

PHILIPPINE NATIONAL STANDARD

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Free range chicken



BUREAU OF AGRICULTURE AND FISHERIES STANDARDS

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Foreword

The Philippine National Standard (PNS) Free range chicken has been prepared by the Technical Working Group (TWG) for poultry as per Department of Agriculture Special Order No. 85 series of 2017 and approved by the Secretary of the Department of Agriculture.

The TWG is composed of representatives coming from the Bureau of Animal Industry (BAI), Central Luzon State University (CLSU), Philippine College of Poultry Practitioners, Dominant Asia, San Miguel Food Inc. and Bounty Fresh Farm Inc.

This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2.

1 Scope

This standard establishes the minimum requirements for free range chicken production, and covers the methods of production, harvesting and marketing of chicken and chicken products labeled as free range.

This code covers both commercial and backyard production of free range chicken.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

3.1

backyard farm

Refers to any farm or household raising at least one had of animal or bird and dose not qualify as a commercial farm

3.2

broiler

Refers to domestic chickens reared for consumption of their meat

3.3

commercial farm

Refers to any farm which, for poultry chicken, satisfies at least one of the following conditions: a) 500 layers or 1,000 broilers, or b) 100 layers and 100 broilers if raised in combination

3.4

free Range

a system of production that raises chickens in a confined environment while allowing the birds to exhibit their natural behavior and allowing them access to forage, grasses, insects, and sunlight. Free range production may be further classified into

a. pasture raised

a method of production where adult birds (layers) are kept on pasture 12 months of the year, in an outside area that is mainly covered with living vegetation. The birds have access to the pasture through exits from fixed or mobile houses, and covered verandas if present. They are kept indoors at night for protection from predators but it is prohibited to keep them continually indoors 24 hours per day without access to pasture for more than 14 consecutive days.

b. traditional free range

a method of production that exceeds the minimum requirements (e.g. harvest age) for free range production.

3.5

layer hens

domestic chickens reared for consumption of their eggs.

3.6

native type chicken

chickens found in one geographical location that developed unique physical characteristics, behavior, product attributes adapted to the local environment and are products of selection with no infusion of exotic breeds for at least five (5) generations

4 General principles

- 4.1. Free range refers to a system of animal production or husbandry that rears chickens in a manner that allows the birds access to vegetation and sunlight for a minimum period.
- 4.2. This type of animal farming addresses both the physiological and behavioral needs of the animals, thereby minimizing stress, and promoting the health and welfare of the animals.
- 4.3. The general principles and minimum requirements stated in the Philippine National Standard Code of Good Animal Husbandry Practices for Chickens – Broilers and Layers, as well as other animal farming and related environmental laws and regulations, must also be complied with.

5 Overarching principles of Good Animal Husbandry Practice for Chickens

- 5.1 Overarching principles for good farming of chickens related to food safety as presented in the Philippine National Standard Code of Good Animal Husbandry Practices for Chickens – Broilers and Layers (PNS/BAFS 184:2016) shall complied with. This standard should be used as complimentary document to the aforementioned standard.
- 5.2 Particular attention should be paid to the provisions regarding:
 - (1) Animal housing (section 5.1.4): “Chickens should be provided with sufficient floor space/size suitable for their age, body weight and size to ensure comfort to the chickens. Chickens should be provided with appropriate space to feed and drink comfortably. The feeding and drinking equipment and facilities should conform with the standards/requirements for each species and should be constructed and conspicuously placed such that chickens are allowed to eat and drink freely, allowing them to behave normally; and contamination with chicken feces and urine is prevented,” and,
 - (2) Feeds and Veterinary Inputs (section 5.2.1): “Feeds and veterinary inputs should be used in accordance with label instructions, paying special attention to the withdrawal period of each specific drug being administered before the chickens and/or eggs are sent to market.

