Good Animal Husbandry Practices – Animal Welfare and Environmental Sustainability for Chicken and Duck
Foreword

The Philippine National Standard (PNS) for Good Animal Husbandry Practices – Animal Welfare and Environmental Sustainability for Chicken and Duck was developed by the Technical Working Group (TWG) organized by the Bureau of Agriculture and Fisheries Standards (BAFS) through a Department of Agriculture (DA) Special Order No. 1092, Series of 2018.

The TWG is composed of members representing the Bureau of Animal Industry (BAI), Department of Science and Technology – Philippine Council for Agriculture, Aquatic, and Natural Resources Research and Development (DOST – PCAARRD) and National Meat Inspection Service (NMIS).

This standard has been technically prepared in accordance with the International Organization for Standardization/International Electrotechnical Commission (ISO/IEC) Directives Part 2, 8th edition – Principles and rules for the structure and drafting of ISO and IEC documents.
1 Scope

This standard covers the production, handling and transportation of chickens and ducks in farms which are intended to be used for commercial production systems.

2 Normative References

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.


D.A. Administrative Order No. 19 Series of 2006, Rules and Regulations on the Transport of Live Animals by Land


3 Objectives

The purpose of this code is to ensure that the applicable provisions of Republic Act 8485 otherwise known as Animal Welfare Act of 1998, as amended, is incorporated in the farming practices and well implemented in order to safeguard the overall comfort of the animals. In addition, it will also ensure that the farming practices have a minimal or no negative impact on the environment thus leading to sustainability.

4 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

4.1 advisor
technical person in a particular field of knowledge providing detailed information and advice about the issues
4.2  
**chicken**  
domestic land fowl (*Gallus gallus domesticus*) intended for meat and egg production

4.3  
**dressing plant**  
establishment in which poultry is killed and dressed for human consumption

4.4  
**duck**  
domesticated water fowl (*Anas platyrhynchos*) intended for meat and egg production

4.5  
**commercial production system**  
any farm which, for poultry, satisfies at least one of the following conditions: a) 500 layers or 1,000 broilers, b) 100 layers and 100 broilers if raised in combination

4.6  
**farm operator**  
person who runs the farm, making day-to-day management decisions, could be an owner, hired manager, cash tenant, share tenant, and/or a partner and if land is rented or worked on shares, the tenant or renter is the operator

4.7  
**flockmanship/stockmanship**  
knowledgeable and skillful handling of livestock/poultry in a safe, efficient, effective and low-stress manner

4.8  
**free-range**  
system of production that raises animals in a confined environment while allowing the animals to exhibit their natural behavior and allowing them access to forage, grasses, insects, and sunlight.

4.9  
**potable water**  
water suitable (both health and acceptability considerations) for drinking and cooking purposes

4.10  
**ranging**  
to forage on a range

5  
**Minimum Requirements for Broilers**

5.1  
**Good Feed and Water**
5.1.1 Feed and feeding management

Feed shall be in accordance with the provisions stated in the Philippine National Standard on Animal Feed Ingredients (PNS/BAFS 163:2015) and Philippine National Standard on Code of Good Animal Feeding (PNS/BAFS 282:2019).

5.1.1.1 All chickens shall receive adequate quantities of feed and nutrients each day to enable them to:
- maintain good health;
- meet physiological demands; and
- avoid metabolic and nutritional disorders.

5.1.1.2 Feed shall be provided in such a way as to prevent undue competition and injury.

5.1.1.3 Any chicken that cannot access feed adequately shall be removed during daily inspections and raised separately.

5.1.1.4 Chicken growth and behavior should not be adversely affected by feed changes.

5.1.1.5 The stocking density and location of feeders, shall allow chickens appropriate space to access feeders without undue competition.

5.1.2 Water and water management

5.1.2.1 Chickens shall have access to clean and potable supply of water at all times.

5.1.2.2 Farm operating procedures provide for the daily water needs of chickens via appropriate drinker equipment such as but not limited to bells, nipples, or cups.

5.1.2.3 Any chicken that cannot access water adequately shall be removed during daily inspection and raised separately.

5.2 Good Environment

5.2.1 Outdoor management

5.2.1.1 All chickens shall have access to shelter from adverse weather that is likely to cause heat or cold stress, and minimize the risk of predation.

5.2.1.2 The openings to the outside shall be protected from the inclement weather. The litter around the openings shall be maintained in good condition.

5.2.1.3 Access to the range area shall be available during daylight hours unless prevented by bad weather or due to veterinary advice.

5.2.1.4 The range area shall be managed actively to ensure that the ground conditions and vegetation are not harmful to the health and welfare of the chickens.
5.2.1.5 The area shall be managed to prevent the ground becoming wet and muddy, to keep the chickens’ feet clean and minimize parasite build up in this area.

5.2.1.6 A range area management plan shall be in place that addresses pasture quality, vegetation, and control of parasites and diseases.

5.2.2 Indoor management (Housing and equipment)

5.2.2.1 Precautions shall be taken to secure the site and buildings at all times in order to protect the health and welfare of the chickens.

5.2.2.2 Chicken sheds shall be designed, constructed and maintained to:
- provide proper insulation, ventilation, heating, lighting, sanitation and hygiene requirements;
- provide enough space to enable them to express their natural behavior (e.g. lie down all at the same time) and prevent overcrowding; and
- allow ready access for handling and inspection of the chickens by having sufficient height, width and entrance size to minimize stress on the chickens.

