



Republic of the Philippines
DEPARTMENT OF AGRICULTURE
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**Subject : CODE OF PRACTICE AND MINIMUM STANDARDS
FOR THE WELFARE OF PIGS**

Section 1. BASIC POLICY AND OBJECTIVES

Welfare considerations are important for the keeping and farming of animals. Standard procedures in animal welfare are not only important legally, but also have direct economic benefits by enhancing productivity.

Good husbandry is essential for good welfare, modern breeding, feeding, housing, and management systems. This will lead to an improvement in the quality of life for the pigs as well as an improvement in the quality of the product. This code is intended to encourage all persons involved in the pig industry to adopt the highest standards of husbandry.

This Code takes into consideration the five basic freedoms of animals which are:

- ◆ freedom from thirst, hunger and malnutrition;
- ◆ freedom from physical discomfort and pain;
- ◆ freedom from injury and disease;
- ◆ freedom to conform to essential behavior patterns; and
- ◆ freedom from fear and distress.

Pigs are kept under conditions ranging from backyard to large commercial enterprises where they are totally reliant on humans for all their daily requirements. Those concerned with the day-to-day care of the pigs shall treat them with skill and consideration. Their welfare shall be safeguarded under a variety of management systems.

Pigs shall be provided with comfortable and secured accommodations. When pigs are kept outside, they shall have shelter available to protect them from inclement weather and access to shade from direct sunlight. Access to high ground shall be available where there is danger of flooding. Pigs confined in houses shall have sufficient space for each to feed, lie down stretch, and express their normal behavioral patterns. (See Table 2 for the minimum space requirements). Adjustments shall be made when needed.

This Code is based on the knowledge and technology available at the time of publication and may need to be changed in the light of future knowledge. The application of experience and common sense in the husbandry of animals are still important.

Section 2. DEFINITION OF TERMS

- 2.1 **Ad Libitum** refers to feeding without limit.
- 2.2 **Animal Transport** refers to modes of transport that would bring the animal from the place of origin to the place of destination using land, air or water as a means of transportation.
- 2.2.1 **Land Transport** refers to transfer of animals from place of origin to place of destination using land conveyance.
- 2.2.2 **Air Transport** refers to transfer of animal from place of origin to place of destination using air conveyance.
- 2.2.3 **Water Transport** refers to transfer of animal from place of origin to place of destination using water conveyance.
- 2.3 **Backing Board** refers to a board used in herding pigs.
- 2.4 **Backyard Piggery** refers to the raising of less than 20 sow. They are usually dependent on commercial feedmills for feeds.
- 2.5 **Boar** refers to a male breeding pig which is at least 8 months old.
- 2.6 **Canvass Slapper** refers to the equipment used in herding pigs that create slapping sounds.
- 2.7 **Caretaker** refers to the person or persons assigned to take care of the pigs.
- 2.8 **Castration** refers to the surgical removal of the testicles.
- 2.9 **Chill Factor** refers to environmental temperature of 25°C or below that is injuriously cold causing piglets to shiver.
- 2.10 **Cold Stress** refers to stress/suffering caused by exposure to cold temperatures.
- 2.11 **Colostrum** refers to the first milk after farrowing and which is rich in antibodies.
- 2.12 **Commercial Piggery** refers to farm raising more than 20 sows.
- 2.13 **Culling** refers to separation/segregation of undesirable animals.
- 2.14 **Disinfectant** refers to substances used to destroy bacteria or other infective microorganisms.
- 2.15 **Distress** refers to the non-specific response of the animal caused by deprivation of food, rough handling, exhaustion due to long transport, mixing of animals reared separately, etc.
- 2.16 **Dry Sow** refers to the unproductive sows after weaning.
- 2.17 **Drug** refers to all chemical substances except foods that are used to promote or safeguard the health of human and animals.

- 2.18 **Ear Notching** refers to the identification of pigs which is done through cutting a portion of their ear.
- 2.19 **Euthanasia** refers to the process of humane destruction of animal accomplished by a method that produces rapid unconsciousness and subsequent death without evidence of pain and distress.
- 2.20 **Farrowing** refers to the act of giving birth in sows.
- 2.21 **Farrowing Facilities** refer to a pen/stall/crate used for the sows during farrowing or giving birth.
- 2.22 **Fostering** refers to the adoption of animals during early suckling stage.
- 2.23 **Gilt** refers to the unbred female pig at least 8 months old.
- 2.24 **Husbandry** refers to the act of taking care of animals.
- 2.25 **Lactation** refers to the process of milk secretion.
- 2.26 **Licensed Veterinarian** refers to a person who graduated from a veterinary college with the degree of Doctor of Veterinary Medicine and duly registered with the Professional Regulation Commission (PRC) and holds a Professional Tax Receipt (PTR), both of which must be current.
- 2.27 **Loading Ramp** refers to the walkway from pen to trucks and vice versa.
- 2.28 **Mechanical Probe** refers to the equipment used for measuring fat or detecting pregnancy.
- 2.29 **Needle/Milk Teeth** refers to the temporary or insidious teeth.
- 2.30 **Non-Resident Veterinarian** refers to a licensed veterinarian retained/contracted by the pig farm to check and evaluate the veterinary requirements and animal welfare status of the farm at least once or twice a month.
- 2.31 **Oestrus** refers to the period in heat or period of acceptance of the boar by the sow.
- 2.32 **Resident Veterinarian** refers to a licensed veterinarian residing in the farm to check and evaluate the veterinary requirements and animal welfare status of the farm.
- 2.33 **Slaughter** refers to the killing of food animals in accredited slaughterhouses in relation to meat inspection and animal welfare.
- 2.34 **Serum** refers to the liquid portion after blood clotting or portion of whole blood less RBC and WBC.
- 2.35 **Sow** refers to the female adult pig that has farrowed.
- 2.36 **Stocking Density** refers to the rate or number of animals per given area.
- 2.37 **Stunning** refers to the rendering of a state of immediate insensibility delivered to the animal which should persist until the animals are slaughtered and become permanently insensible. Methods employed include percussive, electrical and gas stunning.