6 Minimum requirements

Additional requirements specific to free range chicken production are as follows:

6.1 Breeds

Only strains or breeds that are available and suited for free range production should be used. Examples are found below: *(See Annex A for pictures of free-range and native chicken breeds.)*

Broiler (meat type)	Pure: Rhode Island, Barred Plymouth Rock, Cornish Hybrid: SASSO, HUBBARD- GRIMUAD
Layers (egg type)	Pure: Leg horns (brown and white), Rhode Island, Barred Plymouth Rock, Sussex Hybrid: Dominant, Dekalb Brown, Hy-line Brown, Shaver Brown, Bovans Brown, Lohmann Brown, ISA Brown
Native chicken type	Paraoakan, Banaba, Darag, Joloanon, Camarines, Bolinao, Boholano, Zampen

6.2 Flock size

Flock size should not exceed 5,000 birds per house with a maximum of 20,000 birds per site.

6.3 Indoor housing or building

6.3.1 Indoor Stocking Density

The indoor stocking density should not exceed the following recommendations:

	Fixed building	Mobile housing
Broilers (meat type)	<ul style="list-style-type: none"> • 10 birds/m² or • 17 kg/ m² 	For mobile housing of not less than 10 m ² floor space: 8 birds/ m ² or 13 kg/ m ²
Layers (egg type)	<ul style="list-style-type: none"> • 6 birds/ m² • Not more than 5 birds per nest hole, and • 31 cm aerial perch space per hen 	
Native type chicken	<ul style="list-style-type: none"> • 6 birds/ m² • Not more than 5 birds per nest hole, and • 31 cm aerial perch space per hen 	
<i>See Annex B for pictures of indoor and mobile houses</i>		

6.3.2 Building exit points/popholes *(See Annex C for pictures of building popholes.)*

- a. Popholes should be evenly distributed along the entire length of the building.

- b. Birds should have unhindered access to the range or building. Chickens must have a clear view of the range from the building when standing at the pophole.
- c. The maximum distance travelled by a chicken within a building to reach a pophole must not exceed 10m.
- d. When a veranda is installed, the total floor area occupied by the veranda on either side of the house must occupy no less than 20% of the calculated floor area within the house. The sides of the veranda should be of solid, waterproof material from ground level to at least top of the pophole, and its roof must be entirely waterproof and insulated.
- e. Minimum requirements for popholes are as follows:
 - i. There should be a minimum of two (2) popholes for every 500 birds;
 - ii. There should be at least two (2) popholes every 10 m along one side of a house; and
 - iii. The size of the opening should be at least 46 cm height x 100 cm width.

6.4 Outdoor or range access

- a. The range area must be actively managed to:
 - i. Encourage birds to use the range area fully;
 - ii. Maintain vegetation quality;
 - iii. Prevent and/or manage muddy/worn/soddy areas;
 - iv. Prevent chickens from coming into contact with any toxic substances;
 - v. Minimize any build-up of parasites or other disease causing organisms; and
 - vi. Offer protection and cover to the birds while they are ranging.
- b. Cut and carry methods for forages and herbs may be practiced as supplement for vegetation but is not a replacement for outdoor access.
- c. Birds should not be exposed to pasture management practices that may cause them harm, e.g. spraying, pesticide use, sowing, cropping, etc.
- d. The pasture area must include patches with loose substrate (e.g. sand, soil) suitable for dust bathing. (*See Annex D for picture of dust bath.*)

6.4.1 Vegetation cover

- a. The outdoor area in free-range systems must consist of pasture mainly covered in vegetation. Course grit must be available to aid digestion of vegetation.
- b. Commercial arable crops are not regarded as acceptable vegetation and excluded from calculations.