5.2.2.3 All surfaces in the chicken sheds and enclosures shall be designed, constructed, and maintained to:
- minimize the risk of injury and disease to the chickens; and
- facilitate cleaning and disinfection of the shed surfaces.

5.2.2.4 All equipment used for rearing the chickens shall be inspected as necessary to ensure correct operational functions. If needed appropriate remedial action shall be undertaken.

5.2.2.5 The chicken sheds shall be subjected to a pest (e.g. wild birds, mustelids, rodents) control plan.

5.2.2.6 All chicken sheds shall be located to minimize risks of natural and environmental hazards such as flooding and extreme winds and to allow appropriate dust management.

5.2.2.7 Controlled environment housing shall have adequate alarms that trigger when there is a power failure and/or significant temperature variance.

5.2.3 Lighting

5.2.3.1 Lighting intensity after placement of the chicks in the brooding area shall be sufficient to enable them to learn the locations of feed and water.

5.2.3.2 Lighting program may include at least one hour of continuous darkness each day, to accustom the chickens to blackout conditions and to prevent panic should the lighting fail.
- 1st two weeks – full light

5.2.3.3 The lighting patterns should encourage activity and provide a minimum period of darkness each day to ensure adequate rest in chickens, such that:
• If only four hours of darkness is provided it should be continuous; and
• If more than four hours of darkness is provided, each dark period should be a minimum of three continuous hours.

5.2.3.4 The lighting intensity shall be in accordance with the D.A. Administrative Order No. 12 Series of 2002, Code of Practice and Minimum Standards for the Welfare of Chickens.

5.2.3.5 Lighting intensity during inspections shall be sufficient to stimulate activity of the chickens and allow chickens and equipment to be inspected.

5.2.4 Temperature

5.2.4.1 Temperature in sheds shall be maintained within a range that ensures good health and welfare of the chickens.

5.2.4.2 The brooding areas shall be pre-heated before placement of chicks and the temperature maintained at a level that promotes good health and welfare.

5.2.4.3 Where evidence of temperature-induced distress is observed, remedial action shall be taken immediately to rectify ambient temperature or air flow and to mitigate adverse effects on chickens.

5.2.5 Stocking density

5.2.5.1 Chickens shall be managed at a stocking density that takes account of growth rate, housing system, normal posture, competition for space, age, weight, access to feeders and water, air temperature and quality, ventilation, humidity, litter quality and activity levels, so as to maintain good health and welfare.

5.2.5.2 The outdoor stocking density shall be in accordance with the Philippine National Standard on Free Range Chicken (PNS/BAFS 262:2018) and D.A. Administrative Order 12 Series of 2002, Code of Practice and Minimum Standards for the Welfare of Chickens.

5.2.6 Air quality/Ventilation

5.2.6.1 Adequate ventilation shall be provided in order to prevent the build-up of heat, humidity, dust and noxious gases to levels that are harmful or can cause pain or distress to the chickens.

5.2.6.2 Immediate and appropriate action shall be taken to reduce ammonia levels if they exceed 20 ppm at chicken head height.

5.2.6.3 In case of ventilation system failure, an alternative equipment for ventilation shall be available.

5.2.6.4 In case of ventilation system failure, an immediate and appropriate action shall be undertaken to restore the system and mitigate the situation.
5.3 Good Health

5.3.1 Management of health and injury

5.3.1.1 Farm workers shall be competent at recognizing the signs of disease or any abnormalities in chickens. They shall consult a licensed veterinarian, if necessary.

5.3.1.2 Chickens shall be inspected daily.

5.3.1.3 Chickens suspected of any notifiable diseases shall be reported to competent authority, treated or humanely killed.

5.3.1.4 Medication shall only be used in accordance with registration conditions, and veterinary prescription.

5.3.1.5 The farm should report immediately or within 24 hours to competent authority/ies any incidence of abnormal behavioral changes, health conditions and mortalities in the farm or characteristics of a disease outbreak or all notifiable diseases (e.g. Highly Pathogenic Avian Influenza (HPAI), New Castle’s Disease).

5.3.2 Emergency humane killing

5.3.2.1 The method(s) used for the humane killing of chickens including chicks, shall ensure rapid death and shall be confirmed by inspection.

5.3.2.2 People undertaking humane killing shall be appropriately trained and shall ensure that chickens are handled gently and calmly at all stages of the process.

5.3.2.3 Any equipment used to undertake humane killing shall be well maintained and not overloaded, so that it operates effectively and efficiently.

5.3.2.4 Maceration equipment used for humane killing shall be designed to cause very rapid and complete fragmentation of the material into small particles. It should be used for chicks only.

5.3.2.5 When using gas, the procedure shall ensure the collapse of every chicken within 35 seconds of exposure to the gas. Chickens shall remain in the gas chamber for at least two minutes following collapse and shall be inspected to ensure that they are dead upon removal from the gas chamber.

5.3.2.6 Emergency humane killing and proper disposal of carcass when there is an Avian Influenza outbreak shall be in accordance with D.A.’s Avian Influenza Protection Program - Manual of Procedures of 2016.

