Stray animals should not be allowed within the premises.
332
- 333 g. Imported animal by-products should be accompanied by official documentation from the
334 competent authority.
- 335 8.3.2 Farm Sanitation and Environmental Management Program
- 336 a. The farm should have a written hygiene and sanitation program that includes
337 integrated pest management.
338
- 339 b. The farm should have a proper and functional drainage system towards a water
340 treatment facility. Solid and liquid waste should be managed and disposed according to
341 existing relevant guidelines imposed by competent authorities.

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- 342
- 343 c. The farm operator should take necessary measures to ensure that activities related to
- 344 livestock farming do not contribute to the degradation of the environment (i.e., land,
- 345 water, air) and cause destruction to bio-diversity.
- 346
- 347 d. Farm premises should be kept clean and free of potential conditions conducive to
- 348 breeding of pests, animal parasites and disease outbreak. This is to avoid negative
- 349 effects on the landscape, environment and animal welfare.
- 350
- 351 e. The farm operator should maintain and display clear instructions on procedure for
- 352 disposal of farm solid wastes and farm chemical wastes (e.g. expired
- 353 pesticide/weedicide and containers, paint, etc.)
- 354
- 355 f. Organic materials, like pig manure or leftover feeds, should be regularly removed from
- 356 contact surfaces (i.e., floors, pen partitions). Where bedding is used, it should be
- 357 regularly replaced.
- 358
- 359 g. Garbage and trash should be collected and stored in closed containers and disposed of
- 360 using appropriate methods for each type of garbage. Hazardous or infected waste
- 361 should be kept and disposed separately from general garbage to avoid contamination.
- 362
- 363 h. The farm should take appropriate measures to minimize excessive odor coming from
- 364 the farm which may be associated with waste decomposition.
- 365
- 366 i. The air quality inside the building should be maintained at acceptable levels.
- 367
- 368 j. Measures should be in place to keep noise from barns to acceptable levels, particularly
- 369 if the farm is located close to urban centers.
- 370
- 371 k. The farm operator should be familiar with the proper procedure for disposal and
- 372 schedule of actions to be taken, especially at times of emergency.
- 373
- 374 l. The farm should have proper handling and disposal system for sick, injured and dead
- 375 animals, and should be in accordance to existing regulations of the authority.
- 376 • In the case of using burial method, there should be enough space, non-flooding, and
 - 377 away from water sources. Carcasses should be buried at least 50 centimeters in
 - 378 depth, pouring with limestone or disinfectant, and adding soil over burial area for at
 - 379 least 50 centimeters in height for prevention of animal digging.
 - 380 • In the case of carcass pit, carcass should be dropped in a specific carcass pit with
 - 381 good hygienic practices.
 - 382 • For other methods, it should be done in accordance with instruction from competent
 - 383 authority.
- 384 8.3.3 Post-harvest cleaning
- 385
- 386 a. After removing pigs, the house should be cleaned by using proper methods that can
- 387 effectively remove all manure and dirty debris out of the floor in such a way that does
- 388 not become a source of pathogens.

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b. The cleaning and disinfection of pig house and its equipment should be conducted prior to the introduction of new batch of pigs into the house. If disease outbreak occurs, the measures specified by competent authority should be followed.

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c. The detergents and disinfectants registered with competent authority should be used, under the supervision of farm veterinarian. Moreover, the use of such chemical should be in accordance with procedural manual.

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9 Recording

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9.1 The farm should keep and maintain complete records of farm operations, management protocols, and animal health records like disease monitoring and medication. These records should be easily retrievable and readily available for inspection.

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9.2 Records include, but are not limited to, the following:

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a. Animal identification including applicable data such as sex, breed, date of birth, marking number, birth weight, weaning weight, and sow and boar identification number;

b. In case of boar and sow, breeding information like age, weight at mating, time, heat testing, parturition, weaning;

c. Entry and exit of pigs;

d. Vehicles and visitors exit and entry;

e. Animal health records including disease detection and surveillance (e.g. post-mortem findings, mortality and morbidity reports, test results, diagnosis, etc.), and intervention or treatment done (e.g. veterinary products and supplies used in medication, vaccination, deworming, medicated feeds, and other chemical usage including batch number, quantity, number of animals treated, name of person who administered medicine with recommendation from veterinarian on authorized persons, date and route of administration, withdrawal period, and identification of animals treated, etc.)

f. Feed management such as feed receiving, mixing, and feeding;

g. Procurement records containing date or purchase, product name, batch number, expiry date, name of supplier, and quantity purchased; and

h. Health examination and training records of farm personnel.