- 2.38 **Surgery** refers to the procedure performed in the animal with the use of medical instrument involving incision, excision, and/or transection of organs or part of it.
- 2.39 **Tail Docking** refers to the cutting of a portion of the tail.
- 2.40 **Tail/Ear Biting** refers to the vice of animals consisting of biting the ears/tails of other animals, due to mineral deficiency/overcrowding, etc.
- 2.41 **Tethering** refers to the confining of animals in certain area by roping.
- 2.42 **Tongue Piercing** refers to a prohibited practice of making a hole in the tongue for marks or identification.
- 2.43 **Treatment** refers to the management and care of sick animals with existing disorders by administering the proper medicine.
- 2.44 **Tusk** refers to the canine teeth of animals.
- 2.45 **Vaccination** refers to the act of administering biologicals for the purpose of eliciting immune respond.
- 2.46 **Weaning** refers to the separation of the young from the mother.

Section 3. LEGAL RESPONSIBILITIES

3.1 General Responsibilities

- 3.1.1 The Animal Welfare Act of 1998 (Republic Act 8485) aims to protect and promote the welfare of all animals in the Philippines.
- 3.1.2 All pig farms with stocking level of 300 sows and above must have a Resident Veterinarian and those below must have a Consulting Veterinarian. In both cases, the veterinarians must be registered with the Professional Regulation Commission (PRC) with current Professional Tax Receipt (PTR).
- 3.1.3 No person shall commit any of the following acts which shall be deemed violation of this Code:
- 3.1.3.1 cruelly treating any pig;
- 3.1.3.2 omitting to supply the pig with proper and sufficient food, water and shelter;
- 3.1.3.3 wilfully or wantonly neglecting the pig resulting in unreasonable or unnecessary pain, suffering, or distress to the animal;
- 3.1.3.4 slaughtering, branding, mutilating, confining, or carrying any animal in such a manner or position as to cause the pig unnecessary pain or suffering;
- 3.1.3.5 keeping alive any pig which is in such a condition that is cruel to keep it alive.

- 3.1.4 Farms with 20 sow level and above shall be registered with the Bureau of Animal Industry.
- 3.1.5 When pigs are used in feeding trials or scientific purposes, said feeding trials or procedures should conform with DA AO 40, series of 1999.

3.2 Castration

No person shall castrate any pig over 14 days old, unless the castration is performed by a veterinarian, who must use local or general anaesthesia. This procedure can be done as early as 1 day old and an average age of 3 days.

3.3 Tongue Piercing

No person shall pierce the tongue of a pig or any of its parts.

3.4 Ear Notching

No person shall ear notch piglets that are more than seven days old.

3.5 Tail Docking

Docking as a routine preventive measure may be carried out in piglets during the first three days of life. One third to one half of the tail may be removed by a competent operator. Tail docking of pigs more than 7 days of age shall be undertaken only in an emergency and shall be done by a licensed veterinarian as defined in 2.26.

3.6 Tethering

In backyard farms, tethering may be allowed, provided however, that a minimum of 2.5 meters shall be used for tethering secured overhead. This shall be in the form of a harness with one loop around the neck and the other around the chest behind the elbows. Tethering in the ankle and a ring in the snout are strictly prohibited. In all cases, close tethering shall be prohibited.

3.7 Feed

Feed composition is critical to the welfare of pigs. Advice on suitable feeds and feeding systems for various classes of pigs may be obtained from the Department of Agriculture, through its appropriate agencies, feed mill cooperatives, or other firms.

3.8 Clipping of “Needle” or Milk Teeth

The clipping of “needle” or milk teeth shall be done within 2 days from birth. Provided, however, that no more than one third of the tooth shall be removed. Clean and appropriate equipment shall be used.