6.4.2 Shade or shelter within the range (*See Annex E for pictures of range or pasture area*)

- a. There should be sufficient well-drained, shaded resting area for chickens within the range.
- b. There should be 8 to 16 m² shaded area per 1000 birds
- c. There should be sufficient natural (e.g. trees such as Gemelina, Aratilles, banana, and shrubs, cover crops) and artificial (e.g. horticultural nets, screens, sheds, trailers) shelters in the range area to protect the birds against inclement weather (excessive sunlight, temperatures, rain, and wind), lessen their fear of overhead predators, and be distributed accordingly to encourage full use of the range.
- d. Some of the shade and shelter provisions must be positioned within 20 to 25 meters of the house.
- e. Shade and shelters should be of sufficient height to ensure all birds can adopt a normal standing position under it, with sufficient headspace.
- f. Natural cover such as trees or tall shrubs that provide enrichment to the range should account to at least 5% of the total range area

6.4.3 Outdoor stocking density

The outdoor stocking density should not exceed the following recommendations:

Broilers	Maximum of 2 birds/m ²
Layers	Maximum of 1 bird/m ²
Native Chicken	Maximum of 1 bird/m ²

6.4.4 Pasture access age or length

Access to pasture area should start at the minimum age of 30 days old and continue throughout the growing period. Layers should be allowed access to pasture all throughout the laying period.

6.4.5 Daylight hours

Except for inclement weather or for veterinary or emergency reasons, the animals should be allowed a minimum of six (6) hours of daylight per day.

6.4.6 Pasture rotation

- a. The pasture must be rotated periodically to prevent the land from becoming contaminated and or denuded, and to allow it to recover from use.
- b. A pasture/range management plan must be developed, implemented, and updated annually. The plan should include:
 - i. Pasture or range rotation;
 - ii. How to prevent and/or manage heavily poached/muddy/worn areas;
 - iii. How to minimize any build-up of parasites or diseases;
 - iv. Provision and appropriate distribution of natural and artificial shade/shelters and covers; and
 - v. Drainage.

- c. The pasture area should be rested at least 1 month between batches, except for batches with less than 50 birds.

6.5 Age at harvest/slaughter

The harvest or slaughter age should not be earlier than 52 days old free-range broilers, and not earlier than 90 days for native chicken.

6.6 Management Practices

6.6.1 Beak trimming

The practice of beak trimming is strictly prohibited.

6.6.2 Wing clipping

Clipping of wing feather for native chicken is allowed.

6.6.3 Diet

Diet of the broiler, layer and native type chickens should be at least 50% cereal/grains, with the rest coming from forage, grasses, insects, and other supplemental feeds.

6.7 Labeling

Only chicken and chicken products coming from farms or production units complying with the above stated requirements may be labeled as 'free-range'.

Annex A

Breeds of free-range broilers, layers, and native chicken



Figure 1 – Rhode Island

<http://afs.okstate.edu/breeds/poultry/chickens/rhodeislandred#content>
(accessed 11/26/18)



Figure 2 – Barred Plymouth Rock

<http://afs.okstate.edu/breeds/poultry/chickens/plymouthrock/index.html>
(accessed 11/26/18)



Figure 3 – Sussex

<http://afs.okstate.edu/breeds/poultry/chickens/sussex/index.html>
(accessed 11/26/18)



Figure 4 – Brown Leghorn rooster

<https://scratchcradle.wordpress.com/2012/04/01/hatching-this-week-brown-leghorns/>
(accessed 11/27/2018)



Figure 5 – Banaba black rooster and hen
(source: Bureau of Animal Industry - National Swine and Poultry Research and Development Center)



Figure 6 – Banaba brown rooster and hen
(source: Bureau of Animal Industry - National Swine and Poultry Research and Development Center)



Figure 7 – Joloanon rooster and hen
(source: Bureau of Animal Industry - National Swine and Poultry Research and Development Center)



Figure 8 – Paraoakan rooster and hen
(source: Bureau of Animal Industry - National Swine and Poultry Research and Development Center)



Figure 9 – Darag rooster and hen
(source: Department of Agriculture – Regional Field Office VI)