5.4 Appropriate Poultry Behavior

Chickens shall at all times be able to express some of their inherent normal behaviors such as but are not limited to feeding, drinking, sleeping, preening, walking, scratching, ground pecking, leg stretching, and vocalizing.
5.5 Good Flockmanship

5.5.1 Physical handling

5.5.1.1 Chickens shall be moved and handled at all times in a manner that minimizes the risk of fall, pain, distress and injury.

5.5.1.2 Chickens shall not be carried by a single wing or neck.

5.5.1.3 Stress of handling shall be minimized by appropriate design of facilities, tools, equipment, and training of personnel.

5.5.2 Handling and catching

5.5.2.1 All members of the catching and transporting crews shall be supervised and correctly trained in the handling of chickens.

5.5.2.2 A nominated member of the catching team shall be responsible for supervising, monitoring, and maintaining high welfare standards throughout the catching process and loading of chickens into the transport vehicle.

5.5.2.3 Chickens should not be subjected to excessive period of feed withdrawal (should not be more than eight (8) hours) prior to the expected slaughter time.

5.5.2.4 Chickens shall have access to water until the time of catching.

5.5.2.5 A catcher shall carry chickens by both legs.

5.5.2.6 Crates and containers shall be constructed and maintained to ensure there are no hazards likely to cause injury to the chickens.

5.5.2.7 Chickens shall be placed into crates considering proper crate density and size in such a way that they can rapidly obtain and maintain an upright position.

5.5.3 Loading and transport

5.5.3.1 Persons responsible for the loading and transport of chickens shall be trained in careful handling procedures and understand the effects of poor transport conditions on the welfare of the chickens.

5.5.3.2 All chickens, including chicks, selected for transport shall be examined by the person in charge prior to loading to ensure they are fit for transport and are able to withstand the journey without unnecessary pain, suffering or distress.

5.5.3.3 Conveyances and containers shall have sufficient ventilation, even when at stationary, to prevent harmful concentrations of gases or water vapor, and to protect the chickens from climatic conditions that would compromise their welfare.

5.5.3.4 Feed shall not be withheld from chickens for more than 12 hours prior to arrival at the processing plant.
5.5.3.5 Crates and containers containing chickens shall be handled with care and not thrown or dropped.

5.5.3.6 Day-old chicks shall be held and transported in conditions of controlled temperature and airflow.

5.5.3.7 Chickens that are injured during the catching and loading procedures shall be humanely killed immediately.

5.5.3.8 The drivers of vehicles shall be properly briefed on the contingency plan.

5.5.3.9 A contingency plan shall be in place to address potential transport problems.

5.5.3.10 The transport vehicle and animal handler’s accreditation shall be in accordance as stated in D.A.’s Administrative Order No. 19 Series of 2006, Rules and Regulations on the Transport of Live Animals by Land.

5.6 Duty of care

5.6.1 Contingency planning

5.6.1.1 The person in charge of the chickens shall have a contingency plan to address events such as delays in transport and farm equipment breakdown. The driver of consignments shall be properly briefed about the contingency plan in place.

5.6.1.2 Alternative means of maintaining ongoing environmental control and provision of feed and water shall be available in case of emergencies, including power or computer failure, natural disaster, or mechanical breakdown.

5.6.1.3 A fire emergency plan and appropriate fire prevention measures shall be in place.

5.6.1.4 The staff shall be suitably trained to handle an emergency e.g. fire evacuation.

5.6.2 Poultry farm worker

The chicken shall be cared for by personnel who possess the appropriate ability, knowledge and competence to maintain their health and welfare in accordance with existing standards.

6 Layers

6.1 Good Feed and Water

6.1.1 Feed and feeding management

Feed shall be in accordance with the provisions stated in the Philippine National Standard on Animal Feed Ingredients (PNS/BAFS 163:2015) and Philippine National Standard on Code of Good Animal Feeding (PNS/BAFS 282:2019).
6.1.1.1 All layers shall receive adequate quantities of feed and nutrients each day to enable them to:
   - maintain good health;
   - meet physiological demands; and
   - avoid metabolic and nutritional disorders.

6.1.1.2 Feed shall be provided in such a way as to prevent undue competition and injury.

6.1.1.3 Any layer that cannot access feed adequately shall be removed during daily inspections and raised separately.

6.1.1.4 Layer growth and behavior should not be adversely affected by feed changes.

6.1.1.5 The stocking density and location of feeders, shall allow chickens appropriate space to access feeders without undue competition.

6.1.2 Water and water management

6.1.2.1 All layers shall have continuous access to water that is sufficient for their needs. It shall be potable and not harmful to their health until culling.

6.1.2.2 Farm operating procedures provide for the daily water needs of layers via appropriate drinker equipment such as but not limited to bells, nipples, or cups.

6.1.2.3 Any layer that cannot access water adequately shall be removed during daily inspection and raised separately.

6.2 Good Environment

6.2.1 Outdoor management (for semi-confined and free-range operations)

6.2.1.1 All layers shall have access to shelter from adverse weather that is likely to cause heat or cold stress, and minimize the risk of predation.

6.2.1.2 The openings to the outside shall be protected from the inclement weather. The litter around the openings shall be in good condition.

6.2.1.3 Access to the range area shall be available during daylight hours unless prevented by bad weather or due to veterinary advice.