Section 4. INDOOR OPERATIONS (Sections 4-10 shall be mandatory to pig farms with 20 sow level and above)

4.1 Pig Houses

- 4.1.1 Construction of pig houses/shelters shall be in accordance with the building recommendations of the Bureau of Animal Industry (BAI) or International Training Center on Pig Husbandry (ITCPH) or Philippine College of Swine Practitioners (PCSP) or pig experts in the government or private sector.
- 4.1.2 Farm managers and caretakers shall possess adequate technical/practical knowledge and experience in the maintenance of the facilities. This is important where special buildings and complex mechanical and electrical equipment are involved.
- 4.1.3 Houses for pigs shall be built on sites safe from flooding or landslides.
- 4.1.4 Precautions against fire shall be undertaken by providing sufficient fire exits to allow evacuation in case of emergencies.
- 4.1.5 Electrical installations shall be periodically checked, preferably monthly.
- 4.1.6 Firefighting equipment shall be installed.

4.2 Hygiene

- 4.2.1 Walls, ceilings, fittings and floors of the building shall be made of materials that are easily cleaned and disinfected.
- 4.2.2 Drains shall be kept clear. The pen shall be cleaned of any spoiled feed or dung and disinfected before being restocked.

4.3 Floors

- 4.3.1 Floors shall be made of a non-slip material which is easily cleaned, and there shall be a clean dry area of sufficient size to allow all pigs to sleep comfortably at the same time.
- 4.3.2 Space shall be sufficient to allow for a separate dunging area where floors are not slatted.
- 4.3.3 Slatted floor design shall consider its use for piglets, fatteners and breeders. Width of the solid area and the width of the gap in relation to the size and type of the pigs is shown in Annex 1.

4.4 Safety

- 4.4.1 All sharp projections and edges likely to cause injury to the pigs shall be removed or covered.
- 4.4.2 Pen fittings shall be inspected regularly and kept in good working order.
- 4.4.3 Paint and timber preservatives toxic to pigs shall not be used on surfaces accessible to the pigs.

4.4.4 Any electrical fitting and attachment shall be out of the reach of pigs.

4.4.5 Proper provision shall be made for the storage of drugs and dangerous chemicals used in and around the piggery.

4.5 Space

The class, body weight and size of the pigs influence the stocking density. For this purpose, the attached Annexes 2 & 3 shall be recommended.

4.6 Lighting

Artificial light shall always be available for use during the night or darkened periods of the day.

4.7 Temperature

Pigs older than 8 - 10 weeks tolerate a wide range of temperatures, as long as the changes are not abrupt (See Table 4 for a guide to the ranges of temperature that afford satisfactory comfort). Drafts and/or excessive moisture produces the “chill factor”. Sparse hair covering in modern breeds and lack of subcutaneous fat relatively make these animals susceptible to temperature stress. Housed pigs shall be protected from wide or abrupt temperature fluctuations within any 24-hour period.

4.7.1 Newborn Piglets

4.7.1.1 Newborn piglets are prone to cold stress (hypothermia) because they are unable to maintain their body temperature independent of their surroundings. This can lead to death. The distance in which pigs lie apart is an excellent guide to their comfort. Hunched backs, sluggish movement, shivering and huddling of the piglets are indications that they are feeling cold. Hypoglycemia (low blood sugar level) can be considered.

4.7.1.2 The nest or creep area shall have a temperature of 32 °C up to three weeks of age. The provision of bedding, insulation and artificial heat/light in the nest may be necessary. Attraction of piglets to the heat/light source also helps reduce piglet mortality from crushing at farrowing.

4.7.1.3 Suspended heating devices shall be kept out of the reach of pigs or protected from piglets coming into contact with them.

4.7.2 Growing Pigs and Adults

4.7.2.1 Excessive heat loss from the building can be prevented by adequate structural insulation and by automated control of the ventilation system. The objective is to find the correct balance between adequate airflow and temperature control.

4.7.2.2 Pigs shall be relieved in times of heat stress using appropriate cooling devices when internal house temperature and humidity are high. The installation and use of automated water sprinklers shall be considered where such problems are likely to occur regularly.

4.8 Air Quality

- 4.8.1 Good quality air in enclosed houses is necessary to provide fresh air; remove excess heat and moisture; minimize the transmission of air-borne infectious agents; remove waste gases; and minimize dust particles in the atmosphere.
- 4.8.2 There must be a balance between the need to provide fresh air and the need to protect pigs from drafts.
- 4.8.3 When pigs are kept over static effluent storage systems, efficient ventilation is particularly important, as dangerous fumes may result from the effluent.
- 4.8.4 The caretaker shall regularly check for the presence of noxious gases at pig level as, at normal human standing height, levels uncomfortable to the pig may not be recognized.
- 4.8.5 The presence of ammonia is usually a reliable indicator to the build-up of noxious gases; it shall not be allowed to exceed 20 parts per million (ppm) of air in an enclosed pig house without immediate corrective action being taken. A level of 10-15 ppm of ammonia in the air can be detected by smell and a ammonia level of from 25 to 35 ppm will cause eye and nasal irritation in people. Levels as low as 11 ppm may impair pig performance and productivity.
- 4.8.6 It is important to maintain an adequate airflow during hot weather to ensure housed pigs do not become overheated.
- 4.8.7 Air quality must be sufficient to prevent the health of the pigs from being adversely affected.
- 4.8.8 Pigs must be protected from temperature extremes.
- 4.8.9 There must be sufficient light available to enable the satisfactory inspection of all pigs.