9.3 All pertinent documents such as but not limited to farm operations, management protocols and animal health records should be kept for at least 3 years.

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10 Animal health

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10.1 Responsibility of the veterinarian

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- 433 a. The veterinarian should be the overall responsible person for animal health and welfare
434 management and should obtain license from competent authority.
435
- 436 b. The health status of the animals in the farm should be monitored and recorded regularly
437 by the farm, and veterinary assessment of the establishment should be carried out
438 annually by a licensed veterinarian and/or by a competent authority.
439
- 440 c. There must be a written animal health program in place, including vaccination and
441 deworming, that is updated regularly and in accordance with the requirement adopted
442 against the diseases specified by the competent authorities.
443
- 444 d. Sick, injured or disabled animals should isolated from herd and kept in a specific area for
445 treatment and prevention of transmitting disease to other pigs.

446 10.2 Use of veterinary products

- 447 a. Drugs, medicines, and vaccines should be administered appropriately by a licensed
448 veterinarian or trained personnel under the supervision of a licensed veterinarian.
449
- 450 b. Drugs or medicines should only be used for prophylactic and treatment reasons.
451
- 452 c. The use of illegal and banned medication and vaccines should be prohibited (use
453 vaccines registered with BAI; the same with controlled drugs.)
454
- 455 d. Drugs, medicines, and vaccines should be stored and identified properly; proper disposal
456 of these items should be followed to prevent contamination to the environment.
457
- 458 e. The use of needle during injection should be done in such a way that no part of broken
459 needle remains in pig body. There should be determining practices for preventing needle
460 remnant in pigs, e.g. measures to control the number of needle used in farm, checking
461 needle number before and after use, and total number of needles used in farm. Farm
462 should have corrective action for remained needle in pig body.

463 10.3 Disease outbreak or suspicion of epidemic disease

- 464
- 465 a. In the case of outbreak of disease or suspicion of epidemic disease, farm should strictly
466 follow the related law or regulation by competent authority.
467
- 468 b. The farm operator should report immediately or within 24 hours to relevant authorities
469 if morbidity or mortality rate of pigs in the farm is found to be abnormally high or is
470 indicative of notifiable disease as mandated by the competent authority.

471 **11 Animal Welfare**

- 472 a. Proper techniques should be applied to handle and restrain animals.
473
- 474 b. Animals should always be handled and restrained in such a way to protect them from
475 fear, stress, pain and injury.
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- 477 c. Appropriate facilities, equipment and tools should be provided and used in handling or
478 restraining the animals.
479
- 480 d. Appropriate tools should be used for the purpose of effective animal management and
481 the operators should acquire the skills and techniques to use the tools.
482
- 483 e. Tools should be used in a manner that minimize stress and does not injure the animals.
484
- 485 f. Tools should be functional for efficient application on the animals by the operators.
486
- 487 g. Sick, injured or disabled should be given the necessary veterinary attention, including
488 humane euthanasia if necessary.
489
- 490 h. Sticks or canes should not be used to restrain the farm animals. However, a stick or cane
491 may be used for the worker's safety when handling larger or aggressive animals.

492 12 Animal Transportation

- 493 a. Animals should be transported in appropriate vehicles and in a manner that does not
494 cause stress throughout the travel and does not predispose them to injury and disease.
495
- 496 b. Animals being transported should be in a good state of health. However, stressed, sick
497 and pregnant animals, may be transported but with extra-precautionary measures.
498
- 499 c. Vehicles used for the transport of animals should be according to the following
500 specifications:
- 501 • Allow easy loading and unloading;
 - 502 • Has communication equipment and first aid kit;
 - 503 • Ensure safety of the animals and personnel during transport;
 - 504 • Clean and sanitized;
 - 505 • Equipped with floors that provide secure footing;
 - 506 • Have proper drainage for collection of urine;
 - 507 • Have a decal/label "live animal onboard" at the sides and front/back;
 - 508 • Should be registered to BAI as Transport Vehicle Carrier and accompanied by a
509 registered livestock handler.
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