6.2.1.4 The range area shall be managed actively to ensure that the ground conditions and vegetation are not harmful to the health and welfare of the layers.

6.2.1.5 The area shall be managed to prevent the ground becoming wet and muddy, to keep the layers' feet clean and minimize parasite build up in this area.

6.2.1.6 A range area management plan shall be in place that addresses pasture quality, vegetation, and control of parasites and diseases.
6.2.2 Indoor management (Housing and equipment)

6.2.2.1 Measures shall be taken to secure the site and buildings against stray animals (e.g. dogs, cats, birds, rodents, wildlife), unauthorized entry of people, to protect the health and welfare of the layers.

6.2.2.2 Controlled environment housing shall have adequate alarms that trigger when there is a power failure and/or significant temperature variance.

6.2.2.3 The design, size and maintenance of the openings and doors of housing systems shall be such that hens can be placed in, or removed from, them without injury or distress.

Housing system and mechanical equipment shall be designed, constructed and maintained to:

- avoid injury, disease or harm to layers;
- facilitate drainage of storm water away from buildings;
- minimize the risk posed by natural and environmental hazards;
- allow layers maintain a natural posture throughout;
- provide facilities for roosting (e.g. perches), a surface for pecking and scratching, and a secluded nesting area as applicable; (this bullet is only applicable to semi-confinement and free-range type operation)

The following specific design requirements apply, according to the housing system:

Conventional cages:

6.2.2.4 Multi-deck cages shall be arranged so that the layers in the lower tiers are protected from manure from above.

6.2.2.5 Manures shall be removed regularly.

6.2.2.6 All cages for layers shall be at an appropriate height and allow each hen access to at least two drinking points.

Colony Cages:

6.2.2.7 A secluded nest area shall be provided and the floor of the nest area shall be covered with a suitable substrate that prevents direct contact of layers with the wire mesh floor.

6.2.2.8 Perches shall be provided and designed to allow the layer to grip without risk of trapping its claws and shall provide at least 15cm of space per layer to allow all layers to perch at the same time.

6.2.2.9 Secluded nest areas shall be provided and shall be of adequate size and number to meet the laying needs of all layers, and ensure layers can lay without undue competition.
6.2.2.10 The floor of the nest area shall be covered with a suitable substrate that prevents direct contact of layers with a wire mesh floor.

6.2.2.11 Perching areas shall be provided and designed to allow the layer to grip without risk of trapping its claws and shall allow all layers to perch at the same time.

6.2.2.12 Perches shall be staggered to prevent the fouling of layers or their feed on lower levels and of a height that allows layers to use them easily and without risk of injury.

6.2.2.13 Any slatted, wire or perforated floors shall be constructed to support the forward-facing claws.

6.2.2.14 In multi-tier systems the distance between the levels shall be at least 45cm and the levels shall be arranged so that the layer in the lower tiers are protected from manure from above.

6.2.3 Litter management in shed

6.2.3.1 All layers should have access to good quality friable litter at all times to allow the layers to scratch and forage.

6.2.3.2 Litter condition shall be managed to avoid levels of dustiness or dampness that could cause leg, respiratory, or other health problems such as the build-up of parasites or diseases.

6.2.4 Lighting

6.2.4.1 Lighting intensity after placement of the chicks in the brooding area shall be sufficient to enable them to learn the locations of feed and water.

6.2.4.2 Lighting program may include at least one hour of continuous darkness each day, to accustom the layers to blackout conditions and to prevent panic should the lighting fail.
   • 1st two weeks – full light

6.2.4.3 The lighting patterns should encourage activity and provide a minimum period of darkness each day to ensure adequate rest in layers, such that:
   • If only four hours of darkness is provided it should be continuous; and
   • If more than four hours of darkness is provided, each dark period should be a minimum of three continuous hours.

6.2.4.4 The lighting intensity shall be in accordance with the D.A. Administrative Order No. 12 Series of 2002, Code of Practice and Minimum Standards for the Welfare of Chickens.

6.2.4.5 Lighting intensity during inspections shall be sufficient to stimulate activity of the layers and allow layers and equipment to be inspected.
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6.2.5 Temperature/Air quality/Ventilation

6.2.5.1 Temperatures inside housing systems should be maintained within a range compatible with good health and welfare of the layers.

6.2.5.2 When layers show signs of being too cold or too hot remedial action shall be taken immediately.

6.2.5.3 The brooder area for newly placed chicks shall be pre-heated and the temperature maintained at a level that promotes good chick health and welfare.

6.2.5.4 Adequate ventilation shall be provided in order to prevent the build-up of heat, humidity, dust and noxious gases to levels that are harmful or can cause pain or distress to the layers.

6.2.5.5 Immediate and appropriate action shall be taken to reduce ammonia levels if they exceed 20 ppm at layers’ head height.

6.2.5.6 In case of ventilation system failure, an immediate and appropriate action shall be undertaken to restore the system and mitigate the situation.

6.3 Good health

6.3.1 Management of health and injury

6.3.1.1 Every layer shall be inspected at least once a day and steps shall be taken to address any abnormalities in the flock.