4.9 Mechanical Equipment

- 4.9.1 All mechanical equipment used in pig production shall be regularly inspected at least once a month and kept in good working condition. This includes feeding and effluent removal equipment, drinkers, ventilation systems, lighting units, heaters, water pumps and hoses, fire extinguishers, and emergency power generators.
- 4.9.2 In case of power failure or mechanical breakdown, provision shall be made for other means of heating, lighting and ventilation, and the feeding and watering of stock.

- 4.9.3 An alarm system with a back-up battery system is desirable to warn of any equipment breakdown.

4.10 Waste Control

The pigs' house shall be regularly cleaned and contaminated bedding, feces and urine shall not be permitted to accumulate to a stage where they pose a threat to the health and well-being of pigs or disrupt the normal instinct of pigs to have separate dunging and sleeping areas.

4.11 Farrowing Sows and Suckling Piglets

- 4.11.1 Farrowing quarters shall have some means of protecting piglets from overlaying by the sow.
- 4.11.2 Sows shall be introduced to clean farrowing quarters at least 3-5 days before the piglets are due to be born. The farrowing crates must be of suitable design and adequate size to allow the sow to lie down at full length and without leg restriction. She must also be able to rise to a standing position in one movement and be able to stand comfortably.
- 4.11.3 The bottom rails or "prongs" shall be positioned to allow adequate access for all the piglets to suckle freely at one time. Adequate railing shall be provided across the top of the crate to prevent the sow from attempting to climb out of the crate, but at the same time shall allow free access to carry out normal management procedures.
- 4.11.4 The farrowing crates shall consider the weight and allowance for the size of the sows. The dimensions listed in Annex 5 are provided as a guide only. The caretaker is responsible for the welfare of sows in farrowing crates and must ensure that the crate is appropriate to the sow it confines.
- 4.11.5 It is strongly recommended that sows shall not be confined in farrowing crates for more than 1 month at any one time.
- 4.11.6 A temperature suitable for piglets shall be maintained and provision of artificial heating for at least the first 7-14 days of life. Care shall be taken to ensure the sow is not distressed and her environment shall be significantly cooler than that provided for the piglets. Heating devices shall be securely fixed and protected from interference by the sow or piglets.
- 4.11.7 Weaning pigs are done at 30 days old. If weaned earlier, special provisions such as nutrition, equipment shall be maintained. Problems associated with weaning are generally related to the size and physiological maturity at weaning. Weaning pigs which are less than 3 weeks old exposes them to significant welfare problems.
- 4.11.8 Early access of the piglets to meal (within 1 week of birth) reduces diarrhea that occurs at weaning. It is desirable that creep feeding shall begin by the end of the second week of life provided the creep feed is highly digestible. From that point on even high lactating sows are generally unable to provide sufficient milk to meet the growth potential of the modern piglet.

4.11.9 Clean source of water shall be available from birth. The water delivery system shall be at a suitable height for the piglets. It shall be of the same type as that used in the area for weaners, so that when weaning takes place the risk of dehydration will be minimized.

4.11.10 Attention to floor gap dimensions is necessary for piglets kept in pens with perforated or slatted floors to avoid injury to legs and feet.

4.12 Growing Pigs

The total floor space shall be adequate for sleeping, feeding and exercising. Minimum sleeping areas, excluding exercise and dunging areas, shall be of sufficient size to accommodate all the pigs lying on their sides. (For minimum recommended space allowances for housed pigs, refer to Table 2).

4.13 Dry Sows and Gilts

4.13.1 The term dry sow is defined in 2.16.

4.13.2 Aggressiveness can present a severe problem in sows and gilts kept in groups. Group size, feeding method, condition and husbandry are important in the management of such problems. The caretaker shall ensure that persistent bullying leading to severe injury or deprivation of food does not take place. Separate penning may be required when persistent bullying takes place.

4.13.3 Facilities in which dry sows or gilts are group housed but are individually fed, i.e. either individual stalls or via a computerized feeding system, are recommended.

4.13.4 Good floor design is important. The lying area shall always be kept dry. Pen floors, particularly the dunging area, shall be drained effectively. The use of bare concrete, slatted or perforated floors, particularly when badly maintained, can cause severe problems such as lameness or damage to the feet.

4.13.5 Bedding contributes towards the needs of the pig for thermal and physical comfort. Systems in which straw or similar material is provided in the lying area are strongly recommended.

4.13.6 Dry sows in groups shall be kept in pens of adequate size (see Table 2).

4.14 Stalls

4.14.1 Keeping sows, boars, or gilts in individual stalls places severe restrictions on their movement and may result in abnormal behavior patterns, leg weaknesses and injury. Provision must be made for alternative accommodation for pigs that show severe lameness or behavioral problems.

4.14.2 Breeding boars, sows and gilts shall not be confined in individual stalls and/or farrowing crates for more than 6 weeks at any one time and that, in any reproductive cycle, such confinement shall

not exceed 60% of the period. (A reproductive cycle for this purpose is defined as 150 days). When released from the stall and/or farrowing crate the animal shall be moved to accommodation for a reasonable period of time (several weeks). This accommodation should allow the pig to perform its natural body functions in a manner which is relatively unrestricted and which will not permit opportunities for excessive aggression from other animals in that area.