Annex B
Examples of Free range housing



Figure 10 – Indoor housing
(source: Dr. Erwin Joseph Cruz, Philippine College of Poultry Practitioners)



Figure 11 – Indoor housing with nearby range
(source: Dr. Erwin Joseph Cruz, Philippine College of Poultry Practitioners)



Figure 12 – Mobile housing, exterior view
(source: Dr. Erwin Joseph Cruz, Philippine College of Poultry Practitioners)



Figure 13 – Mobile housing, interior view
(source: Dr. Erwin Joseph Cruz, Philippine College of Poultry Practitioners)

Annex C
Picture of popholes



Figure 9 – Building popholes or exit points
(source: Dr. Justin Gonzales, Bounty Fresh Farm Inc.)

Annex D
Dust bath



Figure 10 – Dust bath
(source: Dr. Erwin Joseph Cruz, Philippine College of Poultry Practitioners)

Annex E
Range or pasture area



Figure 11 – Pasture area

(source: Bureau of Animal Industry - National Swine and Poultry Research and Development Center)



Figure 12 – Range area with vegetation

(source: Bureau of Animal Industry - National Swine and Poultry Research and Development Center)



Figure 13 – Range with natural cover
(source: Mr. Joseph Toledo, San Miguel Food Inc.)



Figure 14 – Range with natural cover
(source: Dr. Erwin Joseph Cruz, Philippine College of Poultry Practitioners)

Annex F

Examples of grasses and forage for free-range chicken

Carabao grass (*Paspalum renggeri* Steud.)

Other names for carabao grass: Buffalo grass, T-grass, carabao grass, sour grass, sour paspalum, cow grass



Figure 15 – Carabao grass

(source: Dr. Gemerlyn Garcia, Central Luzon State University)

Pinto peanut (*Arachis pinto*)

Other names for pinto peanut: Mani-manihan (Tagalog)



Figure 16 – Pinto peanut

<https://books.google.com.ph/books?id=YvU1XnUVxFQC&pg=PA180&dq=pinto+peanut&hl=en&sa=X&ved=0ahUKEwiX1cWdyvPeAhXIXisKHfpnBlgQ6AEIKTAA#v=onepage&q=pinto%20peanut&f=false> (accessed 11/27/2018)

Madre de Agua (*Trichantera gigantea*)



Figure 17 – *Trichantera gigantea*

<https://businessdiary.com.ph/420/trichantera-gigantea-as-feed-supplement-for-swine/> (accessed 11/27/2018)

Guinea grass (*Panicum maximum*, *Megathyrsus maximus*)



Figure 18 – *Panicum maximum*

https://keyserver.lucidcentral.org/weeds/data/media/Html/megathyrsus_maximus_var._maximus.htm (accessed 11/27/2018)

Signal grass (*Brachiaria decumbens*, *Urochloa decumbens*)



Figure 19 – *Urochloa decumbens*

<https://www.agric.wa.gov.au/pasture-management/signal-grass?page=0%2C1>
(accessed 11/27/2018)

Centrosema (*Centrosema pubescens*)



Figure 20 – *Centrosema pubescens*

<https://florafaunaweb.nparks.gov.sg/special-pages/plant-detail.aspx?id=1365>
(accessed 11/27/2018)

Malunggay (*Moringa oleifera*)



Figure 21 – Malunggay

https://plants.usda.gov/java/largeImage?imageID=mool_004_ahp.jpg (accessed 11/27/2018)

Azolla

Other names for Azolla: Mosquito fern, duckweed fern, fairy moss, water fern



Figure 22 – *Azolla filiculoides*

[https://calscape.org/Azolla-filiculoides-\(Mosquito-Fern\)?srchr=sc58b347b1d47c3](https://calscape.org/Azolla-filiculoides-(Mosquito-Fern)?srchr=sc58b347b1d47c3) (accessed 11/27/2018)

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**Department of Agriculture
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