6.3.1.2 Mortalities and culls, shall be monitored and recorded and dead layers are removed from the flock daily.

6.3.1.3 Sick or debilitated layers shall be removed and treated or be killed by a humane method as soon as possible.

6.3.1.4 Medication shall be used only in accordance with registration conditions, manufacturers’ instructions or veterinary advice.

6.3.1.5 Force molting is unacceptable.

6.3.1.6 If the early signs of a disease outbreak are recognized or suspected, or mortalities are greater than expected, appropriate intervention shall be undertaken by a suitably qualified person.

6.3.1.7 Premises and equipment shall be thoroughly cleaned before restocking to prevent the carry-over of disease-causing organisms to incoming layers.

6.3.2 Beak trimming

6.3.2.1 Beak trimming shall only be carried out by competent, trained operators.
6.3.2.2 Beak trimming, when undertaken, shall be done using an effective method to minimize stress and injury, and should normally be performed within three (3) weeks after hatching.

6.3.2.3 The trimming of beaks of individual layers after twenty-one (21) days of age shall only be undertaken in an emergency with veterinary approval to help control outbreaks of cannibalism during the laying period. (follow up (2nd) beak trimming will fall under emergency beak trimming).

6.3.2.4 The operator shall not remove more than one half of the upper and one third of the lower beak.

6.3.3 Emergency killing

6.3.3.1 The method(s) used for the humane killing of layer shall ensure rapid death and shall be confirmed by inspection.

6.3.3.2 People undertaking humane killing shall be appropriately trained and shall ensure that layers are handled gently and calmly at all stages of the process.

6.3.3.3 Any equipment used to undertake humane killing shall be well maintained and not overloaded, so that it operates effectively and efficiently.

6.3.3.4 Maceration equipment used for humane killing shall be designed to cause very rapid and complete fragmentation of the material into small particles. It should be used for chicks only.

6.3.3.5 When using gas, the procedure shall ensure the collapse of every layer within 35 seconds of exposure to the gas. Layers shall remain in the gas chamber for at least two minutes following collapse and shall be inspected to ensure that they are dead upon removal from the gas chamber.

6.3.3.6 Emergency humane killing and proper disposal of carcass when there is an Avian Influenza outbreak shall be in accordance with D.A.’s Avian Influenza Protection Program - Manual of Procedures of 2016.

6.4 Appropriate Poultry Behavior

Layers shall at all times be able to express some of their inherent normal behaviors such as but are not limited to feeding, drinking, sleeping, preening, walking, scratching, ground pecking, leg stretching, and vocalizing.

6.5 Good Flockmanship

6.5.1 Physical handling and catching

6.5.1.1 Layers shall be moved and handled at all times in a manner that minimizes the risk of fall, pain, distress and injury.
6.5.1.2 Layers shall not be carried by a single wing or neck.
6.5.1.3 Stress of handling shall be minimized by appropriate design of facilities, tools, equipment, and training of personnel.

6.5.1.4 All members of catching teams shall be trained in the handling of layers, and a nominated member of the catching team shall be responsible for supervising, monitoring, and maintaining welfare standards throughout the catching process.

6.5.1.5 Layers shall have access to water until the time of catching.

6.5.1.6 Crates and containers shall be constructed and maintained to ensure there are no hazards likely to cause injury to the layers.

6.5.1.7 Layers shall be placed into crates considering proper crate density and size in such a way that they can rapidly obtain and maintain an upright position.

6.5.2 Loading and transport

6.5.2.1 For culled layers for slaughter, feed shall not be withheld for more than 12 hours.

6.5.2.2 All layers, including chicks, selected for transport shall be examined by the person in charge prior to loading to ensure they are fit for transport and are able to withstand the journey without unnecessary suffering, pain or distress.

6.5.2.3 Persons responsible for the loading and transport of layers shall be trained in careful handling procedures and understand the effects that poor transport conditions may have on the welfare of the hen.

6.5.2.4 Conveyances and containers shall have sufficient ventilation, even when at stationary, to prevent harmful concentrations of gases or water vapor, and to protect the layers from climatic conditions that would compromise their welfare.

6.5.2.5 A contingency plan shall be in place to address potential transport problems.

6.5.2.6 The drivers of vehicles shall be properly briefed about the contingency plan.

6.5.2.7 Crates and containers containing layers shall be handled with care and not thrown or dropped.

6.5.2.8 Layers that are injured during the catching and loading procedures shall be humanely killed immediately.

6.5.2.9 The transport vehicle and animal handler’s accreditation shall be in accordance as stated in D.A.’s Administrative Order No. 19 Series of 2006, Rules and Regulations on the Transport of Live Animals by Land.
6.6 Duty of Care

6.6.1 Contingency planning

6.6.1.1 The person in charge of the layers shall have a contingency plan to address adverse events, such as delays in transport and plant breakdown. The driver of conveyances shall be properly briefed about any contingency plan in place.

6.6.1.2 Alternative means of maintaining ongoing environmental control, and provision of feed and water shall be available in case of emergencies, including power or computer failures, natural disaster, and mechanical breakdown.

6.6.1.3 Appropriate preventive measures and emergency plan shall be in place.

6.6.1.4 The staff shall be suitably trained to handle an emergency e.g. fire evacuation, natural disasters

6.6.2 Poultry farm worker

The layer shall be cared for by personnel who possess the appropriate ability, knowledge and competence to maintain their health and welfare in accordance with existing standards.