4.15 Boars

- 4.15.1 Boars may be kept on their own or in small groups. When they are kept in groups, they shall be selected for compatibility. A boar may be kept with a group of breeding gilts or dry sows, provided bullying does not occur. A succeeding AO will address this problem.
- 4.15.2 As a guide, individual accommodation for an adult boar shall have a floor area of not less than 7.5 m², with the shortest side not less than 2.5 m. In either case, the pen divisions shall not be less than 1.5 m high. Boar pens shall not be sited or constructed in such a way as to isolate the boar from the sight or sound of sows during the period up to successful mating. It is preferable, in view of the influence that the boar has on the onset of oestrus during the period after weaning, that he be housed adjacent to them.
- 4.15.3 The floors of the pen shall have adequate slope for drainage and have a non-slip surface.
- 4.15.4 The tusks of boars may be trimmed.

Section 5. FEEDING

5.1 Feed

- 5.1.1 Feeds and the amount of feed shall be based on the stages of growth and production of the pigs (see Table 6 for guidance on feed requirements).
- 5.1.2 Adequate inventory of feeds shall be insured. Sudden changes in the composition of the diet shall be avoided as they can cause digestive upsets.
- 5.1.3 Diets shall be adequately formulated to meet the animals' requirements for protein, fat, fiber, energy, minerals, vitamins and amino acids.
- 5.1.4 Only drugs and their proper usage as approved by the Department of Agriculture-Bureau of Animal Industry (DA-BAI) and Department of Health-Bureau of Food and Drugs (DOH-BFAD) shall be used.
- 5.1.5 If pigs are not fed on an *ad libitum* basis, the trough space or floor area must be large enough to allow all of them to feed at the same time unless the operation involves a computer-controlled feeding system.

- 5.1.6 Pigs must be supplied with and have access to proper and sufficient feed and water to maintain health, at least once a day.
- 5.1.7 Young recently weaned pigs should be fed *ad libitum* or must be fed at least twice daily with sufficient quantities; the quality of feed to conform with the NRCP nutrient standard to maintain steady body growth.
- 5.1.8 Sloughs and swills shall not be fed to pigs in commercial operations.

5.2 Electronically or Mechanically Controlled Feeding Stations

- 5.2.1 The building layout and location of the station within the building shall be carefully planned to ensure that it functions effectively.
- 5.2.2 A water supply shall be provided independent of and outside the feeding point.
- 5.2.3 Adequate safeguards shall be observed to prevent animals from being trapped in the feeder or from failing to obtain feeds.
- 5.2.4 The flow of animals into and out of the feeder shall be controlled to avoid bullying and aggression.
- 5.2.5 The caretaker shall regularly monitor the health and condition of all animals and ensure that animals have received their daily ration.
- 5.2.6 Proper procedure in introducing new animals into the group shall be observed to minimize aggression.

5.3 Drinking Water

- 5.3.1 Water shall be of a quality suitable for pigs and shall be tested for salt and mineral content and microbiological contamination.
- 5.3.2 Fresh water shall be available and accessible at all times. Flow rate per minute and number of pigs per drinker are key points to be considered.
- 5.3.3 Automatic watering systems shall be checked regularly to ensure that they are in working order.
- 5.3.4 The water supply for a piggery shall be sufficient and the reserves adequate to cope with the 24-hour demand.
- 5.3.5 The daily consumption of water by a pig can vary according to environmental temperature and liveweight. Table 7 shows the range of daily water consumption by various classes of pig.
- 5.3.6 Medication in water shall be used based on competent veterinary advice and veterinary prescription when necessary.

5.4 Newborn Piglets

All piglets born and raised indoors require an iron supplement within 3 days of birth. It is important to make sure the sow accepts such foster piglets. Alternatively they can be hand-reared using a milk substitute or humanely disposed of in accordance with DA Administrative Order No. 21, series of 1999. It is essential that all piglets have received adequate colostrum from the sow, or an appropriate colostrum substitute before their transfer or hand rearing. Fostering, wherever possible, is an important aid to the welfare of unweaned pigs.

5.5 Weaning

Weaning of piglets below 30 days shall take place only when there is a very efficient management system. Piglets weighing less than 6 kg shall not be weaned unless there are exceptional circumstances as certified by the resident veterinarian.

5.6 Orphan Pigs

5.6.1 If the lactating sow dies or her milk supply fails, the pigs must be fostered, hand-reared or humanely disposed of in accordance with AO 21, series of 1999.

5.6.2 Hand-reared piglets shall initially receive colostrum or an appropriate colostrum substitute and then be fed on fortified cows' milk or a proprietary liquid supplement, with the introduction of a starter meal 3 days later. After a week, the diet can comprise prestarter meal with no less than 22% CP content fed *ad libitum* with fresh water provided separately. Orphaned piglets must be housed in a dry, warm (not lower than 27°C), draft-free, clean area and the mixing and feeding equipment kept thoroughly clean.

Section 6. ROUTINE PROCEDURES

6.1 General

Many routine procedures involved in handling pigs and carrying out minor surgery cause little distress if conducted efficiently and with minimal restraint. Humane handling of the pigs shall be observed. The use of backing boards is recommended. With minor surgical procedures strict attention needs to be paid to the suitability of the area in which the operation is to be performed. The catching facilities, the type and amount of restraint, the selection and maintenance of instruments, hygiene and the after-care of the animals are necessary to keep stress to a minimum.

Procedures which cause pain or discomfort shall not be carried out by the regular caretaker but this shall be done by a competent person other than the caretaker.

Care shall be taken to avoid unnecessary pain and suffering throughout all management and handling procedures.

Inspections shall be undertaken regularly when pregnant sows are due to farrow and/or kept in close confinement, in very hot weather,

during an outbreak of disease, when vices such as tail biting occur, or when groups of pigs have recently been mixed together.

6.2 Castration

6.2.1 Castration is normally unnecessary in modern pig production systems. However, if castration is carried out, it shall be done as early as the management practice will allow (usually at 3-5 days) but not later than 14 days. It shall be performed using clean sharp instruments, with strict attention to hygiene.

6.2.2 Should castration be necessary for piglets with scrotal hernia and those that are above 14 days, this shall be done under anaesthesia by a veterinarian.

6.3 Identification

For permanent identification, pigs' ears may be notched, tagged, punched, tattooed or an electronic identification system used. Particular care must be taken when tattooing to avoid pain and discomfort. Piglets shall be ear-notched before reaching 7 days of age.

6.4 Tusk Trimming

6.4.1 Tusks may be trimmed as a precaution in aggressive boars. The exposed tusk has no nerves, so no anaesthetic is needed. Appropriate methods of restraint must be used. Expert advice from a veterinarian or other person skilled in the procedure shall be obtained.

6.4.2 Tusks shall be severed skillfully above the level of the gums without causing damage to other tissues.

6.5 Mixing of Pigs

Where unfamiliar pigs must be mixed this shall be done in a manner which minimizes aggression, such as using a new pen, providing feed on the floor, or using a pen with room for escape.

6.6 Backfat Measurement

Use only ultrasonic equipment on the live animal. Mechanical probes are not permitted.

6.7 Restraint

Care must be taken when handling pigs to avoid injuring them. Small pigs may be held by hand, but mature pigs need to be restrained with a noose over the upper jaw or placed in a crate. The use of appropriately designed crates is recommended.

6.8 Moving of Animals

A canvass slapper and backing board are the best devices for moving pigs. Electric prodders, plastic pipes and dogs shall not be used on pigs.

Section 7. CONTROL OF VICES

Pigs may develop vices such as tail and ear biting. Pigs with ear or tail bites shall be immediately separated from pen mates. Nutritional requirements, too much light, overcrowding, inadequate ventilation, competition at the feeding or watering place can contribute to the problem.

Section 8. HEALTH

8.1 Normal Behavior

A healthy pig should have a good appetite. It is active, curious and vocal. Caretakers should be familiar with normal pig behavior and the signs which signify good health.

8.2 Signs of Illness

8.2.1 Signs of illness may include separation from the group, loss of appetite, fever, vomiting, changes in the appearance and consistency of urine or faeces, discoloration of the skin, shivering, sneezing, rapid or irregular breathing, persistent coughing or panting, rapid weight loss, abdominal distension, lack of coordination, rough hair coat, abnormal behavior, swollen navels, udders or joints and abnormal discharges from normal openings..

8.2.2 A licensed veterinarian shall be consulted immediately when pigs show signs of illness.

8.2.3 Pigs with either incurable sickness or painful deformities should be humanely disposed of in accordance with DA AO 21, series of 1999.

8.3 Inspection

The frequency and level of inspection shall be related to the likelihood of risk to the welfare of pigs, but shall be at least once each day. In a practical sense, it requires a higher level of husbandry to ensure the welfare of pigs in larger groups or under outdoor conditions. Individual feeding in stalls allows the caretaker to ensure visually that all pigs are up, eating and not lame or affected by other problems. Group housing systems require a greater degree of skill because pigs may have to be observed individually. Automated feeding systems often require the caretaker to look at pigs lying down 95% of the time, which makes it much harder to assess their health and welfare. Inspections are best made at feeding times. More frequent inspections may be required, such as during hot weather, during outbreaks of disease or vice, when farrowing is expected, or when group of pigs have been mixed. Regular checks shall also be made on the effectiveness of any automated feeding or watering systems where these have been installed at least 4-5 times a day or as often as the need arises.

8.4 Prevention and Control of Diseases

8.4.1 Those responsible for the care of the pigs must be aware of the signs of ill-health. They shall also maintain a high standard of personal hygiene as part of any programme to prevent disease in

pigs. A health programme must include vaccination, culling, disposal of dead pigs, post-mortem and medication.