7 Ducks

7.1 Good Feed and Water

7.1.1 Feed and feeding management

Feed shall be in accordance with the provisions stated in the Philippine National Standard on Animal Feed Ingredients (PNS/BAFS 163:2015) and Philippine National Standard on Code of Good Animal Feeding (PNS/BAFS 282:2019).

7.1.1.1 All ducks shall receive adequate quantities of feed and nutrients each day to enable each duck to:
  • maintain good health;
  • meet its physiological demands; and
  • avoid metabolic and nutritional disorders.

7.1.1.2 Feed shall be provided in such a way as to prevent undue competition and injury.

7.1.1.3 Feeders shall be of a design that ducks can feed easily.

7.1.1.4 Duck growth and behavior should not be adversely affected by feed changes.

7.1.1.5 The stocking density of sheds and location of feeders, shall allow ducks appropriate space to access feeders without undue competition.
7.1.1.6 Any duck that cannot access feed adequately shall be removed during daily inspections and raised separately or humanely killed immediately.

7.1.2 Water and water management

7.1.2.1 An adequate daily supply of water shall be accessible to all ducks at all times. It shall be potable, not harmful to health and at a temperature that does not inhibit drinking.

7.1.2.2 Farm operating procedures provide for the daily water needs of ducks via appropriate drinking equipment (such as bowls or drinker nipples).

7.1.2.3 Any duck that cannot access water adequately shall be removed during daily inspection and raised separately or humanely killed immediately.

7.1.2.4 Ducks are able to submerge or shower water on their heads to allow a range of natural behaviors such as wet preening, head dipping and to maintain good plumage, clean eyes and nostrils.

7.2 Good Environment

7.2.1 Outdoor management (Shelter for ducks raised outdoors)

7.2.1.1 All ducks shall have access to shelter from adverse weather that is likely to cause heat stress, and reduce the risk of predation.

7.2.1.2 Shed openings provided for ducks to access an outside area shall be wide enough to enable them to freely move to and from the outdoors at all times without the risk of smothering or injury.

7.2.1.3 Where access to outside areas is provided it shall be managed to prevent the development around the housing of muddy, dusty or contaminated conditions to an extent that could be harmful to the ducks' health.

7.2.1.4 Precautions shall be taken to protect ducks from pests, including predators.

7.2.2 Indoor management (Housing and equipment)

7.2.2.1 Precautions shall be taken to secure the site and buildings at all times in order to protect the health and welfare of the ducks.

7.2.2.2 Duck sheds shall be designed, constructed and maintained to:

- provide insulation, ventilation, heating, lighting, sanitation and hygiene requirements;
- allow ready access for handling and inspection of the ducks;
- have sufficient height, width and space and entrance size to allow for catching methods that minimize stress on the ducks; and
- allow the distribution of ducks in the shed to be controlled to keep ducklings within the heated area and prevent crowding of older ducks.
7.2.2.3 All surfaces in the duck sheds and enclosures shall be designed, constructed and maintained to:
   • minimize the risk of injury and disease to the ducks; and
   • facilitate cleaning and disinfection of the shed surfaces.

7.2.2.4 All equipment used for rearing the ducks shall be inspected as necessary to ensure correct operational functions. If needed appropriate remedial action shall be undertaken.

7.2.2.5 The duck sheds shall be subjected to control plan of predators (e.g. wild birds, rodents)

7.2.2.6 All duck sheds shall be located to minimize risks of natural and environmental hazards such as flooding and extreme winds and to allow appropriate dust management.

7.2.2.7 Controlled environment housing shall have adequate alarms that trigger when there is a power failure and/or significant temperature variance.

7.2.2.8 The biosecurity measure shall be in accordance with the provision stated in the Philippines National Standards for Code of Good Animal Husbandry Practices for Ducks (PNS/BAFS 271:2019).

7.2.3 Lighting

7.2.3.1 Sheds should be designed to provide natural light to achieve the minimum light level of 20 lux.

7.2.3.2 Lighting intensity for the first four days after placement of the ducklings in the brooding area shall be sufficient to enable them to learn the locations of feed and water. This training period shall include at least one hour of continuous darkness each day, to accustom the ducklings to blackout conditions and to prevent panic should the lighting fail.

7.2.3.3 The lighting patterns shall encourage activity and provide a minimum period of darkness each day to ensure adequate rest in ducks, such that:
   • in a 24-hour period, no area shall be lit at less than 20 lux for at least a 9-hour continuous period;
   • outside this 9-hour continuous period, areas shall be lit at no less than 6 lux; and
   • there shall be a continuous period of darkness for at least 6 hours.

7.2.3.4 Lighting levels during the lights-on period shall allow the ducks to see one another and to visually inspect their surroundings.

7.2.3.5 Lighting levels during inspections shall be sufficient to stimulate activity of the ducks and allow ducks and equipment to be inspected.
7.2.4 Temperature

Ventilation control or other measures shall ensure housed ducks do not become overheated.

7.2.5 Stocking density

7.2.5.1 Ducks shall be managed at a stocking density that takes account of growth rate, competition for space, access to feeders and water, air temperature and quality, humidity, litter quality and activity levels, so as to maintain good health and welfare.