- 8.4.2 All procedures must be carried out with skill and concern for the pig's welfare.
- 8.4.3 Records detailing deaths, sick animals, treatments given and responses to treatment shall be kept to assist disease investigations.
- 8.4.4 When clinical signs of ill-health, high mortality, and ill-thrift persists despite attempted remedial action, veterinary advice must be sought.
- 8.4.5 Sick and injured animals must be treated as soon as possible. If necessary, they shall be isolated.
- 8.4.6 Pigs with incurable disease or painful deformity must be humanely disposed of.
- 8.4.7 Dead pigs must be promptly removed from other pigs and, if not required for post-mortem examination, disposed of by burning or burying.
- 8.4.8 Pigs must be regularly inspected for signs of disease, including internal and external parasites, and treatment instituted where abnormalities or infestations are detected.
- 8.4.9 A licensed veterinarian shall be consulted in establishing a parasite control programme.
- 8.4.10 A vaccination program against hog cholera and Foot-and-Mouth Disease (FMD) shall be observed in accordance with existing BAI regulations and program.
- 8.4.11 Serum samples shall be made available to the Bureau of Animal Industry veterinary officers for serological tests when so required.
- 8.4.12 If there is a notifiable disease outbreak in epidemic proportion, the BAI-Animal Health Division must always be notified. The BAI personnel shall be allowed to enter, inspect and investigate the farm premises. They shall observe biosecurity measures being implemented by the farm.

Section 9. EMERGENCY HUMANE SLAUGHTER

9.1 General Principles

- 9.1.1 There are circumstances, e.g. injury or disease when, for humane reasons, pigs may need to be slaughtered.
- 9.1.2 The method of slaughter shall be effective and cause immediate unconsciousness which persists until the animal is dead. It is also important that the animal be handled quietly beforehand to ensure it is not unnecessarily distressed or alarmed. The methods

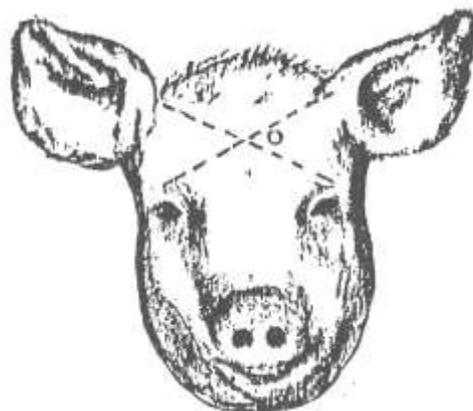
described below are those considered most suitable in the case of an emergency.

9.1.3 DA AO 21, series of 1999 shall be adopted for killing animals.

9.2 Very Young Pigs

Very young pigs can be rendered unconscious by a blow to the head with a heavy metal object. The blow must be delivered to the frontal region of the head at the same site used for shooting with a rifle (see Figure 1). It is imperative that the head is not moving at the time the blow is delivered. The skull must be fractured by the blow and the animal's throat cut immediately to ensure that consciousness is not regained before it has bled to death.

Figure 1.
*The Site for Percussive
Stunning of Adult Pigs.*



9.3 Grower and Adult Pigs

Any pig much larger than a suckling pig shall be stunned in accordance to AO 21, series of 1999, before bleeding by a method that causes gross damage to the brain, particularly the cerebrum (the front portions of the brain) and/or the brain stem. The animal must then be bled immediately by either a deep incision in the neck or stuck between the first two ribs so that the major vessels entering and/or leaving the heart are severed.

Section 10. TRANSPORT

10.1 General Guidelines

- 10.1.1 Transporting pigs presents special problems, particularly if they are not accustomed to being herded. Patience is essential, and the proper design of yards, loading ramps and other associated services will facilitate loading or unloading, with minimum distress and bruising.
- 10.1.2 Pre-travel rest is not appropriate for pigs. Pigs shall be moved from their housing and loaded into the transport vehicle in one operation.
- 10.1.4 It is recommended that young piglets, sows with piglets, adult boars, unfamiliar group of pigs and sows in advanced pregnancy be transported or penned separately:
- 10.1.5 Pigs are susceptible to extremes of heat and cold. They must be protected from direct sunlight. In very hot, humid weather (an

ambient temperature of 28 °C or hotter), pigs shall not be transported.

- 10.1.6 In cold weather, clean straw or other dry bedding is desirable. Pigs shall be protected from wind and rain.
- 10.1.7 Boars with protruding tusks shall be transported in individual pens.
- 10.1.8 Marking the skin with knives or any sharp objects for the purpose of identification is a cruel act. Marking pens shall be used. A grace period of 6 months from the approval of this AO shall be maintained.
- 10.1.9 Breeders are usually transported early in the morning.
- 10.1.10 Only fit and healthy pigs shall be transported.
- 10.1.11 Electric prodders, plastic piles and dogs shall not be used in pigs.
- 10.1.12 Pigs shall be protected from direct sunlight, high humidity, obnoxious gases, direct rain, etc.

10.2 Loading Densities

Table 4 shall be used as a guide when the temperature is below 25 °C. Pigs need about 20% more floor area when the temperature is higher than 25 °C. The movement of pigs from region to region shall secure a permit from BAI.

10.3 Duration of Journey

- 10.3.1 Water and feed should be provided for pigs on a daily basis. This needs to be taken into account when planning the movement of pigs.
- 10.3.2 It is recommended that the transport time plus lairage shall not be more than 14 hours in land transport.
- 10.3.3 Pigs shall not be transported from 10 a.m. to 4 p.m. in cities and highly urbanized municipalities.
- 10.3.4 Under normal conditions, adult pigs shall not be transported for more than 8 hours without water and 12 hours without feed during daytime. The actual frequency between providing feed and water will be determined by the age and class of the animals and the environmental temperature. The following may require the intervals between providing feed and water to be reduced:
 - ◆ weather (temperature),
 - ◆ stages of growth,
 - ◆ age (young stock),
 - ◆ pregnancy,
 - ◆ lactation.

Section 11. PENAL PROVISIONS

Violation of any of the provisions of this Rules and Regulations shall be penalized in accordance with the law.

Section 12. SEPARABILITY CLAUSE

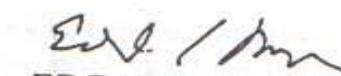
In case any provision of this Rules and Regulations is declared contrary to law and/or unconstitutional, other provisions which are not affected thereby shall continue to be enforced and in effect.

Section 13. REPEALING CLAUSE

All administrative Orders, Rules and Regulations and other administrative issuance or parts thereof, inconsistent with the provisions of this Regulation are hereby repealed or modified accordingly.

Section 14. EFFECTIVITY

This Regulation shall take effect fifteen (15) days after its publication in a newspaper of general circulation.



EDGARDO J. ANGARA
Secretary

Code on pigs/Code on Pigs

Table 1. Guide to slatted floor design in relation to size and type of pig

Size and Type of Pig	Width of Slat (mm)	Gap Size (mm)
Farrowing sows and piglets (up to 30 kg)	18 - 25	8 - 9
Weaners (5-30 kg)	18 - 25	10 - 14
Finishers (30-100 kg)	60 - 100	10 - 20
Sows, finishers and boars (over 100 kg)	80 - 125	10 - 25

Note: If wire mesh is used for flooring, the preferred wire gauge is 6.4 mm.

Table 2. Minimum recommended housing and shelter space for housed pigs

System	Minimum space allowance (m²/pig)	Comments
Groups of growing pigs		
up to 10 kg	0.11	Where a dunging area, is provided the allowance should be increased by 20-30%. When lids or kennels are used where a ceiling is created that is lower than 1.5 m above floor level the allowance should be increased by 50%.
11 - 20 kg	0.20	
21 - 40 kg	0.35	
41 - 60 kg	0.50	
61 - 80 kg	0.70	
81 - 100 kg	0.85	
Gilts up to mating	1.00	
Adult pigs in groups	2.50	
Pregnant sows in individual stalls	1.20	0.6 m x 2.0 m
Boar pens	7.50	minimum length of shortest side 2.5 m
Lactating sows and litters		
individual pens	7.40	for each sow and litter
multi-suckling groups	5.60	

Table 3. Minimum recommended trough feeding space for housed pigs

Pig Weight	Recommended length (mm) of trough per pig
50	200
70	250
90	300
> 100	350

Table 4. Guide to temperature ranges for housed pigs in still air at normal feed intakes and the recommended stocking density

Sows and boars	15 - 30 °C
Piglets – newborn	27 - 35 °C
– 3 weeks	24 - 30 °C
Weaners	20 - 30 °C
Growers and finishers	15 - 30 °C

Table 5. Suggested minimum farrowing crate dimensions at two sow weights

Measurement	At 120 kg (mm)	At 180 kg (mm)
Length		
- lying area	1600	1850
- rump rail	200	200
- trough	300	300
Total length	2100	2350
Width		
- floor level to 200 mm	800	900
- 200 – 1000 mm above floor level	500	500
Bottom rail		
- height from floor	180	200
- distance from draft barrier	300	300

Table 6. Guide to meal feeding levels (by weight) for indoor reared pigs

Category	Liveweight of pig (kg)	Amount of meal/day (kg)
Growing Stock		
Unweaned pigs	-	<i>Ad lib</i> creep feed
Weaners	7 - 20	1.0 - 1.2
	21 - 30	1.2 - 1.5
Porkers	31 - 45	1.5 - 1.9
	46 - 60	1.9 - 2.2
Baconers	75	2.45
Breeding Stock		
Pregnant sows		2.0 - 3.0
Lactating sows		5.0 - 10 (depends on number of piglets)
Mating sows		3.0 - 3.5
Boars		2.0 - 3.0

Table 7. Guide to daily water requirements for various classes of pigs at normal ambient temperatures

Class of Pig	Daily Water Requirements (liters)
Pigs up to 10 kg	1.2 - 1.5
Pigs from 11 to 25 kg	2.3 - 2.5
Pigs from 26 to 50 kg	3.0 - 5.0
Pigs from 51 to 120 kg	6.0 - 8.0
Boars	5.0 - 10.0
Maiden gilts	5.0 - 8.0
Pregnant sows or gilts	5.0 - 10.0
Lactating sows	15.0 - 30.0

Table 8. Loading Densities

Average Liveweight (kg)	Space Allowance (m²/head)	
	Minimum	Maximum
50	0.21	0.28
70	0.26	0.33
90	0.30	0.40
100	0.36	0.46
150	0.50	0.60
200	0.62	0.73