7.2.5.2 Ducks shall be managed at a stocking density that takes account of growth rate, housing system, normal posture, competition for space, age, weight, access to feeders and water, air temperature and quality, ventilation, humidity, litter quality and activity levels, so as to maintain good health and welfare.

7.2.5.3 Outdoor stocking density shall not exceed the capacity of the outside area or cause overcrowding.

7.2.5.4 The stocking density should be at least 5 ducks/m².

7.2.6 Air quality/ventilation

7.2.6.1 Adequate ventilation shall be provided in order to prevent the build-up of heat, humidity, dust and noxious gases to levels that are harmful to duck health or that cause pain or distress to ducks.

7.2.6.2 Immediate and appropriate action shall be taken to reduce ammonia levels in sheds if they exceed 25 ppm at duck head height.

7.2.6.3 In case of ventilation system failure, an alternative equipment for ventilation shall be available.

7.3.1 Management of health and injury

7.3.1.1 Those responsible for the care of ducks shall be competent at recognizing the signs of good health, ill health, and injury and shall consult a veterinarian as appropriate.

7.3.1.2 Ducks shall be inspected at least once daily for evidence of ill health or injury, including any obvious gait deficit and any ill, injured or severely lame ducks shall be treated or humanely killed immediately.

7.3.1.3 Medication shall only be used in accordance with registration conditions, and veterinary prescription.

7.3.1.4 When early signs of a disease outbreak are detected (as according to OIE guidelines) or mortality level within a shed exceeds 1% in a 24-hour period, the cause shall be investigated and remedial action taken promptly.
7.3.2 Emergency humane killing

7.3.2.1 The method(s) used for the humane killing of ducks, including ducklings, shall ensure rapid death and shall be confirmed by inspection.

7.3.2.2 People undertaking humane killing shall be appropriately trained and shall ensure that ducks are handled gently and calmly at all stages of the process.

7.3.2.3 Any equipment used to undertake humane killing shall be well maintained and not overloaded, so that it operates effectively and efficiently.

7.3.2.4 Maceration equipment used for humane killing shall be designed to cause very rapid and complete fragmentation of the material into small particles.

7.3.2.5 When using gas, the procedure shall ensure the collapse of every duck within 35 seconds of exposure to the gas. Ducks shall remain in the gas chamber for at least two minutes following collapse and shall be inspected to ensure that they are dead upon removal from the gas chamber.

7.3.2.6 Emergency humane killing and proper disposal of carcass when there is an Avian Influenza outbreak shall be in accordance with D.A.'s Avian Influenza Protection Program - Manual of Procedures of 2016.

7.4 Appropriate Duck Behavior

Ducks shall at all times be able to express some of their inherent normal behaviors such as but are not limited to feeding, drinking, sleeping, preening, walking, scratching, ground pecking, leg stretching, and vocalizing.

7.5 Good Flockmanship

7.5.1 Physical handling

7.5.1.1 Ducks, including ducklings in duckling boxes, shall be moved and handled at all times in a manner that minimizes the risk of fall, pain and distress and avoids injury.

7.5.1.2 Ducks, including day old ducklings, shall not be carried by one or both wings, or by the neck without supporting the body weight.

7.5.1.3 Stress induced by handling shall be minimized by appropriate design of facilities, use of suitable tools and equipment and training of personnel.

7.5.2 Handling and catching

7.5.2.1 Day-old ducklings shall be held and transported in conditions of controlled temperature and airflow.

7.5.2.2 All members of the catching and transporting crews shall be supervised and correctly trained in the handling of ducks.
7.5.2.3 A nominated member of the catching team shall be responsible for supervising, monitoring and maintaining high welfare standards throughout the catching process and loading of ducks into crates and into the transport vehicle.

7.5.2.4 Feed shall not be withheld from ducks for more than 12 hours prior to slaughter.

7.5.2.5 Ducks shall have access to water until the time of catching.

7.5.2.6 Crates and containers shall be constructed and maintained to ensure there are no hazards likely to cause injury to the ducks.

7.5.2.7 Ducks shall be placed into crates in such a way that they can rapidly obtain and maintain an upright position.

7.5.2.8 Crates and containers containing ducks shall be handled with care and not thrown or dropped.

7.5.2.9 Ducks that are severely injured during the catching procedures shall be humanely killed immediately.

7.5.2.10 Conveyances and containers shall have adequate ventilation to allow the free flow of air to all ducks, even when at stationary, to prevent the build-up of harmful concentrations of gases, water vapor or temperature.

7.5.3 Loading and transport

7.5.3.1 Ducks, including ducklings in duckling trays, shall be moved and handled at all times in a manner that minimizes the risk of falls, pain and distress and avoids injury.

7.5.3.2 Ducks shall be carried by supporting the body and not just by a single or both wings or the neck.

7.5.3.3 Stress induced by handling shall be minimized by appropriate design of facilities, use of appropriate tools and equipment and training of personnel.

7.5.3.4 A contingency plan shall be in place to address potential transport problems.

7.5.3.5 The driver of vehicles shall be properly briefed about the contingency plan.

7.5.3.6 Ducks that are injured during the catching and loading procedures shall be humanely killed immediately.

7.5.3.7 The transport vehicle and animal handler’s accreditation shall be in accordance as stated in D.A.’s Administrative Order No. 19 Series of 2006, *Rules and Regulations on the Transport of Live Animals by Land.*
7.6 Duty of care

7.6.1 Contingency planning

7.6.1.1 The person in charge of the ducks shall have a contingency plan to address events, such as delays in transport and plant breakdown. The driver of conveyances shall be properly briefed on any contingency plan in place.

7.6.1.2 Alternative means of maintaining ongoing environmental control and provision of feed and water shall be available in case of emergencies, including power or computer failure, natural disaster, or mechanical breakdown.

7.6.1.3 Appropriate fire prevention measures and a fire emergency plan shall be in place.

7.6.1.4 The staff shall be suitably trained to handle an emergency, e.g. fire evacuation.

7.6.2 Poultry farm worker

The duck shall be cared for by personnel who collectively possess the ability, knowledge and competence necessary to maintain their health and welfare in accordance with the above standards.

8 Record Keeping

It is recommended that as far as practicable, farmers keep records of:
- Transportation
- Storage
- Feed
- Animal Health (Treatment and vaccination)
- Personnel Health
- Visitors
- Breed
- Laboratory
- Sanitation and hygiene
- Pest control
- Training
- Waste management
- Production
- Procurement
- Traceability (e.g. animal/lot/batch ID, customer records, etc).
- Necropsy (shall be done by a veterinarian)
9 Environmental Sustainability Considerations for Chicken and Duck Farms

9.1 Air and Noise pollution

9.1.1 Adequate ventilation shall be provided in order to prevent the build-up of heat, humidity, dust and noxious gases to levels that are harmful to chicken and/or duck health or that cause pain or distress to the birds.

9.1.2 Adequate ventilation shall be provided to maintain acceptable moisture content in the manure and litter to help prevent excessive odor generation.

9.1.3 Immediate and appropriate action shall be taken to reduce ammonia levels if they exceed 25 ppm at bird head height.

9.1.4 A poultry farm should not emit noise that causes stress to the birds or disturbs people working on the farm or living in the vicinity.

9.2 Water pollution

9.2.1 If surface water is used, it should be treated to potable standards i.e. filtered and disinfected, to minimize disease risk, including disease transmission from wild birds and contamination of eggs and egg products.

9.2.2 Waste water from the farm should be properly treated prior to discharging into the waterways.

9.3 Carcass disposal

9.3.1 Management of dead birds is a daily operation and poor practices may contaminate ground and surface water, cause odor nuisance, spread infectious diseases and attract vermin. Dead bird treatment methods in order of minimizing environmental impacts include:
   • Rendering
   • Composting
   • Burial

9.3.2 Dead birds shall be removed daily and subject to appropriate treatment methods.

9.4 Manure and waste management

9.4.1 Poultry manure shall not be allowed to discharge into surface waters (irrigation and drainage channels, rivers, ponds and lakes).

9.4.2 Poultry manure, stale feed and waste shall not be allowed to pollute the production environment and pose pollution and health risks to birds and humans.
9.5 Pest management

9.5.1 The poultry farm has a pest management plan to protect poultry birds from predation and harassment and to minimize biosecurity risks from transmissible diseases.

9.5.2 There are effective fences to contain poultry, particularly when they have access to outdoors, and to prevent the entry of predatory wildlife or stray domestic animals.

9.5.3 Sheds are designed and built to exclude wild birds, and feed spillages are cleaned up immediately so wild birds and rodents are not encouraged.

9.5.4 There is an effective rodent control and monitoring program in place.

9.5.5 There is an active insect pest control program in place to control flies and beetles’ populations in litter using pesticides, composting and total shed litter clean out where possible.

9.5.6 Only approved chemicals and baits should be used in pest control programs.
Bibliography


PHILIPPINE NATIONAL STANDARD
PNS/BAFS 296:2020
Good Animal Husbandry Practices – Animal Welfare and Environmental Sustainability for Chicken and Duck

Department of Agriculture
Bureau of Agriculture and Fisheries Standards

Technical Working Group on the Development of
Philippine National Standard for Good Animal Husbandry Practices – Animal Welfare and Environmental Sustainability for Chicken and Duck

Members

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<tr>
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<th>Name</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lourdes Ersando</td>
<td>Bureau of Animal Industry Department of Agriculture</td>
</tr>
<tr>
<td>2</td>
<td>Maria Flores-Synaeve</td>
<td>Bureau of Animal Industry Department of Agriculture</td>
</tr>
<tr>
<td>3</td>
<td>Rundolfo Llamas</td>
<td>Philippine Council for Agriculture, Aquatic, and Natural Resources Research and Development Department of Science and Technology</td>
</tr>
<tr>
<td>4</td>
<td>Marites Dayo</td>
<td>Philippine Council for Agriculture, Aquatic, and Natural Resources Research and Development Department of Science and Technology</td>
</tr>
<tr>
<td>5</td>
<td>Armie Mariel Sebello</td>
<td>National Meat Inspection Service Department of Agriculture</td>
</tr>
<tr>
<td>6</td>
<td>Jasmin Ala</td>
<td>National Meat Inspection Service Department of Agriculture</td>
</tr>
</tbody>
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Project Manager
Gari Pellinor U. Hernandez
Aljon S. Reyes
Bureau of Agriculture and Fisheries Standards

Advisers
Vivencio R. Mamaril